



HARRIS

SERVICE BULLETIN

MAINTENANCE AND MODIFICATION DATA

Broadcast Division

MW-1/MW-1A

AM-120-LAP
ECN 23812

7/7/78

PROBLEMS ENCOUNTERED: Ringing of class 'D' waveform, random and premature loss of Q6 and Q7 in A-1 through A-13 PA module assemblies (992-4201-001), assymetrical PA voltage dip while tuning the transmitter.

The major supplier of these 2N6340 transistors (Motorola) has changed the doping mixture used to manufacture the collector-emitter junction's structure. Thus, the newly created junction characteristics may cause the operational duty cycle to be unstable.

1CR-1 and 1CR-2 (25 nanosecond reverse recovery time diodes) have been added across the emitter collector of Q6 and Q7; A-1 through A-13.

Parts required for each module:

<u>Quantity</u>	<u>P/N</u>	<u>Description</u>
2	384-0678-000	Diode TRW DSR 3200
3	354-0145-000	Solder Lugs

Place solder lugs under transistor mounting screws as shown in attached drawing. Cut both 1CR-1 and 1CR-2 diode leads approximately the same length. Dress leads carefully, making sure they don't come in direct contact with other components. Be sure to heat sink carefully the diode leads when soldering.

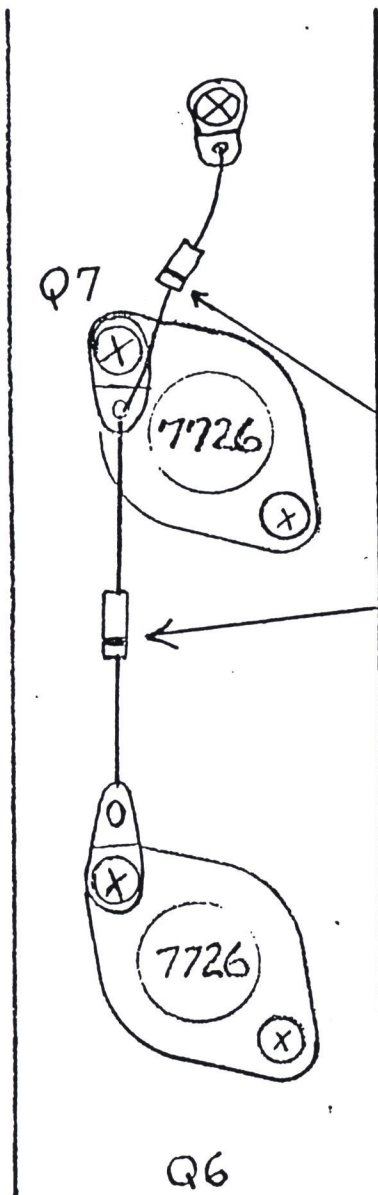
THIS COMPLETES THE MODIFICATION

This modification is mandatory when using or replacing Motorola 2N6340 transistors manufactured, starting with 7739 and later. The date code is stamped on each transistor and is read as 7739 (77 year, 39 week). However, we recommend this improvement be made in all PA modules using transistor sockets, so that transistor life and performance may be improved when the above problems are encountered.

Parts required may be purchased from Harris Service Parts Department. If questions should arise, please direct them to our Radio Field Service Department.

RF Heatsink Assembly

992 4201 001



CR1, CR2

Harris Part # 384 0678 000

TRW, Model No. DSR 3200

CR1, CR2 have been added as in schematic diagram

