

AVIATION TRAINERS

CATALOG
2024

Maintenance & Simulation



ADF



TERMS & CONDITIONS

Purpose

ADF provides educational aircraft systems to be used as training tools. The foremost criteria in the design of our products is their instructional capacity. For that reason, our products and their components presented in this catalog are not airworthy.

Representations

The representations in this catalog are to show our typical training sets. There might be slight variations from that which is shown in the photographs or optional equipment might be shown. If that is the case, it is to be confirmed with the buyer upon order.

Taxes and Duties

For International orders, the price does not include any federal, state or local taxes, assessments or duties. Any taxes and government charges imposed by any governmental body upon the transaction shall be an additional charge and shall be the responsibility of the Buyer.

Purchase Orders

We gladly accept purchase orders.

Packaging and Delivery

Our prices include packaging and prepare for EXW shipment if not indicated otherwise. We ship every order as quickly as possible. Orders usually ship within 60 to 70 days in domestic orders, although it varies according to specific items or seasonal order fluctuations. Please contact ADF for specific delivery times.

Freight

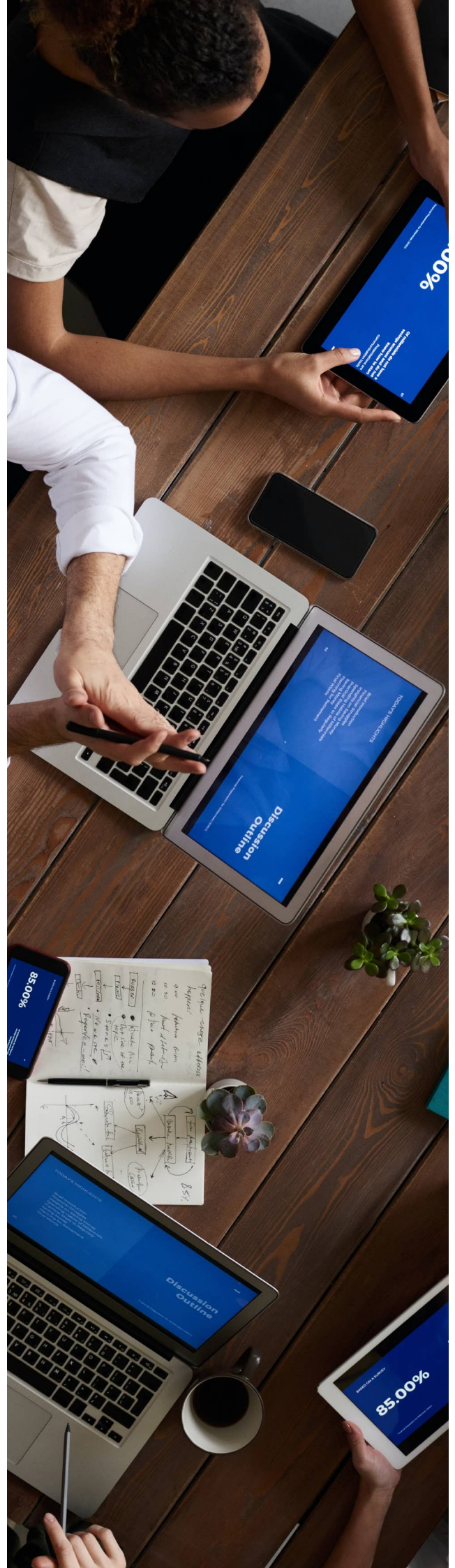
All shipments arrange according to EXW shipping method.

Warranty

ADF warrants all products under normal use and wear to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. This warranty does not include faults or defects caused by user fault, misuse or abuse. We also provide limited warranty on parts for five years at buyer's own cost.

Training

Prices does not include end-user client training session. All expenses (travel, accommodation, etc.) can be charged to client.



ADF Mühendislik established in Istanbul in 2015. Our company manufactures aviation & engineering training sets and build up laboratories. **ADF** carries out its R&D activities in its 1000 m² production facility in Kocaeli/Turkey. **ADF** joined Europe's biggest Defense & Aerospace cluster SAHA Istanbul in 2019. We develop our products with expert staff and provide training in our facility with our former aircraft maintenance technicians and technical teachers, who actively continue their teaching activities at school and universities where we have established laboratories.

ADF continuously develop trainers and follow latest technologies such as AR/VR implementation for trainers. **ADF** also have the capability to provide online exam systems and student management systems specifically designed for our products to give a complete and extensive training experience both for students and educators.

ADF successfully establishes aviation and engineering education laboratories at domestic and international schools. It has established aviation and engineering training sets and laboratories in countries such as India, Thailand, South Korea, Ethiopia, Malaysia, Kuwait, Bangladesh, and Pakistan. Thanks to our strong references from countries such as Spain and the Philippines, we receive orders for aviation and engineering training sets and laboratory installations.

Our products are manufactured in accordance with Part-147 standards, and we help students learn the subject in the simplest way. We have optimized training sets by getting feedback from teachers in maintenance high schools and universities on what works in real training environment for future aircraft maintenance personnel.

ADF also produces high quality Aviation and Space Themed equipment for science centers and science museums to increase children's interest in aviation and space. ADF supplied many equipments to Bursa, GUHEM that received a prestigious European Award in 2019.

What Have We Done So Far?

- We developed more than 100 different Aviation Training Set
- We developed 78 different Engineering Training Sets
- We established Aviation Technology Laboratories in 20 different Aviation High Schools and Universities
- We established Engineering Training Laboratories in 18 different Universities

Certificate of Qualities

- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management System
- ISO 45001:2018 Occupational Health and Safety

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Advanced Cockpit Instrumentation System Trainer

CBT-100B



Aircraft Cockpit Instrument Training Set(CBT-100B) is a complete and fully functional simulation of typical aircraft cockpit. It includes essential flight, engine and pitot-static instruments. This training set provides hands-on maintenance training while also functioning as a demonstration tool for instructors. It demonstrates the principles of gyros, altimeter and the engine instruments, and also can be used for teaching of instrument removal and replacement.

NOTE: If you wish to upgrade this system with navigation systems such as VOR/ILS/VHF, please contact us.

NOTE: The trainer can be customized with sensors and indicators according to your training needs. Please contact us for your special requests.

NOTE: This system can be ordered with single or double PFD/MFD. Please contact for your specific request.

This trainer also allows to perform practical tasks of EASA PART 147 ATA-31-00-00.

Specifications

Features

- The system combine “Cockpit analog flight instrumentation”, “primary flight instrumentation”, “aircraft systems instrumentation” and “engine instrumentation”.
- Trainer use the latest in GPS and Digital ADAHRS (Air Data and Attitude Heading and Reference Systems).
- “Air Data and Attitude Heading and Reference Systems” provide highly accurate and reliable referencing of aircraft position, rate, vector and acceleration data.
- Three degrees of freedom instrument panel permits full demonstration of attitude and directional gyro functions.
- Functional engine monitoring system be connected to engine sensors.
- All analog instruments operate manually
- Primary flight display be mounted on a panel that can simulate roll, pitch, and yaw movements controlled by a mechanism operated by a control yoke.

- Provision of engine sensor simulation.
- Pitot-static system to conduct pitot static system checks for digital instrument at the trainer.

Components Technical Specs

- **Smart PFD-MFD Screen**
- **Engine Data Modules**
- **Analogue instruments**
 - Attitude Gyro and Indicator
 - Directional Gyro / Heading Indicator
 - Airspeed Indicator
 - Altimeter
 - Vertical Speed Indicator
 - Turn and Slip Indicator
 - Fuel Temp/Press Indicator
 - Oil Temp/Press Indicators
 - Fuel Level Indicator
 - MAP
 - RPM
 - Vacuum Gauge
- **Sensors**
 - Oil Temperature Sensor
 - Carburetor Air Temp Sensor
 - Manifold Pressure Sensor
 - Fuel Level Sensor
 - Oil Pressure Sensor
 - Fuel Pressure Sensor
 - Engine RPM Sensor
 - Fuel Flow Sensor
 - Ammeter Shunt
 - CHT Thermocouples (Qty 4)
 - EGT Thermocouples (Qty 4)
 - OAT Sensor
 - Pitot Tube
 - Static Port
 - Inductive sensor

- **GPS receiver / antenna**
- **Aircraft circuit breakers.**
- **Throttle Lever**
- **Pitot-Static System:**
 - Pressure Pump to Create Pitot Pressure
 - Vacuum Pump to Create Static Pressure
 - Pitot Tube (not operate)
 - Fuselage Static Port (not operate)
 - Alternate Static Port (not operate)
 - Static Source Selector Switch (not operate)
 - Two Test Ports for Pitot-Static Test Set
- **Power**
 - Main Power
 - PDF
 - Tachometer
 - Turn&Slip
 - Vacuum Pump
- **Contacts:**
 - Pitot Heater
 - L/G
 - Taxi Light
- **Auxiliary Flight Control:**
 - Aileron Trim
 - Elevator Trim
 - Flap Position
- **Electronic Simulation of Sensors:**
 - Oil Temperature
 - Manifold Pressure
 - Engine RPM
 - Oil Pressure
 - Fuel Level
 - Fuel Press
- **Sender Selector Panel**
 - Fuel System
 - Oil System
- **Vacuum Control Panel**
 - Static System Instrument
 - MAP
 - Fuel Flow

- **Smart PFD-MFD Screen**

- **NOTE:** Smart PFD-MFD Screen brand/model and some technical specs can be change due to market availability. (Dynon-Bendix-Garmin or similar)
- Screen is very bright and high-resolution driven by advanced graphics processors create highly visible and readable display.
- Display is 1280 x 800 pixel, 1200+ nit TFT active-matrix capacitive multi- touch LCD screen.
- High-Definition Touch Screen
- Display Connectors Specification
 - There are 37-Pin DIN Connector for the main wiring harness.
 - There are four (4) RS-232 connector ports for connection to compatible equipment.
 - All serial ports have configurable baud rates and data formats for use as general-purpose inputs and output.
 - There are minimum three (2) USB Connectors.
 - There is an Ethernet Connector to be used to synchronize data between displays.
- Displays operate between 10- and 30-volts DC.
- Display show “engine instrument data”
- Display show “flight instrument data”
- Screen Dimensions
 - 7.64” Wide
 - 5.59” High
 - 3.13” Deep
- Users are able to interact via the two knobs, two buttons integrated into the knobs, and eight buttons along the bottom of the displays bezel and via touch gestures on the display screen itself.
- Display have a robust GPS moving map.
- Display backlighting is controlled by its ambient light sensor to actively adjust the brightness based on the current lighting conditions or user are able to adjust the brightness by buttons.
- The default layout of screen show below
 - PFD
 - MAP
 - ENGINE
- Screen switch into 100% window or 50% / 50% split windows.
- There is Count-Up/Count-Down timer in the display.

- PFD Page Layout have at least the following:
 - Airspeed Indicator
 - Ground Speed (GS)
 - True Airspeed (TAS)
 - Airspeed Bug
 - Airspeed Trend Rate
 - Attitude Indicator
 - Flight Path Marker
 - Altimeter
 - Setting Barometer (BARO)
 - Altitude Bug
 - Altitude Trend Rate
 - Barometer Setting, and Density Altitude.
 - Vertical Speed Indicator
 - Vertical Speed (VS) Bug.
 - Heading Indicator/Directional Gyro
 - Heading (HDG) Bug
 - Slip Ball
 - Angle of Attack Indicator
 - OAT(Outside air temperature)
 - Winds Aloft magnitude and vector
 - Artificial Horizon/Synthetic Vision
- Menu Page have at least the following:
 - Six Pack
 - G-meter
 - Terrain Alert
 - Airport Flags
 - HSI SRC
 - Bugs
- There is a Six-Pack presentation options on the PFD.
- Main Menu bar are at the bottom of the screen and include following functions:
 - NRST – Nearest:
 - Info page
 - FPL – Flight Plan
 - INFO

- MENU
- Message(NO MSG / MESSAGE / CAUTION / WARNING)
- KNOBs functions have at least the following:
 - Adjust Bug (HDG, ALT, etc.)or BARO value
 - Change Map scale
 - Activate and/or move cursor
- Flight Data Modules have at least the following:
 - All sensors are solid state.
 - Accelerometers, which measure forces in all three directions
 - Rotational rate sensors, which sense rotation about all three axes
 - Pressure transducers for measuring air data
 - Magnetometers on all three axes for measuring magnetic heading.
- Engine Data Modules have at least the following:
 - These modules support popular four and six-cylinder engine installations and measure a variety of engine and environmental parameters, such as:
 - RPM
 - Manifold pressure
 - Oil temperature
 - Oil pressure
 - Exhaust gas temperature (EGT)
 - Cylinder head temperature (CHT)
 - Fuel levels for multiple tanks
 - Voltage
 - Current
 - Fuel pressure
 - Fuel flow
 - Carburetor air temperature
 - Coolant pressure and temperature
 - Flap and trim potentiometers
 - External contacts
- Fuel Computer
- Pitch Trim Indicator
- Roll Trim Indicators
- Flap Indicator

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation



AIRCRAFT EFIS/EICAS Trainer (CBT-100D) is a complete and fully functional simulation of typical aircraft cockpit. It includes essential flight, engine and pitot-static instruments. This training set provides hands-on maintenance training while also functioning as a demonstration tool for instructors. It demonstrates the principles of gyros, altimeter and the engine instruments, and also can be used for teaching of instrument removal and replacement.

NOTE: If you wish to upgrade this system with navigation systems such as VOR/ILS/VHF, please contact us.

NOTE: The trainer can be customized with sensors and indicators according to your training needs. Please contact us for your special requests.

NOTE: The differences between CBT-100B and CBT-100D are the analogue gauges and second multi functional display.

This trainer also allows to perform practical tasks of EASA PART 147 ATA-31-00-00.

Specifications

Features

- The system combine, “primary flight instrumentation”, “aircraft systems instrumentation” and “engine instrumentation”.
- Trainer use the latest in GPS and Digital ADAHRS (Air Data and Attitude Heading and Reference Systems).
- “Air Data and Attitude Heading and Reference Systems” provide highly accurate and reliable referencing of aircraft position, rate, vector and acceleration data.
- Three degrees of freedom instrument panel permits full demonstration of attitude and directional gyro functions.
- Functional engine monitoring system be connected to engine sensors.
- Primary flight display be mounted on a panel that can simulate roll, pitch, and yaw movements controlled by a mechanism operated by a control yoke.
- Provision of engine sensor simulation.
- Pitot-static system to conduct pitot static system checks for digital instrument at the trainer.

Components

- **Smart PFD-MFD Screen**
- **Engine Data Modules**
- **Sensors**
 - Oil Temperature Sensor
 - Carburetor Air Temp Sensor
 - Manifold Pressure Sensor
 - Fuel Level Sensor
 - Oil Pressure Sensor
 - Fuel Pressure Sensor
 - Engine RPM Sensor
 - Fuel Flow Sensor
 - Ammeter Shunt
 - CHT Thermocouples (Qty 4)
 - EGT Thermocouples (Qty 4)
 - OAT Sensor
 - Pitot Tube
 - Static Port
 - Inductive sensor
- **GPS receiver / antenna**
- **Aircraft circuit breakers.**
- **Throttle Lever**
- **Pitot-Static System:**
 - Pressure Pump to Create Pitot Pressure
 - Vacuum Pump to Create Static Pressure
 - Pitot Tube (not operate)
 - Fuselage Static Port (not operate)
 - Alternate Static Port (not operate)
 - Static Source Selector Switch (not operate)
 - Two Test Ports for Pitot-Static Test Set
- **Power**
 - Main Power
 - PDF
 - Tachometer
 - Vacuum Pump
- **Contacts:**
 - Pitot Heater
 - L/G
 - Taxi Light

- **Auxiliary Flight Control:**
 - Aileron Trim
 - Elevator Trim
 - Flap Position
- **Electronic Simulation of Sensors:**
 - Oil Temperature
 - Manifold Pressure
 - Engine RPM
 - Oil Pressure
 - Fuel Level
 - Fuel Press
- **Sender Selector Panel**
 - Fuel System
 - Oil System
- **Vacuum Control Panel**
 - Static System Instrument
 - MAP
 - Fuel Flow

Components Technical Specs

- **Smart PFD-MFD Screen**
- **NOTE:** Smart PFD-MFD Screen brand/model and some technical specs can be change due to market availability. (Dynon-Bendix-Garmin or similar)
- Screen is very bright and high-resolution driven by advanced graphics processors create highly visible and readable display.
- Display is 1280 x 800 pixel, 1200+ nit TFT active-matrix capacitive multi- touch LCD screen.
- High-Definition Touch Screen
- Display Connectors Specification
 - There are 37-Pin DIN Connector for the main wiring harness.
 - There are four (4) RS-232 connector ports for connection to compatible equipment.
 - All serial ports have configurable baud rates and data formats for use as general-purpose inputs and output.
 - There are minimum three (2) USB Connectors.
 - There is an Ethernet Connector to be used to synchronize data between displays.
- Displays operate between 10- and 30-volts DC.
- Display show “engine instrument data”
- Display show “flight instrument data”

- Screen Dimensions
 - 7.64" Wide
 - 5.59" High
 - 3.13" Deep
- Users are able to interact via the two knobs, two buttons integrated into the knobs, and eight buttons along the bottom of the displays bezel and via touch gestures on the display screen itself.
- Display have a robust GPS moving map.
- Display backlighting is controlled by its ambient light sensor to actively adjust the brightness based on the current lighting conditions or user is able to adjust the brightness by buttons.
- The default layout of screen show below
 - PFD
 - MAP
 - ENGINE
- Screen switch into 100% window or 50% / 50% split windows.
- There is Count-Up/Count-Down timer in the display.
- PFD Page Layout have at least the following:
 - Airspeed Indicator
 - Ground Speed (GS)
 - True Airspeed (TAS)
 - Airspeed Bug
 - Airspeed Trend Rate
 - Attitude Indicator
 - Flight Path Marker
 - Altimeter
 - Setting Barometer (BARO)
 - Altitude Bug
 - Altitude Trend Rate
 - Barometer Setting, and Density Altitude.
 - Vertical Speed Indicator
 - Vertical Speed (VS) Bug.
 - Heading Indicator/Directional Gyro
 - Heading (HDG) Bug
 - Slip Ball
 - Angle of Attack Indicator

- OAT(Outside air temperature)
- Winds Aloft magnitude and vector
- Artificial Horizon/Synthetic Vision
- Menu Page have at least the following:
 - Six Pack
 - G-meter
 - Terrain Alert
 - Airport Flags
 - HSI SRC
 - Bugs
- There is a Six-Pack presentation options on the PFD.
- Main Menu bar are at the bottom of the screen and include following functions:
 - NRST – Nearest:
 - Info page
 - FPL – Flight Plan
 - INFO
 - MENU
 - Message(NO MSG / MESSAGE / CAUTION / WARNING)
- KNOBs functions have at least the following:
 - Adjust Bug (HDG, ALT, etc.)or BARO value
 - Change Map scale
 - Activate and/or move cursor
- Flight Data Modules have at least the following:
 - All sensors are solid state.
 - Accelerometers, which measure forces in all three directions
 - Rotational rate sensors, which sense rotation about all three axes
 - Pressure transducers for measuring air data
 - Magnetometers on all three axes for measuring magnetic heading.
- Engine Data Modules have at least the following:
 - These modules support popular four and six-cylinder engine installations and measure a variety of engine and environmental parameters, such as:
 - RPM
 - Manifold pressure
 - Oil temperature

- Oil pressure
- Exhaust gas temperature (EGT)
- Cylinder head temperature (CHT)
- Fuel levels for multiple tanks
- Voltage
- Current
- Fuel pressure
- Fuel flow
- Carburetor air temperature
- Coolant pressure and temperature
- Flap and trim potentiometers
- External contacts
- Fuel Computer
- Pitch Trim Indicator
- Roll Trim Indicators
- Flap Indicator

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation



AIRCRAFT EFIS Trainer (CBT-100E) is a complete and fully functional simulation of typical aircraft cockpit. It includes essential flight and pitot-static instruments. This training set provides hands-on maintenance training while also functioning as a demonstration tool for instructors. It demonstrates the principles of gyros, flight instruments and also can be used for teaching of display removal and replacement.

NOTE: If you wish to upgrade this system with engine monitoring systems you can check out Model CBT-100D

NOTE: The trainer can be customized with sensors and indicators according to your training needs. Please contact us for your special requests.

Specifications

Features

- The system combine “primary flight instrumentation” “GPS” and “pitot static system”
- Trainer use the latest in GPS and Digital ADAHRS (Air Data and Attitude Heading and Reference Systems).
- “Air Data and Attitude Heading and Reference Systems” provide highly accurate and reliable referencing of aircraft position, rate, vector and acceleration data.
- Three degrees of freedom instrument panel permits full demonstration of attitude and directional gyro functions.
- Primary flight display be mounted on a panel that can simulate roll, pitch, and yaw movements controlled by a mechanism operated by a control yoke.
- Pitot-static system to conduct pitot static system checks for digital instrument at the trainer.

Components

- **Smart PFD-MFD Screen**
- **Sensors**
 - OAT Sensor
 - Pitot Tube
 - Static Port
 - Ammeter Shunt
- **GPS receiver / antenna**
- **Aircraft circuit breakers**
- **Pitot-Static System:**
 - Pressure Pump to Create Pitot Pressure

- Vacuum Pump to Create Static Pressure
- Pitot Tube (not operate)
- Fuselage Static Port (not operate)
- Alternate Static Port (not operate)
- Static Source Selector Switch (not operate)
- Two Test Ports for Pitot-Static Test Set
- **Power**
 - Main Power
 - PDF
 - Vacuum Pump

Components Technical Specs

- **Smart PFD-MFD Screen**
- **NOTE:** Smart PFD-MFD Screen brand/model and some technical specs can be change due to market availability. (Dynon-Bendix-Garmin or similar)
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- Display is 1280 x 800 pixel, 1200+ nit TFT active-matrix capacitive multi- touch LCD screen.
- High-Definition Touch Screen
- Display Connectors Specification
 - There are 37-Pin DIN Connector for the main wiring harness.
 - There are four (4) RS-232 connector ports for connection to compatible equipment.
 - All serial ports have configurable baud rates and data formats for use as general-purpose inputs and output.
 - There are minimum three (2) USB Connectors.
 - There is an Ethernet Connector to be used to synchronize data between displays.
- Displays operate between 10- and 30-volts DC.
- Display show “engine instrument data”
- Display show “flight instrument data”
- Screen Dimensions
 - 7.64” Wide
 - 5.59” High
 - 3.13” Deep

- Users are able to interact via the two knobs, two buttons integrated into the knobs, and eight buttons along the bottom of the displays bezel and via touch gestures on the display screen itself.
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 - Altimeter
 - Setting Barometer (BARO)
 - Altitude Bug
 - Altitude Trend Rate
 - Barometer Setting, and Density Altitude.
 - Vertical Speed Indicator
 - Vertical Speed (VS) Bug.
 - Heading Indicator/Directional Gyro
 - Heading (HDG) Bug
 - Slip Ball
 - OAT(Outside air temperature)
 - Winds Aloft magnitude and vector
 - Artificial Horizon/Synthetic Vision

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 - Six Pack
 - G-meter
 - Terrain Alert
 - Airport Flags
 - HSI SRC
 - Bugs
- There is a Six-Pack presentation options on the PFD.
- Main Menu bar are at the bottom of the screen and include following functions:
 - NRST – Nearest:
 - Info page
 - FPL – Flight Plan
 - INFO
 - MENU
 - Message(NO MSG / MESSAGE / CAUTION / WARNING)
- KNOBs functions have at least the following:
 - Adjust Bug (HDG, ALT, etc.)or BARO value
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 - Activate and/or move cursor
- Flight Data Modules have at least the following:
 - All sensors are solid state.
 - Accelerometers, which measure forces in all three directions
 - Rotational rate sensors, which sense rotation about all three axes
 - Pressure transducers for measuring air data
 - Magnetometers on all three axes for measuring magnetic heading.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Analogue Cockpit Instrumentation System Trainer

CBT-100F



Aircraft Analogue Cockpit Instrument Training Set(CBT-100F) is a complete and fully functional simulation of typical aircraft analogue cockpit. It includes essential flight, engine and pitot-static instruments. This training set provides hands-on maintenance training while also functioning as a demonstration tool for instructors. It demonstrates the principles of gyros, altimeter and the engine instruments, and also can be used for teaching of instrument removal and replacement.

NOTE: The trainer can be customized with sensors and indicators according to your training needs. Please contact us for your special requests.

NOTE: Please check CBT-100B model if you are looking for trainer with PFD/MFD.

This trainer also allows to perform practical tasks of EASA PART 147 ATA-31-00-00.

Specifications

Features

- The system combine “Cockpit analog flight instrumentation” and “engine instrumentation”.
- Three degrees of freedom instrument panel permits full demonstration of attitude and directional gyro functions.
- Functional engine instrumentation system be connected to engine sensors.
- All analog instruments operate manually
- Primary flight display be mounted on a panel that can simulate roll, pitch, and yaw movements controlled by a mechanism operated by a control yoke.
- Provision of engine sensor simulation.
- Pitot-static system.

Components

- Analogue instruments
- Attitude Gyro and Indicator
- Directional Gyro / Heading Indicator
- Airspeed Indicator
- Altimeter
- Vertical(Upload speed) Speed Indicator
- Turn and Slip Indicator
- Fuel Temp/Press Indicator
- Oil Temp/Press Indicators
- Fuel Level Indicator
- MAP

- **Sensors**
 - Oil Temperature Sensor
 - Manifold Pressure Sensor
 - Fuel Level Sensor
 - Oil Pressure Sensor
 - Fuel Pressure Sensor
 - Engine RPM Sensor
 - Ammeter Shunt
 - Pitot Tube
 - Static Port
- **Aircraft circuit breakers.**
- **Throttle Lever**
- **Pitot-Static System:**
 - Pressure Pump to Create Pitot Pressure
 - Vacuum Pump to Create Static Pressure
 - Pitot Tube
 - Fuselage Static Port
 - Alternate Static Port
 - Static Source Selector Switch
 - Two Test Ports for Pitot-Static Test Set
- **Power**
 - Main Power
 - Tachometer
 - Turn&Slip
 - Vacuum Pump

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation



Aircraft Glass Cockpit Trainer (GSC-100A) is a complete and fully functional simulation of typical aircraft cockpit. It includes essential flight, engine, auto-pilot and pitot-static instruments.

This trainer is designed to teach trainees operation of glass cockpit panel.

The trainer is developed to model Garmin 1000 system.

The trainer is suitable for avionics technician and pilot trainees .

All functions of panel is available.

Specifications

Components

- Screen System
- Two PFD/MFD
- Switch Panel
- Audio Panel
- Standby gauges
- Throttle
- Mixture lever
- Engine start key
- Full scale yoke(2 unit)
- Full Scale Rudder Pedal(2 Unit)
- Two adjustable seats with belts in the trainer.
- Open-able front surface to service the electronic parts and computer.
- Bezels:
- All buttons, switches and knobs can operate
- For example, dual COMM rotary knob have three functions, outer ring tune UHF/VHF frequency in MHz, inner ring tune the frequency in KHz and pressing this knob toggles the tuning cursor between the COM1 and COM2 fields.
- Bezels have backlight function for night flights.
- Screens are 2048x1536 resolution touch screens

- Auto-Pilot.
- Flight director.
- Pitch modes.
- Pitch Hold.
- Altitude Hold.
- Vertical Speed.
- Flight Level Change.
- Vertical Path Tracking.
- VNV Target Altitude Capture.
- Glidepath.
- Glideslope: Yes.
- Roll modes.
- Roll Hold.
- Heading Select.
- Navigation.
- Backcourse.
- Approach
- Flight plan
- Invert Flight Plan
- Parallel Track
- Create ATK Offset Waypoint
- Direct-to
- Terminal Procedures
- User defined holding patterns
- Navigation database
- Inset map: Zoom in/out, browsing, partly de-clutter, topo and terrain. No traffic, storm scope, NEXRAD radar
- Synthetic Vision as an In-App-Purchase item
- VOR/ILS course select, ADF/VOR/Waypoint bearing indicator, CDI indicator, etc.
- Wind, Bearing1/2, HSI format, Alt unit, Standard baro
- DME source selection.
- Transponder settings.
- Timer and references (V speeds and minimums).
- Advisory and alerts.
- ADF dip.
- Automatic Magnetic variation.

- PFD
 - Global navigation database and topo data
 - Engine status
 - Functional “Map Setup”
 - Flight plans storing/editing.
 - Terminal procedures
 - User waypoint creating/editing.
 - User defined holding patterns
- Standby gauges
 - Gauges are digital with analog look.
 - Followings are included on standby gauges.
 - ALT
 - ADI
 - Customizable ASI
- Dual Controlled Yoke
 - Sectorized two yoke
 - Auto-center position
 - Yoke rods 20 mm diameter chrome metal.
 - Yoke mechanism are manufactured from metal for durability.
 - Yokes are manufactured with fiberglass.
- Dual controlled RUDDER and BRAKE mechanism
 - Sectorized two rudder pedals
 - Brake functions
 - Rudder mechanism is manufactured from metal for durability.
 - Rudder mechanism is finish paint for long life.
 - Rudder yaw, steering and brake pedal position angles are provided from absolute encoder or potentiometer which is located inside the rudder mechanism.
 - Rudder brake function is dual controlled and operates just like the real aircraft brake pedals.
- Switch panel.
 - Active STBYBATT switch with ARM/TEST/OFF positions.
 - Active STBYBATT switch with green TEST light.
 - Active MASTER switch with BATT and ALT positions.
 - Active AVIONIC switch with BUS1 and BUS2 positions.

- Active BEACON, LAND, TAXI, NAV, STROBE, FUEL PUMP, PITOT HEAT, CABIN PWR 12V switches.
- Active PANELS, STBY IND, PEDASTAL and AVIONIC rotary knobs.
- Adjustable backlight brightness.

- Throttle
 - Friction adjustment for throttle control
 - 60mm full range for throttle lever

- Mixture lever
 - Vernier control for mixture control
 - 60mm full range for throttle lever

- Engine start key
 - Five positions OFF, R, L, BOTH, START
 - 30 degrees between each notch
 - Spring loaded to BOTH position between BOTH and START positions.

- Rotary knobs to change view.
 - One rotary knob is used to change the pilots view for left and right direction.
 - One rotary knob is used to change the pilots view for up and down direction.

Documentation

- User's Manual
- Instructor's Guide
- Device's original Manual
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz



Our trainer enables trainees to get hands-on experience on avionics systems. The trainer ensures practical training with original avionics equipment configured to bring real-life experience to the training environment. Our design provides trainees with a good understanding of avionics equipment and a methodical approach for troubleshooting. We understand and tailor according to our customers' training needs.

The trainer is delivered plug and play and comes with necessary antennas, transmitters, receivers, wiring, and indicators.

Note: The trainer can be customized with indicators and avionics devices according to your training needs. Please contact us for your special requests.

Specifications

Features

- The system combine “Navigation(ADF-DME-VOR-ILS-GPS-XPDR) instrumentation”, “Communication(VHF) instrumentation”, and “navigational information”.
- NAV system testing
- Comm System Testing
- Indication Testing
- Encoder Altimeter Testing
- Altitude simulation
- Altimeter and Transponder run in sync
- TXPDR Ident
- DME Channel selection
- 6(six) metal drawers.
- All required cabling, coupler ,splitter and socket
- Extension cable for GPS Antenna
- Tripod stand for mounting GPS Antenna
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable
- Delivered fully assembled tested and ready to operate

Components

- Two(2) pieces Nav/Com Radio (Vor/ ILS)
- Two(2) pieces Nav Indicators (Analog or Digital)
- GPS (Global Positioning System)
- ADF (Automatic Direction Finder)
- ADF Indicator
- ILS (Instrument Landing System)
- DME (Distance Measuring Equipment)
- Transponder
- Marker Beacon
- Altitude Encoder
- Intercom System
- Two Pilot Headsets
- Dynamic Microphone
- Altimeter
- Vacuum Pump
- Dc Power Box
- Circuit Break
- Antennas
 - VOR/LOC antenna
 - ADF antenna
 - Marker-Beacon antenna
 - GS antenna
 - VHF-COM antenna (2 pieces)
 - TRANSPONDER antenna
- All antennas cables

Components Technical Specs**NAV/COMM Device General Specs**

- NAV/COMM Transceiver
- 200-channel NAV receiver
- Built-in VOR Converter
- Maximum 25 kHz channel spacing
- Frequency(COM) 118.000 to 136.975
- Nav frequency 108.00 MHz to 117.95 MHz in 50 kHz spacing
- VOR/LOC converter
- Input voltage 28 VDC
- Built-in VOR/Localizer converter

- Flip-flop frequencies
- Volume control
- Frequency memory and recall
- Display
- Frequency stability: $\pm 0.0015\%$
- Original installation manual.

NAV INDICATOR Device General Specs

- Navigation Indicator containing VOR/LOC left-right needle
- To-From Indicator
- VOR/LOC Warning Flag
- OBS
- Integral VOR/LOC Converter
- At least one of them Glideslope Deviation needle
- Internally lighted
- Metal bezel with glass lens
- Used with nav-receiver
- Typical VOR Accuracy; (VOR) Bearing error less than 1.7 degrees. Full scale deflection for 10 deg. course error.
- CONVERTER INPUTS: .5VRMS $\pm 10\%$ ARINC phasing (VOR Composite Input); 100k ohms (Input Impedance)
- COURSE DATUM SYNCHRO OUTPUT: 393mV/degree, 1 deg. Accuracy Typical
- TYPICAL ACCURACY (LOC): (LOC) Centering error less than 3uA. Three fifths deflection for 4dB tone ratio
- CONVERTER OUTPUT DRIVE CAPABILITY: Five 1K loads 150 uA full scale (VOR/LOC Deviation); Two 200 ohm, 200-0-200uA loads (TO/FROM); Five 1K ohm, 0-260uA loads (VOR/LOC Warning Flag)
- Original installation manual.

Transponder Device General Specs

- Transmitter Frequency; 1090 MHz ± 3 MHz
- Receiver Sensitivity: -73dBm (nominal); -69dBm (min. for 90% reply)
- Mode C Capability: Accepts standard ICAO Altitude Transmission Code digitizer output, reporting in 100 ft. increments from -1000 ft. throughout operating range
- Input voltage 28 VDC
- 4096 discrete codes
- Backlight labels and knobs
- CLR button
- VFR button
- IDT button

- Numeric Buttons(0-1-2-3-4-5-6-7)
- KNOB(OFF-SBY-TST-ON-ALT)
- Code window
- Original installation manual.

DME Device General Specs

- 200-channel receiver
- CHANNELING SOURCES: External control head providing BCD code, 2x5 code, slip code, or serial code
- RMT/FREQ/GS-T mode
- DME two concentric freq knob
- Freq Display
- Original installation manual.

ADF Device General Specs

- FREQUENCY RANGE: 200KHz to 1799KHz in 1 KHz increments
- BEARING ACCURACY: +- 3 degrees from 70 uV/m to 0.5 V/m RF input signal level
- Receiver sensitivity : 150uV/m max for $s+n/n = 6\text{dB}$
- Receiver Selectivity: 6dB bandwidth: +-2 KHz max off center frequency; 80dB bandwidth: +-7 KHz max off center frequency
- POWER REQUIREMENTS: 11 to 33 VDC – 12watt
- ADF button
- BFO button
- FRQ button
- FLT/ET button
- SET/RST button
- VOL/Off knob
- Freq display
- Original installation manual.

ADF Indicator General Specs

- Single needle ADF indicator for use with ADF receiver
- ADF BEARING INPUT: DC sine and cosine voltages, +-3.0VDC max across each winding
- POWER REQUIREMENTS: Compass Card Drive: 12VDC at 0.12A
- Lighting: 14VDC at 0.16A or 28VDC at 0.08A

GPS Device General Specs

- Power 10-33 Volt DC

- Operates up to 50,000 feet
- Color IFR GPS with moving map
- Comprehensive aeronautical database including airports, VORs, NDBs, intersections, and special-use airspace
- Automatic “vector to final” approach capability
- Dedicated “Range” and “Map” menu buttons facilitate map access and tailoring
- Dedicated “Procedures” button simplifies loading of approaches and arrival / departure procedures
- Provides map presentation of other non-GPS approaches (including ILS approaches) for greater situational awareness

Aviation Map General Specs

- 7” screen
- At least 9 watt
- Operate 24 volt
- A tripod for gps

Audio Panel General Specs

- Audio Inputs;
 - Impedance: 600 ohm
 - Max. input: 5 Vrms
 - Isolation: 60 dB minimum
 - Bandwidth: 100 Hz to 6.5 kHz
 - Transceiver: 3 (including TEL)
 - Receiver: 5 (NAV1, NAV2, AUX1, AUX2, AUX3)
 - Alerts: 4 (unswitched)
 - Telephone input: 1
- Intercom Functions;
 - Positions: 6 (pilot, copilot, 4 passengers)
 - Volume control: 2 (pilot, copilot/passengers)
 - VOX: Automatic (1 per MIC input)
 - Modes: Pilot, crew, all
 - MIC impedance: 150 ohm
 - MIC Bias: 11 VDC through 470 ohm
 - Keyed ICS: Configurable
- Music functions;
 - Inputs: 2 (independent from Bluetooth audio)
 - Impedance: 600 ohm (differential)

- Max. Input: 3.0 Vrms
- Gain: +24 dB Max/-96dB min
- Input level: < 200 mVrms at max gain for full power out 3dB@1kHz
Bandwidth 20 Hz to 20 kHz
- Distortion: < 0.1% THD+N typical at full power over full bandwidth
- Muting: Selectable and configurable
- Volume control: Knob controlled (pilot and copilot/passenger)
- Headphone Outputs
 - Output amplifiers: 3 Stereo (pilot, copilot, passenger)
 - Output power: 65 mW into 150 Ohms Pilot and Copilot, 260 mW into 37.5 Ohms passenger
 - Distortion: < 3% THD+N at 10% Power, < 10% THD+N at full power
 - Frequency response: 20 Hz to 20 kHz
 - Impedance rated: 150 Ohm pilot/copilot, 37.5 Ohm Passenger (4-150 Ohm headsets)
 - Impedance supported: 150 to > 600 Ohm
- Speaker;
 - Outputs: 1
 - 28 Volt: 10 Watt into 4 Ohm; 7 Watt into 8 Ohm
 - 14 Volt: 3 Watt into 4 Ohm 3dB@1kHz Bandwidth 350 Hz to 6.5 kHz
 - Distortion: < 10% THD+N at full power, < 3% THD+N at 10% power

Headsets Specs

- 24 dB NRR hearing protection
- 3.5mm Music input port
- EM56 noise reflective cup mic
- Clear Hear performance audio speakers
- Foam Fit comfort ear seals
- Deep Pocket ear canals
- Wind block foam mic muff
- Stainless steel adjustable headband

Dynamic Microphone Specs

- Impedance: 50-600 ohms.
- Includes: 5 ft. coiled cord with right-angle plug and hanger bracket.
- Right angle plug
- Hanger bracket

- **Antennas**
- VOR/LOC antenna
- ADF antenna
- Marker-Beacon antenna
- GS antenna
- VHF-COM antenna (2 pieces)
- TRANSPONDER antenna
- All antennas cables

NOTE: Avionics devices brand/model and some technical specs can be change due to market availability.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on AV-100A

- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Optional Items

To transmit and receive radio voice transmissions, if end user does not have any kind VHF radio

- VHF radio Option-1 NAV-500A check for specification refer NAV-500A
- VHF radio Option-2 NAV-500B check for specification refer NAV-500B



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The trainer is delivered plug and play and comes with necessary antennas, transmitters, receivers, wiring, and indicators.

Note: The trainer can be customized with indicators and avionics devices according to your training needs. Please contact us for your special requests.

Differences from AV-100A Model

- Includes only one piece NAV/COM panel whereas AV-100A includes two pieces.
- Includes only one piece NAV indicator analog or digital whereas AV-100A includes two pieces
- Includes only one piece VHF/COM antenna whereas AV-100A includes two pieces

Specifications

Features

- The system combine “Navigation(ADF-DME-VOR-ILS-GPS-XPDR) instrumentation”, “Communication(VHF) instrumentation”, and “navigational information”.
- NAV system testing
- Comm System Testing
- Indication Testing
- Encoder Altimeter Testing
- Altitude simulation
- Altimeter and Transponder run in sync
- TXPDR Ident
- DME Channel selection
- 6(six) metal drawers.
- All required cabling, coupler ,splitter and socket
- Extension cable for GPS Antenna
- Tripod stand for mounting GPS Antenna

Components

- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable
- Delivered fully assembled tested and ready to operate
- One(1) piece Nav/Com Radio (Vor/ ILS)
- One(1) piece Nav Indicators (Analog or Digital)
- GPS (Global Positioning System)
- ADF (Automatic Direction Finder)
- ADF Indicator
- ILS (Instrument Landing System)
- DME (Distance Measuring Equipment)
- Transponder
- Marker Beacon
- Altitude Encoder
- Intercom System
- Two Pilot Headsets
- Dynamic Microphone
- Altimeter
- Vacuum Pump
- Dc Power Box
- Circuit Breake
- Antennas
 - VOR/LOC antenna
 - ADF antenna
 - Marker-Beacon antenna
 - GS antenna
 - VHF-COM antenna (1 piece)
 - TRANSPONDER antenna
- All antennas cables

Components Technical Specs

- NAV/COMM Transceiver
- 200-channel NAV receiver
- Built-in VOR Converter
- Maximum 25 kHz channel spacing
- Frequency(COM) 118.000 to 136.975
- Nav frequency 108.00 MHz to 117.95 MHz in 50 kHz spacing
- VOR/LOC converter
- Input voltage 28 VDC
- Built-in VOR/Localizer converter

- Flip-flop frequencies
- Volume control
- Frequency memory and recall
- Display
- Frequency stability: $\pm 0.0015\%$
- Original installation manual.

NAV INDICATOR Device General Specs

- Navigation Indicator containing VOR/LOC left-right needle
- To-From Indicator
- VOR/LOC Warning Flag
- OBS
- Integral VOR/LOC Converter
- Glideslope Deviation needle
- Internally lighted
- Metal bezel with glass lens
- Used with nav-receiver
- Typical VOR Accuracy; (VOR) Bearing error less than 1.7 degrees. Full scale deflection for 10 deg. course error.
- CONVERTER INPUTS: .5VRMS $\pm 10\%$ ARINC phasing (VOR Composite Input); 100k ohms (Input Impedance)
- COURSE DATUM SYNCHRO OUTPUT: 393mV/degree, 1 deg. Accuracy Typical
- TYPICAL ACCURACY (LOC): (LOC) Centering error less than 3uA. Three fifths deflection for 4dB tone ratio
- CONVERTER OUTPUT DRIVE CAPABILITY: Five 1K loads 150 uA full scale (VOR/LOC Deviation); Two 200 ohm, 200-0-200uA loads (TO/FROM); Five 1K ohm, 0-260uA loads (VOR/LOC Warning Flag)
- Original installation manual.

Transponder Device General Specs

- Transmitter Frequency; 1090 MHz ± 3 MHz
- Receiver Sensitivity: -73dBm (nominal); -69dBm (min. for 90% reply)
- Mode C Capability: Accepts standard ICAO Altitude Transmission Code digitizer output, reporting in 100 ft. increments from -1000 ft. throughout operating range
- Input voltage 28 VDC
- 4096 discrete codes
- Backlight labels and knobs
- CLR button
- VFR button
- IDT button

- Numeric Buttons(0-1-2-3-4-5-6-7)
- KNOB(OFF-SBY-TST-ON-ALT)
- Code window
- Original installation manual.

DME Device General Specs

- 200-channel receiver
- CHANNELING SOURCES: External control head providing BCD code, 2x5 code, slip code, or serial code
- RMT/FREQ/GS-T mode
- DME two concentric freq knob
- Freq Display
- Original installation manual.

ADF Device General Specs

- FREQUENCY RANGE: 200KHz to 1799KHz in 1 KHz increments
- BEARING ACCURACY: +- 3 degrees from 70 uV/m to 0.5 V/m RF input signal level
- Receiver sensitivity : 150uV/m max for s+n/n = 6dB
- Receiver Selectivity: 6dB bandwidth: +-2 KHz max off center frequency; 80dB bandwidth: +-7 KHz max off center frequency
- POWER REQUIREMENTS: 11 to 33 VDC – 12watt
- ADF button
- BFO button
- FRQ button
- FLT/ET button
- SET/RST button
- VOL/Off knob
- Freq display
- Original installation manual.

ADF Indicator General Specs

- Single needle ADF indicator for use with ADF receiver
- ADF BEARING INPUT: DC sine and cosine voltages, +-3.0VDC max across each winding
- POWER REQUIREMENTS: Compass Card Drive: 12VDC at 0.12A
- Lighting: 14VDC at 0.16A or 28VDC at 0.08A

GPS Device General Specs

- Power 10-33 Volt DC

- Operates up to 50,000 feet
- Color IFR GPS with moving map
- Comprehensive aeronautical database including airports, VORs, NDBs, intersections, and special-use airspace
- Automatic “vector to final” approach capability
- Dedicated “Range” and “Map” menu buttons facilitate map access and tailoring
- Dedicated “Procedures” button simplifies loading of approaches and arrival / departure procedures
- Provides map presentation of other non-GPS approaches (including ILS approaches) for greater situational awareness

Aviation Map General Specs

- 7” screen
- At least 9 watt
- Operate 24 volt
- A tripod for gps

Audio Panel General Specs

- Audio Inputs;
 - Impedance: 600 ohm
 - Max. Input: 5 Vrms
 - Isolation: 60 dB minimum
 - Bandwidth: 100 Hz to 6.5 kHz
 - Transceiver: 3 (including TEL)
 - Receiver: 5 (NAV1, NAV2, AUX1, AUX2, AUX3)
 - Alerts: 4 (unswitched)
 - Telephone input: 1
- Intercom Functions;
 - Positions: 6 (pilot, copilot, 4 passengers)
 - Volume control: 2 (pilot, copilot/passengers)
 - VOX: Automatic (1 per MIC input)
 - Modes: Pilot, crew, all
 - MIC impedance: 150 ohm
 - MIC Bias: 11 VDC through 470 ohm
 - Keyed ICS: Configurable
- Music functions;
 - Inputs: 2 (independent from Bluetooth audio)
 - Impedance: 600 ohm (differential)

- Max. Input: 3.0 Vrms
- Gain: +24 dB Max/-96dB min
- Input level: < 200 mVrms at max gain for full power out 3dB@1kHz
Bandwidth 20 Hz to 20 kHz
- Distortion: < 0.1% THD+N typical at full power over full bandwidth
- Muting: Selectable and configurable
- Volume control: Knob controlled (pilot and copilot/passenger)
- Headphone Outputs
 - Output amplifiers: 3 Stereo (pilot, copilot, passenger)
 - Output power: 65 mW into 150 Ohms Pilot and Copilot, 260 mW into 37.5 Ohms passenger
 - Distortion: < 3% THD+N at 10% Power, < 10% THD+N at full power
 - Frequency response: 20 Hz to 20 kHz
 - Impedance rated: 150 Ohm pilot/copilot, 37.5 Ohm Passenger (4-150 Ohm headsets)
 - Impedance supported: 150 to > 600 Ohm
- Speaker;
 - Outputs: 1
 - 28 Volt: 10 Watt into 4 Ohm; 7 Watt into 8 Ohm
 - 14 Volt: 3 Watt into 4 Ohm 3dB@1kHz Bandwidth 350 Hz to 6.5 kHz
 - Distortion: < 10% THD+N at full power, < 3% THD+N at 10% power

Headsets Specs

- 24 dB NRR hearing protection
- 3.5mm Music input port
- EM56 noise reflective cup mic
- Clear Hear performance audio speakers
- Foam Fit comfort ear seals
- Deep Pocket ear canals
- Wind block foam mic muff
- Stainless steel adjustable headband

Dynamic Microphone Specs

- Impedance: 50-600 ohms.
- Includes: 5 ft. coiled cord with right-angle plug and hanger bracket.
- Right angle plug
- Hanger bracket

- **Antennas**
- VOR/LOC antenna
- ADF antenna
- Marker-Beacon antenna
- GS antenna
- VHF-COM antenna (1 piece)
- TRANSPONDER antenna
- All antennas cables

NOTE: Avionics devices brand/model and some technical specs can be change due to market availability.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on AV-100B

- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Optional Items

To transmit and receive radio voice transmissions, if end user does not have any kind VHF radio

- VHF radio Option-1 NAV-500A check for specification refer NAV-500A
- VHF radio Option-2 NAV-500B check for specification refer NAV-500B

Avionics and Cockpit Instrumentation System Trainer

AV-100C



Our trainer enables trainees to get hands-on experience on Avionics Trainer with PFD & EMS systems. The trainer ensures practical training with original avionics equipment configured to bring real-life experience to the training environment. Our design provides trainees with a good understanding of avionics & cockpit equipment and a methodical approach for troubleshooting. We understand and tailor according to our customers' training needs

The trainer is delivered plug and play and comes with necessary antennas, transmitters, receivers, wiring, and indicators.

Note: The trainer can be customized with indicators and avionics devices according to your training needs. Please contact us for your special requests.

Differences from AV-100B Model

- PFD / EMS Screen and System
- Pitot / Static System and Test Set
- Engine Sensors
- Three-axis operational yoke system to see the pitch, roll and yaw movement on PFD

Specifications

Features

- The system combine “Navigation(ADF-DME-VOR-ILS-GPS-XPDR) instrumentation”, “Communication(VHF) instrumentation”, “navigational information”. “primary flight instrumentation”, “aircraft systems instrumentation” and “engine instrumentation”.
- Roll, pitch and yaw motions can be operated from the side yoke to be able to demonstrate aircraft attitude and directional gyro functions.
- Functional engine monitoring system be connected to engine sensors.
- Primary flight display be mounted on a panel that can simulate roll, pitch, and yaw movements controlled by a mechanism operated by a control yoke.
- Provision of engine sensor simulation.
- Pitot-static system to conduct pitot static system checks for digital instrument at the trainer.
- **NAV system testing**
- **Comm System Testing**
- **Indication Testing**
- **Encoder Altimeter Testing**

- Altitude simulation
- Altimeter and Transponder run in sync
- TXPDR Ident
- DME Channel selection
- 6(six) metal drawers.
- All required cabling, coupler ,splitter and socket
- Extension cable for GPS Antenna
- Tripod stand for mounting GPS Antenna
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.

Components

- Smart PFD-MFD Screen
- Engine Data Modules
- Nav/Com Radio (Vor/ ILS)
- Nav Indicators (Analog)
- GPS (Global Positioning System)
- ADF (Automatic Direction Finder)
- ADF Indicator
- ILS (Instrument Landing System)
- DME (Distance Measuring Equipment)
- Transponder
- Marker Beacon
- Altitude Encoder
- Intercom System
- Two Pilot Headsets
- Dynamic Microphone
- Vacuum Pump
- Dc Power Box
- Aircraft circuit breaker
- Antennas
 - VOR/LOC antenna
 - ADF antenna
 - Marker-Beacon antenna
 - GS antenna
 - VHF-COM antenna
 - TRANSPONDER antenna
 - All antennas cables

- Sensors:
 - Oil Temperature Sensor
 - Carburetor Air Temp Sensor
 - Manifold Pressure Sensor
 - Fuel Level Sensor
 - Oil Pressure Sensor
 - Fuel Pressure Sensor
 - Engine RPM Sensor
 - Fuel Flow Sensor
 - Ammeter Shunt
 - CHT Thermocouples (Qty 4)
 - EGT Thermocouples (Qty 4)
 - OAT Sensor
 - Pitot Tube
 - Static Port
 - Inductive sensor
- Throttle Lever
- Pitot-Static System:
 - Pressure Pump to Create Pitot Pressure
 - Vacuum Pump to Create Static Pressure
 - Pitot Tube (not operate)
 - Fuselage Static Port (not operate)
 - Alternate Static Port(not operate)
 - Static Source Selector Switch (not operate)
 - Two Test Ports for Pitot-Static Test Set
- Contacs:
 - Pitot Heater
 - L/G
 - Taxi Light
- Electronic Simulation of Sensors:
 - Oil Temperature Manifold Pressure
 - Engine RPM
 - Oil Pressure
 - Fuel Level
 - Fuel Press

Components Technical Specs**NAV/COMM Device General Specs**

- NAV/COMM Transceiver
- 200-channel NAV receiver
- Built-in VOR Converter
- Maximum 25 kHz channel spacing
- Frequency(COM) 118.000 to 136.975
- Nav frequency 108.00 MHz to 117.95 MHz in 50 kHz spacing
- VOR/LOC converter
- Input voltage 28 VDC
- Built-in VOR/Localizer converter
- Flip-flop frequencies
- Volume control
- Frequency memory and recall
- Display
- Original installation manual.

NAV INDICATOR Device General Specs

- Navigation Indicator containing VOR/LOC left-right needle
- To-From Indicator
- VOR/LOC Warning Flag
- OBS
- Integral VOR/LOC Converter
- Glideslope Deviation needle
- Metal bezel with glass lens
- Original installation manual.

Transponder Device General Specs

- Transmitter Frequency; 1090 MHz \pm 3 MHz
- Receiver Sensitivity: -73dBm (nominal); -69dBm (min. for 90% reply)
- Mode A ,C
- Input voltage 14/28 VDC

DME Device General Specs

- 200-channel receiver
- CHANNELING SOURCES: External control head providing BCD code, 2x5 code, slip code, or serial code
- RMT/FREQ/GS-T mode
- DME two concentric freq knob
- Freq Display
- Original installation manual.

ADF Device General Specs

- FREQUENCY RANGE: 200KHz to 1799KHz in 1 KHz increments
- BEARING ACCURACY: +/- 3 degrees from 70 uV/m to 0.5 V/m RF input signal level
- Receiver sensitivity : 150uV/m max for s+n/n = 6dB
- Receiver Selectivity: 6dB bandwidth: +/-2 KHz max off center frequency; 80dB bandwidth: +/-7 KHz max off center frequency
- POWER REQUIREMENTS: 11 to 33 VDC – 12watt
- ADF button
- BFO button
- FRQ button
- FLT/ET button
- SET/RST button
- VOL/Off knob
- Freq display
- Original installation manual.

ADF Indicator General Specs

- Single needle ADF indicator for use with ADF receiver
- ADF BEARING INPUT: DC sine and cosine voltages, +/-3.0VDC max across each winding
- POWER REQUIREMENTS: Compass Card Drive: 12VDC at 0.12A
 - Lighting: 14VDC at 0.16A or 28VDC at 0.08A

Audio Panel General Specs

- Audio Inputs;
 - Impedance: 600 ohm
 - Max. input: 5 Vrms
 - Isolation: 60 dB minimum
 - Bandwidth: 100 Hz to 6.5 kHz
 - Transceiver: 3 (including TEL)
 - Receiver: 5 (NAV1, NAV2, AUX1, AUX2, AUX3)
 - Alerts: 4 (unswitched)
 - Telephone input: 1
- Intercom Functions;
 - Positions: 6 (pilot, copilot, 4 passengers)
 - Volume control: 2 (pilot, copilot/passengers)
 - VOX: Automatic (1 per MIC input)
 - Modes: Pilot, crew, all
 - MIC impedance: 150 ohm
 - MIC Bias: 11 VDC through 470 ohm
 - Keyed ICS: Configurable
- Music functions;
 - Inputs: 2 (independent from Bluetooth audio)
 - Impedance: 600 ohm (differential)
 - Max. Input: 3.0 Vrms
 - Gain: +24 dB Max/-96dB min
 - Input level: < 200 mVrms at max gain for full power out 3dB@1kHz
Bandwidth 20 Hz to 20 kHz
 - Distortion: < 0.1% THD+N typical at full power over full bandwidth
 - Muting: Selectable and configurable
 - Volume control: Knob controlled (pilot and copilot/passenger)
- Headphone Outputs
 - Output amplifiers: 3 Stereo (pilot, copilot, passenger)
 - Output power: 65 mW into 150 Ohms Pilot and Copilot, 260 mW into 37.5 Ohms passenger
 - Distortion: < 3% THD+N at 10% Power, < 10% THD+N at full power
 - Frequency response: 20 Hz to 20 kHz
 - Impedance rated: 150 Ohm pilot/copilot, 37.5 Ohm Passenger (4-150 Ohm headsets)

- Impedance supported: 150 to > 600 Ohm
- Speaker;
- Outputs: 1
- 28 Volt: 10 Watt into 4 Ohm; 7 Watt into 8 Ohm
- 14 Volt: 3 Watt into 4 Ohm 3dB@1kHz Bandwidth 350 Hz to 6.5 kHz
- Distortion: < 10% THD+N at full power, < 3% THD+N at 10% power

Smart PFD-MFD Screen

- **NOTE:** Smart PFD-MFD Screen brand/model and some technical specs can be change due to market availability. (Dynon-Bendix-Garmin or similar)
- Screen is very bright and high-resolution driven by advanced graphics processors create highly visible and readable display.
- Display is 1280 x 800 pixel, 1200+ nit TFT active-matrix capacitive multi- touch LCD screen.
- High-Definition Touch Screen
- Display Connectors Specification
 - There are 37-Pin DIN Connector for the main wiring harness.
 - There are four (4) RS-232 connector ports for connection to compatible equipment.
 - All serial ports have configurable baud rates and data formats for use as general-purpose inputs and output.
 - There are minimum three (2) USB Connectors.
 - There is an Ethernet Connector to be used to synchronize data between displays.
- Displays operate between 10- and 30-volts DC.
- Display show “engine instrument data”
- Display show “flight instrument data”
- Screen Dimensions
 - 7.64” 7.64” Wide
 - 5.59” High
 - 3.13” Deep
- Users are able to interact via the two knobs, two buttons integrated into the knobs, and eight buttons along the bottom of the display’s bezel and via touch gestures on the display screen itself.
- Display have a robust GPS moving map.
- Display back-lighting is controlled by its ambient light sensor to actively adjust the brightness based on the current lighting conditions or user is able to adjust the brightness by buttons.

- The default layout of screen show below
 - PFD
 - MAP
 - ENGINE
- Screen switch into 100% window or 50%/50% split windows.
- There is Count-Up/Count-Down timer in the display.
- PFD Page Layout have at least the following:
 - Airspeed Indicator
 - Ground Speed (GS)
 - True Airspeed (TAS)
 - Airspeed Bug
 - Airspeed Trend Rate
 - Attitude Indicator
 - Flight Path Marker
 - Altimeter
 - Setting Barometer (BARO)
 - Altitude Bug
 - Altitude Trend Rate
 - Barometer Setting, and Density Altitude.
 - Vertical Speed Indicator
 - Vertical Speed (VS) BUG.
 - Heading Indicator/Directional Gyro
 - Heading (HDG) BUG
 - Slip Ball
 - Angle of Attack Indicator
 - OAT(Outside air temperature)
 - Winds Aloft magnitude and vector
 - Artificial Horizon/Synthetic Vision
- Menu Page have at least the following:
 - Six Pack
 - G-meter
 - Terrain Alert
 - Airport Flags
 - HSI SRC
 - Bugs
- There is a Six-Pack presentation options on the PFD.

- Main Menu bar are at the bottom of the screen and include following functions:
 - NRST – Nearest:
 - Info page
 - FPL – Flight Plan
 - INFO
 - MENU
 - Message(NO MSG / MESSAGE / CAUTION / WARNING)
 - Knob's functions have at least the following:
 - Adjust Bug (HDC, ALT, etc.)or BARO value
 - Change Map scale
 - Activate and/or move cursor
 - Flight Data Modules have at least the following:
 - All sensors are solid state.
 - Accelerometers, which measure forces in all three directions
 - Rotational rate sensors, which sense rotation about all three axes
 - Pressure transducers for measuring air data
 - Magnetometers on all three axes for measuring magnetic heading.
 - Engine Data Modules have at least the following:
 - These modules support popular four and six-cylinder engine installations and measure a variety of engine and environmental parameters, such as:
 - RPM
 - Manifold pressure
 - Oil temperature
 - Oil pressure
 - Exhaust gas temperature (EGT)
 - Cylinder head temperature (CHT)
 - Fuel levels for multiple tanks
 - Voltage
 - Current
 - Fuel pressure
 - Fuel flow
 - Carburetor air temperature
 - Coolant pressure and temperature
 - Flap and trim potentiometers
 - External contacts

Avionics and Cockpit Instrumentation System Trainer

- Fuel Computer
- Pitch Trim Indicator
- Roll Trim Indicators
- Flap Indicator

Headsets Specs

- 24 dB NRR hearing protection
- 3.5mm Music input port
- EM56 noise reflective cup mic
- Clear Hear performance audio speakers
- Foam Fit comfort ear seals
- Deep Pocket ear canals
- Wind block foam mic muff
- Stainless steel adjustable headband

DYNAMIC MICROPHONE Specs

- Impedance: 50-600 ohms.
- Includes: 5 ft. coiled cord with right-angle plug and hanger bracket.
- Right angle plug
- Hanger bracket

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on AV-100C

- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Optional Items

To transmit and receive radio voice transmissions, if end user does not have any kind VHF radio

- VHF radio Option-1 NAV-500A check for specification refer NAV-500A
- VHF radio Option-2 NAV-500B check for specification refer NAV-500B

Aircraft Autopilot / Automatic Flight Controls Trainer



Autopilot Trainer is an excellent resource for teaching the principles of automatic flight controls by demonstration using a complete system that encompasses all the aspects of roll and pitch axes autopilot and automatic flight controls. With model aircraft students can see the operation of the control surfaces, and they can operate the control surfaces manually with yoke and rudder mechanism. Trainer has realistic autopilot control panel, PFD and MFD displays as well.

Specifications

Features

- Indicators operate in sync with auto-pilot system
- Aircraft position controlled by yoke and rudder system.
- Automatic/Motorized Yoke System
 - Yoke automatically/motorized moves in two axis with data from autopilot computer. It performs automatic positioning according to the position of the airplane.
- Rudder Pedal System
 - Rudder surface moves in one axis with data from rudder pedals manual inputs from user. It performs automatic positioning according to the position of the airplane.
- Throttle and mixture levers operation.
- Yoke and rudder pedals can move the control surfaces of the aircraft in manual mode.
- Autopilot computer can move the control surfaces of the aircraft in autopilot modes.
- Servos operate in sync with auto-pilot and yoke/rudder pedal.
- 3 DOF (2 axis DOF + 1 DOF system)
- Heading Feed Back
- Altitude Feed Back
- Engine start process
- Auto pilot function
- Flight director function
- The aircraft automatically calibrated to runway position when the trainer is turned on.
- Instructor's fault and scenario control window
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.

Components

- **The trainer have a model aircraft**
 - Aircraft size is minimum 1400mmx1300mm
 - Aircraft color is white.
 - Aileron and elevator are different color.
 - Aileron and Elevator can move.
 - Aileron and elevator operate in sync with auto-pilot and yoke.
 - 4 auto-pilot servos on the aircraft (aileron, elevator, rudder, pitch trim).
 - Pitch / Yaw / Roll servos / pitch trim servo
 - There are 2 limit switches in servo.
 - Servos operates in sync with auto-pilot and yoke.
 - DOF system operates in sync with autopilot (aileron and elevator) and yoke.
 - One beacon light at the nose section of the model aircraft.
- **Two(2) PFD/MFD system with bezels**
 - PFD can be used as engine instruments incase of simulated failure
- **Bezels Generals**
 - All buttons, switches and knobs can operate
 - Dual control Navigation(NAV) Knop
 - For example, dual COMM rotary knob have three functions, outer ring should tune UHF/VHF frequency in MHz, inner ring should tune the frequency in KHz and pressing this knob toggles the tuning cursor between the COM1 and COM2 fields.
 - Bezels have backlight function for night flights.
 - Screens are 2048x1536 resolution touch screens.
 - PFD/MFD system should include minimum below features
 - Auto-Pilot.
 - Flight director.
 - Pitch modes.
 - Pitch Hold.
 - Altitude Hold.
 - Vertical Speed.
 - Flight Level Change.
 - Vertical Path Tracking.
 - VNV Target Altitude Capture.
 - Glidepath.
 - Glideslope: Yes.
 - Roll modes.
 - Roll Hold.
 - Heading Select.
 - Navigation.
 - Backcourse.
 - Approach

- Flight Plan
- Invert Flight Plan
- Parallel Track
- Create ATK Offset Waypoint
- Direct-to
- Terminal Procedures
- User defined holding patterns
- Navigation database
- Inset map: Zoom in/out, browsing, partly de-clutter, topo and terrain. No traffic, storm scope, NEXRAD radar Synthetic Vision as an In-App-Purchase item
- VOR/ILS course select, ADF/VOR/Waypoint bearing indicator, CDI indicator, etc.
- Wind, Bearing1/2, HSI format, Alt unit, Standard baro
- DME source selection.
- Transponder settings.
- Timer and references (V speeds and minimums).
- Advisory and alerts.
- ADF dip.
- Automatic Magnetic variation.
- Global navigation database and topo data
- Engine status
- Functional “Map Setup”
- Flight plans storing/editing.
- Terminal procedures
- User waypoint creating/editing.
- User defined holding patterns

• PFD/MFD Controls

- AP Key – Engages/disengages the autopilot and flight director. Pressing the AP Key activates the flight director and engages the autopilot in the default pitch axis and roll axis modes. Pressing the AP Key again disengages the autopilot and deactivates the flight director.
- HDG Key – Selects/deselects Heading Select Mode.
- NAV Key – Selects/deselects Navigation Mode.
- APR Key – Selects/deselects Approach Mode.
- VS Key – Selects/deselects Vertical Speed Mode.
- FLC Key – Selects/deselects Flight Level Change Mode.
- FD Key – Activates/deactivates the flight director only. Pressing the FD Key turns on the flight director in the default pitch axis and roll axis modes. Pressing the FD Key again deactivates the flight director and removes the command bars, unless the autopilot is engaged. If the autopilot is engaged, the FD Key is disabled.
- ALT Key – Selects/deselects Altitude Hold Mode.
- VNV Key – Selects/deselects Vertical Navigation Mode.
- BC Key – Selects/deselects Back Course Mode.
- NOSE UP/NOSE DN Keys – Controls the active pitch reference for the Pitch Hold, Vertical Speed, and Flight Level Change modes.
- NAV VOL/ID Knob – Controls the NAV audio level. Press to toggle the Morse code identifier ON and OFF.
- NAV Frequency Transfer Key – Transfers the standby and active NAV frequencies.
- Dual NAV Knob – Tunes the MHz (large knob) and kHz (small knob) standby frequencies for the NAV receiver. Press to toggle the tuning cursor (light blue box) between the NAV1 and NAV2 fields.
- Heading Knob – Turn to manually select a heading on the HSI. When pressed, it synchronizes the heading bug with the compass lubber line. Selected Heading provides the heading reference to the Flight Director while operating in Heading Select mode.
- Joystick – Changes the map range (distance top to bottom of map display) when rotated. Activates the map pointer when pressed.
- CRS/BARO Knob – The large knob sets the altimeter barometric pressure and the small knob adjusts the course. The course is only adjustable when the HSI is in VOR1, VOR2, or OBS/SUSP mode.

- Dual COM Knob – Tunes the MHz (large knob) and kHz (small knob) standby frequencies for the COM transceiver.
 - COM Frequency Transfer Key – Transfers the standby and active COM frequencies. Pressing and holding this key for two seconds automatically tunes the emergency frequency (121.5 MHz) in the active frequency field.
 - COM VOL/SQ Knob – Controls COM audio level.
 - Direct-to Key – Allows the user to enter a destination waypoint and establish a direct course to the selected destination (specified by the identifier, chosen from the active route, or taken from the map pointer position).
 - FPL Key – Displays the active Flight Plan Page for creating and editing the active flight plan, or for accessing stored flight plans.
 - Dual FMS Knob – Press to turn the selection cursor ON/OFF.
 - PROC Key – Selects approaches, departures and arrivals from the flight plan. If a flight plan is used, available procedures for the departure and/or arrival airport are automatically suggested. If a flight plan is not used, the desired airport and the desired procedure may be selected. This key selects IFR departure procedures (DPs), arrival procedures (STARs) and approaches (IAPs) from the database and loads them into the active flight plan
 - ENT Key – Accepts a menu selection or data entry. This key is used to approve an operation or complete data entry. It is also used to confirm selections and information entries.
 - Dual ALT Knob – Sets the selected altitude in the box located above the Altimeter. The large knob selects the thousands (500m for metric), while the small knob selects the hundreds (50m for metric). Altitude Select is used by the Automatic Flight Control System in certain modes, in addition to the standard G1000 Altitude Alerter function.
- All flight indicators operate in sync with auto-pilot system
 - Aircraft position controlled by yoke.
 - Yoke moves the control surfaces of the aircraft.
 - The rudder pedal mechanism is metal.
 - Rudder pedal move the control surfaces of the aircraft.
 - Active throttle control.
 - Active mixture control.
 - The Trainer master power and switch panel.
 - Air / ground scenario choosing switch
 - Engine Start,
 - Auto-Pilot circuit breaker,
 - Servo control switch
 - Beacon circuit breaker,
 - Circuit breaker lockout,

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Training video for instructors

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Autopilot / Automatic Flight Controls & PFD Trainer

AP-100G



This trainer includes Autopilot / PFD / NAV / Directional Gyro systems. These features suitable with advanced avionic trainers.

Autopilot Trainer is an excellent resource for teaching the principles of automatic flight controls by demonstration using a complete system that encompasses all the aspects of **three (3)** axis autopilot and automatic flight controls.

This trainer design with Garmin or Dynon System Autopilot & EFIS products.

ATA 22-00-00, 22-10-00, 22-20-00, 22-40-00

Specifications

Features

- Garmin Auto-pilot system
 - Garmin Auto pilot control panel
 - Garmin Auto pilot servos(3 servos)
- Garmin Navigation/ Com System
 - GARMIN VHF NAV / COM RADIO
 - COM, NAV, 10 Watts, 8.33kHz
 - VOR Antenna
 - VHF antenna
 - Head Set
- Garmin EFIS System
 - 10 inch Touch Display
 - ADAHRS (air data and attitude/heading reference system),
 - Magnetometer
 - OAT probe
 - Configuration Module
- Bendix King Directional gyro System
 - Remote Control Panel
 - Gyro
 - Analog Gyro indicator
 - Flux
- Yoke System
- Throttle Lever
- Rudder pedal system
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz





Aircraft Navigation & Magnetic Compass Trainer

NAV-100A



NAV-100A Aircraft Navigation & Magnetic Compass System Training Set is designed to teach the operational logic and system components of a navigation & magnetic compass. Trainees can operate a Navigation & Magnetic Compass system in this set and observe from indicator screen.

Trainer represents;

- Aircraft Navigation,
- Aircraft Communication,
- Aircraft compass system

They can also learn maintenance principles.

This trainer also allows to perform practical tasks of EASA PART 147 ATA-34-20-01 / ATA-34-50-00.

Specifications

Features

- Fully functional and configured like a typical aircraft **Navigation** system.
- Fully functional and configured like a typical aircraft **Magnetic Compass** system.
- Compass System provides the pilot with a simple, comprehensive visual display of the aircraft's heading and position in relation to a desired course.
- Complete slaved compass system that includes a magnetic slaving transmitter, a slaving control and compensator unit, a directional gyro for stabilization of the system, and the Pictorial Navigation Indicator (PNI) itself.
- Combine the display functions of the standard Directional Gyro with VOR/LOC course deviation indication and Glideslope deviation and flag into one compact display.
- The Pictorial Navigation Indicator provides a pictorial display of the horizontal navigation situation. Also provides manual controls for course and heading datum selections. Outputs from the system are for automatic pilot or flight director, VOR receivers and additional compass loads
- The Directional Gyro is a remote mounted unit which, in conjunction with the Magnetic Azimuth Transmitter, provides a gyro-stabilized magnetic heading to the system Indicator. In addition to the slaving circuitry this unit contains an internal power supply which provides excitation voltages for the Magnetic Azimuth Transmitter and positive and negative D.C. voltages for the Pictorial Navigation Indicator and the Slaving Accessory.

- The Magnetic Azimuth Transmitter senses the direction of the earth's magnetic field and transmits this information to the Pictorial Navigation Indicator.
- The Slaving Accessory is a panel mounted unit which contains the slaving meter, slaving switches, and corrector circuitry which compensates for the effect of local magnetic disturbances on the Magnetic Azimuth Transmitter.
- The trainer allows trainees to understand fundamentals of aircraft magnetic compass system and its components.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.

Components

- NAV/COM Device
- Pictorial Navigation Indicator(HSI)
- Directional Gyro
- Flux Detector(The Magnetic Azimuth Transmitter)
- Slaving Accessory
- Nav Antenna
- COM ANTENNA
- Digital instrument
- DC Power Box
- Circuit Break

Components Technical Specs

- NAV/COMM device
 - Solid state, gas discharge digital display NAV/COMM Transceiver
 - 720 or 760 frequency COMM available
 - 200-channel NAV receiver
 - Built-in VOR Converter
 - Maximum 25 kHz channel spacing(8.33 kHz)
 - Frequency(COM) range is minimum 118.000 to 136.975
 - Nav receiver frequency range: 108.00 MHz to 117.95 MHz in 50 kHz increments
 - Vor/loc converter accuracy:
 - VOR – Typical bearing error of less than 0.5° with precision track selector (2° max. Error)
 - LOC–Typical centering error of less than 3μA (7μA max. Error).
 - Receiver selectivity:
 - 6dB at 34.8 kHz minimum
 - 80dB at 84.0 kHz maximum

Aircraft Navigation & Magnetic Compass Trainer

- Input voltage range is 14 or 28 VDC
 - Operating temperature range is minimum -18 to +50 C
 - Built-in VOR/Localizer converter in NAV/COMM device
 - VOR receiver displays to/from and radial
 - Active and standby flip-flop frequencies
 - Volume control
 - Frequency memory and recall
 - Display
 - Output is minimum 10 watt
 - Frequency stability: $\pm 0.0015\%$
 - Adjustable up to 100mW into 500 ohms headphones
 - 6dB bandwidth ± 8.1 kHz
 - 60dB bandwidth ± 20.0 kHz
 - Physical dimensions:
 - Width: 6.25 inches (15.88 cm) Height: 2.05 inches (5.21 cm)
 - Depth: 10.16 inches (25.81 cm) including connector
 - There is an original installation manual.
- Pictorial Navigation Indicator
 - Lubber Line
 - Nav Warning Flag
 - Heading Select Bug
 - Compass warning Flag
 - Selected Course pointer
 - To/From indicator
 - GS Deviation Scale
 - Compass Card
 - VOR/LOC Deviation Bar
 - 1(one) headsets
 - 24 dB NRR hearing protection
 - 3.5mm Music input port
 - EM56 noise reflective cup mic
 - Clear Hear performance audio speakers
 - Foam Fit comfort ear seals
 - Deep Pocket ear canals
 - Wind block foam mic muff
 - Stainless steel adjustable headband

Aircraft Navigation & Magnetic Compass Trainer

- DYNAMIC MICROPHONE
 - Impedance: 50-600 ohms.
 - Includes: 5 ft. coiled cord with right-angle plug and hanger bracket.
 - Vor/LOC antenna
 - Frequency is at least 108 to 118 MHz and 328-336MHz
 - Impedance is 50 Ohms
 - Pattern is Omni-Directional
 - Antenna have an original cable
 - VHF-COM antenna
 - Frequency 118 to 137 MHZ
 - Polarization and Vertical
 - Impedance 50 Ohms
 - Connector - BNC Female
 - Antenna have an original cable
- Directional Gyro
 - Remote mounted
 - Original Mounted Tray
 - Power: 14 or 28 volt dc
 - 300 degree free turnable system for testing
- Flux Detector(The Magnetic Azimuth Transmitter)
- Slaving Accessory
 - Slave/Free Gyro Switch
 - Slaving Meter indicator
 - CW/CCW Adjustment
- Digital instrument for Gyro degree
 - Size: Min 7 inch
 - Touchable
 - Real Times
- Magnetic Compass

34-20-01 – Magnetic Compass removal/Installation

NOTE: Avionics devices brand/model and some technical specs can be change due to market availability.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on NAV-100A

- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Optional Items

To transmit and receive radio voice transmissions, if end user does not have any kind VHF radio

- VHF radio Option-1 NAV-500A check for specification refer NAV-500A
- VHF radio Option-2 NAV-500B check for specification refer NAV-500B

Aircraft Gyroscope Training Set

GYR-100A



GYR-100A **Magnetic Compass** System Training Set is designed to teach the operational logic and system components of a **Magnetic Compass**. Trainees can operate a Magnetic Compass. System in this set and observe from indicator screen.

They can also learn maintenance principles of **Magnetic Compass** system.

This trainer also allows to perform practical tasks of EASA PART 147 ATA-34-20-01

Specifications

Features

- Fully functional and configured like a typical aircraft Magnetic Compass system.
- Compass System provides the pilot with a simple, comprehensive visual display of the aircraft's heading and position in relation to a desired course.
- Complete slaved compass system that includes a magnetic slaving transmitter, a slaving control and compensator unit, a directional gyro for stabilization of the system, and the Pictorial Navigation Indicator (PNI) itself.
- Combine the display functions of the standard Directional Gyro with VOR/LOC course deviation indication and Glideslope deviation and flag into one compact display.
- The Pictorial Navigation Indicator provides a pictorial display of the horizontal navigation situation. Also provides manual controls for course and heading datum selections. Outputs from the system are for automatic pilot or flight director, VOR receivers and additional compass loads
- The Directional Gyro is a remote mounted unit which, in conjunction with the Magnetic Azimuth Transmitter, provides a gyro-stabilized magnetic heading to the system Indicator. In addition to the slaving circuitry this unit contains an internal power supply which provides excitation voltages for the Magnetic Azimuth Transmitter and positive and negative D.C. voltages for the Pictorial Navigation Indicator and the Slaving Accessory.
- The Magnetic Azimuth Transmitter senses the direction of the earth's magnetic field and transmits this information to the Pictorial Navigation Indicator.
- The Slaving Accessory is a panel mounted unit which contains the slaving meter, slaving switches, and corrector circuitry which compensates for the effect of local magnetic disturbances on the Magnetic Azimuth Transmitter.
- Low trainees to understand fundamentals of aircraft magnetic compass system and its components.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.

Components

- Pictorial Navigation Indicator(HSI)
- Directional Gyro
- Flux Detector(The Magnetic Azimuth Transmitter)
- Slaving Accessory
- Digital instrument
- DC Power Box
- Circuit Break

Components Technical Specs

- Pictorial Navigation Indicator
 - Lubber Line
 - Nav Warning Flag
 - Heading Select Bug
 - Compass Warning Flag
 - Selected Course Pointer
 - To/From Indicator
 - GS Deviation Scale
 - Compass Card
 - VOR/LOC Deviation Bar
- Directional Gyro
 - Remote mounted
 - Original Mounted Tray
 - Power: 14 or 28 volt dc
 - 300 degree free turnable system for testing
- Flux Detector(The Magnetic Azimuth Transmitter)
- Slaving Accessory
 - Slave/Free Gyro Switch
 - Slaving Meter indicator
 - CW/CCW Adjustment
- Digital instrument for Gyro degree
 - Size: Min 7 inch
 - Touchable
 - Real Times

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation



Our trainer enables trainees to get hands-on experience on ADF systems. The trainer ensures practical training with original aircraft ADF equipment configured to bring real-life experience to the training environment. Our design provides trainees with a good understanding of ADF equipment and a methodical approach for troubleshooting and testing procedures. We understand and tailor according to our customers' training needs.

The trainer is delivered plug and play and comes with necessary antennas, Transmitters, receivers, wiring, and indicators.

Specifications

Features

- Understanding fundamentals of aircraft ADF and its components.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.

Components

- ADF (Automatic Direction Finder)
- ADF Indicator
- ADF antenna with coaxial connector
- Dc Power Box
- Circuit Breaker
- 20 A power supply
- Current and voltage meters
- Assembled and wired according to aeronautical regulations
- Aeronautical standard connectors and jackets.

Components Technical Specs

ADF Device General Specs

- FREQUENCY RANGE: 200KHz to 1799KHz in 1 KHz increments
- BEARING ACCURACY: +/- 3 degrees from 70 uV/m to 0.5 V/m RF input signal level
- Receiver sensitivity : 150uV/m max for $s+n/n = 6\text{dB}$
- Receiver Selectivity: 6dB bandwidth: +/- 2 KHz max off center frequency; 80dB bandwidth: +/- 7 KHz max off center frequency
- POWER REQUIREMENTS: 11 to 33 VDC – 12watt
- ADF button
- BFO button
- FRQ button
- FLT/ET button
- SET/RST button
- VOL/Off knob
- Freq display
- Original installation manual.

NOTE: Avionics devices brand/model and some technical specs can be change due to market availability.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on ADF-100A

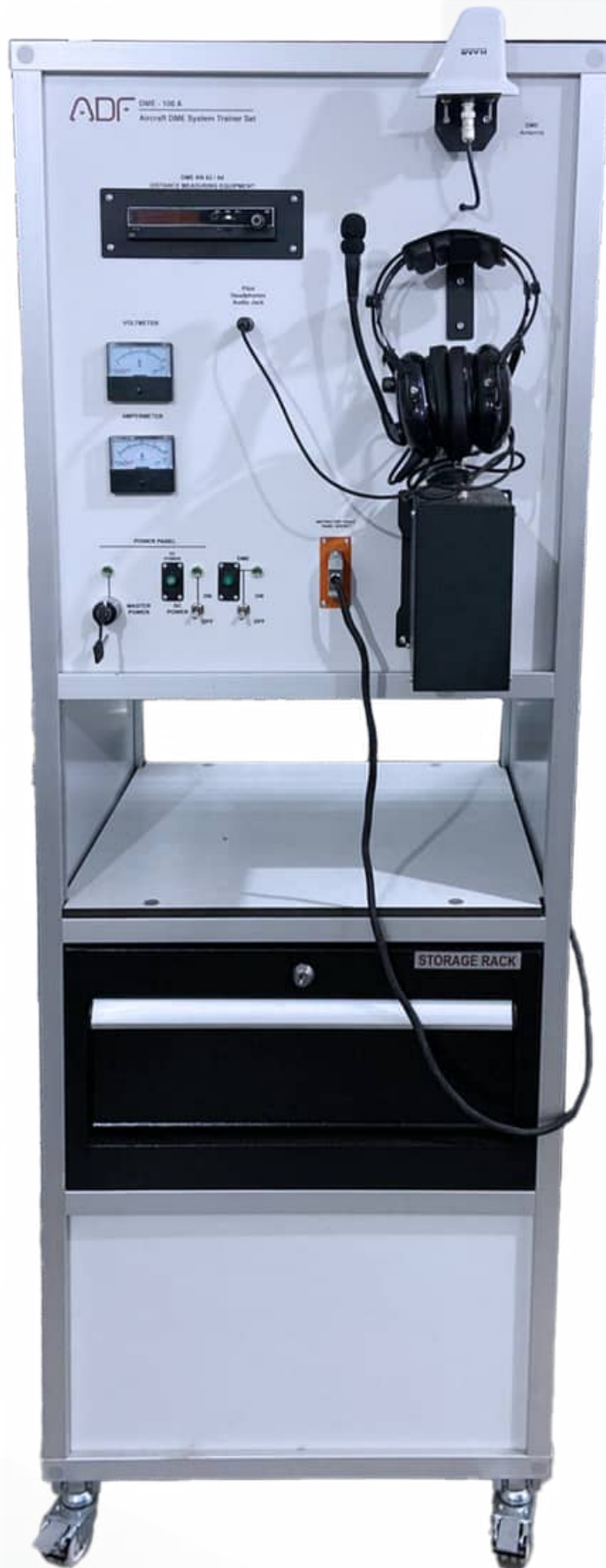
- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Aircraft DME System Training Set

DME-100A



Our trainer enables trainees to get hands-on experience on DME systems. The trainer ensures practical training with original aircraft DME equipment configured to bring real-life experience to the training environment. Our design provides trainees with a good understanding of DME equipment and a methodical approach for troubleshooting and testing procedures. We understand and tailor according to our customers' training needs.

The trainer is delivered plug and play and comes with necessary antennas, transmitters, receivers, wiring, and indicators.

Specifications

Features

- Understanding fundamentals of aircraft DME and its components.
- 0-10 A DC current meter and 0-30 V DC voltmeter
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.

Components

- DME (Distance Measuring Equipment)
- DME antenna with coaxial connector
- Dc Power Box
- Aircraft Circuit Breaker
- Circuit Breaker Lockout
- Audio jack
- 20 A power supply
- Current and voltage meters
- Assembled and wired according to aeronautical regulations
- Aeronautical standard connectors and jackets

Components Technical Specs

DME Device General Specs

- 200-channel receiver
- CHANNELING SOURCES: External control head providing BCD code, 2x5 code, slip code, or serial code
- RMT/FREQ/GS-T mode
- DME two concentric freq knob
- Freq Display
- Original installation manual.

NOTE: Avionics devices brand/model and some technical specs can be change due to market availability.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on DME-100A

- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Aircraft Transponder System Training Set

XPND-100A



Our trainer enables trainees to get hands-on experience on transponder systems. The trainer ensures practical training with original aircraft transponder equipment configured to bring real-life experience to the training environment. Our design provides trainees with a good understanding of transponder equipment and a methodical approach for troubleshooting and testing procedures. We understand and tailor according to our customers' training needs.

The trainer is delivered plug and play and comes with necessary antennas, transmitters, receivers, wiring, and indicators.

Specifications

Features

- Understanding fundamentals of aircraft transponder and its components.
- Encoder altimeter
- Encoder altimeter testing
- TXPDR Ident
- Aircraft Altimeter
- Altimeter and Transponder run in sync
- Altitude simulation
- Installed and mounted in the rack.
- A-mode, C-mode and S-mode operation.
- Toggle switch for modes A or C
- 0-15 A DC current meter and 0-30 V DC voltmeter
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.

Components

- Transponder
- Transponder antenna with coaxial connector
- Altitude Encoder
- Altimeter
- Vacuum Pump
- Dc Power Box
- Aircraft Circuit Breaker
- Circuit Breaker Lockout
- 20 A power supply
- Current and voltage meters
- Assembled and wired according to aeronautical regulations
- Aeronautical standard connectors and jackets.

Components Technical Specs**Transponder Device General Specs**

- Transmitter Frequency; 1090 MHz \pm 3 MHz
- Receiver Sensitivity: -73dBm (nominal); -69dBm (min. for 90% reply)
- Mode C Capability: Accepts standard ICAO Altitude Transmission Code digitizer output, reporting in 100 ft. increments from -1000 ft. throughout operating range
- Input voltage 28 VDC
- 4096 discrete codes
- Backlight labels and knobs
- CLR button
- VFR button
- IDT button
- Numeric Buttons(0-1-2-3-4-5-6-7)
- KNOB(OFF-SBY-TST-ON-ALT)
- Code window
- Original installation manual.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on XPND-100A

- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

Optional Items

- Mode S

For Mode S operation please contact us

Aircraft Marker Beacon System Trainer

MBS-100A



Our trainer enables trainees to get hands-on experience on Marker Beacon systems. The trainer ensures practical training with original aircraft MB equipment configured to bring real-life experience to the training environment. Our design provides trainees with a good understanding of MB equipment and a methodical approach for troubleshooting and testing procedures. We understand and tailor according to our customers' training needs.

The trainer is delivered plug and play and comes with necessary antennas, transmitters, receivers, wiring, and indicators.

Specifications

Features

- Understanding fundamentals of aircraft Marker Beacon and its components.
- 0-10 A DC current meter and 0-30 V DC voltmeter
- Reception test
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- MB (Marker Beacon panel)
- Indicator lamp.
- MB antenna with coaxial connector
- Dc Power Box
- Aircraft Circuit Breaker
- Circuit Breaker Lockout
- Audio jack
- Volume control
- Speaker
- HI/LO sensitivity switch
- 20 A power supply
- Current and voltage meters
- Assembled and wired according to aeronautical regulations
- Aeronautical standard connectors and jackets

Components Technical Specs

MB Device General Specs

- 75 MHz Crystal Controlled
- Sensitivity:
 - Low: 1000 μ Volts (Hard) (360 to 570 μ V soft)
 - High : 200 μ Volts (Hard) (130 to 200 μ V soft)
- Selectivity: -6 dB at \pm 10 kHz, -40 dB at \pm 120 kHz
- External Lamp Output: 7.5 (\pm 4 VDC unloaded, at maximum brightness) VDC positive when active, max. Current 125 mA per lamp output
- MM Sense: Active high (4.5 \pm 1.0VDC)
- Output impedance: 510 μ
- Audio Output: 38 mW <5% THD typical

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

To effectively test the avionics on MBS-100A

- Option-1 AV-500A NAV/COM tester check for specification refer AV-500A
- Option-2 AV-500B NAV/COM tester check for specification refer AV-500B
- Recommended NAV/COM Ramp Tester is AV-500A, if end user does not have any kind of NAV/COM tester

Accessories

- Instructor's Panel Control Box for Scenario and Fault Simulation

ARINC 429 & MIL STD 1553 Training Set

DTA-100A



Trainees can learn and practice the essential parts of data bus communication in an aircraft with DTA-100 Aircraft Data Bus Training Set. They can also learn the operation and applied data bus connection between avionic systems. The training set allows testing and maintenance of these systems. The training set includes two data bus systems.

ARINC 429 is a data format for avionic systems. This format produces description of physical and electrical interface functions for numeric data systems in aircrafts. ARINC 429 is currently the essential data bus for several aircrafts.

MIL-STD-1553 is a data bus system enabling communication between avionics system with mechanic, electrical and functional characteristics in line with military standards.

Specifications

Features

- ARINC 429 DATA Generator PCI
- ARINC 429 Software
- MIL-STD 1553 DATA Generator PCI
- MIL STD 1553 Software
- Computer
- Data Screen
- Data Output and Input Socket
- Oscilloscope
- Printer
- Fault Panel
- RAC Panel System

Documentation

- Device's original Manual

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

VHF-COM Communication Trainer

VHF-100A



Trainees can practice air-band communication and familiarize with VHF radio system parts with VHF-100A model VHF-COM communication training set.

The VHF-100A training set also allows trainees to learn and practice radio maintenance procedures.

Specifications

Features

- VHF Comm. Control Panel
- VHF Comm. Transceiver
- VHF Commv. Antenna
- Antenna Cable
- Audio Panel
- Intercom System
- Pilot Head Phone
- Microphone and Phone Jacks Input
- Power Unit
- 118.000 – 136.975 MHz

Documentation

- Device's original Manual
- Device's original Wiring Diagrams

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Optional Items

To transmit and receive radio voice transmissions, if end user does not have any kind VHF radio

- VHF radio Option-1 NAV-500A check for specification refer NAV-500A
- VHF radio Option-2 NAV-500B check for specification refer NAV-500B

HF-COM Communication System Trainer

HF-100A



Trainees can practice air-band communication and familiarize with HF radio system parts with HF-100A model HF-COM communication training set.

The HF-100A training set also allows trainees to learn and practice radio maintenance procedures.

Specifications

Features

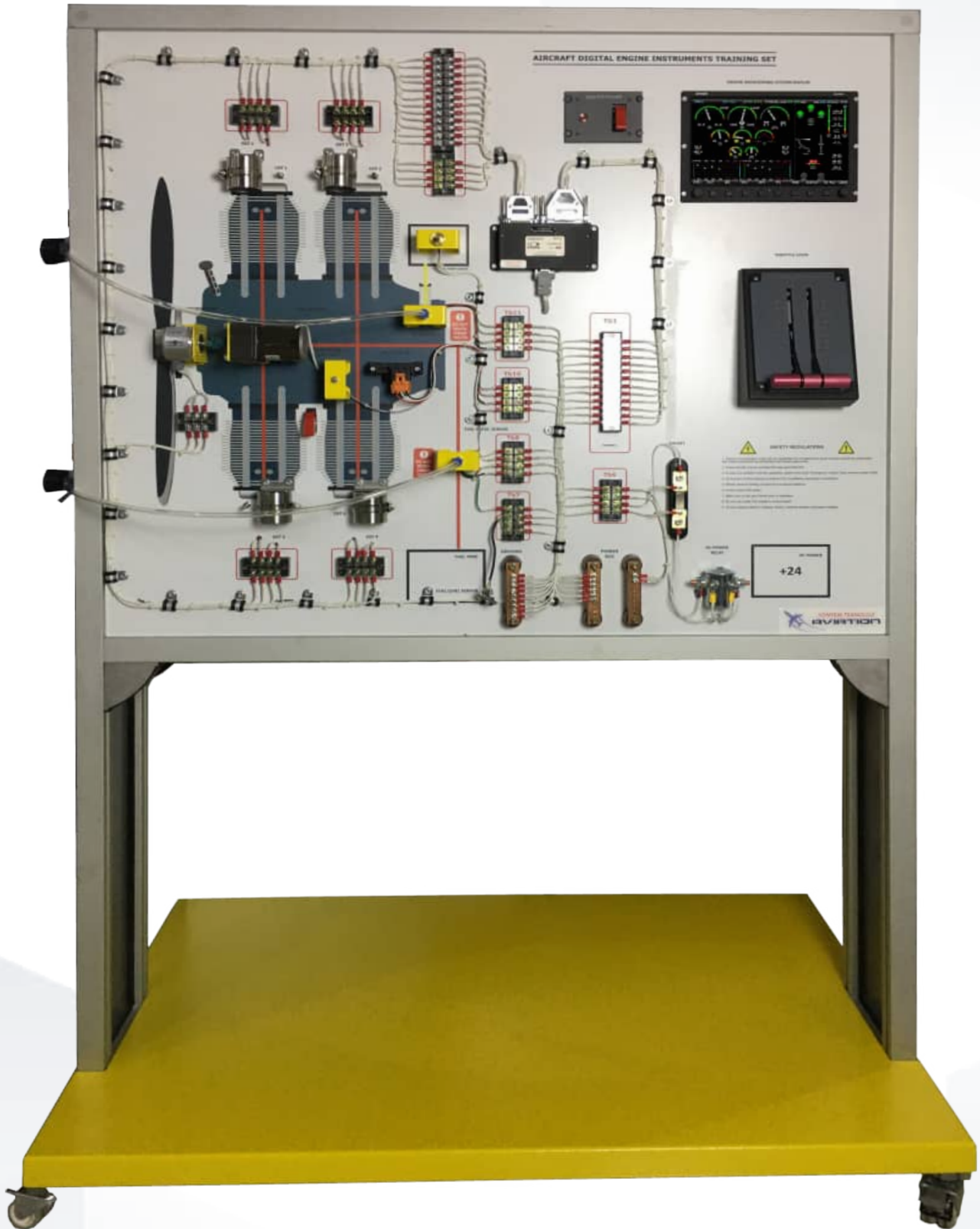
- Delivered fully assembled tested and ready to operate.
- AC power 220/110 Volt required.
- Dimensions(L x W x H): 200 x 120 x 130 cm

Documentation

- Device's original Manual
- Device's original Wiring Diagrams

Digital Engine Instrument System Trainer

CPT-110E



Digital Engine Instrument System Trainer (CPT-110E) is a complete and fully functional simulation of typical aircraft piston engine instrument system. This training set provides hands-on maintenance training while also functioning as a demonstration tool for instructors. It demonstrates the principles of engine sensors & instrument and also can be used for teaching of instrument connection, removal and replacement.

Specifications

Features

- The system combine “aircraft systems instrumentation” and “engine instrumentation”.
- Functional engine monitoring system be connected to engine sensors.
- Provision of engine sensor simulation.

Components

- Smart MFD Screen
- Engine Data Modules
- Analog instruments
 - Fuel Temp/Press Indicator
 - Oil Temp/Press Indicators
- Sensors
 - Oil Temperature Sensor
 - Carburetor Air Temp Sensor
 - Manifold Pressure Sensor
 - Fuel Level Sensor
 - Oil Pressure Sensor
 - Fuel Pressure Sensor
 - Engine RPM Sensor
 - Fuel Flow Sensor
 - Ammeter Shunt
 - CHT Thermocouples (Qty 4)
 - EGT Thermocouples (Qty 4)
 - OAT Sensor
 - Inductive sensor
- Aircraft circuit breakers.
- GPS receiver / antenna
- Throttle Lever
- Power

Digital Engine Instrument System Trainer

- Main Power
- PDF
- Tachometer
- Contacts
 - Pitot Heater
 - L/G
 - Taxi Light
- Auxiliary Flight Control Simulation:
 - Aileron Trim
 - Elevator Trim
 - Flap Position
- Electronic Simulation of Sensors:
 - Oil Temperature
 - Manifold Pressure
 - Engine RPM
 - Oil Pressure
 - Fuel Level
 - Fuel Press
- Sender Selector Panel
 - Fuel System
 - Oil System

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet

Aircraft Weather Radar Trainer

WXR-100B



WXR-100B Weather Radar Training Set enables trainees to learn about radar antenna and operation procedures of an aircraft weather radar while they can also learn and implement maintenance/test processes.

WXR-100B Weather Radar trainer can simulate various weather conditions.

Specifications

Features

- Understanding fundamentals of aircraft weather radar.
- Digital weather radar system
- Color radar system with vertical profile display of weather information
- Consisting of indicator
- Solid-state color display
- Moving map system
- Automatic scanning
- Automatic turnable radar antenna
- Understanding fundamentals main specifications such as Tilt, Gain, Range.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Functional aircraft weather radar antenna.
 - Automatic scan
- Weather radar display.
- Aircraft weather radar panel
 - Tilt
 - Gain
 - Map
 - Turbilabce
 - WX
- Beacon
- Simulate Panel
 - Cloudy
 - Clean
 - Turbulent
 - All

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Airbus MCDU Trainer

MCDU-100B



MCDU-100B designed to understand pages that aircraft technicians' MCDU tests and control.

Student's also prints test results from printer.

The purpose of the Centralized Fault Display System (CFDS) is to make the maintenance task easier by displaying fault messages in the system.

Learning the BITE (Built-In Test Equipment) for each electronic system.

Understanding purpose of CFDIU (Centralized Fault Display Interface Unit)

Applications on MCDU (Multipurpose Control and Display Unit)

MCDU

MCDU Trainer come with a laser printer and ADIRS panel

MCDU Trainer has plastic case

Some ATA chapters can be done in MCDU indicates below:

- ATA Chapter 21 Air Conditioning
- ATA Chapter 24 Electrical Power
- ATA Chapter 26 Fire Protection
- ATA Chapter 28 Fuel
- ATA Chapter 29 Hydraulic Power
- ATA Chapter 30 Ice And Rain Protection
- ATA Chapter 32 Landing Gear
- ATA Chapter 34 Navigation

Specifications

Features

- MCDU system
- Maintenance Menu
- LEG Report
- BITE test
- Printing Report
- Avionics Status
- System Report
- Learning normal mode and Reporting Mode
- The system mounted on a metal/aluminum mobile stand
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable
- Delivered fully assembled tested and ready to operate

Components

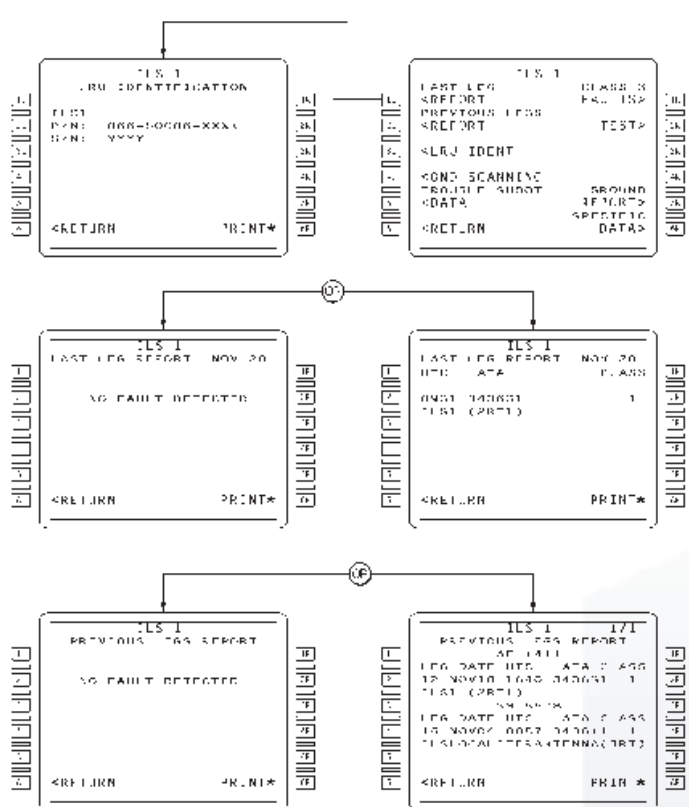
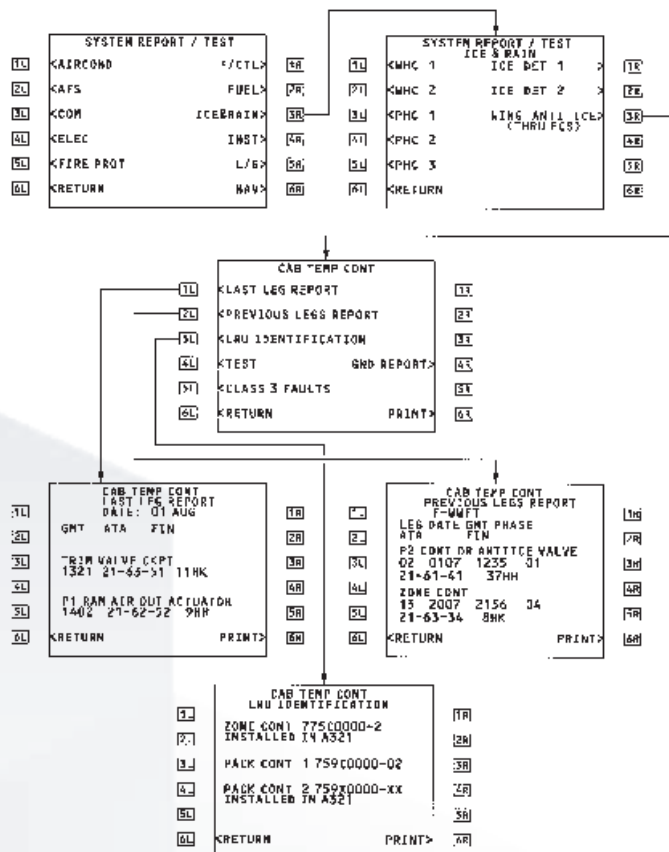
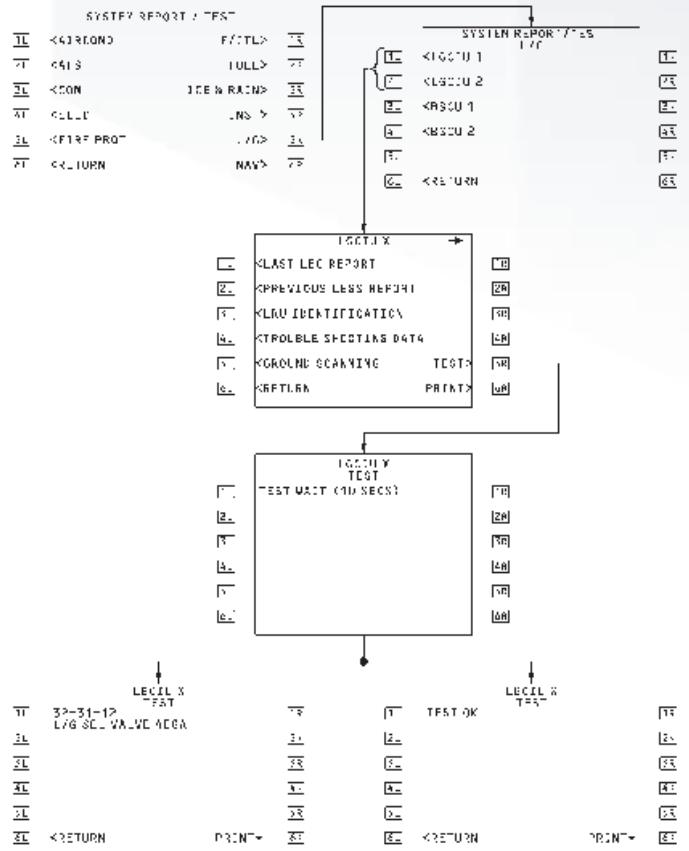
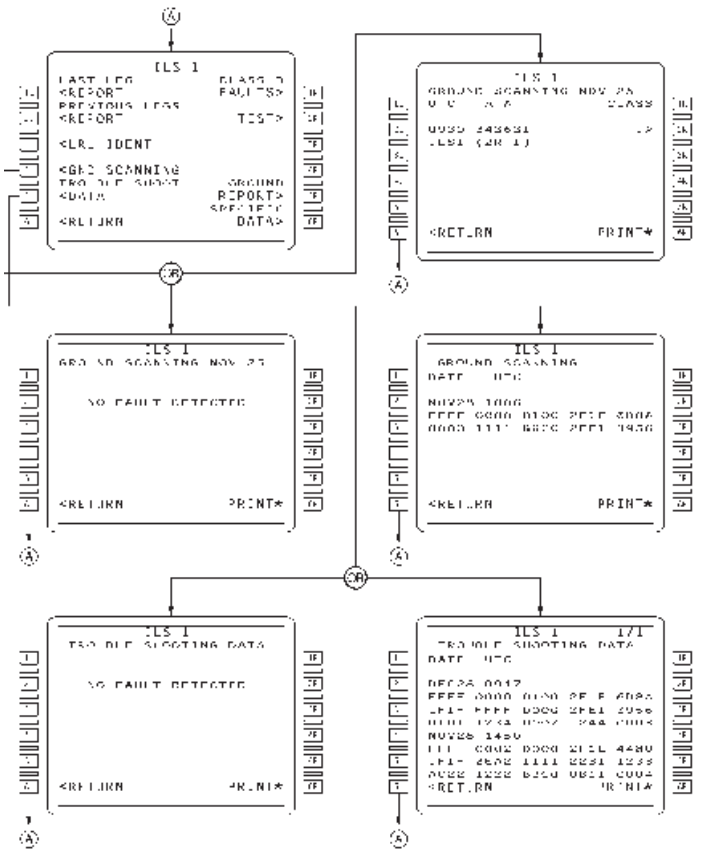
- MCDU
- Printer
- ADIRS Panel
- Case
- USB Cables

Documentation

- User's Manual
- Instructor's Guide
- Training video for teachers

Power Specs

- 110 VAC 60 Hz or 220-240 VAC 50 Hz





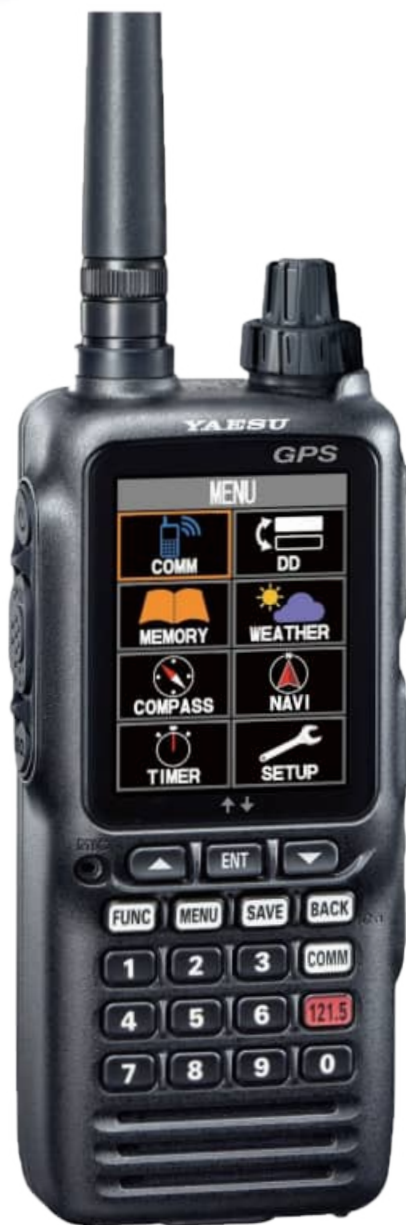
Includes a 66 channel GPS receiver for reliable navigation. Boasting an oversize full dot matrix LCD display.

Air-band Transceiver / GPS provides full communication on the Aircraft communications Band and additionally provides VOR and ILS navigation features on the “NAV” band, and waypoint navigation with the built in GPS receiver. The device includes NOAA weather band monitoring and the capability of programming up to 200 memory channels with a quick and easy channel recall feature. The brand new easy to operate menu system is icon driven making it simple to navigate through all of the powerful features this transceiver / GPS has to offer. Additionally the device can easily be reprogrammed in minutes using the optional PC Programming software and the supplied USB programming cable.

Specifications

Features

- 5 Watts TX Output Power
- Huge 1.7” x 1.7” Full-Dot Matrix Display (160 x 160 dots)
- ILS Navigation Display (Localizer and Glide Slope)
- VOR Navigation Display
- Easy to operate menu system
- Integrated 66 Channel WAAS GPS receiver
- Waypoint Navigation
- GPS Position Logging
- NOAA Weather Channel Receive (U.S.A. Version Only)
- NOAA Weather Alert (U.S.A. Version Only)
- 200 Memory Channels with 15 alphanumeric characters
- Back-lit Keypad and Display
- Water Protection – IPX5 Rating
- Loud Audio (800 mW)
- High-Capacity Li-Ion Battery Pack (7.4 V 1800 mAh)
- Alkaline Battery Tray (AA x 6)



Portable air-band transceiver, precisely engineered to meet the requirements of top aviators. Boasting top tier features like a 2.4" full-color TFT display, enhanced navigation features using ILS, VOR, or GPS, and a 400 channel memory bank. Forget the wires, featuring a Built-in Bluetooth module allowing operation with a commercially available Bluetooth headset, or use with optional headset. Packaged with a high capacity 2200mAh Lithium-Ion battery, Headset adapter, 100-240VAC charger, 12VDC charger/Power cable, drop in charging cradle, backup Alkaline battery tray, and heavy duty belt clip.

Specifications

Features

- Oversized 2.4" TFT Color Display (240 x 320 pixel)
- Dual Frequency Display
- Wireless Bluetooth operation
- ILS Navigation Display (localizer and Glide Slope)
- VOR Navigation Display
- Integrated 66 Channel WAAS GPS Receiver
- Waypoint Navigation
- 8.33 kHz Narrow Band Compatible
- NOAA Weather Channel Receive
- NOAA Weather Alert
- 400 Memory Channels with 14 Character Alphanumeric Tags
- Water Protection - IPX5 Rating
- Rugged Construction: Certified to MIL-STD-810H
- Loud Audio Output
- PC Programmable (USB Cable Included)



Specifications

Features

- Output Power;
- ADF = -12 +/-3 dbm
- VOR= -10 +/-3 dbm
- ILS Localizer= -10 +/-3 dbm
- ILS GS = -17 +/-3 dbm
- ILS MKR = -15 +/-3 dbm
- DME = -12 +/-3 dbm
- TXPDR = -12 +/-3 dbm
- VOR radial accuracy; +/- 1 deg
- ILS localizer DDM accuracy; +/- 15%
- ILS glide slope DDM accuracy; +/- 15%
- DME accuracy; +/- 0.1NM
- Transponder specs;
- PRF 235 +/-5 Mode A,C 50 +/-2 Mode S
- P2 level equal P1 +/- 0.1 dbm
- P2 position 2 +/-0.01 uS from P1
- P3 position 8 +/- .01uS or 21 +/- 0.02uS Rel to P1
- Pulse width 0.8 +/-0.01uS P1,P2,P3
- Frequency 1030 MHz Tx, 1090 MHz Rx , +/- 2.5ppm
- Reply % 0 to 100% displayed +/- 0.5%
- Reply window 2.5 to 3.5uS F1 from P3
- Pulse Width reads out to +/- 50nS resolution
- X Data Pulse Must=0 for good read
- SPI Displays ID message



The Tester is optimized for ramp testing of navigation and communication equipment. The unit provides test signals for marker beacon, communication, localizer, glide slope, and VOR. Also included, is a wide band comm receiver to permit evaluation of comm transmitter AM fidelity.

Specifications

Features

- Localizer: 108.1 MHz \pm 0.03% , -3 \pm 3 dBm - base of antenna
- Deviation: Centered, \pm .047 DDM, \pm .094 DDM, \pm .15 DDM, Tone delete: 90 and 150 Hz with undeleted tone - 20%
- Accuracy: \pm .005 DDM
- Glide Slope: 334.7 MHz \pm .003% , -6 \pm 3 dBm - base of antenna
- Deviation: Centered, \pm .094 DDM, \pm .188 DDM, \pm .30 DDM, Tone Delete 90 and 150 Hz with undeleted tone - 40%
- Accuracy: \pm .01 DDM
- ILS: Both the Localizer and Glide Slope signals as above
- Deviation: Both signals deviated simultaneously
- VOR: 108.0 MHz \pm .003% , -3 \pm 3 dBm - base of antenna
- Bearing: Selectable in 10° increments
- Accuracy: \pm 1.5°
- Marker: 75.0 MHz \pm .003%
- Modulation: 400, 1300, 3000, 1020 Hz - 30%–CW or pulsed
- Transmitter test: -10 to +10 dBm Go-No go, Phones to check modulation
- Size: 3.8 x 7.4 x 2.3"
- Weight: 1.3 lbs.
- Power: Internal battery with over 2 hours running time (110/220VAC charger included)

NOTE: Avionics devices brand/model and some technical specs can be change due to market availability.

Anti-Skid and Auto-Brake System Trainer (Two Wheels)

SKT-100V



Our Anti-skid and Auto Braking System trainer is designed to represent the anti-skid braking system that is one of the most essential components of modern jet aircraft.

This training set gains more importance as the need for training maintenance technicians in this area keep increasing. Hands-on training provided by this set ensures that trainees not only comprehend the theory, but they are also well prepared in practice to maintain the anti-skid braking system. Anti-skid and Auto Braking System Training Set includes a typical hydraulic brake system as well as the anti-skid assemblies and components. This training set contains two wheels.

Specifications

Features

- Understanding fundamentals of aircraft auto-brake/anti-skid and its components.
- Anti-skid and auto-brake system able to work together and independently
- Non operations of auto-brake scenario are implemented
- Operations of auto-brake scenario are implemented
- Take off scenario is implemented
- Landing scenario is implemented
- Auto-brake scenarios is implemented
- Rejected take off scenario is implemented
- Some of Trainer Functions
 - Auto-brake function
 - Anti-skid function
 - Foot brake function
 - Rejected take off function
 - Brake fan function
 - Pumps fault function
 - ECAM functions
 - Single chime functions
 - Master caution functions
 - Master warning functions
- Some of Trainer Processes
 - Take-off process
 - Landing process
 - Anti-skid fault process
 - System test process

- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Control Panel
 - Aural warning horn
 - Master warning resettable illuminated pushbutton
 - Master caution resettable illuminated pushbutton
 - Auto brake – low illuminated pushbutton
 - Auto brake – medium illuminated pushbutton
 - Auto brake – max illuminated pushbutton
 - Auto brake – RTO illuminated pushbutton
 - Auto brake – disarm lamp
 - Anti-skid INOP lamp
 - Brake fan control illuminated pushbutton
 - Brake fan hot lamp
 - Nose landing gear light
 - Left wing landing gear light
 - Right wing gear light
 - Landing gear unlock light
 - Hydraulic pump control illuminated pushbutton
 - Hydraulic pump fault light
 - Three (3) aircraft circuit breaker
 - Guarded master power switch
 - Master power lamp
 - Lockable Landing gear control lever
- AC engine on/off switch
- Air/ground switch
- Skid simulation panel
- 10" inch screen (like EICAS or ECAM)
 - Landing gear position
 - Landing door position
 - Numeric pressure value
 - Sensor's status
 - Anti-Skid/Auto-Brake position status
 - Numeric Simulated air speed value
- Electronic Control Box (Anti-skid Control Computer)

Anti-Skid and Auto-Break System Trainer (Two Wheels)

- Anti-skid Valve
- TQ - throttle quadrant
- Electrically Driven Hydraulic Pump
- Hydraulics Filter
- Hydraulic Fluid Reservoir
- Hydraulics tank Drain Valve
- Check valve
- Brake fan
- 0-100 bar Hydraulic System analog pressure gauge
- 0-100 bar Hydraulic System Pressure sensor
- Aircraft landing gear module
 - Two(2) pieces Aircraft Tire
 - Two(2) pieces Aircraft Wheel
 - Two(2) pieces Aircraft Brake system
 - Two(2) pieces AC motor for turning the wheels
 - Plexiglas cover
- Aircraft foot Brake Pedal
- Aircraft foot Brake master cylinder
- Brake micro-switch
- Two(2) pieces AC motor for turning the wheels
- Two(2) pieces AC motor driver

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- DTE-10 Hydraulic Oil 5 Liters
- DTE-46 Hydraulic Oil 28 Liters

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Anti-Skid and Auto-Brake System Trainer (One Wheel)

SKT-100B



Our Anti-skid and Auto Braking System trainer is designed to represent the anti-skid braking system that is one of the most essential components of modern jet aircraft.

This training set gains more importance as the need for training maintenance technicians in this area keep increasing. Hands-on training provided by this set ensures that trainees not only comprehend the theory, but they are also well prepared in practice to maintain the anti-skid braking system. Anti-skid and Auto Braking System Training Set includes a typical hydraulic brake system as well as the anti-skid assemblies and components. This training set contains one wheel.

Specifications

Features

- Understanding fundamentals of aircraft auto-brake/anti-skid and its components.
- Anti-skid and auto-brake system able to work together and independently
- Non operations of auto-brake scenario are implemented
- Operations of auto-brake scenario are implemented
- Take off scenario is implemented
- Landing scenario is implemented
- Auto-brake scenarios is implemented
- Rejected take off scenario is implemented
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Auto-brake/anti-skid Control panel
 - Landing gear position lamps
 - Auto brake Low-Med-Max selection illuminated push button
 - Anti-Skid on/off switch
 - Rejected take-off selection illuminated push button
- Master Caution and aural warning Horn Panel
- Lockable Landing gear control lever

Anti-Skid and Auto-Brake System Trainer (One Wheel)

- Hydraulic pump on/off switch and lamp
- AC engine on/off switch and lamp
- Air/ground switch
- Test button
- Skid simulation panel
- INOP lamp
- Master power panel
 - Master power lamp
 - Master power switch
- 7" inch screen (like EICAS or ECAM)
 - Landing gear position
 - Landing door position
 - Numeric pressure value
 - Sensors status
 - Anti-Skid/Auto-Brake position status
 - Numeric Simulated air speed value
- Electronic Control Box (Anti-skid Control Computer)
- Anti-skid Valve
- TQ - throttle quadrant
- Electrically Driven Hydraulic Pump
- Hydraulics Filter
- Hydraulic Fluid Reservoir
- Hydraulics tank Drain Valve
- Check valve
- 0-100 bar Hydraulic System analog pressure gauge
- 0-100 bar Hydraulic System Pressure sender
- Aircraft landing gear module
 - Aircraft Tire
 - Aircraft Wheel
 - Aircraft Brake system
 - AC motor for turning the wheel
- Aircraft foot Brake Pedal
- Aircraft foot Brake master cylinder
- Brake microswitch
- AC motor driver

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- DTE-10 Hydraulic Oil 5 Liters
- DTE-46 Hydraulic Oil 28 Liters

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation



Aircraft Hydraulic System Trainer provides students with practical experience needed to understand the function, to get to know components and to improve troubleshooting skills. Fully functional hydraulic system designed so that every component can be disassembled, reassembled and functionally tested.

All the components mounted on the trainer are operational, removable and they can be reinstalled.

Specifications

Features

- Hydraulic control solenoids
- Flap Cylinder
- Speed Brake Cylinder
- Landing Gear Cylinder
- Landing Gear Door Cylinder
- System is powered by Hydraulics Pump, Hand Pump or Accumulator.
- The hardware used in the trainer is mounted to the frame in a way that it can be easily observable by students
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel
- Wirings on the trainer is connected via terminals
- Wires have clear identification labels for each wire
- When pump malfunction is given in the trainer, the accumulator and the hand pump able to control the flap, Speed Break, Landing Gear and Landing Gear Door Cylinders

Components

- Electrically Driven Hydraulic Pump
- Hydraulic Tank
- Hydraulics Filter
- Landing gear control solenoid
- Landing gear door control solenoid
- Flap control solenoid
- Speed Brake control solenoid
- Emergency Hand Pump
- Hydraulic Fluid Reservoir
- Hydraulic Accumulator with automatic filling
- Hydraulic System analog pressure gauge (8 pieces)
- Accumulator Pressure sender
- Accumulator manual Control Handle
- Hydraulic system pressure sensor, with pressure test
- Cylinder
- Check valve
- Control Panel
- Aircraft Circuit breakers
- Aircraft Circuit breaker lockout
- Power Panel
- Aircraft Master Caution and aural warning Horn Panel
- Energy Lamp
- 7 or 10 inch touchable screen (like EICAS or ECAM)
- Landing gear position
- Landing gear door position
- Speed brake position
- Flap position

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- DTE-10 Hydraulic Oil 5 Liters
- DTE-46 Hydraulic Oil 28 Liters

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation



HYD-100B Landing Gear Module for offers effective hands-on training for aircraft landing gear system maintenance trainees. It assures that technicians are trained to maintain the landing gear system in the best way possible and in accordance with safety standards. It displays the landing gear mechanism as found in actual aircraft. This trainer is designed to represent a landing gear system. It contains all components and assemblies of an actual hydraulic landing gear system.

Model HYD – 100B features complete wheel and tire assembly with hydraulic brake system, including master cylinder and brake pedal. The control unit includes control throttles for landing gear and hydraulic flap operation. Indicators demonstrate show up, down, and in-transition conditions. A throttle warning horn is also mounted on the control panel. This model comes mounted on a mobile stand to provide a clear view from all directions.

Specifications

Features

- Hydraulic Landing Gear System
- Wheel housing damper.
- Hydraulic Flap System
- Hydraulic Spoiler System
- Hydraulic Brake System
- Aircraft Wheel System
- Hydraulic System Control
- Lower ECAM/EICAS
- Master Caution System
- Master Warning System
- Aural warning Horn Panel System
- Hydraulic Landing Gear Trainer able to display the landing gear operating system of a regular aircraft.
- Digital sensor data and switch states used in the set.
- Throttle lever with associated components complete the warning circuit of gear up warning horn.
- The accumulator and the hand pump be able to control the landing gear.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate.
- Colored Ultraviolet printing method on aluminum composite panel.

Components

- Electrically Driven Hydraulic Pump
- Hydraulic Tank
- Hydraulics Filter
- Emergency Hand Pump Hydraulic Accumulator with automatic filling system
- Hydraulic System analog pressure gauge (8 pieces)
- Hydraulic System Pressure sender
- Hydraulically Operated Landing Gear Mechanism
- Drain Valve
- Hydraulic Actuating Cylinder for Landing gear
- Hydraulic Actuating Cylinder for Landing gear door
- Check valve
- Hydraulic Sequencing System and Operate
- Hydraulic Flap Actuating
- Flap Position Sensors
- Flap control switch
- Cutaway or Mock-up Flap
- Brake pressure gauge
- Aircraft Tire Assembly (6 or 8 inch)
- Aircraft Tire
- Aircraft Wheel
- Aircraft Brake disk
- Aircraft Brake Plate
- Aircraft Brake caliber
- Hydraulic Brake Components
- Aircraft Brake master cylinder
- Park brake
- Brake Fluid Reservoir
- Aircraft Brake Pedal
- Brake Hose
- Throttle Lever (TQ)
- Control Panel
 - Circuit breakers
 - Aircraft Circuit breaker lockout
 - Hydraulic Button
 - Hydraulic Fault Button
 - Lockable Landing gear control lever
 - Power Panel
 - Aircraft Master Caution and aural warning Horn Panel
 - Aircraft Landing gear control panel
 - Landing gear status lamp
 - Test button

- Lockable Flap control panel/lever (pull-able)
- Lockable speed brake control panel/lever (pull-able)
- Landing Gear door control lamp
- Energy Lamp
- Lower EICAS or ECAM(7 or 10 inch)
 - Landing gear position
 - Landing door position
 - Speed brake position
 - Flap position
 - Pressure gauge
 - Sensors status
- Landing gear system control
- Landing gear control solenoid
- Landing gear door control solenoid
- Flap control solenoid
- Speed Brake control solenoid

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- DTE-10 Hydraulic Oil 5 Liters
- DTE-46 Hydraulic Oil 28 Liters

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation
- 10 cotter pins for L/G wheel nut
- 1 Analog tire pressure gauge for aircraft tire

Optional Items

- Three Jacks with stands units refer to HYD-100JCK
- Gravity Lever

Hydraulic System Main Unit

UHT-100V



Aircraft Hydraulic System Trainer provides students with practical experience needed to understand the function, to get to know components and to improve troubleshooting skills. Fully functional hydraulic system designed so that every component can be disassembled, reassembled and functionally tested.

All the components mounted on the trainer are operational, removable and they can be reinstalled.

NOTE: EICAS/ECAM screen is located on the hydraulic landing gear trainer or main unit.

NOTE: Hydraulic System Main Unit UHT-100V is basically a hydraulic power unit which provides hydraulic pressure to operate the HYD-100V Landing Gear Module.

UHT-100V can not be operated without HYD-100V.

Specifications

Features

- Understanding fundamentals of aircraft hydraulic system and its components.
- Hydraulic control solenoids
 - Flap
 - Speed Brake
 - Landing Gear
 - Landing Gear Door
- System is powered by Hydraulics Pump, Hand Pump or Accumulator
- Some of Trainer Functions
 - Hydraulic power functions
 - Accumulator functions
 - Emergency hand pump functions
 - Pumps fault functions
 - ECAM functions
 - Single chime functions
 - Master caution functions
 - Master warning functions
 - Check valves functions
- Some of Trainer Processes
 - Hydraulic system functional test process
 - Hydraulic system leak test process
 - Emergency system test process
 - Automatic accumulator filling process

- All wires are coded and labeled for troubleshooting.
- The hardware used in the trainer is mounted to the frame in a way that it can be easily observable by students.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Control Panel
 - Press to test illuminated Master warning button
 - Press to test illuminated Master caution button
 - Aural warning horn
 - Fire warn indicator
 - Hydraulic pump control illuminated pushbutton
 - Leak measurement valve control illuminated pushbutton
 - Hydraulic pump fault indicator
 - Three(3) units Aircraft circuit breaker
 - Guarded master power sw
- 10 inch touchable screen ECAM
 - Landing gear position (real time)
 - Up locked
 - Transit
 - Down locked
 - Landing door position
 - HYD tank status
 - Temp Sensor
 - Pressure Sensor
 - Level Sensor
 - Pressure gauge
 - Flap position
 - Speed brake position
- Aircraft circuit breaker lockout
- Electrically Driven Hydraulic Pump
- Hydraulic Fluid Reservoir
- Hydraulics Filter
- Landing gear control solenoid
- Landing gear door control solenoid
- Flap control solenoid
- Speed Brake control solenoid

- Emergency Hand Pump
- Hydraulic Accumulator with automatic filling
- Hydraulic System analog pressure gauge (8 pieces)
- Sensors
 - Tank temperature sensor
 - Tank level sensor
 - Hydraulic system pressure sensor
- Drain Valve
- Check valve
- LAN output
- Terminals

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Aircraft Landing Gear System Trainer HYD-100V
- DTE-10 Hydraulic Oil 5 Liters
- DTE-46 Hydraulic Oil 28 Liters

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Aircraft Hydraulic Landing Gear System Trainer (Module)

HYD-100V



HYD-100V Landing Gear Module for offers effective hands-on training for aircraft landing gear system maintenance trainees.

It assures that technicians are trained to maintain the landing gear system in the best way possible and in accordance with safety standards. It displays the landing gear mechanism as found in actual aircraft. This trainer is designed to represent a landing gear system. It contains all components and assemblies of an actual hydraulic landing gear system.

Model HYD – 100V features complete wheel and tire assembly with hydraulic brake system, including master cylinder and brake pedal. The control unit includes control throttles for landing gear and hydraulic flap,spoiler,L/G and L/G door operation. Indicators demonstrate show up, down, and in-transition conditions. A throttle warning horn is also mounted on the control panel.

This model comes mounted on a mobile stand to provide a clear view from all directions.

NOTE: Hydraulic System Landing Gear Module HYD-100V is basically a hydraulic powered Landing Gear System which needs hydraulic pressure to operate from UHT-100V Main Unit. HYD-100V can not be operated without UHT-100V.

Specifications

Features

- Understanding fundamentals of aircraft hydraulic landing gear system and its components.
- Some of Trainer Functions
 - Landing gear extension functions
 - Landing gear retraction functions
 - Speed brake lever functions
 - Flap lever functions
 - Brake functions
 - Park brake functions
 - Hydraulic power functions
 - Accumulator functions
 - Emergency hand pump functions
 - Pumps fault functions
 - ECAM functions
 - Single chime functions
 - Master caution functions
 - Master warning functions
 - Check valves functions
- Some of Trainer Processes
 - Landing gear extension test process

- Landing gear retraction test process
- Hydraulic system functional test process
- Hydraulic system leak test process
- Hand pump test process
- Accumulator test process
- ECAM test process
- Emergency system test process
- Hydraulic Flap System
- Brake System
- Aircraft Wheel System
- Hydraulic System Control
- Lower ECAM (on the main unit)
- Master Caution System
- Aural warning Horn Panel System
- Hydraulic Landing Gear Trainer able to display the landing gear operating system of a regular aircraft.
- Digital sensor data and switch states used in the set.
- Throttle lever with associated components complete the warning circuit of gear up warning horn.
- The accumulator and the hand pump be able to control the landing gear.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Electrically Driven Hydraulic Pump
- Hydraulics Filter
- Flap/Aileron control solenoid
- Emergency Hand Pump
- Hydraulic Fluid Reservoir
- Hydraulic Accumulator with automatic filling system
- Hydraulic System analog pressure gauge
- Hydraulic System Pressure sender
- Hydraulically Operated Landing Gear Mechanism
- Drain Valve
- Hydraulic Actuating Cylinder for Landing gear
- Hydraulic Actuating Cylinder for Landing gear door
- Check valve
- Hydraulic System analog pressure gauge
- Hydraulic System Pressure sender
- Brake pressure gauge
- Hydraulic Sequencing System and operate
- Hydraulic Flap System
- Hydraulic Flap Actuating
- Flap Position Sensors
- Flap Control Switch
- Cutaway or Mock-up Flap
- Aircraft Tire Assembly (6 or 8 inch)
- Aircraft Tire
- Aircraft Wheel
- Aircraft Brake disk
- Aircraft Brake Plate
- Aircraft Brake caliper
- Hydraulic Brake Components
- Aircraft Brake master cylinder
- Park brake
- Brake Fluid Reservoir
- Aircraft Brake Pedal
- Brake Hose
- Throttle Lever (TQ)
- Control Panel
- Circuit breakers

Aircraft Hydraulic Landing Gear System Trainer (Module)

- Aircraft Circuit breaker lockout
- Lockable Landing gear control lever
- Power Panel
- Aircraft Landing gear control panel
- Landing gear status lamp
- Lockable Flap control panel/lever (pull-able)
- Lockable speed brake control panel/lever (pull-able)
- Landing Gear door control lamp
- Energy Lamp
- Lower EICAS or ECAM(10 inch on the main unit)
 - Landing gear position
 - Landing door position
 - Pressure gauge
 - Sensors status
 - Landing gear system control
 - Speed brake position
 - Flap position

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Aircraft Landing Gear System Trainer UHT-100V
- DTE-10 Hydraulic Oil 5 Liters
- DTE-46 Hydraulic Oil 28 Liters

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Optional Items

- Three Jacks with stands units refer to HYD-100JCK
- Gravity Lever

Aircraft Hydraulic Landing Gear System Trainer (Complete Unit)

UHT-100V/HYD-100V



Triple Jacks and Stand Set for HYD-100 Series

HYD-100JCK



HYD-100 series landing gear modules can be jacked which makes trainer much more efficient for end user. Normally to be able to teach the jacking procedures, real aircraft is needed. But HYD-100 series landing gear module makes the jacking operation cheaper and more securer.

HYD-100JCK includes three hydraulic jacks and stands. This set is used to jack the HYD-100 series Landing Gear System Trainers. When ordered the jack points are attached to the landing gear unit.

Specifications

Features

- Practicing the jacking operation

Components

- Three (3) hydraulic jacks
- Three (3) jack stands with casters
- Three (3) beams
- Three (3) Beam height adjustment wheels with handle



The Aircraft Pneumatics Trainer demonstrates how an aircraft cabin pressurization and air conditioning system function receives pneumatic bleed air from pack flow valve.

The compact construction of the set allows trainees to conceive the system as understanding the connection between the various parts of the system in regulating the cabin environment.

The trainer includes two chambers simulating altitude and cabin pressure.

The vacuum simulating chamber is able to simulate up to roughly 0 - 40,000 ft.

Specifications

Features

- Understanding fundamentals of aircraft Cabin Pressurization and its components.
- The set is functional and configured like a typical aircraft Cabin Pressurization system.
- The trainer include the following panels that will work functionally.
 - Aircraft Cabin Pressurization panel
 - Aircraft air condition panel
 - Aircraft auto-pilot panel
 - Test panel
 - Master power panel
 - Master caution panel
- Two transparent cabin in the training set to simulate the interior of the cabin.
- 2 outflow valves, 1 negative pressure safety valve, and 1 positive pressure safety valve (as a substitution) are in the transparent cabin.
- Out Flow Valves, negative pressure safety valve and positive pressure safety valve are engine controlled.
- The valves in the cabin pressurization system operate automatically during the take off,climb,cruise,descend and landing.
- Cabin pressurization valves are both controlled manually and automatically.
- The trainer is able to perform full automatic take off and landing.
- Indicators, panels and valves work simultaneously in landing and take-off simulations.
- Take off and landing simulations are controlled from the autopilot panel.
- Vertical speed and altitude are determined and selected during take-off and landing.
- Valve failures are easily observed on gauges and panels.
- PACK, BLEED, PACK FLOW and TEMPERATURE selections are made at the air condition panel.
- LDG elevation, MODE SELECT, MAN V/S CONTROL and DITCHING are done at the cabin pressurization.
- The selections made in the panels are visible on the screen.
- Wirings on the trainer are connected via terminals.

- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Heat Exchanger
- Muffler
- Shut-Off Valve
- System Indicators
- PSU(Passenger Service Unit)
- 10 inch Lower ECAM
 - Vertical speed indicator
 - Altimeter indicator
 - Cabin Altimeter
 - Cabin pressure
 - Air pressure
 - Differential pressure
 - Status area
 - Flow status
 - Pack flow status
 - Bleed status
 - Auto pilot status
 - Pressurization mode
 - Temp
 - Air/ground
- 2 Outflow valve
- 2 outflow control computers
- Aircraft Cabin Pressurization panel
 - Man V/S Control Switch
 - Mode selector
 - LDG ELEV Knob
 - Aircraft air condition panel
 - Pack-1 control
 - Pack-2 control
 - ENG 1 Bleed
 - ENG 2 Bleed
 - APU Bleed
 - Pack Flow Selector
 - X bleed control
 - Hot air Valve button

- Aircraft auto-pilot control panel
 - Vertical Speed Selector
 - Altitude Knob
 - Control Switch
- Terminals
- Master power panel
- Master power light
- Master caution panel
- Aural warning horn
- Test panel
- Circuit Breakers,
- LAN output
- Outflow valve control boxes
- Outflow valve terminals
- Vacuum chamber (altitude simulator)
- Cabin pressure chamber (cabin simulator)
- Regulator (simulates air to cabin)
- Cabin pressure sensor
- 24 VDC power supply

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Aircraft Cabin Pressurization and Air Conditioning Training Set

CPS-100B



The Cabin Pressurization trainer demonstrates how an aircraft cabin pressurization and air conditioning system function.

The compact construction of the set allows trainees to conceive the system as understanding the connection between the various parts of the system in regulating the cabin environment.

The trainer includes two chambers simulating altitude and cabin pressure.

The vacuum simulating chamber is able to simulate up to roughly 0 - 40,000 ft.

Specifications

Features

- Understanding fundamentals of aircraft Cabin Pressurization and air conditioning components
- The set is functional and configured like a typical aircraft Cabin Pressurization system and air conditioning components
- The trainer include the following panels that will work functionally.
 - Aircraft Cabin Pressurization panel
 - Aircraft air condition panel
 - Aircraft auto-pilot panel
 - Test panel
 - Master power panel
 - Master caution panel
- Two transparent cabin in the training set to simulate the interior of the cabin.
- 2 outflow valves, 1 negative pressure safety valve, and 1 positive pressure safety valve (as a substitution) are in the transparent cabin.
- Out Flow Valves, negative pressure safety valve and positive pressure safety valve are engine controlled.
- The valves in the cabin pressurization system operate automatically during the take off and landing.
- Cabin pressurization valves are both controlled manually and automatically.
- The trainer is able to perform full automatic take off and landing.
- Indicators, panels and valves work simultaneously in landing and take-off simulations.
- Take off and landing simulations are controlled from the autopilot panel.
- Vertical speed and altitude are determined and selected during take-off and landing.
- Valve failures are easily observed panels.
- PACK, BLEED, PACK FLOW and TEMPERATURE selections are made at the air condition panel.

- The trainer include the following panels that will work functionally.
 - Aircraft Cabin Pressurization panel
 - Aircraft air condition panel
 - Aircraft auto-pilot panel
 - Test panel
 - Master power panel
 - Master caution panel
- Two transparent cabin in the training set to simulate the interior of the cabin.

Components

- Aircraft air condition panel
 - Pack-1 control
 - Pack-2 control
 - ENG 1 Bleed
 - ENG 2 Bleed
 - APU Bleed
 - Pack Flow Selector
- Aircraft auto-pilot control panel
 - Vertical Speed Selector
 - Altitude Knob
 - Control Switch
- Terminals
- Master power panel
- Master power light
- Master caution panel
- Aural warning horn
- Test panel
- Circuit Breakers,
- LAN output
- Outflow valve control boxes
- Outflow valve terminals
- Vacuum chamber (altitude simulator)
- Cabin pressure chamber (cabin simulator)
- Regulator (simulates air to cabin)
- Cabin pressure sensor
- 24 VDC power supply
- PSU(Passenger Service Unit)
- 10 inch Lower ECAM
 - Vertical speed indicator
 - Altimeter indicator
 - Cabin Altimeter
 - Cabin pressure

Aircraft Cabin Pressurization and Air Conditioning Training Set

- Air pressure
- Differential pressure
- Status area
 - Flow status
 - Pack flow status
 - Bleed status
 - Auto pilot status
 - Pressurization mode
 - Temp
 - Air/ground
- Min 2 Outflow valve
- Min 2 outflow control computers
- Aircraft Cabin Pressurization panel
 - Man V/S Control Switch
 - Mode selector
 - LDG ELEV Knob

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Aircraft Turbine Fuel System Trainer (5 tanks- 2 ENG)

FCU-100V



Designed to represent a complete aircraft fuel system, Model FCU – 100V Turbine Fuel System Training Set enables trainees to learn the essentials of fuel system components and how these components are linked to each other in a typical aircraft fuel system.

This trainer includes a capacitance fuel system that shows non-linear fuel quantity indications. It comes fully plumbed and with a wing tank.

This completely functional fuel system consists of a fuel management panel, fuel transfer system and capacitance fuel quantity indicating system. It also contains an instructor's panel that makes it possible to add faults to conduct troubleshooting training.

The fuel system panel features fuel quantity indicators, a fuel transfer selector valve, fuel transfer and low fuel warning lights, fuel pressure and flow indicators and complete fuel system drawings.

This system contains, engine driven fuel pump, screen, fuel filter, fuel control unit, system sensors, fuel dispenser system turbine fuel nozzle inside a clear enclosed container etc.

Specifications

Features

- Understand fundamentals of aircraft fuel system and its components.
- Fully functional and configured like a typical aircraft fuel system.
- Aircraft fuel system can run automatically and manually.
- Fuel tanks are automatically filled and when tank is full system is automatically be shut off.
- The control of the fuel that flows to combustion chamber can be observed using the throttle lever.
- Some of Trainer Functions
 - Mode selector auto/manual function
 - Cross feed function
 - Pumps fault function
 - ECAM functions
 - Single chime functions
 - Master caution functions
 - Master warning functions
- Some of Trainer Processes
 - Fuel transfer process
 - Refueling process
 - De-fueling process
 - Bonding process

Aircraft Turbine Fuel System Trainer (5 tanks- 2 ENG)

- Fuel dispenser unit and its equipment
- Bonding equipment
- Aircraft fire scenario is simulated.
- Fuel tanks be manually drained for maintenance.
- Fuel tanks have transparent window in order to observe fuel filling and refilling.
- Combustion chambers are transparent.
- Tanks are able to manually or automatically cross-fit.
- The hose and tubes used in the trainer are labeled according to aviation standards.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- All required hoses and pipes
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Fuel Control Unit
- Five(5) pieces fuel tank (2 inner, 2 outer, 1 center)
- Six(6) pieces fuel pump
- Three(3) Level control switches
- 2 two Combustion chamber
- Engine no: 1 Combustion chamber
- Engine no: 2 Combustion chamber
- 2 two Nozzle
- Throttle lever
 - Dual quadrants
- Two transfer valve

Aircraft Turbine Fuel System Trainer (5 tanks- 2 ENG)

- Suction Valve
- Fuel filter
- Cross feed control valve
- Fuel System Pressure sensor for each line
- Fuel Level sensor for each tank
- Fuel System Flow Sensor
- Fuel temp sensor
- Hi level sensor for each tank
- Two Engine Shut-Off Valve
- Three(3) manual drain valve
- Check valves
- Refueling panel
 - Left hi level
 - Center hi level
 - Right hi level
 - Refuel valves open function
 - Refuel valves norm function
 - Refuel valves shut function
 - Refuel mode selector SW
 - Test sw
 - END indicator
- Two (2) Refuel valve
- Two (2) Refuel coupling
- A refueling dispenser
- Refueling equipment
- Bonding equipment
- Fuel tanks maintenance hatch
- Fuel system control computer
- Master warning & caution panel
 - Aural warning horn
 - Master warning resettable illuminated pushbutton
 - Master caution resettable illuminated pushbutton
- Control Panel
 - Mode selector control illuminated pushbutton
 - Mode selector fault indicator
 - Cross Feed control illuminated pushbutton
 - Left tank pump-1 control illuminated pushbutton
 - Left tank pump-2 control illuminated pushbutton

Aircraft Turbine Fuel System Trainer (5 tanks- 2 ENG)

- Left tank pump-1 fault indicator
- Left tank pump-2 fault indicator
- Center tank pump-1 control illuminated pushbutton
- Center tank pump-2 control illuminated pushbutton
- Center tank pump-1 fault indicator
- Center tank pump-2 fault indicator
- Right tank pump-1 control illuminated pushbutton
- Right tank pump-2 control illuminated pushbutton
- Right tank pump-1 fault indicator
- Right tank pump-2 fault indicator
- Master power panel
- Aircraft circuit breaker
- Aircraft circuit breaker lockout
- 10" inch touchable screen(like EICAS or ECAM)
 - Wings & Center tank pumps indications
 - In line
 - LOW
 - Cross line
 - Cross feed indications
 - Valve is open
 - Valve is closed
 - Momo display
 - Fault display
 - Transfer valve status
 - Fuel temperature indicator
 - Re-fuel indication
 - Transfer valve indicator
 - Left wing tank fuel quantity indicator
 - Right wing tank fuel quantity indicator
 - Center tank fuel quantity indicator
 - Fuel pressure indicator
 - Fuel flow indicator
 - Valve status
 - Fire status
- LAN output
- Terminals

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Diesel fuel 30 Lt

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Aircraft Turbine Fuel System Trainer (3 tanks - 1 ENG)

FCU-100A



Designed to represent a complete aircraft fuel system, Model FCU – 100A Turbine Fuel System Training Set enables trainees to learn the essentials of fuel system components and how these components are linked to each other in a typical aircraft fuel system. This trainer includes a capacitance fuel system that shows non-linear fuel quantity indications. It comes fully plumbed and with a wing tank.

This completely functional fuel system consists of a fuel management panel, fuel transfer system and capacitance fuel quantity indicating system. It also contains an instructor's panel that makes it possible to add faults to conduct troubleshooting training.

The fuel system panel features fuel quantity indicators, a fuel transfer selector valve, fuel transfer and low fuel warning lights, fuel pressure and flow indicators and complete fuel system drawings.

This system contains, engine driven fuel pump screen, fuel filter, fuel control unit, turbine fuel nozzle inside a clear enclosed container etc.

Specifications

Features

- Understand fundamentals of aircraft fuel system and its components.
- Fully functional and configured like a typical aircraft fuel system.
- Aircraft fuel system can run automatically and manually.
- Fuel tanks are automatically filled and when tank is full system is automatically be shut off.
- The control of the fuel that flows to combustion chamber can be observed using the throttle lever.
- Fuel tanks have a maintenance hatch.
- Fuel tanks be manually drained for maintenance.
- Fuel tanks have transparent window in order to observe fuel filling and refilling.
- Combustion chamber is transparent.
- Tanks are able to manually or automatically cross-fit.
- Aircraft fire scenario is simulated.
- The hose and tubes used in the trainer are labeled according to aviation standards.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- All required hoses and pipes
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate.
- Colored Ultraviolet printing method on aluminum composite panel.

Components

- Fuel Control Unit
- Three(3) pieces minimum mock-up fuel tank
- A minimum 40 Lbs aircraft refuel tank
- Three(3) pieces fuel pump
- Three(3) Level control switches
- A refuel pump
- Engine no:1 Combustion chamber
- Nozzle
- Throttle lever
- Fuel filter
- Crossfeed control valve
- Fuel Pressure sender
- Fuel Level Sender
- Fuel Flow Sensor
- Shut-Off Valve
- Control panel
- 10" inch touchable screen
- Terminals
- Three(3) manual drain valve
- Check valves
- LAN output
- Control Panel
- Master power panel
- Master caution panel
- Aural warning horn
- Left pump control switch
- Right pump control switch
- Main pump control switch
- Test button
- Status lamps
- Aircraft circuit breaker
- Aircraft circuit breaker lockout
- 10" inch touchable screen(like EICAS or ECAM)
- Left tank fuel quantity indicator

Aircraft Turbine Fuel System Trainer (3 tanks - 1 ENG)

- Right tank fuel quantity indicator
- Fuel pressure indicator
- Fuel flow indicator
- Switch Position
- Valve status

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

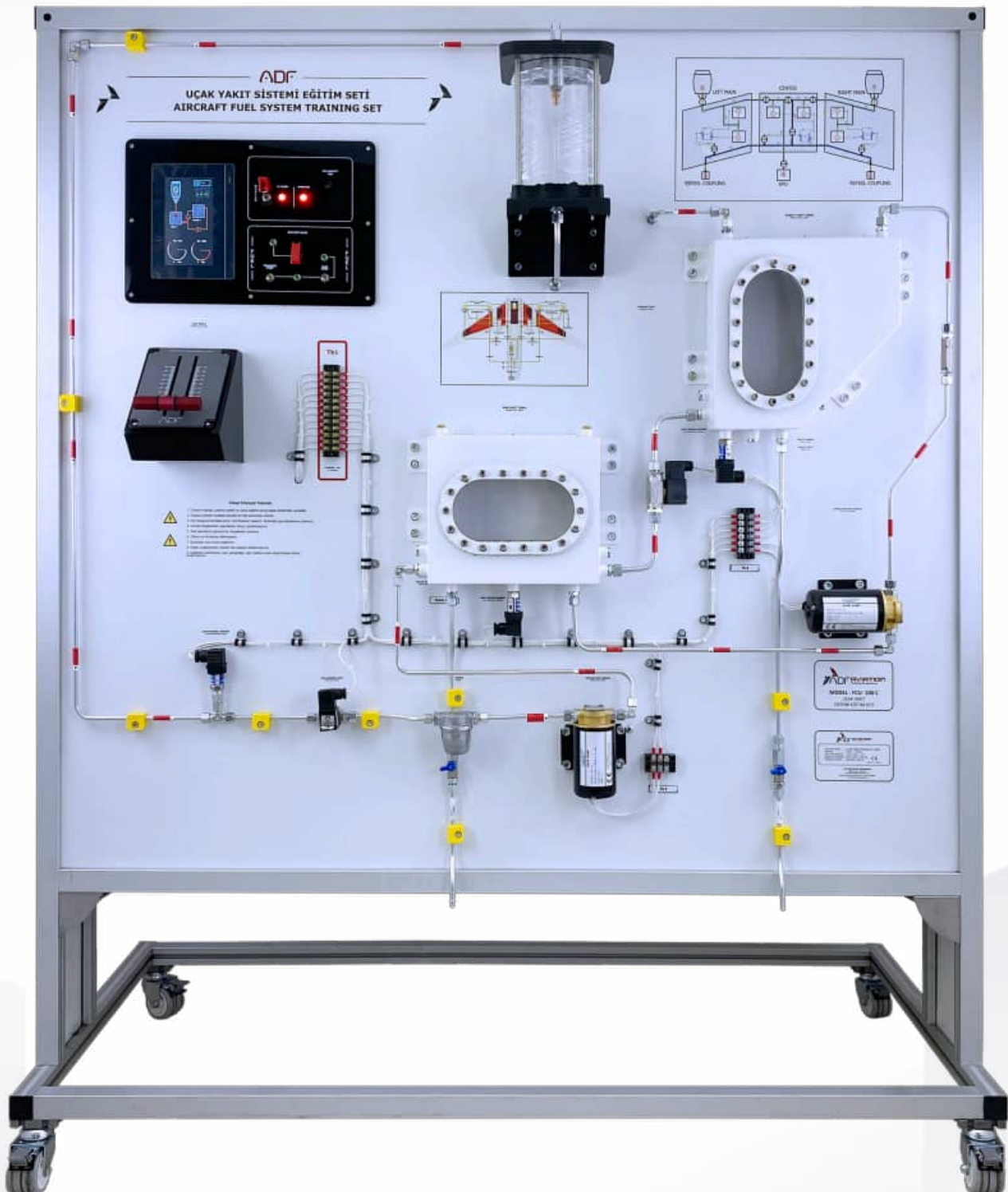
- Diesel fuel 30 Lt

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Aircraft Turbine Fuel System Trainer (2 tanks - 1 ENG)

FCU-100B



Designed to represent a complete aircraft fuel system, Model FCU – 100B Turbine Fuel System Training Set enables trainees to learn the essentials of fuel system components and how these components are linked to each other in a typical aircraft fuel system. This trainer includes a capacitance fuel system that shows non-linear fuel quantity indications. It comes fully plumbed and with a wing tank.

This completely functional fuel system consists of a fuel management panel, fuel transfer system and capacitance fuel quantity indicating system. It also contains an instructor's panel that makes it possible to add faults to conduct troubleshooting training. The fuel system panel features fuel quantity indicators, a fuel transfer selector valve, fuel transfer and low fuel warning lights, fuel pressure and flow indicators and complete fuel system drawings.

This system contains, engine driven fuel pump screen, fuel filter, fuel control unit, turbine fuel nozzle inside a clear enclosed container etc. Unit must be compatible with Jet A-1 fuel type.

Specifications

Features

- Understand fundamentals of aircraft fuel system and its components.
- Fully functional and configured like a typical aircraft fuel system.
- Aircraft fuel system can run automatically and manually.
- Fuel tanks are automatically filled and when tank is full system is automatically be shut off.
- The control of the fuel that flows to combustion chamber can be observed using the throttle lever.
- Fuel tanks have a maintenance hatch.
- Fuel tanks be manually drained for maintenance.
- Fuel tanks have transparent window in order to observe fuel filling and refilling.
- Combustion chamber is transparent.
- Tanks are able to manually or automatically cross-fit.
- Aircraft fire scenario is simulated.
- The hose and tubes used in the trainer are labeled according to aviation standards.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- All required hoses and pipes
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.

Aircraft Turbine Fuel System Trainer (2 tanks - 1 ENG)

- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.

Components

- Fuel Control Unit(FCU)
- Two(2) pieces minimum mock-up fuel tank
- A minimum 40 Lbs aircraft refuel tank
- Two(2) pieces fuel pump
- Two(2) Level control switches
- A refuel pump
- Engine no:1 Combustion chamber
- Fuel Nozzle
- Throttle lever
- Fuel filter
- Crossfeed control valve
- Fuel Pressure sender
- Fuel Level Sender
- Fuel Flow Sensor
- Shut-Off Valve
- Control panel
- 10" inch touchable screen
- Terminals
- Two(2) manual drain valve
- Check valves
- LAN output
- Control Panel
- Master power panel
- Master caution panel
- Aural warning horn
- Left pump control switch
- Right pump control switch
- Main pump control switch
- Test button
- Status lamps

Aircraft Turbine Fuel System Trainer (2 tanks - 1 ENG)

- Aircraft circuit breaker
- Aircraft circuit breaker lockout
- Pressure relief bypass valve
- 10" inch touchable screen (like EICAS or ECAM)
 - Left tank fuel quantity indicator
 - Right tank fuel quantity indicator
 - Fuel pressure indicator
 - Fuel flow indicator
 - Switch Position
 - Valve status

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Diesel fuel 30 Lt

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Aircraft Turbine Fuel System Trainer (3 tanks-2 ENG)

FCU-100C



Designed to represent a complete aircraft fuel system, Model FCU – 100C Turbine Fuel System Training Set enables trainees to learn the essentials of fuel system components and how these components are linked to each other in a typical aircraft fuel system. This trainer includes a capacitance fuel system that shows non-linear fuel quantity Indications. It comes fully plumbed and with a wing tank.

This completely functional fuel system consists of a fuel management panel, fuel transfer system and capacitance fuel quantity indicating system. It also contains an instructor's panel that makes it possible to add faults to conduct troubleshooting training.

The fuel system panel features fuel quantity indicators, a fuel transfer selector valve, fuel transfer and low fuel warning lights, fuel pressure and flow indicators and complete fuel system drawings.

This system contains, engine driven fuel pump screen, fuel filter, fuel control unit, turbine fuel nozzle inside a clear enclosed container etc.

Specifications

Features

- Understand fundamentals of aircraft fuel system and its components.
- Fully functional and configured like a typical aircraft fuel system.
- Aircraft fuel system can run automatically and manually.
- Fuel tanks are automatically filled and when tank is full system is automatically be shut off.
- The control of the fuel that flows to combustion chamber can be observed using the throttle lever.
- Fuel tanks have a maintenance hatch.
- Fuel tanks be manually drained for maintenance.
- Fuel tanks have transparent window in order to observe fuel filling and refilling.
- Combustion chambers are transparent.
- Tanks are able to manually or automatically cross-fit.
- Aircraft fire scenario is simulated.
- The hose and tubes used in the trainer are labeled according to aviation standards.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.

Aircraft Turbine Fuel System Trainer (3 tanks-2 ENG)

- All required hoses and pipes
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Fuel Control Unit
- Three(3) pieces minimum mock-up fuel tank
- A minimum 40 Lbs aircraft refuel tank
- Four(4) pieces fuel pump
- Four(4) Level control switches
- A refuel pump
- Engine no: 1 Combustion chamber
- Engine no: 2 Combustion chamber
- Two Nozzle
- Throttle lever
- Fuel filter
- Crossfeed control valve
- Fuel Pressure sender
- Fuel Level Sender
- Fuel Flow Sensor
- Shut-Off Valve
- Control panel
- 10" inch touchable screen
- Terminals
- Four(4) manual drain valve
- Check valves
- LAN output
- Control Panel
 - Master power panel

Aircraft Turbine Fuel System Trainer (3 tanks-2 ENG)

- Master caution panel
- Aural warning horn
- Left pump control switch
- Right pump control switch
- Main pump control switch
- Test button
- Status lamps
- Aircraft circuit breaker
- 10" inch touchable screen(like EICAS or ECAM)
 - Left tank fuel quantity indicator
 - Right tank fuel quantity indicator
 - Fuel pressure indicator
 - Fuel flow indicator
 - Switch Position
 - Valve status

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Diesel fuel 30 Lt

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation



The trainer allows trainees to understand fundamentals of aircraft Carburetor fuel system and its components. This unit has the same basic features as the Continental conventional float-type carburetor.

Specifications

Features

- Understanding fundamentals of carburetor fuel system
- Operation of fuel priming
- Carburetor icing scenario
- Idle adjusting screw
- Fuel quantity check
- Refilling the fuel tank
- Throttle and mixture lever operation

Components

- Float type carburetor
- Mixture lever
- Throttle lever
- Priming lever
- Carburetor icing simulation
- ECAM display
- Fuel filter
- Drain cable
- Engine-driven fuel pump
- Priming system replacing the throttle assembly
- Fuel boost pump
- Fuel shutoff valve
- Fuel quantity transmitter, float type
- Fuel quantity indicator
- Fuel tank with filler cap
- Fuel pressure sensor
- Fuel flow sensor
- Fuel drain valve at fuel tank
- Switches for firewall shut-off and boost pump
- Associated plumbing
- Check valve
- Aircraft circuit breaker lockout & label

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for instructors

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Diesel Fuel - 10LT

The trainer should allow trainees to understand fundamentals of aircraft Fuel Injection system and its components.

This unit has the same basic features as the conventional Fuel Servo System

Specifications

Features

- Understanding fundamentals of Fuel Injection System
- Demonstrate the fuel nozzle operation
- Idle screw adjusting
- Fuel quantity check
- Refilling the fuel tank
- Throttle and mixture lever operation

Components

- Fuel servo unit
- Mixture lever
- Throttle lever
- Fuel manifold valve
- Simulation combustion chamber
- Fuel nozzle
- ECAM display
- Fuel filter
- Engine-driven fuel pump
- Fuel boost pump
- Fuel shutoff valve
- Fuel quantity transmitter, float type
- Fuel quantity indicator
- Fuel tank with filler cap
- Unmetered fuel pressure sensor
- Metered fuel pressure sensor
- Fuel flow sensor
- Fuel drain valve at fuel tank
- Switches for firewall shut-off and boost pump
- Associated plumbing
- Check valve
- Aircraft circuit breaker lockout & label

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for instructors

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Triple Fire Detection & Extinguisher Trainer

FDE-100V



FDE-100V training set simulates a functional commercial airliners fire detection and extinguishing system. It incorporates the continuous loop and spot detectors with controls, indication and test circuits.

The extinguisher discharges filled compress air when the system is activated. The instructor can induce faults for the trainees to troubleshoot, providing hands-on experience in troubleshooting.

The trainer is installed on a movable frame, it can be positioned as needed. This set simulates the system with two fire extinguisher container.

Specifications

Features

- Understanding fundamentals of aircraft Fire Detection & Extinguishing system and its components.
 - Aircraft real fire & smoke scenarios are simulated.
 - Fire is simulated on the training set with any sensor.
 - The trainer is designed with three zones allowing Engine-1, Engine-2, APU fire and Cargo Smoke system simulation.
 - Trainer includes separate extinguishers for each zone on the training set.
 - The trainer include an original, emptied, secure aircraft extinguisher bottle for maintenance practices and using APU extinguisher bottle.
 - Extinguishing system work crossfeed mode.
 - Extinguishing bottle disassembly / assembly task
 - Fire Extinguishing system test procedure task
 - Sensor test procedure task
 - Circuit breaker lockout application
 - Trainer set includes Engine1, Engine2, APU and forward cargo smoke system.
 - Engine-1 fire warning is activated from fenwal detector.
 - Engine-2 fire warning is activated from IR sensor.
 - APU fire warning is activated from loop detector.
 - Smoke warning is activated from smoke detector.
 - Trainer set includes extinguisher bottle for all systems
 - Extinguisher bottles have pressure gauge, pressure sensor and control valve.
 - Some of Trainer Functions
 - Agent function
 - FIRE push button function

- Discharge function
- Cross feed function
- ECAM functions
- Single chime functions
- Master caution functions
- Master warning functions
- Some of Trainer Processes
- Fire system test process
- Fire Extinguisher bottle removal process
- APU automatic Fire Extinguisher process
- Engine 1 fire process
- Engine 2 fire process
- APU fire process
- Cargo smoke process
- The trainer have discharge nozzles for each zone (4 discharge nozzles).
- Trainer includes three aluminum protection plates for heating sections on the loop sensor.
 - The complete loop sensor is mounted on the training set so that it could be clearly seen.
 - Trainer includes master warning, master caution and warning-horn system that could be reset.
- Pressure sensors are for each bottle.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- Locked metal drawer for heat gun
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- 7 inch ECAM display
 - Engines N1 indicator
 - Fire Status,
 - Caution Status
 - Warning Status
 - Fault Status
 - System Status indicator
 - Fuel,
 - Electric,
 - Hydraulic,
 - Bleed
- Control Panel
 - Master power switch
 - Master power lamp
 - Aircraft circuit breaker panel
 - Press to test illuminated Master warning button
 - Press to test illuminated Master caution button
 - Aural warning horn
 - Fire status indicator
 - Engine 1, Engine 2, Apu engine running indicator
- Engine 1 Fire Control
 - Guarded Engine-1 fire status lamp and button
 - Agent 1 button
 - Agent 2 button
 - Discharge 1 indicator
 - Discharge 2 indicator
 - System Test Button
- Engine 2 Fire Control
 - Guarded Engine-2 fire status lamp and button
 - Agent 1 button
 - Agent 2 button
 - Discharge 1 indicator
 - Discharge 2 indicator
 - System Test Button
- APU Fire Control
 - Guarded APU fire status lamp and button
 - Agent 1 button

Triple Fire Detection & Extinguisher Trainer

- Discharge 1 indicator
- System Test Button
- Cargo Smoke Control
 - Guarded Forward cargo extinguisher bottle toggle switch
 - Agent 1 button
 - Discharge 1 indicator
 - System Test Button
- Sensors
 - Continuous-Loop temperature sensor
 - Loop sensor is 900 mm or more in length.
 - Fenwall spot detector
 - IR(infrared) sensor
 - Smoke Detector
- Fire & Smoke System Control Computer
- Bottles
 - Apu simulated fire-extinguisher bottle(Original Airbus Fire Extinguisher bottle)
 - Engine1 simulated fire-extinguisher bottle
 - Engine2 simulated fire-extinguisher bottle
 - Cargo smoke simulated fire-extinguisher bottle
- Pressure Sensors
 - Apu fire-extinguisher bottle sensor
 - Engine1 fire-extinguisher bottle sensor
 - Engine2 fire-extinguisher bottle sensor
 - Cargo fire-extinguisher bottle sensor
- Gauges
 - Apu fire-extinguisher bottle gauge
 - Engine1 fire-extinguisher bottle gauge
 - Engine2 fire-extinguisher bottle gauge
 - Cargo fire-extinguisher bottle gauge
- Discharge nozzles
 - Apu Zone
 - Engine 1 Zone
 - Engine 2 Zone
 - Cargo Zone
 - Discharge nozzles are between 150 - 350 mm in length.

Triple Fire Detection & Extinguisher Trainer

- 4 unit terminal
- 5 unit line control valve
- 2 unit original circuit breaker lockout and its label
- Filler Service point
- Power unit

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation
- Heat-gun

Dual Fire Detection & Extinguisher Trainer

FDE-100D



FDE-100D training set simulates a functional commercial airliners fire detection and extinguishing system. It incorporates the continuous loop and spot detectors with controls, indication and test circuits.

The extinguisher discharges filled compress air when the system is activated. The instructor can induce faults for the trainees to troubleshoot, providing hands-on experience in troubleshooting.

The trainer is installed on a movable frame, it can be positioned as needed. This set simulates the system with two fire extinguisher container.

Specifications

Features

- Understanding fundamentals of aircraft Fire Detection & Extinguishing system and its components.
 - Aircraft real fire & smoke scenarios are simulated.
 - Fire is simulated on the training set with any sensor.
 - The trainer is designed with three zones allowing Engine-1, Engine-2, and Cargo Smoke system simulation.
 - Trainer includes separate extinguishers for each zone on the training set.
 - Extinguishing system work crossfeed mode.
 - Fire Extinguishing system test procedure task
 - Sensor test procedure task
 - Circuit breaker lockout application
 - Trainer set includes Engine1, Engine2, and forward cargo smoke system.
 - Engine-1 fire warning is activated from fenwal detector.
 - Engine-2 fire warning is activated from IR sensor.
 - Smoke warning is activated from smoke detector.
 - Trainer set includes extinguisher bottle for all systems
 - Extinguisher bottles have pressure gauge, pressure sensor and control valve.
 - Some of Trainer Functions
 - Agent function
 - FIRE push button function

Dual Fire Detection & Extinguisher Trainer

- Discharge function
- Cross feed function
- ECAM functions
- Single chime functions
- Master caution functions
- Master warning functions
- Some of Trainer Processes
- Fire system test process
- Fire Extinguisher bottle removal process
- Engine 1 fire process
- Engine 2 fire process
- Cargo smoke process
- The trainer have discharge nozzles for each zone (4 discharge nozzles).
- Trainer includes three aluminum protection plates for heating sections on the loop sensor.
 - The complete loop sensor is mounted on the training set so that it could be clearly seen.
 - Trainer includes master warning, master caution and warning-horn system that could be reset.
- Pressure sensors are for each bottle.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- Locked metal drawer for heat gun
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- 7 inch ECAM display
 - Engines N1 indicator
 - Fire Status,
 - Caution Status
 - Warning Status
 - Fault Status
 - System Status indicator
 - Fuel,
 - Electric,
 - Hydraulic,
 - Bleed
- Control Panel
 - Master power switch
 - Master power lamp
 - Aircraft circuit breaker panel
 - Press to test illuminated Master warning button
 - Press to test illuminated Master caution button
 - Aural warning horn
 - Fire status indicator
 - Engine 1, Engine 2, Apu engine running indicator
- Engine 1 Fire Control
 - Guarded Engine-1 fire status lamp and button
 - Agent 1 button
 - Agent 2 button
 - Discharge 1 indicator
 - Discharge 2 indicator
 - System Test Button
- Engine 2 Fire Control
 - Guarded Engine-2 fire status lamp and button
 - Agent 1 button
 - Agent 2 button
 - Discharge 1 indicator
 - Discharge 2 indicator
 - System Test Button
- APU Fire Control
 - Guarded APU fire status lamp and button
 - Agent 1 button

- Discharge 1 indicator
- System Test Button
- Cargo Smoke Control
 - Guarded Forward cargo extinguisher bottle toggle switch
 - Agent 1 button
 - Discharge 1 indicator
 - System Test Button
- Sensors
 - Continuous-Loop temperature sensor
 - Fenwall spot detector
 - IR(infrared) sensor
 - Smoke Detector
- Fire & Smoke System Control Computer
- Bottles
 - Engine1 simulated fire-extinguisher bottle
 - Engine2 simulated fire-extinguisher bottle
 - Cargo smoke simulated fire-extinguisher bottle
- Pressure Sensors
 - Engine1 fire-extinguisher bottle sensor
 - Engine2 fire-extinguisher bottle sensor
 - Cargo fire-extinguisher bottle sensor
- Gauges
 - Engine1 fire-extinguisher bottle gauge
 - Engine2 fire-extinguisher bottle gauge
 - Cargo fire-extinguisher bottle gauge
- Discharge nozzles
 - Engine 1 Zone
 - Engine 2 Zone
 - Cargo Zone
 - Discharge nozzles are between 150 - 350 mm in length.

Dual Fire Detection & Extinguisher Trainer

- 3 unit terminal
- 4 unit line control valve
- 2 unit original circuit breaker lockout and its label
- Filler Service point
- Power unit

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

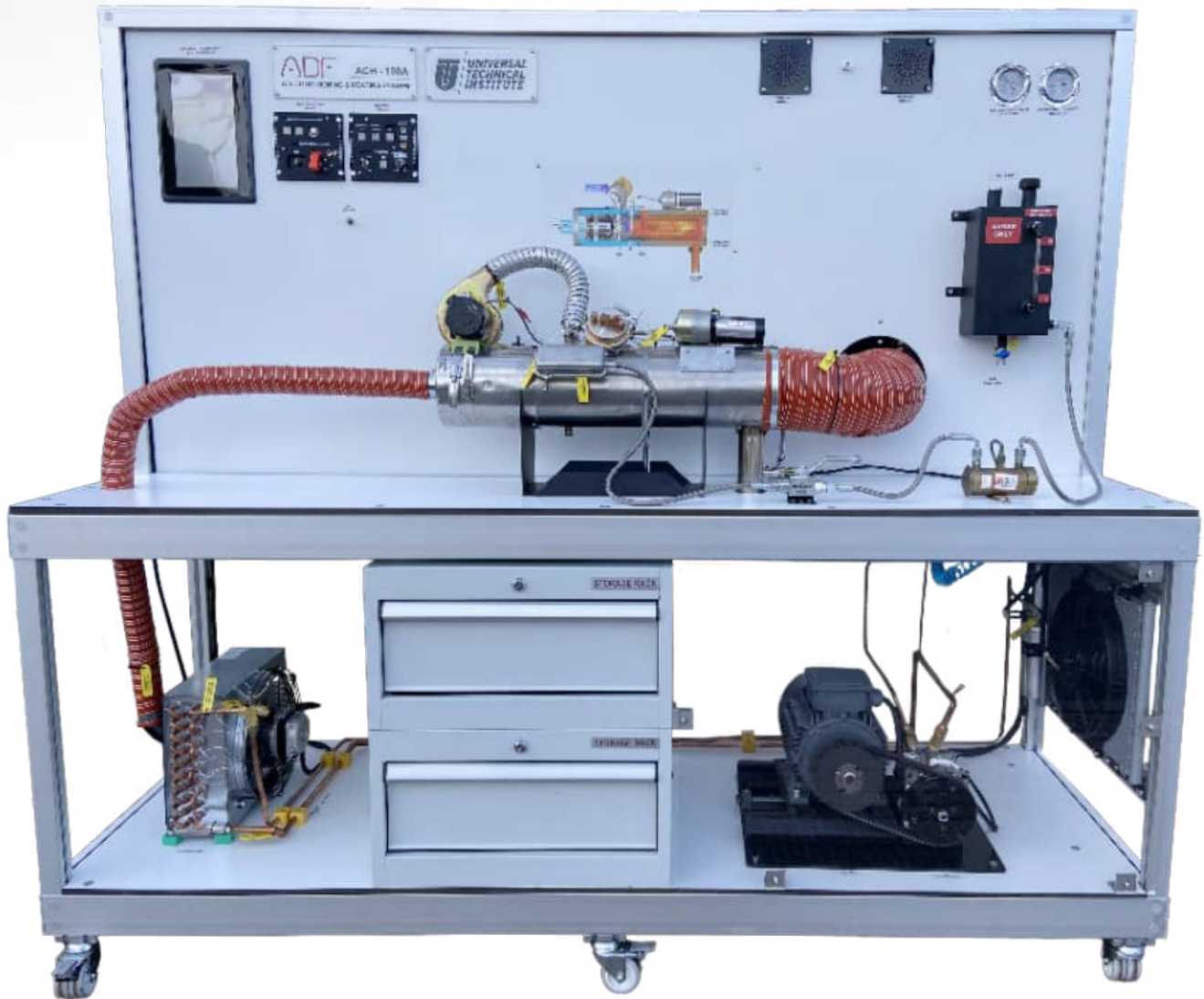
- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation
- Heat-gun



The Air Conditioning & Heating System trainer demonstrates how an aircraft Air Conditioning & Heating System function.

The compact construction of the set allows trainees to conceive the system as understanding the connection between the various parts of the system.

Specifications

Features

- Understanding fundamentals of aircraft Air Conditioning & Heating System and its components.
- The set is functional and configured like a typical aircraft Air Conditioning & Heating System.
- The selections made in the panels are visible on the screen.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Compressor Motor
- Vapor Cycle Compressor
- Receiver Dryer
- Condenser
- Combustion chamber
- Thermal Switch
- Fuel tank with plumping
- Fuel pump with electrical components
- Ignition system
- Thermal control switches
- Control Valves
- Air Blower and associated ducting
- Panel mounted control panel
- Manual Shut off valve

Air Conditioning & Heat System Trainer

- Terminals
- Refrigerant Low-px Indicator
- Refrigerant High-px Indicator
- 2 Cabin Air Outlet Ports
- Metal Aircraft Cabin (Simulated)
- Cabin Air Temperature Sensor
- Outside Air Temperature Sensor
- Master power panel
- Master power light
- Master caution panel
- Aural warning horn
- Test panel
- Circuit Breakers,
- LAN output
- Fault Panel for instructor.
- 24 VDC power supply

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Refrigerant 134a
- Kerosene Fuel

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation



The Aircraft Dual Electrical System Trainer is a comprehensive system that is ideal for trainings on an aircraft dual-engine electrical system. By using this trainer, students both learn the functionality of each component, and develop logical and systematic approach to perform troubleshooting tasks.

The system is designed to depict a typical aircraft electrical system, and contains standard aircraft components and wiring. Model ELC 100D is a complete functional simulation of a dual-engine 28V DC electrical system include in 115/26 VAC 400 hz system.

Specifications

Features

- Understanding fundamentals of aircraft Electrical System and its components
- Typical aircraft Dual Electrical System system.
- Typical Cockpit Instrumentation, Circuit Breakers, and Controls
- Digital Instrument Panel (ECAM) System
- Analog Instruments
- DC and AC powers
- Representative DC and AC Loads
- AC and DC bus system (Main, Auxiliary, Bus, Gen, AC, Avionics)
- Internal and External Lights
- Split bus system
- Battery charging system
- Distribution terminal strip
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.
- Battery are in a box under the trainer with transparent plexiglass in front.
- All components are connected via terminals.

Components

- Control Panel
 - All Bus control sw
 - All Load control
 - Nav light control
 - Beacon control
 - Volt meter selector knob
 - External lights control switches
 - Internal lights control switches
- Breaker (CB) Panel
 - Generator CB
 - NAV CB
 - Avionic CB
 - Beacon CB
 - Actuator CB
 - Main Bus CB
 - Blower CB
 - Auxiliary- (Non- essential) CB
 - External power bus CB
 - Circuit breaker lockout
- Relays
 - Two ac bus relay
 - Two ac bus 26 vac relay
 - Generator bus 1 relay
 - Generator bus 2 relay
 - Battery bus relay
 - Main bus relay
 - Two Auxiliary- (Non- essential) (bus relay)
 - External power bus Relay
 - Avionics bus relay
 - Battery relay
 - Generator relay
 - Blower relay
 - Starter relay
 - Reverse current relay
- Electromechanical Loads Generator
 - Landing Gear Motor
 - Cabin Air Blower
 - Electromechanical Actuator Starter engine

Aircraft Dual Electrical Training Set

- Two 24 volt starter
- External Lights
 - Navigation Lights with Strobes
 - Right wing
 - Left wing
 - Tail
 - Beacon
 - Landing Light
 - Taxi Light
- Bus bars
 - Two ac bus 115 vac 400hz
 - Two ac bus 26 vac 400hz
 - Two gnd bus
 - Generator bus 1
 - Generator bus 2
 - Battery bus
 - Main bus
 - Two Auxiliary- (Non- essential) bus
 - External power bus
 - Avionics bus
- Internal Lights
 - Cabin Light
 - Reading Light
 - Multifunction Cockpit Light with Dimmer
- Instruments
 - Digital Instrument Panel (ECAM)
 - All bus voltmeter
 - All bus status illustrated
 - All switch positions
 - Load status
 - Two Analog Voltmeter
 - Analog Ammeter
 - Two Hour-meter
 - Analog Pressure Gauge
 - Analog Temperature Gauge
 - Two Analog Fuel level Gauge
- Wiring
 - Aircraft wires, with clear identification labels for each wire.

- All wires are coded and labeled for trouble- shooting.
- Electrical driven by 230 VAC/50 Hz Motor.
- Generator Controls (for two generator)
 - Electronic Controlled Generator
 - Driven motor control switch and light
 - Driven motor speed control knob
 - Voltage regulators
- AC Powers
 - One Static Inverters 115VAC @ 400 Hz.
 - One static inverter 26VAC @ 400 Hz
- DC Powers
 - Two 28 volt generator driven by electrical motor
- Aircraft EPU plug
- Aircraft EPU Socket

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

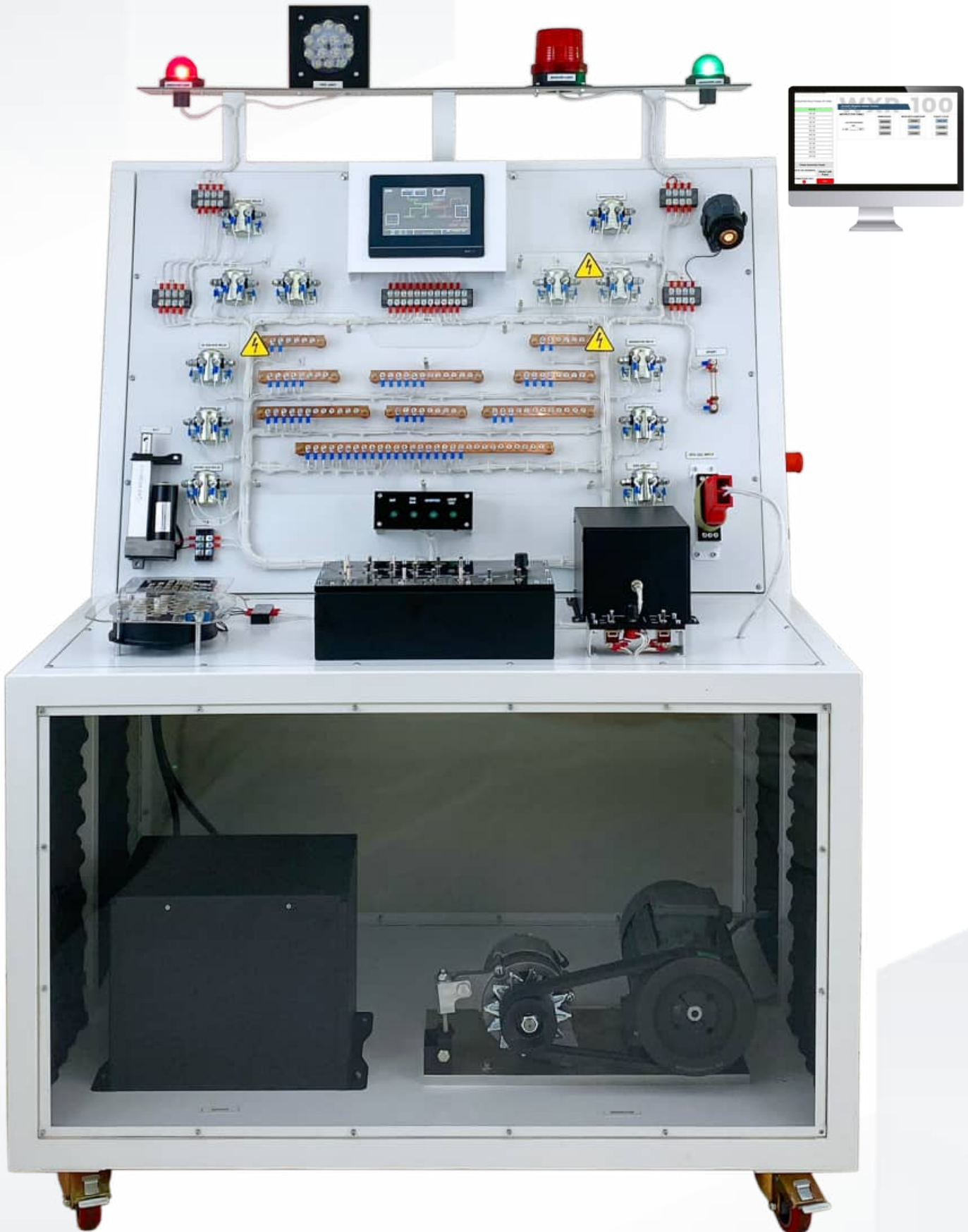
- Lighter
- Air Compressor max 90 PSI pressure outlet
- Two 12 Volt Batteries

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Optional Items

- RAT system is included.
- Ground Card



The Aircraft Single Electrical System Trainer is a comprehensive system that is ideal for trainings on an aircraft Single-engine electrical system. By using this trainer, students both learn the functionality of each component, and develop logical and systematic approach to perform troubleshooting tasks.

The system is designed to depict a typical aircraft electrical system, and contains standard aircraft components and wiring. Model ELC 100S is a complete functional simulation of a single-engine 28V DC electrical system include in 115/26 VAC 400 hz system.

Specifications

Features

- Understanding fundamentals of aircraft Electrical System and its components
- Typical aircraft Single Electrical System system.
- Typical Cockpit Instrumentation, Circuit Breakers, and Controls
- Digital Instrument Panel (ECAM) System
- Analog Instruments
- DC and AC powers
- Representative DC and AC Loads
- AC and DC bus system (Main, Auxiliary, Bus, Gen, AC, Avionics)
- Internal and External Lights
- Battery charging system
- Distribution terminal strip
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.
- Battery are in a box under the trainer with transparent plexiglass in front
- All components connected via terminals.

Components

- Control Panel
 - All Bus control sw
 - All Load control
 - Nav light control
 - Beacon control
 - Volt meter selector knob
 - External lights control switches
 - Internal lights control switches
- Breaker (CB) Panel
 - Generator CB
 - NAV CB
 - Avionic CB
 - Beacon CB
 - Actuator CB
 - Main Bus CB
 - Blower CB
 - Auxiliary- (Non- essential) CB
 - External power bus CB
 - Circuit breaker lockout
- Relays
 - Two ac bus relay
 - Two ac bus 26 vac relay
 - Generator bus 1 relay
 - Generator bus 2 relay
 - Battery bus relay
 - Main bus relay
 - Two Auxiliary- (Non- essential) (bus relay)
 - External power bus Relay
 - Battery relay
 - Generator relay
 - Blower relay
 - Starter relay
- Electromechanical Loads Generator
 - Landing Gear Motor
 - Cabin Air Blower
 - Electromechanical Actuator Starter engine
 - Two 24 volt starter

- External Lights
 - Navigation Lights with Strobes
 - Right wing
 - Left wing
 - Tail
 - Beacon
 - Landing Light
- Bus bars
 - Two ac bus 115 vac 400hz
 - Two ac bus 26 vac 400hz
 - Two gnd bus
 - Generator bus 1
 - Generator bus 2
 - Battery bus
 - Main bus
 - Two Auxiliary- (Non- essential) bus
 - External power bus
 - Avionics bus
- Internal Lights
 - Cabin Light
 - Reading Light
 - Multifunction Cockpit Light with Dimmer
- Instruments
 - Digital Instrument Panel (ECAM)
 - All bus voltmeter
 - All bus status illustrated
 - All switch positions
 - Load status
 - Two Analog Voltmeter
 - Analog Ammeter
 - Two Hour-meter
 - Analog Pressure Gauge
 - Analog Temperature Gauge

- Two Analog Fuel level Gauge
- Wiring
 - Aircraft wires, with clear identification labels for each wire.
 - All wires are coded and labeled for trouble- shooting.
 - Electrical driven by 230 VAC/50 Hz Motor.
- Generator Controls (for two generator)
 - Electronic Controlled Generator
 - Driven motor control switch and light
 - Driven motor speed control knob
- AC Powers
 - One Static inverters 115VAC @ 400 Hz.
 - One static inverter 26VAC @ 400 Hz
- DC Powers
 - Two 28 volt generator driven by electrical motor
- Aircraft EPU plug
- Aircraft EPU Socket

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Lighter
- Air Compressor max 90 PSI pressure outlet
- Two 12 Volt Batteries

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation
- Ground Card

Ice and Rain Protection & Control System Trainer

AID-100A



AID-100A Ice and Rain Protection System Trainer offers opportunity to trainees to physically see various components and connections in between them in real-life like mechanism. It brings together all aspects of deicing and rain protection system on aircrafts. AID-100A is manufactured with authentic aircraft components. It is mounted on movable four-wheeled frame that can be positioned as necessary

Specifications

Features

- Understanding fundamentals of aircraft Ice & Rain Protection & Control System and its components.
- Windshield heating system
- Pitot tube heating system
- The pitot tube is in a transparent protection area.
- Propeller blade heating system
- Slip ring system for propeller principles is exhibited
- Drain Mast heating system
- Pneumatic de-ice boot
- Windshield wiper system
- Windshield wiper is in a compartment with a transparent front part.
- Windshield wiper is automatically spray water/alcohol to the surface.
- Water in windshield wiper compartment is accumulate to water/alcohol tank through drain line.
- The hose and tubes used in the trainer are labeled according to aviation standards.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Aircraft composite Propeller blade with electrical de-ice boot
- Propeller heating timer control box
- Propeller Slip-ring
- Pneumatic De-Ice Boot
- Pump for Pneumatic De-Ice Boot
- Lower EICAS or ECAM
 - Bleed valve status
 - Bleed line pressure
 - Fuel flow indicator
 - Switch Position
 - Valve status
- Bleed Control Panel
- Windshield wiper control panel
 - Off position
 - Park position
 - Low and High position
 - Panel is independent of other panels.
- Window heat panel
 - Left side and forward control
 - Right side and forward control
 - Panel is independent of other panels.
- Wing and Engine Anti-Ice control panel
- Windscreen Wiper
- Windscreen Wiper motor/actuator
- Windscreen Wiper Arm/blade
- Aircraft Window with heating elements
- Temperature control thermostat
- Window heating timer control box
- Windshield De-Icing Alcohol Dispensing
- Water/Alcohol Pump
- Water/Alcohol Tank
- Sprayer
- Pitot Tube with electrical heating elements
- Pitot tube heating timer control box

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

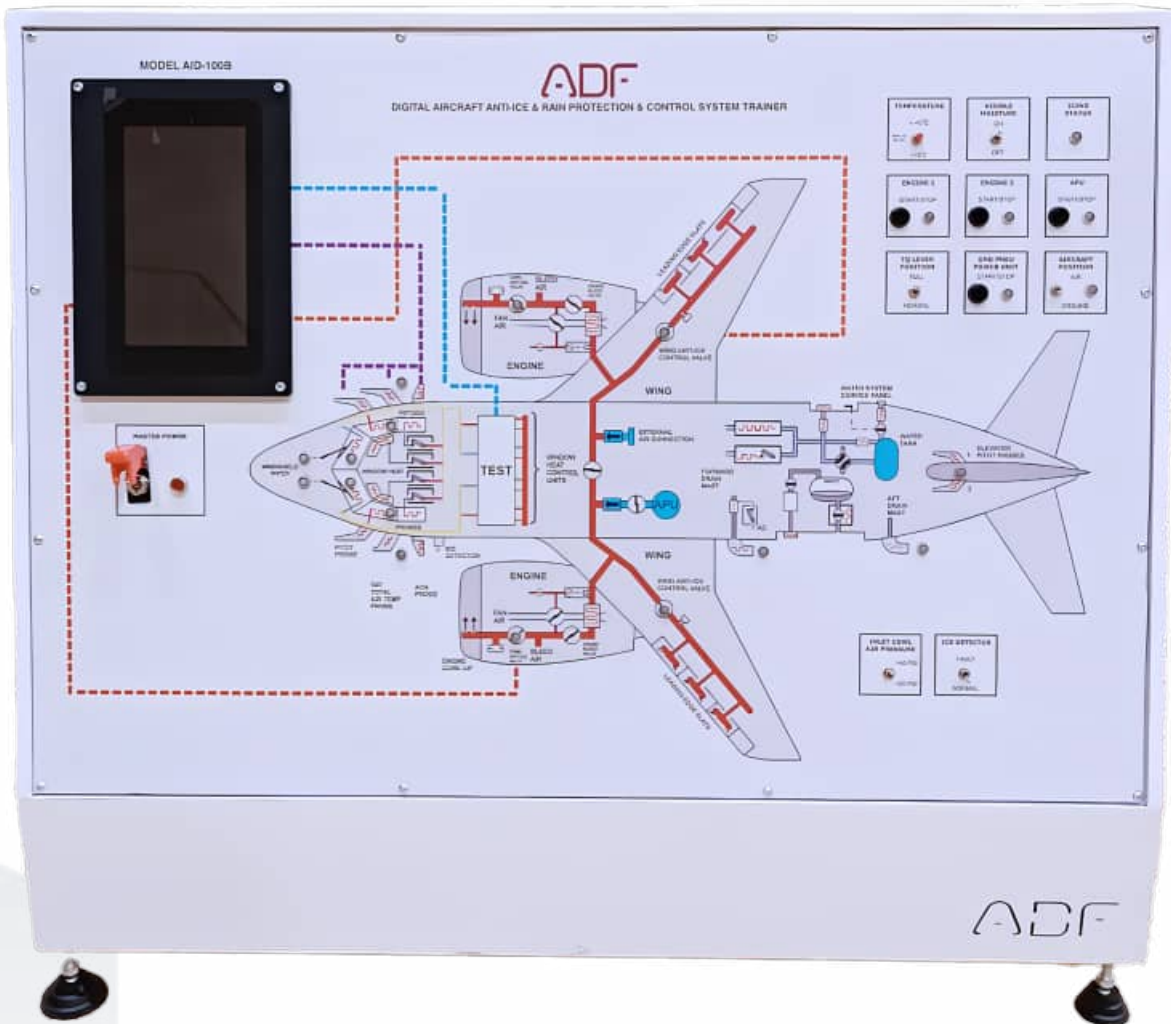
- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Air Compressor max 90 PSI pressure outlet
- Water or Alcohol

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation



The trainer is designed to showcase the basic Anti-Ice & Rain Protection system used in a commercial aircraft.

Specifications

Features

- Aircraft systems is included in the training set below,
 - Pitot Probe / Total Air Temperature (TAT) / Angle Of Attack (AOA) LED
 - Ice Detector LED
 - Cowl Anti-Ice Valve LED
 - Wing Anti-Ice, Control Valve LED
 - Windshield Wiper LED
 - Window Heat LED
 - Forward Drain Mast LED
 - Aft Drain Mast LED
 - Elevator Pitot Probes LED
- Icing conditions controlled
- Every system on the plane are represented by independently controlled LEDs.
- The LEDs is blue when there is icing, and red when anti-icing systems are active.
- De-icing system is controlled from a 7-inch touchscreen.
- Touchscreen visual is similar to Boeing type aircraft.
- De-icing system timers is active.
- The LEDs on the training set panel are placed according to the relevant systems or valves on an airplane image.
- At least 20 LEDs are used in the training set.
- Metal/aluminum frame.
- Colored Ultraviolet printing method must be used in all writings and drawings on aluminum composite panel.

Components

- Master Power Control
- Master Power Lamp
- Pitot Probe / Total Air Temperature (TAT) Probe / Angle Of Attack (AOA) Probe LED
- Ice Detector LED
- Cowl Anti-Ice Valve LED
- Wing Anti-Ice Control Valve LED
- Windshield Wiper LED
- Window Heat LED
- Forward Drain Mast LED
- Aft Drain Mast LED
- Elevator Pitot Probes LED
- Temperature Switch
- Visible Moisture Switch
- Icing Status Switch
- Engine 1 Start/Stop Button
- Engine 2 Start/Stop Button
- Apu Start/Stop Button
- TQ Lever Position Switch
- Gnd Pneu Power Unit Start/Stop Button
- Aircraft Position Switch
- Inlet Cowl Air Pressure Switch
- Ice Detector Switch
- 7 inch touchable screen
- Delivered fully assembled tested and ready to operate

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz



The Air Cycle Machine trainer demonstrates how an aircraft air cycle machine system function.

The compact construction of the set allows trainees to conceive the system as understanding the connection between the various parts of the system.

Simulated turbine-engine bleed air, representing a typical system in a modern turbine engine powered aircraft.

Specifications

Features

- Understanding fundamentals of aircraft air cycle machine and its components.
- The set is functional and configured like a typical aircraft air cycle machine system.
- The selections made in the panels are visible on the screen.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Air cycle machine (ACM) (Compressor and turbine section)
- Primary Heat Exchanger
- Secondary Heat Exchanger
- Water separator
- Analog pressure and temperature sensors
- Digital pressure and temperature sensors
- 2 Ram air fans
- Engine throttle control knob
- Pack flow valve
- Pack flow valve position indicator lights
- Anti-ice valve
- Blower motor Inverter for blower motor
- Blower motor

- Cabin air outlet port
- Valve position indicators located on the pack flow and temperature control valve itself
- Low pressure and high pressure bleed valve operation logic on the display
- Temperature control valve
- Digital display of the temperatures of the cabin chamber, bleed air, and ambient air controller etc.
- Bypass valve
- Ventilation blower
- Simulated bleed air source
- Master power panel
- Master power light
- Master caution panel
- Aural warning horn
- 7 inch touchable screen
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel
- Delivered fully assembled tested and ready to operate
- LAN output
- Circuit Breakers,
- 24 VDC power supply

Documentation

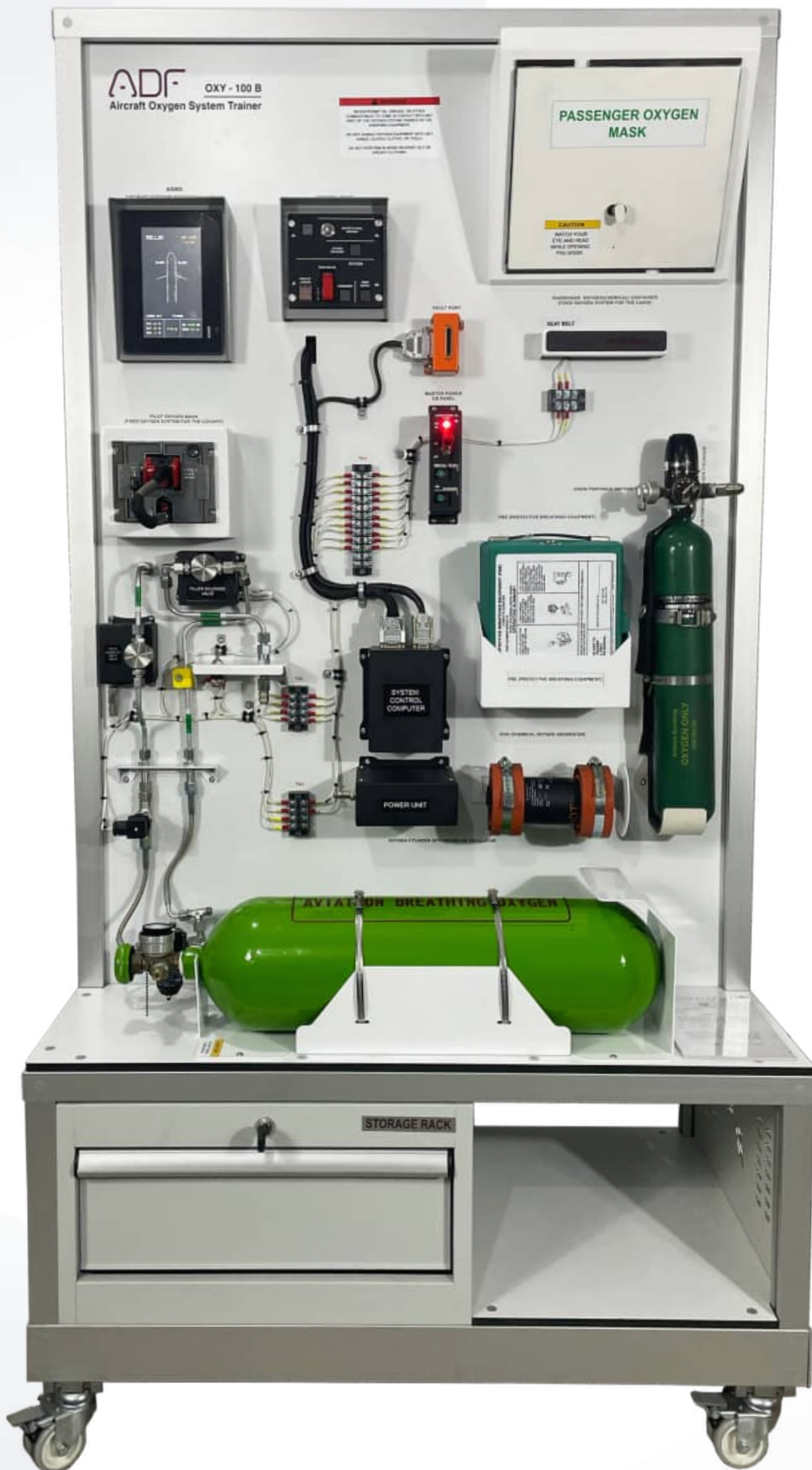
- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation



This training set is a fully functional typical aircraft oxygen system.

The external filler valve includes an orifice which restrains the filling rate, and it is protected by a cap so that contamination is prevented when the charging line is not connected.

The pressure regulator in the system adjusts the pressure in the cylinder to an amount that's usable by the masks.

The mask couplings are fitted with restricting orifices to meter the amount of oxygen needed at each mask. A flow indicator that becomes visible when no oxygen is flowing is built into each tube to the mask.

Indicator is pushed out of sight as oxygen begins flowing.

Specifications

Features

- Understanding fundamentals of aircraft Oxygen System and its components.
- Passenger oxygen system
- Pilot oxygen system
- Crew oxygen system
- Passenger Service Unit system
- Auto-Manual passenger oxygen system activate
- Some of Trainer Functions
 - ECAM functions
 - Seat belt functions
 - PSU reset functions
 - Single chime functions
 - Master caution functions
 - Cabin Altitude functions
 - Master caution functions
 - Passenger mask automatic running test function
- Some of Trainer Processes
 - Oxygen filling process
 - Oxygen cylinder removal process
 - Passenger mask reset process
- Protective Breathing Equipment
- Chemical oxygen generator

- System control computer
- Filler point
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Control Panel
 - Crew Control illuminated push button
 - Mask manual / auto control guarded sw
 - Passenger status indicator
 - High alt landing guarded illuminated push button
 - Timer reset illuminated push button
 - Aural warning horn
 - Master caution resettable illuminated push button
- 7" inch touchable screen(ECAM)
 - Oxygen pressure indicator
 - Oxygen status indicator
- System control computer box
- DC power unit
- PSU (Passenger Service Unit)
- COG (Chemical Oxygen Generator)
- Oxygen Cylinder
- Cylinder Pressure Gauge
- System Pressure Sensor
- Pressure Regulator
- Control Valve
- Filler Valve
- Filler coupling

- Pilots' Oxygen Mask
 - Mask door
 - Mask test button
 - Mask status indicator
 - Pressure releasing button
- Crew Portable Oxygen Cylinder
- Passenger's Portable Mask
- Passenger Drop-down masks
- Aircraft circuit breaker
- Aircraft circuit breaker lockout
- LAN output
- Terminals
- Storage drawer

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation
- MRT Manual Release Tools



Trainees can learn about fresh and dirty water system parts in an aircraft with TVL-100A Lavatory System Training Set. They can also gain hands-on maintenance procedures of a lavatory in an aircraft.

Specifications

Features

- Understanding fundamentals of Lavatory System and its components.
- Lavatory System (mock-up)
- Delivered fully assembled tested and ready to operate
- TVL-100A is composed of aircraft lavatory mock up system. Water servicing operations such as refilling the potable water tank, rinsing the dirty water tank can be accomplished. WSC-100A water service cart is required to be able to accomplish the water refilling and rinsing tanks.

Components

- Mock-Up Lavatory Cabin
- Vacuum Breaker
- Potable Water Tank
- Potable Water Service Panel
- Fill/Drain Valve
- Fill/Drain Control Handle
- Fill/Drain Port
- Tank Drain Port
- Drain Connection
- Tank Overflow Port
- Overflow Valve
- Overflow Handle
- Water Pump
- Manuel Water Shut-Off Valve
- Waste Tank
- Waste Drain Line
- Waste Drain Valve
- Waste Drain Connection
- Waster Shut-Off Valve
- Rinse Connection
- Rinse Handle
- Vacuum Pump
- Water Rinse Valve
- Anti Siphon Valve
- Flush Valve
- Flush Switch

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Aircraft Water Servicing Cart / WSC-100A



Trainees can learn about fresh and dirty water system parts in an aircraft with WWS-100A Aircraft Water/Waste System Training Set. They can also gain hands-on maintenance procedures of a lavatory in an aircraft.

Specifications

Features

- Understanding fundamentals of Aircraft Lavatory System and its components.
- Aircraft Lavatory System (mock-up)
- Delivered fully assembled tested and ready to operate
- WWS-100A is real aircraft lavatory system. Components and cabin are genuine aircraft parts. Trainees can identify the lavatory system components such as bowl, flush, faucet, water heater, shutoff valve etc. Component removal and installation processes can be accomplished with the trainer. WWS-100A is used to practice the potable water tank refilling, rinsing the waste tank and draining operation as well.
- Water Storage
- Distribution
- Water Draining
- Waste Disposal
- Toilet System
- Drain System

Components

- Mock-Up Aircraft Lavatory Cabin
- Vacuum Breaker
- Potable Water Tank
- Potable Water Service Panel
- Fill/Drain Valve
- Fill/Drain Control Handle
- Fill/Drain Port
- Tank Drain Port
- Drain Connection
- Tank Overflow Port
- Overflow Valve
- Overflow Handle
- Water Pump
- Manuel Water Shut-Off Valve

Aircraft Water/Waste System Trainer

- Waste Tank
- Waste Drain Line
- Waste Drain Valve
- Waste Drain Connection
- Waster Shut-Off Valve
- Rinse Connection
- Rinse Handle
- Vacuum Pump
- Bowl and Spray Ring
- Water Rinse Valve
- Anti Siphon Valve
- Flush Valve
- Flush Switch
- Flush Control Unit
- Supporting Frame
- Drain Mast
- Water Faucet

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Aircraft Water Servicing Cart / WSC-100A

Optional Items

- Interior Light
- Water Heater
- Passenger Service Unit - PSU
- Smoke Detector
- Fire Bottle
- **NOTE** :Contact us for optional item availability





Trainees can learn about fresh and dirty water system parts in an aircraft with WSC-100A Aircraft Water Servicing Cart Training Set. They can also gain hands-on maintenance procedures of a lavatory in an aircraft.

Specifications

Features

- Understanding fundamentals of Aircraft Water Servicing Cart and its components.
- Aircraft Water Servicing Cart
- Delivered fully assembled tested and ready to operate
- Water Storage
- Water Draining
- Accomplishing the refilling procedure of the potable tank with Water Servicing Cart
- Accomplishing the draining procedure of the waste tank with Water Servicing Car
- Accomplishing the applying the disinfectant procedure in the waste holding tank with Water Servicing Car

Components

- Mock-Up Aircraft Water Servicing Cart Simulated
- Water Tank
- Water Service Control Panel
- Water Access Door
- Drain Connection from Waste Tank
- Drain Hose
- Rinse Hose / Refill Hose
- Water Pump
- AC Power Lamp
- Electrical Connection Point
- Filler Service Point
- Manuel Water Shut-Off Valve

Documentation

- User's Manual
- Study Guide
- Training video for teachers

Required Items

- Water 70lt
- Water/Waste System Trainer WWS-100A



Trainees can learn basic components and systems in a gas turbine engine with APU-100A Runnable APU Training Set. They can operate a gas turbine engine with the training set after learning on operational procedures. Training set includes all the systems that is on a gas turbine engine.

Specifications

Features

- Delivered ready for build-up and runnable applications
- Instrument panel(Analog or Digital)
- Fuel-system components/fuel pump
- Oil tank
- Fuel tank
- Ignition harness
- Starter
- Electrical system
- Engine-to-instrument console, with umbilical cord for safety
- Mounted on easy-to-roll work stands

Engine Specification

- Power Output: 50 BHP (Air delivery)
- RPM: 51,275 (100%) Idle 44,350 (86.5%)
- Compressor: Centrifugal Impeller
- Combustion Chamber: Reverse Flow Annular with 8 Burners
- Turbine: 2 Stage Axial Flow
- Layout: Single Spool with Reduction Gearbox
- Starting: Starter Motor with Integral Speed Sensor
- Ignition: HT Igniters with 2 Plugs
- Fuel System: Electric Motor Driven Gear Pump with Electronic Control System
- Lubrication: Dry Sump with Electric Driven Pump, Oil Spec MII-L-7808
- Air delivery: 0.415 Kg/Sec @ 45 PSI
- Application: Air Producer in BAE Hawk (047), Ditto Jaguar(007), L39, Various French Aircraft

Documentation

- Device's original Manual
- Device's original Wiring Diagrams
- Training video for teachers

Required Items

- Two 12 Volt Batteries
- Fuel Jet A1
- Jet Turbine Oil

Runnable Aircraft Piston Engine Trainer (Fixed Propeller)

PSA-100F



Trainees can learn main components and systems in an aircraft piston engine with PSA-100F Runnable Piston Engine Trainer. They can operate a piston engine with the training set after learning on operational procedures. Training set includes all the systems that is on an piston engine.

The trainees may also be trained to remove and replace different parts for field level experiment and maintenance practice.

Specifications

Features

- Understanding fundamentals of aircraft piston engines and its components.
- **Engine;** 4 or 6 Cylinder Aircraft Piston Engine
- **Systems;**
 - Electrical Systems (Ignition and starting)
 - Fuel system
 - Propeller control system
 - Instrument System
 - Control System
 - Master Power System
- **Electrical System**
 - Starter
 - Magnetos
 - Ignition leads
 - Ignition unit
 - Plugs (spare plug included)
 - Battery; (battery charger included)
- **Fuel System**
 - Fuel: AVGAS
 - Fuel Tank included
 - Fuel Pump
- **Oil System**
 - Oil Tank
 - Oil Pump
 - Governor
 - Oil level stick

Runnable Aircraft Piston Engine Trainer (Fixed Propeller)

- **Instruments Systems(Digital or Analogue)**
 - RPM/Tachometer Gauges
 - Manifold Pressure Gauge
 - Oil Pressure Gauges
 - Oil Temperature Gauges
 - Fuel Pressure Gauge
 - CHT Indicator (4 pieces)
 - EGT Indicator(4 pieces)
 - Fuel Quantity Gauge
 - Voltmeter
 - Ammeter
 - Hour meter
- **Propeller**
 - Connected with the **fixed pitch propeller** assembly including **spinner**.
 - Two or Three blade options
- **Control**
 - Throttle Control (Push open)
 - Mixture Control (Pull lean)
- **Master/Control Panel**
 - Aircraft system circuit breakers
 - Master power switch
 - Master power lamp
 - Fuel control
 - Starter control
 - Magneto control
 - Beacon control
- **Test Cabin**
 - The system mounted on a metal/aluminum mobile semi-enclosed test cell cabin
 - Plexiglass windows in the front and on both sides.
 - Three anti-collision light mounted(Right & Left side and top)
 - Min four (4) Tie points
- **Data Acquisition System (DTA-100A)**
 - The complete data acquisition system including engine-mounted sensors,
 - Signal conditioning circuits,
 - Data acquisition hardware,
 - And software that captures several engine parameters in real time are to be incorporated

Runnable Aircraft Piston Engine Trainer (Fixed Propeller)

- **Data Acquisition System (DTA-100A)**
 - The complete data acquisition system including engine-mounted sensors,
 - Signal conditioning circuits,
 - Data acquisition hardware,
 - And software that captures several engine parameters in real time are to be incorporated
 - All sensors to be measured for plotting graphs, calculation and analysis
 - The equipment has provision for effective and accurate automatic data acquisition system. It allows students to display, graph and analyze all relevant variables and save their results for later analysis.
- **General**
 - Exhaust with silencer/muffler
 - Tool Kit included
 - Spark plug socket included
 - An original aircraft Ground Power Unit(GPU) Plug included
- **Testers (Included)**
 - Differential cylinder pressure tester
 - Dual magneto synchronizer
- Wirings on the trainer are connected via terminals
- Wires have clear identification labels for each wire
- All wires are coded and labeled for troubleshooting
- Metal/aluminum frame with 4 wheels. All wheels are lockable
- Heavy duty vibration and shear mounts to absorb vibrations
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers
- Device's original Manual
- Device's original Electrical Wiring Diagrams

Power Specs

- LAN connection point
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Two 12 Volt Batteries
- Gas Fuel
- Oil

Accessories

- Data Acquisition System (DTA-100A) (without computer)

Runnable Aircraft Piston Engine Trainer (Variable Pitch)

PSA-100V



Trainees can learn main components and systems in an aircraft piston engine with PSA-100V Runnable Piston Engine Trainer. They can operate a piston engine with the training set after learning on operational procedures. Training set includes all the systems that is on an piston engine.

The trainees may also be trained to remove and replace different parts for field level experiment and maintenance practice.

Specifications

Features

- Understanding fundamentals of aircraft piston engines and its components.
- **Engine;** 4 or 6 Cylinder Aircraft Piston Engine
- **Systems;**
 - Electrical Systems (Ignition and starting)
 - Fuel system
 - Oil System
 - Propeller control system
 - Instrument System
 - Control System
 - Master Power System
- **Electrical System**
 - Starter
 - Magnetos
 - Ignition leads
 - Ignition unit
 - Plugs (spare plug included)
 - Battery; (battery charger included)
- **Fuel System**
 - Fuel: AVGAS
 - Fuel Tank included
 - Fuel Pump
- **Oil System**
 - Oil Tank
 - Oil Pump
 - Governor
 - Oil level stick
- **Instruments Systems(Digital or Analogue)**
 - RPM/Tachometer Gauges
 - Manifold Pressure Gauge
 - Oil Pressure Gauges

Runnable Aircraft Piston Engine Trainer (Variable Pitch)

- Oil Temperature Gauges
- Fuel Pressure Gauge
- CHT Indicator (4 pieces)
- EGT Indicator(4 pieces)
- Fuel Quantity Gauge
- Voltmeter
- Ammeter
- Hour meter
-
- **Propeller**
 - Connected with the **variable pitch propeller** assembly including **spinner** and governor. (Oil system)
 - Two or Three blade options
- **Control**
 - Throttle Control (Push open)
 - Mixture Control (Pull lean)
 - Propeller Control
- **Master/Control Panel**
 - Aircraft system circuit breakers
 - Master power switch
 - Master power lamp
 - Fuel control
 - Starter control
 - Magneto control
 - Beacon control
- **Test Cabin**
 - The system mounted on a metal/aluminum mobile semi-enclosed test cell cabin
 - Plexiglass windows in the front and on both sides.
 - Three anti-collision light mounted(Right & Left side and top)
 - Min four (4) Tie points
- **Data Acquisition System (DTA-100A)**
 - The complete data acquisition system including engine-mounted sensors,
 - Signal conditioning circuits,
 - Data acquisition hardware,
 - And software that captures several engine parameters in real time are to be incorporated
 - All sensors to be measured for plotting graphs, calculation and analysis

Runnable Aircraft Piston Engine Trainer (Variable Pitch)

- The equipment has provision for effective and accurate automatic data acquisition system. It allows students to display, graph and analyze all relevant variables and save their results for later analysis.

- **General**

- Exhaust with silencer/muffler
- Tool Kit included
- Spark plug socket included
- An original aircraft Ground Power Unit(GPU) Plug included

- **Testers**

- Differential cylinder pressure tester
- Dual magneto synchronizer

- Wirings on the trainer are connected via terminals
- Wires have clear identification labels for each wire
- All wires are coded and labeled for troubleshooting
- Metal/aluminum frame with 4 wheels. All wheels are lockable
- Heavy duty vibration and shear mounts to absorb vibrations
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel.

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers
- Device's original Manual
- Device's original Electrical Wiring Diagrams

Power Specs

- LAN connection point
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Two 12 Volt Batteries
- Gas Fuel
- Oil

Accessories

- Data Acquisition System (DTA-100A) (without computer)

Gas Turbine Mini Jet Engine Training Set

AJT-100A



Gas Turbine Mini Jet Engine Training Set is used to analyze working principles of computer-controlled gas turbine engine and fluid mechanics.

Training set examines specific thrust, fuel consumption and air/fuel ratio of gas turbine jet engine and open cyclic operating principles. It comprises of single shaft gas turbine, fuel system, starter, ignition system, measurement and control equipment.

Single shaft gas turbine includes radial compressor, axial gas turbine, circular combustion chamber and nozzle.

Specifications

Features

General Features

- Movable Platform
- Starter Engine
- Ignition Plug
- Fuel Tank
- Fuel Pump
- Fuel Filter
- Fuel Valve

Indicator LCD

- RPM Gauge
- P2, P3, T1, T2, T3, T5 Gauges
- Thrust Gauge
- Fuel Flow Gauge
- Caution Panel

Gas Turbine Engine

- Max RPM : 125.000
- Idle RPM : 33.000
- Fuel Consumption : 35 – 50 L/h
- EGT : 0 – 700°C

Sensors

- Thrust Sensor (0-500 Newton)
- P2 Pressure Sensor
- P3 Pressure Sensor
- T1 Temp.Sensor
- T2 Temp Sensor
- T3 Temp Sensor
- T5 Temp Sensor
- Fuel Flow Sensor

Documentation

- User's Manual
- Training video for teachers
- Device's original Manual

Power Specs

- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- The JetCAT engine can use deodorized kerosene, 1-K kerosene or Jet-A1 for fuel. Fuel must be mixed with 5 % synthetic turbine oil. **Example Formula:** 1 quart of oil in 5 gallons of fuel. Oil brands like Aeroshell 500 or Exxon 2380 are suitable.

Gas Turbine Mini Jet Engine Training Set (Less Sensors)

AJT-100B



Gas Turbine Mini Jet Engine Training Set is used to analyze working principles of computer-controlled gas turbine engine and fluid mechanics.

Training set examines specific thrust, fuel consumption and air/fuel ratio of gas turbine jet engine and open cyclic operating principles. It comprises of single shaft gas turbine, fuel system, starter, ignition system, measurement and control equipment.

Single shaft gas turbine includes radial compressor, axial gas turbine, circular combustion chamber and nozzle.

Specifications

Features

General Features

- Movable Platform
- Starter Engine
- Ignition Plug
- Fuel Tank
- Fuel Pump
- Fuel Filter
- Fuel Valve
- Indicator LCD
- RPM Gauge
- T1(air inlet) and T5(EGT) Gauges
- Thrust Gauge
- Fuel Flow Gauge
- Caution Panel

Gas Turbine Engine

- Max RPM : 125.000
- Idle RPM : 33.000
- Fuel Consumption :
35 – 50 L/h
- EGT : 0 – 700°C

Gas Turbine Mini Jet Engine Training Set (Less Sensors)

Sensors

- Thrust Sensor (0-500 Newton)
- P2 Pressure Sensor
- T1 Temp.Sensor
- T5 Temp Sensor
- Fuel Flow Sensor

Control Panel

- Master Switch
- Master Lamp
- Trim Switch
- Engine Start Switch
- Automatic Stop Switch
- Emergency Stop Switch
- Beacon Switch
- Computer ON/OFF

Documentation

- User's Manual
- Training video for teachers
- Device's original Manual

Power Specs

- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- The JetCAT engine can use deodorized kerosene, 1-K kerosene or Jet-A1 for fuel. Fuel must be mixed with 5 % synthetic turbine oil. **Example Formula:** 1 quart of oil in 5 gallons of fuel. Oil brands like Aeroshell 500 or Exxon 2380 are suitable.

Turboshaft Engine Trainer

RTSE-100A



Trainees can learn basic components and systems in a gas turbine engine with RTSE-100A Runnable Turboshaft Engine training set. They can operate a gas turbine engine with the training set after learning on operational procedures. Training set includes all the systems that is on a gas turbine engine.

Specifications

Features

- Understanding fundamentals of aircraft Runnable Turboshaft Training Set and its components.
- Engine;
- 100% throttle, min 5500 RPM
- 24-30 volt DC Starter motor included
- Oil tank on the engine included
- Oil cooler included
- Oil Pressure and Scavenge pumps included.
- Ignition system included
- 820-1230 BHP
- 4 Stage Axial LP Compressor
- Centrifugal Impeller HP Compressor
- Bleed Valve
- Nh turbine RPM is min 42400
- NI turbine RPM is min 35,000
- NPT turbine RPM is min 27,000
- Overall Pressure Ratio is 12:1
- at least 5 chip-dedectors point - removed easily by hand
- Fuel Tank included
- Movable kiosk for the operating panel
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Turboshaft Engine
 - Starter
 - Oil pump
 - Ignititer
 - Fuel pump
 - Oil Cooler
- Master power switch
- Start/Run switch
- Start button
- Cancel Button
- Pressure light indicator
- Power/sart/running light
- Starter control sw and light
- Ignition control sw and light
- HP RPM indicator
- FPT RPM indicator
- EGT indicator
- Original case
-

Documentation

- Training video for teachers
- Device's original Manual

Power Specs

- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Fuel Kerosene
- Two 12 Volt Batteries



Lycoming engine stand is excellent trainer for familiarization of the typical aircraft piston engines. It includes the piston engine components which can be used as a disassemble and assemble trainer. With rotatable stand, piston engine can be tilt different angles to clearly see and check the components side or bottom of the engine. Engine can be positioned upside-down easily with the help of gear system.

Specifications

Features

- Fundamental engine familiarization
- Disassembly and reassembly operation
- Engine components identification

Components

- Four (4) cylinder piston engine
- Vacuum pump
- Magnetos
- Igniter plugs
- Igniter cables
- Tilttable mobile engine stand
- Tilt wheel and gear assembly
- Four (4) lockable casters
- Oil Dipstick
- Oil sump

Documentation

- Original manual



Trainees can familiarize with four-stroke aircraft motor components and parts with TPE-100A Teardown Aircraft Piston Engine. They can improve manual practice by making extraction and assembly on the training set. They will also learn about maintenance procedures for the engine.

Specifications

Features

- Pistons
- Ignition System
- Intake System
- Valves
- Magnetos
- Carburetor
- Crankshaft
- Lifter
- Accessory Drive



Trainees can learn principles of operation of a piston aircraft engine on PCA-100A Piston Engine Cutaway. In this cutaway, the cylinder moves and the elements that impact the operation can be clearly seen. All strokes; intake, compression, power, and exhaust, can be observed in a four-stroke engine.

This cutaway can be manufactured with four or six cylinders.

Specifications

Features

- Pistons
- Ignition System
- Intake System
- Valves
- Magnetos
- Carburetor
- Crankshaft
- Lifter
- Accessory Drive

Runnable Aircraft Propeller Trainer



Trainees examine and learn propeller operation procedures and maintenance procedures in runnable aircraft propeller training set.

Constant Speed Propeller

Required Items

To effectively use the RAP-100B

- Compressor
- Hydraulic Oil DTE-46

Specifications

Features

- Understanding fundamentals of aircraft Propeller and its components.
- Functional and configured like a typical aircraft Propeller system.
- Propeller is constant speed propeller
- The hose and tubes used in the trainer labeled according to aviation standards.
- Propeller RPM control
- Propeller Pitch control
- Engine oil level control
- Manifold control
- Learning propeller pitch name
- Propeller pitch angle can be changed
- Propeller pitch angle can be check
- Propeller disassembly and assembly training can be provided
- Propeller guard
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Constant Speed Propeller
- EICAS/ECAM Screen
 - RPM Gauge
 - Pressure Gauge
 - Manifold Gauge
- Throttle lever – TQ
- Control Panel
- Master power panel
- Aircraft circuit breaker
- Adjustable oil pressure knob
- Electric motor
- Electric motor inverter
- Beacon
- Propeller case

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Air Compressor max 90 PSI pressure outlet

Accessories

- Instructor's Panel Control Application (without computer) for Scenario and Fault Simulation

Magneto Test Device

MTD-100A



Specifications

Features

- Dimensions of the device are approximately 100cm x 50 cm x 115 cm (WxLxH).
- Operating voltage of the device is 220 V / 50Hz - 110V/50Hz
- There is a tachometer (revolution measurement indicator) on the system.
- There is a 2.2 kW AC motor and a motor driver on the system.
- System's maximum operating device is 3000 rpm and system's revolution is measured with a sensor momentarily.
- There are 12 spark bar unit in the system.
- Magneto connection parts will be given with the system to connect magnetos easier to the main system.
- There is closed cabinet at the lower part of the system.

Aircraft Window & Seat Assembling Trainer

PNL-100B



Trainees can practice removal and installation of cabin panels with PNL-100B Aircraft Window & Seat Assembling Training Set. The trainees can apply skills on the set and fulfill EASA-147 requirements with this training set.

Specifications

Features

- Understand fundamentals of aircraft cabin parts.
- Training video for teachers
- Delivered fully assembled tested and ready to operate

Components

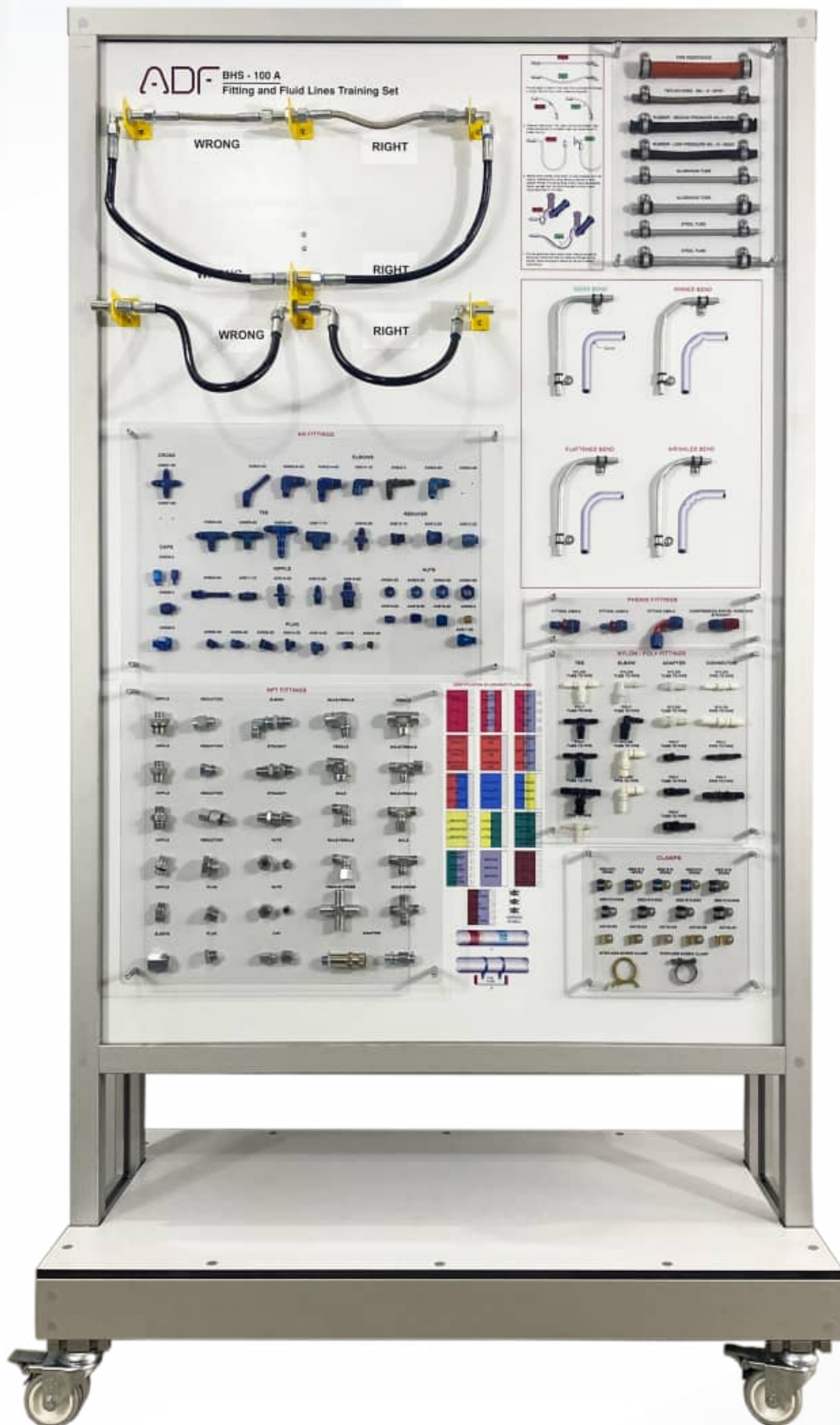
- Mock-Up Curved Aircraft Fuselage Cut-away
- Aircraft Window Panel
- Aircraft Seat
- Aircraft Seat Rail
- Aircraft Carpet

Documentation

- User's Manual

Fittings and Fluid Lines Training Set

BSH-100V



The Fluid Lines & Fittings Trainer Set demonstrates multiple types of fluid lines fittings and their assembly techniques. It displays the aircraft standard for assembling, routing, supporting fluid lines. Examples of frequently made mistakes are shown as well for trainees to avoid.

The training set is to be operated by a switch that lets the air pressure from a reservoir to operate an actuator.

Components/hoses are mounted on both the front and the back of the vertical panel.

Specifications

Features

- Understand fundamentals of aircraft Fittings and Fluid Lines.
- Four(4) or more examples of correct/incorrect flexible hoses
- Four(4) or more examples of correct/incorrect solid lines(tube).
- Hoses & Tubes
- AN, NPT fittings
- NPT fittings
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate

Components

- Teflon hose
- Fire resistance hose
- Rubber Hoses
- MIL-H-8794 standard hose
- MIL-H-5593 standard hose
- MIL-H-83797 standard hose
- Aluminum tube min 8 mm diameter
- Aluminum tube min 10 mm diameter
- Steel tube min 8 mm diameter
- Steel tube min 10 mm diameter
- AN840 HOSE NIPPLE PIPE THREAD
- AN821-ELBOW
- AN912-1 BUSHING, PIPE THREAD REDUCER
- AN912-2 BUSHING, PIPE THREAD REDUCER
- AN929-2 CAP
- AN929-4 CAP

Fittings and Fluid Lines Training Set

- AN929-6 CAP
- AN817 NUT, SLEEVE, COUPLING
- AN827 CROSS, FLARED TUBE
- AN822-6 ELBOW, FLARED TUBE AND PIPE THREAD, 90°
- AN822-4 ELBOW
- AN823 ELBOW, FLARED TUBE AND PIPE THREAD, 45°
- AN833 ELBOW, FLARED TUBE BULKHEAD AND UNIVERSAL, 90°
- AN844 HOSE ELBOW - PIPE THREAD 45°
- AN914 ELBOW, INTERNAL AND EXTERNAL PIPE THREAD, 90°
- AN821 ELBOW - FLARED TUBE 90°
- BRASS UNION NUT AN805-2
- AN816 NIPPLE - FLARED TUBE AND PIPE THREAD
- AN911 NIPPLE, PIPE THREAD
- AN815 NIPPLE
- AN818-2 NUT COUPLING
- AN818-3 NUT COUPLING
- AN818-4 NUT COUPLING
- AN924-2 ALUMINUM NUT
- AN924-3 ALUMINUM NUT
- AN924-4 ALUMINUM NUT
- AN924-5 ALUMINUM NUT
- AN806-3 FLARED TUBE PLUG
- AN806-4 FLARED TUBE PLUG
- AN806-5 FLARED TUBE PLUG
- AN814-3 PLUG AND BLEEDER SCREW THREAD
- AN814-4 PLUG AND BLEEDER SCREW THREAD
- AN913 PLUG, SQUARE HEAD, PIPE THREAD
- AN932-2D PLUG COUNTERSUNK
- AN919 REDUCER, EXTERNAL THREAD
- AN824 TEE, FLARED TUBE
- AN825 TEE - FLARED TUBE AND PIPE THREAD ON SIDE
- AN917 TEE, INTERNAL PIPE THREAD
- AN834 TEE, FLARED TUBE, BULKHEAD AND UNIVERSAL
- Male Elbow
- Male Plug
- Female Plug
- Male Cross
- Niple
- Cap

Fittings and Fluid Lines Training Set

- Sleeve
- Nut
- Straight
- Female run tee
- Male run Tee
- Female elbow
- Adaptor
- NYLON / POLY FITTINGS -Min 18 pieces
 - Tee
 - 5 different type of TUBE TO PIPE
 - ELBOW
 - 4 different type of TUBE TO PIPE
 - ADAPTER
 - 5 different type of TUBE TO PIPE
 - CONNECTOR
 - 4 different type of TUBE TO PIPE
- MS21919-DG2
- MS21919-DG3
- MS21919-DG4
- MS21919-DG5
- MS21919-DG6
- AN742-D3
- AN742-D4
- AN742-D5
- AN742-D6
- AN742-D7
- MS clamp
- STEPLESS SCREW CLAMP 2 size
- Identification of aircraft fluid lines



HT-100B Tube and Hose System Training set provides training on tubing of hydraulic and pneumatic systems in an aircraft. In this training set, tubing and hosing done by trainees can be tested with the pump and gauges.

Specifications

Features

- Understand fundamentals of Tubing and Piping and its components
- Practice piping and tubing skills
- 20 Different Trainings Scenarios
- 20 different transition points
- Pressure gauges to show the line pressures
- Vertically and horizontally application
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable
- Delivered fully assembled tested and ready to operate

Components

- 2 hydraulic pressure gauges
- 2 pneumatic pressure gauges
- Hydraulic tank with hand pump
- Flaring tools
- Tube Cutter
- Tube Bender
- Fittings (at least 200 units)
 - Male Elbow
 - Male Plug
 - Female Plug
 - Male Cross
 - Female Cross
 - Nipple
 - Cap
 - Sleeve
 - Nut
 - Straight
 - Female run tee
 - Male run Tee
 - Female elbow
 - Adaptor
- 50 meter transparent pneumatic hose
- 50 meter aluminum and 20 m metal hoses
- 2 drawers for fittings

Documentation

- User's Manual

Requirement

- DTE-10 Hydraulic Oil 5 Liters
- DTE-46 Hydraulic Oil 28 Liters

Bearing and Lubrication Training Set

BRN-100A



Trainees can learn about various bearing and lubrication, one of the most essential parts of aircraft engines while they can also gain hands-on experience for lubrication on the engine in BRN-100A training set.

Trainees can observe cut views of bearings on the training set.

Specifications

Features

- The trainer allows trainees to understand fundamentals of Bearing & Lubrication
- Application lubrication area.
- Application greasing area
- Application comparator area
- Drain line.
- The system is mounted on a metal/alluminum mobile stand.
- Metal/alluminum frame with 4 wheels. 2 of 4 wheels must be lockable.
- Colored Ultraviolet printing method is used in all writings and drawings on alluminum composite panel. (It makes more durable and quality)

Components

- 2 types of pillow block bearing.
- 1 deep groove ball bearing.
- 1 cut-away deep groove ball bearing.
- 1 spherical roller bearing.
- 1 cut-away Spherical roller bearing.
- 1 Thrust ball bearing.
- 1 cut-away Thrust ball bearing.
- 1 Taper roller bearing.
- 1 cut-away Taper roller bearing.
- 1 needle roller bearing.
- 2 linear bearings.
- 5 degreasing sprays.
- 2 grease pumps.
- 5 oilers
- Comparator with accessories

Documentation

- User's Manual

Safety Wire Training Set

EMT-100A



EMT-100 A Safety-Wire Training Stand enables trainees to observe all steps of safety wiring on an aircraft or any component.

Trainees can also learn several application processes in line with EASA-147 mechanical requirements.

Specifications

Features

- Understanding fundamentals of Safety Wire and its components.
- 15 aluminum parts for different stage
- Aluminum panels display 7 different applications.
- Marking paint application
- Marking line application
- Center punch application
- Normal drill application
- Tapping application
- Helicoil application
- Safety wire application
- 3 different safety wire samples.

Components

- Aluminum Parts
- Drilled Bolts
- Aviation standard safety wire twisters (6 inches – 2 pieces)
- Aviation standard safety wire twisters (9 inches – 2 pieces)
- Aviation standard 0,20/0,22 or 0,32 safety wires(10 boxes)

Documentation

- User's Manual



Safety wire box is a compact design hands on trainer to teach the safety wire applications on different components and different areas to simulate the aircraft.

Specifications

Features

- Understanding fundamentals of safety wire application
- Drilled bolt safety wire application
- Turnbuckle safety wire application
- Electrical socket safety wire application

Components

- Safety wire box
- Drilled bolts
- Turnbuckle
- Electrical socket
- Safety wire plier
- Safety wire

Riveting Training Set

RVT-100A



RVT-100A Riveting Training Set is designed to train and practice riveting procedure on fuselage of an aircraft. Trainees can learn right and wrong ways of riveting techniques and differentiate between them.

This training set also provides opportunity to practice over-sized riveting and Hi-Lok/ Lok-Bolt applications.

Specifications

Features

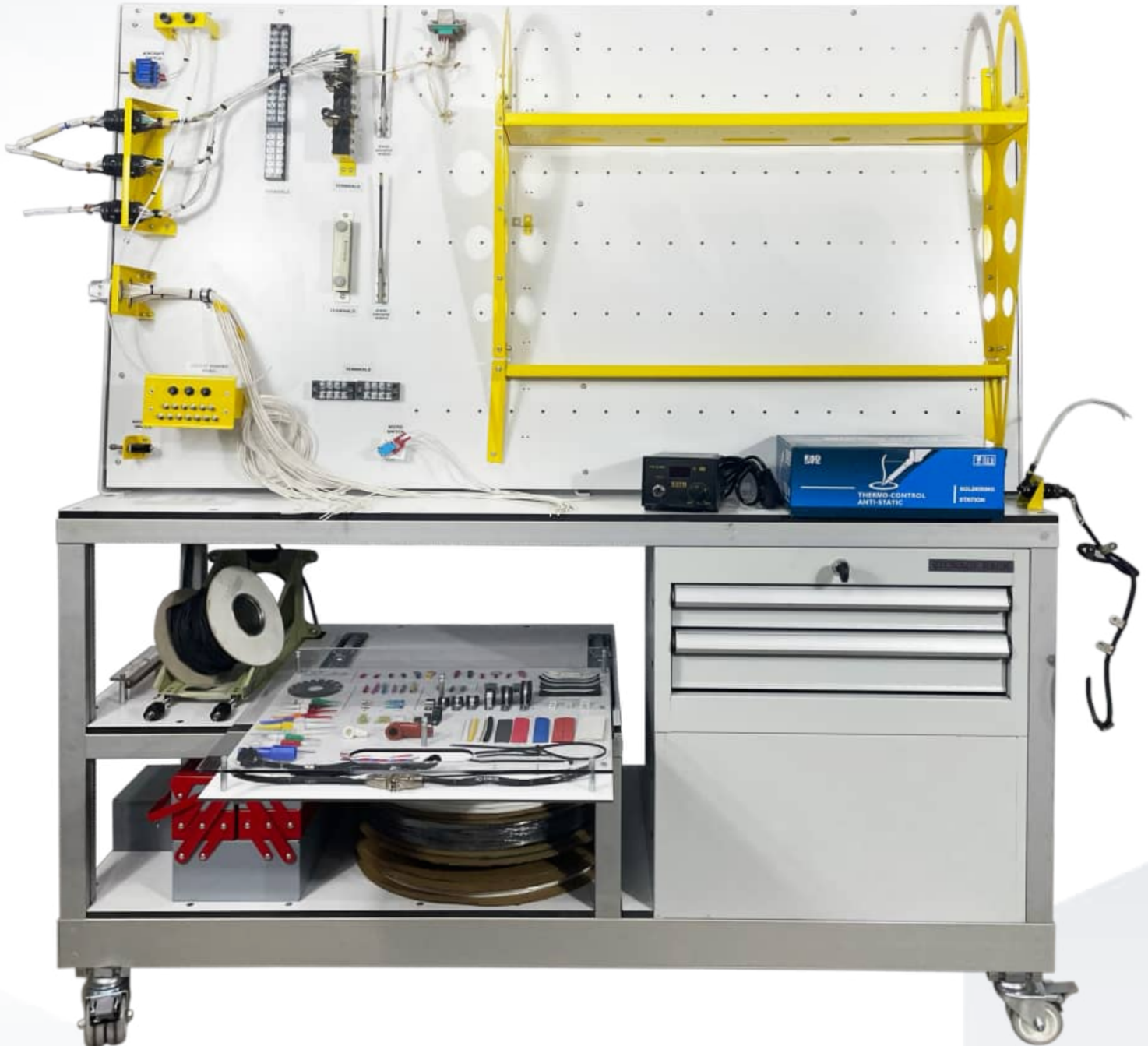
- Understanding fundamentals of Riveting.
- Understanding Cleco applications.
- 3 correctly applied rivet samples.
- 3 incorrectly applied rivet samples.
- Aircraft rivets.
- Hi-Locks / Lock-Bolts
- Riveting kit
- Cleco kit
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate

Components**Rivet Gun**

- Power Regulator
- 2 x Retainer Spring
- 4 x Bucking Bar
- 3/32" AN470 Rivet Set (3-1/2" OAL)
- 1/8" AN470 Rivet Set (3-1/2" OAL)
- 5/32" AN470 Rivet Set (3-1/2" OAL)
- 3/16" AN470 Rivet Set (3-1/2" OAL)
- Mushroom Rivet Set with Rubber Guard
- 3/32" AN470 Rivet Set (5-1/2" OAL)
- 1/8" AN470 Rivet Set (5-1/2" OAL)
- 5/32" AN470 Rivet Set (5-1/2" OAL)
- 3/16" AN470 Rivet Set (5-1/2" OAL)
- Mushroom Rivet Set
- 3/32" AN470 Offset Rivet Set (3-1/2" OAL)
- 1/8" AN470 Offset Rivet Set (3-1/2" OAL)
- 5/32" AN470 Offset Rivet Set (3-1/2" OAL)
- Offset Mushroom Rivet Set
- Polyethylene Carrying Case

Documentation

- User's Manual



ENS-100V Aircraft Wire and Cable Application Training Stand is designed as a mechanism allowing practical wiring and cabling between devices. Trainees can practice various cabling and wiring on the set and learn about different techniques.

Specifications

Features

- Understanding fundamentals of aircraft Wire & Cable Application and its components.
- Pin insertion/extraction application.
- Heat shrink tube application.
- Ring and fork crimp applications.
- Socket application.
- Terminal application.
- Electric bar application.
- Strap(tie) application.
- Antenna cable application.
- Aircraft relay cable application.
- Line test application.
- Butt splice application.
- Wire cap application.
- Wire clamp application.
- Wire nylon clamp application.
- Wire-gauge application.
- Cables is displayed on ribs.
- 4 drawers for tools
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Test panel
- Aircraft Plug/Sockets
- Pin insertion/extraction tool kits cable stopper
- Aircraft pin crimp ring tool
- Standard crimp ring tool
- Automatic Wire Stripper
- Wire Cutter
- Terminals
- Straps Application
- 5 different heat shrinks (100 meter)
- 3 different insulated crimp ring for applications (600 pieces)
- 3 different insulated fork crimps for applications (600 pieces)
- Aircraft cable sample(30 meter)
- Antenna cable
- Aircraft antenna
- Antenna cable plug/socket
- Static discharger
- White application cable (200 meter)
- Avionic device tray mount
- Relays
- Mock-up wing ribs (2 piece)
- Two drawers
- Tool box

Documentation

- User's Manual



Trainees would recognize various o-ring types that are commonly used in aircraft maintenance with RNG-100 Model O-Ring Training Set. It also provides opportunity for comparing and usage procedures.

RNG-100 training set includes different o-ring models and practice materials. Trainees can learn the o-ring place of use with moving transparent cylinder in the training set.

Specifications

Features

- Understanding fundamentals of aircraft O-Ring
- Suitable for bi-directional use
- One side of the training set is O-ring and the other side is sealing applications.
- Contain the cylinder O-ring application.
- Common O-ring types are displayed in the set.
- 10 application points in the set for practice
- Transparent and aluminum application point for sealing
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on alluminum composite panel.
- Transparent Cylinder
- 15 different types of O-Ring
- 10 practice components
- Inch and Metric Full O-ring Box (4 piece)
- Tube liquid seals (10 piece)
- O-ring extractor tool kits (5 piece)

Documentation

- User's Manual



The Aircraft Pneumatic System Trainer is designed to provide hands-on training on a functional pneumatic system. The system represents a pneumatic system that is used as an emergency backup for hydraulic system. A typical example is emergency braking system in case of hydraulically actuated brake failure.

The trainer can be operated by a switch which allows the air pressure from a reservoir to operate an actuator. The reservoir can be refilled after use from any pressurized air source like shop air or air compressor.

Specifications

Features

- Understanding main back-up Pneumatic system and its components
- Understanding emergency braking system.
- Understanding emergency backup for hydraulic system fail.
- Wirings on the trainer are connected via terminals.
- Wires have clear identification labels for each wire.
- All wires are coded and labeled for troubleshooting.
- The system mounted on a metal/aluminum mobile stand.
- Metal/aluminum frame with 4 wheels. 2 of 4 wheels are lockable.
- Delivered fully assembled tested and ready to operate
- Colored Ultraviolet printing method on aluminum composite panel

Components

- Air Pressure Gauge
- Pneumatic Reservoir
- Pneumatic Actuators (Qty. 2)
- Filler Valve
- Air Filter
- Selector Valve / Solenoid Control Valve
- Shuttle Valve
- Check Valve
- Regulator
- Moisture Separator
- Air compressor not included, must buy locally

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers

Power Specs

- LAN connection point
- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Required Items

- Air Compressor max 90 PSI pressure outlet
- DTE-46 Hydraulic Oil 28 Liters

Micro-Switch Training Set

MKS-100A



The trainer allow trainees to understand fundamentals of Micro-Switch. Trainer have 5 different type of Micro-Switch which are used with pneumatic system.

- Delivered fully assembled tested and ready to operate.

Specifications

Features

- Aircraft micro-switch application
- 3/2-way valve operation
- Different types of 5/2-way valve operation
- Single-acting cylinder operation
- Combine logic operations
- Analyses and set up circuits with two cylinders.
- Explain and implement AND/OR logic operations.

Components

- Aircraft micro-switch
- 5 different Micro-Switch
 - Long Lever
 - Short lever
 - Roller lever (2 different type)
 - Limit Switch
- Pneumatic Filter
- Min 4 Pneumatic cylinder
 - Min 1(one) Double acting cylinder with double rod
 - Min 2(two) Double acting cylinder with single rod
 - Min 1(one) Single acting cylinder
- Min 2(two) Pressure gauge
- Min 3(three) 3/2-way roller lever valve, normally closed
- Min 3(three) 3/2-way roller lever valve with idle return
- Min 1(one) 3/2-way single solenoid control valve
- Min 1(one) 5/2-way single pilot valve
- Min 1(one) 5/2-way double pilot valve
- Min 2(two) 5/2-way selector switch valve
- Min 1(one) 3/2-way selector switch valve
- Min 1(one) 3/2-way single solenoid control valve

Micro-Switch Training Set

- Min 2(two) 5/2-way single solenoid control valve
- Min 2(two) 5/2-way double solenoid control valve
- Min 1(one) Check valve
- Min 1(one) Shuttle valve
- Min 1(one) Dual-pressure valve
- Min 2(two) One-way flow control valve
- Pneumatic distribute line
- Min 4 relay module with 4 mm socket input
- Min 4 switch module with 4 mm socket input
- GND and 24 volt power line with 4 mm socket input
- Min 2 lamp module with 4 mm socket input
- Pressure regulator with pressure gauge
- All necessary fittings and plumbing

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for teachers.

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz



Pitot-static system to conduct pitot static system checks for analog flight instruments operations. The pitot-static lines and fittings installation trainer provides hands on training to the students for inspection, removal and installation procedures for a pitot-static instrument system. An air speed indicator, an altimeter and a vertical speed indicator along with a pitot tube and two static port are installed on the trainer panel. A pneumatic switch allows selection between the main and alternate static port.

Components

- Altimeter
- Vertical Speed Indicator
- Air Speed Indicator
- Vacuum Pump
- Pressure Pump
- Vacuum control switch
- Pressure control switch
- Pitot adjust knob
- Static adjust knob
- Pitot-Static System
- Pitot Tube
- Simulated Fuselage Static Port
- Simulated Alternate Static Port
- Simulated Static Source Selector Switch
- Two Test Ports for Pitot-Static Test Set
- Crossfeed knob
- Pitot vent knob
- Static vent knob
- Pitot pressure outlet
- Static pressure outlet
- Hose
- Fittings
- Cables

Documentation

- User's Manual
- Study Guide
- Instructor's Guide
- Training video for instructors

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz

Pitot / Static Test Device

PST-100A



Pitot Static test set and is perfect for leak testing aircraft pitot and static systems or on-board testing of altimeters/vertical speed indicators and airspeed indicators.

Testers are designed with hand pumps or electrical pumps and external pressure ports for delivering the required pressure and vacuum required for on-board testing

Specifications

Features

- Performs precision Pitot-Static leak tests
- Ideal for calibration training checks and troubleshooting
- Two-instrument combination with optional ranges
- Lightweight plastic case for portability
- Fully portable and self-contained
- Original durable and lockable box
- Pressure Adjustment
- Vacuum Adjustment
- Airspeed indicator check
- Altimeter indicator check
- Variometer indicator check

Components

- Altimeter
- Vertical Speed Indicator
- Air Speed Indicator
- Vacuum Pump
- Pressure Pump
- Vacuum control switch
- Pressure control switch
- Pitot adjust knob
- Static adjust knob
- Crossfeed knob
- Pitot vent knob
- Static vent knob
- Pitot pressure outlet
- Static pressure outlet
- Hose
- Fittings
- Cables

Documentation

- User's Manual
- Training video for teachers

Power Specs

- 110 VAC 60 Hz or 220-240 VAC 50 or 24 Volt DC power



Bonding meter feature 3.5-inch TFT display, maximum 50,000 counts measurement display, the rapid sampling rate of 60 readings per second, optimum 0.05% Measurement precision, four wire measurement method as well as the temperature measurement and temperature compensation measurement function to meet the requirement of low resistance measurement application.

Specifications

Features

- Movable stand with drawer
- Mili-ohm meter
- 50,000 counts
- 3.5" (320 x 240) TFT LCD display
- High accuracy of 0.05% precision
- 1Amp test current, 0.1 $\mu\Omega$ resolution
- Fast measurement of 60 readings per second
- Four wire resistance measurement
- Temperature compensation measurement function
- Delayed measurement
- 20 sets of panel setting memory

Included Accessories

- Quick Start Guide x 1,
- Power cord x 1,
- Test lead GTL-308 x 1,
- CD x1(complete user manual)

Documentation

- Device's original Manual

Power Specs

- Electrical box
- Residual current device
- Emergency Button
- Energy Signal Lamp
- 110 VAC 60 Hz or 220-240 VAC 50 Hz



Designed for ground training only. This set of template can be used to demonstrate the control surfaces such as aileron, elevator and rudder balancing operation. This trainer is not approved for maintaining airworthy aircraft.

Components

- Two (2) stands
- Balancing weight
- Double sided lever
- Adjustable trailing edge holder
- Balance weight needle

Documentation

- Training video for instructors



For the basic landing gear systems found in most general aviation aircraft offering one nose gear configuration useable for teaching shock strut servicing. The Cessna Nose Gear Assembly is a simple, steerable oleo strut from a single-engine Cessna. It comes custom mounted on a shop stand with a shimmy dampener attached. Wheel and tire are included.

Components

- Tire
- Wheel
- Oleo strut
- Shimmy dampener

Documentation

- Original maintenance manual

Completed Projects Examples



Completed Projects Examples



Completed Projects Examples





REFERENCES



REFERENCES



ADF

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