

DATE <u>24/8/61</u>	TMC SPECIFICATION NO. S -10034A	
SH. <u>1</u> OF <u>5</u>		
COMPILED BY R.W.T.	TITLE: PRODUCTION TESTING MODIFICATION	JOB
APPROVED <i>AG</i>	CAN 1-A ON MODEL GPR-90-RX <span style="float: right;"><i>R.W.J.</i></span>	

INSTRUCTIONS

FOR THE  
PRODUCTION TESTING OF MODIFICATION CAN-1A  
ON MODEL GPR-90-RX

DATE 24/8/61

SH. 2 OF 5

COMPILED BY  
R.W.T.

TMC SPECIFICATION NO. S -10034A

TITLE: PRODUCTION TESTING MODIFICATION

JOB

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CAN 1-A ON MODEL GPR-90-RX

R.W.S.

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1.

TEST EQUIPMENT REQUIRED

- 1.1 Representative set of CR-18/U crystals in the range 1 Mc/s - 16 Mc/s.
- 1.2 Electronic Counter - Hewlett Packard Model 524D.
- 1.3 Signal Generator - Measurements Model 82.
- 1.4 Variable frequency oscillator TMC Model VOX-2.
- 1.5 T- connector.

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2.

TEST INSTRUCTIONS

2.1

General and Visual Inspection

- 2.1.1 Inspect the modification for obvious electrical and mechanical errors by comparison with the prototype or the detailed Modification instructions.
- 2.1.2 Ensure that there are no short circuits, open circuits or dry joints.

2.2

Electrical Performance Tests

- 2.2.1 Connect a 600 $\Omega$  load to the audio output terminals, switch on the receiver and permit to warm up for half-an-hour.
- 2.2.2 Connect the Signal Generator or the VOX to the receiver antenna jack via the T-junction and connect the counter to the remaining socket of the T-junction.
- 2.2.3 Set the signal generator or VOX to give a signal at a desired frequency and with sufficient amplitude to properly operate the counter. An attenuator may be required between the T-junction and the receiver to prevent overloading. The signal frequency should be set within a few cycles of the nominal value by means of the counter.  
NOTE: The model VOX should be used in preference to the signal generator where possible due to the greater ease of setting frequency accurately.
- 2.2.4 Insert a crystal and note that the frequency marked on the crystal must be related to the signal frequency in the way given in the GPR-90-RX Instruction Manual.
- 2.2.5 Connect the counter to the I.F. output jack at the rear of the receiver. Adjust the trimmer associated with the crystal until an output of 455,000 cycles is indicated on the counter within the limits of adjustment of the " XTAL ADJUST " control.
- 2.2.6 The I.F. output of exactly 455 Kc/s must be obtainable in section 2.2.5 under the following conditions:

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- a) All remaining trimmers scewed right in.
- b) All remaining trimmers scewed right out.
- c) Test crystal at extreme left of socket field.
- d) Test crystal at extreme right of socket field.
- e) Test crystal should correspond to signal frequency of 0.54 Mc/s.
- f) Test crystal should correspond to signal frequency of 31.5 Mc/s.

2.2.7 The receiver sensitivity must be tested as described in test specification S-260 for Model GPR-90-RX

3.

APPLICABLE DRAWINGS

CK-10362	Schematic
ML-10095	Material List
MS-10449	Crystal Chassis- drilling.
S-10041	Detailed Modification Instructions.