# TMC SPECIFICATION

NO. S 1351

REV:

COMPILED: | CHECKED: | APPD: | SHEET OF

TITLE:

KIT406

ALDC AND LOAD SENSE

ADJUST MODIFICATION

HFTA-10K

| TMC SPECIFICATION | NO. S 1351 |
|---|---|
| REV: | |
| COMPILED: / CHECKED: / APPD: | SHEET 1 OF 8 |
| TITLE: ALDC AND LOAD SENSE ADJUST MODIFICATION KIT 406 | |

PURPOSE:

To add voltage divider adjustments for the purpose of increasing ALDC and load sense circuit accuracy over the seven frequency bands of operation.

SCOPE:

Machining:

Drill two (2) 11/64 diameter holes in MS5509-B located behind the meter panel as illustrated on print ID427 supplied.

Assembly:

1. Mount assembly A5626 on two (2) 6/32 holes with screws and washers supplied.

2. Remove potentiometer R7 from A4805 also located behind meter panel.

3. Add resistor (R17) RC07GF102J to A4805 as shown on schematic CK2103 supplied.

   Note

   It will be necessary to cut land from printed circuit board PC533/A4805. Refer to illustration ID426 supplied.

4. Place resistor RC42GF682J (6.8K, 2W) supplied in parallel with R1111(3K, 10W) located in IPA Drawer. Refer to schematic CK1945 (sheet one of four).

Wiring:

Note: No wire will be removed.

Add:

1. A green wire from XA705 pin M to A5626 terminal 8.

2. A grey wire from XA705 pin 1 to A5626 terminal 9.

3. A green and white wire from XA705 pin H to A5626 terminal 10.

4. A blue wire from XA705 pin J to A5626 terminal 11.

5. CA1774 from A5626 to J704 as illustrated by drawing CA1774.

6. Remove wire from positions no. 1, 11, 12, of wafer S10 rear located in assembly A704A1, and place it on position no. 4 of wafer S1D front. If positions no. 3 and 4 of S1D front are jumped together then remove this jumper. It wil not be used.

Route all wires via existing cable harness And tierap with CU142-10 supplied. Refer to CK2103 as a guide for all wiring. Refer to ID426 and ID427 for all physical modifications and machining plans.

ADJUSTMENT PROCEDURE:

ALDC:

1. Set the seven potentiometers (R1-R7) of A5626 for maximum resistance or fully counterclockwise.

2. Tune transmitter normally at the approximate center of each of the seven frequency bands of operation, as shown by the chart below, for an output of about 12KW. At the completion of each tuning sequence, adjust the proper potentiometer for the frequency chosen for an output of 10KW. ALDC should now hold the output to 10KW under any drive condition

| Frequency MC | POTENTIOMETER | TUNING FREQUENCY MC |
|---|---|---|
| 2 - 3 | R1 | 2.5 |
| 3 - 5 | R2 | 4 |
| 5 - 8 | R3 | 6.5 |
| 8 -12 | R4 | 10 |
| 12 -16 | R5 | 14 |
| 16 -24 | R6 | 20 |
| 24 -30 | R7 | 27 |

3. After this has been completed for all seven frequency bands of operation, then the four potentiometers (R8-R11) of A4805 may be adjusted to the desired power level. (example 10KW, 6KW, 3KW, and 2KW)

LOAD:

1. Tune and load transmitter normally for the seven frequency bands of operation for an output of 1-2KW. Depending on the frequency band tuned to, adjust potentiometer (R8-R14) of A5626 for a zero reading on load sense meter M4003. Again refer to chart below for correct potentiometer and frequency for each frequency band. Switch transmitter to auto and tune frequency automatically to check for proper loading. A slight re-adjustment may be necessary to load correctly in automatic.

| FREQUENCY MC | POTENTIOMETER | TUNING FREQUENCY MC |
|---|---|---|
| 2 - 3 | R8 | 2.5 |
| 3 - 5 | R9 | 4 |
| 5 - 8 | R10 | 6.5 |
| 8 -12 | R11 | 10 |
| 12 -16 | R12 | 14 |
| 16 -24 | R13 | 20 |
| 24 -30 | R14 | 27 |