



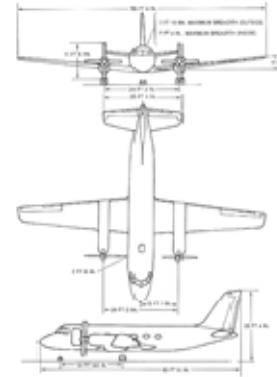
NIDA SPECIFICATIONS



FUNDAMENTALS OF AVIATION TECHNOLOGY

General Description

The Nida Fundamentals of Aviation Technology curriculum is presented in Computer Assisted Instruction (CAI) format, utilizing the educational advantages of graphics, animation, and automated record keeping. The courseware is designed as individual topic-specific lessons that can be assigned as a complete program or selectively administered.



Topics

Introduction to Aviation Maintenance Technology

Introduction to Aviation Technology
General Aircraft Principles
Aircraft Structures
Aircraft Power Plants
Foreign Object Elimination

Math for Aircraft Technicians

Fractions
Fraction Operations
Decimal Fractions
Percents
Signed Numbers
Exponents and Square Roots
Metric Notation
Ratio and Proportion
Fundamentals of Algebra
Linear Equations
Solving Linear Equations
Angular and Circular Measurements
Area Measurements
Volume Measurements
Velocity and Acceleration Measurements
Force Measurements
Work and Power Measurements

Science for Aircraft Technicians

Introduction to Chemistry
Matter and Energy
Simple Machines
Aircraft Publications
Aircraft Regulatory Publications
Aircraft Drawings
Aircraft Technical Publications
Line Maintenance
Flight Line Safety
Flight Line Fire Protection
Aircraft Ground Operations

FundamentalAviationTechnology 1011

Nida Corporation

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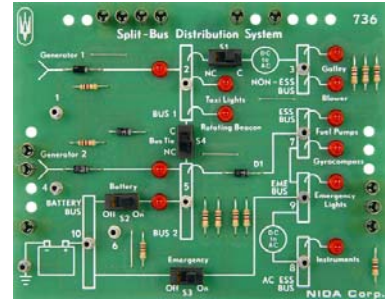
NIDA SPECIFICATIONS



AIRCRAFT ELECTRICAL EXPERIMENT CARD SET MODEL 1438P

General Description

The Aircraft Electrical experiment card set is designed for use with the Nida Model 130E training console. Students will be introduced to Aircraft Wiring and Aircraft Power. The various types of wires, cables, connectors, and tools are covered in theory then they build actual wire & cable assemblies and test the continuity of each. Aircraft Power covers batteries, DC & AC generation, basic aircraft & multi-engine aircraft power distribution systems each with a hands-on experiment emphasizing troubleshooting.



Card Specifications

- Compatible with computer assisted instruction.
- Pre-assembled circuits require no assembly, jumper wires, or soldering.
- Exposed components provide maximum technician accessibility.
- Push-on, pull-off connections ensure self-cleaning of contacts.
- Powered automatically by computer instruction or manual push-button action.
- Nondestructive faults activated by computer instruction or manual push-button action.
- Generated signals are measurable with standard test equipment.

Experiment Cards

- DC Motor/Generator
PC130-180
- Cable Tester I
PC130-W6
- Cable Tester II
PC130-W7
- Power Distribution System
PC130-734
- AC to DC Generator
PC130-735

- Split Bus Distribution System
PC130-736
- Troubleshooting Logic
PC130-739
- Power Generation
PC130-740
- Power Distribution
PC130-741
- Systems
PC130-742

- Cockpit Wiring
PC130-746
- Bulkhead Harness Connection
PC130-747
- Aircraft Lighting
PC130-748

Also Included:

Model 1410
Soldering Program
(see separate specification)
Model 1438 KIT
(see separate specification)

31-OCT-2013

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NIDA SPECIFICATIONS



AIRCRAFT ELECTRICAL SYSTEMS EXPERIMENT CARD SET MODEL 1438S

General Description

The Aircraft Electrical Systems experiment card set is designed for use with the Nida Model 130E training console. Students will be introduced to Aircraft Airframe Systems and Aircraft Engine Systems. The following systems are covered; Aircraft Lighting, Aircraft Ice & Rain Protection, Environmental Control, Landing Gear, Aircraft Braking, Fire Warning & Extinguishing, Aircraft Fuel, and Aircraft Ignition. Students will first be taught the theory of each then apply each with a hands-on troubleshooting experiment using standard test equipment.



Card Specifications

- Compatible with computer assisted instruction.
- Pre-assembled circuits require no assembly, jumper wires, or soldering.
- Exposed components provide maximum technician accessibility.
- Push-on, pull-off connections ensure self-cleaning of contacts.
- Powered automatically by computer instruction or manual push-button action.
- Nondestructive faults activated by computer instruction or manual push-button action.
- Generated signals are measurable with standard test equipment.

Experiment Cards

- | | |
|--|--|
| <ul style="list-style-type: none"> • Aircraft Environment Power Source
PC130-731 • Aircraft Environment Thermostat
PC130-732 • Aircraft Heat Valve Control
PC130-733 • Fire Warning System
PC130-738 • Landing Gear I
PC130-743 | <ul style="list-style-type: none"> • Landing Gear II
PC130-744 • Landing Gear III
PC130-745 • Incandescent Lights
PC130-749 • Interior Lights
PC130-750 • Strobe Light
PC130-751 • Exterior Lights
PC130-752 |
|--|--|

1438S Aircraft Electrical Sys 1011

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NIDA SPECIFICATIONS



AIRCRAFT ELECTRONIC SYSTEMS EXPERIMENT CARD SET MODEL 1438E

General Description

The Aircraft Electronic Systems experiment card set is designed for use with the Nida Model 130E training console. Students will be introduced to Aircraft Instrument Systems and Aircraft Communications Systems. Topics include Tachometer, Torque, & Position-Indicating Systems, Temperature & Fuel Flow Indicating Systems, Pressure Sensing & Chip Detection Systems, Aircraft Master Warning & Annunciator Systems, and Aircraft Antenna Systems. Students will first be taught the theory of each then apply each with a hands-on troubleshooting experiment using standard test equipment.



Card Specifications

- Compatible with computer assisted instruction.
- Pre-assembled circuits require no assembly, jumper wires, or soldering.
- Exposed components provide maximum technician accessibility.
- Push-on, pull-off connections ensure self-cleaning of contacts.
- Powered automatically by computer instruction or manual push-button action.
- Nondestructive faults activated by computer instruction or manual push-button action.
- Generated signals are measurable with standard test equipment.

Experiment Cards

- | | |
|---|---|
| <ul style="list-style-type: none"> • Temperature Control PC130-189 • Temperature Display PC130-190 • Barometer Circuit I PC130-241 | <ul style="list-style-type: none"> • Barometer Circuit II (Display) PC130-242 • AC to DC Generator PC130-735 • Master Warning & Annunciators PC130-737 |
|---|---|

1438E Aircraft Electronic Sys 1011

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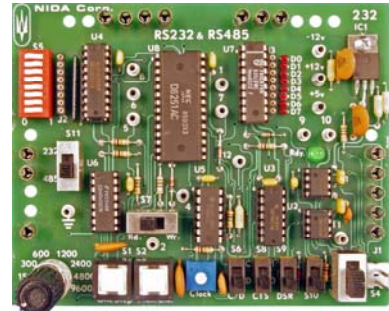
NIDA SPECIFICATIONS



AVIONICS DATA COMMUNICATIONS EXPERIMENT CARD SET MODEL 1438D

General Description

The Avionics Data Communications experiment card set is designed for use with Nida Model 130 series training consoles. Students will identify systems and instrumentation that use data communication, describe how communications systems use protocol to transfer data and observe the transmission and reception of serial data during a hands-on experiment. The electrical characteristics of both RS232 and RS485 are identified while measuring line interface voltages as data is being transferred and received. Bus systems are explored by describing the operational characteristics and actual measurement of signals.



Card Specifications

- Compatible with computer assisted instruction or traditional hard copy text materials.
- Pre-assembled circuits require no assembly, jumper wires, or soldering.
- Exposed components provide maximum technician accessibility.
- Push-on, pull-off connections ensure self-cleaning of contacts.
- Powered automatically by computer instruction or manual push-button action.
- Nondestructive faults activated by computer instruction or manual push-button action.
- Generated signals are measurable with standard test equipment.

Experiment Cards

- | | |
|--|--|
| <ul style="list-style-type: none"> • RS232 & RS485 Interface PC130-232 (2ea.) • Digital Transmission Serial (Sender) PC130-265 • Digital Transmission Serial (Receiver) PC130-266 | <ul style="list-style-type: none"> • Tri-State Transmission Parallel (Sender) PC130-267 • Tri-State Transmission Parallel (Receiver) PC130-268 • Digital Readout Assembly PC130-284 |
|--|--|

1438D AvionDataComm-0902

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