

**HARRIS**COMMUNICATIONS AND  
INFORMATION HANDLING

# SERVICE BULLETIN

## MAINTENANCE AND MODIFICATION DATA

Broadcast Products Division

**Equipment:** MW-50, MW-50A, MW-5, MW-5A, SW-50  
SW-100 and VP-100A Transmitters. AM-116-LJS

**Bulletin No.** 3-17-78**Date****SUBJECT:** High Voltage Shorting Solenoids. ECN-23424

**PURPOSE:** The modification is mandatory. It will improve the reliability and operation of the high voltage solenoids and assure positive closure of the contacts which are required to short out high voltage.

**PARTS REQUIRED:** Kit part number 994-8251-001 (two kits per transmitter required) which include the following for each kit:

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	302-0362-000	Bolt 8-32x2.5 Stainless Steel
2	302-0213-000	Bolt ¼-20
1	300-1651-000	Bolt ¼-20
2	310-0006-000	Flat Washer 8-32
2	310-0009-000	Flat Washer
1	358-0419-000	Spacer
2	314-0009-000	Split-Lock Washer
1	306-0012-000	Stopnut Elastic
1	829-3800-001	Spring
1	816-9888-001	Drawing
1	086-0001-004	Tube, lock tight

**PROCEDURE:** As per instruction 888-1799-001 enclosed.

Please fill out completely, sign and date the enclosed self-addressed, postage paid card and return to us. This verifies that the modification has been completed and that the Service Bulletin and parts were received.

Should you have any questions regarding this modification please direct your inquiries to:

Supervisor, Radio Service  
Harris Corporation  
Box 4290  
Quincy, Illinois 62301  
(217)-222-8200

THIS COMPLETES THE MODIFICATION.

INSTRUCTIONS FOR MODIFICATION  
OF H.V. SOLENOID 590-0025-000

- I. (a) Disconnect all primary power.
- (b) Locate 1K2, 2K1 in SW-100, SW-50, VP-100A, MW-50 and MW-50A. In the MW-5, MW-5A, locate 1S5A, 1S5B.
- (c) Remove 8=32 bolt that secures solenoid plunger to aluminum end cap of shorting bar assembly. Replace with 8=32 x 2.5 bolt, spacer and 2 flat washers. Refer to Drawing number 816-9888-001.
- (d) Remove 2 each 1/4=20 x .5 screws that secure right side of solenoid to bracket.
- (e) Install spring 829-3800-001 between 1/4=20 screws and solenoid mounting flange with spring lever positioned on top of spacer 358-0419-000.

Note: Be sure to install 1/4=20 flat washers 310-0009-000 provided, next to spring when replacing hardware.

- (f) Place threaded end of 1/4=20 x 1.5 screw 300-1651-000 provided in solenoid air gap. Pull plunger up manually until 1/4=20 screw is wedged in air gap. Spring lever should just begin to touch spacer. If it does not, bend spring at large radius (bend carefully) until it does. Remove 1/4=20 x 1.5 screw and discard.
- (g) Apply 115 volts AC to solenoid coil. Then remove voltage. Shorting bars should now drop reliably.
- Note: If solenoid should tend to chatter when closed, bend spring contact point upward until chatter stops, but no more than 1/8 inch.
- (h) Assure that connections between wire braid and shorting bar assembly are tight. Utilize tube of lock tight, included, to seal this hardware. Periodic inspection of these connections should be made.
- (i) Repeat above steps for second solenoid.

DIMENSION VERSION

INCHES MILLIMETERS

DWG. NO. 816-9888-001

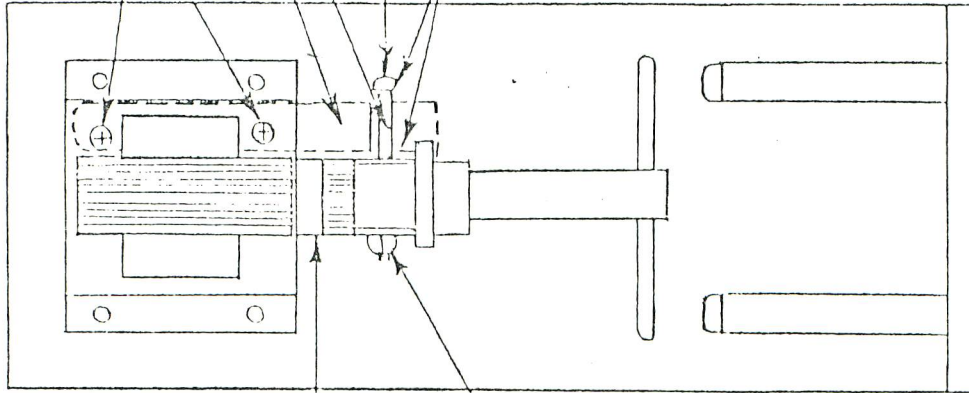
REVISION

ECN

ENG

DFTM

LTR DATE



1/4 - 20 X .5

SPRING 829-3800-001

SPACER 358-0419-000

#8-32 X 2.5 BOLT 302-0362-000

WASHER 310-0006-000

AIR GAP

STOP NUT  
306-0012-000

TOL. UNLESS NOTED:  
 INCHES  
 .X ± .030  
 .XX ± .015  
 .XXX ± .005  
 MILLIMETERS  
 .X ± .08  
 .XX ± .04  
 .XXX ± .005  
 ANGLES ± 1°  
 ALL √ INDICATES  
 125 MICRO INCH.  
 3.175 MICRONS.



HARRIS

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HARRIS CORPORATION Broadcast Products Division  
P. O. Box 290, Quincy, Illinois 62301

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DR. BY *B. Little*

CHKD.

M.E.

E.E.

PROJ. ENG. *B. Little*

MFG.

NEXT ASSY.

MAT'L.

FIN.

-USED ON

TITLE  
H.V. SHORTING

SOLINOID MODIFICATION DWG  
FOR 590-0025-000 SOLINOID

REF. DWG.

SCALE

DWG. NO.

816-9888-001

SHEET  
1 OF 1



NOTES: