



# SERVICE BULLETIN

from: TRIO-KENWOOD COMMUNICATIONS, INC.

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**SUBJECT:** BS-8 ALIGNMENT WITH THE TS-180S  
TRANSCEIVER. ADDENDUM TO THE SM-220

**DATE** 9/4/79

## OPERATING MANUAL

The SM-220/BS-8 scope combination are fully compatible with the TS-180S transceiver. However, as the TS-180S does not have a 25Khz calibrator, BS-8 alignment will not be in accordance with the SM-220 Operating Manual.

### Procedure:

Install the BS-8 in accordance with the SM-220 Manual, however, leave the scope covers off until step 1 is completed (IF input alignment). See note 1,2.

Perform steps 8.4.1, 8.4.2. steps 8.4.3, 8.4.4 do not apply to the TS-180S. After step 8.4.2, continue:

1. With the Marker ON, turn the transceiver On, and in the USB mode, any band, you should hear the scope Marker directly injected into the IF. Peak T201, the BS-8 input IF transformer, for maximum signal into the TS-180S. This transformer is not shown in Fig 8-2, but is the only other adjustment on the BS-8, and is located below the three identified access openings. If you cannot hear the Scope Marker in the TS-180S, turn the marker OFF and tune a local station on the 1.5MHz band. Peak the drive control, and then peak T1 in the BS-8 for maximum amplitude at scope center and equal roll-off at the display edges. See note 1. Page 2
2. Turn on TS-180S, 1.5 MHz band, and tune to the local AM Broadcast station nearest 1.6MHz.
3. Enter this frequency in the M1 Memory. Depress the DSP/Diff pushbutton for a differential display.
4. Tune up and down approximately 100KHz, observing the scope display. Note the verticle displacement of the original frequency to the left and right. If equal, or linear displacement is observed, stop.
5. If the display does not shift equally when tuned up or down frequency, adjust VR202 for linearity of scan width. Then reset to the center frequency (by the scope Marker or retuning the transceiver). Reset TC201 if necessary. Repeat two or three times for correct scope center frequency, and linear display.

6. Turn the TS-180S OFF, and the scope Marker ON. Switching between 100Khz and 20Khz scan widths, the Marker should appear at scope center, and should not shift. Repeat step 5 if there is shift.

NOTES:

1. A BS-8 previously aligned to a TS-820 or TS-820S need only have step 1., input alignment, performed.

2. Preset TC201, VR201, VR202 at their center. When alignment is complete, these adjustments should NOT be at their extreme point. This will result in unstable Pan display operation. Rather, they should be somewhat within their center range.