



PALMNAV™

Handheld NAV/COMM Ramp Tester



Novel Ramp Tester Packs Powerful Punch

Troll Avionics' PalmNav is a leading-edge NAV/COMM 'ramp tester', incorporating all required features for testing of aircraft radios and instrument operation in the cockpit or on the bench. The packaging, operation, and interface make the PalmNav a powerful contender in the 'ramp tester' arena, and the clear leader at its size and price. The PalmNav incorporates features and accuracy usually found only on far more expensive bench test units, and yet can be easily carried into a cockpit.

'Digital RF' Reduces Maintenance Costs

The PalmNav is fully-digital and microprocessor-controlled, operates from a single internal time base which requires only a yearly calibration. RF generation is 100% digital, dead-on accurate, and repeatable. There are no adjustments and no user-serviceable components other than the batteries – this is a tester that will only be in the shop because it's being used for testing, not because it's broken or drifted out of calibration.

Small Size

The PalmNav actually *is* handheld, compact and light-weight. Unlike other handhelds, you really CAN operate this one in the palm of your hand.

Battery Or External Power Supply Operation

The PalmNav uses robust, rechargeable NiMH batteries, among the highest energy-density available today. Batteries run for two to three continuous hours, depending on function, and a five-minute idle shutoff conserves battery life. The PalmNav can operate on the bench from an external supply, thus reserving the batteries for portability as needed.

Full 'Ramp Tester' Functionality

Generates precision modulated RF and 'demod' signals for testing VOR, localizer, glide slope, ILS (localizer + glide slope simultaneously), marker beacon, COMM, and XMT. Signal characteristics (e.g. bearing in VOR, or DDM in localizer) are easily changed by simply turning the knob. Flag testing is very simple. The DDM settings in LOC, GS, and ILS are precise and repeatable, and the flag test signal-dropout does not impact the alternate signal. Generated signals match requirements for real-world signals. There's even a Morse-code identifier on the middle marker.

Dual RF Generator, Powerful RF Output

Localizer and glide-slope signals are generated by two independent RF generators, individually amplified and matched into the antenna, at incredible levels of RF power. There are no 'approximations' in either signal for the ILS tests. Both are calibrated outputs.

DAC Generated 'DEMODO'

Clean, digitally-generated, analog demod 'tone' output at BNC connector for testing instruments on the bench.

Connect Directly To UUT

The antenna is removable, an ordinary BNC cable extends antenna, or directly connects the PalmNav to instruments for on-bench tests.

Innovative '3 button plus knob' user interface

Punch quickly to your desired functional test (VOR, LOC, etc.), choose the mode if required (it defaults to the common test), and turn the knob to adjust the setting, exercising the equipment under test.

Alphanumeric Display

The PalmNav's large, easily-read alphanumeric display carries ALL the information – no squinting at switch position labels in the dark. The green LED display matches the sensitivity of the human eye. The assembly contains a spectrum-matched filter to enhance contrast. A special matte finish reduces glare, and the non-brittle cover is hardened for resistance against scratches. The cover contains micro-louvers, like tiny Venetian blinds, to block sunlight and intense ambient light. These shade the display and increase contrast, making the unit readable and useful in a wide range of lighting environments. The display brightness defaults to a lower level perfect for most use. The power button provides an instant full-brightness toggle for high-ambient light environments.

Internal Battery Charger

'Smart', μ processor-controlled, battery charge management. Manufacturers' recommended best practices used for charging and topping-off the batteries, includes negative delta-V, max time and temp, and pulsed 'trickle' charge. Full charge achieved in about 3 hours.

Battery Status Indicator

A front panel LED shows battery status (charging, fully-charged) when the unit is off and charging, and battery problems (low, missing) when the unit is on. Battery status messages are displayed with audible alarm when batteries are low or need charging.

Built-In Speaker

A built-in speaker delivers test signals and (in XMTR test) comm audio – no headphones required much of the time. There is a headphone jack for standard testing and listening in noisy locations, or in higher fidelity as needed.