

# TMC SPECIFICATION

NO. S 1280

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COMPILED: GB

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APPD:

*ORB*

SHEET

OF

TITLE:

5/7/71 jb/

MODIFICATION KIT

FOR

LPA-2

KIT-369

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I. Equipment Affected

A. TMC Model LPA-2, Linear Power Amplifier.

II. Purpose

Modification of Electrical Cabinet, Top Cover, reversing the direction of air flow, installation of air baffel and lowering the quiescent current of V101 and V102. These modifications will increase the cooling effectiveness of the LPA-2 blowers and increase the tube life of V101 and V102 respectively.

III. Material Supplied In Kit

<u>Item No.</u>	<u>Amount</u>	<u>Description</u>
1	1 ea.	TMC No. RW107-12, Resistor W/W (5 watt, 25 ohm)
2	1 ea.	TMC No. CC100-32, Cap., Ceramic (.1, 300 Volts)
3	1 ea.	TMC Drawing No. 1410, Diagram, Schematic
4	1 ea.	TMC No. NA, Brush, Paint
5	1 ea.	TMC No. S520, Paint
6	1 ea.	TMC Drawing No. MS5134, Plate, Right & Left
7	1 ea.	TMC No. PX1162, Baffel, Air
8	1 ea.	TMC No. MS5983-1, Cover, Perforated
9	1 ea.	TMC No. MS5983-2, Cover, Perforated
10	1 ea.	TMC No. SCBP-0632 -BN32, Screw, Mach.

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<u>Item No.</u>	<u>Amount</u>	<u>Description</u>
11	3 ea.	TMC No. FW-06-HBN, Washer, Flat
12	13 ea.	TMC No. NTH-0632-BN10, Nut
13	13 ea.	TMC No. SCBP-0632-BN7, Screw Mach.
14	13 ea.	TMC No. LWE-06-MRN, Washer, Lock, Ext.
15	2 ea.	TMC No. WA-109-37, Washer, Fiber
16	1 ea.	TMC Drawing No. MS5373, Elec. Cabinet Drawing
17	1 ea.	TMC Drawing No. MS5992, Cover, Chassis, Top & Bottom

#### IV. Tools Required

(To be supplied by the Installing Activity.)

1. Soldering iron, medium, and 6" of solder
2. Pliers 6" long nose
3. Pliers 6" diagonal
4. Screwdriver 6" Philips
5. Spin Tight 5/16" of 5/16" Wrench
6. 14" Wrench, adjustable or equivalent wrench set
7. Center Tap
8. Rat Tail File
9. Drill, Electric 1/4"
10. 3/8" Drill Bit
11. 11/64" Drill Bit
12. 3/4" Greenlee Hole Punch
13. 1 3/4" Greenlee Hole Punch

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## V. Procedure

- A)
1. Turn LPA-2 front panel AC On/Off switch off.
  2. Disconnect power input plug from J105.
  3. Disconnect all connecting cables from rear of unit.
  4. Remove the LPA-2 from its cabinet.
  5. Remove top and bottom covers.
  6. Remove both blowers (B101, B102) if mounted inside the LPA-2 or if the Air Flow arrow is pointing away from the LPA-2.
  7. Remount both blowers outside the LPA-2, utilizing the same mounting holes and hardware, making sure the air flow is into the LPA-2 (point the Air Flow arrow towards the LPA-2.)

NOTE: CENTER TAP ALL HOLES PRIOR TO DRILLING

- B)
1. Using 3/8" drill bit drill pilot holes for all "A" holes in electrical cabinet as shown in Item 16, MS5373 (electrical cabinet diagram).
  2. Enlarge these holes using the 3/4" Greenlee hole punch. Remove punch.
  3. Enlarge these holes using the 1 3/4" Greenlee hole punch. Remove punch and file sharp edges and remove all burrs.
  4. Using 11/64" drill bit, drill all "B" holes in electrical cabinet as shown in Item 16 (MS5373). Remove all burrs and sharp edges.
  5. It may be necessary to touch up the paint on the electrical cabinet; use the enclosed paint and brush.
  6. Place the perforated covers (Items 8, 9) in their respective positions on the electrical cabinet. Mount them on the inside of the cabinet using the 7/16" - 6/32 screws, lock washers and 6/32 nuts. (Items 12, 13, 14)

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NOTE: Depending upon what series of top covers you have, will determine how many holes must be drilled and punched. If your top covers are like the drawing (Item 17) only the "C" holes must be drilled and punched. If you do not have the perforated areas as shown in the drawing, then all "B" and "C" holes must be drilled and punched.

- C) 1. After determining how many holes are needed, repeat the procedure used in Section B, steps 1, 2, 3; disregarding the hole designations used there.

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- D) 1. To mount the air baffel (Item 7) drill the two "J" holes using the 11/64 drill bit in the left-hand side of the chassis in accordance with the left and right side drawing (Item 6).
2. Unscrew the mounting screw to C124 and insert the air baffel as shown in Figure 1.
3. Using the same screw, remount C124 while simultaneously fastening the air baffel to the opposite side of the chassis.
4. Fasten the air baffel to the side of the chassis using the 7/16 - 6/32 screws and hardware (Items 11, 12, 13, 14).

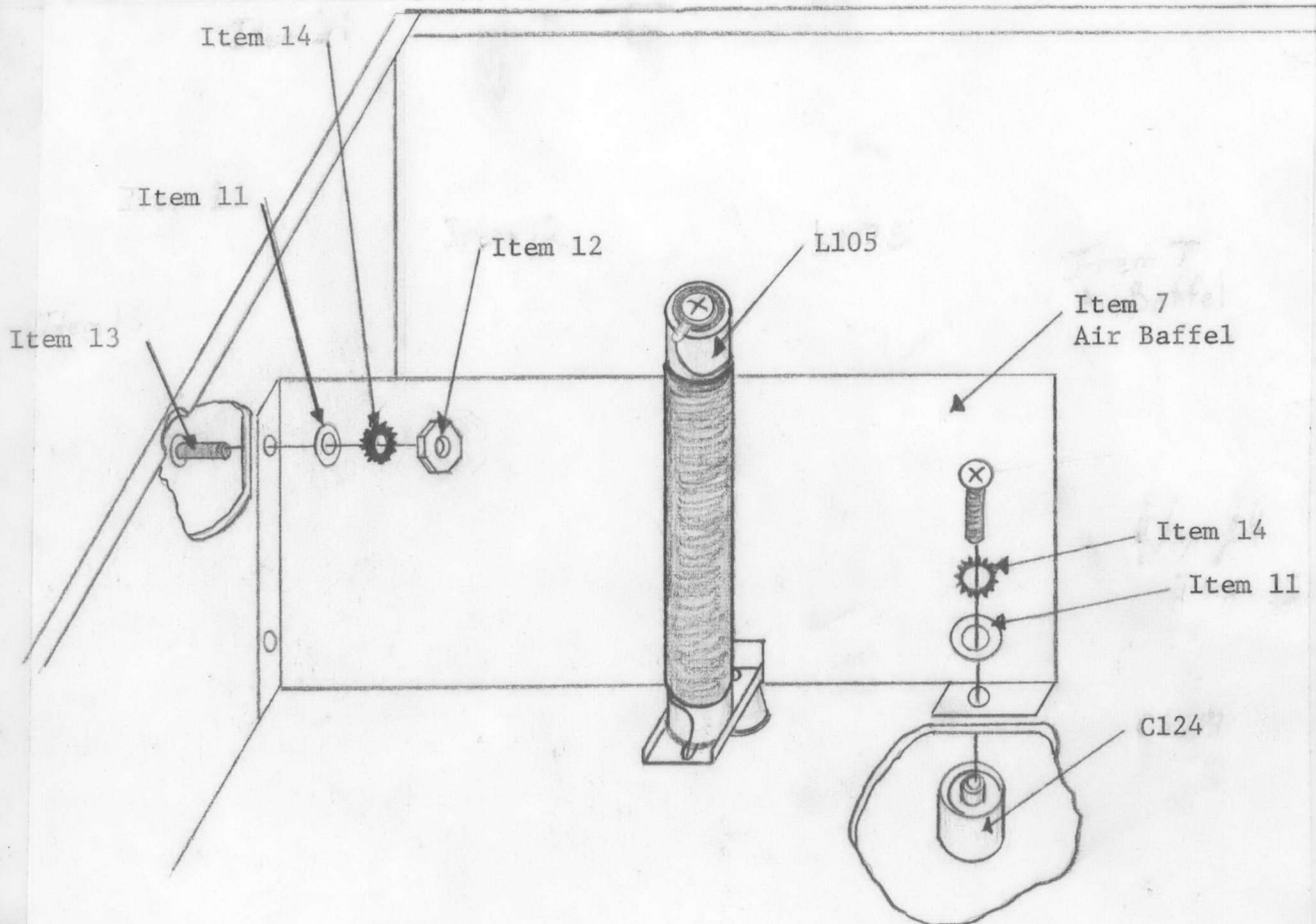


FIG. 1

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- E)
1. To install Items 1 and 2 (R130-C155) unsolder and disconnect the grounded end of L103.
  2. Mount R130 (Item 1) on the bottom of XV102 as shown in mounting Figure 2 using the 2" - 6/32 screw (Item 10), 2 fiber washers (Item 15), one flat washer (Item 11) and one lock washer (Item 14).
  3. Connect the bottom end of R130 to the ground terminal previously connected to L103. Do not solder.
  4. Connect the unsoldered end of L103 to the top or opposite end of R130. Do not solder.
  5. Connect C155 (Item 2) across R130 making C155 parallel to R130. Solder all connections.

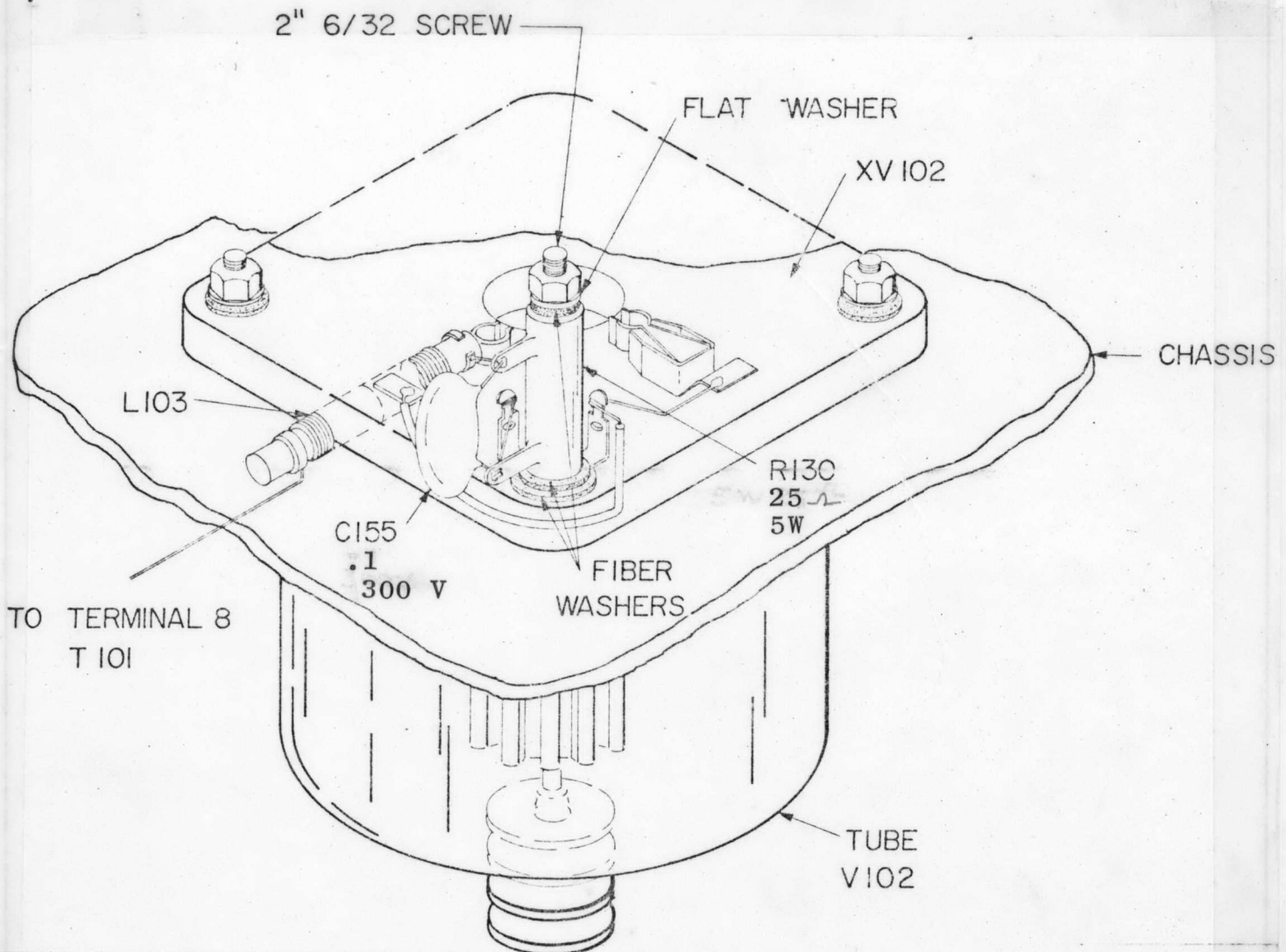


FIG. 2

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- F) 1. Replace all covers and connect all cables.
- G) 1. Add C155 (Item 2) and R130 (Item 1) to the parts list on pages:

Pg. 6-3

Ref. Symbol

C155

Description

Cap Fixed Ceramic

Part No.

CC100-32

Pg. 6-5

R130

Resistor Wire Wound 5W

RW107-12

2. Add C155 and R130 to Schematic diagram of LPA-2 Technical Manual, Figure 7-1, Page 7-2/7-3 as shown on Item 3.
3. Due to the addition of R130, quiescent current of V101 and V102 will be lowered from approximately 180 ma. to approximately 120 ma. Make these corrections on page 4-3 of the Tech. Manual.



