



***GALAXY ELECTRONICS***  
***CAL-250***  
**25 KHz CRYSTAL**  
**CALIBRATOR**



ORDER NO.  
**806**

## INSTALLATION & OPERATION INSTRUCTIONS

### CAL-250 25 KHZ CALIBRATOR

#### GENERAL INFORMATION:

The CAL-250 was designed to be used with the GALAXY GT-550 transceiver. The GALAXY FIVE MK-2 and GALAXY FIVE MK-3 can be modified to use the calibrator. Refer to Service Bulletin #70-1 for this simple modification.

#### UNPACKING:

This model has been inspected both mechanically and electrically prior to shipment. Carefully remove the calibrator from its shipping carton and examine it carefully for any signs of damage. If any signs of damage are apparent, notify the delivering carrier and file a claim IMMEDIATELY. Remember, responsibility for filing this claim rests with you.

#### INSTALLATION:

To install this unit in the GT-550, remove the top section of the cabinet. Locate the 8 pin octal socket (J-2), which is located toward the left rear of the transceiver chassis. Plug the calibrator into this socket. The unit is now ready for operation.

#### CALIBRATION:

The calibrators are aligned at the factory in a test set which should be quite close to your production unit and further alignment should not be necessary.

In the event you wish to calibrate this model exactly for your particular transceiver the following procedures can be used.

Use an accessory receiver which has a built in calibrator or otherwise accurate calibration. Tune it to an even 100 KHZ frequency in the tuning range of the GT-550. Set the GT-950 VFO dial to INDICATE the same frequency. Turn the Mic gain to minimum (maximum CCW) on the transceiver, place the FUNCTION SWITCH to TUNE, and adjust the hairline of the transceiver until the signal is zero beat in the test receiver. Now turn the FUNCTION SWITCH of the transceiver to CAL and adjust trimmer C-1 through the hole on the top of the calibrator until the signal in the transceiver is zero beat.

A less complicated method which is satisfactory for normal accuracy is to tune the transceiver to 7335 KHZ in the receive mode. Canadian time station CHU is on this frequency and can be heard at most times. Set the transceiver dial to indicate 7335 KHZ, then adjust the transceiver VFO dial hairline control to correspond with the signal zero beat. This then permits the operator to tune the dial of the transceiver to 7325 KHZ...and adjust the TRIMMER C-1 of the calibrator until the signal is zero beat.

#### WARRANTY:

*Galaxy Electronics Corporation warrants each new product manufactured to be free from defects in material and workmanship and agrees to remedy any such defect, or to furnish a new part, in exchange for any part of any unit which under normal installation, use and service discloses such defect within ninety days from the date of purchase by original owner. The unit serial number must be registered by the original owner at the time of purchase to validate the warranty.*

*This warranty does not extend to any of our products which have been subjected to mis-use, neglect, accident, incorrect wiring not our own, improper installation or to use in violation of instructions furnished by us. Nor does it extend to units which have been repaired or altered outside of our factory nor to accessories used therewith not of our own manufacture, nor to any cases where the serial number has been removed, defaced, or changed.*

*Galaxy Electronics Corporation reserves the right to make any changes deemed necessary or desirable without advance notice or incurring any obligation to make like changes in units previously manufactured or sold.*

*This warranty does not cover transportation or installation costs that may be incurred. Galaxy Electronics Corporation's sole liability is the remedy of any defect for ninety days. Galaxy Electronics is not responsible for personal injury or property damage resulting from improper or careless installation not intended by the manufacturer.*

*No person is authorized to assume for us any other liability in connection with the sale of our products.*

*All warranties are void and terminated one year after the last unit of its type and design has been manufactured by us.*

*All correspondence relating to warranty or other service requirements should be directed to:*

**GALAXY ELECTRONICS CORPORATION**  
Rural Route 3  
Lincoln, Nebraska 68505

Attn: Customer Service Department

WHEN ORDERING REPLACEMENT PARTS PLEASE USE GALAXY PART NUMBERS AND FURNISH SERIAL NUMBER OF YOUR UNIT FOR FASTEST POSSIBLE SERVICE. CURRENT REPLACEMENT PARTS PRICES ARE AVAILABLE ON REQUEST.

Symbol	Description	Part Number			
			R-6	470 ohm 1/2 watt 10%	721326
			R-7	680 ohm 1/2 watt 10%	721331
			Q-1	2N2926 yellow	760239
			Q-2	2N2926 yellow	760239
			Q-3	2N3563	760253
			X-1	100 KHZ crystal	780007
			IC-1	IC-MC778P	780047
				Printed Circuit Board	750253
				Housing Assembly	150404
				Flea Clips	660241
				#6 Bolt	690310
				#4 Screw, self tapping	690313
				#6 Nut	550202
				#6 Lock washers	560205
				Spade Lugs	540215
				#6 Ground Lugs	540219
				Shipping Carton	910 124
C-1	9-50 pf trimmer	721869			
C-2	33PF 5% DSM	721628			
C-3	2000PF 5% DSM	721669			
C-4	.001 MFD Disc.	721560			
C-5	220 PF 5% DSM	721665			
C-6	.1 MFD Disc.	721574			
C-7	.001 MFD Disc.	721560			
C-8	.1 MFD Disc.	721574			
D-1	3.6 volt zenner	760304			
R-1	56K 1/2 watt 10%	721322			
R-2	470 K 1/2 watt 10%	721289			
R-3	15K 1/2 watt 10%	721340			
R-4	100K 1/2 watt 10%	721309			
R-5	330 ohm 1/2 watt 10%	721305			





