

## T-30D CAT III NAV Ramp Test Set

The T-30D Ramp Test Set is designed for one-man operation of the VOR, MB, GS, LOC, flight director, and autopilot from the cockpit or flight deck. Built into a rugged and durable case, the T-30D will permit compliance with CAT III periodic ramp check certification in all weather conditions.

### P/N T-30D

#### Features

- User selection of inner, middle, and outer marker
- Simultaneous MB and ILS output signals
- Variable and Preset DDM settings
- Variable attenuator to control output

#### VOR

- Allows selection of VOR bearing in 45° steps from 0 to 315°
- Manual slewing provides capability for checking full-scale deflection for “sticky” analog meter movement (+10°)
- Permits deletion of the REF 0, VAR 0, 30 and 9960 Hz modulation to check flag operation
- 1020 Hz tone enable switch
- Manual slewing of VOR bearing  $\pm 10^\circ$  left and right of Course

#### LOC and G/S

- Allows selection of preset DDM deflections of: On Course, one and 2 dots off center
- Full-scale deflection can be tested using manual slewing
- Allows 90 and 150 Hz tones to be deleted
- Simultaneous LOC/GS/MB Mode
- 020 Hz tone enable switch
- Variable attenuator calibrated in 1 dB steps
- Two preset paired frequencies available
- A Marker Beacon and ILS

#### Additional Features

- Rugged Mil-Spec case
- Built in battery and charger
- 100/220 volt operation 40 – 400 Hz
- Simple to understand front panel and controls that requires minimal training
- Built-In diagnostic Self Test

#### CAT III NAV Ramp Test Set Datasheet

- Permits ICAO Annex 10 CAT III ILS ramp check certification
- Checks VOR, GS, LOC, MB, Flight Director, and Autopilot
- Dual VOR/LOC/GS frequencies
- Separate and simultaneous MB/ILS
- Dual extended-range variable ILS
- Quick, easy one-man operation from the cockpit
- Lightweight and portable – weighs only 18 lbs.
- Built-in NICAD battery and charger
- 2-year limited warranty; five & ten year available
- Rugged, reliable, affordable
- Backed by 40 years manufacturing experience
- CE Compliant
- Available non standard VOR/ILS frequencies with local agency approval



## T-36C NAV/COMM Test Set

### Description

The T-36C is a rugged-designed, user-friendly, high-precision instrument for rapid functional testing of VOR, LOC/GS, MB, and VHF COMM (AM/FM) avionics equipment.

The T-36C can be operated in either:

- Standard mode utilizing preset frequencies.
- Keyboard mode, providing full function and control over the signals.

The T-36C allows the test set operator to store three pre-selected carrier frequencies and output power levels for each operational mode. The keyboard provides complete control of most parameters, resulting in a high level of unit flexibility.

The T-36C RF output allows testing from the flight deck of most large aircraft using an expandable, omni-directional antenna. Testing of all functions can be performed with the unit-under-test (UUT) directly connected to Test Set.

- Tests VOR, Localizer, Glideslope, Marker Beacon, and VHF COMM
- Test frequencies can be selected using user-programmed switches or keypad
- Simultaneous LOC, G/S and MB output allow testing of autopilot and flight director
- Allows testing of 8.33 KHz channel spacing
- Compliant with European CE requirements
- 2-year limited warranty

### P/N T36-C

### Features

#### VOR

- Allows selection of VOR bearing in 45° steps
- Manual slewing provides capability for checking fullscale ( $\pm 10^\circ$ ) deflection or "sticky" analog meter movements
- 30 and 9960 Hz modulation can be deleted to check flag operation

#### LOC and G/S

- Allows selection of preset DDM deflections
- Full-scale deflection can be tested using manual slewing
- Allows 90 and 150 Hz tones to be deleted
- Simultaneous LOC/GS/MB Mode

#### VHF Communications (COMM)

- AM or FM modulation capability
- VSWR measurement allows testing of antenna system
- Measures power, frequency, and modulation level
- Select frequency or 8.33 KHz channel

#### Marker Beacon and ILS

- User selection of inner, middle, and outer marker
- Simultaneous MB and ILS output signals

#### Accessories (Supplied)

- AC Power Cord
- Direct Connect Cable Assembly
- Omni Antenna
- Right Angle Antenna Adapter

#### Physical Characteristics

- Packaging – MIL-PRF-28800, Style C
- Size: 15.5 x 9.4 x 6.5 inches
- Weight: 19 pounds
- Operating Temperature: -15° to +55° C
- Battery Operation: 8 hours at 20% Duty Cycle
- AC operation/Charging: 100-240 VAC, 50-400 Hz
- Simultaneous Battery Charging and Operation



## TB-2100 ATC/DME/MODE S Test Set

The TB-2100 is a modern, easy to use bench test set designed for testing Mode A, C, and S transponders and distance measuring equipment (DME).

The TB-2100 allows testing of Mode S transponders with new capabilities including, Extended Squitter, ADS-B, TIS, Elementary (ES) and Enhanced Surveillance (EHS), and including evolving European requirements. The TB-2100 replaces older, dated ATC test systems which have reached the end of their useful life.

**P/N TB-2100 ATC**  
**TB-2100 DME**

### Features

Two independent, non-coherent, RF channels for Mode S testing

- Tests the latest Mode S Capabilities
- Automatic Dependent Surveillance Broadcast (ADS-B)
- Extended Squitter
- Elementary (ES) and Enhanced Surveillance (EHS)
- Traffic Information Systems (TIS)
- Easy to Use
- Modern front-panel provides simple, intuitive interface
- Multiple, variable rate slew knobs control pulse width, power, repetition rates, and position
- Keypad supports direct test parameter entry
- Large color, touch-pad display, which continuously presents critical measurement information and permits immediate test parameter selection
- Pushbutton pre-set restore of all critical test parameters
- Additional Benefits
- Provides video and RF signal feeds plus scope triggers
- Can be connected to spectrum analyzers and other bench equipment
- Flash memory provides easy update/upgrade path
- Standard 2 year limited warranty; extended warranty available



## TR-220 Multi-Function Test Set

The TR-220 provides test capability for Traffic and Collision Avoidance Systems (TCAS), Distance Measuring Equipment (DME), and Transponders (Modes A, C, and S). The TR-220 features state-of-the-art design technology. Microprocessor control results in easy-to-use operation that requires minimum amounts of training. Setup menu allows storage of various parameters to facilitate quick recall of test conditions.

**P/N TR-220**



### Tests TCAS, DME, and Transponder

- Transmits and receives ADS-B (1090 MHz squitter)
- Transmits traffic Information System (TIS) intruder flight data
- Performs test requirements per FAR Part 43 appendix F
- Meets european test requirements for Mode S elementary and enhanced surveillance
- Compliant with european CE requirements
- 2-year limited warranty; extended warranty available

**P/N 90 000 088**

### Features

- Test Set automatically determines capability of transponder being tested (ATCRBS or Mode S) and selects appropriate tests
- Testing can be done over-the-air, using directional antenna, or directly connected to transponder
- Test Set can be configured for automatic sequencing or manual control of individual transponder tests
- Test set allows storage of 10 intruder scenarios, to simplify TCAS testing
- Allows simulation of ATCRBS or Mode S intruder
- User selection of velocity, starting distance, starting altitude, and vertical speed
- Measures UUT power and frequency

### DME

- Allows testing on all channels (108.00 to 117.95 MHz)
- Measures DME power, frequency, and PRF
- Transmits DME Morse-Code I.D.
- User selection of DME distance and velocity

### Accessories

- Directional antenna (hand-held or mounted on side of case)
- AC Power Cord
- Direct Connect Cable