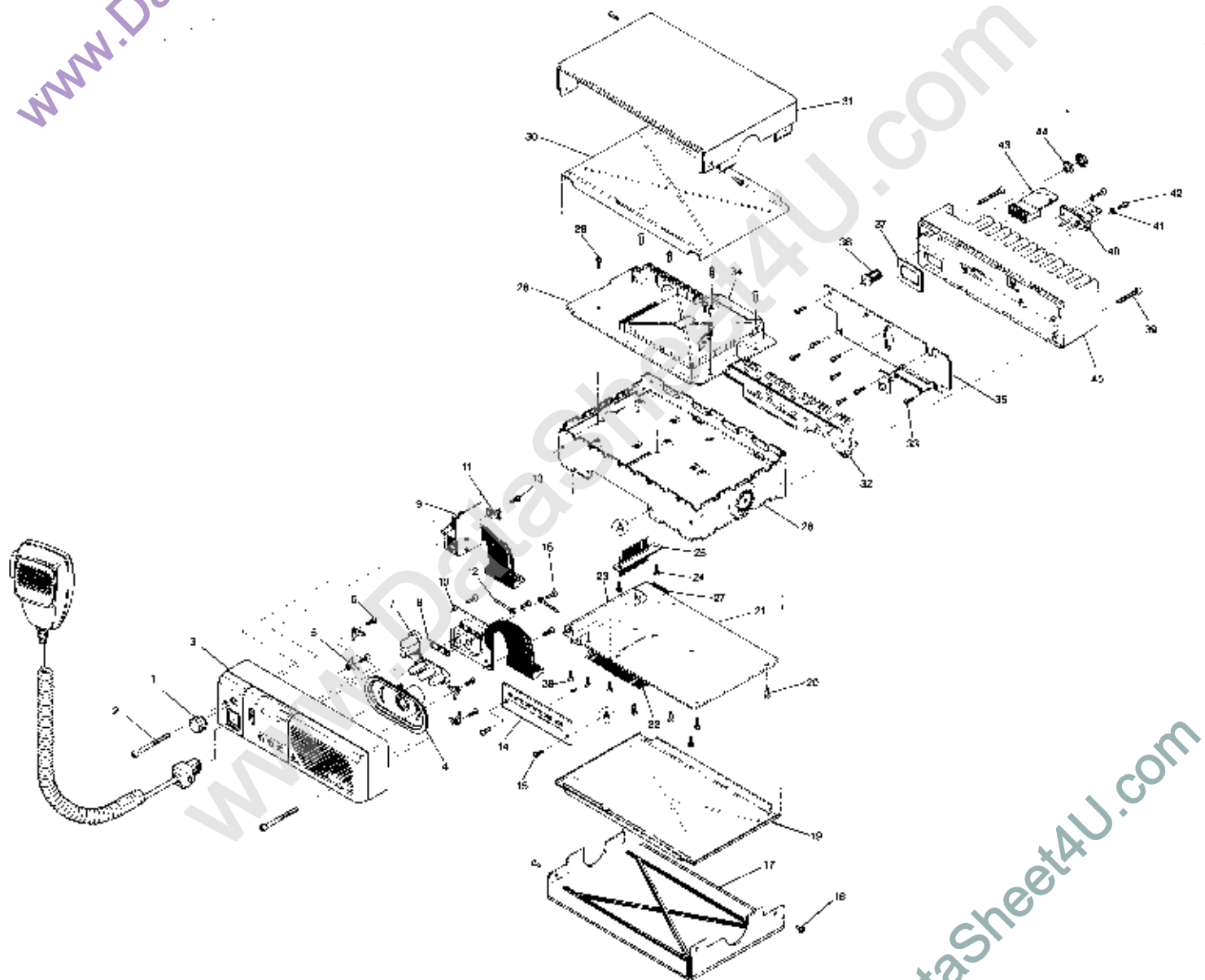


# GM300 Series

## Parts List



**MOTOROLA**



**MOTOROLA****GM300 Series**

# Parts List

| REF.<br>NO. | PART NO.          | DESCRIPTION                                |
|-------------|-------------------|--------------------------------------------|
| 1           | <b>3680106M03</b> | Knob, control                              |
| 2           | <b>0380270L01</b> | Screw (M4.0 x 0.7 x 38) cap blk;<br>2 used |
| 3           | <b>1580516B01</b> | Housing, front-panel, 8/16 freq.           |
| 4           | <b>5080085D03</b> | Speaker                                    |
| 5           | <b>4280253L01</b> | Bracket, speaker; 4 used                   |
| 6           | <b>0310945A11</b> | Screw (M3.0 x 8.0) plastite; 2 used        |
| 7           | <b>7580517B01</b> | Keypad, elastomeric, 8/16 freq.            |
| 8           | <b>3280039M01</b> | Gasket, LED                                |
| 9           | <b>HLN8071B</b>   | Vol/Mic, cable assembly                    |
| 10          | <b>HLN8075A</b>   | Display PCB assembly, 8/16 freq.           |
| 11          | <b>0780037M01</b> | Bracket, PCB retainer                      |
| 12          | <b>2900129883</b> | Lug                                        |
| 13          | <b>0310945A11</b> | Screw (M3.0 x 8.0) plastite                |
| 14          | <b>0180704Y83</b> | Front Panel Filter PCB                     |
| 15          | <b>0301943M09</b> | Screw (M3.0 x 6.0); 2 used                 |
| 16          | <b>0310945A11</b> | Screw (M3.0 x 8.0) plastite; 4 used        |
| 17          | <b>1580127L01</b> | Cover, housing                             |
| 18          | <b>0310943R55</b> | Screw (M3.0 x 8.0); 4 used                 |
| 19          | <b>2680498B01</b> | Shield, chassis                            |
| 20          | <b>0310943M09</b> | Screw (M3.0 x 6.0); 6 used                 |
| 21          | ---               | Logic Board                                |
| 22          | <b>2880600B01</b> | Connector, 27 pin, J8 & J9                 |
| 23          | <b>2680497B01</b> | Heatsink, logic board                      |

| REF.<br>NO. | PART NO.          | DESCRIPTION                    |
|-------------|-------------------|--------------------------------|
| 24          | <b>0310943M09</b> | Screw (M3.0 x 6.0); 2 used     |
| 25          | <b>0180605B01</b> | Feedthrough Assembly, RF/logic |
| 26          | <b>2780496B01</b> | Chassis                        |
| 27          | <b>2880923V01</b> | Connector, 16 pin              |
| 28          | ---               | Rf Bd.                         |
| 29          | <b>0310943M09</b> | Screw (M3.0 x 6.0); 7 used     |
| 30          | <b>2680498B01</b> | Shield, chassis                |
| 31          | <b>1580127L01</b> | Cover, housing                 |
| 32          | <b>2680223M07</b> | Shield, PA                     |
| 33          | <b>0310943M10</b> | Screw (M3.0 x 8.0); 8 used     |
| 34          | <b>2680229L03</b> | Shield, VCO                    |
| 35          | ---               |                                |
| 36          | <b>0980131M01</b> | Antenna Connector, mini UHF    |
| 37          | <b>3280014N03</b> | Gasket, accessory connector    |
| 38          | <b>0310943M10</b> | Screw (M3.0 x 8.0); 2 used     |
| 39          | <b>0380271L01</b> | Screw (M4.0 x 27); 2 used      |
| 40          | <b>0980255E01</b> | Power Connector                |
| 41          | <b>0405587G01</b> | Washer, power connector        |
| 42          | <b>0380043L01</b> | Screw (M3.0 x 10); 2 used      |
| 43          | <b>0180701Y58</b> | Connector Assembly             |
| 44          | <b>0480943V01</b> | Lockwasher, antenna connector  |
| 45          | <b>2680124L03</b> | Heatsink, PA                   |



# MOTOROLA

## GM300 Series

# Mobile Accessories

### ACCESSORIES

The following accessories are available for 8- and 16-channel model radios.



HLN3333B

**HLN3333B** Repeater Interface Communications Kit; includes interface box, mounting bracket and two 16 conductor cables

**HKN9969AR** Accessory for Repeater Interface Communications Kit, 16 additional conductor cables, 3' long for connection to other accessories

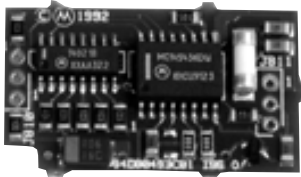
**HKN9327A** Ignition Switch Cable

**HSN8145A** 7.5W External Speaker, for receiver audio

**HLN9457A** Hardware Kit for use with the Expanded Accessory Connector, includes 16 connector pins, nine 8" wires with pins attached, and an extra housing



HSN8145A



HLN8375A

**HLN9573A** Shorting Plug for Microphone Jack, used when application calls for a deskset, covers microphone jack

**HLN8375A** DTMF Decoder Board, for 16-channel models only

**HLN9328B** External Alarm Relay and Cable, for 16-channel models only

**HLN9329A** Emergency Push Button Alarm and Cable, for 16-channel models only



HLN9329A

**HLN9330A** Emergency Footswitch Alarm and Cable, for 16-channel models only

### MICROPHONES



HMN1037B

**HMN1037B** Touch-Code Microphone with Hang-Up Clip

**HMN3596A** Compact Palm Microphone with 7' Cord, Standard Microphone

**HLN9559A** 7' Coil Cord for Heavy Duty Microphones

**HLN9560A** 10.5' Extended Coil Cord for Heavy Duty Microphones

**HLN9073B** Microphone Hang-Up Clip, all microphones

**HMN1035C** Heavy Duty Palm Microphone with 10.5' Cord

**HMN3141B** Handset with Hang-up Cup



HMN3596A

### INSTALLATION ACCESSORIES



HLN9284A

**HLN9284A** Key Lock Mount

**HLN5189A** Non-Locking Bracket

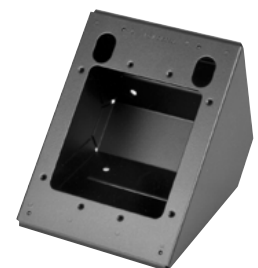
**HLN9027A** In-Dash Bezel Mounting Kit

**HLN5226B** Extra Stability Mount

**HLN9404A** Sleeve Mounting Bracket, for use with HLN9450A

**HLN9100B** Three Point Mounting Bracket, for use with HLN9450A

**HLN9450A** 40-60 Degree Floor Mount Wedge, requires HLN9404A or HLN9100B



HLN9450A



# MOTOROLA

## GM300 Series

# Mobile Accessories

### INSTALLATION ACCESSORIES

**HKN4137A** Low Power Cable to Battery, 1-10W and 10-25W models

**HKN4191B** High Power Cable to Battery, 25-45W models

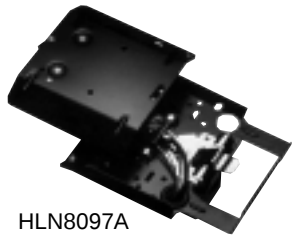
**2880376E84** Mini-U Connector, all bands

**HKN9557A** PL259/Mini-U Antenna Adapter, 8" Cable

**HLN8027A** Mini-UHF to BNC Connector



HKN9557A



HLN8097A

**HLN8097A** Removable Slide Mount Tray Package, a maximum of two external accessory wires can be attached to the slide tray

**HLN8098A** Radio Slide Mount Tray, radio half of the slide tray package HLN8097A

**HLN8099A** Vehicle Slide Mount Tray, vehicle half of the slide tray package HLN8097A

**HLN8413A** Slide Mount Tray Bracket for Vehicle Floor Hump Mount

**HLN3007B** Remote Mount Kit, 18' Length includes 20' power cable

**HLN8144B** Remote Mount Kit, 8' Length, assumes use of power cable provided with radio

### PUBLIC ADDRESS ACCESSORIES



HLN3145BR

**HLN3145BR** Public Address Kit, requires the HSN1000B accessory; includes 2 cables for mobile connection from public address box to speaker cables



HSN1000B

**HSN1000B** 6-Watt Amplified External Speaker for Public Address, minimum of 1 required

**HKN9324AR** 15' Public Address/Speaker Cable, one required for each HSN1000B



HKN9324AR



# MOTOROLA

## GM300 Series

# Antennas

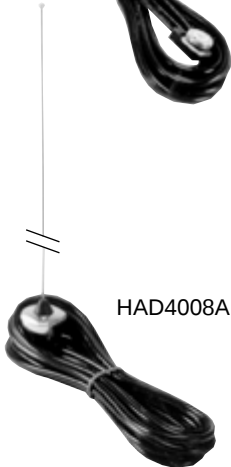
### ANTENNAS, VHF

HAD4006A



Part Number: **HAD4006A**  
Frequency: 136-144 MHz  
Power: 150W  
Gain: Unity  
VSWR: 1.5:1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Cable and Mini-U Connector

HAD4008A



Part Number: **HAD4007A**  
Frequency: 144-152 MHz  
Power: 150W  
Gain: Unity  
VSWR: 1.5:1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Mini-U Connector

Part Number: **HAD4008A**  
Frequency: 152-162 MHz  
Power: 150W  
Gain: Unity  
VSWR: 1.5:1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Mini-U Connector

RAD4010ARA



Part Number: **HAD4009A**  
Frequency: 162-174 MHz  
Power: 150W  
Gain: Unity  
VSWR: 1.5:1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Mini-U Connector

Part Number: **RAD4010ARB**  
Frequency: 136-174 MHz  
Power: 150W  
Gain: 3 dB  
VSWR: <1.5:1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Mini-U Connector, RG58A/U, 17' Cable

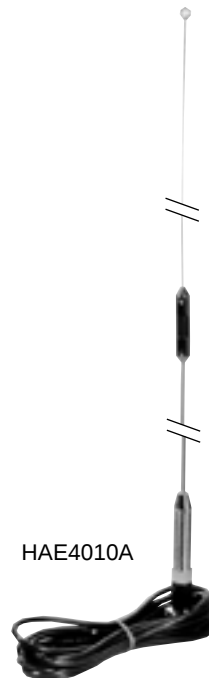
### ANTENNAS, UHF

HAE4002A



Part Number: **HAE4002A**  
Frequency: 403-430 MHz  
Power: 150W  
Gain: 1/4 Wave  
VSWR: <1.5:1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Mini-U Connector, RG58A/U, 17' Cable

HAE4010A



Part Number: **HAE4010A**  
Frequency: 406-420 MHz  
Power: 150W  
Gain: 3.5 dB  
VSWR: <2.1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Mini-U Connector, RG58A/U, 17' Cable

Part Number: **HAE4003A**  
Frequency: 450-470 MHz  
Power: 150W  
Gain: Unity  
VSWR: <1.5:1  
Impedance: 50 ohms, nominal  
Mounting Kit: Roof Mount with Mini-U Connector, RG58A/U, 17' Cable



# MOTOROLA

## GM300 Series

# Antennas

### ANTENNAS, UHF

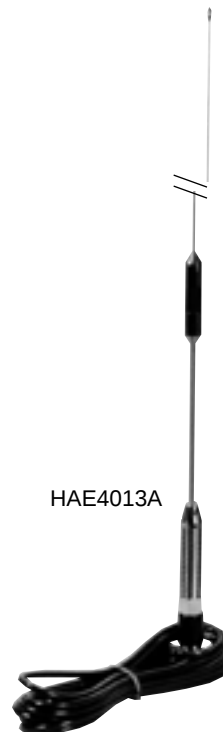


Part Number: **HAE4011A**  
Frequency: 450-470 MHz  
Power: 150W  
Gain: 3.5 dB  
VSWR: <2.1  
Impedance: 50 ohms,  
nominal  
Mounting Kit: Roof Mount with  
Mini-U  
Connector,  
RG58A/U, 17'  
Cable

Part Number: **RAE4004ARB**  
Frequency: 445-470 MHz  
Power: 150W  
Gain: 5 dB  
VSWR: <1.5:1  
Impedance: 50 ohms,  
nominal  
Mounting Kit: Roof Mount with  
Mini-U  
Connector,  
RG58A/U, 17'  
Cable

Part Number: **HAE4004A**  
Frequency: 470-512 MHz  
Power: 150W  
Gain: Unity  
VSWR: <1.5:1  
Impedance: 50 ohms,  
nominal  
Mounting Kit: Roof Mount with  
Mini-U  
Connector,  
RG58A/U, 17'  
Cable

### ANTENNAS, UHF



Part Number: **HAE4012A**  
Frequency: 470-494 MHz  
Power: 150W  
Gain: 3.5 dB  
VSWR: <2.1  
Impedance: 50 ohms,  
nominal  
Mounting Kit: Roof Mount with  
Mini-U  
Connector,  
RG58A/U

Part Number: **HAE4013A**  
Frequency: 494-512 MHz  
Power: 150W  
Gain: 3.5 dB  
VSWR: <2.1  
Impedance: 50 ohms,  
nominal  
Mounting Kit: Roof Mount with  
Mini-U  
Connector



# MOTOROLA

## GM300 Series

# Service Aids

### SERVICE AIDS

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Computer Interface Cable; RIB to 25 pin D

**3080369B72** Computer Interface Cable; RIB to 9 pin D

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio programming cable and a 9 volt snap type battery (6082728J01) or wall mount power supply. Order separately.

**RLN4008B** Radio Interface Box



RLN4008B

#### Wall Mounted Power Supply

Used to supply power to Radio Interface Box.

**0180357A57** Wall Mounted Power Supply (110 volts)

**0180358A56** Wall Mounted Power Supply (220 volts)



0180357A57

### SERVICE AIDS

#### Programming Software

This software enables you to add or reprogram frequencies as your requirements change. Compatible with IBM XT, AT, Model 30, 50, 60 and 80. Requires Radio Interface Box and proper cables; order separately.

**HVN8177F** Programming Software, includes diskettes (3½" and 5¼"), manual, binder, and storage box. Programs GM300, GR300, GR500, M10, M120 and M130 radios.

#### Program Test Cable

Acts as a link between RIB and radio; required to program radio

**3080070N01** Program/Test Cable

#### Power Supply Cable

**HKN4191B** Power Supply Cable, High Power (60 watt), replaces HKN9402A

**HKN4137A** Mobile Power Cable, Low Power (25 watt)



# MOTOROLA

## GM300 Series

# Service Tools, Manuals

### SERVICE TOOLS



RSX4043A

#### *Torque Screwdriver*

Measures the amount of torque being applied. Recommended for precise radio assembly. Bits must be ordered separately.

**RSX4043A** Adjustable Torque Screwdriver

#### *Crimping Tool*

For custom installations requiring crimping of Mini-UHF RF connector.

**6680388A26** Crimping Tool



6680388A26



RLN4137A

#### *Test Adapter*

Used to manually key radio. Must be attached to Program/Test Cable

**RLN4137A** Test Adapter



6680388A13

#### *Battery Cable Adapter*

**6680388A13** Side Mount Battery Cable Adapter

#### *Antenna Adapter*

**5880367B22** Mini-UHF Adapter

**2880376E84** Mini-UHF Adapter



5880367B22

### INSTRUCTION MANUALS

**6880902Z32**

Service Manual

**6880902Z09**

Owner's Manual

**6880902Z26**

Operator's Card, 8-channel radios

**6880902Z41**

Operator's Card 16-channel radios

## Microphones and Accessories

**HMN3596A** Compact Palm Microphone with 7 Foot Coil Cord

**HMN1035C** Heavy Duty Palm Microphone with 10.5 Foot Coil Cord

**HMN1037B** Non-Backlit Touch-Code Microphone with Hang-Up Clip

**HMN3141C** Handset with Hang-Up Clip

**HLN9073B** Microphone Hang-Up Clip (all microphones)

**HLN9559A** 7 Foot Coil Cord for Microphones (HMN1056 and HMN1035)

**HLN9560A** 10.5 Foot Extended Coil Cord for heavy duty microphones



HMN3596A



HMN1035C



HMN1037B



HLN9073B

## General Accessories

**HLN8375A** DTMF Decoder Board (GM300—16 channel model only)

**HLN9457A** Hardware Kit for use with the expanded accessory connector (includes 16 connector pins, (9) 8" wires with pins attached and an extra housing)

**HLN9573A** Shorting Plug Kit for microphone jack—used when application calls for a deskset (covers microphone jack)



HSN8145A

## External Speaker

**HSN8145A** 7.5 Watt External Speaker—for receiver audio

## Control Station Accessories

**HLN3035A** Low Power Control Station Package (1-25 watt models)

**HKN4139A** Power Cable for low control station 12V (1-45 watt models) for control stations shipped before 4/93

**HLN3199A** High Power Control Station Package (25-60 watt models)

**HKN9455A** Power Cable for high power control station (25-60 watt models) for control stations shipped before 4/93

**HPN4002B** Power Supply and Cable (1-25 watt)

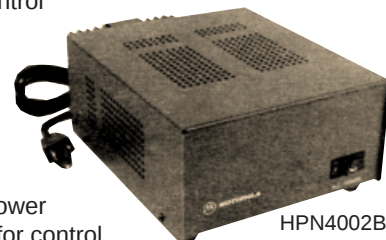
**HPN4001B** Power Supply and Cable (25-60 watt models)

**HMN3000B** Desk Microphone, black

**HMN1038D** Desk Microphone, beige

**HLN5292BR** Base Station Tray

**HKN9088B** Mobile Mini-U Antenna Adapter—8 foot cable



HPN4002B

## Public Address Accessories

**HLN3145AR** Public Address Kit (requires the HSN1000 accessory; includes 2 cables for mobile connection to public address box to speaker cables)

**HKN9324AR**

15 Foot Public Address/Speaker Cable (one cable per speaker)

**HSN1000B** 6 Watt Amplified External Speaker for public address audio (minimum of 1 required)



HLN3145AR

## Alarm Accessories

**HLN9328C** External Alarm Relay Cable—horn and lights

**HLN9329B** Emergency Push Button Alarm Cable

**HLN9330B** Emergency Footswitch Alarm Cable (GM300—16 channel only)



HLN9330B



HSN1000B

ORDER TODAY!  
U.S. Customers Call  
**1-800-422-4210**

U.S. Federal Government Customers Call 1-800-826-1913

# Accessories/Antennas/Service Manuals

## Installation Accessories

**HKN4137A** Low Power Cable to Battery

**HKN9327A** Ignition  
Switch Cable

**HKN9557A** PL259/Mini-U  
Antenna Adapter—  
8" cable (not  
recommended  
for 800 MHz)

**2880376E84** Mini-U  
Connector (all bands)

**HLN8027A** Mini-UHF to BNC Adapter



## Mounting Accessories

**HLN9284A** Key Lock Mounting Bracket

**HLN5189A** Non-Locking Bracket

**HLN8413A** Slide Mount Tray Bracket for  
vehicle floor hump mount

**HLN9404A** Sleeve Mounting Bracket

**HLN9450A** 45-60 degree Floor Mount  
Wedge (GM300—requires HLN9404 or  
HLN9100)

**HLN9100B** Three Point Mounting  
Bracket (for use with HLN9450)

**HLN3007B** Remote Mount Kit—  
18 foot length (includes 20 foot power  
cable)

**HLN5226B** Extra Stability Mount

**HLN8097A** Removable Slide  
Mount Tray Package (a maximum  
of two external accessory wires can  
be attached to the slide tray)

**HLN8098A** Radio Slide Mount Tray  
(vehicle half of the slide tray  
package—HLN8097)

**HLN8099A** Vehicle Slide Mount Tray (vehicle  
half of the slide tray package—HLN8097)

**HLN8144A** Remote Mount Kit—  
8 foot (assumes use of power  
cable provided with radio)

**HLN9027A** In-Dash Bezel  
Mounting Kit



## Antennas

### VHF

**HAD4014A** VHF 3 dB Gain Roof Mount Antenna, 140-  
174 MHz

**HAD4006A** VHF 1/4 Wave Roof Mount Antenna, 136-  
144 MHz

**HAD4007A** VHF 1/4 Wave Roof Mount Antenna, 144-  
152 MHz

**HAD4008A** VHF 1/4 Wave Roof Mount Antenna, 150.8-  
162 MHz

**HAD4009A** VHF 1/4 Wave Roof Mount  
Antenna, 162-174 MHz

### UHF

**HAE4002A** UHF 1/4 Wave Roof Mount  
Antenna, 403-430 MHz

**HAE4003A** UHF 1/4 Wave Roof Mount  
Antenna, 450-470 MHz

**HAE4004A** UHF 1/4 Wave Roof Mount  
Antenna, 470-512 MHz

**HAE4010A** UHF 3.5 dB Gain Roof Mount  
Antenna, 406-420 MHz

**HAE4011A** UHF 3.5 dB Gain Roof Mount  
Antenna, 450-470 MHz

**HAE4012A** UHF 3.5 dB Gain Roof Mount  
Antenna, 470-495 MHz

**HAE4013A** UHF 3.5 dB Gain Roof Mount  
Antenna, 494-512 MHz

**RAE4004ARB** UHF 5 dB Gain Roof Mount  
Antenna, 450-470 MHz

HAE4013A



HAD4009A

