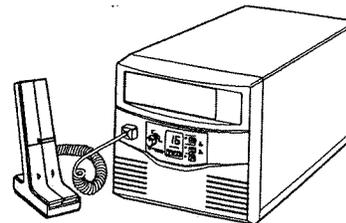


RADIUS GR1225™ REPEATER VHF & UHF

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



GR1225 Repeater with
Optional Desk

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

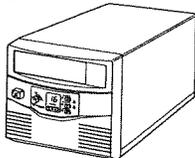
Repeater Package Items

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:

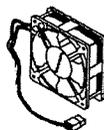
These items are part of the GR1225 Housing Kit:



GR1225 Repeater



Power Supply

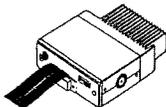


Fan



(2) Service Manuals

The following items are part of the R1225 Transceiver Models:



R1225
Repeater

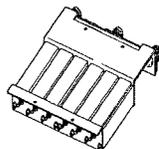


Operating Manual

The following items are optional:



Internal or External
Duplexer/Antenna Cable



Duplexer



Antenna

RADIUS GR1225™ REPEATER COMPATIBILITY CHART

Date 1/9/06

Type	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
Power 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

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

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

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

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

†† The GR400/GR500 X-Pand (6880905Z54) and R1225 (6880905Z53) service manuals are included in the HLN3100 retrofit kit which 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
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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 Required when using duplexers.	N/C
STDCBL0780	External Duplexer & Antenna Cable Kit (required when using separate transmit & receive antennas or duplexers that do not fit into the GR1225 housing)	N/C

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 - 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.	\$393.00
TDE7780	UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit - minimum & maximum frequency separation is 5 MHz)	\$385.00

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

(SEPARATE COMPONENTS)

Date 1/9/06

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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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.

Step One: (Required)

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)	\$613.00
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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 - 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.	\$393.00
TDE7780 UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit - minimum & maximum frequency separation is 5 MHz)	\$385.00

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 transmit and receive antennas or duplexers that do not fit into GR1225 housings.	\$81.75
HKN9235 GR1225 Internal Duplexer & Antenna Cable Kit (required when using an internal duplexer)	\$42.00

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 1/9/06

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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Repeater Controller: 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 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 (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.

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

General Accessories:

HLN9455	CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger	\$129.00
HPN9033	CDR700, GR1225 & RKR1225 Power Supply	\$201.60
HMN3000	Desk Microphone, Black	\$120.00
HLN9457	Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)	\$6.95

Antennas:

RDD4527	VHF 3dB Gain Antenna, 150-158 MHz	\$327.00
RDE4556	UHF 3.8dB Gain Antenna, 450-470 MHz	\$270.00

Lightning Protection Recommendation Accessories:

Phone/Remote Line Suppressors:

RRX4021	Single Line Suppressor	\$50.00
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Coaxial Cable In-Line Arrestors:

RRX4025	Type "N" Connector	\$65.00
RRX4032	Tower Mounting Hardware	\$15.00

Desktop Controllers and Remote Adapters:

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

RADIUS GR500 X-PAND™ and RKR1225™ REPEATER HOUSINGS

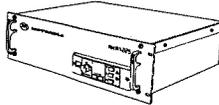
Date 1/9/06

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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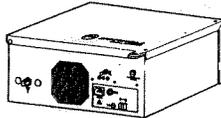
RKR1225 RACK MOUNT REPEATER HOUSING

GR500 X-PAND WALL MOUNT REPEATER

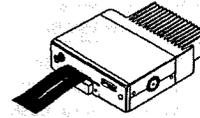
R1225 REPEATER TRANSCEIVER



HLN3254



HLN3103



M43GRC90C2_A / M44GRC90C2_A

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 Includes Control Head, Fan Kit & Cables (does not include HPN9033 power supply)	\$595.00
HLN3103	GR500 X-Pand Wall Mount Repeater Housing	\$562.00

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

HLN3100	Conversion Kit - this kit enables use of the R1225 transceiver with any of the HLN9117, HLN3102, HLN3103 GR400 & GR500 housings & 6880905Z53 & 6880905Z54 Service Manuals included	\$113.00
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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 - 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.	\$393.00
TDE7780	UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit - minimum & maximum frequency separation is 5 MHz)	\$385.00

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

Duplexer Cables

HKN9025	GR400 & GR500 Internal Duplexer & Antenna Cable - Required for use with duplexers.	\$46.50
HKN9016	GR400 & GR500 External Duplexer & Antenna Cable - Required when using separate transmit and receive antennas or duplexers that do not fit into GR400 & GR500 housings.	\$48.00
HKN9035	Internal Duplexer cables for RKR1225	\$55.00
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
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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 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
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Controller Cables:

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.

HFD8461	VHF Preselector, 144-160 MHz	\$336.00
HFD8462	VHF Preselector, 160-174 MHz	\$336.00
HFE8459	UHF Preselector, 440-474 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 16 connector pins, five (5) 8" wires with pins attached and an extra housing)	\$6.95

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
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Coaxial Cable In-Line Arrestors:

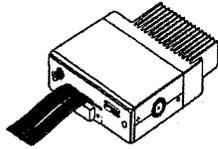
RRX4025	Type "N" Connector	\$65.00
RRX4032	Tower Mounting Hardware	\$15.00

RADIUS 100 WATT REPEATER Dealer Assembled Model

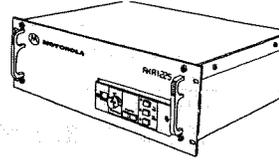
MODEL NUMBER	DESCRIPTION	MANUF. SUGG. RETAIL PRICE
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R1225 REPEATER TRANSCEIVER

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 Includes Control Head, Fan Kit & Cables (does not include HPN9033 power supply).	\$595.00
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Step Three: (Required)

Order Duplexer/Antenna Cable Kit.

VHF Duplexers:

RDD4901	Compact Band Pass / Band Reject Base Station Duplexer that is rack mountable. 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.	\$1,742.00
RDD4908	Compact Band Pass / Band Reject Base Station Duplexer that is rack mountable. 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.	\$1,276.00
RDD4717	Compact Band Pass / Reject Base Station Duplexer that is rack mountable. 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.	\$1,240.00

UHF Duplexers:

RDE5227	Band Pass / Reject Duplexer with low loss and close spacing. 440-470 MHz, 150W, Insertion Loss Tx/Rx (dB): 2.0dB / 2.0dB, Min Separation Tx-Rx (MHz): 1.0 MHz, Isolation Tx/Rx side (dB): 60dB.	\$1,485.00
RDE4672	Compact Notch Duplexer, with low loss and brass construction. 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.	\$1,012.00
RDE5221	Pass / Reject Duplexer with low loss and close spacing. 440-470 MHz, 150W, Insertion Loss Tx/Rx (dB): 1.2dB / 1.2dB, Min Separation Tx-Rx (MHz): 2.6 MHz, Isolation Tx/Rx side (dB): 80dB.	\$1,564.00
RDE4830	Modular Q-Circuit Band Pass / Reject Duplexer that is rack 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.	\$968.00
RDE4835	Modular Q-Circuit Band Pass / Reject Duplexer that is rack 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.	\$1,450.00

Cable Kit:

HKN9034	External Duplexer cables for RKR1225	\$55.25
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See next page for additional steps.

RADIUS 100 WATT REPEATER

Date 1/9/06

Dealer Assembled Model

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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Step Four: (Required)

Select Power Amplifier.

RDD4638	TPL Power Amplifier (136-174 MHz) 10W in & 100W out, includes fan and 25 amp power supply with external 4 amp connection to power R1225 1-10W transceiver & LTR® panel and receiver multicoupler if required.	\$1,476.00
RLN4822	TPL Power Amplifier (450-470 MHz) 10W in/100W out, includes fan and 25 amp power supply with external 4 amp connection to power R1225 1-10W transceiver & LTR® panel and receiver multicoupler if required.	\$1,575.00

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 connection to power amplifier power supply external 4 amp connection, R1225 power & fan connector.	\$28.00
3080384H84	Transmitter Cable, connects R1225 transmitter output to power amplifier input, 2 Ft. long RG142 coax cable, N male terminations.	\$25.00

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

Date 1/9/06

ACCESSORIES

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
Omnidirectional 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
RDD4543	136-141 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-1) - includes mounting hardware (46 clamps set)	\$814.00
RDD4544	142-150 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-2) - includes mounting hardware (46 clamps set)	\$814.00
RDD4391	155-163 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-4) - includes mounting hardware (46 clamps set)	\$814.00
RDD4389	150.5-158.5 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-3A) - includes mounting hardware (46 clamps set)	\$814.00
RDD4390	151.5-159.5 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-3B) - includes mounting hardware (46 clamps set)	\$814.00
RDD4545	157-165 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-5) - includes mounting hardware (46 clamps set)	\$814.00
RDD4392	160-169 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-6) - includes mounting hardware (46 clamps set)	\$814.00
RDD4546	165-174 MHz, 5.25dB Gain with Max power 500W - Termination UHF Female (PD220-7) - includes mounting hardware (46 clamps set)	\$814.00
RDD4477	150-164 MHz, 5.3dB Gain with Max power 500W (DB616-AB) - Termination UHF Female (fixed) - includes mounting hardware (DB5087-3) (optional: RDN4449 side mount - not included)	\$1,790.00
RDE4545	450-470 MHz, 5dB Gain Antenna, 150W, N Female (Celwave PD201-7)	\$490.00
Directional Antennas:		
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

RADIUS 100 WATT REPEATER ACCESSORIES

Date 1/9/06

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
Yagi Antennas:		
RDE4413	450-470 MHz, 10dBd Gain Antenna, 250W, N Male (Decibel DB436-C)	\$235.00
Transmission Line:		
RDN5507	1/2" Superflexible HELIAX®, Andrew FSJ4-50B, Ideal for jumper assemblies, 1.25" bending radius, 2.32dB/100' loss at 450MHz	\$4.15 ft
RDN5502	1/2" HELIAX®, Andrew LDF4-50A, Ideal for jumper assemblies and short runs, 1.51dB/100' loss at 450MHz	\$2.84 ft
RDN5503	7/8" HELIAX®, Andrew LDF5-50A, 0.834dB/100' loss at 450MHz	\$6.51 ft
RDN5505	1 5/8" HELIAX®, Andrew LDF7-50A, 0.515dB/100' loss at 450MHz	\$16.90 ft
Transmission Line Connectors:		
<u>UHF Male Connector</u>		
RDN5550	1/2" HELIAX® Transmission Line UHF Male Connector (Andrew L44P)	\$31.00
Transmission Line Accessories:		
<u>Standard Grounding Kit</u>		
RDN5517	7/8" HELIAX® - factory attached 1 hole lug, 24" ground (Andrew 204989-2)	\$30.31
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

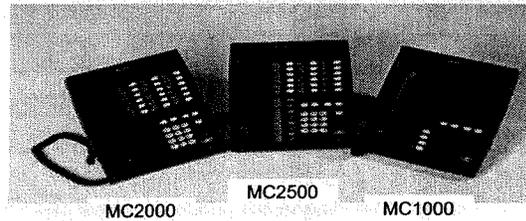
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**MC1000™, MC2000™ & MC2500™ DESKTOP CONTROLLERS
EXTENDED LOCAL, DC & TONE REMOTE CONTROL**

Date 1/9/06

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 Updating	\$1,280
L3217	MC2500 Multi-Channel Remote Control	\$2,482

DESKTOP CONTROLLERS

ACCESSORIES

Date 1/9/06

MODEL NUMBER		MANUF. SUGG. RETAIL PRICE
Tone & DC Remote Adapters - includes AC Power Supply (DDN7066) and Install/Service Manual:		
L3276	Tone Remote Adapter	\$655.00
L3277	DC Remote Adapter	\$512.00
General Accessories:		
HMN3000	Desk Microphone for MC2000, MC2500 & L3276, Black	\$120.00
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 Local 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	\$398.00
Radio Interface 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
Programming (MC2000 and MC2500 Models Only):		
RVN4178	Radio Service Software (includes CD-ROM)	\$265.00
DDN6367	Radio Service Software Cable AT (DB9)	\$35.00

Radius

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Date 1/9/06

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CDR700 and CDR500 REPEATER HOUSINGS

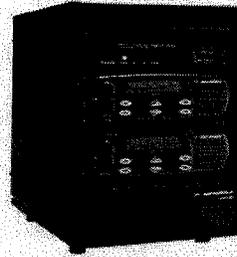
SUGGESTED RETAIL

CDR Repeater Housings:

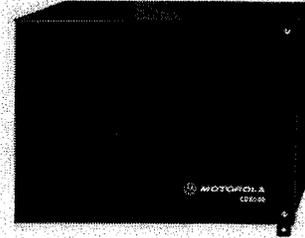
- CDR700 (Desktop Mount)
- CDR500 (Wall Mount)

Each CDR700/CDR500 Housing Includes:

- Power Supply
- Fan Kit
- Repeater Interface Cables
- Service Manual
- 2 Year Warranty



CDR700



CDR500

Notes:

1. Each repeater housing utilizes two (2) CDM Series mobiles.
2. All CDM Series LowBand, VHF & UHF models are compatible.
3. FCC Frequency Stability requirements for repeater applications have been met for UHF 450-512 MHz operating at 12.5 kHz channel spacing. See the Mobile price pages for new CDM750, CDM1250 & CDM1550 models.

Step One: (Required)

MANUF.SUGG.RETAIL PRICE

Select One (1) CDR Repeater Housing. These housings are compatible only with CDM Series Mobiles

NOTE: HKKN4000 Power Sense Cable: In the event of a power loss, this cable will allow the repeater to power up automatically once A/C is restored.

HKLN4056	CDR700 Desktop Repeater Housing This housing contains one controller slot which accommodates 7" wide repeater controllers.	\$405.00
HKLN4060	CDR500 Wall Mount Repeater Housing This housing contains two controller slots which accommodate 7" wide repeater controllers.	\$615.00

Step Two: (Required)

Select Two (2) CDM Series Mobiles

- See CDM Series price pages for model availability and pricing
- Any two (2) CDM LowBand, VHF or UHF models can be utilized.

Step Three: (Required)

Select Repeater Controller

HLN3948	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.	\$254.00
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

See next page for additional steps.

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Date 1/9/06

SUGGESTED RETAIL

CDR700 and CDR500 REPEATER HOUSING ACCESSORIES

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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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 - 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.	\$393.00
TDE7780	UHF Duplexer, 450-470 MHz (requires Internal Duplexer & Antenna Cable Kit - minimum & maximum frequency separation is 5 MHz)	\$385.00

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
HFD8190	VHF Duplexer, 162-174 MHz (minimum & maximum freq. separation 4.5 MHz/6 MHz)	\$478.00

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
HFE8401	UHF Duplexer, 470-490 MHz (minimum & maximum freq. separation 3 MHz)	\$438.00

Step Five: (Only required if using a Duplexer)

HKKN4002	CDR700 & CDR500 Internal Duplexer & Antenna Cable	\$53.00
HKKN4001	CDR700 & CDR500 External Duplexer & Antenna Cable - required when using separate transmit and receive antennas or duplexers that do not fit into CDR500 & CDR700 housings.	\$53.00

Step Six: (Optional)

Select an Antenna

RDD4527	VHF 3dB Gain Antenna, 150-158 MHz	\$327.00
RDE4556	UHF 3.8dB Gain Antenna, 450-470 MHz	\$270.00

Contact RPSD for additional antennas.

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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Mounting Accessories:

HLN9169	CDR500 & GR500 Wall & 19" Panel Mount	\$50.00
HKLN4117	CDR500 Radio & Duplexer Mounting Bracket Retrofit Kit - This bracket allows the installation of CDM Series mobiles within a GR500 repeater housing.	\$89.00

General Accessories:

HLN9455	CDR700, GR1225, RKR1225 & GR400 X-Pand Battery Revert & Float Maintenance Charger	\$129.00
HPN9033	CDR700, GR1225 & RKR1225 Power Supply	\$201.60
HPN9005	CDR500 & GR500 Power Supply	\$492.00
AARMN4026	Enhanced Keypad Microphone (Supports Remote Monitor)	\$99.00
HMN3000	Desk Microphone, Black	\$120.00
HKKN4000	Power Sense Cable - in the event of a power loss, this cable will allow the repeater to power up automatically once A/C is restored.	\$25.00
HLN9457	Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)	\$6.95
6864110R66	CDR700 & CDR500 Service Manual	\$15.00

CDR700 and CDR500 REPEATER HOUSING ACCESSORIES

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
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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.

The CDR700 allows for the internal installation of either a duplexer or a preselector.

The CDR500 allows for internal mounting of a duplexer and a preselector.

All preselectors have female type "N" connector. A dealer supplied type "N" male to male connector is required for proper operation. The length of the cable depends on your application. Call Motorola RPSD Parts ID at 800-422-4210 to find a cable for your individual application or for additional preselector options.

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

Lightning Protection Recommendation Accessories:

Phone/Remote Line Suppressors:

RRX4021	Single Line Suppressor	\$50.00
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Coaxial Cable In-Line Arrestors:

RRX4025	Type "N" Connector	\$65.00
RRX4032	Tower Mounting Hardware	\$15.00

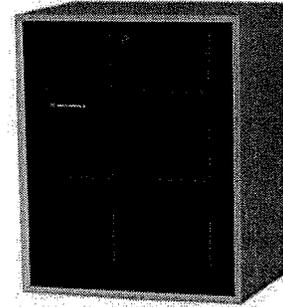
Desktop Controllers and Remote Adapters:

See Desktop Controllers and Remote Adapters for pricing and ordering information within this section.

BASE/REPEATER INTERFACE PACKAGE LOW BAND BASE STATION/REPEATER

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)

MANUF.SUGG.RETAIL PRICE

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	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.	\$254.00
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

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.

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

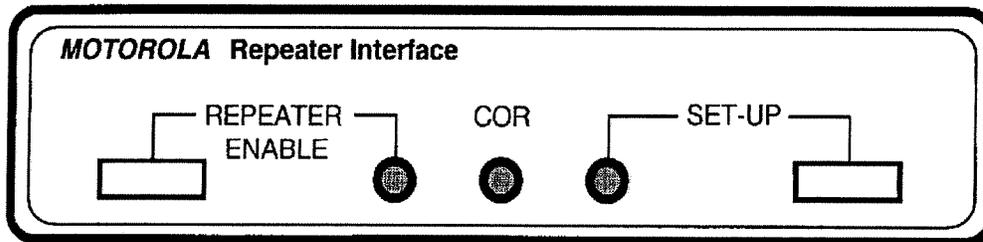
MODEL	DESCRIPTION	MANUF.SUGG. RETAIL PRICE
HLN3333	Repeater Interface Communications Kit (includes manual)	\$329

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)	\$5.40
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Date 1/9/06

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

Notes:

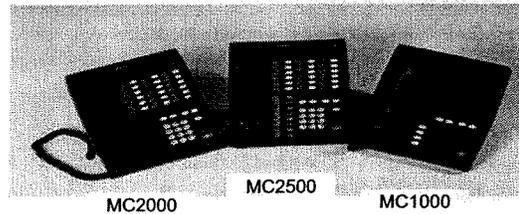
- 1) Intercom - Allows communication between desksets without accessing the radio frequency
- 2) Up to 10 remotes can be used in parallel.
- 3) MC Series remotes are not compatible with 900 MHz MaxTrac Mobiles.
- 4) MC2000 and MC2500 units require RSS programming software.
- 5) MC2500 unselect speaker 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.

**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)

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 Updating	\$1,280
L3217	MC2500 Multi-Channel Remote Control	\$2,482

Date 1/9/06

SUGGESTED RETAIL

ACCESSORIES

MODEL NUMBER		MANUF.SUGG.RETAIL PRICE
Tone & DC Remote Adapters - includes AC Power Supply (DDN7066) and Install/Service Manual:		
L3276	Tone Remote Adapter	\$655.00
L3277	DC Remote Adapter	\$512.00
General Accessories:		
HMN3000	Desk Microphone for MC2000, MC2500 & L3276, Black	\$120.00
HLN9457	Hardware Kit for use with the Expanded Accessory Connector (includes 16 connector pins, five (5) 8" wires with pins attached and an extra housing)	\$6.95
DDN6516	Headset Jackbox - adds headset capacity See MC3000 pages for compatible headsets	\$110.00
DDN6668	Single Footswitch	\$94.00
Extended Local 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.	\$398.00
Radio Interface 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
Programming (MC2000 and MC2500 Models Only):		
RVN4178	Radio Service Software (includes CD-ROM)	\$265.00
DDN6367	Radio Service Software Cable AT (DB9)	\$35.00

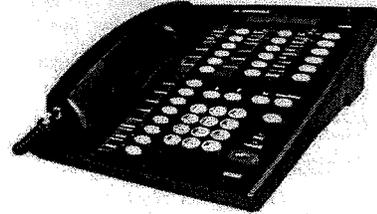
SUGGESTED RETAIL

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™ and CDM1550-LS+™ 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) junction 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:

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

MC3000™ Digital Desktop Controller

Trunked or Conventional Systems

For CDM1550 Series Radios

ACCESSORIES

SUGGESTED RETAIL

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
General Accessories		
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
Operator Audio Accessories:		
All headset "tops" below require Audio Accessory Box (DDN6516) and Amplified Module Base (CDN6282_R, CDN6281_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

CommandSTAR Lite™

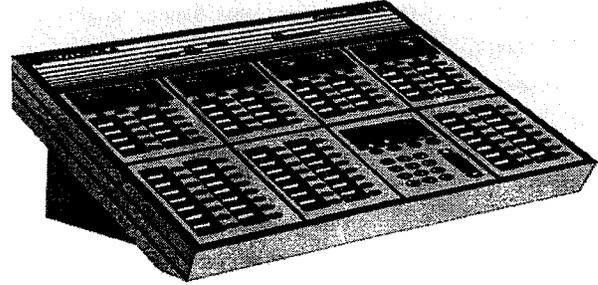
DESKTOP or RACKMOUNT CONSOLE CONVENTIONAL AND DIGITAL CONTROL

Date 1/9/06

SUGGESTED RETAIL

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



General Information:

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.

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

CommandSTAR Lite™

DESKTOP or RACKMOUNT CONSOLE

CONVENTIONAL AND DIGITAL CONTROL

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SUGGESTED RETAIL

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 -

$$2*(Qty\ of\ Z100AB + Qty\ of\ Z102AB) + Qty\ of\ Z103AB + Qty\ of\ ZA00170AB \leq 8$$

AND

$$Qty\ of\ Z100AB + Qty\ of\ Z102AB + Qty\ of\ Z103AB + Qty\ of\ Z104AB + Qty\ of\ ZA00170AB \leq 6$$

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

Type of Module			Number of Channels	Number of Modules
Dual Channel Z100 and Z102	Single Channel Z103 and ZA00170	ACM 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

CommandSTAR Lite™

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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:

L3239	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	MANUF.SUGG.RETAIL PRICE
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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

CommandSTAR Lite™

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**DESKTOP or RACKMOUNT CONSOLE
ACCESSORIES****SUGGESTED RETAIL**

MODEL NUMBER	DESCRIPTION	MANUF.SUGG.RETAIL PRICE
Programming Cables:		
CSDM is included 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 Accessories:		
HMN3000	Desk Microphone, Black	\$120.00
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
Operator Audio Accessories:		
All headset "tops" below require Audio Accessory Box (DDN6516) and Amplified Module Base (CDN6282_R, CDN6281_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 Upgrade 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
Punchblocks and Cables:		
Order one (1) 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)	\$29.70
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)	\$44.50
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)	\$74.20
RKN4077	Remote Mount Cable, 3 meter length - CDM1550 and CDM1550•LS+ models only	\$8.25

Professional Conventional

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SUGGESTED RETAIL

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