

Alignment

Internal System Alignment Routine

This uses a programmed routine in the transceiver which simplifies many previously complex discrete component settings and adjustments with digitally-controlled settings via front panel buttons and LCD indications.

1. To begin, set the transceiver to the VFO mode on the "Amateur Radio Band, and FM-mode, AMS OFF".
2. Program a password for the Alignment (AH051M) according to the following procedure:
 - 1) Press and hold the [F] key to enter the Set mode.
 - 2) Rotate the **DIAL** knob to select Set Mode Item [36 OPN.MEG].
 - 3) Press the [F] key briefly to enable adjustment of this Set Mode Item.
 - 4) Rotate the **DIAL** knob to select Set Mode Item [MSG].
 - 5) Press the [V/M] key briefly to enable adjustment of this Set Mode Item.
 - 6) Input the password "AH051M" using the DIAL knob (select the character), and [MODE] / [BAND] key (move the cursor).
 - 7) When you have completed the password, press the **PTT** switch to exit to normal operation.

Note: Remember to delete the password "AH051M" from the Set Mode Item [36: OPN.MSG] when the alignment adjustments are finished by pressing and holding in the [GM] key (as in step 6 above).

3. Press and hold the **POWER** switch to turn the transceiver "off".
4. Press and hold in the [HM/RV] key while powering the transceiver "on" again. The transceiver will enter the adjustment mode, and the display will show the first alignment setting. Thereafter, the frequencies used during alignment will automatically be set without action by the technician.

In the alignment process, each adjustment is selected by rotating the **DIAL** knob. The alignment is performed by: pressing the [V/M] key injecting a signal of the required frequency and level; making the adjustment; and then pressing the [V/M] key again (the "Data" will disappear from the display), to store the adjustment.

To exit the alignment routine, press the [HM/RV] key. After performing the system alignment in its entirety, individual settings can be returned to and adjusted individually, should the need arise.

As each transceiver is individually optimized at the factory, the precise settings for the transceiver on your bench may be slightly different.

PLL Reference Frequency Adjustment ("rF")

- Connect the test equipment as shown in Figure 1: TX Alignment Setup.
- Rotate the **DIAL** knob to select the Alignment Menu "rF".
- Press the [V/M] button (the "Data" will appear on the display).
- Press the **PTT** switch to transmit and rotate the **DIAL** knob so that the frequency counter setting is 440.000 MHz (± 100 Hz).
- Release the **PTT** switch, then press the [V/M] button (the "Data" will disappear from the display).

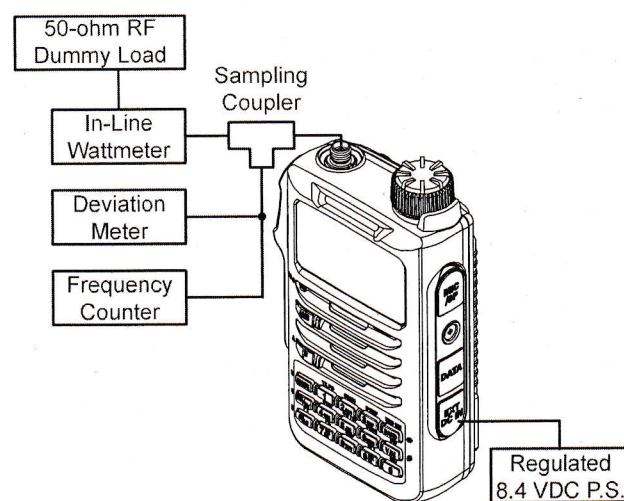


Figure 1: TX Alignment Setup