TMC SPECIFICATION

REV: X Ø A B

COMPILED:M. STURMER CHECKED: APPD: SHEET | OF 6

DDR-5L TO DDR-5M

CONVERSION

KIT 218-2

TMC SPECIFICAT	ON	NO. \$ 1207
REV: A R		
COMPILED: M. STURMERCHECKED:	APPD:	SHEET & OF 6
TITLE: DDR_51, TO DDR_5M CONVERSION KIT	218-2	

# I. EQUIPMENT AFFECTED:

DDR-5L, Dual Diversity Radio Receiver.

## II. PURPOSE:

Kit 218-2 converts Model DDR-5L by the addition of a Model HFS-() Synthesizer, Model HFP-() Power Supply, A-4084 Sync Tone Relay Assembly and associated cables. Installation of KIT-218-2 allows frequency control of each RF Tuner HFR-() by an individual Synthesizer HFS-().

# III. MATERIALS SUPPLIED IN KIT-218-2.

Table 1 lists all materials supplied in KIT-218-2.

TABLE 1	MATERIAL SUPPLIED	
mv11E 10	Track & Slide set (HFS)	1912. l <b>.1</b> .
TK115-18 TK114-18	: Track & Slide set (HFP)	
A3517	Retractor Assembly	$_{2}^{1}$
LD1901	Name Plate, .5 AMP	ī
CA1037-11	Cable Assy. Special Purpose	15/C1
CA412-34-54	Cable Assy. Jumper	1
A4084	Synch Tone Relay Assy.	ī
FU102500	Fuse	ī
	Cable, RF	ī
CA480-3-150	Cable, AC	i
CA696-1	Cable Assembly SP	i
CA1036-2	Cable Assy. SP.	$\overset{\mathtt{1}}{2}$
CA1061-5	Wiring Harness BR.	1
CA1115		4
SCBP1032BN6	Screw, Machine	2
SCBP0632BN6	Screw, Machine	$\overset{2}{4}$
LWEIOMRN	Lockwasher, Ext. Tooth	2
LWEOGMRN	Lockwasher, Ext. Tooth	150
CU142 -2-9	Plastic tie wraps	150
CU142-3-9		15 1 ft.
PX100-1148	Insulating Sleeving, Elect	, 11t. 3
CA480-3-12F	Cable Assy. R.F.	ა 3
CA480-3-11F	Cable Assy. R.F.	3 1
CA480-3-12.5F	Cable Assy. R.F.	1
CA480-3-90	Cable Assy. R.F.	$\overset{1}{2}$
CA480-3-80	Cable Assy. R.F.	1
CK996	Schematic Diagram	
IN356	Instruction Manual DDR-5M	
HFS ()	SYNTHESIZER, with Technic	a. 1
	Manual when other than HF	S-₹:
	is supplied.	1
HFP ( )	POWER SUPPLY, with Techni	cai 1
	Manual when other than HF	P-1
	is supplied	
NP362-46	Nameplate (Kit 218-2)	1'

	TMC SPECIFICATION													NO. S 1207								
REV:	A	В																				
COMPIL	COMPILED: M. STURMER CHECKED: APPD									PD:				SHE	ET	3	OF	6				
TITLE:	DI	DR-	5L T	O DI	)R-5	5M C	CONV	ERS	SIO	N K	IT	21	8-2	2								

## IV. TOOLS REQUIRED (Supplied by installing activity.)

- A. One 1/4 inch open end wrench
- B. One #2 Phillips screwdrivers
- C. One pair diagonal cutting pliers
- D. One pair chain nose plier
- E. One Soldering iron ( $\overline{40}$ -60 Watts) with 1/8 inch tip.
- F. One 5/32 inch twist drill
- G. One 1/4 inch drill motor or hand drill
- H. One Utility groove-joint pliers (water pumps) or combination slip-joint pliers (gas pliers)

#### V. PROCEDURE:

- A. Remove all AC power from rack.
- B. Remove the  $10 \ 1/2$  inch blank panel below the HFR in receiver #2.
- C. Install the track sections for the HFS using the HFS in receiver #1 as a guide.
- D. Remove the  $5 \ 1/4$  inch blank panel below the MCG in receiver #1.
- E. Install the track sections for the new HFP using the other HFP in either receiver #1 or 2 as a guide.
- F. Install an A3517 cable retractor in position for the new HFR and HFS using the other appropriate retractors as guides. (Do not connect cable.)
- G. Disconnect the plugs listed in table 2 from their associated jacks.

TABLE 2.	PLUGS TO BE DISCONN	ECTED
PLUG	ASSOC. JACK	LOCATION UNIT RCVR#
P1313-1 P1305-1 P3011-1 P3013-1 P3015-1 P3016-1 P3017-1 P6515-1 P8003-1 P8005-1 P8010-1 P1310-2 P1304-2 P1303-2 P6525-2 P6524-2	J1313-1 J1305-1 J3011-1 J3013-1 J3015-1 J3017-1 J6515-1 J8003-1 J8005-1 J8010-1 J1310-2 J1304-2 J1303-2 J6525-2 J6524-2	HFR-() 1 HFR-() 1 HFS-() 1 HFS-() 1 HFS-() 1 HFS-() 1 HFS-() 1 HFP-() 1 HFP-() 1 HFP-() 1 HFR-() 2 HFR-() 2 HFR-() 2 MSA-() 2 MSA-() 2

					TN	ЛC	S	P	EC	CIF	7	CA	TIC	AC	l				N	10.	S	120	)7		
REV:	A	В																						<u> </u>	
COMPIL	COMPILED:M. STURMER CHECKED: APPD: SHEET SHEET OF 6																								
TITLE:		DDF	?-5	Ι. 1	ro I	DDF	5]	М (	CON	(VE	RSI	ON	ΚI	T 2	218	-2									

P6515-2 P6002-2 P6013-2 P8003-2 P8005-2 P8007-2 J6515-2 J6002-2 J6002-2 J6013-2 J8003-2 J8005-2 J8007-2	MSA-() 2 MCG-() 2 MCG-() 2 HFP-() 2 HFP-() 2
---	--

- H. Open the Plug P8005-2 of the HFP-() of receiver #2 and disconnect the leads from pins D and C and mark each lead with the appropriate letter. i.e. C-Wht, D-Wht/Blk. Close up the plug and tie it back out of the way leaving the two leads free for later use.
- I. Open the plug P8005-1 of the HFP-() of receiver #1 and disconnect the leads from Pin C & D ----- procede as in step H.
- J. Open the plug P8010-1 of the HFP-() of receiver #l and disconnect the leads, which originate from the small black tubing, from Pins A and B ----- procede as in step H.
- K. Connect new cables in receiver 2 as indicated in table 3 and instructions below.

TABLE 3.	÷			
CABLE		CABLE CONN		
PART NO.	FROM UNIT	JACK	TO UNIT JACK	
CA480-3-12F CA480-3-12F CA480-3-12F CA480-3-11F CA480-3-90 CA480-3-11F CA480-3-150 CA480-3-80 CA480-3-80 CA1037-9 CA1115	HFR-() HFR-() HFR-() HFS-() HFS-() HFS-() HFS-() MSA-() MSA-() MSA-() A4084	J1304 J1302 J1307 J1303 J3018 J3014 J3010 J3020  J6525 J6524 J3001 J6515 TERM, BD.	HFS-() J301 HFS-() J300 HFS-() J300 HFS-() J301 MCG-() J600 A4084 J850 MCG-() J601 HFS-() J301 RCVR A4084 J850 A4084 J850 A4084 J850 HFP-() J800 HFP-() J800 HFP-() P800 RED TO PIN-K WHT/RED TO FIN-K WHT/RED TO FIN-K	9 8 7 2 7 3 9 #1 5 6 7 5 5 -2 1 N-V
			WIII/RED TO I	

TMC SPECIFICATI	ON	NO. S 1207
REV: A B		
COMPILED: M. STURMER CHECKED:	APPD:	SHEET 5 OF 6
TITLE: DDR-5L TO DDR-5M CONVERSION KI	г 218-2	

L. Solder in the Wht. & Wht/Blk wires (removed in step H) to C and D of P8005-2 and assemble plug.

M. Mount the A4084, Synch Tone Relay inside the center post of the cabinet approximately 39 inches up to the top screw from the botton of the cabinet. Make connections to J8505, J8506 and J8507 per Table 3.

N. Run the balance of CAll15 over to receiver #1 following existing cable run (over door) and down the right side (facing rear).

O. In receiver #2 (using plastic straps supplied) strap all added cable to existing cable runs.

Receiver #2 is now complete.

P. Connect new cables in Receiver #1 as indicated in table 4 and instructions below.

	TABLE 4	
CABLE	CABLE CONNE	CTIONS
PART NO.	FROM	ТО
	UNIT JACK	UNIT JACK
CA1037-11	HFR-() J1305	#1 HFP-() J8010
CA696-1	#3 HFP-() J8001	FL8501 TERMINAL
BALANCE		
OF	MGA () TCE1E	#3 HFP-() J8003
CA1115	MSA-() J6515	#3 HFP-() J8003 J8005
		J8007
		J8006
		J8008
		J8010
		#1 HFP-() J8005
CA1061	A4084 TERM. BD.	#1 HFP P8005
	DISCONN. EXIST.	RED TO PIN-K WHT/RED TO PIN-V
	WIRES & TAPE OFF.	WHI/RED TO PIN-V

- Q. Solder the wht & wht/blk wires (removed in step I.) to C and D of P8005-1 and assemble plug.
- R. Solder the grey and wht/grey leads (removed in step J) with grey and wht/grey on Pin A & B of P8010-1, and assemble plug.
- S. Procede as in step 0.
- T. Make changes in HFP's as follows:
  - 1. Remove the front panel screws on HFP-() #2 and tilt panel down. Loosen nut on XF8019 and remove .5 AMP fuse marker from under fuse holder and retain. Remove jumper between F8010 & F8012 and add jumper between F8012 & F8019. Replace front panel.

TMC FORM SPEC QA 1 1M-10-86-AINS.

	TMC SPECIFICATION												NO.	NO. \$ 1207										
REV:	Α	В																		<u> </u>	<u> </u>			
COMPIL	ED:	М.	S	TUR	ME	R C	HEC	KED	):					API	PD:		 	 	SHEE	т (	<b>b</b>		of (	<i>b</i>
TITLE:	D	DR-	-5L	то	D	DR-	- 5M	CC	ONV	ERS	SIO	N I	кіт	21	8-	2								

2. Remove the front panel screws on HFP-() #1 and tilt panel down. Remove jumper between F8010 & F8012 and add jumper between F8012 & F8019. Replace front panel.

3. Remove the front panel screws on HFP-() #3 tilt panel down. Loosen the nuts on XF8019 and XF8014 and insert the .5 AMP fuse markers (one previously removed and one supplied in this kit.)

4. The polarity of the AC power into HFP-() #2 & #3 must be maintained. When turning the #2 receiver on, if the Amber Time Delay light on the #2 & #3 HFP-() does not come on and/or a relay chatter is noted, turn receiver off. Remove all AC Power from rack. Disconnect P8001-3 from the #3 HFP-(). Disassemble the plug and swap the white and black wires. Reassemble the plug and reconnect to J8001-3. Turn on power.

#### NOTE

IF Technical Manuals are supplied for Synthesizer HFS or Power Supply HFP, bind these manuals with the DDR-5M as indicated in step 5.

5. Remove DDR-5L Technical Manual and replace it with the DDR-5M Technical Manual supplied with this Modification.

REVIS	ION	SHEET	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	THE TECHNICAL MATERIEL CORP. MAMARONECK NEW YORK	S 1207	
DATE	REV.	SHEET	EMN #	DESCRIPTION		APP.
8′/28/67				ORIGINAL RELEASE FOR PRODUCT		4700
1/23/68	<u>р</u> А	1, 6	18743		MATE SUPP ( & SLIDES)	SWOR
5/5/69		<del>                                     </del>	19387	REVISED AS PER EMN 19387		WOL
, 5, 55		+ -		The same and the s		00
<b> </b>		<del>  `  </del>				
		+				
<del>  </del>						
<b> </b>		1				<del>                                     </del>
}		+			- LAWRENCE OF THE CONTROL OF THE CON	<del>                                     </del>
						<b>1</b>
<b> </b>						<u> </u>
<b> </b>		+				<del> </del>
		1				<del> </del>
		-				<del> </del>
<b></b>						
<b> </b>		-				
<b> </b>		<b>_</b>				
<b> </b>		<b>_</b>	<b></b>			
						<u> </u>
						<u> </u>
		-				1
		-	ļ			
						<u> </u>
		1				<u> </u>
		1				
				<u>.</u>		<u> </u>
					18-18-18-19-19-19-19-19-19-19-19-19-19-19-19-19-	
		,				
	l	I				
		1	<u>†                                      </u>			<b>†</b>
	<b>†</b>	<b>†</b>	†			
		<del>                                     </del>	<del>                                     </del>			<b>†</b>