



## Technical Specifications

### GENERAL

Hand-held NAV/COM 'ramp tester' utilizing proprietary technology for 100% digitally synthesized RF and 'demod' signals.

### CONTROLS

Power, Function, Mode, and Knob buttons, and a rotary encoder (the 'knob').

### DISPLAY

24-character alphanumeric display with 14-segment green LED characters, filtered and contrast-enhanced using spectrum matching polycarbonate filter, and micro-louvered light control film.

### DISPLAY BRIGHTNESS

Two brightness levels available for normal and full-brightness operation as required.

### BATTERY STATUS INDICATOR

Amber LED indicator shows battery & charge status.

#### PalmNav off

- slow blink: the batteries are charging
- constant on: the batteries are fully charged
- flash every 10 sec: battery missing or open
- off: charger is not connected, or not working

#### PalmNav on

- off: batteries are OK
- fast blink: batteries low

### DEMOD OUTPUT (at BNC into load >10kohm)

VOR 3.8V p-p, LOC: 2.3V p-p; GS 1.9V p-p.  
ILS n/a; MB 3.0V p-p, COM 1.9V p-p.

### MODULATION AUDIO OUT

Built-in Speaker and 1/4" Headphone Jack

### RF OUTPUT POWER

VOR, LOC: nominal +15dbm; GS nominal +5dbm.  
ILS (LOC nominal +10dbm, GS nominal +5dbm, simultaneously). MB, COM nominal +14dbm.

### VOR 108.0 MHz

Settable in 90°, 30°, or 1° increments.  
9960Hz FM and 30Hz components, amplitude accurate to 0.1% or better, phase (bearing) accurate to 0.2°.

FROM/TO operation instantly with MODE button.

### LOCALIZER 108.1 MHz

Set to standard DDM values: 0.0000, ±0.0230, ±0.0460, ±0.0775, ±0.0930, ±0.1550, ±0.2000, ±0.3000, and ±0.4000.

Flag test (FLAG): good signal, drop 150Hz, drop 90Hz.

### GLIDE SLOPE 334.7MHz

Set to standard DDM values: 0.0000, ±0.0220, ±0.0450, ±0.0760, ±0.0910, ±0.1750, ±0.4000, ±0.6000, and ±0.8000.

Flag test (FLAG): good signal, drop 150Hz, drop 90Hz.

### ILS (LOC + GS)

LOC on 108.1MHz, GS on 334.7MHz  
Signals are independent and simultaneously radiated, same characteristics as LOC & GS. Signals are independently varied.

LOC: ±0.000, 0.0115, 0.0230, 0.0345, 0.0460, 0.0617, 0.0775, 0.0852, 0.0930, 0.1240, 0.1550, 0.1589, 0.1668, 0.1787, 0.1945, 0.2143, 0.2381.

GS: ±0.0110, 0.0220, 0.0335, 0.0450, 0.0605, 0.0760, 0.0835, 0.0910, 0.1330, 0.1750, 0.1912, 0.2237, 0.2725, 0.3375, 0.4187, 0.5000.

Cross-Test (XTST) to swing needles for mechanical interference check.

### MB 75.0MHz

INNER, MIDDLE, and OUTER marker modulation supplied in accordance with real-world signal standards, including Morse code on MIDDLE marker.  
Normal pulse, or continuous tone modulation.

### COM 118.0MHz

2Hz pulsing tones, or continuous modulation.  
Selectable 400, 1020, 1300, or 3000Hz tones.

### XMTR

Wide band detector provides audio to headphone, speaker, and BNC connector.

### HARMONIC CONTENT

Harmonics & Spurious below 25dbc at all frequencies and maximum output power.

### ENVIRONMENTAL

Store -40°C to +85°C, operate 0°C to +60°C

### POWER REQUIREMENTS

Internal batteries, 5 x 4/3A NiMH cells, nominal 6v, range 5v to 7.5v. (5 x 4/3 Fat A optional.)

Continuous Operation: 2 to 3 hours  
(5 min. idle-shutoff included to conserve battery life)  
Charge Time: 3 hours typical

External supply for charging, 12vdc @ 2a. Unit may be operated from this supply.

### SIZE

3.7" Wide, 7.4" High (excluding BNC connectors),  
1.7" Thick (1.5" Thick in hand-grip area).

### WEIGHT

1.95 pounds with 4/3A batteries.

### ORDERING INFORMATION

PalmNav: P/N4000030  
Includes removable telescoping antenna (BNC),  
External AC/DC adapter/charger, and manual.