

INSTRUCTION MANUAL DIGITAL FREQUENCY DISPLAY



DD-1T



SPECTRONICS / 1491 EAST 28TH STREET
SIGNAL HILL, CALIFORNIA 90806

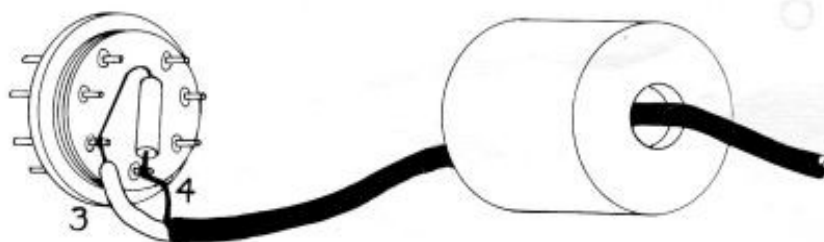
INSTALLATION AND OPERATION

The DD-1T Digital Frequency Display is designed to operate with the Tempo One SSB Transceiver, providing a continuous six digit display of both transmitted and received frequency to a resolution of ± 100 Hz. The display is formatted in Mhz, Khz, and switch selectable 100 Hz readouts which are updated 50 times per second, allowing instantaneous display of operating frequency while tuning the band. The DD-1T covers the full operating range of the Tempo One transceiver with a displayed accuracy of ± 100 Hz ± 1 count when properly calibrated to the transceiver in use.

Installation- The DD-1T should be located where an unobstructed flow of cool air may be obtained around the unit. If the unit is situated on top of the transceiver, use a sheet of cork or asbestos under the DD-1T as a heat buffer.

To connect the DD-1T to your transceiver proceed as follows:

1. Remove the 7 pin EXT VFO plug from the rear of the transceiver and unscrew the plastic cap.
2. Slide the cap over the open end of the coaxial cable supplied with the DD-1T and connect the cable across the resistor which is on the plug, center conductor to pin 3 and shield to pin 4. If an external VFO is to be used with the unit, it must be connected in parallel with this cable.



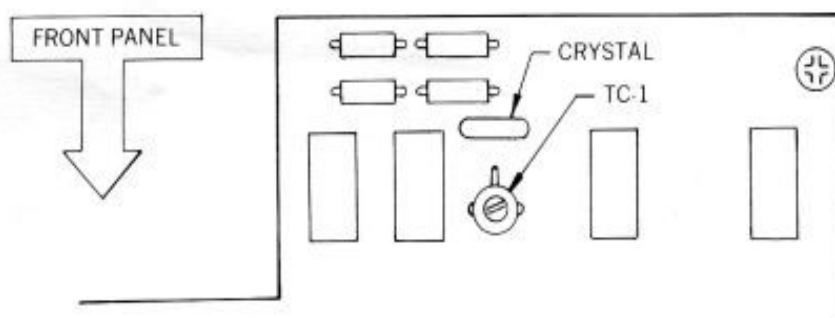
3. Reassemble the plug and insert it into the EXT VFO receptacle of the transceiver. Connect the other end to the VFO input RCA jack on the rear panel of the DD-1T. Connect a ground strap from the GND stud of the transceiver to the GND stud of the DD-1T. Installation is now complete.

Operation- Once properly calibrated, the operation of the DD-1T is automatic when set to the band and mode to which the Tempo One is set. When an external VFO is in use and properly connected, the display will read whichever VFO the transceiver is using. The DD-1T will also read the correct frequency when the clarifier on the Tempo One is in use. The controls and their functions are as follows:

1. Power switch supplied line power to the DD-1T when it is depressed.
2. Mode switch selects NORmal or REVerse sidebands on the display. This switch position must correspond to the setting of the transceiver.
3. HZ X 100 switch, when depressed, illuminates the far right digit of the display to read to a resolution of ± 100 Hz.
4. BAND SWITCH selects the desired Band and programs the display. This switch must correspond to the setting of the transceiver.

Calibration- Although the DD-1T is factory calibrated to a secondary standard referenced to WWV, aging, slight differences in transceiver crystals, or other causes may require a readjustment of the unit to correctly display operating frequencies. If such calibration is needed, proceed to the following steps.

1. Remove the two screws securing the top cover of the DD-1T but leave the cover on for now. Turn on both units and allow at least 30 minutes warm-up.
2. Set the BAND SWITCHES to the band you desire, the sideband and MODE SWITCHES to NOR, the HZ X 100 switch depressed, the clarifier off, and the 100 Khz calibrator on, tune the transceiver to a zero beat near the middle of the band.
3. If the displayed frequency is not within 100 Hz, remove the cover and adjust TC-1 to this indication using an insulated tuning tool such as General Cement GC8276.



4. When calibration is complete, replace the cover and secure with the two screws.

Troubleshooting and Repair- The digital circuitry employed in the DD-1T requires specialized test equipment for repair. Therefore, it is recommended that the unit be returned to the factory for any required repairs.

WARRANTY

Spectronics warrants this equipment against defects in material or workmanship for a period of 90 days from date of original purchase. If repair is required within the warranty period, pack equipment in original carton and ship prepaid to Spectronics, Inc., 1491 E. 28th St., Signal Hill, Calif. 90806.

This warranty is limited to repairing or replacing the defective parts and is not valid if the equipment has been tampered with, misused or damaged.

Spectronics reserves the right to make design changes without incurring any obligation to incorporate new features in equipment previously sold.

This warranty is in lieu of all other warranties expressed or implied and no representative or person is authorized to assume for us any other liability in connection with the sale of our products.