TMC SPECIFICATION			NO. S 1287
REV:			
COMPILED: 9-7-71	CHECKED:	APPD: 02B	SHEET 1 OF 13
TITLE:			

KIT-377

BLOWER MODIFICATIONS FOR HFT-10K TRANSMITTER SERIES

PURPOSE: To increase cooling system efficiency

DESCRIPTION: This modification will increase the cfm of the system approximately 20% thereby lowering transmitter exhaust temperature a significant amount.

TMC SPECIFICATION

NO. S	1287
REV:	
COMPILED:	
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APPD:	
SHEET	2 OF 13
TITLE:	KIT-377

ITEM	QTY	PARTS INCLUDED
1	1	Blower Bracket
2	1	Blower Mounting Chassis
3	2	Threaded 5/8" Spacers for Blower
4	1	Rubber Blower Pad (Shock Mount)
5	1	Rubber Sleeve (Blower)
6	4	Brackets Air Seals (Long)
7	4	Brackets Air Seals (Short)
8	2	Brackets Top Seal (L Shape)
9	1	Screen (PA) RF Shield
10	1	Bracket Fan Cap. Assembly (Top Fan)
11	1	Fan Cap. 4mfd 600v
12	1	BL105 Fan Assembly (A1785) with Plug (Wired for 220v)
13	1	Screen Top Cover RF Shield
14	Bag	Miscellaneous Hardware, Grommets for Cable
15	2	Filament Leads with Lugs
16	1	Cable 3 Wire (Teflon Covered) (IPA Filament Xfmr)
17	1	Front Air Intake Ring (Blower)
18	Set	Cable Ties Miscellaneous

STEP	PROCEDURE
A	MAIN BLOWER ASSEMBLY MODIFICATION
1	Remove Main Blower assembly (Photo 1.1)
2	Remove Rubber gasket and screen (Photo 1.1)
3a	Take apart squirrel cage from Motor and
b	Remove four bolts mounting Motor to housing (No Photo)
4	Saw off the $\frac{1}{4}$ turn of duct at line, no longer needed, leaving rest of squirrel cage (Photos 1.2 and 1.3)
5	Using Items 7 and 8 as Templates (hole location guides) drill holes into top (flange) of duct at line just sawed off
6	Assemble Items 5, 6, 7, 8 to blower (Photo 1.4 Top)
7a	Remove two lower rear nuts from blower motor case and replace with Item 3 stand-offs (two needed); and
b	Now assemble motor support bracket, Item 1, as shown already installed in 1.2 and 1.3 Photos
8	Remount Motor to blower housing and replace squirrel cage to appear finally as in Photos 1.2 and 1.3
9	Screws on Ring, Item 17, to blower intake (Photo 1.5)

STEP	PROCEDURE
B	POWER SUPPLY DECK, RELOCATION OF COMPONENTS
1	Remove filament transformer T804 and mounting standoffs (Photo 2.1)
2	Remove low voltage transformer T803 (Photo 2.1 bottom)
3a	Remove High Voltage rectifier CR902 assembly and
b	Relocate (as per Photo 2.2) and wire in under shelf.
4	Replace T803 under shelf using original mounting holes as in photo 2.2 (right side), also shown in 2.3
5	Drill in hole for cable of 3-wire teflon, Item 16, to connect to T803 (Photo 2.4 bottom, center)
6	Drill large cable hole to reroute main cable per photos 3.2 and 3.3 (right sides) from former connections to T803 and T804.
7	Redress cable with ties provided, Item 18, and reconnect to T803 on bottom, and prepare rest of cable connections for T804 to be mounted on top later

STEP	PROCEDURE
C	POWER SUPPLY DECK, FAN INSTALLATION AND HOOKUP
1	Bolt together modified Blower assembly of Part A with Item 2, mounting chassis; however include in between the rubber shock pad, Item 4, as shown in Photo 3.3 center
2	Loosen screws holding K802 relay assembly and temporarily move it aside to allow Blower mounting chassis to be properly aligned under tube chimney as shown Photos 2.4 and 4.2
3	Align Blower assembly and its chassis (of step 1 above) with exhaust centered through top frame, then spot and drill 4 holes (tap for 10/32 screws). Do not bolt down blower chassis until after step 5a
4	Relocate K802 assembly clear of Blower and screw down in any location as close as possible to former position
5a	Place T804 under Blower mounting chassis, mark and drill 4 holes, and
b	screw down T804, and the blower on its mounting chassis, as in Photos 3.2 and 3.4
6a	Connect Item 15, filament leads, as shown in photos 2.4 and 3.4, then

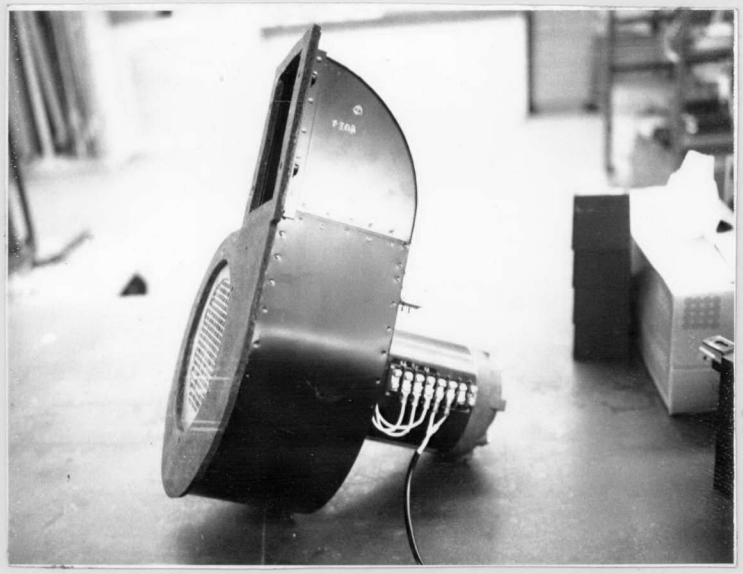
STEP	PROCEDURE
6b	Reconnect electrical leads to primary as in Photo 3.3
7	Connect T803 to CR805 using Item 16, three-wire teflon cable, as in Photo 2.4 (Center)
8	Install Item 9, rf shield, as in Photo 5.4

STEP	PROCEDURE
D	TOP EXHAUST FAN INSTALLATION
1	The (new) BL105 blower fan, Item 12, is to be mounted under top of main frame as shown in Photos 5.1, 5.2 and 5.3 and on same center line as main exhaust, approximately three inches from fiberglass air duct
2	Using BL105 as template, spot the screw holes and air exhaust circle. Then cut out and drill
3	Locate fan capacitor assembly, Item 10, nearby and in front as in Photo 5.2 (right side), after spotting and drilling bracket holes
4	Bolt in BL105 with Item 13 (rf shield screen) between BL105 and the top of main frame
5	Obtain AC power for BL105 (220v, 2-wire) from J2 pins R and T located on rear shield of adjacent meter panel

STEP		PROCEDURE
E		TOP OUTER SKIN MODIFICATION
	1	Locate fan exhaust hole in top skin (cover) on same centers as on frame to allow exhaust to pass through
	2	After completing modification check main Blower rotation and reverse two phases if rotation is incorrect

CHECKOUT

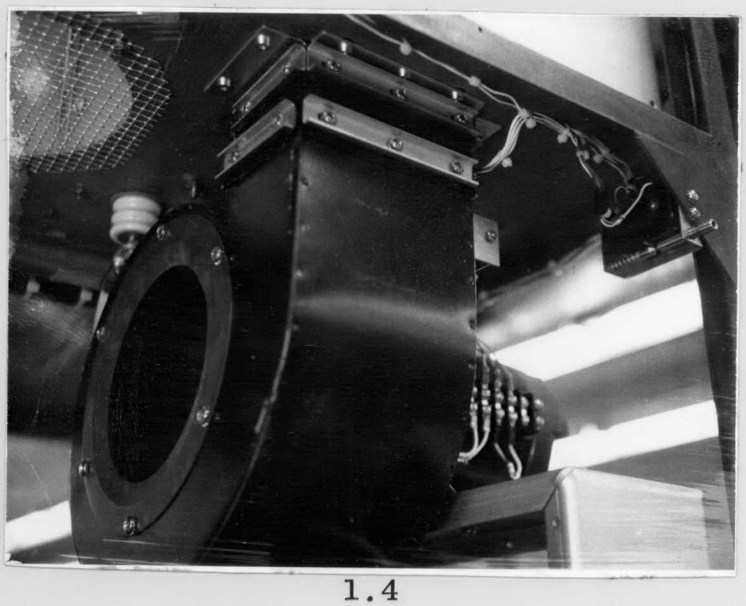
Review steps of A through E. After satisfactory checkout this KIT377 installation is complete and cooler transmitter exhaust temperature will be observed



1.1

1.2

1.3



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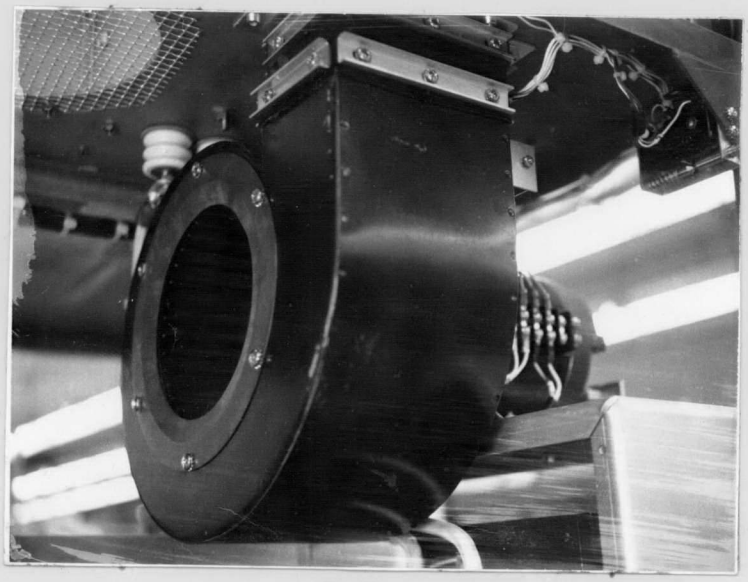
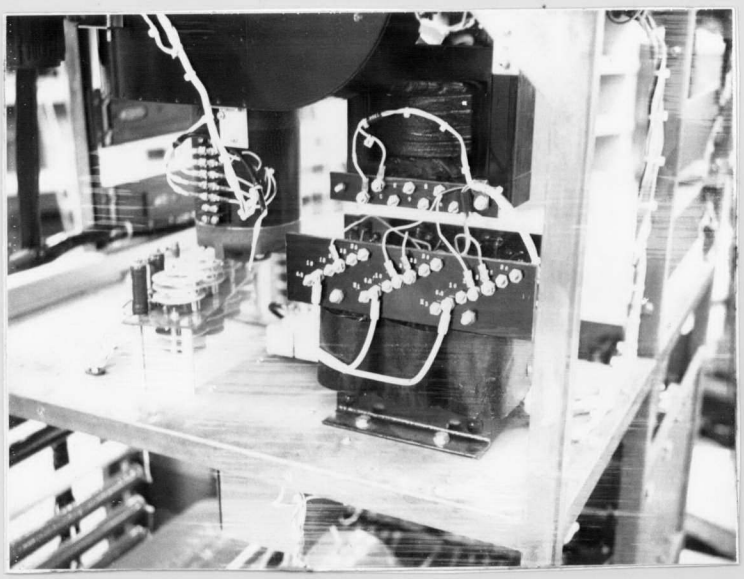


1.5



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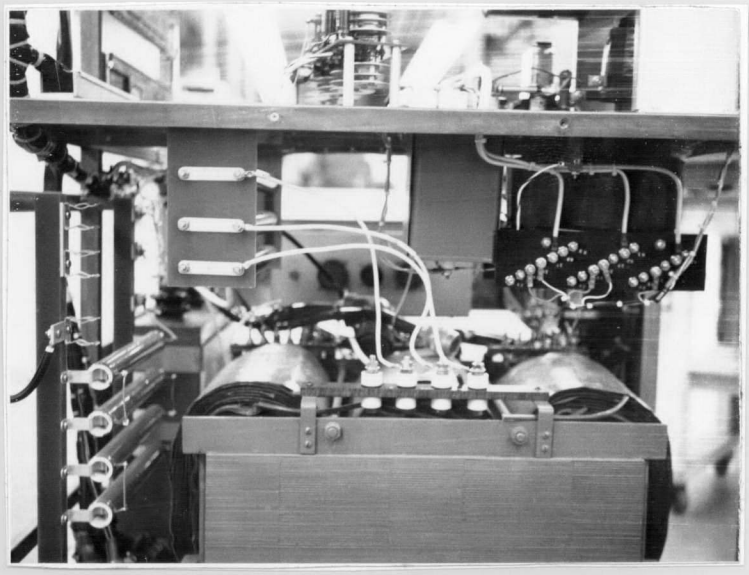

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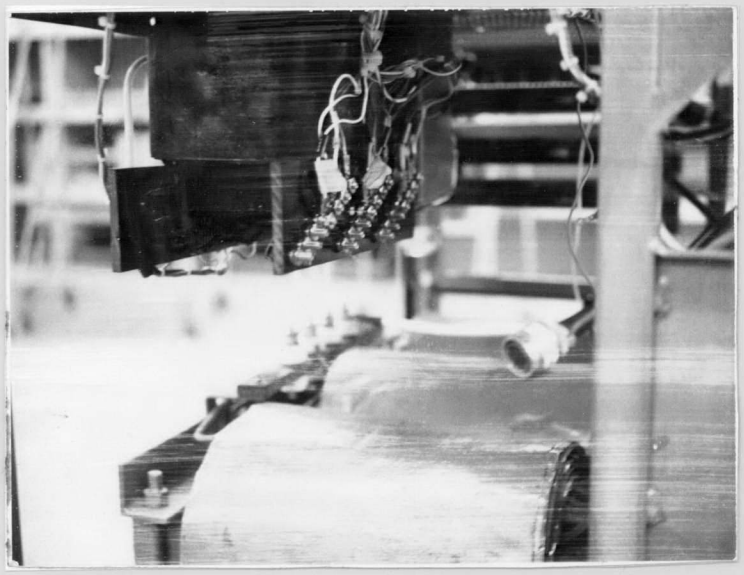

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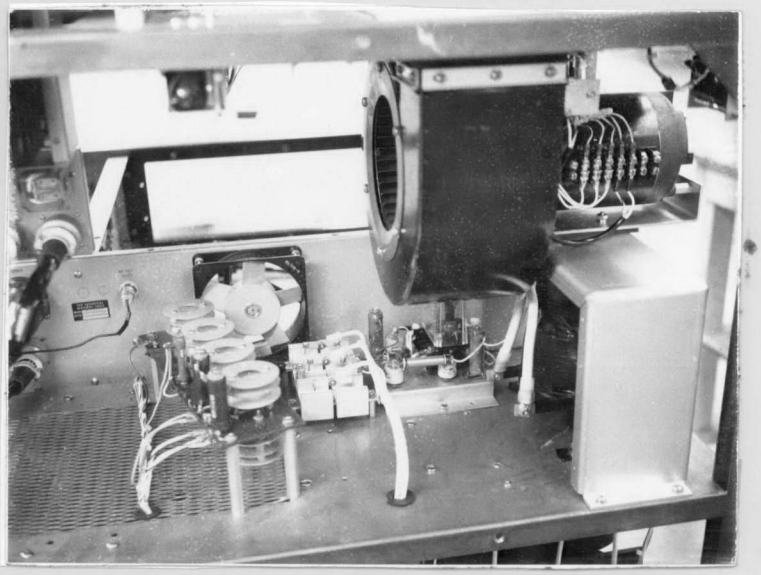
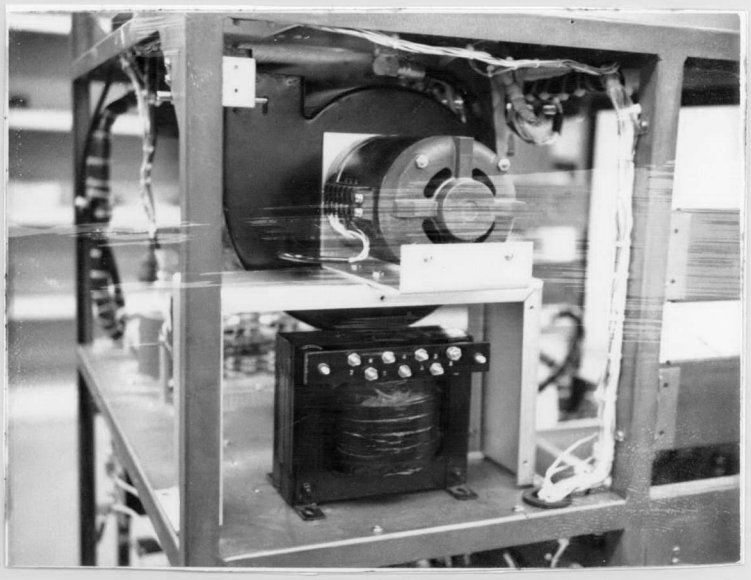


2.4

KIT-377

3.1



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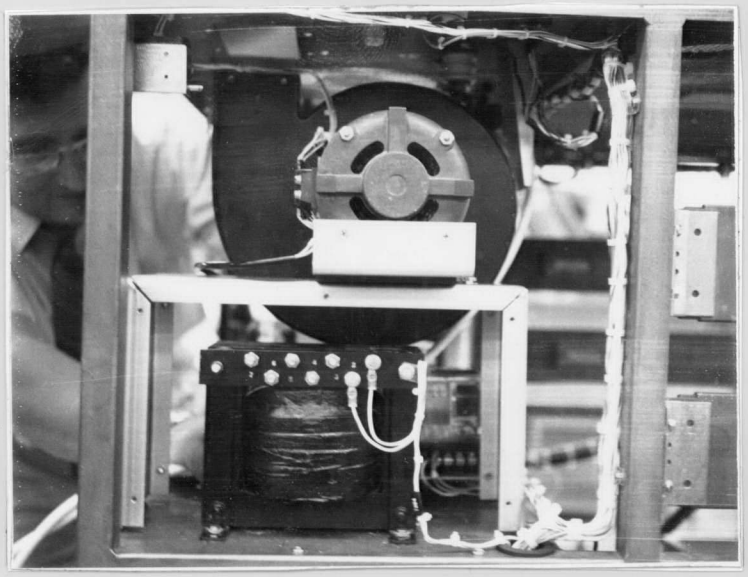
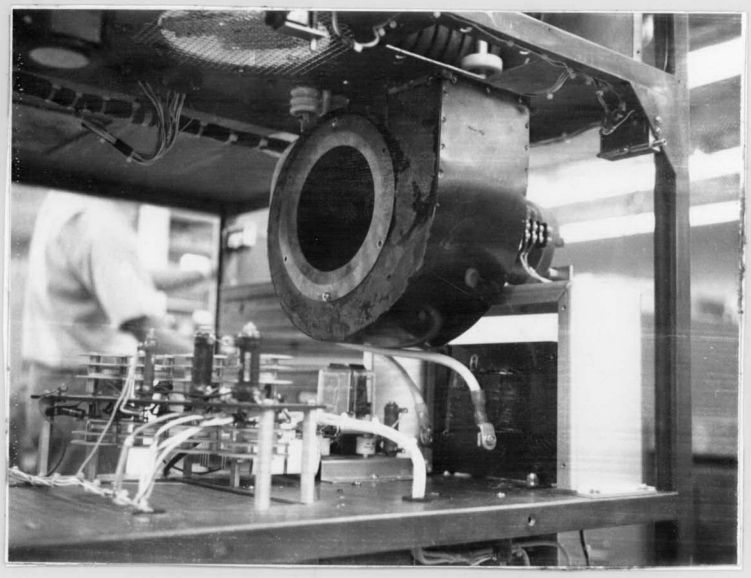


3.3



3.4

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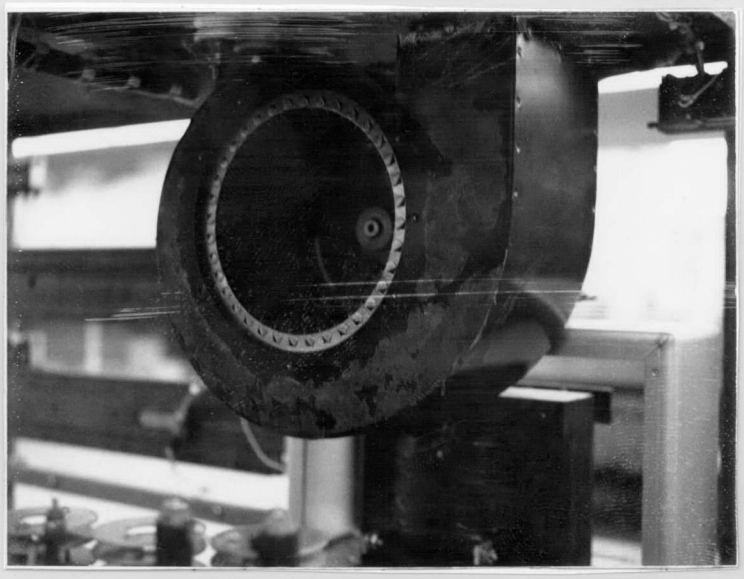

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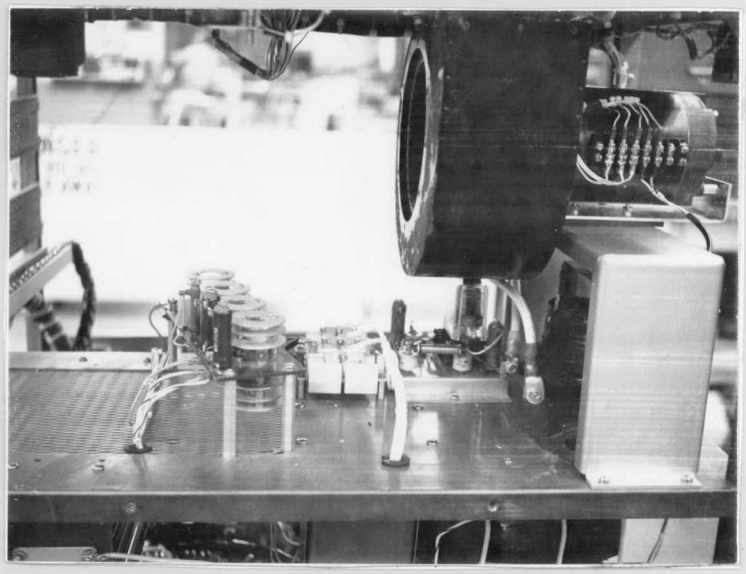

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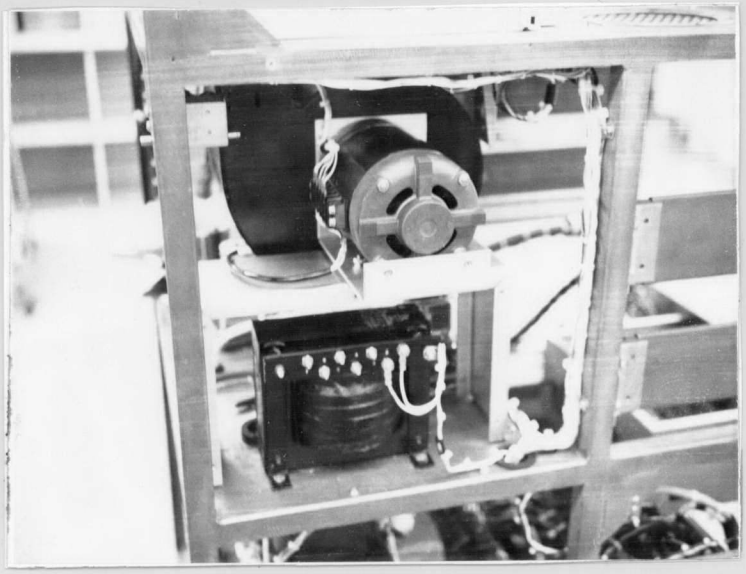

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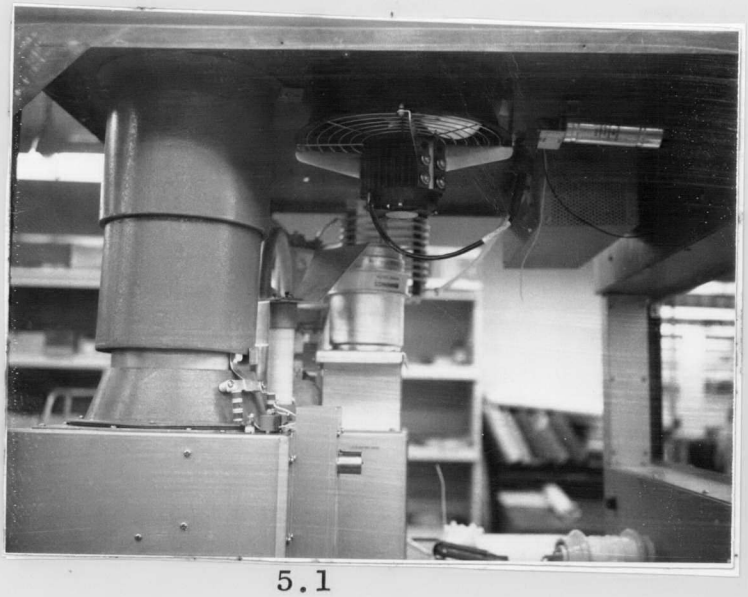
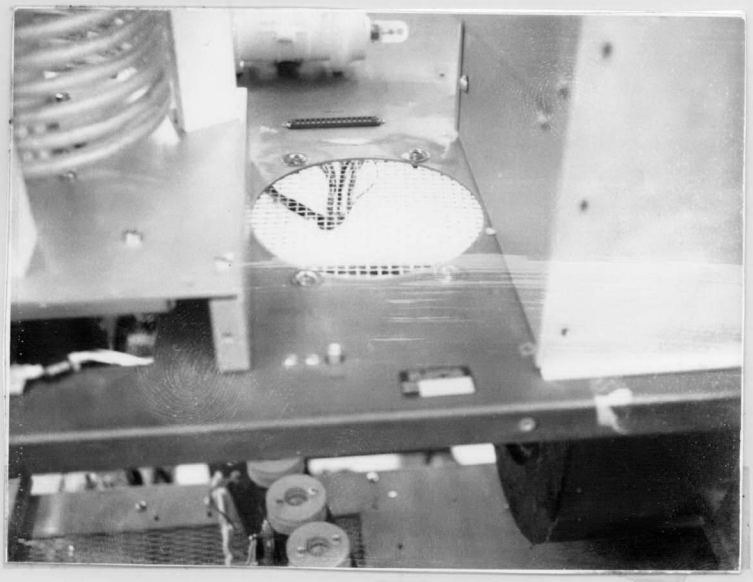


5.1

5.2

5.3



5.4

REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S 1287
LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
11/2/71	Ø			ORIGINAL RELEASE FOR PRODUCTION	