

L3 CARRIER SYSTEM **TERMINALS, REPEATERS, AND OVERALL SYSTEM** **INITIAL TESTS — TERMINAL, LINE CONNECTING,** **LINE SWITCHING, AND TELEVISION EQUIPMENT**

1. GENERAL

1.01 This section and associated sections in this subdivision describe the service maintenance instructions for the L3 carrier system.

1.02 This section is reissued to include reference to new sections covering tests for line switching circuit equipment.

1.03 This section outlines the initial tests to be performed on the terminal, line connecting, line switching, and television equipment associated with the L3 carrier system as follows:

- (a) Channel bank
- (b) Group bank
- (c) Supergroup
- (d) Submastergroup
- (e) Mastergroup
- (f) Line connecting
- (g) Line switching
- (h) T3-R3 television equipment

TEST

SECTION REFERENCE

Channel transmission frequency characteristic 356-015-500

GROUP CONNECTOR

Measurement of loss and frequency characteristics 356-020-500

GROUP EQUIPMENT (J Specification Test Sets)

Electron tube tests:

Transmitting intermediate amplifier 356-100-500

Auxiliary receiving amplifier 356-100-500

Group modulator gain test 356-112-501

Adjustment of transmitting 92-kHz group pilots 356-112-502

Transmitting intermediate amplifier — gain measurement 356-112-503

Checking transmitting group circuits for turnover 356-112-504

Group demodulator gain tests 356-113-501

Auxiliary receiving amplifier — gain measurement 356-113-502

Checking receiving group circuits for turnover 356-113-503

SUPERGROUP EQUIPMENT (J Specification Test Sets)

Electron tube tests:

Receiving intermediate amplifier 356-100-500

TEST	SECTION REFERENCE
CHANNEL BANK	
Electron tube tests:	
9-volt operation	356-015-500
10-volt operation	356-015-500
Channel modulator loss	356-015-500
Carrier leak	356-015-500
Channel demodulator gain	356-015-500
Demodulator potentiometer range	356-015-500

SECTION 359-010-303

TEST	SECTION REFERENCE	TEST	SECTION REFERENCE
Supergroup modulator loss measurement	356-115-501	LINE CONNECTING EQUIPMENT	
Supergroup demodulator loss measurement	356-116-501	Power supply voltages:	
Receiving intermediate amplifier — gain measurement	356-116-502	Filament and bias	359-020-500
Transmission test — transmitting pads	356-119-501	Plate supply	359-020-500
Transmission test — receiving pads	356-119-502	130-volt metallic rectifier	359-020-500
		Electron tube tests	359-035-505
		Measurement and adjustment	359-035-505
SUPERGROUP CONNECTOR		LINE SWITCHING CIRCUIT	
Measurement of gain and frequency characteristic	356-025-500	Common Equipment	
Electron tube tests (See Table 1, transmitting intermediate amplifier)	356-100-500	↗ Electron tube tests	359-101-501
		Adjustment of switching signal oscillator output	359-101-501
SUBMASTERGROUP EQUIPMENT		Adjustment of initiator expander circuit	359-101-501
Electron tube tests	356-150-500	Test of 223B and 223D coaxial switches	359-101-501
Transmitting submastergroups, gain measurement	356-150-500	Tuning of expander and measurement of gating loss	359-101-501
Transmitting submastergroups, turnover tests	356-150-500		
Receiving submastergroups, loss measurement	356-150-500	Multiline, Expanded Multiline, and Supermultiline Equipment Only	
Receiving submastergroups, turnover tests	356-150-500	Adjustment of amplifier gain	359-101-501
		Adjustment of detector bias	359-101-501
MASTERGROUP EQUIPMENT		Adjustment of detector sensitivity and power of outgoing signals	359-101-501
Electron tube tests	356-150-500	↘ Overall signal frequency	359-101-503
Transmitting mastergroup, loss measurement	356-150-500	T3-R3 TELEVISION EQUIPMENT	
Transmitting mastergroup, turnover tests	356-150-500	T3-R3 power supply tests	359-090-500
Receiving mastergroup, gain measurement	356-150-500	T3-R3 filament activity tests	359-090-500
Receiving mastergroup, turnover tests	356-150-500	T3 (transmitting terminal) line-up procedure	359-090-500
Transmitting and receiving hybrid circuits	356-150-500	R3 (receiving terminal) line-up procedure	359-090-500
		T3-R3 measurements	359-090-500
		T3-R3 — other tests	359-090-500