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#### Date 1/9/06

#### BASE/REPEATER INTERFACE PACKAGE LOW BAND BASE STATION/REPEATER

#### SUGGESTED RETAIL

#### Base Interface Package Includes:

- 31" x 15" Cabinet (includes hinged mounting tray for CDM Series mobile(s) and related accessories)
- 100W Amplifier
- 120 VAC 60 Hz Power Supply with Battery Revert Capability
- Assembly Kit
- Service Manual

#### Notes:

- 1. Each repeater housing utilizes up to two (2) CDM Series mobiles (sold separately).
- 2. All CDM LowBand models are compatible.
- 3. See CDM Series price pages for model availability and pricing.
- 4. Dimensions of the station/repeater are 31"H x 22"W x 15"D.
- 5. Antenna connector is Type N Female.



Step One: (Required)

#### Select One (1) Base/Repeater Interface Repeater Housing These housings are compatible only with CDM Series Mobiles.

RDB4455 Base & Repeater Interface Kit, 30-36 MHz \$4,650.00 RDB4456 Base & Repeater Interface Kit, 36-42 MHz \$4,650.00 RDB4457 Base & Repeater Interface Kit, 42-50 MHz \$4,650.00

Step Two: (Required)

#### **Select CDM Series Mobiles**

- See CDM LowBand Series price pages for model availability and pricing
- Order one CDM LowBand model for base configuration; two are required for repeater configuration.

#### Step Three: (Required for repeater configuration only)

#### **Select Repeater Controller**

HLN3948 \$254.00 Basic Interface Repeater Controller

> Provides repeater functionality, remote knock-down/set-up, in/crossband and uni/bi directional capabilities. "B" version includes a mounting shroud which is

required for proper installation within the CDR700 repeater housing.

HLN9119 ZR340 Advanced Interconnect Controller \$765.00

> Provides advanced interconnect capabilities including password driven access and disconnect codes, customized toll restrict and toll restrict bypass. Does not use RSS.

Programming done via DTMF parameters.

#### Step Four: DC/Tone Remote Capability (Optional)

If DC/Tone Remote capability is required, see MC Series price pages for DC/Tone Remote adapters and deskset options.



MANUF.SUGG.RETAIL PRICE

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#### Date 1/9/06

### REPEATER INTERFACE COMMUNICATIONS KIT™

#### **SUGGESTED RETAIL**

The Repeater Interface Communications Kit Model Includes:

- For use with CDM750, CDM1250 & CDM1550
- Selectable Hang Time
- PL, DPL, CSQ
- Uni-Directional or Bi-Directional Repeater Operation
- Singleband and Crossband Operation
- Transparent Operation
- Remote Repeater Set-Up and Knock Down
- LED Indicators for Repeater Enable, COR and Repeater Set-Up
- Front Panel Control for Repeater Enable and Set-Up
- Interface Box, Mounting Bracket and all required Cables

MODEL	DESCRIPTION	MANUF.SUGG. RETAIL PRICE
HLN3333	Repeater Interface Communications Kit (includes manual)	\$329

General Accessories:		
HKN9019	16 Pin Conductor Cable - same as HKN9969 (3 Ft. long enhanced connectors)	\$13.75
HKN9969_R	Accessory for Repeater Interface Communications Kit - additional 16 conductor cable (3 Ft. long) for connection to other accessories.	\$35.50
Manuals:		

6880901Z79-B R.I.C.K. Service & Programming Manual (most current issue includes MMR-062)

MOTOROLA Repeater Interface

REPEATER COR SET-UP

ENABLE

\$5.40

#### Date 1/9/06

### EXTENDED LOCAL, DC & TONE REMOTE CONTROL

#### SUGGESTED RETAIL

#### All MC1000, MC2000 and MC2500 Models Include:

- Single Frequency Station Control (Local Model)
- 4 Frequency Station Control (Tone & DC Model)
- Push-to-Talk Handset
- 2 or 4 Wire
- LOTL/LOBL
- Black Color
- Volume Control / Transmit LED
- Monitor Switch
- 120V AC 60 Hz Power Supply
- Supervisory Takeover or Line Select (Tone/DC)
- Operator Cross Mute
- Intercom
- LTR® Compatible
- Service Manual
- One Year Warranty

#### MC2500 Only Additional Features:

- 4 Base Station Control Capable of controlling 4 Tone channels or 3 Tone channels and 1 DC channel.
- Also capable of E & M control on all channels. Use of a Tone or DC Remote Adapter is required when connected to a mobile in a tray.
- Connector for Unselect Speaker
- Individual Volume Control
- Dedicated Logging Recorder Output
- Radio Patch
- Multi Select
- Multi -Tasking
- All Mute

# MC2500 MC1000

MC1000™, MC2000™ & MC2500™ Desktop Controllers

#### MC2000/MC2500 Additional Features:

- 18 Programmable Buttons
- 2 Line x 20 Character Backlit Display
- Multi-Frequency Capability up to 16 frequencies on Tone
- 110V/220V AC 50/60 Hz Power Supply
- MDC Features:
  - PTT Unit ID (Encode/Decode)
  - Voice Selective Call (Encode/Decode)
  - Call Alert/Short Call Alert (Encode/Decode)
  - Status Message (Decode)
  - Radio Enable/Disable (Encode)
  - Radio Check (Encode)
  - Emergency Alarm (Decode)
- Recent User Stack Last nine records are stored for review at any time.
- RS232 Port Allows RSS programming via computer or the logging of MDC1200 inbound/outbound Serial Printer Port activity for permanent record keeping on a serial printer.
- Paging Encode Allows you to selectively call a pager, portable, or mobile unit and eliminate the need to purchase a stand alone encoder. The following schemes are supported: QC II, 2 Tone, 5 Tone, 6 Tone, Digital Dial, Reach 1+1, GE 99, NEC 5 & 6, DTMF or Custom A and B tones.
- Aux I/O's
- Securenet Coded/Clear Operation Supports positive mode control (Tone)

#### Notes:

- 1) Intercom Allows communication between desksets without accessing the radio frequency
- 2) Up to 10 remotes can be used in parallel.
- 3) MC Series remotes are not compatible with 900 MHz MaxTrac Mobiles.
- 4) MC2000 and MC2500 units require RSS programming software.
- 5) MC2500 unselect speaker port supports a passive speaker only.
- 6) For unexpected out-of-box failures or quality issues, the MC Series and MC3000 must be returned for warranty repair. Please refer to the user's manual. Units will be replaced if they are sent in a total of 3 times and continue to exhibit the same problem.
- 7) For L3276 & L3277, radio interface cable not included. Must be ordered separately.

#### **Extended Local Control Model Only**

- If more than one L3211 or L3214 is used in parallel, the total distance of all parallel units cannot exceed 1000 Ft..

#### DC and Tone Remote Control Models Only:

- For DC and Tone Remote Control: If base is not remote capable, a Remote Adapter is required (see L3276 & L3277).
- The L3213 Desksets support channel steering between 4 talkgroups over conventional or LTR® Trunking Systems.
- The L3216 and L3217 Desksets support channel steering between 15 talkgroups over conventional or LTR® Trunking Systems.

MODEL		MANUF.SUGG.
NUMBER	DESCRIPTION	RETAIL PRICE
L3211	MC1000 Extended Local Control Deskset - Single Frequency	\$285
L3212	MC1000 DC Remote Control - 4 Frequency Maximum, 2-Wire or 4-Wire	\$545
L3213	MC1000 Tone Remote Control - 4 Frequency Maximum, 2-Wire or 4-Wire	\$525
L3214	MC2000 Extended Local Control Deskset - Single Frequency	
L3215	MC2000 DC Remote Control - 4 Frequency Maximum, 2-Wire or 4-Wire	\$1,360
L3216	MC2000 Tone Remote Control - 16 Frequency Maximum, 2-Wire or 4-Wire, Parallel Status Updating	\$1,280
L3217	MC2500 Multi-Channel Remote Control	\$2,482

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#### MC1000™, MC2000™ & MC2500™ Desktop Controllers

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#### **SUGGESTED RETAIL**

#### **ACCESSORIES**

SUGGESTE	ED RETAIL ACCESSORIES	
MODEL NUMBER		MANUF.SUGG.RETAIL PRICE
Tone & DC R	Remote Adapters - includes AC Power Supply (DDN7066) and Install/Service Manual:	
L3276	Tone Remote Adapter	\$655.00
L3277	DC Remote Adapter	\$512.00
General Acc	essories:	
HLN9457	Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)	\$6.95
DDN6516	Headset Jackbox - adds headset capacity See MC3000 pages for compatible headsets	\$110.00
DDN6668	Single Footswitch	\$94.00
Extended Lo	cal Control Accessories (for use with L3211 and L3214):	
DDN6337	Junction Box (order appropriate cable below) For connecting up to 6 local control desksets to the station.	\$399.00
Radio Interfa	ace Cables (for use with DDN6337, L3276 and L3277):	
DDN6338	Radio Interface Cable (10 Ft.) for use with MaxTrac (16 pin accessory connector required), SM120™, M1225™, CDM750™, CDM1250™, CDM1550™ & CDM1550•LS+™	\$72.00
DDN6340	Generic Radio Cable (10 Ft.) - unterminated, bare leads (can also be used with L3217)	\$50.00
Field Install	Kits:	
DDN6481	Punch Block with Spark Gap (recommended)	\$405.00
DDN6341	110VAC Transformer for MC1000 models	\$49.00
DDN6342	110/220VAC - 50/60 Hz Power Supply for MC2000 and MC3000 models	\$169.00
DDN6339	110/220VAC - 50/60 Hz Power Supply for MC2500 models	\$198.00
DDN7066	110/220VAC - 50/60 Hz Power Supply for L3276 & L3277 Remote Adapters	\$155.00
Programmin	g (MC2000 and MC2500 Models Only):	
RVN4178	Radio Service Software (includes CD-ROM)	\$265.00
DDN6367	Radio Service Software Cable AT (DB9)	\$35.00

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Date 1/9/06
SUGGESTED RETAIL

#### MC3000™ Digital Desktop Controller

### Trunked or Conventional Systems For CDM1550 Series Radios

The MC3000 Digital Desktop Controller is capable of controlling all trunking and conventional functions of the CDM1550 Series Radio. The MC3000 acts similarly to the radio's control head and will NOT provide capabilities above and beyond the radio. A maximum of thirty-one (31) desktop controllers can be connected in parallel to one station using a junction box and the appropriate cable kits. The MC3000 in a local configuration allows up to 5000 Ft. of total cable length. The radio CANNOT be used as a dispatch when an MC3000 is connected. If two or more dispatch positions are needed, two (2) MC3000 units and a junction box should be purchased.

#### **Standard Features:**

- Local Control
- Handset with Push-to-Talk (PTT) Switch
- Desk or Wall Mountable Housing
- Internal Dispatch Microphone
- Front Panel PTT Capability
- 2 x 20 Character Backlit Display
- 110V/220V In-line Power Supply
- Compatible with a Desk Microphone, Footswitch and Headset

- Parallel Operation
- Parallel Status Updating
- Supervisory Takeover
- Intercom Capability
- Automatic Line Leveling
- Black Housing
- Instruction Manual



#### Order Requirements for Local Control: The basic model of the MC3000 is designed for local control only.

- 1) An MC3000 Junction Box (L3239) is required for each CDM1550<sup>™</sup> and CDM1550·LS+<sup>™</sup> being controlled. The MC3000 Junction Box is connected to the radio via a 10 foot cable.
- 2) A Remote Mount Kit (RLN4802) and Remote Mount Cable (RKN4077) are required to remote control a CDM1550 and CDM1550·LS+™ radio.
- 3) Each desktop controller must be connected to the MC3000 Junction Box using a minimum of Category 3, 8-conductor straight through cable with RJ45 Telco connectors. Maximum aggregate cable length is 5000 Ft..
- 4) For remote system, two (2) juncion boxes with the same modem options are required.
- 5) For unexpected out-of-box failures or quality issues, the MC Series and MC3000 must be returned for warranty repair. Please refer to the user's manual. Units will be replaced if they are sent in a total of 3 times and continue to exhibit the same problem.
- 6) For a headset to be connected, the following is required: Headset Jackbox (DDN6516), Headset Base (CDN6281\_R or CDN6282\_R) and a Headset top.

MODEL NUMBER	DESCRIPTION	MANUF.SUGG. RETAIL PRICE
L3223	Digital Desktop Controller	\$876

#### Junction Box

Guilotion Box.		
L3239	Digital Junction Box for CDM1550™ Series Radios	\$682
Options for Junct	ion Box Only:	
ZA00277AA	Leased Line Modem	\$677
ZA00278AA	Dial-Up Modem	\$878

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#### MC3000™ Digital Desktop Controller

**Trunked or Conventional Systems** 

For CDM1550 Series Radios

SUGGESTED RETAIL

**ACCESSORIES** 

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
General Access	sories	
DDN6342	110/220VAC - 50/60 Hz Power Supply for MC2000 and MC3000 models	\$169.00
RLN4802	Remote Mount Kit - CDM1550 and CDM1550•LS+ models only	\$93.50
RKN4077	Remote Mount Cable, 3 meter length - CDM1550 and CDM1550•LS+ models only	\$8.25
HMN3000	Desk Microphone, Black	\$120.00
DDN6668	Single Footswitch	\$94.00
BLN6732	Dual Footswitch	\$106.00
DDN6516	Headset Jackbox	\$110.00
CDN6282_R	Headset Amplifier Module Base (15 Ft. Coil Cord)	\$245.00
CDN6281_R	Headset Amplified Module Base with PTT Switch (15 Ft. Coil Cord)	\$204.00
RLN5130	Headset Amplified Module Base with PTT Switch (25 Ft. Coil Cord)	\$242.00
	io Accessories:	
All headset "tops"	below require Audio Accessory Box (DDN6516) and Amplified Module Base (CDN6282_R, CDN6281_R or RLN5	130):
CDN6290_R	Noise Cancelling Supra Monaural - replaces voice tube with unidirectional microphone	\$149.00
CDN6286	Encore Monaural - single speaker headband style with user selectable tone control	\$127.00
CDN6293	Noise Cancelling Encore Monaural - replaces voice tube with unidirectional microphone	\$145.00
CDN6294	Noise Cancelling Encore Binaural - replaces voice tube with unidirectional microphone	\$184.00
CDN6295	StarSet - over-the-ear design with eartip receiver that fits into the ear for sound clarity	\$110.00
CDN6297_R	Supra Monaural - Single Speaker Headband Style	\$110.00

#### Date 1/9/06

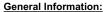
#### SUGGESTED RETAIL

#### CommandSTAR Lite™

### DESKTOP or RACKMOUNT CONSOLE CONVENTIONAL AND DIGITAL CONTROL

#### All CommandSTAR Lite models include:

- CSDM (CommandSTAR Lite Database Manager), Programming Software
- Keypad Module with Display and PTT
- Auxiliary Control Module (ACM) 16 function buttons w/LEDs
- Parallel Status Updating (on Tone & Digital Control channels only)
- Internal Condenser Microphone on desktop versions only
- Two (2) Speakers (Select and Unselect)
- One (1) RS232 Port (logging printer, CSDM, or Netclock)
- One (1) Recorder Port (600 ohms) for select audio and microphone audio
- Four (4) Audio Accessory Ports for headset, footswitch, desk microphone and gooseneck microphone (only one (1) active at a time)
- Call Director Interface
- Dispatcher Busy LED
- 110/220V AC 50-60 Hz Power Supply
- Operator, Installation and CSDM Manuals
- One Year Warranty



- 1. Punchblock and Cable for base station interface does not ship standard.
- 2. All other orders should be faxed to Motorola at 1-800-628-5932.
- 3. The CommandSTAR Lite is a fully featured self contained Dispatch Console available in both a desktop package and rackmount configuration. Each console can support up to eight different RF resources. These resources can be Base stations, Repeaters or Control Stations. In addition the CommandSTAR Lite supports 2 analog telephone interfaces.
- 4. The basic unit comes complete with Select and Unselect speakers, power supply, full numeric Keypad module (with display) and an Auxiliary Control Module (ACM). The Keypad module provides the means to enter telephone numbers and paging codes as well as allowing access to basic parameters and diagnostic menus. The ACM features 16 programmable buttons that can be used for a variety of functions such as I/O control and Paging.
- 5. Six additional modules can be added to the unit for control of resources or provision of further I/O and paging controls. These modules can consist of any combination of the following:
  - Channel Control Module (CCM) supports two (2) RF resources
  - Single Display Channel Control Module (SDCCM) supports a single RF resource providing a display for channel/frequency aliases and signalling decode.
  - Display Channel Control Module (DCCM) supports two (2) RF resources providing a display for channel/frequency aliases and signalling decode.
  - Digital Radio Control Module (DRCM) supports a single control station via SB9600 bus and provides a display.
- 6. The CommandSTAR Lite has a Call Director port for connection to an external telephone system, allowing calls to be answered via the console. A single RS232 port is provided for connection to the CommandSTAR Database Manager (CSDM) computer that is used for programming, configuring and monitoring the console. This port can also be used as an output connection to a printer for logging Stat-Alert call information.

#### **Ordering Requirements:**

- 1. All CommandSTAR Lite consoles ship with programming software (CSDM) which requires a PC operating Windows XP with an available serial port. A cable is not provided and needs to be ordered separately (CDN6181 or CDN6182).
- 2. The CommandSTAR Lite can be ordered as a desktop or rackmount unit in one of two base configurations. The base configuration chosen will depend upon the requirements for mounting and interface to control stations with digital keying.

			Supports Digital
		Number of Channels	Interface to Control
Model	Mounting	supported	Station
L3179	Desktop	8 Max	No
L3331	Desktop	8 Max	Yes - four
L3250	Rackmount	8 Max	Yes - four



#### SUGGESTED RETAIL

#### CommandSTAR Lite™ **DESKTOP or RACKMOUNT CONSOLE** CONVENTIONAL AND DIGITAL CONTROL

#### **Ordering Requirements Continued:**

- 3. The appropriate number of control modules must be ordered for the unit
  - A CCM (Z100AB) and DCCM (Z102AB) each support two channels. The DCCM provides a 2 line display for alias and message/status decodes for each channel. The CCM provides space for a printed label to identify the channel. Each channel has three programmable buttons for functions such as Repeat Enable/disable, Multiple frequency selection, etc.
  - A SDCCM (Z103AB) support a single channel, providing a 2 line display for alias and message/status decodes. Each unit provides eight programmable buttons for functions such as Repeat Enable/disable, Multiple frequency selection, etc.
  - For TRC or E&M control no option is required. However for DC control, order the DC Control Module (Z124). This will provide DC Control for up to four channels. If more channels require DC control, then a second Z124 option should be ordered.
- 4. If a digital interface to a radio is to be used, then order the DRCM (ZA00170AA). One is required for each radio. This option can only be used with the L3331 and L3250 models. A Digital Junction Box is required for each radio connected to a DRCM. For a CDM1550™ radio order a L3239, CDM1550 Remote Kit (RLN4802) and Remote Cable Kit (RKN4077). The junction box allows up to six (6) CommandSTAR Lite consoles to be connected to a radio. Junction Boxes can be found on the MC3000 price page.
- 5. If more than four DRCM's are required, then order a Digital Remote Control Board (DDN6137) to field install and the additional DRCM options. Note the maximum amount of DRCM's that can be installed is six.
- 6. Connection from the CommandSTAR Lite to the RF equipment and Junction boxes is via two 50-way telco connectors using 25-pair cable. Channels 1-4 are on one connector and channels 5-8 are on the other. Order the appropriate cables (CDN6300, CDN6301 or CDN6302) and punch block (DDN6481).
- 7. If additional Auxiliary controls are required, above those supported by the initial ACM module, then order the appropriate number of option Z104AB. This option adds an ACM to the unit giving 16 more controls.
- 8. If telephone resources are required, then an option Z118 is ordered. This option provides an interface to two separate POTS lines. Only one Z118 option is allowed.
- 9. Accessories can be ordered as required. The Desktop CommandSTAR Lite has a built in condenser microphone, but a desk microphone, HMN3000, or gooseneck microphone, TDN9941, can be used. If a footswitch is required order BLN6732 and up to two (2) headset jacks, DDN6516, may be connected. A number of headsets are listed. Any of these may be used with the CommandSTAR Lite Console. These headsets consist of two parts, a base and a top. A choice of two bases is available (CDN6281 and CDN6282) and several tops are available. For each headset to be connected, the following is required: Headset Jack-box, Headset Base and a Headset Top.

#### **Capacity Limitations**

The CommandSTAR Lite has some fundamental capacity limitations as detailed below:

- 1. Maximum number of channels supported = 8
- 2. Maximum number of Control Module options = 6

Therefore -

2\*(Qty of Z100AB + Qty of Z102AB) + Qty of Z103AB + Qty of ZA00170AB <= 8

Qty of Z100AB + Qty of Z102AB + Qty of Z103AB + Qty of Z104AB + Qty of ZA00170AB <= 6

The table below gives examples of combinations that fit the rules above.

Т	Number of Channels	Number of Modules		
Dual Channel	Single Channel	ACM		
Z100 and Z102	Z103 and ZA00170	Z104		
0	6	0	6	6
1	5	0	7	6
2	4	0	8	6
3	2	1	8	6
4	0	2	8	6
0	1	5	1	6
0	2	4	2	6
0	3	3	3	6
0	4	2	4	6
0	5	1	5	6
0	6	0	6	6

#### Date 1/9/06

# CommandSTAR Lite™ DESKTOP or RACKMOUNT CONSOLE MODELS / OPTIONS

#### **SUGGESTED RETAIL**

MODEL	DESCRIPTION	MANUF.SUGG. RETAIL PRICE
L3179	Eight (8) Channel Desktop Console  Desktop console with capacity for eight (8) analog channels, supporting TRC, DC or E&M control.  Includes Power Supply, Select and Unselect speakers, Keypad module and one Auxiliary Control Module Appropriate Control Modules must be ordered, a maximum of six (6) additional modules can be ordered.	\$6,884
L3331	Eight (8) Channel Desktop Console, with Digital Control Capability  Desktop console with capacity for eight (8) analog channels, supporting TRC, DC, and E&M control with the capability to support four (4) radios via digital control. Includes Power Supply, Select and Unselect speakers, Keypad module and one (1) Auxiliary Control Module. Appropriate Control Modules must be ordered, a maximum of six (6) additional modules can be ordered.	\$7,450
L3250	Eight (8) Channel Rackmount Console, with Digital Control Capability Rack mount console with capacity for eight (8) analog channels, supporting TRC, DC, and E&M control with the capability to support four (4) radios via digital control. Includes Power Supply, Select and Unselect speakers, Keypad module and one (1) Auxiliary Control Module. Appropriate Control Modules must be ordered, a maximum of six (6) additional modules can be ordered.	\$7,450

#### **Junction Box:**

	Digital Junction Box for CDM1550™ Series Radios (One (1) required per digital radio)	\$682
Options for Junction Box Only:		
ZA00277AA	Leased Line Modem	\$677
ZA00278AA	Dial-Up Modem	\$878

MODEL NUMBER	DESCRIPTION	MANUE SUGG RETAIL PRICE

#### Operator Control Modules:

See ordering requirements. Channel modules provide operator control for two base stations (with Select, Instant TX, Volume Control Knob, and Mute per channel) and are available with or without displays. Display required to decode MDC1200 per channel.

Z100AB	Dual Radio Channel Control Module (CCM) Add two (2) channels identified by fixed labels. Three option buttons available per channel.	\$484.00
Z102AB	Dual Channel Control Module with Display (DCCM) Activates two (2) line by 8 character display for each channel. Three option buttons available	\$976.00
ZA00170AA	Digital Radio Control Module (DRCM) Add one (1) digital channel with two (2) line by 16 character display. Compatible with L3331 & L3250 only.	\$1,076.00
Z104AB	Auxiliary Control Module (ACM) Adds sixteen (16) additional function control buttons and LEDs to be custom programmed with any combination of common control features.	\$388.00
Z103AB	Single Channel Control Module with Display	\$500.00
Z118AC	Two Phone Lines Adds interface to main board for two (2) CO phone lines. Lines support Caller ID. Each phone line requires a button on an ACM to access it. Additional ACM buttons are used for Talk, Release and Hold.	\$520.00
Z124AC	DC Control One (1) Z124 allows for DC control on up to four (4) channels.	\$750.00

#### Date 7/3/06

# CommandSTAR Lite™ DESKTOP or RACKMOUNT CONSOLE ACCESSORIES

30GGE311	ED RETAIL ACCESSORIES	
MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
Programmir CSDM is includ	g Cables: led with each unit; however, the appropriate cable must be ordered for programming	
CDN6182	25 Ft. CSDM AT Computer Cable (DB9 serial port on PC)	\$92.00
General Acc	essories:	
DDN7526	Gooseneck Microphone for Desktop Console	\$295.00
BLN6732	Dual Footswitch	\$106.00
DDN6516	Headset Jackbox	\$110.00
RLN4802	Remote Mount Kit - CDM1550 and CDM1550•LS+ models only	\$93.50
CDN6282_R	Headset Amplifier Module Base (15 Ft. Coil Cord)	\$245.00
CDN6281_R	Headset Amplified Module Base with PTT Switch (15 Ft. Coil Cord)	\$204.00
RLN5130	Headset Amplified Module Base with PTT Switch (25 Ft. Coil Cord)	\$242.00
	dio Accessories: ps" below require Audio Accessory Box (DDN6516) and Amplified Module Base (CDN6282_R, C	DN6281_R or RLN5130):
CDN6290_R	Noise Cancelling Supra Monaural - replaces voice tube with unidirectional microphone	\$149.00
CDN6286	Encore Monaural - single speaker headband style with user selectable tone control	\$127.00
CDN6293	Noise Cancelling Encore Monaural - replaces voice tube with unidirectional microphone	\$145.00
CDN6294	Noise Cancelling Encore Binaural - replaces voice tube with unidirectional microphone	\$184.00
CDN6295	StarSet - over-the-ear design with eartip receiver that fits into the ear for sound clarity	\$110.00
CDN6297_R	Supra Monaural - Single Speaker Headband Style	\$110.00
Field Upgra	de Kits:	
DDN6130	Dual Radio Channel Control Module (CCM)	\$559.00
DDN6131	Dual Radio Channel Control Module with Display (DCCM)	\$1,051.00
DDN6138	Digital Radio Control Module (DRCM)	\$1,124.00
TDN9897	DC Control (one (1) TDN9897 allows for DC control up to 4 channels)	\$775.00
DDN6659	Modem Card, Leased Lines for Digital Junction Box Installation	\$727.00
	s and Cables: Punchblock and Telco Cable for every four (4) radio channels being controlled.	
DDN6481	Punch Block with Spark Gap (recommended)	\$405.00
CDN6300	15 Ft. Telco Cable - twenty five (25) pair telco cable, one 50-pin male and one 50-pin female connector (one rear-entry, one right angle)	\$28.00
CDN6301	50 Ft. Telco Cable - twenty five (25) pair telco cable, one 50-pin male and one 50-pin female connector (one rear-entry, one right angle)	\$42.00
CDN6302	100 Ft. Telco Cable - twenty five (25) pair telco cable, one 50-pin male and one 50-pin female connector (one rear-entry, one right angle)	\$66.00
RKN4077	Remote Mount Cable, 3 meter length - CDM1550 and CDM1550•LS+ models only	\$8.25

### RADIUS GR1225™ REPEATER VHF & UHF

#### Date 1/9/06

**GR1225 Desktop Repeater Features:** 

- 12.5/25 kHz Switchable Channel Spacing
- X-Pand Technology
- Built-in Basic Repeater Capabilities
- 16 Channels
- Output Power 1/10W or 25/50W VHF, 1/10W or 25/45W UHF
- Courtesy "Over" Beep
- Programmable Relay Delay
- Programmable Time-Out-Timer
- CWID
- PL / DPL / CSQ Codes
- Front Panel Repeater Enable/Disable Control
- Continuous Duty Cycle at 25 Watts; 50% at 45/50 Watts

The following frequencies are self quieters and cannot be ordered: 151.200, 168.000, 453.600, 455.500, 459.300, 470.400

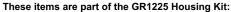
The following frequencies are potential self quieters: 160.180,163.380

#### Repeater Package Items

The GR1225 can be ordered fully assembled from the factory or as separate components that require dealer assembly. The factory assembled model contains all the items listed under the GR1225 housing kit and the R1225 transceiver model. In this model, the repeater transceiver is installed into the repeater housing and the dealer is required to program the unit and to install an optional duplexer if required. Factory assembled models are UL/ULC listed and meet all the requirements of UL813. Components purchased separately do not meet requirements of UL813. If your application requires your equipment to be UL listed, then you must order the factory assembled model.

Separate components consist of the repeater housing, repeater transceiver, antenna and optional duplexer. When ordered separately, the dealer must assemble and program the repeater.

The following items are required for Basic Repeater Operation for both factory assembled or dealer assembled models:









Power Supply



Fan

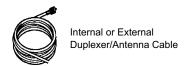


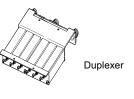
(2) Service Manuals

The following items are part of the R1225 Transceiver Models:



The following items are optional:









GR1225 Repeater with Optional Desk

#### Date 1/9/06

### RADIUS GR1225™ REPEATER COMPATIBILITY CHART

Туре	GR1225 Desktop/Portable	GR300 Desktop/Portable	GR400 Rack Mount	RKR1225 Rack Mount	GR500 Wall Mount	GR500 X-Pand Wall Mount
Housing	Standard	Standard	Standard	Standard	Standard	Standard
Pow er Supply	Standard	Standard	Standard	Order Separately	Standard	Standard
Fan	Standard	Standard	Standard	Standard	Standard	Standard
Cables	Standard	Standard	Standard*	Order Separately	Standard	Order Separately
Shorting Plugs	Not Required	Standard	Standard	Not Required	Standard	Not Required
Battery Revert	Order Separately	Order Separately	Order Separately	Order Separately	Standard	Standard
Duty Cycle at 25W	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Duty Cycle at 40/45W	-	20%	20%	-	50%	-
Duty Cycle at 45/50W	50%	-	-	50%	-	50%
Service Manual	Standard**	Standard***	Standard†	Standard††	Standard***	Standard††
Programming Guide	In RSS help screens	Standard	Order Separately	In RSS help screens	Standard	In RSS help screens

<sup>\*</sup> Cables are included in the HLN9612 mounting bracket kit which must be purchased separately for use with all controllers except the "Enhanced" SmarTrunk II™ Repeater Controller (HLN3104)

<sup>\*\*</sup> The GR1225 models include the R1225 (6880905Z53) and the GR1225 (6880904Z90) service manuals which contain assembly instructions and schematics.

<sup>\*\*\*</sup> The GR300/GR500 models include the GR300/GR500 Service Manual (6880903Z42) which contains assembly instructions and schematics.

<sup>†</sup> The GR400 comes standard with assembly instructions (6880904Z31) only. For power supply schematics, please order the GR300/GR500 service manual (6880903Z42) separately.

<sup>††</sup> The GR400/GR500 X-Pand (6880905Z54) and R1225 (6880905Z53) service manuals are included in the HLN3100 retrofit kit w hich must be ordered separately and is required for operation with the GR400/GR500 X-Pand housings.

### RADIUS GR1225™ REPEATER FACTORY ASSEMBLED MODELS

#### Date 1/9/06

MODEL NUMBER DESCRIPTION MANUF.SUGG.RETAIL PRICE

Factory assembled models are UL/ULC listed and meet all the requirements of UL813. Components purchased separately do not meet UL813 requirements. If your application requires your equipment to be UL listed, then you must order the factory assembled models.

Step One: (Required)

#### Select One (1) of the following Factory Assembled Repeater Models

These models include an external duplexer/antenna cable. Required when using separate transmit and receive antennas or duplexers that do not fit into the GR1225 housing.

H5165	VHF 1-10 Watt, GR1225 Repeater 146-174 MHz	\$1,473.00
H5158	VHF 25-50 Watt, GR1225 Repeater 146-174 MHz	\$1,655.00
H5164	UHF 1-10 Watt, GR1225 Repeater 444-474 MHz	\$1,545.00
H5157	UHF 25-45 Watt. GR1225 Repeater 444-474 MHz	\$1.727.00

#### Step Two: (Optional/Required - See Below)

#### Select cable option: (if required)

G320 Internal Duplexer & Antenna Cable Kit N/C

Required when using duplexers.

STDCBL0780 External Duplexer & Antenna Cable Kit N/C

(required when using separate transmit & receive antennas or duplexers that do not fit into the GR1225 housing)

Step Three: (Optional)

All duplexers have female type "N" connectors.

#### Select One (1) Tuned Duplexer (5 Days ARO) - Specify frequency for tuning.

HFD8465 VHF Duplexer, 150-160 MHz (requires Internal Duplexer & Antenna Cable Kit - \$393.00

minimum & maximum freq. separation is 4.5 MHz/6 MHz)

Note: To order this Duplexer TUNED, call Dealer Support Services to place your order

at 800-927-2744, Prompt 1, 1.

TDE7780 UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit - \$385.00

minimum & maximum frequency separation is 5 MHz)

#### OR

#### Select One (1) Untuned Duplexer - Requires tuning in the field.

#### **VHF - Duplexers**

HFD8188	VHF Duplexer, 144-155 MHz (minimum & maximum freq. separation 4.5 MHz/6 MHz)	\$433.00
HFD8189	VHF Duplexer, 155-162 MHz (minimum & maximum freq. separation 4.5 MHz/6 MHz)	\$486.00

#### **UHF - Duplexers**

HFE8400	UHF Duplexer, 406-450 MHz (minimum & maximum freq. separation 5 MHz)	\$390.00
RFE4000	UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit)	\$365.00

#### Step Four: (Optional & Dealer Installed)

The R1225 repeater transceiver includes Basic Repeater Functionality. If enhanced features such as multiple PL codes, interconnect, signalling and trunking are required, please select the appropriate controller and cables from page 5.

#### Step Five: (Optional & Dealer Installed)

If the repeater is to be used in a high RF environment, an externally mounted preselector may be desired. See page 5 for preselector kits.

For other optional accessories, see page 5.

#### RADIUS GR1225™ REPEATER DEALER ASSEMBLED MODELS

\$567.00

Date 7/3/06 (SEPARATE COMPONENTS)

MODEL NUMBER DESCRIPTION MANUF.SUGG.RETAIL PRICE

Components purchased separately do not meet UL813 requirements. If your application requires your equipment to be UL listed, then you must order the Factory Assembled models on page 3.

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OLED	Olie.	IIXEUUII EU <i>i</i>	

#### Select One (1) Repeater Transceiver Model

M03GRC90C2_A VHF 1-10 Watt, R1225 Repeater Transceiver 146-174 MHz	\$836.00
M43GRC90C2_A VHF 25-50 Watt, R1225 Repeater Transceiver 146-174 MHz	\$1,018.00
M04GRC90C2_A UHF 1-10 Watt, R1225 Repeater Transceiver 444-474 MHz	\$909.00
M44GRC90C2_A UHF 25-45 Watt, R1225 Repeater Transceiver 444-474 MHz	\$1,091.00

#### Step Two: (Required)

#### Select One (1) Repeater Housing.

HLN3037 GR1225 Repeater Housing (includes GR1225 & R1225 Service Manuals)

#### Step Three: (Optional)

All duplexers have female type "N" connectors.

#### Select One (1) Tuned Duplexer (5 Days ARO) - Specify frequency for tuning.

HFD8465 VHF Duplexer, 150-160 MHz (requires Internal Duplexer & Antenna Cable Kit \$393.00

minimum & maximum freq. separation is 4.5 MHz/6 MHz)

Note: To order this Duplexer TUNED, call Dealer Support Services to place your order

at 800-927-2744, Prompt 1, 1.

TDE7780 UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit - \$385.00

minimum & maximum frequency separation is 5 MHz)

#### OR

#### Select One (1) Untuned Duplexer - Requires tuning in the field.

#### **VHF - Duplexers**

HFD8188	VHF Duplexer, 144-155 MHz (minimum & maximum freq. separation 4.5 MHz/6 MHz)	\$433.00
HFD8189	VHF Duplexer, 155-162 MHz (minimum & maximum freq. separation 4.5 MHz/6 MHz)	\$486.00

#### **UHF - Duplexers**

HFE8400	UHF Duplexer, 406-450 MHz (minimum & maximum freq. separation 5 MHz)	\$390.00
RFE4000	UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit)	\$365.00

#### Step Four: (Required - please choose 1)

#### Select One (1) Duplexer / Antenna Cable Kit

HKN9026 GR1225 External Duplexer & Antenna Cable - Required when using separate \$81.75

transmit and receive antennas or duplexers that do not fit into GR1225 housings.

HKN9235 GR1225 Internal Duplexer & Antenna Cable Kit (required when using an internal duplexer) \$42.75

#### Step Five: (Optional)

#### Select an Antenna - See Page 5 or RPSD for additional antennas.

#### Step Six: (Optional)

The R1225 Repeater Transceiver includes Basic Repeater functionality. If enhanced features such as multiple PL codes, interconnect, signalling and trunking are required, please select the appropriate controller and cable from page 5

#### Step Seven: (Optional)

If the repeater will be used in a high RF environment, an externally mounted preselector may be desired. See page 5 for preselector kits.

For other optional accessories, see page 5.

### RADIUS GR1225™ REPEATER ACCESSORIES

#### Date 7/28/06

MODEL NUMBER	DESCRIPTION MANUF.SUG	G.RETAIL PRICE
Service inform	ontroller: All the controllers require the HKN9234 controller cable kit.  ation is in the Service Manuals that ship with the controllers and RSS programming information is in the RSS manuals  bart of the Radius RSS Subscription program.	
HLN8388	ZR310 Multiple Tone Community Repeater Controller Provides up to 50 PL and 20 DPL single code or cross code combinations for multiple group repeater operations, remote knock-down / set-up, uni/bi-directional capabilities and continuous wave identification.	\$801.00
HLN9119	ZR340 Advanced Interconnect Controller Provides advanced interconnect capabilities including password driven access and disconnect codes, customized toll restrict and toll restrict bypass. Does not use RSS Programming done via DTMF parameters.	\$765.00
HKN9234	Controller Cable Kit	\$67.75
These preseled	To order these Preselectors UN-TUNED, order directly through RPSD.  tors must be mounted externally when using a GR1225 Repeater. All preselectors have female type  s. A dealer supplied type "N" male to male connector is required for proper operation. The length pends on your application. Call RPSD at 847-538-0021 to find a cable for your individual application.	
HFD8461	VHF Preselector, 144-160 MHz	\$336.00
	=	
HFD8462	VHF Preselector, 160-174 MHz	\$336.00
HFE8459	UHF Preselector, 440-474 MHz	• • • • • • • • • • • • • • • • • • • •
	UHF Preselector, 440-474 MHz essories:	• • • • • •
HFE8459	UHF Preselector, 440-474 MHz	\$336.00
HFE8459 General Acc	UHF Preselector, 440-474 MHz essories:	\$336.00 \$129.00
HFE8459 General Acc HLN9455	UHF Preselector, 440-474 MHz essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger	\$336.00 \$129.00 \$201.60
HFE8459  General Acc  HLN9455  HPN9033	UHF Preselector, 440-474 MHz  essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger  CDR700, GR1225 & RKR1225 Power Supply	\$336.00 \$129.00 \$201.60 \$120.00
HFE8459 General Acc HLN9455 HPN9033 RMN5068	UHF Preselector, 440-474 MHz  essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes	\$336.00 \$129.00 \$201.60 \$120.00
HFE8459  General Acc  HLN9455  HPN9033  RMN5068  HLN9457	UHF Preselector, 440-474 MHz  essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes	\$336.00 \$129.00 \$201.60 \$120.00
General Acc HLN9455 HPN9033 RMN5068 HLN9457 Antennas: RDD4527 RDE4556	essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)  VHF 3dB Gain Antenna, 150-158 MHz UHF 3.8dB Gain Antenna, 450-470 MHz	\$336.00 \$129.00 \$201.60 \$120.00 \$6.95
General Accordance HLN9455 HPN9033 RMN5068 HLN9457  Antennas: RDD4527 RDD4527 RDE4556 Lightning Pr	UHF Preselector, 440-474 MHz  essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)  VHF 3dB Gain Antenna, 150-158 MHz UHF 3.8dB Gain Antenna, 450-470 MHz  rotection Recommendation Accessories:	\$336.00 \$129.00 \$201.60 \$120.00 \$6.95
General Acc HLN9455 HPN9033 RMN5068 HLN9457  Antennas: RDD4527 RDE4556 Lightning Pr Phone/Remo	UHF Preselector, 440-474 MHz  essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)  VHF 3dB Gain Antenna, 150-158 MHz UHF 3.8dB Gain Antenna, 450-470 MHz  rotection Recommendation Accessories:	\$336.00 \$129.00 \$201.60 \$120.00 \$6.95 \$327.00
HFE8459  General Acc HLN9455 HPN9033 RMN5068 HLN9457  Antennas: RDD4527 RDE4556 Lightning Pr Phone/Remo	UHF Preselector, 440-474 MHz  essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)  VHF 3dB Gain Antenna, 150-158 MHz UHF 3.8dB Gain Antenna, 450-470 MHz  rotection Recommendation Accessories:	\$336.00 \$129.00 \$201.60 \$120.00 \$6.95
HFE8459  General Acc HLN9455 HPN9033 RMN5068 HLN9457  Antennas: RDD4527 RDE4556 Lightning Pr Phone/Remo	UHF Preselector, 440-474 MHz  essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)  VHF 3dB Gain Antenna, 150-158 MHz UHF 3.8dB Gain Antenna, 450-470 MHz  rotection Recommendation Accessories:  Single Line Suppressor	\$336.00 \$129.00 \$201.60 \$120.00 \$6.95 \$327.00 \$270.00
HFE8459 General Acc HLN9455 HPN9033 RMN5068 HLN9457 Antennas: RDD4527 RDE4556 Lightning Pr Phone/Remo	essories:  CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger CDR700, GR1225 & RKR1225 Power Supply Desk Microphone, Black Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)  VHF 3dB Gain Antenna, 150-158 MHz UHF 3.8dB Gain Antenna, 450-470 MHz rotection Recommendation Accessories:  ote Line Suppressors: Single Line Suppressor  le In-Line Arrestors:	\$336.00 \$129.00 \$201.60 \$120.00 \$6.95 \$327.00 \$270.00

For pricing and ordering information refer to pages within this section.

#### RADIUS GR500 X-PAND™ and RKR1225™ REPEATER HOUSINGS

#### Date 7/3/06

MODEL NUMBER DESCRIPTION MANUF.SUGG.RETAIL PRICE GR500 X-PAND WALL MOUNT REPEATER

RKR1225 RACK MOUNT REPEATER HOUSING



HLN3254





The R1225 Repeater Transceiver is compatible with RKR1225 and GR500 repeater housings. The following

ordering steps should be followed to ensure that everything is ordered for complete operation.

Step One: (Required)

Select One (1) X-Pand Repeater Housing. These housings are not compatible with GM300 Mobiles.

HLN3254 RKR1225 Rack Mount Repeater Housing

\$595.00 Includes Control Head, Fan Kit & Cables (does not include HPN9033 power supply)

HLN3103 GR500 X-Pand Wall Mount Repeater Housing \$520.00

Step Two: (Required)

Select One (1) R1225 Repeater Transceiver.

M03GRC90C2 A VHF 1-10 Watt, R1225 Repeater Transceiver 146-174 MHz \$836.00 M43GRC90C2\_A VHF 25-50 Watt, R1225 Repeater Transceiver 146-174 MHz \$1,018.00 M04GRC90C2\_A UHF 1-10 Watt, R1225 Repeater Transceiver 444-474 MHz \$909.00 M44GRC90C2\_A UHF 25-45 Watt, R1225 Repeater Transceiver 444-474 MHz \$1,091.00

Step Three: (Required for GR500 Only)

Select Conversion Kit for GR500

HI N3100 Conversion Kit - this kit enables use of the R1225 transceiver with any \$113.00

of the HLN9117, HLN3102, HLN3103 GR400 & GR500 housings &

6880905Z53 & 6880905Z54 Service Manuals included

Step Four: (Optional)

All duplexers have female type "N" connectors.

Select One (1) Tuned Duplexer (5 Days ARO) - Specify frequency for tuning.

HFD8465 VHF Duplexer, 150-160 MHz (requires Internal Duplexer & Antenna Cable Kit -\$393.00

minimum & maximum freq. separation is 4.5 MHz/6 MHz)

Note: To order this Duplexer TUNED, call Dealer Support Services to place your order

at 800-927-2744, Prompt 1, 1.

TDE7780 UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit -\$385.00

minimum & maximum frequency separation is 5 MHz)

OR

Select One (1) Untuned Duplexer - Requires tuning in the field.

VHF - Duplexers

HFD8188 \$433.00 VHF Duplexer, 144-155 MHz (minimum & maximum freq. separation 4.5 MHz/6 MHz) HFD8189 VHF Duplexer, 155-162 MHz (minimum & maximum freq. separation 4.5 MHz/6 MHz) \$486.00

**UHF - Duplexers** 

UHF Duplexer, 406-450 MHz (minimum & maximum freq. separation 5 MHz) \$390.00 HFE8400 UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit) \$365.00

**Duplexer Cables** 

RFE4000

GR400 & GR500 Internal Duplexer & Antenna Cable - Required for use with duplexers. HKN9025 \$46.50 HKN9016 GR400 & GR500 External Duplexer & Antenna Cable - Required when using separate \$48.50

transmit and receive antennas or duplexers that do not fit into GR400 & GR500 housings.

HKN9035 Internal Duplexer cables for RKR1225 \$55.25 HKN9034 External Duplexer cables for RKR1225 \$55.25

See the next page for additional steps.

### RADIUS GR500 X-PAND™ and RKR1225™ REPEATER HOUSINGS

Date 1/9/06

MODEL NUMBER DESCRIPTION MANUF.SUGG.RETAIL PRICE

The R1225 Repeater Transceiver is compatible with RKR1225 and GR500 repeater housings. The following ordering steps should be followed to ensure that everything is ordered for complete operation.

Step Five: (Optional)

Select an Antenna

Step Six: (Optional)

The R1225 repeater transceiver includes Basic Repeater Functionality. If enhanced features such as multiple PL codes, interconnect, signalling and trunking are required, please select the appropriate controller and cables.

Step Seven: (Optional)

If the repeater will be used in a high RF environment, a preselector may be required. See preselector kits.

Repeater Controller Accessories: Except where noted, all the controllers require the HKN9234 controller cable kit. Service information is in the Service Manuals that ship with the controllers and RSS programming information is in the RSS manuals that ship as a part of the Radius RSS Subscription program.

HLN9119 ZR340 Advanced Interconnect Controller

\$765.00

Provides advanced interconnect capabilities including password driven access and disconnect codes, customized toll restrict and toll restrict bypass. Does not use RSS.

Programming done via DTMF parameters.

Control	ller Cab	De.
COILLO	iiei Cabi	<b>C</b> 3.

HKN9040 RKR1225 Internal Controller Cable \$125.00
HKN9234 Controller Cable Kit (required for HLN9119) \$73.00

Preselectors: - To order these Preselectors TUNED, call Dealer Support Services to place your order at 800-927-2744, Prompt 1, 1. To order these Preselectors UN-TUNED, order directly through RPSD.

These preselectors must be mounted externally when using a GR1225 Repeater. All preselectors have female type N connectors. A dealer supplied type "N" male to male connector is required for proper operation. The length of the cable depends on your application. Call RPSD at 847-538-0021 to find a cable for your individual application.

HFE8459	UHF Preselector, 440-474 MHz	\$336.00
HFD8462	VHF Preselector, 160-174 MHz	\$336.00
HFD8461	VHF Preselector, 144-160 MHz	\$336.00

Antennas:

 RDD4527
 VHF 3dB Gain Antenna, 150-158 MHz
 \$327.00

 RDE4556
 UHF 3.8dB Gain Antenna, 450-470 MHz
 \$270.00

General Accessories:

HLN9455	CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger	\$129.00
HLN9169	CDR500 & GR500 Wall & 19" Panel Mount	\$50.00
HPN9005	CDR500 & GR500 Power Supply	\$492.00
HLN9242	16-Pin Accessory Kit with Expanded Connector (kit allows existing 16 pin connector accessories to be modified for enhanced connector reliability)	\$5.65
HMN1037	Non-Backlit Touch-Code Microphone with Hang-Up Clip	\$155.00
HMN3000	Desk Microphone, Black	\$120.00
HLN9457	Hardware Kit for use with the Expanded Accessory Connector (includes	\$6.95
	16 connector pins, five (5) 8" wires with pins attached and an extra housing)	

#### Desktop Controllers and Remote Adapters:

For pricing and ordering information refer to pages within this section.

#### **Lightning Protection Recommendations Accessories:**

#### **Phone/Remote Line Suppressors:**

RRX4021 Single Line Suppressor \$50.00

#### **Coaxial Cable In-Line Arrestors:**

 RRX4025
 Type "N" Connector
 \$65.00

 RRX4032
 Tower Mounting Hardware
 \$15.00

### RADIUS 100 WATT REPEATER Dealer Assembled Model

Date 5/26/06

MODEL NUMBER DESCRIPTION MANUF.SUGG.RETAIL PRICE

R1225 REPEATER TRANSCEIVER



RKR1225 RACK MOUNT REPEATER HOUSING



M04GRC90C2 A

HLN3254

Step One: (Required)

Order Repeater Transceiver Model.

M03GRC90C2\_A VHF 1-10 Watt, R1225 Repeater Transceiver 146-174 MHz \$836.00 M04GRC90C2\_A UHF 1-10 Watt, R1225 Repeater Transceiver 444-474 MHz \$909.00

Step Two: (Required)

Order Repeater Housing.

HLN3254 RKR1225 Rack Mount Repeater Housing \$595.00

Includes Control Head, Fan Kit & Cables (does not include HPN9033 power supply).

Step Three: (Required)

Order Duplexer/Antenna Cable Kit.

VHF Duplexers:

RDD4901 Compact Band Pass / Band Reject Base Station Duplexer that is rack mountable. \$1,742.00 138-174 MHz, 350W, Insertion Loss Tx/Rx (dB): 1.5dB / 1.5dB, Min Separation

Tx-Rx (MHz): 0.5 MHz (500kHz), Isolation Tx/Rx side (dB): 85dB @ 500kHz.

RDD4908 Compact Band Pass / Band Reject Base Station Duplexer that is rack mountable. \$1,276.00

138-174 MHz, 350W, Insertion Loss Tx/Rx (dB): 1.5dB / 1.5dB, Min Separation Tx-Rx (MHz): 0.5 MHz (500kHz), Isolation Tx/Rx side (dB): 70dB @ 500kHz.

RDD4717 Compact Band Pass / Reject Base Station Duplexer that is rack mountable. \$1,240.00

144-174 MHz, 120W, Insertion Loss Tx/Rx (dB): 0.8dB / 0.8dB, Min Separation Tx-Rx (MHz): 0.5 MHz (500kHz), Isolation Tx/Rx side (dB): 80dB @ 500kHz.

**UHF Duplexers:** 

RDE4672 Compact Notch Duplexer, with low loss and brass construction. \$1,012.00

435-470 MHz, 100W, Insertion Loss Tx/Rx (dB): 1.2dB / 1.2dB, Min Separation Tx-Rx (MHz): 5 MHz, Isolation Tx/Rx side (dB): 75dB.

will Separation 1x-RX (winz). 5 winz, isolation 1x/RX side (db). 75db.

RDE4830 Modular Q-Circuit Band Pass / Reject Duplexer that is rack \$968.00

mountable. 406-512 MHz, 125W, Insertion Loss Tx/Rx (dB): 0.8dB / 0.8dB, Min Separation Tx-Rx (MHz): 5 MHz, Isolation

Tx/Rx side (dB): 75dB.

RDE4835 Modular Q-Circuit Band Pass / Reject Duplexer that is rack \$1,450.00

mountable. 406-512 MHz, 125W, Insertion Loss Tx/Rx (dB): 1.2dB / 1.2dB, Min Separation Tx-Rx (MHz): 5 MHz, Isolation

Tx/Rx side (dB): 85dB.

Cable Kit:

HKN9034 External Duplexer cables for RKR1225 \$55.25

See next page for additional steps.

#### **RADIUS 100 WATT REPEATER**

#### Date 5/26/06

RLN4822

#### **Dealer Assembled Model**

MODEL NUMBER	R DESCRIPTION	MANUF.SUGG.RETAIL PRICE
Step Four:	(Required)	
Select Pow	ver Amplifier.	
RDD4638	TPL Power Amplifier (136-174 MHz) 10W in & 100W out, includes fan and 25 amp power supply with	\$1,606.00

LTR® panel and receiver multicoupler if required.

TPL Power Amplifier (450-470 MHz)

\$1,575.00

10W in/100W out, includes fan and 25 amp power supply with external 4 amp connection to power R1225 1-10W transceiver &

external 4 amp connection to power R1225 1-10W transceiver &

LTR® panel and receiver multicoupler if required.

#### Step Five: (Required)

#### Order One (1) R1225 Transceiver and Fan Power Cable and One (1) Transmitter Cable.

3080384H06 R1225 Transceiver and Fan Power Cable, terminations: ring terminals for \$28.00

connection to power amplifier power supply external 4 amp

connection, R1225 power & fan connector.

3080384H84 Transmitter Cable, connects R1225 transmitter output to power amplifier input, \$25.00

2 Ft. long RG142 coax cable, N male terminations.

#### Step Six: (Optional)

Select the appropriate Controller Panel if required. See GR1225 Repeater Accessories for a complete listing.

#### Step Seven: (Optional)

Order a Site Modem - Contact RPSD for Modem Accessories.

#### Step Eight: (Optional)

Select an Equipment Rack and Rack Accessories. Contact RPSD for additional accessories.

#### Step Nine: (Optional)

Select a Base Station Antenna. See accessories within this section or contact RPSD.

#### Step Ten: (Optional)

Select Transmission Line, Connectors and Accessories. See accessories within this section or contact RPSD.

#### Step Eleven: (Optional)

Select Surge Protection Equipment. Contact RPSD for Surge Protection accessories.

NOTE: Consult your Area Distribution Manager for master antenna systems (transmitter combiner/receiver multicoupler) solutions.

### RADIUS 100 WATT REPEATER ACCESSORIES

#### Date 5/26/06

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
Miscellaneous	Accessories:	
4280393A44	4" Long Black Cable Ties, 100 pack	\$2.20
4280393A46	8" Long Black Cable Ties, 100 pack	\$4.45
Omnidirection	nal Antennas:	
RDD4379	148-150.8 MHz, 3dB Gain with Max power 350W - Termination N Male++ (ASP-A680) - includes mounting hardware (2 of ASPR616)	\$499.00
RDD4380	150.8-153 MHz, 3dB Gain with Max power 350W - Termination N Male++ (ASP-B680) - includes mounting hardware (2 of ASPR616)	\$499.00
RDD4381	153-156.2 MHz, 3dB Gain with Max power 350W - Termination N Male++ (ASP-C680) - includes mounting hardware (2 of ASPR616)	\$499.00
RDD4382	157-160 MHz, 3dB Gain with Max power 350W - Termination N Male++ (ASP-D680) - includes mounting hardware (2 of ASPR616)	\$499.00
Directional Ar	itennas:	
RDD4836	136-150 MHz, 9.2dB Gain with Max power 500W - Termination N Female (Y1365) - includes mounting bracket	\$210.00
RDD4837	150-174 MHz, 9.2dB Gain with Max power 500W - Termination N Female (Y1365) - includes mounting bracket	\$210.00
RDD4435	150-160 MHz, 9.5dB Gain with Max power 350W - Termination N Male (DB292A) - includes galvanized steel clamps	\$670.00
RDD4436	155-164 MHz, 9.5dB Gain with Max power 350W - Termination N Male (DB292A) - includes galvanized steel clamps	\$670.00
RDD4437	164-174 MHz, 9.5dB Gain with Max power 350W - Termination N Male (DB292A) - includes galvanized steel clamps	\$670.00
Yagi Antennas	S:	
RDE4413	450-470 MHz, 10dBd Gain Antenna, 250W, N Male (Decibel DB436-C)	\$235.00
General Coax	Protection: (not for use where transmitter combining is performed)	
RRX4038	Polyphaser IS-B50LN-C2-MA, Frequency Range: 125-1000MHz, Through Put Energy: 220uJ, Max Power UHF 125W, N male antenna side/N female equip. side.	\$65.00
RRX4039	Polyphaser IS-B50HN-C2-MA, Frequency Range: 125-1000MHz, Through Put Energy: 800uJ, Max Power UHF 250W, N male antenna side/N female equip. side.	\$70.00

#### Date 1/9/06

#### MC1000™, MC2000™ & MC2500™ DESKTOP CONTROLLERS EXTENDED LOCAL, DC & TONE REMOTE CONTROL

#### All MC1000, MC2000 and MC2500 Models Include:

- Single Frequency Station Control (Local Model)
- 4 Frequency Station Control (Tone & DC Model)
- Push-to-Talk Handset
- 2 or 4 Wire
- LOTL/LOBL
- Black Color
- Volume Control / Transmit LED
- Monitor Switch
- 120V AC 60 Hz Power Supply
- Supervisory Takeover or Line Select (Tone/DC)
- Operator Cross Mute
- Intercom
- LTR® Compatible
- Service Manual
- One Year Warranty

#### MC2500 Only Additional Features:

- 4 Base Station Control Capable of controlling 4 Tone channels or 3 Tone channels and 1 DC channel.
- Also capable of E & M control on all channels. Use of a Tone or DC Remote Adapter is required when connected to a mobile in a tray.
- Connector for Unselect Speaker
- Individual Volume Control
- Dedicated Logging Recorder Output
- Radio Patch
- Multi Select
- Multi -Tasking
- All Mute



#### MC2000/MC2500 Additional Features:

- 18 Programmable Buttons
- 2 Line x 20 Character Backlit Display
- Multi-Frequency Capability up to 16 frequencies on Tone
- 110V/220V AC 50/60 Hz Power Supply
- MDC Features:
  - PTT Unit ID (Encode/Decode)
  - Voice Selective Call (Encode/Decode)
  - Call Alert/Short Call Alert (Encode/Decode)
  - Status Message (Decode)
  - Radio Enable/Disable (Encode)
  - Radio Check (Encode)
  - Emergency Alarm (Decode)
- Recent User Stack Last nine records are stored for review at any time.
- RS232 Port Allows RSS programming via computer or the logging of MDC1200 inbound/outbound Serial Printer Port activity for permanent record keeping on a serial printer.
- Paging Encode Allows you to selectively call a pager, portable, or mobile unit and eliminate the need to purchase a stand alone encoder. The following schemes are supported: QC II, 2 Tone, 5 Tone, 6 Tone, Digital Dial, Reach 1+1, GE 99, NEC 5 & 6, DTMF or Custom A and B tones.
- Aux I/O's
- Securenet Coded/Clear Operation Supports positive mode control (Tone)

#### Notes:

- 1) Intercom Allows communication between desksets without accessing the radio frequency
- 2) Up to 10 remotes can be used in parallel.
- 3) MC Series remotes are not compatible with 900 MHz MaxTrac Mobiles.
- 4) MC2000 and MC2500 units require RSS programming software.
- 5) MC2500 unselect speaker port supports a passive speaker only.
- 6) For unexpected out-of-box failures or quality issues, the MC Series and MC3000 must be returned for warranty repair. Please refer to the user's manual. Units will be replaced if they are sent in a total of 3 times and continue to exhibit the same problem.
- 7) For L3276 & L3277, radio interface cable not included. Must be ordered separately.

#### **Extended Local Control Model Only**

- If more than one L3211 or L3214 is used in parallel, the total distance of all parallel units cannot exceed 1000 Ft..

#### **DC and Tone Remote Control Models Only:**

- For DC and Tone Remote Control: If base is not remote capable, a Remote Adapter is required (see L3276 & L3277).
- The L3213 Desksets support channel steering between 4 talkgroups over conventional or LTR® Trunking Systems.
- The L3216 and L3217 Desksets support channel steering between 15 talkgroups over conventional or LTR® Trunking Systems.

MODEL NUMBER	DESCRIPTION	MANUF.SUGG RETAIL PRICE
L3211	MC1000 Extended Local Control Deskset - Single Frequency	\$285
L3212	MC1000 DC Remote Control - 4 Frequency Maximum, 2-Wire or 4-Wire	\$545
L3213	MC1000 Tone Remote Control - 4 Frequency Maximum, 2-Wire or 4-Wire	\$525
L3214	MC2000 Extended Local Control Deskset - Single Frequency	\$1,080
L3215	MC2000 DC Remote Control - 4 Frequency Maximum, 2-Wire or 4-Wire	\$1,360
L3216	MC2000 Tone Remote Control - 16 Frequency Maximum, 2-Wire or 4-Wire, Parallel Status Updatinç	\$1,280
L3217	MC2500 Multi-Channel Remote Control	\$2,482

### MC1000™, MC2000™ & MC2500™

#### DESKTOP CONTROLLERS

Date 7/3/06 **ACCESSORIES** 

MODEL NUMBER MANUF.SUGG.RETA		MANUF.SUGG.RETAIL PRICE
Tone & DC R	Remote Adapters - includes AC Power Supply (DDN7066) and Install/Service Ma	nual:
L3276	Tone Remote Adapter	\$655.00
L3277	DC Remote Adapter	\$512.00
General Acc	essories:	
DDN6516	Headset Jackbox - adds headset capacity	\$110.00
DDN6668	Single Footswitch	\$94.00
HLN9457	Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housin	\$6.95
Extended Lo	cal Control Accessories (for use with L3211 and L3214):	
DDN6337	Junction Box (order appropriate cable below) For connecting up to 6 local control desksets to the station	\$399.00
Radio Interfa	ace Cables (for use with DDN6337, L3276 and L3277):	
DDN6338	Radio Interface Cable (10 Ft.) for use with MaxTrac (16 pin accessory connector required), SM120™, M1225™, CDM750™, CDM1250™, CDM1550™ & CDM1550•LS+™	\$72.00
DDN6340	Generic Radio Cable (10 Ft.) - unterminated, bare leads (can also be used with L3217)	\$50.00
Field Install	Kits:	
DDN6481	Punch Block with Spark Gap (recommended)	\$405.00
DDN6341	110VAC Transformer for MC1000 models	\$49.00
DDN6342	110/220VAC - 50/60 Hz Power Supply for MC2000 and MC3000 models	\$169.00
DDN6339	110/220VAC - 50/60 Hz Power Supply for MC2500 models	\$198.00
DDN7066	110/220VAC - 50/60 Hz Power Supply for L3276 & L3277 Remote Adapters	\$155.00
Programmin	g (MC2000 and MC2500 Models Only):	
RVN4178	Radio Service Software (includes CD-ROM)	\$265.00
DDN6367	Radio Service Software Cable AT (DB9)	\$35.00

#### Section 2.0 - Fixed Stations - Page 1

#### Date 1/9/06

#### **SUGGESTED RETAIL**

#### Zetron Model 48-MAX Interconnected Repeater Panel Repeater Stations Only

#### Zetron Model 48 MAX model includes:

The Model 48-MAX can recognize and provide service up to 99 individual radio users based on their unique DTMF ANI codes and can further subdivide users into dispatch work groups using CTCSS tones and DCS codes. For use on repeater stations ONLY. Pre-wired station cables available for R1225 and MTR2000 repeaters. Other options include: Voice Prompts (maximum of 9 user recorded messages) and Dial Click Decode.

#### Model 48-MAX Features:

- Two End-to-End Telephone Inputs with Automatic Line Selection for Connection to Public Subscriber Lines or PABX Extensions
- One Local Telephone Input for Testing and for Connection to a DID Converter
- Radio to Telephone Access Based on DTMF ANI Only or Combined DTMF ANI Plus CTCSS/DCS
- · Billing Records per ANI
- · Accumulated Airtime
- · Radio Call Forwarding
- · One RS-232 Port
- Internal Modem
- · 99 Autodials

- · Call Alert Beeps
- · Four Different Ringout Sounds
- · Enhanced Toll Restriction
- PC-Programmable Database
- Full Range of Conversation Timers with Penalties
- 99 DTMF User Identities (ANI)
- 50 CTCSS, 104 DCS
- · 2-Tone, 5-Tone, DTMF Selective Calling
- Scheduled Telco Access to Prevent Interconnect During Certain Hours
- 19" Rack Mountable, One (1) RU (Rack Unit)
- · User / Install Manual
- EMC Approval, CE Conformity

L3251	Zetron Model 48-Max Interconnect Repeater Panel	\$1.995
MODEL	DESCRIPTION	RETAIL PRICE
		MANUF.SUGG.

Options:		
TT04024	Voice Prompts - for up to nine (9) owner-recordable messages	\$168.00
TT04027	Dial Click Decoder - to support rotary telephone systems	\$134.00
TT04025	Station Message Detail Report	\$168.00
TT04033	600 Ohm Balanced Audio	\$198.00
TT04034	Relays for PTT and Auxiliary Out	\$102.00
TT04035	Rack Extender Brackets	\$26.00
TT04037	Lightening Surge Arrestor	\$242.00
TT04036	Programming Kit - Cable and Z-Term Software	\$65.00
TT04028	Generic Radio Interface Cable	\$45.00
TT04029	Cable for GR300 & GR500	\$65.00
TT04030	Cable for GR1225	\$65.00
TT04031	Cable for MTR2000	\$285.00

Two-Way Branded

Section 2.0-Fixed-Page 2

Date 1/9/06

#### **MTR2000™**

#### Analog Conventional Base Stations & Repeaters

#### **General Information**

#### SUGGESTED RETAIL

#### **GENERAL INFORMATION:**

MTR2000 Literature: Product Planner (R4-2-97), VHF Catalog Sheet (MD-MTR-001), UHF Catalog Sheet (MD-MTR-002).

Station configuration depends upon band power selection. MTR2000 is available in both the VHF band and UHF band with power output ranges of 30, 40, and 100 watts.

The radio provides wireline control. It is capable of up to 32 transmit and receive frequencies; however, remote control access is limited to 14 channel operation. It is also capable of coded squelch (PL or DPL), variable time-out-timer, push to talk priority, repeater drop out delay. Base Station ID is included as a standard feature. These features ship in a preset condition but may be altered through the use of Radio Service Software. Base Stations may require an antenna relay, option X371. If the station is ordered as a repeater, it will support either two antenna connectors, or one connector if a duplex filtering option is ordered.

For VHF and UHF base stations, transmit and receive frequencies can be separated by the full frequency sub-band selected. If station is ordered with the high performance preselector, X265, receive frequencies can be separated up to 4.0 MHz without degradation of specifications. For repeater operation, transmit and receive frequencies can be separated by as little as 1.5 MHz for VHF and 5 MHz for UHF with the addition of a duplexer, X182. The duplexer will be factory tuned for single frequency operation only.

#### **ORDERING REQUIREMENTS:**

- 1. All orders must list the Radio Model as a Main line item (T5766).
- 2. You must select a power level by option. The station configuration will be determined by this option. Specify one transmit & one receive frequency for factory tuning. For VHF band (132 174 MHz) only, with conventional operation, the radio will accept any frequency divisible by 2.5 / 5.0 / 6.25 kHz. For VHF band in the trunking mode of operation, the frequencies must be divisible by 5.0 or 6.25 kHz. For other frequency bands, in either mode, the frequency must be divisible by 5.0 or 6.25 kHz.
- 3. If the transmit frequency is between 150.0 MHz and 154.0 MHz, the upper band (150-174 MHz) transmitter will be supplied. If 132-154 MHz transmit frequencies are required, and the frequency is in the overlap area, order option X325. If the receive frequency is between 150.0 MHz and 154.0 MHz, the upper band (150-174 MHz) receiver will be supplied when the high performance preselector is ordered. If 132-154 MHz receive frequencies are required, and the frequency is in the overlap area, order option X326.
- 4. You must select a Conventional Operation System Software Option (X597).
- 5. You must specify either Base Station Operation (X622) or Repeater Operation (X580). If the repeater operation is ordered, the transmit receive frequencies cannot be equal. NOTE: Base station operation does not include an antenna relay. If antenna relay is required, order option X371.
- 6. ALL STATIONS SHIP UNCONFIGURED AND MUST BE FIELD PROGRAMMED with the latest version of Radio Service Software (RSS) to alter the Communication Channel functions and to input the Transmit and Receive Frequencies within the specified range selected. NOTE: RSS REQUIRES MICROSOFT WINDOWS 3.1 OR WINDOWS '95 FOR OPERATION.
- 7. MTR2000 stations ship in a specially designed shipping box. You must order a cabinet or rack option if you require an external double circulator to be mounted at the factory. To rack mount the station, order appropriate rack configuration from MTR2000 rack options. To rack mount a station in an existing or customer supplied rack, order Field Installed Rack Mount Configuration hardware (CLN6679-RPSD).
- 8. Stand alone stations will ship in shipping box using carrier specified on order. Stand alone stations can be ordered with a duplexer. All stations ordered in a cabinet or rack ship via electronic van unless otherwise specified. MTR2000 stations with Rack Mount options cannot be shipped via Air Freight; specify surface transportation or order in a cabinet.
- 9. See product catalog sheets for FCC information.

Date 1/9/06

#### MTR2000

#### **Analog Conventional**

#### **Base Stations & Repeaters**

#### VHF 136 - 174 MHz / UHF 403-470 MHz

#### **SUGGESTED RETAIL**

#### **BASIC PACKAGE INCLUDES:**

- MTR2000 stations are cabinet and rack-mountable and ship standard in a shipping box
- MTR2000 utilizes a switching power supply (85-264VAC, 47-63 Hz)
- Tone Remote Control Only
- 4 Wire Audio
- 1.5 PPM Frequency Stability (VHF/UHF)

- Single Circulator (100 Watts)
- Double Internal Circulator (30 Watts)
- 32 Channel Operation (Tone Remote Control Access Limited to 14 Channels)
- Type "N" Antenna Connectors for TX/RX
- Continuous Duty Cycle Operation
- Programmable Channel Selection (12.5/20/25 kHz)
- Installation and Operational Manual

		MANUF.SUGG.
MODEL	DESCRIPTION	RETAIL PRICE
T5766	MTR2000 Station & Repeater Model	\$1,020

#### NOTE: MUST ORDER ONE EACH OF THE FOLLOWING OPTIONS BELOW:

- Power Option
- System Software Option
- Station Operation Option

	MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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#### • SELECT ONE VHF OR UHF POWER OPTION:

X345	132-174 MHz 30 - 1 Watt (Includes double internal circulator)	\$1,515.00
X330	132-174 MHz 40 - 1 Watt	\$1,190.00
X530	132-154 MHz (Range 1) or 150-174 MHz (Range 2) 100 - 25 Watts (includes single internal circulator)	\$1,785.00
X341	403-470 MHz 30 - 2 Watts (Includes double internal circulator)	\$2,895.00
X340	403-470 MHz 40 - 2 Watts	\$2,575.00
X540	403-435 MHz or 435-470 MHz 100 - 25 Watts (Incl's single internal circulator)	\$3,175.00

#### SELECT SYSTEM SOFTWARE OPTION:

	System Software Option	
	This option is required for each base station or repeater that is ordered. Does not include RSS.	
	X597 Conventional Operation	\$2 975 00

#### • SELECT ONE STATION OPERATION OPTION:

Station Operation Option - SELECT ONE		
peater Operation (Tx = Rx)	N/C	
se Station Operation (Does not include Antenna Relay. If required, ler option X371.)	N/C	
pe se	eater Operation (Tx = Rx) e Station Operation (Does not include Antenna Relay. If required,	

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X327

#### MTR2000 **Analog Conventional**

**Base Stations & Repeaters** 

SUGGESTED RETAIL

N/C

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
VHF Sub-Bar	nd Overlap - Applies to 100W Stations Only:	
X325	TX Frequencies Range I - For overlap frequencies between 150.800-154.000 MHz.	N/C
X326	Rx Frequencies Range I - For use with high performance preselector X265 - For overlap frequencies between 150.800 - 154.000 MHz.	N/C
Primary Volta	age:	
X121	DC Only Operation - Required for DC power source operation.  14.2 VDC source at 15 amps for 30 & 40 Watt models and 28.6 VDC @  15 Amps source for 100W models. NOTE: NEGATIVE GROUND ONLY.	N/C
Battery Reve	rting Chargers:	
See Section 2.0	) - Page 10	
Peripherals:		
X265	High Performance Preselector - Recommended for dense RF site applications. For multiple channel operation the receiver frequency separation cannot be greater than 4.0 MHz. VHF preselector ranges are 132-154 and 150-174 MHz. Order Low Range Descriptor, X326, if frequencies fall into overlap range stated above and the lower range is desired. UHF preselector ranges are 403-433 and 433-470 MHz.	\$300.00
X182	Factory Installed Duplexer - Allows a single pair of transmit and receive channels to share a common antenna. Sub-band breaks and Tx to Rx frequency separation is as follows: VHF:132-146, 144-160, 158-174MHz; Tx to Rx > 1.5 MHz. UHF: 403-433, 438-470MHz; Tx to Rx = 5 MHz. If frequencies fall into the VHF overlap ranges stated above and the lower range is desired, order Low Range Descriptor option, X327. NOTE: A duplexer can be ordered without a cabinet or rack.	\$1,380.00
X676	External Double Circulator Operation - Sub-band breaks as follows: 132-146, 144-160, 158-174, 403-470 MHz. Order Low Range Descriptor Option, X327, if frequencies fall into VHF overlap ranges stated above and the lower range is desired. Also includes a Low Pass Filter and RF peripheral tray to	\$1,600.00

**OPTIONS** 

X371 \$250.00 Base Station Antenna Relay (not standard with main model) Remote Control:

accommodate the external double circulator. Requires that a cabinet or rack is ordered.

Low Range Descriptor (Order when frequencies on duplexers or circulators

fall into the VHF sub-band overlap and the lower frequency range is required).

X84 Omit Wireline Remote Control - For stand alone repeater operations. -\$200.00 X269 Spectra-TAC Capability - Not compatible with X84 \$150.00

Date 1/9/06

#### MTR2000

### Analog Conventional Base Stations & Repeaters

#### **SUGGESTED RETAIL**

**OPTIONS** 

MODEL NUMB	ER DESCRIPTION	MANUF.SUGG.RETAIL PRICE
General O	ptions:	
X747	External Reference Capability - Adds external reference cable.	\$50.00
C540	System Connector Cable Kit - provides a housing shell to connect to the 96 pin backplane connector, 30 loose pins, 30 of 24 gauge, 2 meter long wires with a pin for header on one end and unterminated at the other end. Allows user to create customized cable depending on application.	\$50.00
X233	Wild Card Operation - Provides a utility that allows the user to affect a station's functions by asserting external inputs to the station and/or by monitoring station states. Requires X151 (Auxiliary Input & Output). Also requires System Connector Cable Kit (C540).	\$200.00
X151	Auxiliary Input & Output - Provides the hardware and software needed for COR Relay and RA/RT. Requires System Connector Cable Kit (C540).	\$600.00
C753	Main Standby Operation - Provides console TRC control, external closure or hot switchover. Requires Auxiliary Input & Output (X151) and System Connector Cable Kit (C540).	\$400.00
	ptions: Cabinets apply to MTR2000. Replaces standard shipping box. Allow space for swhen determining cabinet size. See Product Planner for Thermal Considerations.	
X52	30" Indoor Cabinet	\$360.00
X308	46" Indoor Cabinet	\$630.00
X180	60" Indoor Cabinet	\$880.00
X968	Slide Rails - Motorola Cabinet - When ordering this option for field install in a cabinet, additional cabinet rails are required. See Product Planner for details.	\$100.00
X346	Slide Rails - Non-Motorola Cabinet	\$150.00
an open ra	ons: Replaces standard shipping box. Racks may be stacked to heights equal to ick. These stackable racks are recommended for all rack mounted systems going throug See Product Planner R4-2-97 for details. Mounting hardware is included.	yh
X741	30" Modular Rack - 16 Rack Units	\$200.00
X742	45" Modular Rack - 24 Rack Units	\$225.00
X743	52" Modular Rack - 27 Rack Units	\$250.00
Manuals:		
X436	MTR2000 Instruction & Field Service Manual - Provides information to service station to the FRU level.	\$50.00
X287	Omit Install and Operational Manual - This option deletes the standard manual included with every station. This option is recommended when multiple stations will be used at the same site and one manual per station is not needed.	-\$15.00

Two-Way Branded

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3082056X02

Cable for Radio Service Software

#### MTR2000 Analog Conventional Base Stations & Repeaters ACCESSORIES

\$50.00

#### SUGGESTED RETAIL

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE	
Kit & Access	ories: VHF MTR2000 Field Replaceable Units (FRUs)		
All Field Repla	cement Units (FRUs) are available through Customer Care and Service Division (RPSD) 1-	800-927-2744.	
Service Acce	Service Accessories:		
HSN1000	6 Watt Amplified External Speaker	\$109.00	
0185180U01	Cable for External Speaker	\$17.25	
GMN6147	Local Test Microphone	\$70.50	
Radio Service Software (RSS):			
RVN4148	Radio Service Software (includes 3.5" disk & manual) NOTE: RSS requires Microsoft Windows 3.1 or Windows '95 for operation.	\$278.00	

Date 1/9/06

#### MTR2000

### Analog Conventional Receivers VHF 136 - 174 MHz / UHF 403-470 MHz General Information

#### **SUGGESTED RETAIL**

#### **General Information:**

MTR2000 Literature: Product Planner (R4-2-97), VHF Catalog Sheet (MD-MTR-001), UHF Catalog Sheet (MD-MTR-002). The receiver provides wireline control. The receiver is capable of up to 32 receive frequencies, however, remote control access is limited to 14 channel operation. It is also capable of coded squelch (PL or DPL). These features ship in a preset condition but may be altered through the use of Radio Service Software.

For VHF and UHF receivers, receive frequencies can be separated by the full frequency sub-band selected. If receiver is ordered with the high performance preselector, X265, receive frequencies can be separated up to 4.0 MHz without degradation of specifications.

#### **Ordering Requirements:**

- 1. All orders must list the Radio Model as a Main line item (T5769).
- 2. You must select a frequency band option. Specify one receive frequency for factory tuning. Exact customer frequencies are programmed in the field. For VHF band (132 174 MHz) only, with conventional operation, the radio will accept any frequency divisible by 2.5 / 5.0 / 6.25 kHz. For VHF band in the trunking mode of operation, the frequencies must be divisible by 5.0 or 6.25 kHz. For other frequency bands, in either mode, the frequency must be divisible by 5.0 or 6.25 kHz.
- 3. If the receive frequencies are between 150.0 MHz and 154.0 MHz, the upper band (150-174 MHz) receiver will be supplied when the high performance preselector is ordered. If 132-154 MHz receive frequencies are required and the frequency is in the overlap area, order option X326.
- 4. You must select a Conventional Operation System Software Option (X597).
- 5. ALL RECEIVERS SHIP UNCONFIGURED AND MUST BE FIELD PROGRAMMED with the Radio Service Software (RSS) to alter the Communication Channel functions and to input the receive frequency within the specified range selected. Radio Service Software (RSS) is not shipped with the station order from RPSD. NOTE: RSS REQUIRES MICROSOFT WINDOWS 3.1 OR WINDOWS '95 FOR OPERATION.
- 6. MTR2000 receivers ship in a specially designed shipping box. To cabinet or rack mount the receiver, order the appropriate option. To rack mount a station in an existing or customer supplied rack, order Field Installed Rack Mount Configuration hardware (CLN6679).
- 7. Stand alone receivers will ship in shipping box using carrier specified on order. All receivers ordered in a cabinet or rack ship via electronic van unless otherwise specified. MTR2000 stations with Rack Mount options cannot be shipped via Air Freight; specify surface transportation or order in a cabinet.
- 8. See product catalog sheets for FCC information.

#### Date 1/9/06

#### SUGGESTED RETAIL

#### MTR2000

### Analog Conventional Receivers VHF 136 - 174 MHz / UHF 403-470 MHz

#### **BASIC PACKAGE INCLUDES:**

- MTR2000 Receivers are cabinet and rack-mountable and ship standard in a shipping box
- MTR2000 utilizes a switching power supply (85-264VAC, 47-63 Hz)
- Tone Remote Control Only

- 32 Channel Operation (Remote Control Access Limited to 14 Channels)
- 4 Wire Audio
- 1.5 PPM Frequency Stability (VHF/UHF)
- Type "N" Female Antenna Connectors
- Installation and Operational Manual

		MANUF.SUGG.
MODEL	DESCRIPTION	RETAIL PRICE
T5769	MTR2000 Receiver Model	\$800

#### NOTE: MUST ORDER ONE EACH OF THE FOLLOWING OPTIONS BELOW:

- · Frequency Band Option
- · System Software Option

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE

#### • SELECT ONE FREQUENCY BAND OPTION:

X319	132-174 MHz VHF Receiver	\$650.00
X320	403-470 MHz UHF Receiver	\$900.00

#### SELECT SYSTEM SOFTWARE OPTION:

System	Software	Ontion

This option is required for each receiver that is ordered. Does not include RSS.

X597 Conventional Operation \$1,550.00

MANUF.SUGG.RETAIL PRICE

#### Options:

#### VHF Sub-Band Overlap:

X326 Rx Frequencies Range I - For use with high performance preselector X265 -

For overlap frequencies between 150.800 - 154.000 MHz.

#### Primary Voltage:

X121 DC Only Operation - Required for DC power source operation.

14.2 VDC source at 1.5 amps. NOTE: NEGATIVE GROUND ONLY.

#### **Battery Reverting Chargers:**

See Section 2.0 - Page 10

#### Peripherals:

X265

High Performance Preselector - Recommended for dense RF site applications. For multiple channel operation the receiver frequency separation cannot be greater than 4.0 MHz. VHF preselector ranges are 132-154 & 150-174 MHz. Order Low Range Descriptor, X326, if frequencies fall into overlap range stated above & the lower

range is desired. UHF preselector ranges are 403-433 and 433-470 MHz.

\$300.00

N/C

N/C

SUGGESTED RETAIL

#### Date 1/9/06

3082056X02

Cable for Radio Service Software

#### MTR2000

### **Analog Conventional Receivers OPTIONS**

\$50.00

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
Remote Con	trol :	
X84	Omit Wireline Remote Control - For stand alone repeater operations.	-\$200.00
X269	Spectra-TAC Capability - Not compatible with X84	\$150.00
General Opt	ions:	
X747	External Reference Capability - Adds external reference cable.	\$50.00
C540	System Connector Cable Kit - provides a housing shell to connect to the 96 pin backplane connector, 30 loose pins, 30 of 24 gauge, 2 meter long wires with a pin for header on one end & unterminated at the other end. Allows user to create customized cable depending on application.	\$50.00
X233	Wild Card Operation - Provides a utility that allows the user to affect a station's functions by asserting external inputs to the station and/or by monitoring station states. Requires X151 (Auxiliary Input & Output). Also requires System Connector Cable Kit (C540).	\$200.00
X151	Auxiliary Input & Output - Provides the hardware and software needed for COR Relay & RA/RT. Requires System Connector Cable Kit (C540).	\$600.00
C753	Main Standby Operation - Provides console TRC control, external closure or hot switchover. Requires Auxiliary Input & Output (X151) and System Connector Cable Kit (C540).	\$400.00
	ions: Cabinets apply to MTR2000. Replaces standard shipping box. Allow space for when determining cabinet size. See Product Planner for Thermal Considerations.	
X52	30" Indoor Cabinet	\$360.00
X308	46" Indoor Cabinet	\$630.0
X180	60" Indoor Cabinet	\$880.0
X968	Slide Rails - Motorola Cabinet - When ordering this option for field install in a cabinet, additional cabinet rails are required. See Product Planner for details.	\$100.00
X346	Slide Rails - Non-Motorola Cabinet	\$150.00
Racks: Rep	laces standard shipping box. Racks may be stacked to heights equal to 8 Ft.	
These stack	able racks are recommended for all rack mounted systems going through	
the CCSI. Se	e Product Planner for details, R4-2-97B.	
X741	30" Modular Rack - 16 Rack Units	\$200.00
X742	45" Modular Rack - 24 Rack Units	\$225.00
X743	52" Modular Rack - 27 Rack Units	\$250.00
Manuals:		
X436	MTR2000 Instruction & Field Service Manual - Provides information to service station to the FRU level.	\$50.00
X287	Omit Install and Operational Manual - This option deletes the standard manual included with every station. This option is recommended when multiple stations will be used at the same site and one manual per station is not needed.	-\$15.00
Kit & Access	sories: VHF MTR2000 Field Replaceable Units (FRUs)	
All Field Repla	cement Units (FRUs) are available through Customer Care and Service Division (RPSD) 1-800-927-27-	44.
Service Acc	essories:	
HSN1000	6 Watt Amplified External Speaker	\$109.00
0185180U01	Cable for External Speaker	\$17.2
GMN6147	Local Test Microphone	\$70.50
Radio Servic	ce Software (RSS):	
RVN4148	Radio Service Software (includes 3.5" disk & manual) NOTE: RSS requires Microsoft Windows 3.1 or Windows '95 for operation.	\$278.00
2000056700	Cable for Dadio Coming Coffeen	<b>#</b> F0.00

#### Date 1/9/06

#### **SUGGESTED RETAIL**

#### Battery Reverting Charger For use with Motorola MTR2000 Base Stations

These battery reverting charger units charge and maintain the radio battery bank in a float type application. The system provides automatic reverting to a battery bank when main AC power fails and also provides separate charging capability.

#### **BASIC PACKAGE INCLUDES:**

- Auto Transfer Circuit
- Low Voltage Disconnect
- Stand Alone Box
- Auto Equalize
- Battery "On" Indicator
- Overvoltage Protection & Indicator
- Float and Automatic Equalize Circuitry
- Output Current Indicator
- Temperature Compensation Capability (optional)
- Charger Failure Indicator
- Rack Mountable

MODEL		MANUF.SUGG.
NUMBER	DESCRIPTION	RETAIL PRICE
L1883	Battery Reverting Charger, 14-volt (12-volt nominal)	\$1,487
	(for 30 Watt, 40 Watt and Receive Only models)	
L1884	Battery Reverting Charger, 28-volt (24-volt nominal) 25-100 Watt	\$1,487

Manuf.Sugg.Retail Price

Options:		
Z691	Cable Interface, Station to Charger	\$48.00
Z692	Cable Interface, Battery to Charger	\$63.00
Z166	Temperature Sensor	\$40.00