

# MARTI

The performance-value leader in Broadcast Equipment.

## TERMS AND CONDITIONS OF SALE

### ACCEPTANCE OF ORDERS

All orders are subject to acceptance in writing by Seller. All orders must be confirmed by purchase order signed by Buyer. Signed orders via Fax will be accepted if they meet our terms and conditions of sale.

### PRICES

All prices shown are F.O.B. Seller's plant and are subject to change without notice. Prices do not include export packing, insurance, duties, Federal, State or local sales or excise taxes.

### TERMS OF PAYMENT

All orders are subject to the approval of Seller's Credit Department. Payment is due net 30 days from date of invoice. Buyer is responsible for all reasonable attorney and/or collection agency fees should such action become necessary by reason of Buyer's default.

### SHIPPING TERMS

Shipments F.O.B. Seller's plant will be sent transportation charges collect unless prior arrangements are agreed upon in writing. In the absence of specific instructions, Seller will ship by method deemed appropriate by Seller.

### TITLE TO GOODS AND RISK OF LOSS

Title to goods shall pass to the Buyer upon delivery to carrier and risk of loss or damage shall thereafter rest with the Buyer. Claims for damage or loss while material is in transit must be made against the carrier by the Buyer. ALL CLAIMS FOR SHORTAGES MUST BE MADE WITHIN THIRTY DAYS AFTER DATE OF SHIPMENT OF MATERIAL. CLAIMS FOR DAMAGE OR LOSS IN TRANSIT MUST BE MADE IMMEDIATELY AGAINST THE CARRIER BY THE BUYER.

### DELAYS

All scheduled delivery dates are subject to delays caused by contingencies beyond Seller's reasonable control. Seller is not liable for failure to perform due to any such contingency.

### SPECIFICATION CHANGES

All designs and specifications of Seller's products are subject to change without notice.

### CANCELLATION

Cancellation of, or changes to acknowledged order by the Buyer are accepted only upon terms that protect the Seller against loss.

### LIMITED WARRANTY

THE SELLER WARRANTS THAT, AT THE TIME OF SHIPMENT, THE PRODUCTS MANUFACTURED BY THE SELLER ARE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP. THE SELLER'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPLACEMENT OR REPAIR OF SUCH PRODUCTS WITHIN ONE YEAR FROM THE DATE OF SHIPMENT (TWO YEARS FOR STL'S).

THE SELLER IS IN NO EVENT LIABLE FOR CONSEQUENTIAL DAMAGES, INSTALLATION COST OR OTHER COSTS OF ANY NATURE AS A RESULT OF THE USE OF THE PRODUCTS MANUFACTURED OR SUPPLIED BY THE SELLER, WHETHER USED IN ACCORDANCE WITH INSTRUCTIONS OR NOT.

THIS WARRANTY IS IN LIEU OF ALL OTHERS, EITHER EXPRESSED OR IMPLIED. NO REPRESENTATIVE IS AUTHORIZED TO ASSUME FOR THE SELLER ANY OTHER LIABILITY IN CONNECTION WITH SELLER'S PRODUCTS.

### RETURNED MATERIAL

Material cannot be returned for credit without written authorization. Such material is subject to a handling charge of not less than 15% upon return and inspection of material at factory. Credit for returned material is issued by the Seller only to the original purchaser. Freight charges for returned material are the responsibility of the Buyer.

**Marti Electronics, Inc., P.O. Box 661, Cleburne, Texas 76033-0661  
(817) 645-9163 Telex #794835 "Marti CLBN" Fax (817) 641-3869**



STL-10 TRANSMITTER



R-10 RECEIVER

### SCPC STEREO SYSTEM FEATURES

- ★ Unexcelled stereo separation, noise and distortion specs.
- ★ High interference rejection receivers.
- ★ Backup reliability of scpc stereo.
- ★ Full 10 watts output power.
- ★ Ga As FET low noise amplifier.
- ★ Available for new narrow channels.
- ★ Matched phase and amplitude.
- ★ Provision for automatic switching.
- ★ Two year limited warranty.
- ★ 12 V. Battery operation.
- ★ Selectable 0, 25, 50 or 75 us. emphasis.
- ★ FCC Approved under parts 74 & 94  
FCC ID: BEN9EZSTL-10/950
- ★ Up to 4 subcarriers per stereo system.
- ★ Accurate watt meters for forward and reflected power.

## Is Your FM Station A Relic of the Loudness Wars?

Now that you sound just like your mundane competition (loud, distorted, with little stereo separation and dynamic range), you are approaching the new battleground - **CD Quality**.

But the battle of the 1990's can't be won with a "Loudness Box" ahead of a noisy "Composite" STL.

To get serious about CD quality you need an STL with a noise floor near -80 dB and stereo separation down to the noise floor.

You need the **MARTI STL-10 scpc System**.

It's the weapon of choice to attract listeners searching for an FM station that sounds more like their own CD player!

#### STEREO STL SYSTEM \$6,925

Package 51 Includes:  
2 STL-10/950 transmitters  
2 R-10/950 receivers  
1 HRC-10 transmitter combiner  
1 MTS-10 receiver combiner  
See System 1, Page 2

Prices Do Not  
Include Antennas  
and  
Transmission Line.

#### MONO STL SYSTEM \$3,250

Package 50 Includes:  
1 STL-10/950 transmitter  
1 R-10/950 receiver  
See Systems 4, 5, 6, 7, Page 2

#### STEREO SYSTEM SPECS.

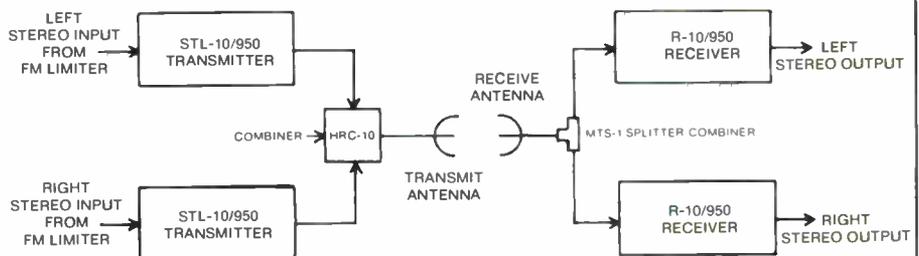
**800-960 MHz.  
500 KHz channel**

L-R Differential Phase 20-15000 Hz 0.5 Degrees  
L-R Differential Amplitude 20-15000 Hz 0.1 DB  
Stereo Channel Crosstalk/Separation -78 DB  
Noise (Left or Right Channel) -78 DB  
Frequency Response 20-15000 Hz ±0.25 DB  
Distortion (THD) 0.25%

Type Emission 180 KF8E EACH  
Channel Spacing 250 KHz (±125 KHz offset)  
See System 1, Page 2

Stereo systems available for new  
200 KHz and 300 KHz bandwidths.  
See Systems 2 and 3, Page 2

#### MARTI STEREO STL (scpc SYSTEM 800-960 MHz.)



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## STL-10/R-10 RADIO LINK APPLICATION AND SYSTEM SPECIFICATIONS

SYSTEM NO.	APPLICATION	FREQ RANGE MHz	CHAN BW KHz	SCPC STEREO OFFSET FROM C.F. $\pm$ KHz	FCC EMISSION DESIGNATOR	FCC PART	OPTIONAL SUBCARRIERS (NUMBER) KHz	TX PWR. WATT	TX FM DEV. $\pm$ KHz	REQUIRED RECEIVER SIGNAL (UV) FOR QUIETING			SYSTEM			CHANNEL SEPARATION DB	EQUIPMENT PACKAGE
										50 DB	60 DB	ULT	MAIN CHANNEL RESPONSE	T.H.D. < %	ULT. NOISE -DB		
1	FM Stereo STL	945-952	500	125	180KF8E (2) each	74	(2) 39,67,92	10	50	3.0	10	80	$\pm$ 0.25 DB 20Hz-15KHz	0.25	-78	-78	51
2	FM Stereo STL	945-952	300	62.5	80KF8E (2) each	74	(1) 39	10	20	8.0	25	130	$\pm$ 0.25 DB 20Hz-15KHz	0.3	-72	72	51
3	AM Stereo STL	945-952	200	50.0	80KF8E (2) each	74	(1) 26	10	15	8.0	25	130	$\pm$ 0.3 DB 20Hz-15KHz	0.3	-72	-72	51
4	Audio/Data 1-4 Channels*	928-960	200	--	180KF8E each	74 94	(2) 39, 67, 92	10	50	3.0	10	80	$\pm$ 0.25 DB 20Hz-15KHz	0.25	-78	-78	50
5	Audio/Data 1-4 Channels*	928-960	100	--	80KOF8E each	74 94	(1) 39	10	15	8.0	25	130	$\pm$ 0.25 DB 20Hz-15KHz	0.3	-72	-72	50
6	Audio/Data 1-4 Channels*	928-960	50	--	36KOF3E each	74 94	--	10	7	16	90	130	$\pm$ 2 DB 20Hz-10KHz	2.0	-65	--	50
7	Audio/Data 1-4 Channels*	928-960	25	--	16KOF3E each	74 94	--	10	4	27	130	130	$\pm$ 2 DB 20Hz-7.5KHz	2.0	-60	--	50
8	2-4 MUX Channels Audio/Data	928-960	200	--	180KF8E	94	(3) 39,67,92	10	12	12	35	130	$\pm$ 1.5 DB 20Hz-7.5KHz	0.3	-62	60	95-4
9	Audio/Data 1-4 Channels**	200-480	100 200	each each	export export	-- --	(1) 39 (2) 39,67	15 15	15 15	8.0 10	25 30	120 130	$\pm$ 0.3 DB 20Hz-15KHz	0.3 0.3	-72 -72	-72 -72	53- 55

\*For 2 channels use TX combiner TAD-900-2 (page 9)

For 3 or 4 channels use TX combiner TAD-900-4 (page 9)

\*\*For 2 or more channels on export frequencies use separate TX Yagi Antennas spaced 60DB. See bottom page 3.

NOTE: Orders for STL-10/R-10 systems must include operating frequencies and bandwidth. Export orders must also include line voltage and frequency.

## STL-10 TRANSMITTER SPECIFICATIONS

<b>Frequency Range</b> .....	800-960, 400-480, 280-340, 200-260 MHz.
<b>RF Power Output</b> .....	15 Watts 200-480, 10 Watts 800-960 MHz.
<b>Carrier Frequency</b> .....	
<b>Stability</b> .....	$\pm$ .00025%, 0°C to +50°C.
<b>Type of Modulation</b> .....	Direct FM
<b>Audio Input</b> .....	Balanced 600 ohms +8 dbm, Barrier strip. BNC connector for unbalanced input.
<b>Subcarrier Inputs</b> .....	Two BNC connectors for Remote Control and Subcarrier Inputs, 50 to 600 ohms unbalanced.
<b>Power Requirements</b> .....	120/220* VAC, 50/60 Hz. 80 Watts. 13.5 V.DC 2.6 Amps 24-28V.DC 2.6 Amps**
<b>AC Power Supply</b> .....	Precision, electronically regulated with current limiting.
<b>Spurious Emission</b> .....	More than 60 db. below carrier.
<b>Automatic Changeover</b> .....	Provision for Automatic Changeover
<b>Accessory Connector</b> .....	15 pin connector on rear panel provides filtered outputs for Remote Control, Automatic Changeover, Remote Power Metering and External DC Power.
<b>Metering</b> .....	Calibrated RF wattmeter reads forward and reflected power. Test meter reads main channel peak modulation, subcarrier level, supply voltage, P.A. current, RF Drive 1 and RF Drive 2.
<b>Dimensions</b> .....	3½" High x 19" Wide x 14" Deep.
<b>Weight</b> .....	Net 11 lbs. Domestic packed 18 lbs.
<b>RF Connector</b> .....	UG-58

## R-10 RECEIVER SPECIFICATIONS

<b>Frequency Range</b> .....	800-960, 400-480, 280-340, 200-260 MHz.
<b>Sensitivity</b> .....	See system specs.
<b>Input Impedance</b> .....	50 ohms.
<b>Frequency Stability</b> .....	$\pm$ .00025%, 0°C to +50°C.
<b>Selectivity</b> .....	See system specs.
<b>Spurious Response</b> .....	-90 db. 200-480 MHz, -70 db 800-960 MHz.
<b>Audio Output</b> .....	Balanced 600 ohms, +10 dbm., Barrier strip. BNC connector for unbalanced output.
<b>Subcarrier Outputs</b> .....	Two BNC connectors for Remote Control and/or Subcarrier outputs.
<b>Front Panel Controls</b> .....	10 db attenuation switch, program level adjust, meter switch, squelch adjust.
<b>Power Requirements</b> .....	120/220* VAC, 50/60 Hz. 10 Watts.
<b>AC Power Supply</b> .....	Precision, electronically regulated with current limiting.
<b>Metering</b> .....	RF signal level, audio output level, subcarrier output level, +13 V.DC supply, L.O. level, mixer level. LED indicators for power and open squelch.
<b>Dimensions</b> .....	3½" High x 19" Wide x 12" Deep
<b>Weight</b> .....	Net 10 lbs. Domestic packed 17 lbs.
<b>RF Connector</b> .....	UG-58

FCC approved under parts 74 and 94 FCC ID: BEN9EZSTL-10/950

# STL-10

## DOMESTIC AND EXPORT RADIO LINK SYSTEM PACKAGES

# MARTI

Frequency Band	STL Transmitters and Receivers - No Antennas	STL Monaural Systems with Antennas	STL Stereo Systems with Antennas
<b>800-960 MHz.</b>	<p><b>PACKAGE 50 Mono</b>      \$3,250.00 1 STL-10/950 transmitter 1 R-10/950 receiver for STL See Systems 4, 5, 6, 7, Page 2</p> <p><b>PACKAGE 51 Stereo</b>      \$6,925.00 2 STL-10/950 transmitters 2 R-10/950 receivers for STL 1 HRC-10 transmitter combiner 1 MTS-1 receiver combiner See Systems 1, 2 and 3, Page 2</p>	<p><b>PACKAGE 50M</b>      \$3,327.00 1 STL-10/950 Transmitter 1 R-10/950 Receiver 2 PG-1.7B Jumper Cables 2 K-1 Weatherproofing Kits *TWO "N" FEMALE AND TWO "N" MALE CONNECTORS AND ½" TRANSMISSION LINE AND TWO DISH ANTENNAS REQUIRED</p>	<p><b>PACKAGE 51S</b>      \$7,002.00 2 STL-10/950 Transmitters 2 R-10/950 Receivers 1 HRC-10 Transmitter Combiner 1 MTS-1 Receiver Combiner 2 PG-1.7B Jumper Cables 2 K-1 Weatherproofing Kits *TWO "N" FEMALE AND TWO "N" MALE CONNECTORS AND ½" TRANSMISSION LINE AND TWO DISH ANTENNAS REQUIRED</p>
<b>200-260 MHz.</b> Export Only	<p><b>PACKAGE 53</b>      \$3,250.00 1 STL-10/215 transmitter 1 R-10/215 receiver for STL See System 9, Page 2</p>	<p><b>PACKAGE 53M</b>      \$3,654.00 1 STL-10/215 Transmitter 1 R-10/215 Receiver 2 YC-215 Yagi Antennas 2 PG-2B Jumper Cables 2 K-1 Grounding Kits *TWO "N" FEMALE AND TWO "N" MALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED</p>	<p><b>PACKAGE 53S</b>      \$7,171.00 2 STL-10/215 Transmitters 2 R-10/215 Receivers 3 YC-215 Yagi Antennas 3 PG-2B Jumper Cables 1 MTS-1 Receiver Combiner 3 K-1 Grounding Kits *THREE "N" FEMALE AND THREE "N" MALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED</p>
<b>280-340 MHz.</b> Export Only	<p><b>PACKAGE 54</b>      \$3,250.00 1 STL-10/300 transmitter 1 R-10/300 receiver for STL See System 9, Page 2</p>	<p><b>PACKAGE 54M</b>      \$3,654.00 1 STL-10/300 Transmitter 1 R-10/300 Receiver 2 YC-300 Yagi Antennas 2 PG-2B Jumper Cables 2 K-1 Grounding Kits *TWO "N" FEMALE AND TWO "N" MALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED</p>	<p><b>PACKAGE 54S</b>      \$7,171.00 2 STL-10/300 Transmitters 2 R-10/300 Receivers 3 YC-300 Yagi Antennas 3 PG-2B Jumper Cables 1 MTS-1 Receiver Combiner 3 K-1 Grounding Kits *THREE "N" FEMALE AND THREE "N" MALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED</p>
<b>400-480 MHz.</b> Export Only	<p><b>PACKAGE 55</b>      \$3,250.00 1 STL-10/450 transmitter 1 R-10/450 receiver for STL See System 9, Page 2</p>	<p><b>PACKAGE 55M</b>      \$3,654.00 1 STL-10/450 Transmitter 1 R-10/450 Receiver 2 YC-450 Yagi Antennas 2 PG-2B Jumper Cables 2 K-1 Grounding Kits *TWO "N" FEMALE AND TWO "N" MALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED</p>	<p><b>PACKAGE 55S</b>      \$7,171.00 2 STL-10/450 Transmitters 2 R-10/450 Receivers 3 YC-450 Yagi Antennas 3 PG-2B Jumper Cables 1 MTS-1 Receiver Combiner 3 K-1 Grounding Kits *THREE "N" FEMALE AND THREE "N" MALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED</p>

Prices of antennas, transmission line and connectors are not included in the above package prices. For current prices of these items, contact Marti sales.

Specifications for above systems are on page 2.

Orders for radio links must include operating frequencies and bandwidth. Export orders must also include line voltage and frequency.

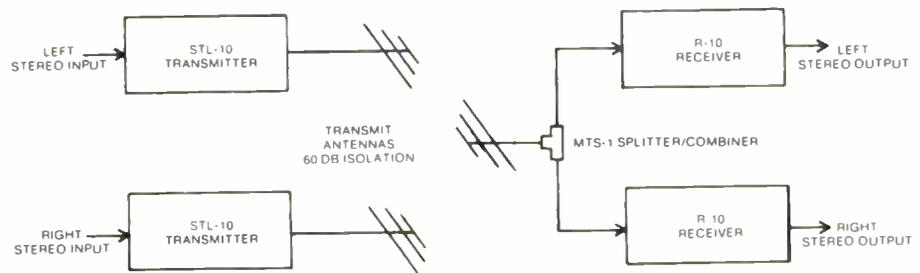
### MARTI STEREO STL (scpc SYSTEM 200-480 MHz.) International Export

#### STEREO SYSTEM SPECS.

200-480 MHz.

Stereo Channel Crosstalk Separation      -72 DB  
Noise (Left or Right Channel)      -72 DB  
Frequency Response 20-15000 Hz      ±0.25 DB  
Distortion (THD)      0.3%

See System 9, Page 2



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

# MODEL SCG-10 SUBCARRIER GENERATOR MODEL SCD-10 SUBCARRIER DEMODULATOR



\$695.00



\$695.00

## MODEL SCG-10 SUBCARRIER GENERATOR

The Marti Model SCG-10 Subcarrier Generator is designed to operate in SCA service with an FM broadcast transmitter or, with a Model SCD-10 Subcarrier Demodulator, to form a subcarrier link on a microwave (STL) system. The SCG-10 has several options available which allow it to perform a wide range of functions in broadcasting and communications. Audio processing options include selectable pre-emphasis of zero, 75, 150 or 225 microseconds. Low pass audio filters of 3 KHz, 5 KHz or 7.5 KHz are available. For subcarrier link systems using the SCD-10 demodulator, a compander encode board plugs into the generator and a decode board into the demodulator to adapt the system to audio companding.

The SCG-10 employs an illuminated panel meter to aid in adjusting modulation and subcarrier output level.

## MODEL SCD-10 SUBCARRIER DEMODULATOR

The Model SCD-10 Subcarrier Demodulator is designed for use with Model SCG-10 Subcarrier Generator to provide a high quality subcarrier channel on a microwave link (STL) or FM station. The SCD-10 may be specified for operation on a standard subcarrier frequency used in FM broadcasting. The subcarrier input to this demodulator should be from a high quality FM receiver having adequate IF bandwidth with group delay characteristics sufficient for subcarrier work. The Marti R-10 Receiver with 200 KHz phase linear IF filter is excellent in this respect.

The SCD-10 has several options available, allowing it to perform a wide range of functions in broadcasting and communications. Audio processing options include selectable de-emphasis of zero, 75, 150 or 225 microseconds. Low pass audio filters of 3 KHz, 5 KHz or 7.5 KHz are available. For subcarrier link systems using the SCG-10 generator, a compander decode board plugs into the demodulator and an encode board into the generator to adapt the system to audio companding.

The SCD-10 employs an illuminated panel meter to aid in adjusting subcarrier input level and audio output.

## MODEL SCG-10 SUBCARRIER GENERATOR SPECIFICATIONS

Subcarrier Frequency	Specify 26 KHz, 39 KHz, 41 KHz, 67 KHz, 92 KHz. Frequency test jack on front panel.
Frequency Stability	±0.18% -10° C to +50° C.
Subcarrier Purity	Less than 0.5% THD.
Modulation	Direct FM
FM Deviation	Factory set for ±7.5% of subcarrier frequency.
Modulator Distortion	Less than 1% THD
Audio Processing	<b>Pre-Emphasis:</b> Zero, 75 us, 150 us or 225 us, user selectable. <b>Low Pass Filters:</b> Audio cut-off frequencies of 3 KHz, 5 KHz, or 7.5 KHz are specified with original equipment order. The lowest possible cut-off frequency is recommended. Maximum cut-off is 12% of subcarrier frequency. <b>Companding:</b> An optional compander encode board is available for installation in the SCG-10 when used in a subcarrier link having a SCD-10 subcarrier demodulator with a compander decode board. Companding will reduce noise and can mask certain types of main to sub crosstalk.
Frequency Response	±1.5 DB 25 Hz to 95% of low pass filter cut-off frequency.
FM Noise	More than 65 DB below 5 KHz deviation (measured through SCD-10 demodulator directly connected to SCG-10 output, 225 us., without companding). With companding -72 DB.
Audio Input Impedance	600 ohms balanced (screw terminals or "D" connector pins)
Audio Input Level	Front panel adjustment -10 DBM to +8 DBM for 100% modulation.
Muting Level	Adjustable from 0 DB to 40 DB below 100% modulation (soft mute)
Muted Carrier Level	60 DB below rated Max. output level.
Subcarrier Output	Front panel adjustment 0.3 V. to 7 V. P-P into 600 ohm load, BNC connector.
Remote Control	Subcarrier can be remotely controlled by grounding a pin of accessory "D" connector.
Metering	Illuminated panel meter indicates peak modulation or subcarrier output level.
Controls	Meter switch, subcarrier control switch, modulation level, automatic mute delay, mute level, subcarrier output level, subcarrier frequency. Subcarrier frequency test jack also located on front panel.
Connectors	BNC Jack for subcarrier output, 9 pin "D" connector for balanced audio input, remote control, FSK/subaudible input, ground, +18-20V. input, +13.5V input, AC receptacle. No. 6-32 screw terminals for balanced 600 ohm audio input.
RF Protection	All input/output circuits filtered for RF. Totally shielded and bonded aluminum enclosure.
Operating Temp. Range	-10° C to +50° C.
Power Requirements	120/220* VAC 50/60 Hz 10 watts, or 12-14 V. DC at 50 MA., or 24-28 V. DC at 70 MA.**
Dimensions	19" wide x 12" deep x 1 3/4" high.
Weight	4.5 lbs. net, domestic packed 9 lbs.

## MODEL SCD-10 SUBCARRIER DEMODULATOR SPECIFICATIONS

Subcarrier Frequency	Specify 26 KHz, 39 KHz, 41 KHz, 67 KHz, or 92 KHz.
Subcarrier Input	0.1 to 1 V. RMS, 10K ohms impedance, BNC connector. (Panel adjustment)
Demodulator Distortion	Phase locked FM detector has less than 0.6% THD.
Audio Processing	<b>De-Emphasis:</b> Zero, 75 us, 150 us, or 225 us, user selectable. <b>Low Pass Filters:</b> Audio cut-off frequencies of 3 KHz, 5 KHz, or 7.5 KHz are specified with original equipment order. The lowest possible cut-off frequency is recommended. Maximum cut-off is 12% of subcarrier frequency. <b>Companding:</b> An optional compander decode board is available for installation in the SCD-10 when used in a subcarrier link having a SCG-10 subcarrier generator with a compander encode board. Companding will reduce noise and can mask certain types of main to sub crosstalk.
Frequency Response	±1.5 DB 25 Hz to 95% of low pass filter cut-off frequency.
Signal/Noise Ratio	More than 65 DB below 5 KHz deviation (using SCG-10 as signal source directly connected to SCD-10 input, 225 us.
Audio Output Level	+10 DBM maximum output level balanced and isolated into 600 ohms. Front panel adjustment range -60 DBM to +10 DBM.
Subcarrier Squelch	Front panel adjustable squelch relay will squelch audio output over subcarrier level range of 0.1 to 2.0 volt input. Normally open relay contacts available at accessory "D" connector for external functions. LED on front panel indicates "squelch open" condition.
Metering	Illuminated panel meter indicates subcarrier input level or audio output level.
Controls	Meter switch, squelch adjust/squelch open (LED panel indicator), subcarrier input level adjust, audio output level adjust.
Connectors	BNC jack for subcarrier input, 9 pin "D" connector for balanced audio output, squelch relay contacts, FSK output, ground, +18-20 V. input, +13.5 V. input, AC receptacle. No. 6-32 screw terminals for balanced 600 ohm output.
RF Protection	All input/output circuits filtered for RF. Totally shielded and bonded aluminum enclosure.
Operating Temp. Range	-10° C to +50° C.
Power Requirements	120/220* V. AC 50/60 Hz 10 watts, or 12-14 V. DC at 50 MA., or 24-28 V. DC at 70 MA.**
Dimensions	19" wide by 12" deep x 1 3/4" high.
Weight	4.5 lbs. net, domestic packed 9 lbs.

**COMPANDING OPTION 800-263:** One Plug-in board each for SCG-10 and SCD-10

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

## SYSTEM SPECIFICATIONS

10% Injection 225 us. Pre-Emphasis (NO COMPANDING)	Back to Back KHz Bandwidth			STL-10 Link KHz Bandwidth		
	3	5	7.5	3	5	7.5
NOISE DB	66	65	64	64	60	57
DISTORTION %	1.2	1.2	1.35	1.4	1.5	1.6
CROSSTALK MAIN-SUB DB	--	--	--	55	52	49

10% Injection 0 us. Pre-Emphasis WITH COMPANDING	Back to Back KHz Bandwidth			STL-10 Link KHz Bandwidth		
	3	5	7.5	3	5	7.5
NOISE DB	73	73	73	70	70	70
DISTORTION %	1.2	1.2	1.35	1.4	1.5	1.6
CROSSTALK MAIN-SUB DB	--	--	--	58	55	52

## ATS-15D TRANSMITTER SWITCHER



**\$750**

<b>Application</b> .....	Provides switching between two Marti transmitters at power levels up to 50 watts. .5db loss or less with type N female connectors.
<b>Switching Activation</b> .....	DC samples of relative power output are provided from each transmitter to the switcher through adjustable pots to a voltage comparator. Switching can be set to occur at any RF power level.
<b>Operation</b> .....	Unit can be operated from front panel and terminals are provided on the back for remote operation.
<b>Standby Power</b> .....	The ATS-15D can be operated with the Marti UPS-12 uninterruptible power supply, so when AC power is lost DC power is supplied through the ATS-15D to both transmitters.
<b>Power Requirements</b> .....	The ATS-15D operates off 12 V.DC furnished by both transmitters.
<b>Dimensions</b> .....	1 3/4" High x 19" Wide x 13" Deep.
<b>Weight</b> .....	3 Pounds 9 Oz.

## ATS-15D TRANSMITTER SWITCHER SPECIFICATIONS

## ASO-200D RECEIVER SWITCHER



**\$650**

<b>Application</b> .....	Provides Audio and SCA switching between two receivers on the same frequency.
<b>Switching Activation</b> .....	The ASO-200D switches all functions to the backup receiver upon loss of signal to the main receiver. The switching threshold is determined by the setting of the squelch relay in each receiver.
<b>Remote Operation</b> .....	The standby receiver may be selected by using a latching relay tied to the station's remote control. A positive voltage output indicates which receiver is in use and the remote signal level sample is also available to be metered by the station's remote control.
<b>Local Operation</b> .....	Two leds are provided on the front panel to indicate which receiver is in use. The standby receiver can be selected by pushing the test switch.
<b>Fail-safe</b> .....	The ASO-200D provides two separate fail-safe outputs both normally closed, and open contacts are available.
<b>Power Requirements</b> .....	12 volts D.C. - supplied by each receiver.
<b>Dimensions</b> .....	1 3/4" High x 19" Wide x 13" Deep.
<b>Weight</b> .....	3 Pounds

## ASO-200D RECEIVER SWITCHER SPECIFICATIONS

## MW-500 SPECIFICATIONS

<b>Frequency Range</b> .....	944-952 MHz
<b>Gain (Power)</b> .....	60 DB Max. (Adjustable 35-60 DB)
<b>Output (Power)</b> .....	+27 DBM (500 MW.) maximum operating power +30 DBM (1 watt) maximum output.
<b>Selectivity</b> .....	MW-500 has three section input and output bandpass filters. 3 DB bandwidth $\pm$ 3 MHz. NOTE: One or more external bandpass cavity resonators may be required for additional selectivity.
<b>Emission and Bandwidth</b> .....	Meets requirements of Part 74.535 (g).
<b>Stability</b> .....	Input-output antenna and coaxial line attenuation must exceed amplifier gain for stability.
<b>Metering</b> .....	Accurate RF output power meter is provided on front panel. (0-2 watts) AC supply and battery voltage can be measured at accessory connector on rear of unit.
<b>Connectors</b> .....	Input and output RF connectors are UG-58 (Type N Female.) Accessory connector is subminiature D 15 pin male.
<b>Power Supply</b> .....	<b>Internal AC Supply</b> - Precision regulated 13.6V supply with current limiting and thermal shut-down. AC supply also charges internal battery at constant voltage. 115V 60 Hz standard. 220 V. 50 Hz available on request. <b>Internal Battery Supply</b> - A 12 volt 6.5 amp-hour sealed lead-acid maintenance free battery is included in the MW-500 for back-up power. This battery is charged by the AC supply and will power the unit up to 36 hours.
<b>Temp. Range</b> .....	-20°C to +50°C operating
<b>Dimensions</b> .....	3 1/2" High x 19" Wide x 12" Deep.
<b>Weight</b> .....	Net 12 lbs. with battery. Domestic packed 17 lbs.

FCC ID: BEN9EZMW-500

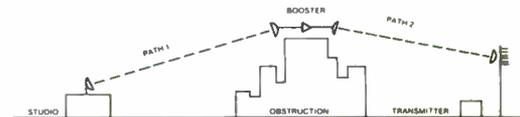


**\$2495**

## MW-500 AURAL BROADCAST MICROWAVE BOOSTER

The Model MW-500 MICROWAVE BOOSTER is designed to receive, amplify and redirect an aural STL signal over or around an obstructing object in the direct path between the transmitting and receiving antennas. Since the booster uses the same frequency for re-transmitting, scarce spectrum is conserved. The booster will provide a maximum of 500 milliwatts output

power. It will also provide 60 DB power gain at any point it is inserted in the microwave path. Where applicable, the MW-500 can provide considerable cost savings over other types of repeaters. The MW-500 is available with internal battery backup and charger capable of operating the unit for 36 hours without commercial power.



## UPS-12 UNINTERRUPTIBLE POWER SYSTEM

**\$425 LESS BATTERY**

The Marti model UPS-12 is a battery backup power system designed for use with Marti equipment capable of both AC and 12V. DC operation. The system will instantly and automatically switch to a battery power source when the primary AC power fails. The UPS-12 is suited for backup power for Marti STL-10/R-10 Radio Link Systems as well as Marti RPT-15/CR-10 automatic relay stations and TSL-15 data links.

The DC power source is a sealed 12 Volt GEL Electrolyte maintenance free Lead-Acid battery



of sufficient amp-hour capacity to power the equipment for the required length of time. Batteries of 24, 38 and 60 amp-hours are available. The user may choose to purchase the battery locally to avoid shipping charges.

The Model UPS-12 is equipped with a precision constant voltage "Taper" battery charger to maintain the battery in a charged condition. The charger is set at 13.6 volts and is current limited to three amps (for battery discharged to 10 volts). Fully charged batteries are trickle-charged by the constant-voltage charger.

REFER TO PRICE LIST FOR BATTERY OPTIONS & PRICES.

## UPS-12 SPECIFICATIONS

<b>Type of System</b> .....	DC-DC (Loss of primary AC power causes relay to select 12 Volt battery power.)
<b>Panel Indicators</b> .....	Led indication of AC or DC operation.
<b>DC Power Source</b> .....	Sealed maintenance free GEL Electrolyte Lead-Acid battery rated at 12 Volts 24 Amp. hours. The battery is external and priced separately. Optional batteries of 38 and 60 A/H available.
<b>AC Power Source</b> .....	120 V. 50-60 Hz (220 V. AC Available on special order) AC source must be same as radio equipment source.
<b>Battery Charger</b> .....	Precision constant voltage charging with current limiting and trickle charge. 3 amp. current limit.
<b>DC Polarity Protection</b> .....	Circuit breaker, fuse and diode reduce reverse polarity damage.
<b>Connectors</b> .....	Screw terminals for DC, 3-Pin, receptacle for AC.
<b>Panel Size</b> .....	Standard 19" x 3"
<b>UPS-12 Weight</b> .....	3 1/2 Lbs.
<b>Battery Weight</b> .....	19.5 Lbs. shipped separately. Approved for shipment as "Dry Cell" by DOT and IATA.

## 23 GHz DIGITAL STL

- \* Simplex (STL) and duplex (STL/TSL) links available
- \* FCC type accepted under parts 21 and 94
- \* Compatible with digital PCM video format processors (not included)
- \* Typical stereo audio quality delivered to broadcast transmitter using 16 bit processor:

RESPONSE: 10-20,000 Hz  $\pm$  0.5 DB  
 NOISE: - 90 DB  
 DISTORTION: Less than .005%  
 STEREO SEPARATION: More than 80 DB

The Marti STL-23 digital studio-transmitter link delivers all the remarkable performance of today's compact disc digital audio to the input of the broadcast transmitter. With a dynamic range of better than 90 DB and stereo separation of more than 80 DB, the STL-23 emphasizes the obsolescence of the old "composite" STL concept. The STL-23 transmitter, receiver and subcarrier boards are located inside the weatherproof antenna assembly for cost saving and ease of installation. When comparing the cost of the STL-23 to 950 MHz "composite" STL's, the cost of antennas, coaxial cable and connectors, subcarriers and telemetry return link with antennas must be charged to the real costs of 950 MHz STL's. Such comparison will show the STL-23 to be cost effective. Microwave path length at 23GHz is limited by atmospheric absorption, with rainfall having the greatest effect. Contact Marti for data for use in calculation of 23GHz links in your area.



STL-23

### PACKAGE A (5003E) BASIC VIDEO

- 1 Transmitter with 24" antenna
  - 1 Receiver with 24" antenna
- \$7,850.00**

### PACKAGE B (5006E) STEREO STL WITH SUBCARRIER

- 1 Transmitter with 24" antenna
  - 1 Receiver with 24" antenna
  - 1 Subcarrier channel (studio to transmitter, 12 KHz BW)
- \$9,300.00**

### PACKAGE C STEREO STL WITH BIDIRECTIONAL SUBCARRIER

- 2 Transmitter/Receiver with 24" antenna
  - 1 Subcarrier channel (studio to transmitter, 12 KHz BW)
  - 1 Subcarrier channel (transmitter to studio, 12 KHz BW)
- \$12,150.00**

**PCM-601ES 16 Bit Digital Processor** **\$1,400.00**

#### OPTIONS:

**COLOR VIDEO** - For high quality video applications order option RS-250B **\$1,000.00**

**TO ADD SUBCARRIERS ABOVE VIDEO BAND (6.2-8 MHz)**  
 Order option "WB" **\$525.00**  
 and option "SCI" **\$1,340.00**

NOTE: Equipment packages include Radome cover for 24" shrouded antennas, mounting hardware for 3 1/2 or 4 1/2 inch O.D., 24 V. AC power transformers, installation manual. No RF coaxial cable or waveguide is required on 24" antennas. Digital audio processors not included in above prices. 48" antennas are available - add \$5,000 to package prices.

FCC LICENSING: License application is made on form 402 under FCC part 94 "Private operational - Fixed microwave service." Part 94 frequencies are not coordinated by SBE. For frequency search and filing application, contact FCC Approved Date Base Service such as Spectrum Planning (214) 680-1000, Moffet, Larson and Johnson (703) 841-0500, Com Search (703) 620-6300. MFG. in USA by Racon, FCC ID B2N9CL 10050.

### SPECIFICATIONS

#### General

Frequency Band ..... 21.2 to 23.6 GHz  
 FM Deviation .....  $\pm$  7 MHz, designator 33800F9  
 Channel Capacity ..... 1 video plus 2 full duplex audio/data/control subcarriers  
 Antenna ..... Shrouded 24 inch, 38 DBI, V or H polarization, 2° beamwidth, + 57 DBM ERP, with Radome  
 Alarms ..... Loss of carrier alarm 10-15 VDC/1K ohms

#### Transmitter

Power Output ..... .65 mw typical (+ 18 DBM)  
 Frequency Stability .....  $\pm$  .02% - 30° C to 55° C  
 Spurious Output ..... Meets FCC part 94 requirements  
 Video Input ..... 1 Vp-p 75 ohms  
 Subcarrier Input ..... 0 DBM 600 ohm bal. screw terminals

#### Receiver

Noise Figure ..... .22 DB nominal  
 Threshold ..... -77 DB  
 Video Output ..... 1 Vp-p 75 ohms  
 Subcarrier Output ..... 0 DBM 600 ohms bal. screw terminals

#### Power

Requirements ..... 30 watts, 120 VAC into class 2 UL 24 V. transformer  
 240 VAC and DC options available - contact factory.

#### Weight

..... 25 lbs.

#### Mounting

Options  
 (contact factory) ..... Hot standby switching, optical alignment tool, horizontal pipe mounting kit, 4.5 inch O.D. pipe mtg. hardware kit, 48" antenna

PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## TC-8 and ARC-16 REMOTE CONTROL SYSTEMS



The AMD model TC-8 (8 Channel) and ARC-16 (16 Channel) Remote Control systems are simple to operate, reliable, and cost effective. They are available for operation with Telco, STL, SCA or TSL with interface options for antenna monitor, computer or DTMF telephone. Status alarms may be programmed to display at the transmitter and studio and, optionally, call a programmed series of numbers with a voice message. Dial-up with speech may be added to either the transmitter or studio end, as well as the computer interface.

#### FEATURES

	TC-8	ARC-10
* Metering Channels	8	16
* Status Inputs	8	16
* Raise & Lower Outputs	8	16
* Delayed Failsafe Output	Yes	Yes
* One Person Calibration	Yes	Yes
* Non-Volatile Memory	Yes	Yes
* Large Dot-Matrix Display	Yes	Yes
* Optional Computer Interface	Yes	Yes
* Radio or Wire Link	Yes	Yes
* Space Saving 1 3/4" Rack Units	Yes	Yes

TC-8	AMD, Inc. 8 Channel Remote Control (2 Units)	<b>\$2,495.00</b>
ARC-16	AMD, Inc. 16 Channel Remote Control (2 Units)	<b>\$3,495.00</b>
ARC-16	16 Channel single unit configuration with telco/speech unit for control from any telephone	<b>\$2,495.00</b>
IP-8	Relay interface panel (10 Amp) 8 each status, raise, lower + failsafe. Two units required for ARC-16.	<b>\$495.00</b>
CI-8	Computer interface for IBM-PC	<b>\$495.00</b>
TSU	Telephone/Speech unit permits control from telephone using DTMF. Also call-out alarms.	<b>\$595.00</b>
SSI	Studio status indicator.	<b>\$150.00</b>
SID	Studio I/O unit	<b>\$495.00</b>
AMI	Antenna monitor interface (6 towers on 2 channels)	<b>\$350.00</b>
SCA-1	Subcarrier receiver-Specify FM frequency and 67 or 92 KHz.	<b>\$168.00</b>

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

**MARTI TSL-10 SYSTEMS FOR PART 94, 928-960 MHz**

If you are serious about data/voice transmission (TSL, ICR, TRL, etc.), you should look at part 94 "Private Operational-Fixed Microwave Service" in the 928-960 MHz band. Bandwidths of 25, 50, 100 and 200 KHz are available to broadcasters for many uses except the final link of an STL. These frequencies are professionally data base coordinated interference free channels for reliable communications. Marti has been providing FCC authorized equipment for this service over the past three years. Bandwidths are licensed based upon demonstrated need; the wider channels reserved for wide band FM, high data rate, or multichannel uses. Marti multichannel systems are not time-shared, which means that data flows continuously on each channel. License application is on Form 402. Frequency coordination is by approved firms like Spectrum Planning (214) 680-1000, Moffet, Larson and Johnson (703) 841-0500, Com Search (703) 620-6300. If you have requirements not met by the following part 94 packages, contact Marti for assistance.

<b>PACKAGE 94-1 SINGLE CHANNEL</b> <b>\$3,250.00</b>	<b>PACKAGE 94-4 FOUR CHANNELS</b> <b>\$7,420.00</b>
1 STL-10 Transmitter	1 STL-10 Transmitter
1 R-10 Receiver	1 R-10 Receiver
	3 Subchannels
<b>PACKAGE 94-2 TWO CHANNELS</b> <b>\$4,640.00</b>	<b>Additional Receive sites</b> <b>\$2,320.00</b>
1 STL-10 Transmitter	
1 R-10 Receiver	
1 Subchannel	
<b>PACKAGE 94-3 THREE CHANNELS</b> <b>\$6,030.00</b>	
1 STL-10 Transmitter	
1 R-10 Receiver	
2 Subchannels	

Antenna systems for above packages depend upon path length, number of receive sites, etc. Contact factory for assistance. For transmitter and receiver specifications, see page 2.



**TSL-10 FEATURES (PART 94, 928-960 MHz)**

- ★ Four continuous data/voice channels on single carrier.
- ★ Multiple receive sites possible.
- ★ 25 KHz, 50 KHz, 100 KHz, 200 KHz bandwidths available.
- ★ Transmitter FCC authorized for part 94 service.  
FCC ID: BEN9EZSTL-10/950
- ★ Battery Backup Available with Marti UPS-12.



**MARTI TSL-15 AND TSL-30 SYSTEMS FOR PART 74, 450-456 MHz**

The Marti TSL-15 and TSL-30 Telemetry Links provide reliable telemetry circuits for AM, FM and television stations. Expensive and unreliable Telco lines can now be replaced with cost effective Marti TSL Systems. These links are simple to install, easy to operate and maintain. Marti has assembled complete equipment packages consisting of Transmitter, Receiver, Yagi Antennas, Identifier and optional items.

**TSL-30 PACKAGE (30 WATTS)**

- 1 RPT-30/450 Transmitter
- 1 CR-10/450 Receiver
- 1 Model 1300 Station Identifier
- 1 700-253 Rack Mounting Kit

**PACKAGE PRICE            \$3,129.50**

**TSL-15 PACKAGE (15 WATTS)**

- 1 RPT-15/450 Transmitter
- 1 CR-10/450 Receiver
- 1 Model 1300 Station Identifier
- 1 RMH-3B Rack Shelf

**PACKAGE PRICE            \$2,544.50**

**PART 74 TSL ANTENNA PACKAGE\***

- 26 Element, 10 db gain Yagi Antenna
- 1 PG-2A Jumper Cable
- 1 PG-2B Jumper Cable
- 2 K-1 Weatherproofing Kit

**PACKAGE PRICE            \$404.00**

**SYSTEM SPECIFICATIONS**

<b>Frequency</b> . . . . .	(Group P) 450.01, 450.02, 450.98, 450.99 455.01, 455.02, 455.98, 455.99 MHz. FCC 74.402 (a) (7)
<b>Modulation</b> . . . . .	10F3 (± 1.5 KHz Deviation)
<b>Frequency Response</b> . . . . .	50 Hz - 2800 Hz ± 2.0 DB
<b>Distortion</b> . . . . .	2% THD
<b>Signal to Noise Ratio</b> . . . . .	45 DB

**TRANSMITTER**

See specification for RPT 15/450 or RPT-30.

**RECEIVER**

See specification for CR 10/450 receiver.

**STATION IDENTIFIER**

A model 1300 station identifier is required by FCC rules for all domestic TSL systems to identify the TSL transmitter. Call signs for the identifier are assigned by the FCC when TSL frequencies are approved.

RPT-30 FCC ID: BEN9EZRPT30-450  
RPT-15 FCC ID: BEN9EZRPT15-450

\*Package prices do not include cost of two "N" female and two "N" male connectors and 1/2" transmission line.



**RPT-30 TRANSMITTER**

**TSL-15 AND TSL-30 FEATURES (PART 74, 450-456 MHz)**

- ★ Choice of Transmitter Power 15 or 30 watts Continuous Duty.
- ★ Transmitters are FCC type accepted.
- ★ Super-Selective Receiver with 90 db spurious rejection.
- ★ Test Meter built into both transmitter and receiver.
- ★ Receiver has adjustable squelch and carrier operated relay.
- ★ Built-in modulation control.
- ★ Internal AC supply in transmitter and receiver with provision for external DC operation. (UPS-12)
- ★ Optional Automatic Station Identifier
- ★ Analog or Digital Telemetry or Voice Modulation in 50 Hz-2800 Hz band.
- ★ Mic and Line Level inputs with mixing controls.
- ★ Built in 27 Hz status channel with relay contacts.



**CR-10 RECEIVER**

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

**MARTI ELECTRONICS, INC. STL GENERAL PRICE LIST**Prices effective 4-29-89  
Prices subject to change without notice.

Model	Description of Item	Price
STL-10 Transmitter	STL-10 transmitter for all mono and stereo STL systems in 150, 215, 300, 450 or 950 bands.	\$1,625.00
STL-30 Transmitter	Export Mono STL transmitter 45 watts-150 MHz, 40 watts-215 MHz, 35 watts-300 MHz, 30 watts-450 MHz band.	\$1,995.00
R-10 Receiver	STL receiver in 150, 215, 300, 450 or 950 bands, low pass filter, two IF bandwidths, low power consumption, test meter.	\$1,625.00
MW-500 Booster	On-frequency microwave booster for re-transmitting STL signal around obstructions. 500 mw output power. Comes with internal battery.	\$2,495.00
STL-10/950 System	Domestic STL Mono System in 800-960 MHz band with one STL-10 transmitter and one R-10 receiver.	\$3,250.00
STL-10/950 System	Domestic STL Stereo System in 800-960 MHz band with two transmitters and receivers, combiners, etc.	\$6,925.00
STL-10/150 System	Export STL Mono System in 140-180 MHz band with one STL-10 transmitter and one R-10 receiver.	\$3,250.00
STL-10/215 System	Export STL Mono System in 200-260 MHz band with one STL-10 transmitter and one R-10 receiver.	\$3,250.00
STL-10/300 System	Export STL Mono System in 280-340 MHz band with one STL-10 transmitter and one R-10 receiver.	\$3,250.00
STL-10/450 System	Export STL Mono System in 400-480 MHz band with one STL-10 transmitter and one R-10 receiver.	\$3,250.00
STL-30/150 System	Export STL Mono System, 140-180 MHz, one 45 watt STL-30/150 transmitter and one R-10 receiver.	\$3,620.00
STL-30/215 System	Export STL Mono System, 200-260 MHz, one 40 watt STL-30/215 transmitter and one R-10 receiver.	\$3,620.00
STL-30/300 System	Export STL Mono System, 280-340 MHz, one 35 watt STL-30/300 transmitter and one R-10 receiver.	\$3,620.00
STL-30/450 System	Export STL Mono System, 400-480 MHz, one 30 watt STL-30/450 transmitter and one R-10 receiver.	\$3,620.00

**STL ACCESSORIES****REMOTE CONTROL**

Model	Description of Item	Price
TC-8	AMD Remote Control, 8 each metering, raise, lower, status.	\$2,495.00
ARC-16	AMD Remote Control, 16 each metering, raise, lower, status.	\$3,495.00
IP-8	Transmitter relay interface panel (two required for ARC-16)	\$495.00
CI-8	Optional computer interface	\$495.00
TSU	Telephone Speech Unit	\$595.00
ST4A	SCA receiver for metering	\$168.00
580-016	AC power cord for STL-10 transmitters and R-10 receivers	\$5.50
APS-28/18	Power supply for operation of STL-10 transmitters and R-10 receivers from 24 VDC.	\$65.00
ASO-200D	Unit for switching between two STL receivers. User needs to specify frequency.	\$650.00
ATS-15D	Automatic transmitter switcher: (2) PG-1.5 cables with UG-58 "N" female connectors.	\$750.00
BPF-39/67	39/67 KHz subcarrier band pass filter/amplifier for R-10 receiver. Filters and amplifiers sub signal at STL relay station.	\$249.00
WP-498-1	Wacom single section, selective cavity resonator, 950 MHz	\$224.50
WP-430-1	Selective cavity resonator, single-section for operation in the 148-174 MHz band.	\$191.50
WP-470-1	Selective cavity resonator, single-section for operation in the 406-512 MHz band	\$160.00
Crystal	Hi-accuracy STL-10 and R-10 crystals	\$17.95
540-075	Duplexer, 6-cavity, combines transmitter and receiver to common antenna & line; 3.6 MHz separation. Ferrite isolator and PG-2B included.	\$1,016.00

**STL ACCESSORIES Continued**

Model	Description of Item	Price
TAD-900-2	Transmitter combiner with cables to combine output of (2) STL-10/950 transmitters to one antenna. Nominal isolation 70 DB, 3.45 DB loss.	*
TAD-900-4	Transmitter combiner with cables to combine output of (4) STL-10/950 transmitters to one antenna. Nominal isolation 70 DB, 6.9 DB loss.	*
K-1	Grounding and weatherproofing kit	\$12.00
RMC-10	Remote control for STL-10 transmitters	\$315.00
SCG-10	Subcarrier Generator tuned to 26, 39, 41, 67 or 92 KHz, rack mount, 120 VAC (220 VAC on request)	\$695.00
SCD-10	Subcarrier Demodulator tuned to 26, 39, 41, 67 or 92 KHz, rack mount, 120 VAC (220 VAC on request)	\$695.00
800-263	Optional compander board for factory or field installation in SCG-10 and SCD-10. Two (2) plug-in PC boards.	\$400.00
UPS-12	Uninterruptible power system for Marti STL-10, R-10 ARS-15 relay and TSL-15 data link. (LESS LCR-12V-24P battery)	\$425.00
LCR-12V-24P	Battery, sealed gel lead-acid, 12 volt. 24 amp.-hours for use with Marti uninterruptible power supply UPS-12	*
040-007	Spare battery for MW-500	*

**STL ANTENNAS****TYPE N FEMALE CONNECTORS**

Model	Description of Item	Price
DB-438	Yagi antenna, 6 element, 10.0 db gain, 450-470 MHz.	*
P-9A48GN-1	Mark Product parabolic antenna, 4' multi-element dish, 18.9 db gain, non-pressurized feed, 890-960 MHz	*
P-9A72GN-1	Mark Product parabolic antenna, 6' multi-element dish, 22 db gain, non-pressurized feed, 890-960 MHz	*
P-9A96GN-1	Mark Product parabolic antenna, 8' multi-element dish, 25 db gain, non-pressurized feed, 890-960 MHz	*
P-9A120GN-1	Mark Product parabolic antenna, 10' multi-element dish, 27 db gain, non-pressurized feed, 890-960 MHz	*
SH-872GN	Mark Product "Shorthaul" cylindrical antenna, 19 db gain, 890-960 MHz	*
YC-150	Yagi antenna, 5 element, 9 db gain, 140-180 MHz	\$165.00
YC-215	Yagi antenna, 5 element, 9 db gain, 200-260 MHz	\$165.00
YC-300	Yagi antenna, 5 element, 9 db gain, 280-340 MHz	\$165.00

**STL TRANSMISSION LINE, CABLES, CONNECTORS**

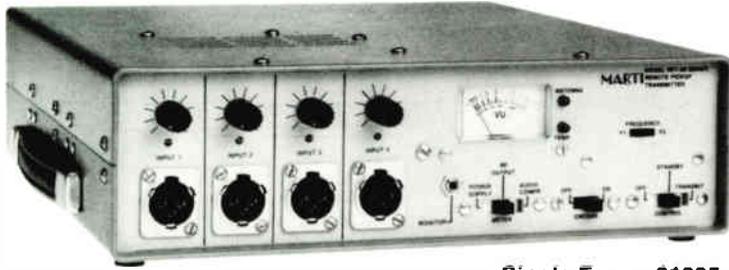
Model	Description of Item	Price
L44N	Type "N" female connector for 1/2" foam transmission line	*
L44W	Type "N" male connector for 1/2" foam transmission line	*
L45N	Type "N" female connector for 3/8" foam transmission line	*
L45W	Type "N" male connector for 3/8" foam transmission line	*
LDF4-50	Foam transmission line, 1/2", 50 ohm, jacketed	*
LDF5-50	Foam transmission line, 3/8", 50 ohm, jacketed	*
PG-1.7B	Jumper cable, 20' of RG-214 w/UG-21 connectors	\$26.50
PG-2A	Jumper cable, 2' of RG-8U w/PL-259 & UG-21 connectors	\$25.00
PG-2B	Jumper cable, 2' of RG-8U with UG-21 connectors	\$25.00

\*Call Factory For Current Price

**MARTI***The performance-value leader in Broadcast Equipment.*Marti Electronics, Inc., P.O. Box 661, Cleburne, Texas 76033-0661  
(817) 645-9163 Telex #794835 "Marti CLBN" Fax (817) 641-3869

World Radio History

# MODEL RPT-30 REMOTE PICKUP BROADCAST TRANSMITTER



Single Freq. \$1695  
Dual Freq. \$1725

## RPT-30 SPECIFICATIONS

Frequency Range and Maximum Power Output	140-180 MHz - 45 Watts	280-340 MHz - 35 Watts
RF Connector	200-260 MHz - 40 Watts	400-480 MHz - 30 Watts
Operating Temp. Range	SO-239	
Modulation (Specify)	-10°C to +45°C	
Channels (Frequencies)	See system specifications	
Frequency Stability	Two frequencies selected by switch. Freq. separation 1.1% max.	
Spurious Emission	Mobile .0005% Base .00025% (above 400 MHz)	
Audio Inputs	Meets FCC Requirements	
Modulation Control	Four Balanced microphone (150 ohm) inputs (XLR3) with mixing controls. One input switchable to balanced line level at mic. No. 4 input and "D" connector on rear.	
Encoding	Broadcast quality Compressor/Limiter built in.	
Metering/Indicators	Subaudible tone (27 Hz.) encoder built in.	
Controls	Illuminated meter indicates audio compression, relative RF output, relative supply voltage. Flashing LED's indicate "Antenna" (VSWR) and high "Temp."	
Power Requirements	(4) input level, meter sw., encode sw., frequency sw., monitor jack. 110-125 V. 50-60 Hz. (220 V. 50 Hz. available on special order (DC operation on 11-13.5 V negative ground.	
Accessory Connector	9 pin "D" connector for DC power, remote control, encode, line level input.	
Weight	12.4 lbs. net, 16 lbs. shipping wt.	FCC ID: BEN9EZRPT30-150
Dimensions	11.5 in. wide x 3.5 in. high x 13.3 in. deep	BEN9EZRPT30-450

## SYSTEM SPECIFICATIONS

CHANNEL BANDWIDTH	FCC EMISSION DESIGNATOR	TRANSMITTER DEVIATION ± kHz	RECEIVER MODEL	SYSTEM FREQ. RESPONSE Hz ± 1.5 DB	THD > %	S/N WITHOUT 800-278 NOISE REDUCTION DB	S/N WITH 800-278 NOISE REDUCTION DB
50	50KOF3E	8	AR-10 CR-10	50-10,500	2	54	65
25	25KOF3E	5	AR-10 CR-10 DR-10	50-7,500	2	50	57
10	10KOF3E	1.4	CR-10	50-3,000	2	45	----

## A REMOTE PICKUP TRANSMITTER IS A "MARTI"

Most everyone in broadcasting knows what a "MARTI" is. It is the trusted friend that is used on remote pickup broadcasts. The model RPT-30 transmitter incorporates the best, most practical mix of features requested by our customers and implemented in the very latest electronic and manufacturing technology. We never forget the most important feature of all - **SIMPLICITY - THE FEATURE THAT ENABLES NON TECHNICAL PERSONNEL TO PRODUCE PROFESSIONAL SOUNDING LIVE REMOTES.**

After 32 years of leadership, Marti is still innovating. Our new optional noise reduction system, under development for several years, utilizes a combination of adaptive filtering and audio companding to achieve remarkable improvements in receiver threshold performance in the presence of noise, interference and multi-path signal propagation. This advanced noise reduction system produces results equivalent to increasing transmitter power to 250 watts!

## RPT-30 FEATURES:

- ★ Frequency switch selects both frequency and deviation - simply - preventing operator error and interference.
- ★ Subaudible encoder activates repeaters or other equipment simply by a single switch (standard equipment on all Marti RPU)
- ★ Illuminated meter displays compressor gain reduction, relative power output or power supply voltage
- ★ Flashing LEDs indicate antenna VSWR problems and over-temperature condition
- ★ Automatic modulation control by built-in FM compressor-limiter
- ★ Four balanced microphone mixing inputs, one switchable to balanced line level
- ★ Continuous duty-broadcast quality
- ★ FCC type accepted
- ★ Compatible with Marti mobile repeater, fixed automatic repeater and base station

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

## MODEL 800-278 AUDIO COMPANDING SYSTEM

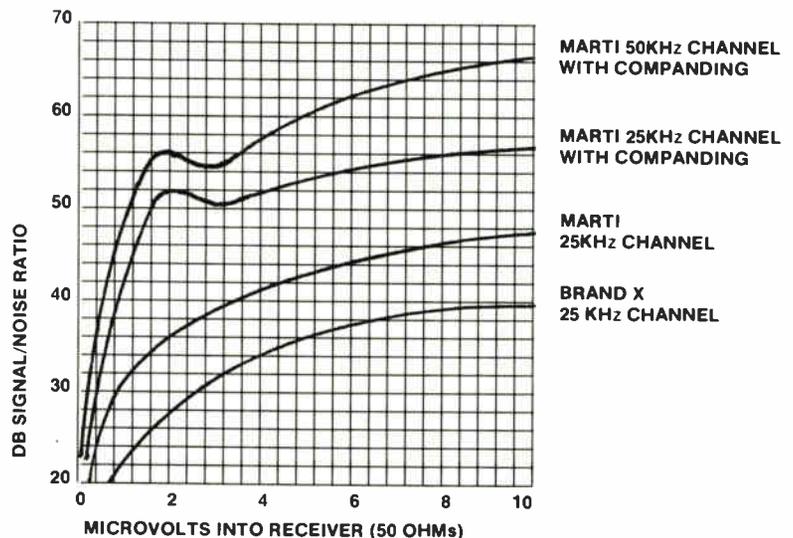
32 years experience with broadcast remote pickup systems has shown the critical factor in system performance to be receiver quieting. Most RPU work is with signals from 0.5 to 10 microvolts. Noise, fading and multipath propagation can periodically cut signal strength to less than a microvolt, spoiling an otherwise perfect broadcast. By employing a high performance 2:1 companding system complemented by adaptive filtering circuits in an ultra-sensitive state of the art receiver, Marti has greatly improved weak signal performance. The graph tells the story.

## MODEL 800-278 SYSTEM PRICES

Factory installed with new equipment order for RPT-2, RPT-15 or RPT-30 transmitter and AR-10, CR-10 or DR-10 receiver. **\$400.00**

Factory installed in **USED** RPT-2, RPT-15 or RPT-30 transmitter and AR-10, CR-10 or DR-10 receiver. **\$500.00**

SYSTEM WILL NOT OPERATE IN OLDER EQUIPMENT.



# MODEL RPT-15 PORTABLE/MOBILE/AIRBORNE TRANSMITTER

## RPT-15 SPECIFICATIONS

Frequency Range	400-480, 280-340, 200-260 & 140-180 MHz.
RF Output	15 watts max. into 50 ohms
RF Connector	SO-239
Operating Temp. Range	-10°C to +45°C
Modulation	See system specifications
Dual Frequency	Selectable dual-frequency operation. Freq. separation 1.1% max.
Spurious Emission	Meets FCC Requirements
Audio Inputs	One microphone and one high level unbalanced input. Individual mixing gain controls.
Audio Input Level	Microphone input level can be from -68 DB to -35 DB. High level can be from 0.2 volts rms. 8-600 ohms.
Audio Input Impedance	Will accept microphone from 150 to 500 ohms.
Audio Connectors	Input No. 1 (XLR-3). Input No. 2 miniature phone jack.
Power Requirements	110-125 V. 50-60 Hz. 12.6 V. DC (neg. gnd.) 2.25 Amps. 28 V. DC (neg. gnd.) 2.25 amps*
Modulation Control	Broadcast quality Compressor/Limiter built in.
Metering	Panel meter indicates audio compression, RF output, power supply DC.
Weight	9 1/4 lbs. net; 14 lbs. gross
Dimensions	8 3/4" wide x 3 3/4" high x 12 1/2" deep.

\*28 V. DC operation requires APS-28 18 power supply.

### RPT-15 FEATURES:

- ★ Type accepted on all VHF-UHF RPU channels.
- ★ 15 watts continuous output.
- ★ Dual frequency capability.
- ★ Sub audible encoder.
- ★ Built-in metering.
- ★ Built-in AC supply.
- ★ FM Compressor-Limiter.
- ★ Mixing mic and line inputs.



MODEL RPT-15 is a compact 15 watt transmitter designed for portable and mobile remote broadcast service. It delivers the maximum power allowed by the FCC for airborne remotes such as traffic reports. The RPT-15 has a built-in power supply for operation on 115V. AC. It will also operate on an external 12-14 volt DC supply. Standard features include dual frequency and subaudible encoder for use with Marti automatic mobile repeaters and automatic fixed repeaters. All this plus famous Marti broadcast quality and continuous duty operation.

**Single Freq.**  
**\$1,075**  
**Dual Freq.**  
**\$1,105**

SYSTEM SPECIFICATIONS  
PAGE 10

FCC ID: BEN9ZRPT-15-150  
BEN9ZRPT15-450

## MODEL RPT-2 HAND-CARRIED TRANSMITTER

### RPT-2 FEATURES:

- ★ Type accepted on all VHF-UHF RPU channels.
- ★ 2.5 watts continuous output.
- ★ Dual frequency provision.
- ★ Sub audible encoder.
- ★ Built-in metering.
- ★ 3-way power option.
- ★ Internal ni-cad battery.
- ★ Internal charger and AC supply.
- ★ FM Compressor-Limiter.
- ★ Mixing mic and line inputs.

### RPT-2 without internal battery:

**Single Freq. - \$995**  
**Dual Freq. - \$1,025**

### RPT-2 with internal battery:

**Single Freq. - \$1,045**  
**Dual Freq. - \$1,075**

FCC ID: BEN9ZRPT2-150  
BEN9ZRPT2-450

SYSTEM SPECIFICATIONS  
PAGE 10

The RPT-2 is a hand-carried broadcast quality, continuous duty transmitter. It will operate from its internal ni-cad battery, from 115 V. AC power, or from external 12 V. DC power. A special sub-audible encoder enables the RPT-2 to access Marti mobile repeaters for coverage of indoor events. 2.5 watts is the maximum power allowed by FCC Rule 74.431 (C) (1).

### RPT-2 SPECIFICATIONS

RF Output	Maximum 2.5 watts max. into 50 ohms.
RF Connector	SO-239
Operating Temp.	-10°C to +45°C
Range	See system specifications
Modulation	Selectable dual-frequency operation.
Dual Frequency	Selectable dual-frequency operation.
Spurious Emission	Meets FCC Requirements
Frequency Stability	-30°C to +50°C + .0005%
Audio Inputs	One microphone input (push-to-talk) and one high level unbalanced input. Individual mixing gain controls.
Audio Input Level	Microphone input level can be from -68 DB to -35 DB. High level can be from 0.2 volt to 2 volts rms. 8-600 ohms.
Audio Input Impedance	Will accept microphone from 150 to 500 ohms.
Audio Connectors	Input No. 1 (XLR-3). Input No. 2 miniature phone jack.
Power Requirements	110-125 V. 50-60 Hz. 12.6 V. DC (neg. gnd.) 750 MA internal ni-cad battery and charger
Modulation Control	Broadcast quality Compressor/Limiter built in.
Metering	Panel meter indicates audio compression, RF output, power supply DC.
Weight	5 1/4 lbs. net; 7 1/2 lbs. gross
Dimensions	8 3/4" wide x 3 3/4" high x 11" deep



### MODEL AR-10

## MOBILE RELAY RECEIVER

### AR-10 SPECIFICATIONS

Frequency Range	400-480, 280-340, 200-260 & 140-180 MHz.		
Dual Frequency	Provision for Dual Frequency. Separation 0.2% Max.		
Sensitivity	0.5 microvolts for 20 db. S/N.		
Input Impedance	50 ohms.		
Frequency Stability	+ .00025% -10°C to +50°C.		
Selectivity	Filter	3 DB	60 DB
	F 50	50 KHz	100 KHz
	F 36	36 KHz	60 KHz
	F 25	25 KHz	42 KHz
	F 10	8 KHz	15 KHz
Spurious Response	-90 db.		
Audio Output (Line Level)	Balanced 600 ohms. -9 dbm., Barrier strip. Unbalanced 600 ohms + 4 dbm. at 15 pin connector.		
Monitor Output	Built-in Monitor Amp. (0.5 watts) Monitor speaker and level control. Headset monitor jack mutes speaker.		
Subaudible Tone Decoder	800-229 Decode Board provides relay closure upon receipt of 27 Hz. ± 0.1 Hz. Tone.		
Front Panel Controls	Frequency select switch, line level adjust, meter switch, squelch adjust, monitor speaker level, power switch, headset jack.		
Power Requirements	120/220* VAC, 50/60 Hz. 10 Watts. 13.5V. DC 300 MA.		
AC Power Supply	Precision, electronically regulated with current limiting.		
Metering	RF signal level, audio output level, decode level.		
Dimensions	3 1/2" High x 9" Wide x 13 1/2" Deep.		
Weight	Net 5 1/2 lbs. Domestic packed 10 lbs.		
RF Connector	UG-58		

FCC Approved Under Part 15 FCC ID: BEN9EZAR-10/150  
BEN9EZAR-10/450

\*Available on 220 Vac, 50 Hz. upon request.



The Marti AR-10 series receiver is a portable or mobile repeater receiver. This receiver has a built-in AC power supply, and will operate from an external source of 12-15 volts DC. A built-in sub-audible tone decoder meets FCC rule 74.431 allowing this receiver to automatically turn on a mobile transmitter upon receiving an encoded signal from a hand-carried portable transmitter, thus automatically relaying a broadcast to the base station receiver over a greater distance. The receiver operates on all remote pickup frequencies and band widths. Other built-in features include dual frequency capabilities, monitor speaker, and terminals for feeding telephone lines in portable operations. A special noise reduction circuit provides an improvement of 6 db in S/N ratio for weak signals. The unit weighs only 5 1/2 pounds.

**AR-10 Single Frequency \$1,195.00**  
**AR-10 Dual Frequency \$1,225.00**



**CR-10 FEATURES**

- ★ GaAs Fet low noise RF amplifier 200-480 MHz.
- ★ Double balanced mixer.
- ★ Four I.F. bandwidths available.
- ★ Companding option available.
- ★ Six function illuminated test meter.
- ★ Built-in tone decoder and relay.
- ★ Monitor speaker and control.
- ★ All modular construction.

**Model CR-10** is a rack-mounted VHF or UHF base station receiver designed for broadcast remote pickup service. This receiver has dual frequency capability built in. Marti Technology has provided the highest frequency response with the lowest noise and distortion possible for the assigned channel band width. Special attention has been given to solving today's high interference problems. The CR-10 features a built-in test meter, squelch relay, monitor speaker, subaudible tone decoder, special noise reduction circuit, 90DB spurious rejection.

**CR-10 Single Frequency \$1,195**  
**CR-10 Dual Frequency \$1,225**

**CR-10 SPECIFICATIONS**

<b>Frequency Range</b> .....	400-480, 280-340, 200-260 & 140-180 MHz.		
<b>Dual Frequency</b> .....	Provision for Dual Frequency. Separation 0.2% Max.		
<b>Sensitivity</b> .....	0.5 microvolts for 20 db. S/N. See page 10		
<b>Input Impedance</b> .....	50 ohms		
<b>Frequency Stability</b> .....	±.00025%-10°C to +50°C.		
<b>Selectivity</b> .....	<b>Filter</b>	<b>3 DB</b>	<b>60 DB</b>
	F 50	50 KHz	100 KHz
	F 36	36 KHz	60 KHz
	F 25	25 KHz	42 KHz
	F 10	8 KHz	15 KHz
<b>Spurious Response</b> .....	-90 db.		
<b>Audio Output</b> .....	Balanced 600 ohms. +10 dbm., Barrier strip.		
<b>Monitor Output</b> .....	0.5 watt monitor amp, speaker and level control.		
<b>Subaudible Tone Decoder</b> .....	800-229 Decode Board provides relay closure upon receipt of 27 Hz. tone.		
<b>Front Panel Controls</b> .....	Frequency select switch, program level adjust, meter switch, squelch adjust.		
<b>Power Requirements</b> .....	120/220* VAC. 50/60 Hz. 10 Watts. 13.5V.DC 300 MA.		
<b>AC Power Supply</b> .....	Precision, electronically regulated with current limiting.		
<b>Metering</b> .....	RF signal level, audio output level, sub. level, +13 V.DC supply. L.O. level, mixer level. LED indicators for power and open squelch.		
<b>Squelch Indicator</b> .....	A panel LED indicates when the squelch relay is open to aid in squelch adjustment.		
<b>Accessory Connector</b> .....	A 15 pin "D" connector located on rear panel provides access to +13 V. and +18 V. supplies, squelch relay contacts, signal level sample, subaudible tone level, decode relay contact, balanced audio output, receiver mute, and ground.		
<b>RF Protection</b> .....	All input/output circuits are filtered for RF. An all aluminum enclosure insures total shielding and bonding for RF protection.		
<b>Operating Temp. Range</b> .....	-10°C to +50°C.		
<b>Dimensions</b> .....	3½" High x 19" Wide x 12" Deep		
<b>Weight</b> .....	Net 10 lbs. Domestic packed 17 lbs.		
<b>RF Connector</b> .....	UG-58		

FCC Approved Under Part 15 FCC ID: BEN9EZCR-10/150 BEN 9EZCR-10/450

\*Available on 220 Vac. 50 Hz. upon request.

**MODEL DR-10  
BASE RECEIVER**



**DR-10 SPECIFICATIONS**

<b>Frequency Range</b> .....	400-480, 280-340, 200-260 & 140-180 MHz.
<b>Dual Frequency</b> .....	Provision for Dual Frequency. Separation 0.2% Max.
<b>Sensitivity</b> .....	0.5 microvolts for 20 db. S/N. See page 10
<b>Input Impedance</b> .....	50 ohms
<b>Frequency Stability</b> .....	± .00025% 0°C to +50°C.
<b>Selectivity</b> .....	± 13 KHz - 3 db, ± 30 KHz -80 db.
<b>Spurious Response</b> .....	-70 db.
<b>Audio Output</b> .....	Balanced 600 ohms, floating, +10 dbm, screw terminals.
<b>Subaudible Tone Decoder</b> .....	Provision for optional 800-229 boards at EXTRA cost.
<b>Metering</b> .....	Illuminated panel meter indicates relative signal strength and audio output level.
<b>Panel Light</b> .....	LED indicates when squelch is open.
<b>Controls</b> .....	Frequency select switch, meter function switch, squelch pot, program level pot.
<b>Accessory Connector</b> .....	15 pin "D" connector provides access to +13 V.DC, +18 V.DC, squelch relay contacts, decode relay contacts (optional), balanced audio output, mute, ground.
<b>RF Connector</b> .....	UG-58
<b>AC Power Supply</b> .....	Precision, electronically regulated with current limiting.
<b>Power Requirements</b> .....	120 V.AC, 50/60 Hz., 10 watts, 13.5 V.DC, 300 MA (220 V.AC 50/60 Hz available if specified with order), 24-28 V.DC operation with optional APS-28/18 supply.
<b>Operating Temp. Range</b> .....	-10°C to +50°C.
<b>Dimensions</b> .....	19" Wide x 12" Deep x 1¾" High
<b>Weight</b> .....	4.5 lbs. net, domestic packed 9 lbs.

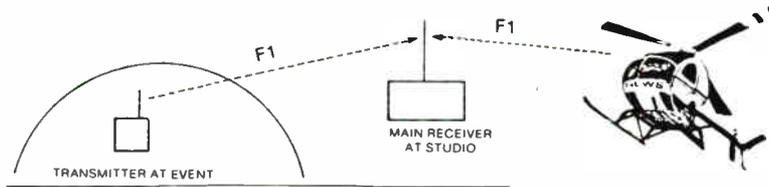
**DR-10 RECEIVER**

The model DR-10 is a rack mounted base station receiver designed for VHF or UHF broadcast remote pickup service. This receiver requires only 1¾" of rack space and is recommended as a cost effective replacement for older tube-type and solid state receivers in areas of moderate signal density and interference. Dual frequency capability is standard, with tone decoding and audio companding available as options. The DR-10 is designed for 25 KHz bandwidth channel only and has 7.5 KHz audio low pass filtering. Available after 8/89.

**DR-10 Single Frequency \$895**  
**DR-10 Dual Frequency \$925**

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

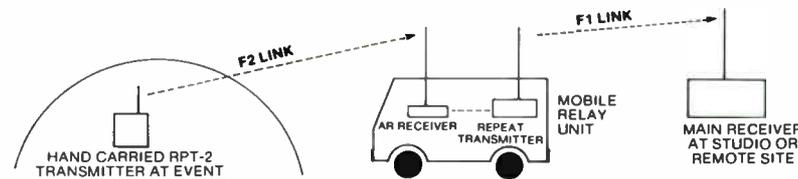
# MARTI REMOTE PICKUP (RPU) ONE-WAY SYSTEMS



PACKAGE 1	\$3,483.30	PACKAGE 2	\$2,839.90	PACKAGE 3	\$3,615.35	PACKAGE 4	\$2,971.95
<b>Mono RPU 140-180 MHz</b>		<b>Mono RPU 140-180 MHz</b>		<b>Mono RPU 400-480 MHz</b>		<b>Mono RPU 400-480 MHz</b>	
<b>Mobile or Portable:</b> 1 RPT-30/150 Transmitter 1 MCD-70C Microphone 1 700-251 Mobile Mounting Kit for RPT-30 1 ASPS-177 Mobile Antenna 1 PAV/150 Portable Antenna  <b>Studio:</b> 1 CR-10/150 Receiver 1 SC-155AC Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit * TWO "N" FEMALE CONNECTORS AND 1/2" TRANSMISSION LINE REQUIRED		<b>Mobile or Portable:</b> 1 RPT-15/150 Transmitter 1 MCD-70C Microphone 1 700-252 Mobile Mounting Kit for RPT-15 1 ASPS-177 Mobile Antenna 1 PAV/150 Portable Antenna  <b>Studio:</b> 1 CR-10/150 Receiver 1 SC-155AC Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit * TWO "N" FEMALE CONNECTORS AND 1/2" TRANSMISSION LINE REQUIRED		<b>Mobile or Portable:</b> 1 RPT-30/450 Transmitter 1 MCD-70C Microphone 1 700-251 Mobile Mounting Kit for RPT-30 1 ASP-1650 Mobile Antenna 1 YC-450 Portable Yagi Antenna 1 PG-20A Jumper Cable  <b>Studio:</b> 1 CR-10/450 Receiver 1 ASPD-700 Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit * TWO "N" FEMALE CONNECTORS AND 1/2" TRANSMISSION LINE REQUIRED		<b>Mobile or Portable:</b> 1 RPT-15/450 Transmitter 1 MCD-70C Microphone 1 700-252 Mobile Mounting Kit for RPT-15 1 ASP-1650 Mobile Antenna 1 YC-450 Portable Yagi Antenna 1 PG-20A Jumper Cable  <b>Studio:</b> 1 CR-10/450 Receiver 1 ASPD-700 Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit * TWO "N" FEMALE CONNECTORS AND 1/2" TRANSMISSION LINE REQUIRED	
<b>PACKAGE 5</b>		<b>PACKAGE 6</b>		<b>PACKAGE 7</b>			
<b>Stereo RPU 400-480 MHz</b>		<b>Stereo RPU 400-480 MHz</b>		<b>Mono Aircraft RPU 400-480 MHz</b>			
<b>Mobile or Portable:</b> 2 RPT-30/450 Transmitters 2 MCD-70C Microphones 2 YC-450 Portable Yagi Antennas 2 PG-20A Jumper Cables  <b>Studio:</b> 2 CR-10/450 Receivers 1 ASPD-700 Base Antenna 1 2-YC Receiver Combiner 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit * TWO "N" FEMALE CONNECTORS AND 1/2" TRANSMISSION LINE REQUIRED		<b>Mobile or Portable:</b> 2 RPT-15/450 Transmitters 2 MCD-70C Microphones 2 YC-450 Portable Yagi Antennas 2 PG-20A Jumper Cables  <b>Studio:</b> 2 CR-10/450 Receivers 1 ASPD-700 Base Antenna 1 2-YC Receiver Combiner 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit * TWO "N" FEMALE CONNECTORS AND 1/2" TRANSMISSION LINE REQUIRED		<b>Mobile:</b> 1 RPT-15/450 Transmitter 1 MCD-70D Microphone 1 AV-15 Aircraft Antenna 1 APS-28/18 Airborne Power Supply  <b>Studio:</b> 1 CR-10/450 Receiver 1 ASPD-700 Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit * TWO "N" FEMALE CONNECTORS AND 1/2" TRANSMISSION LINE REQUIRED		A Marti one-way Remote Pickup System is used by a broadcaster to send a program from an event to the studio. Voice or sound travels one direction, from the event to the studio. Programming from an aircraft requires special equipment which is included in Package 7.  *Where connectors and transmission line are required use Female connectors and 1/2" transmission line and contact factory for pricing.	

## MARTI UNATTENDED AUTOMATIC MOBILE RELAY

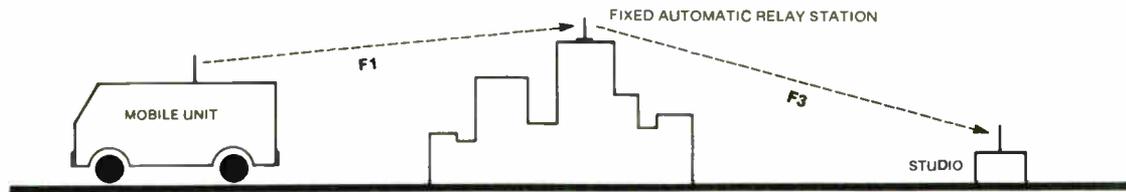
In applications where the Marti One-Way RPU system will not communicate from the event to the studio, an AUTOMATIC MOBILE RELAY station may be required. Additional components can be added to the Marti One-Way system to make it a Mobile Relay System. Components from the Marti One-Way system would still be used in the F1 link in the mobile relay system. Components listed below would make-up the F2 part of the Mobile Relay link.



PACKAGE 11	\$2,517.40	PACKAGE 12	\$2,677.40	PACKAGE 13	\$2,522.90
<b>Automatic Mobile Relay For Use With Packages 1 &amp; 2</b>		<b>Automatic Mobile Relay For Use With Packages 3 &amp; 4</b>		<b>Automatic Mobile Relay For Use With Packages 3 &amp; 4</b>	
1 RPT-2/450 Transmitter 1 MCD-70D Microphone 1 AR-10/450 Receiver 1 700-252 Mobile Mounting Kit for AR-10 1 585-037-2 Control Cable 1 ASP-1650 Mobile Antenna 1 PAV/450 Portable Antenna		1 RPT-2/450 Transmitter 1 MCD-70D Microphone 1 AR-10/450 Receiver 1 700-252 Mobile Mounting Kit for AR-10 1 585-037-2 Control Cable 1 ASP-1650 Mobile Antenna 1 PAV/450 Portable Antenna 1 WP-470-1 Cavity		1 RPT-2/150 Transmitter 1 MCD-70D Microphone 1 AR-10/150 Receiver 1 700-252 Mobile Mounting Kit for AR-10 1 585-037-2 Control Cable 1 ASPS-177 Mobile Antenna 1 PAV/150 Portable Antenna	

ON ALL MOBILE REPEATERS F-2 MUST BE AT LEAST 4.0 MHz FROM F-1.

# MARTI UNATTENDED AUTOMATIC FIXED RELAY STATION



Automatic Relay Stations greatly increase the operating range and coverage areas of broadcast news and remote coverage of events. When used with MARTI portable, mobile and base station units, full broadcast quality audio is provided. Unlimited transmitting time is available since this equipment is designed for continuous 24 hour per day operation. Automatic Relay Stations (ARS) are available in two models. An ARS-15 transmits with a RPT 15 transmitter and an ARS-30 transmits with a RPT 30 transmitter. Both systems transmit the F3 frequency above in the 450 to 455 MHz band. F-3 must be at least 4.0 MHz from F-1.

## EQUIPMENT TO BE LOCATED AT AUTOMATIC RELAY SITE

PACKAGE 40	\$3,441.50	PACKAGE 41	\$2,876.50	PACKAGE 42	\$4,061.50	PACKAGE 43	\$3,496.50
<b>160 MHz In/450-455 MHz Out:</b>		<b>160 MHz In/450-455 MHz Out:</b>		<b>450 MHz In/455 MHz Out:</b>		<b>450 MHz In/455 MHz Out:</b>	
1 CR-10/150 Receiver 1 585-037-1 Repeater Cable 1 SC-155AC Receiving Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit *TWO "N" FEMALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED		1 CR-10/150 Receiver 1 585-037-1 Repeater Cable 1 SC-155AC Receiving Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit *TWO "N" FEMALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED		1 CR-10/450 Receiver 1 585-037-1 Repeater Cable 1 ASPD-700 Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit *TWO "N" FEMALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED		1 CR-10/450 Receiver 1 585-037-1 Repeater Cable 1 ASPD-700 Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit *TWO "N" FEMALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED	
1 RPT-30/450 Transmitter 1 700-253 Rack Mounting Kit for RPT-30 1 PG-2A Jumper Cable 1 K-1 Weatherproofing Kit *TWO "N" FEMALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED 1 YC-450 Yagi Antenna**		1 RPT-15/450 Transmitter 1 RMH-3B Rack Shelf 1 PG-2A Jumper Cable 1 K-1 Weatherproofing Kit *TWO "N" FEMALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED 1 YC-450 Yagi Antenna**		1 RPT-30/450 Transmitter 1 700-253 Rack Mounting Kit for RPT-30 1 WP-678 Duplexer & Cables		1 RPT-15/450 Transmitter 1 RMH-3B Rack Shelf 1 WP-678 Duplexer Cables	
**If TWO-WAY communication is required, replace YC-450 with ASPD-700 Base Antenna		**If TWO-WAY communication is required, replace YC-450 with ASPD-700 Base Antenna		*Where connectors and transmission line are required use Female connectors and ½" transmission line and contact factory for pricing.			

## EQUIPMENT TO BE LOCATED AT STUDIO

PACKAGE 46	\$1,568.00
<b>One Way w/Fixed Repeater:</b>	
1 CR-10/450 Receiver 1 ASPD-700 Base Antenna 1 PG-2B Jumper Cable 1 K-1 Weatherproofing Kit *TWO "N" FEMALE CONNECTORS AND ½" TRANSMISSION LINE REQUIRED	



MODEL ARS-30

160 MHz Mobile Frequency to Fixed Repeater with a 450 or 455 MHz output frequency use Mobile part of Package 1, Package 40 or 41 and Package 46.

160 MHz Mobile Frequency to Fixed Repeater with a 450 or 455 MHz output frequency use Mobile part of Package 2, Package 40 or 41 and Package 46.

450 MHz Mobile Frequency to Fixed Repeater with a 455 MHz output frequency use Mobile part of Package 3, Package 42 or 43 and Package 46.

450 MHz Mobile Frequency to Fixed Repeater with a 455 MHz output frequency use Mobile part of Package 4, Package 42 or 43 and Package 46.

For Two-Way Communication on either Fixed Automatic Repeater or Two-Way Communication between event and direct to Studio, contact factory for equipment and quote.

**MARTI ELECTRONICS, INC. RPU GENERAL PRICE LIST** Prices effective 4-29-89  
 Prices subject to change without notice.

<b>TRANSMITTERS</b>	<b>Description of Item</b>	<b>Price</b>
RPT-2	Hand-carried, portable 2.5 watt transmitter <b>without</b> battery, single freq., tone encoder, UHF or VHF	\$995.00
RPT-2	Hand-carried, portable, 2.5 watt transmitter <b>with</b> battery, single freq., tone encoder, UHF or VHF	\$1,045.00
RPT-2-2	Hand carried, portable 2.5 watt transmitter <b>without</b> battery, dual freq., tone encoder, UHF or VHF	\$1,025.00
RPT 2-2	Hand-carried, portable, 2.5 watt transmitter <b>with</b> battery, dual freq., tone encoder, UHF or VHF	\$1,075.00
RPT-15	15 watt transmitter, single freq., compact portable or airborne, with tone encoder, UHF or VHF	\$1,075.00
RPT-15-2	15 watt transmitter, dual freq., compact portable or airborne, with tone encoder, UHF or VHF	\$1,105.00
RPT-30	30 watt transmitter at 450 MHz and 45 watts at 140-180 MHz, continuous duty, single freq., 4 audio inputs, tone encoder, UHF or VHF	\$1,695.00
RPT-30-2	30 watt transmitter at 450 MHz and 45 watts at 140-180 MHz, continuous duty, dual freq., 4 audio inputs with tone encoder, UHF or VHF	\$1,725.00

<b>RECEIVERS</b>	<b>Description of Item</b>	<b>Price</b>
AR-10	RPU mobile repeat receiver, single freq., UHF or VHF, built in AC power supply or operates on 12-15 VDC.	\$1,195.00
AR-10-2	RPU mobile repeat receiver, dual freq., UHF or VHF, built in AC power supply or operates on 12-15 VDC.	\$1,225.00
CR-10	RPU rack mount receiver, single freq., UHF or VHF, with monitor speaker in front panel.	\$1,195.00
CR-10-2	RPU rack mount receiver, dual freq., UHF or VHF, with monitor speaker in front panel.	\$1,225.00
DR-10	RPU rack mount receiver, single freq., UHF or VHF, does not include monitor speaker, tone decode. AVAILABLE AFTER 8-1-89	\$895.00
DR-10-2	RPU rack mount receiver, dual freq., UHF or VHF, does not include monitor speaker, tone decode. AVAILABLE AFTER 8-1-89	\$925.00

**RPU ACCESSORIES**

<b>Model</b>	<b>Description of Item</b>	<b>Price</b>
Crystal	Hi-accuracy crystal for RPU transmitters & receivers	\$17.95
APS-28/18	Airborne power supply 28-18 VDC for RPT-15.	\$65.00
K-1	Grounding and Weatherproofing kit.	\$12.00
040-001-1	Internal battery for RPT-2 transmitter.	\$72.00
040-009	Portable battery for RPT-15 transmitter with belt strap, case & charger	\$100.00
2-YC	RPU receiver combiner 152-456 MHz.	\$65.00
2YC-150	Stacking harness, for stacking two YC-153, YC-161, YC-160, YC-166 or YC-170 Yagi antennas.	\$65.00
2YC-450	Stacking harness, for stacking two YC-450 Yagi antennas and "T" bar assembly.	\$85.00
580-116	AC power cord for RPT-2, RPT-15, RPT-30, AR-10 & CR-10.	\$5.50
585-069	DC power cord for RPT-2 transmitter with connectors.	\$21.00
585-070	DC power cord for RPT-15 transmitter with connectors.	\$21.00
586-074	DC power cord for RPT-30 transmitter with fuse & cable.	\$19.50
700-251	Mobile mounting kit for RPT-30, 4 mtg. fasteners with DC power plug, fuse and cable.	\$48.60
700-252	Mobile mounting kit for RPT-15 or AR-10.	\$25.20
700-253	Rack mounting kit for RPT-30 transmitter.	19.50
800-226	Coaxial relay board, 50 ohm, N female connectors.	\$54.60
800-278 System	Audio companding boards for RPT-2, RPT-15 or RPT-30 transmitters ONLY (2 boards) and AR-10, BR-10, CR-10 or DR-10 receivers ONLY (1 board) NOT FOR OTHER MODELS.	\$400.00

## RPU ACCESSORIES Continued

Model	Description of Item	Price
633-6	Duplexer with cables to connect AR-10/450 receiver & RPT-30 transmitter to common antenna. MOBILE USE ONLY.	\$350.00
WP-430-1	Selective cavity resonator, single section for operation in the 148-174 MHz band.	\$191.50
WP-440-1	Selective cavity resonator with female connectors 200-300 MHz.	\$204.00
WP-470-1	Selective cavity resonator, single section for operation in the 406-512 MHz band.	\$160.00
WP-678	Duplexer with cables to join CR-10 & RPT-15 or RPT-30 to common line & antenna. USED WITH FIXED AUTO RELAY.	\$746.00
MCD-70	Microphone with push to talk switch & 14' standard cord 4 pin XLR-4.	\$80.00
MCD-70B	Microphone with push to talk switch & 9' coil cord 4 pin XLR-4.	\$80.00
MCD-70C	Microphone with 3 pin XLR-3 plug & 14' cord.	\$80.00
MCD-70D	Microphone with 3 pin XLR-3 plug & 9' coil cord.	\$80.00
Racom 1300	Station identifier for use in TSL system.	\$200.00
RMH-3	Rack shelf for mounting RPT-2 transmitter.	\$55.00
RMH-3B	Rack shelf with fan for mounting RPT-15.	\$74.50
TR-2	Coaxial switching unit required in RPT-15 if used for base station or mobile two-way communications	\$35.00
TR-3	Antenna relay for RPT-30 for two-way operation.	\$35.00

## RPU ANTENNAS

Model	Description of Item	Price
<b>Omnidirectional</b> RPU Base Antennas (SPECIFY FREQUENCY)		
SC-155AC	Base Antenna vertically polarized, 6 db gain, top mounting, includes PG-15A cable, for 152-171 MHz band with "N" male connector. Requires a 12' x 1 1/4" mounting pipe with standard threads (NOT INCLUDED)	\$290.00
ASPD-700	Base Antenna, vertically polarized, 7 db gain, top mounting with ASPR-616 mounting clamps, for 450-470 MHz band, with "N" male connector.	\$336.00
DB-5007	Side mount kit for ASPD-700 & SC-155AC antennas	\$145.00
<b>Omnidirectional</b> RPU Mobile Whip Antennas (SPECIFY FREQUENCY)		
ASPS-177	Whip Antenna, vertically polarized mobile roof top, 3 db gain, for 130-174 MHz band, with 15' RG58 & PL259 connector	\$61.75
ASP-1650	Whip antenna, vertically polarized mobile roof top, 4 db gain, for 450-470 MHz band, with 15' RG58U & PL259 connector.	\$56.25
MM-150	Magnetic Mount Antenna, vertically polarized, 3 db gain, for 150-174 MHz band, with 12' RG58U & PL259 connector.	\$69.95
MM-450	Magnetic Mount Antenna, vertically polarized, 4 db gain, for 450-470 MHz band, with 12' RG58U & PL259 connector.	\$69.95
AV-15	Aircraft Antenna, vertically polarized, for 450-470 MHz band, with "N" female connector.	\$54.50
MA-1	Ring Antenna, horizontally polarized with 4' mast, for 150-170 MHz band with 10' RG58 & PL259 connector.	\$80.00
<b>Omnidirectional</b> RPU Portable Antennas (SPECIFY FREQUENCY)		
PO-150	A 3/8 wave base loaded antenna, vertically polarized, 3 db gain for RPT-2, for 150-174 MHz band with PL259 connector.	\$39.95
PO-450	Colinear Antenna with phasing coils, vertically polarized, 4 db gain for RPT-2, for 450-470 MHz band with PL259 connector.	\$39.95
PA-1	Ring antenna with standard mic threads, horizontally polarized with 2' mast, for 150-170 MHz band with 10' RG58 & PL259 connector.	\$80.00
PAV/150	Mic Stand Mount Antenna, vertically polarized, 3 db gain, for 150-170 MHz band with 12' RG58 & PL259 connector. (MIC STAND NOT INCLUDED)	\$75.95
PAV/450	Mic Stand Mount Antenna, vertically polarized, 4 db gain, for 450-470 MHz band with 12' RG58 & PL259 connector. (MIC STAND NOT INCLUDED)	\$75.95

## RPU ANTENNAS Continued

ID Code or Name	Description of Item	Price
<b>Directional</b>	<b>RPU Yagi Antennas (SPECIFY FREQUENCY)</b>	
DB-438	Yagi Antenna, horizontally or vertically polarized depending on mounting, 6 elements, 10 db gain, for 450-470 MHz band, recommended for TSL use, "N" female connector	*
YC-153	Yagi Antenna, horizontally or vertically polarized depending on mounting, 5 elements, 9 db gain, for 152.08-153.40 MHz band with "N" female connector.	\$135.00
YC-161	Yagi Antenna, horizontally or vertically polarized depending on mounting, 5 elements, 9 db gain, for 161.4-162.0 MHz band with "N" female connector.	\$135.00
YC-160	Yagi Antenna, horizontally or vertically polarized depending on mounting, 5 elements, 9 db gain, for 160.89-161.40 MHz band with "N" female connector.	\$135.00
YC-166	Yagi Antenna, horizontally or vertically polarized depending on mounting, 5 elements, 9 db gain, for 165.95-166.55 MHz band with "N" female connector.	\$135.00
YC-170	Yagi Antenna, horizontally or vertically polarized depending on mounting, 5 elements, 9 db gain, for 169.85-170.45 MHz band with "N" female connector.	\$135.00
YC-450	Yagi Antenna, horizontally or vertically polarized depending on mounting, 6 elements, 9 db gain, for 450.01-455.99 MHz band with "N" female connector.	\$135.00

## RPU TRANSMISSION LINE, CABLES, CONNECTORS

Model	Description of Item	Price
585-037-1	Automatic fixed relay station control cable to connect RPT-15 or RPT-30 transmitters to CR-10 receiver	\$33.00
585-037-2	Mobile relay station control cable used to connect RPT-15 or RPT-30 transmitters to AR-10 receiver	\$40.00
585-038-2	Base station mute cable to connect mute relay in RPT-15 or RPT-30 to mute connector in CR-10 receiver	\$20.00
586-026	Base station RF cable to connect coaxial relay in RPT-15 or RPT-30 to RF input of CR-10. RPT-15 MUST have TR-2, RPT-30 MUST have TR-3	\$15.00
PG-2A	Jumper cable with 2' of RG-8 with PL-259 & UG-21 connectors	\$25.00
PG-2B	Jumper cable with 2' of RG-8 with UG-21 connectors	\$25.00
PG-12B	Jumper cable with 12' of RG-8 with UG-21 connectors for 360° rotation of Yagi antennas	\$29.00
PG-20A	Jumper cable with 20' of RG-8 with UG-21 & PL-259 connectors	\$32.50
PG-20B	Jumper cable with 20' of RG-8 with UG-21 connectors	\$32.50
L44N	Andrew type "N" female connector for 1/2" foam line	*
L44W	Andrew type "N" male connector for 1/2" foam line	*
L45N	Andrew type "N" female connector for 7/8" foam line	*
L45W	Andrew type "N" male connector for 7/8" foam line	*
LDF4-50	Andrew foam transmission line, 1/2", 50 ohm, jacketed	*
LDF5-50	Andrew foam transmission line, 7/8", 50 ohm, jacketed	*
PL-259	Type "UHF" male connector for RG-8 cable	\$4.00
UG-21B/U	Type "N" male connector for RG-8 cable	\$6.00
UG-23B/U	Type "N" female connector for RG-8 cable	\$6.00
RG-8U	Foam transmission line, 50 ohm, jacketed per foot	\$0.40

\*Call Factory For Current Price

# MARTI

*The performance-value leader in Broadcast Equipment.*

Marti Electronics, Inc., P.O. Box 661, Cleburne, Texas 76033-0661  
(817) 645-9163 Telex #794835 "Marti CLBN" Fax (817) 641-3869

**TYPICAL AUTOMATIC MOBILE RELAY TO A FIXED RELAY TO STUDIO  
ALL FREQUENCIES IN 450 AND 455 MHz BANDS**

- PACKAGE 12 - From An Event With A Portable Transmitter To A Repeat Receiver In A Mobile Van **\$2,677.40**
- 1 RPT-2/450 Transmitter
  - 1 MCD-70C Microphone
  - 1 AR-10/450 Receiver
  - 1 700-252 Mobile Mounting Kit for AR-10
  - 1 585-037-2 Control Cable
  - 1 ASP-1650 Mobile Antenna
  - 1 PAV-450 Portable Antenna
  - 1 WP-470-1 Cavity
- PACKAGE 3 - Retransmit From Automatic Mobile Relay To A Fixed Relay Station (Mobile Part) **\$2,047.35**
- 1 RPT-30 Transmitter
  - 1 MCD-70C Microphone
  - 1 700-251 Mobile Mounting Kit for RPT-30
  - 1 ASP-1650 Mobile Antenna
  - 1 YC-450 Portable Antenna
  - 1 PG-20A Cable
- PACKAGE 42 - Automatic Fixed Relay Station Equipment **\$4,061.50**
- 1 CR-10/450 Receiver
  - 1 585-037-1 Repeater Cable
  - 1 ASPD-700 Base Antenna
  - 1 PG-2B Jumper Cable
  - 1 K-1 Weatherproofing Kit
  - \*TWO "N" FEMALE CONNECTIONS AND 1/2" TRANSMISSION LINE REQUIRED
- 
- 1 RPT-30/450 Transmitter
  - 1 700-253 Rack Mounting Kit
  - 1 WP-678 Duplexer & Cables
- PACKAGE 46 - Equipment At The Studio **\$1,568.00**
- 1 CR-10/450 Receiver
  - 1 ASPD-700 Base Antenna
  - 1 PG-2B Jumper Cable
  - 1 K-1 Weatherproofing Kit
  - \*TWO "N" FEMALE CONNECTIONS AND 1/2" TRANSMISSION LINE REQUIRED

Complete Package Price for Automatic Mobile Relay Used With An Automatic Fixed Relay System With Antennas LESS Connectors ..... **\$10,354.25**

ON ALL MOBILE REPEATERS F-2 MUST BE AT LEAST 4.0 MHz FROM F-1  
ON ALL FIXED REPEATERS F-3 MUST BE AT LEAST 4.0 MHz FROM F-1



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