# TMC SPECIFICATION

NO. S 964

REV: 0

COMPILED: WM | CHECKED: FEE | APPD: 6/4/65 | SHEET 1 OF 5

TITLE:

typed by vab 6/4/65

LRCD-1

TEST PROCEDURE

TITLE: LRCD-1 TEST PROCEDURE

typed by vab 6/4/65

FUNCTION:

The LRCD-1 (Control Terminator) is the source of the controlled +28V that drives the Ledex Motors in the remote tuned transmitter. It also provides the control circuitry for the Servo amplifier that controls the Servo motor in the CHG-3. The unit contains: (A) a +28V power supply (B) Servo amplifier (plug in assembly) and (C) Relays and associated components that make up the control circuits for the Ledex Motor outputs and the Servo amplifier. All switches, fuses and indicators are located on the front panel. The "Main Power" switch is on the left side and the "Remote/Local" switch is on the right side of the front panel. All input and output jacks are located on the rear panel: J4001 AC Input, J4002- Control input from transmitter, J4003 output to LRCM, J4005-DC error input, J4006 audio SYNC. tone input.

EQUIPMENT REQUIRED:

To test the LRCD-1 the following equipment is needed:

(A) 1 LRCD-1 Test Set
(B) 1 A3625-A3624 Gear Assembly
(C) 1 Simpson-Model 260

PROCEDURE:

(1) Detailed inspection is not necessary because of previous inspection; however, the unit should be checked for damaged or missing compnents, proper fuses and shorts to chassis on the B+ line and AC input lines.

(2) The following resistance measurements should be made:
A. C4006+ To Chassis 33 OHMS
B. +4001-1 To Chassis Infinity
C. +4001-1 To +4001-3B 4-5 OHMS
When these resistance measurements have been made, with the Power switch in the off position insert the AC power cord in J4001.

(3) Turn on the "Main Power" switch, the "Power" indicator will light. The "Remote" lamp will light with the "Remote/Local" switch in the up position and the "Local" lamp will light with the switch in the down position.

(4) Leave the "Remote/Local" switch in the "Local" position. indicator #5 on test set will light. Turn R4011 to mid position, turn off the power switch and remove AC power cable.

(5) Insert the Servo amplifier and secure with SCBP0832BN8 screws and lock washers. USE OF SCREWS LONGER THAN RECOMMENDED WILL RESULT IN DAMAGE TO THE PROTECTIVE CAPS ON THE INSERTS IN THE SERVO AMPLIFIER.

(16) Return all switches on the test set to the off position. Adjust R4011 in the LRCD-1 for a 30 second delay. To start the timing press the "Reset" button on the test set and start timing when the button is released. The fault lamp on the test set will light when the time delay relay turns off the LRCD-1.

(17) When all of the previous tests and adjustments have been made the LRCD-1 is operational. Turn off "Main Power" switch and disconnect the test set.

(6) Insert AC Power Cable (J4001) and cables from test set (J4002-J4003). Position all toggle switches on test set to OFF or neutral position, turn continuity switch to position No. 1.

(7) Turn on "Main Power" switch, a slight hum will be audible in the Servo amplifier. Put "Remote/Local" switch on LRCD-1 to remote position indicator #5 will extinguish and lamp #7 will light. The continuity lamp on the test set will light when the continuity switch is in position #1 through #5. Return the "Continuity Switch" to position #1.

(8) Turn Off "SYNC" switch and press the "Reset" button. Adjust R4011 in the LRCD-1 for maximum time delay (Turn CCW until fault lamp lights, this is minimum delay-turn CW for maximum) When the time delay relay activates during the test procedure it will be necessary to press the "Reset" button to reactivate the LRCD-1. The XMTR start tune lamp #6 will light when the "Reset" button is pressed.

(9) Press the "BS Motor" switch; indicators #10 and #11 will light. When the button is released the lights will extinguish.

(10) Turn on the "Servo Direction" switch, indicator #8 will light; turn off the switch, indicator #7 will light.

(11) Turn the Ledex Control" knob one position CCW and press the the tune button. The Ledex Motor will activate and will turn the "Ledex Indicator" knob to the corresponding position. The Ledex Motor will continue to run until the selected position is reached even after the tune button is released. Test a minimum of four positions with the "Ledex Control" knob. Make the above check on each of the five positions on the "Continuity" switch which causes the "continuity" lamp to light. Lamp #6 will light when the Ledex motor is activated.

(12) Turn on the "Tune-Overide" switch, turn THE "Continuity" switch to position #1. When the "Ledex Control" knob is turned the Ledex Motor will activate WITHOUT pressing the "Tune" button. In Position #6 on the "Continuity" switch the Ledex Motor will not operate.

(13) Turn Off the main power switch on the LRCD-1. Connect the gear assembly to the test set. Turn on the "SYNC" switch, the "SYNC" lamp will light.
Turn on the Servo B+ switch and turn off the "SYNC" switch. The Servo Motor will start to run and will reverse when the Cam Arm in the gear assembly hits the limit switch.

(14) With the Servo Motor running turn on "Servo Direction" switch, the motor will change directions everytime the switch is changed from on to off or off to on. With the "Servo Direction" switch either on or off, the motor will reverse when the limit switches on the gear assembly are activated.

(15) When the time d lay activates the fault lamp will light and the Servo Motor will stop. Press "Reset" button to restart motor. With th Servo Motor running, turn on the "SYNC" switch. The motor will stop.

## TEST DATA SHEET

for

LRCD-1

SERIAL NO._____

MFG. NO._____

### RESISTANCE

| | | |
|---|---|---|
| A. | C4006+ to Chassis | _____ ohms |
| B. | +4001-1 to Chassis | _____ ohms |
| C. | +4001-1 to +4001-3B | _____ ohms |

| | |
|---|---|
| Band Switch Motor | _____ OK |
| Motor Control | _____ OK |
| Continuity | _____ OK |
| Ledex Control | _____ OK |
| Tune Override | _____ OK |
| Sync. | _____ OK |
| Servo B+ | _____ OK |
| Servo Direction | _____ OK |
| Fault Lamp | _____ OK |
| Reset | _____ OK |
| Time Delay | _____ SEC. |

DATE:_____

TESTER:_____

# REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S-964 Ø
LIST NO.

| DATE | REV. | SHEET | EMN # | DESCRIPTION | APP. |
|---|---|---|---|---|---|
| 6/7/65 | | 1 of 5 | | O=ORIGINAL RELEASE FOR PRODUCTION. | |