

SECTION	TABLE OF CONTENTS	PAGE
CHAPTER 1 INTRODUCTION		
1.1	Manual Overview	1-1
1.2	Assembly Designation Numbers	1-1
1.3	Safety	1-1
1.4	Maintenance	1-2
1.5	Material Return Procedure	1-2
1.6	Limited One-Year Warranty for Axcera Products	1-3
CHAPTER 2 SYSTEM DESCRIPTION & REMOTE CONTROL CONNECTIONS		
2.1	System Overview	2-1
2.1.1	Receiver Tray	2-2
2.1.2	IF Processor Module	2-3
2.1.3	LO/Upconverter Module	2-5
2.1.4	Control & Monitoring/Power Supply Module	2-7
2.1.5	Power Amplifier Module	2-8
2.1.6	RF Output Assemblies	2-9
2.2	Control and Status	2-9
2.2.1	Front Panel LCD Display Screen	2-10
2.3	System Operation	2-10
2.3.1	Principles of Operation	2-11
2.4	Customer Remote Connections	2-12
CHAPTER 3 SITE CONSIDERATIONS, INSTALLATION AND SETUP PROCEDURES		
3.1	Site Considerations	3-1
3.2	Unpacking the Chassis w/Modules and Receiver Tray	3-4
3.3	Installing the Chassis w/Modules and Receiver Tray	3-4
3.4	AC Input	3-6
3.5	Setup and Operation	3-6
3.5.1	Input Connections	3-7
3.5.2	Front Panel Screens for the Exciter/Amplifier Chassis Assembly	3-9
CHAPTER 4 CIRCUIT DESCRIPTIONS		
4.1	Receiver Tray	4-1
4.1.1	50-Ohm Filter	4-1
4.1.2	Dual Stage Amplifier Assembly	4-1
4.1.3	Channel Filter	4-1
4.1.4	Downconverter Amplifier Assembly	4-2
4.1.5	Channel Oscillator Assembly	4-2
4.1.6	x8, x2, x4 Multiplier Board	4-2
4.1.7	L.O. Filter	4-2
4.1.8	IF Filter/ALC Board	4-2
4.1.9	SAW Board (Optional)	4-2
4.1.10	IF Amplifier Board (Optional)	4-3
4.1.11	IF Filter/Limiter Board (Optional)	4-3
4.1.12	IF PLL Board (Optional)	4-3
4.1.13	IF Carrier Oven Oscillator (Optional)	4-3

TABLE OF CONTENTS - (Continued)

SECTION	PAGE
4.1.14 +/- 12V Power Supply Board	4-4
4.2 IF Processor Module	4-4
4.2.1 IF Processor Board	4-4
4.3 LO/Upconverter Module	4-10
4.3.1 UHF Generator Board	4-10
4.3.2 UHF Filters	4-11
4.3.3 LO/Upconverter Board	4-11
4.4 Control Monitoring/Power Supply Module	4-15
4.4.1 Power Protection Board	4-16
4.4.2 Control Board	4-16
4.4.3 Switch Board	4-19
4.4.4 Switching Power Supply Assembly	4-19
4.5 Power Amplifier Module Assembly	4-19
4.5.1 1-Watt Amplifier Module Assembly	4-19
4.5.2 1-Watt UHF Amplifier Board	4-19
4.5.3 40 Watt UHF Amplifier Assembly	4-20
4.5.4 UHF Module Assembly, RF Module Pallet	4-20
4.5.5 Coupler Board Assembly	4-21
4.5.6 Amplifier Control Board	4-21

CHAPTER 5 DETAILED ALIGNMENT PROCEDURES

Module Replacement	5-1
Initial Test Setup	5-1
5.1 UHF/VHF Receiver Tray	5-2
5.1.1 UHF Filter	5-2
5.1.2 Dual Stage Amplifier Board	5-2
5.1.3 UHF Filter	5-2
5.1.4 Channel Oscillator Assembly	5-2
5.1.5 x8, x4, x2 Multiplier Board	5-3
5.1.6 UHF Filter	5-4
5.1.7 Downconverter Amplifier Board	5-4
5.1.8 IF Filter/ALC Board	5-4
5.1.9 SAW Filter Board (Optional)	5-4
5.1.10 +/- 12V Power Supply	5-4
5.1.11 IF Carrier Oscillator Board (Optional)	5-4
5.1.12 IF Filter/Limiter Board	5-4
5.1.13 IF PLL Board (Optional)	5-4
5.1.14 IF Amplifier Board, High Gain (Optional)	5-5
5.2 Innovator LX Series Exciter/Amplifier Chassis Assembly	5-6
5.2.1 Linearity Correction Adjustment	5-6
5.2.2 Frequency Response Delay Equalization Adjustment	5-7
5.2.3 Calibration of Output Power and Reflected Power	5-7
5.3 Alignment Procedure for the Band-pass Filter Assembly	5-8

APPENDICES

APPENDIX A SYSTEM SPECIFICATIONS

APPENDIX B DRAWINGS AND PARTS LISTS

LIST OF FIGURES		
FIGURE		PAGE
3-1	1 kW Minimum Ventilation Configuration	3-4
3-2	Tray Slide Cabinet Mounting Diagram.....	3-5
3-3	Front and Rear View Reconnection Drawing	3-6
3-4	Rear View of Innovator LX Series UHF Translator.....	3-7
5-1	Typical Red Field Spectrum	5-7

LIST OF TABLES

TABLE		PAGE
2-1	10-100W Innovator LX Series Translator Assemblies and Tray	2-1
2-5	Receiver Samples	2-2
2-6	IF Processor Front Panel Switch	2-4
2-7	IF Processor Front Panel Status Indicators	2-4
2-8	IF Processor Front Panel Control Adjustments	2-4
2-9	IF Processor Front Panel Sample	2-4
2-10	LO/Upconverter Front Panel Switch	2-6
2-11	LO/Upconverter Front Panel Status Indicators	2-6
2-12	LO/Upconverter Front Panel Control Adjustments	2-6
2-13	LO/Upconverter Front Panel Samples	2-6
2-14	Controller/Power Supply Front Panel Display	2-7
2-15	Controller/Power Supply Front Panel Status Indicators	2-7
2-16	Controller/Power Supply Front Panel Control Adjustments.....	2-7
2-17	Power Amplifier Front Panel Status Indicators	2-9
2-18	Power Amplifier Front Panel Control Adjustments.....	2-9
2-19	Power Amplifier Front Panel Sample.....	2-9
2-22	VHF Television Frequencies.....	2-11
2-23	UHF Television Frequencies.....	2-11
2-25	Innovator LX Series Chassis Customer Remote Connections.....	2-13
3-1	Rear Chassis Connections for Receiver Tray	3-7
3-2	Rear Chassis Connections for LX Series Translators (driver)	3-7
3-3	Menu 01 Splash Screen #1	3-9
3-4	Menu 02 Splash Screen #2	3-9
3-5	Menu 10 Main Screen.....	3-9
3-6	Menu 11 Error List Screen	3-10
3-7	Menu 12 Translator Device Data Access Screen	3-10
3-8	Menu 13 Translator Configuration Access Screen	3-10
3-9	Menu 20 Error List Display Screen	3-10
3-10	Menu 30 Translator Device Details Screen	3-10
3-11	Translator Device Parameters	3-12
3-12	Menu 40 Translator Set Up: Power Raise/Lower Screen	3-13
3-13	Menu 40-1 Translator Set Up: Xltr. Model Select Screen	3-13
3-14	Menu 40-2 Translator Set Up: Frequency Select Screen.....	3-13
3-15	Menu 40-3 Translator Set Up: Frequency Table Select Screen	3-13
3-16	Menu 40-4 Translator Set Up: IF Frequency Screen	3-14
3-17	Menu 40-5 Translator Set Up: Custom Frequency Select Screen	3-14
3-18	Menu 40-6 Translator Set Up: Serial Address Screen.....	3-14
3-19	Menu 40-7 Translator Set Up: Xltr. Visual Power Cal. Screen.....	3-14
3-20	Menu 40-8 Translator Set Up: Xltr. Aural Power Cal. Screen.....	3-15
3-21	Menu 40-9 Translator Set Up: Xltr. Rfltd. Power Cal. Screen	3-15
3-22	Menu 40-10 Translator Set Up: Fwd. Power Fault Thresh. Screen	3-15
3-23	Menu 40-11 Translator Set Up: Rfltd. Power Fault Thresh. Screen	3-15
3-23	Menu 40-12 Translator Set Up: Remote Commands Control.....	3-16