

TMC SPECIFICATION

NO. S993

REV:

0 A

COMPILED: BJE

CHECKED:

JCE

APPD:

M. M. King 7/27/65

SHEET COVER OF 4

TITLE:

I N S T R U C T I O N S

CONVERSION OF THE HAF-1 TO THE HAFR-1

(KIT-223)

CAUTION: DO NOT ROTATE ANY LEDEX SHAFTS UNTIL ENTIRE INSTRUCTIONS
HEREIN CONTAINED ARE REVIEWED.

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TITLE:

CONVERSION OF THE HAF-1 TO THE HAFR-1

typed by vab 7/17/65

I. PURPOSE:

To provide modification instructions for conversion of an HAF-1 to an HAFR-1 said modification to be referred to hereinafter as KIT-223.

II. MATERIAL SUPPLIED:

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESIGNATION</u>
1	1	AX581	Auto, Ass'y (Ch. "A")
2	1	AX582	Auto, Ass'y (Ch. "B")
3	1	NP362-31	Plate Ident.
4	4	PM691RF0.875S	Shaft Ext.
5	8	TE0832AE64H	Spacer
6	4	MC130	Cplg., Rigid
7	4	MC131-1	Cplg., Rigid
8	4	PN59-062-8	Pin, Spring
8.1	8	SLHC0832SN3	Setscrew (for MC130)
9	16	SCBP0832BN5	Screw, Machine
10	2	CA1093-14.00	Wiring Harness Branched
11	16	LWE08MRN	Wash, Lk, Ext

III. PROCEDURE: (SEE NOTE 2, SHEET 3)

- Place TP135 (Template) over Chan "A" audio filter shafts protruding through MS-2862. Shafts fit through center holes of three hole pattern with the two outermost holes allowing clearance for switch mounting screw heads.
- Using tool (TP133), center punch thru all 1/8" hole in template so that four hole pattern is around outboard "D" detail hole as shown on print MS2862.
- Remove Template from Chan "A" selector switch shafts, and turning

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over template, repeat procedure on Chan "B" as in Step #2. Remove template.

4. Pilot both Chan "A" and "B" center punch marks with a 1/8" drill.

5. Open all 1/8" holes to 13/64" to accomodate 8-32 hardware necessary

to mount AX581 and AX582.

SEE NOTE #1, SHEET 3,

6. All holes necessary to mount ledex units have now been accomplished.

7. Next, mount TEO832AE64H spacers to chassis wraparound with 8-32

hardware in all 13/64" holes drilled from template.

NOTE: DO NOT TIGHTEN DOWN HARDWARE UNTIL AFTER ALIGNMENT OF AX581
AND AX582.

8. With 1/4" round shaft (PM691RFO.875S) inset into rigid coupling
(MC130) and tighten down on set screw. With # 52 drill, drill thru MC130

coupling pilot hole and then thru shaft and insert pin (PN59-062-8). This is
to be accomplished on all four coupling assemblies.

9. On all four coupling assemblies, place a MC131 multi-jaw coupling over
round PM691RFO.875S shaft and allow to remain free. Then slide broached end of

MC130 over four protuding audio filter selector shafts. Tighten down setscrews.

10. Mount an MC131 on each ledex shaft to an approximate depth of 3/8"
and fasten with set screw to flat surface.

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

11. Place all audio filter selector switches to the "OUT" position.

12. Then, attach AX581 (Chan "A") by means of 8-32 mounting screws to the
spacers, then tighten all 8-32 screws, taking care to obtain maximum
alignment of shafts. Next, mate multi-jaw coupling (MC131) by sliding free
shaft coupling forward to mate snugly with Ledex drive coupling. Tighten
down setscrews.

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13. Repeat Step #12 for remaining audio filter selector shafts

(AX-582).

14. Slaving of Channel B to Channel A may be accomplished by connecting CA 1093-14 between J7210 and J7207. The other CA 1093-14 is connected between J7208 and J7205.

15. This completes the conversion of HAF-1 to HAFR-1.

NOTE #1: IT WILL BE NECESSARY TO REMOVE CONNECTOR BRACKET IN ORDER TO MOUNT LEDEX BRACKET TO CHASSIS WRAPAROUND, TO LOCATE SCREW DRIVER THRU 3/8" PILOT HOLES IN LEDEX BRACKET.

#2 IF REAR PANEL HAS 8-32 SWAGE NUTS PREVIOUSLY INSTALLED, SKIP STEPS 1 THRU 6 AND PROCEED TO STEP 7.

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CONVERSION OF THE HAF-1 TO A HAFR-1 (KIT-223)

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LV. TOOLS REQUIRED:

One take-off tool (or transfer punch) TP133

One #52 high speed drill

One 1/8" high speed drill

One 13/64: high speed drill

One MS2862 Print

One TP135 Print

One TP135 Template

