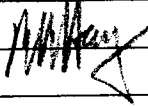


KIT-220
\$988

TMC SPECIFICATION														NO. S 988						
REV:	O	A	B	C																
COMPILED:	RJE			CHECKED:	JEE			APPD:				SHEET	1	OF	6					
TITLE:																				
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I N S T R U C T I O N S
for
CONVERSION OF HFS-1 TO HFSR-1
(KIT-220)

- CAUTION:
1. DO NOT ROTATE ANY LEDEX SHAFTS UNTIL ENTIRE INSTRUCTIONS HEREIN CONTAINED ARE REVIEWED.
 2. DO NOT UNDERTAKE THIS CONVERSION UNTIL ALL CURRENT FIELD CHANGES HAVE BEEN INSTALLED.

TMC SPECIFICATION

NO. S 988

REV: 0ABC

COMPILED: RJE CHECKED: APPD: SHEET 2 OF 6

TITLE: INSTRUCTIONS FOR CONVERSION OF HFS-1 TO HFSR-1 -- KIT-220

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I. PURPOSE

To provide modification instructions for conversion of HFS-1 to HFSR-1; said modification to be referred to hereinafter as KIT-220.

II. MATERIALS SUPPLIED

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESIGNATION</u>	
1.	1	AX521	Auto-ass'y	KC
2.	1	AX522	Auto-ass'y	MC
3.	1	CK924	Diagram, Wrg	
4.	10	LWE08MRN	Wash, Lk, Ext.	
5.	5	MC130	Cplg, Rig.	
6.	5	MC131-1	Cplg, Rig.	
7.	1	PM691RF3.750 8	Shaft	MC
8.	4	PM691RF4.500 8	Shaft	KC
9.	5	PN59-062-8	Pin Spring	(MC130 mtg.)
10.	6	SCBP0832BN5	Scr, Mach	KC Mtg.
11.	1	NP362-28	Plate, Ident	
12.	4	SCBP0832BN10	Scr., Mach	MC Mtg.
13.	1	CA1154	Cable, Harness	
14.	10	NTH0832BN10	Nut, Plain, Hex	
15.	10	SLHC0832SP3	Setscrews	(MC130 Mtg)
16.	2	SCBP0440BN4	Screw, Mach	(CA1154Mtg)
17.	2	LWE04MRN	Wash, Lk, Ext	(CA1154Mtg)

TMC SPECIFICATION

NO. S 988

REV:

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SHEET 3 OF 6

TITLE: INSTRUCTIONS FOR CONVERSION OF HFS-1 TO HFSR-1 -- KIT-220

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III. KIT-220

To modify rear panel - Ref. to MS-2781.

Object: To add equivalent of mounting holes for Ledex brackets and connector as per MS-2781.

A. Procedure

1. Place template (TP-137) plugs in extreme "C" holes. If plugs do not enter "C" holes, loosen screws holding plugs and adjust accordingly.
2. Using Tool (TP-133), center punch through all 1/8" holes in template.

NOTE: DO NOT DRILL THROUGH TEMPLATE.

3. Remove template from back panel and with 1/8" drill place a pilot hole in all center punch marks.
4. All "D" holes shown on the MS 2781 are to be enlarged to 13/64" Dia. to accomodate 8/32" screws. This is accomplished by repeating Step #3 using a 13/64" drill bit.
5. To provide for the opening of the "L" detail used to mount connector on CA1154, enlarge the center hole to 1/2" Diameter to accomodate rectangular punch screw. Assemble punch in 1/2" hole as per instructions accompanying TP113. Cutout to be orientated as shown on MS-2781. Clean cutout with file to insure a proper fit.

6. All holes necessary for mounting of AX522 and 521 have now been established.

CAUTION: AX521 AND AX522 HAVE BEEN PRE-ALIGNED AT THE FACTORY AND EXTREME CARE MUST BE EXERCISED TO AVOID MOVING THE SHAFTS.

7. First to be mounted will be AX521, the 3400 thru 3100 deck drive units.

TMC SPECIFICATION

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TITLE:

INSTRUCTION FOR CONVERSION OF HFS-1 TO HFSR-1 -- KIT-220

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NOTE: Mount MC 131 multi-jaw couplings onto the Ledex Shafts to an approximate depth of 3/8", and fasten set screw to flat surface. Then, orientate AX521 with connector plugs facing upwards in position over 13/64" holes on lower left hand side of rear panel (MS2781). Secure in place with 8/32" mounting hardware.

8. Next mounted is AX522 the 3500 deck drive unit.

NOTE: Mount MC 131 coupling on shaft of assembly as indicated in Step #7. Next, orientate AX522, with connector plugs facing to the left, over 13/64" previously drilled holes on right hand side of rear plate, and secure in place with 5/8" length mounting hardware.

9. Manually rotate 3500 deck selector switch to the 2 MC position. With PM691RF3.750 extension shaft, place MC 131 multi-jaw coupling over round shaft and allow to remain free. Then fasten broached end to existing 3500 deck selector switch shaft. Next, mate extension shaft multi-jaw, coupling with Ledex Multi-jaw coupling, by sliding free shaft coupling forward to mate snugly with Ledex Drive Unit coupling.

CAUTION: DO NOT ROTATE LEDEX STEPPING SWITCH UNDER ANY CIRCUMSTANCE DURING THIS OPERATION.

10. Rotate 3400 deck KC selector switch to the "0" position as indicated by the Nixie Readout Light. With PM691RF4.500 extension shaft, follow Step #9 and place MC 131 multi-jaw coupling over round shaft. Continue as in Step #9 and mate shaft coupling with KC drive unit.

11. The succeeding 3300 thru 3100 deck installation procedure remains the same as outlined for the 3400 deck.

TMC SPECIFICATION

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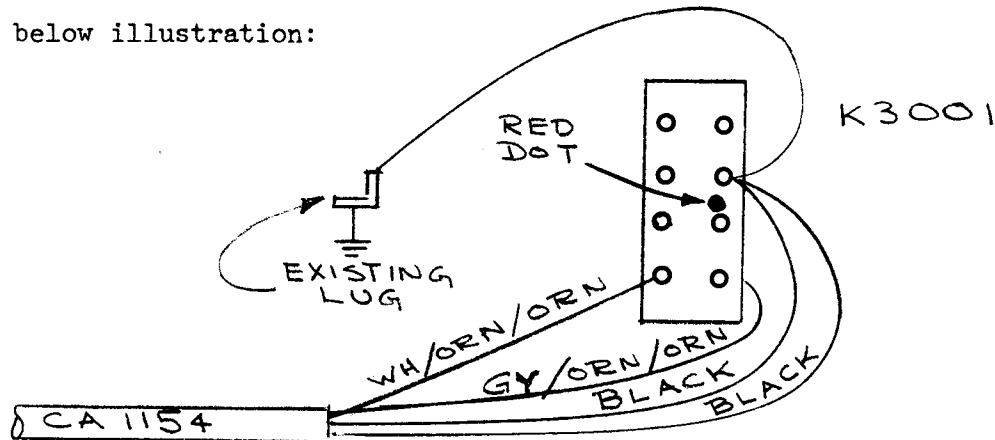
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TITLE: INSTRUCTIONS FOR CONVERSION OF HFS-1 TO HFSR-1

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12. To install CA 1154, place MS 3737 connector mounting plate into rear of mounting hole of "L" detail. Orientate connector so as to have the grey-orange-orange colored wire at J3022, and the white-orange-orange at J3023. Fasten in place with 4/40 mounting hardware on inside of rear panel. Then, guide cable thru grommet adjacent to K3001 to underneath rear subchassis to pins of relay K3001. Solder wire to relay pins as indicated in the below illustration:



13. Refer to LD print 1020 and with appropriate rubber stamp, affix proper "J" number to both front and rear of rear plate (MS2781).

14. On front of HFS, remove present identification plate, and replace with NP362-28.

15. This concludes the modification operation for KIT-220, which converts an HFS-1 to a HFSR-1.

TMC SPECIFICATION

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TITLE: INSTRUCTIONS FOR CONVERSION OF HFS-1 TO HFSR-1 -- KIT-220

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IV. TOOLS REQUIRED

One take-off tool (or transfer punch)	TP133
One 1/8" high speed drill	
One 13/64" high speed drill	
One 1/2" high speed drill	
One MS-2781 Print (Panel, Rear)	
One 3/4" style "S" punch - Standard Drawing	TP113S0-3/4
One TP-137 Print (Template)	
One TP-137 Template	
One LD 1020 Print	

Use one (1) set of tools per station.

