



## PD-700 Digital Display



The **Palomar PD-700** Frequency counter/Digital Display for Yaesu, Kenwood, Drake and Collins rigs, Tente Century 21, Triton IV, Omni A545, Argonaut 509, 505, SB-30-1, R-599, HW-8, Tempo One, Galaxy GT550A, Yaesu 901DM, FT\_101ZD

**DIGITAL FREQUENCY DISPLAY  
MODEL PD-700**

**INSTALLATION AND OPERATING MANUAL**

**PALOMAR ENGINEERS**

## PD-700 DIGITAL FREQUENCY DISPLAY

Purpose. Many of the classic radios of the 1960's and 1970's are still in use. They work well and sound good. The newer modern rigs have many "bells and whistles", a lot of them not really useful. But they do have one very important improvement: a digital readout. The PD-700 Digital Frequency Display adds this valuable feature to your older rig.

Description. PD-700 works with transceivers that have two oscillators in their heterodyne scheme. One is usually called the "Carrier Oscillator". The other, the local or "Injection Oscillator". Two cables bring these signals from the transceiver to the Digital Display where they go to a mixer whose output is on the operating frequency. This provides an exact frequency reading which is displayed on a six digit numerical readout.

Installation. The two cables that bring the oscillator signals to the Digital Readout are provided. They plug into the rear of the readout. The transceiver ends of the cables must be connected to the oscillators. A separate instruction manual showing how this is done is provided for your transceiver.

A DC supply of 10-14 volts at 200 milliamperes is required to operate the Digital Readout. It connects to a 2.5 mm socket on the rear panel. A mating plug is provided. The shell is negative; the tip is positive. It is important to observe polarity. Power can be taken from solid state transceivers such as Atlas 210/215. With tube type transceivers, including hybrid designs that are mostly solid state but using tubes in the driver and P.A. stages, a separate source for 12 volts works best, and avoids potential hum problems. DC power pack cubes which plug directly into an AC outlet (such as the Palomar PS-90) work very well. It should be rated at 12 volts DC and 200 milliamperes or more.

Operation. Set the TUNE knob to point straight up (12 o'clock position) and the BAND MHz switch to the band the transceiver is on. Slide the power switch to ON and the display should light up. If the display does not lock up firmly adjust the TUNE knob until it does.

The TUNE knob makes possible operation on any frequency from 1.5 to 40 MHz. For the amateur bands that are marked on the bandswitch, this control can usually be left in the straight up position.

The primary function of the TUNE control is for operating on frequencies other than the bands marked on the bandswitch. For example, to use the readout on the 18 MHz band, set the bandswitch to 14, and turn the TUNE control in the + direction until the frequency is locked. To use the readout on 24 MHz, set the bandswitch to 21 and turn the TUNE control in the + direction until the display locks in. To tune for the 12 MHz broadcast band (if your rig is general coverage) set the bandswitch to 14 and turn the TUNE control in the - direction until the display locks in. In other words, the PD-700 can provide digital frequency readout wherever your receiver or transceiver will tune in the HF range from 1.5 to 40 MHz.

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