

# TMC SPECIFICATION

NO.

REV: 0

COMPILED: R. Urzo

CHECKED:

APPD: *[Signature]*

SHEET

1 OF 4

TITLE:

KIT 403

POLAR KEYING MODIFICATION

KIT 403

POLAR KEYING MODIFICATION

# TMC SPECIFICATION

NO. KIT 403

REV: 0

COMPILED:

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APPD:

SHEET 2 OF 4

TITLE:

KIT 403 POLAR KEYING MODIFICATION

## PURPOSE:

To add POLAR KEYING operation to a CFA-2.

## SCOPE:

### MACHINING:

1. Drill one (1) 1/2 diameter hole on front panel, as shown on drawing (ID 426).
2. Drill four (4) 11/64 diameter holes, on the inside shields, 2 on the right side, 2 on the left side. As shown on drawing (ID 426).

### ASSEMBLE:

1. Assemble Identification plate NORM, POLAR (MS6604) with Switch (ST103-25-63) through previously drilled 1/2 diameter hole on front panel and fasten as shown on (ID 426) drawing.
2. Mount sub-assembly AX5191 fitted between right and left side shields in 4 (four) 11/64 holes.
3. Remove PC243/A4353 (Z1002) from unit. Remove from PC243/A4353 the metal stiffner, located along the top edge of the printed circuit board, fasten to PC728/A5619. Place PC728/A5619 in the vacated slot (Z1002). Return to TMC PC243/A4353.

### WIRING:

#### REMOVE:

On J1001 pin (13) two blue wires exist, remove these two wires from pin (13) and connect (INSULATE).

#### ADD:

A blue wire from J1001 pin (13) to J1002 pin (10) (24 GAGE).

The NEGATIVE SUPPLY (CK2094) AX5191 must be connected as follows:

GREY/WHITE wire connects to T1001 TERM 3.

(Important NOTE: The GREY/WHITE wire must under any conditions be wired to a 115 VAC TAP on T1001.

GREY wire connects to POLAR/NORM Switch opposite existing YELLOW wire.

ORANGE wire connects to J1002 Pin (7).

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RED/WHITE wire connects to J1002 Pin (6).

RED/WHITE wire connects to TB1001 LUG 12 (REAR PANEL).

The POLAR/NORM SWITCH (SN103-25-62) must be connected as follows:

YELLOW wire connects to J1002 Pin (15).

BLUE/WHITE wire connects to J1012 (FRONT PANEL).

TTY MONITOR (connect with existing BLUE shielded wire).

BLUE connect to J1001 Pin (13).

GREY connect to S1004 front panel power on/off switch. This wire will connect to existing GREY/WHITE wire on switch. (Refer to CK2095)

Route all wires via existing cable harness and tierap with CU142-2 supplied.

Refer to CK2095, use as a guide for all wiring. CK2094 is also supplied as a reference for the negative supply.

Refer to ID426 for all physical modifications and machining plans.

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KIT 403 POLAR KEYING MODIFICATION

## THEORY OF OPERATION:

Output Board (A5619/PC728)

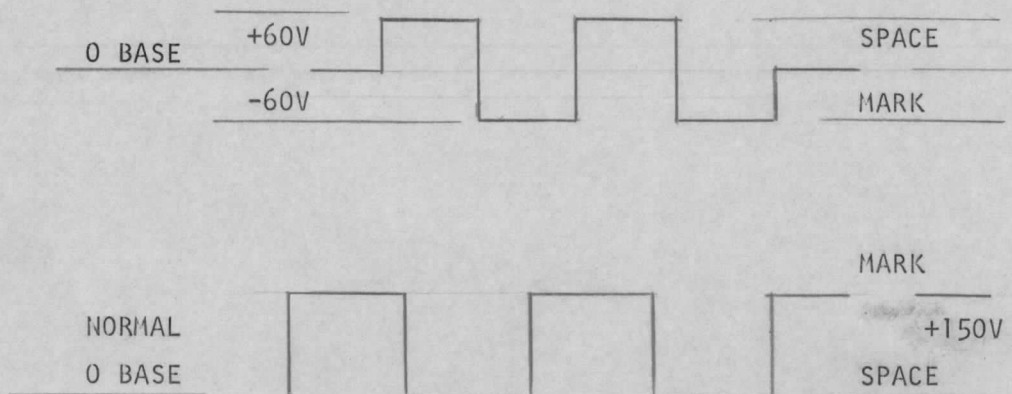
A SPACE is represented by (0) or no positive voltage on the base of Q5. This allows the negative voltage present on R20 to keep Q5 from conducting. When Q5 does not conduct a positive voltage will be present at the base of Q7 which turns Q8 ON and allows current to flow through Q8 into J1002 Pin 15 (LOAD).

A MARK signal is represented by a positive voltage at the base of Q5. This cuts off a negative voltage which flows through R20. This allows a positive voltage to be placed at the base of Q6 through Q5. Q7 is cut off under this condition.

The current present on J1002 Pin 15 now flows through Q6 (LOAD).

## ADJUSTMENTS:

R4 meter calibration adjust  
R23 line voltage adjust



# MATERIAL LIST

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PART NUMBER	DESCRIPTION	USED ON	QTY.	QTY. PER UNIT	REFERENCE SYMBOLS	SPECIAL NOTES REFER TO S1200
A5619 (AND DRAWING)	ASSY, OUTPUT	KIT403	1	1*		1
AX5191	ASSY, NEG., SUPPLY	KIT403	1	1*		1
CK2094	SCHEM, KIT403 POLAR SUP	KIT403	1	1*		
CK2095	SCHEM, KIT403 OVERALL	KIT403	1	1*		
CK2096	SCHEM, OUTPUT BD.	KIT403	1	1*		
CU142-2	TIERAP	KIT403	1	1*		
ID426	INSTALLATION, KIT403	KIT403	1	1*		
LWC24(7)U6	WIRE	KIT403	1	1*		
MS6604	PLATE, (NORM, POLAR)	KIT403	1	1*		
ST103-2S-62	SWITCH, (NORM, POLAR)	KIT403	1	1*		