## **Installation and Operation Manual**

## PowerMax™ 4KMR-30U

# 40dB Gain Dual Band Wireless Amplifier/Repeater System



## Read Instructions before installing! If you do not understand instructions, seek professional installation.



## INSTALLATION AND OPERATION MANUAL Model #4KMR-30U

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For answers to Frequently Asked Questions visit www.DigitalAntenna.com

### ——IMPORTANT —

## Read instructions completely before attempting install!

## 1. Package Contents

Part Number	Description	
DA4000MR	Dual Band Wireless Cellular Amplifier/Repeater	
288-PW	Outside omni-directional 9dB gain dual band cell antenna	
135-RD	Inside omni-directional dual band cell antenna with 6' cable	
DP515	Microprocessor controlled 12 VDC to 5 VDC power cable	
DP255	110-240 VAC to 5 VDC power supply	
240-30NM	30' DA240 low loss cable	
DH288	Stainless steel mounting hardware: qty 2 U-bolts, nuts, washers; qty 4	
	Phillips head screws	

## 2. Important Safety Information

The 4KMR-30U system complies with all FCC, IC, UL rules, regulations and codes. Follow all guidelines in the installation and instruction manual and read completely before beginning the installation procedure. Do not deviate or disregard any of the safety features included in the manual or with the equipment, nor operate the system in an unintended manner.

#### **WARNING!**

Only Digital Antenna authorized products may be used with the 4KMR-30U system. Using unauthorized equipment with the 4KMR-30U system will harm the system, voids the warranty and can be detected in the event of a failure.

#### **WARNING!**

Do not install antenna near power lines. Contact with any high voltage power lines could result in shock or loss of life.

#### **WARNING!**

Handle all electronic parts with care. Dropping or mishandling the DA4000MR amplifier/repeater, antennas or power supplies can damage sensitive RF and electronic components.

DO NOT TURN AMPLIFIER ON UNTIL ANTENNAS ARE SECURELY ATTACHED TO AMPLIFIER AND PROPERLY SEPARATED

#### a. LIMITED WARRANTY

Digital Antenna, Inc. warrants, to the original owner, marine antennas for five (5) years and cellular antennas and amplifiers for one (1) year that its Products sold hereunder will at the time of shipment be free from defects in material and workmanship and will conform to Digital Antenna's applicable specifications or, if appropriate, to Customer's specifications previously accepted by Digital Antenna in writing.

If products sold hereunder are not as warranted, Digital Antenna shall, at its option repair or replace the product, provided proof of purchase and written notice of nonconformance are received by Digital Antenna within five (5) or one (1) years of date of purchase and provided said nonconforming Products are, with Digital Antenna's written authorization, returned in protected shipping containers. Customer is responsible for shipping the product to Digital Antenna. Digital Antenna will pay for transporting via ground service only the repaired product to Customer. Express service will incur a fee and must be paid by Customer prior to shipping.

This warranty shall not apply to any Products Digital Antenna determined to have been, by Customer or otherwise, subjected to mishandling, misuse, neglect, improper testing, repair alteration, damage, assembly or processing that alters physical or electrical properties.

#### **b. LIMITATION ON LIABILITY**

In no event shall Digital Antenna, Inc. Be liable for any direct, indirect, special, punitive, incidental, exemplary or consequential damages, or any damages whatsoever, even if Digital Antenna, Inc. Has been previously advised of the possibility of such damages, whether in an action under contract, negligence, or any other theory, arising out of or in connection with the use, inability to use, or performance of the information, services, products, and materials available from this manual. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you.

#### c. FCC REGULATIONS

#### FCC ID: PZODA4000SBR

This equipment has been tested and found to comply with the limits for a class B device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications, However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or other electronic reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect to isolated power with a ground cable going directly to the battery, DC source or house ground
- Repositioning of the coaxial cable may also eliminate interference
- Consult the dealer or an experienced electronics technician for help.

Warning: Changes or modifications not expressly approved by Digital Antenna, Inc. could void the user's authority to operate the equipment.

### 3. Pre-Installation Guidelines

#### a. INSTALLATION TOOLS

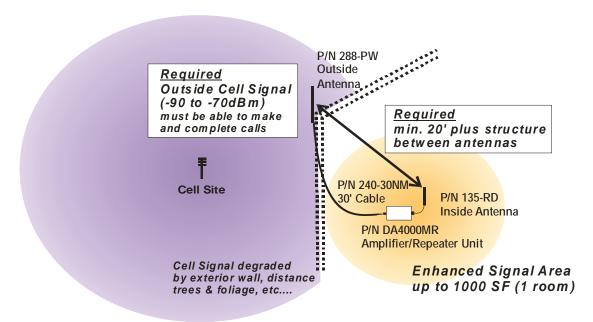
The following tools are required for installation:

- Standard wrench and Phillips head screwdriver
- Standard drill with ½" bit (optional)
- Cellular device operating on 800 or 1900 MHz bands (any USA or Canadian cellular device except Nextel)
- Wire fasteners (optional)
- Multi-meter for testing electrical continuity and AC and DC line voltage (for troubleshooting only)

#### **b. INSTALLATION PROCEDURE**

#### Description of 4KMR-30U system

The 4KMR-30U Dual Band Wireless Amplifier/Repeater system provides cellular signal coverage to interior areas that have low signal strength to adequately operate a cellular phone. In these poor interior coverage areas it becomes difficult to place or receive calls and usually results in a dropped call. The 4KMR-30U dual band amplifier/repeater system provides increased reception indoors by filtering, re-directing and amplifying the available exterior signal. This translates into fewer dropped calls with clearer connections and stronger signals. The 4KMR-30U dual band system operates with all carriers in the USA and Canada except Nextel/iDEN providers.



Functional Operation of 4KMR-30U System
<a href="Installation requirement:">Installation requirement:</a> Separation Distance of 20' or more plus a structure between outside and inside antennas

The 4KMR-30U system contains a dual band low power indoor antenna, 40dB gain amplifier/repeater unit and 9dB gain omni-directional outdoor antenna. Both antennas must be installed and operate in a vertical position. The indoor antenna must be used with cable and stand. The outdoor omni-directional antenna, PN 288-PW, is installed outside

of the building. (see specific section for Home/Office, marine and RV installations) The omni-directional antenna should be installed on the side of the building with the **strongest cellular signal** as indicated by the bars on the cell phone. The inside antenna must be mounted in a central location in the building, RV or boat that is **20' or greater from the outside antenna with as much vertical separation as possible. Vertical separation is better than horizontal.** The inside and outside antennas also must be separated by an exterior wall and roof. Two power supplies are included to maximize installation flexibility.

#### Typical In-Building Coverage

The 4KMR-30U system is designed to provide optimal coverage for up to a 1,000 SF to 2,500 SF interior area (1 room). **Interior coverage varies based upon the outside signal strength** and the interior building construction and materials. Typically the 4KMR-30U system will NOT penetrate an interior wall or floor. To increase interior coverage area, use one of Digital Antenna's high gain outside and/or inside directional antennas. (pg 15).

#### **Pre-installation Considerations**

Establish a site installation plan based upon desired interior coverage area

- The inside and outside antenna must have a separation distance of 20 feet or greater, the outside antenna must be outside and separated from the inside antenna by an exterior wall and roof, and both antennas must be in a vertical position.
- Identify the outside antenna location. If the outdoor coverage area is very poor, the outside antenna should be placed on the side of the building where the signal is the strongest. If the signal is equally strong outdoors, the outside antenna should be placed in a secure, unobstructed area. On an RV the antenna can be attached to the back ladder. On a boat the outside antenna should be mounted clear of metal objects, 3' from other antennas and as high as possible.
- For maximum interior coverage the location of the indoor antenna should have a direct line-of-site to as much of the coverage area as possible. **Never turn the repeater on without antennas and cables securely attached.**
- Based upon the desired interior coverage area, choose a central location for the DA4000MR repeater unit within 6' of a 12VDC power receptacle. If the location of the DA4000MR unit is not mounted within reach of the supplied 30' cable, a 25' extension cable and 75' or 100' replacement cables are available (sold separately). The DA4000MR unit is not waterproof and must be mounted in a dry location.

#### c. ELECTRICAL POWER

To maximize installation flexibility, the 4KMR-30U system includes 2 power cord options.

#### **WARNING!**

Only the provided power cables are to be used with the 4KMR-30U system. Using any other power cables will harm the DA4000MR amplifier/repeater unit, can be detected and voids the warranty.

To plug into a standard 110 VAC receptacle use PN DP255, a 110 VAC to 5VDC Power Supply.

For use on a boat or RV, plug PN DP515, a 12 VDC to 5 VDC Power Cable, into a 12 VDC cigarette style power receptacle. The 12 VDC power supply has a micro-processor controller to turn the repeater off if not properly installed. If a **red flashing light** appears on the power supply, relocate the inside and outside antennas until the power supply and repeater have a constant green light. The power supply can be reset by unplugging the cigarette adapter from the power source.

#### d. AMPLIFIER/REPEATER STATUS

The DA4000MR unit is designed with a status/fault indicator to indicate proper unit functionality. The chart below details the different LED color indicators.

LED	Amplifier/Repeater Status	
Green solid light	Normal Status	
Yellow/orange flickering light	Degree of cellular transmission activity	
Solid Red light	TURN OFF, Fault needs immediate corrective	
	action	
No light	No power to the DA4000MR amplifier/repeater	
	or unit is damaged	

If a red flashing light appears on the DP515 power supply, relocate the inside and outside antennas until the power supply has a constant green light. The power supply can be reset by unplugging the cigarette adapter from the power source.

GREEN solid light	Normal status
Flashing RED light	Power supply stops power to repeater until
	antennas are properly installed.

**Green light on repeater** – shows normal Status and DA4000MR is operating normally unless coverage area is only 1-2' from inside antenna. If coverage area is only 1-2', DA4000MR repeater has an extremely weak outside signal or is automatically powering down to prevent an oscillation. Re-locate antennas until coverage area is greater.

Green/yellow/orange flickering light on repeater - shows that cellular activity is being transmitted through the DA4000MR unit unless cell phone is operating on 1900 MHz. The light will remain green with low levels of cellular transmission and change to flickering yellow/orange as transmission increases. The light may remain green with low levels of transmission. When a yellow/orange light is present, it must always go back to green when call is finished. If it does not go back to green, re-locate antennas until light goes back to green.

**Solid Red light on Repeater** – indicates a fault. Turn **OFF** power switch and proceed with the following corrective actions:

• The red light indicates that the inside and outside antennas are located too close to each other and need to be re-located. A typical installation requires that the inside and outside antennas have a minimum separation distance of 20 feet and be separated by an exterior wall and roof. If the inside and outside antennas are not 20 feet apart or more, re-locate the antennas.

• If the outside and inside antennas are separated by 20' or more and an exterior wall, the red light may be indicating the use of analog phones. Contact Digital Antenna if you are using an analog phone.

**No light on Repeater** – indicates improper installation and the power supply is stopping power to the repeater or no power is available. Proceed with the following corrective actions:

- Only after all cables and antennas are securely attached, verify that the power switch on the DA4000MR unit is in the ON position.
- Unplug the 12VDC power supply from the repeater and the power source. Replug the 12VDC power supply into the power source and test for 5VDC power on the output plug. 5VDC will only be available if the power supply light is green on the black box and solid red on the cigarette adapter. 5VDC will not be available at the plug if the LED on the power supply box is flashing red. The power supply must be reset by unplugging it from the power source.
- If the red light continues to flash on the power supply box after reset (unplugging from power source and plugging back in), the antennas need to be re-located until the light on the power supply box and repeater remain green. If analog service is being used, contact Digital Antenna.

#### e. INTERIOR COVERAGE PROBLEMS

If the DA4000MR unit does not indicate a red light and the coverage area appears to be smaller than anticipated, one or more of the following may limit the signal strength to the area.

- **Cell Phone Bars** The bars on the cell phone do not indicate coverage area. One bar may be adequate to successfully place and receive calls. Test coverage area by successfully completing calls while disregarding bar indicator.
- Physical obstructions degrading the cell signal the path of the cell signal is weakened by objects. Large metal objects block or reflect the signal. Inspect the coverage area, rearrange any objects in the path of the cell signal or relocate the indoor antenna.
- Output Power Control The DA4000MR has an internal output power control circuit that automatically lowers the power when the inside and outside antenna are located too close. Verify that inside and outside antennas are located at least 20' apart or more and separated by an exterior wall.
- Weak Outside Signal If the outside signal is very weak, the interior coverage area will be small. To increase coverage area, use one of Digital Antenna's high gain outside and/or inside antennas (pg 15).
- Cabling examine coaxial cable run and verify that the cable is not kinked, coiled or damaged. Re-locate cable to avoid kinks or coils. The serial number on the DA4000MR unit must be available.

The repeater system only amplifies existing outside cell signal; it does NOT create a cell signal. If no outside signal is present, the repeater has no signal to amplify. The outside antenna should be mounted as high as possible to capture the available cell signal.

#### f. COAXIAL CABLE RECOMMENDATIONS

The 4KMR-30U system includes 30' of Digital Antenna's **PowerMax**<sup>TM</sup> low loss cable and connectors for easy installation. If the installed application requires more than the supplied cable, **PowerMax**<sup>TM</sup> DA340 ULTRA low loss 25' extension cable and 75' replacement cable are available. Only Digital Antenna authorized cable can be used to complete the installation. Unauthorized cable usage can be detected and voids the warranty. Digital Antenna's DA440 cable may be used for cable runs less than 150', LMR600 by Times Microwave may be used for runs less than 250'. For cable runs greater than 250', contact Digital Antenna to verify cable selection.

## 4. Home/Office Installation

Review pre-installation considerations and determine site installation plan.

1. Install supplied outside antenna (PN 288-PW) to vertical surface or pole with supplied hardware. Mount the outside antenna clear of metal objects and obstructions. Outside antenna must be mounted in a vertical position. Antennas must be separated by a structure and a 20' or greater distance with as much vertical separation as possible. Vertical separation is better than horizontal.

#### **WARNING!**

Only Digital Antenna authorized products may be used with the 4KMR-30U system. Using unauthorized equipment will harm the 4KMR-30U system, can be detected and voids the warranty.

- 2. On supplied 30' cable (PN 240-30NM) (or optional 25' extension cable or 75' or 100' replacement **PowerMax**<sup>TM</sup> cable) attach N male connector to N female connector on outside antenna. Secure cable to the side of the building with appropriate fasteners (not supplied). Route cable according to site installation plan to the DA4000MR unit.
- 3. Attach mini-UHF male connector at the end of the supplied 30' cable to DA4000MR unit on the port labeled outside antenna. Attach the 6' cable attached to the inside antenna and stand to the port labeled inside antenna. The inside antenna must be operated in a vertical position. **DO NOT turn the repeater on until antennas and cables are securely attached.**
- 4. The DA4000MR unit has four mounting holes that can be fastened to a secure surface. (fastening hardware not included)
- 5. Plug 100-240VAC power supply to the DA4000MR unit. Plug the other end into standard household 110VAC receptacle.
- 6. Turn the power switch to ON. If the light on the DA4000MR unit is green and the coverage area is greater than 1-2' then the 4KMR-30U system is operating. Test the amplifier/repeater system by making a cell call and verifying that the repeater indicator light does not turn red. If the light on the DA4000MR unit turns red immediately turn OFF the DA4000MR unit and refer to the Amplifier/Repeater status section.

The repeater system only amplifies existing outside cell signal; it does NOT create a cell signal. If no outside signal is present, the repeater has no signal to amplify. The outside antenna should be mounted as high as possible to capture the available cell signal.

Inside Coverage area is based upon outside signal strength. A weak outside signal (-90dB) will provide less inside coverage area than a stronger outside signal (-70dB).

To increase coverage area, use one of Digital Antenna's high gain outside and/or inside directional antennas (pg 15).

### 5. Marine Installation

Review pre-installation considerations and determine site installation plan.

1. Install supplied outside antenna (PN 288-PW) to vertical surface or pole with supplied hardware. Mount the outside antenna clear of metal objects and obstructions and as high as possible. Use PN F114 (sold separately) to mount 288-PW to 1"-14 threaded base. Outside antenna must be mounted in a vertical position. The 4KMR-30U system may also be used with one of Digital Antenna's marine 9dB gain dual band cellular antennas (pg 15). (Follow minimum 20' inside and outside antenna separation guideline) Antennas must be separated by a structure and a 20' or greater distance with as much vertical separation as possible. Vertical separation is better than horizontal.

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- 2. On supplied 30' cable (PN 240-30NM) (or optional 25' extension cable or 75' or 100' replacement **PowerMax**<sup>TM</sup> cable) attach N male connector to N female connector on outside antenna. Route cable according to site installation plan to the DA4000MR unit.
- 3. Attach mini-UHF male connector at the end of the supplied 30' cable to DA4000MR unit on the port labeled outside antenna. Attach the 6' cable attached to the inside antenna and stand to the port labeled inside antenna. The inside antenna must be operated in a vertical position. **DO NOT turn the repeater on until antennas and cables are securely attached.**
- 4. The DA4000MR unit has four mounting holes that can be fastened to a secure surface in a dry location. (fastening hardware not included)
- 5. When using 110VAC Plug 100-240VAC power supply to the DA4000MR unit. Plug the other end into standard 110VAC receptacle. When using 12VDC Plug the 12 VDC to 5 VDC power cable (PN DP515) into the DA4000MR unit. Plug the other end into a 12VDC cigarette style power source.

The 12 VDC power supply, PN DP515, has a micro-processor controller to turn the repeater off if not properly installed. If a red flashing light appears on the power supply, relocate the inside and outside antennas until the power supply has a constant green light. The power supply can be reset by unplugging the cigarette adapter from the power source.

#### **WARNING!**

To have DC power hardwired consult a professional electronics technician.

6. Turn the power switch to ON. If the light on the DA4000MR unit is green and the coverage area is greater than 1-2' then the 4KMR-30U system is operating. Test the amplifier/repeater system by making a cell call and verifying that the indicator light does not turn red. If the light on the DA4000MR unit is red immediately turn OFF the DA4000MR unit and refer to the Amplifier/Repeater status section.

## 6. RV Installation

Review pre-installation considerations and determine site installation plan.

1. Install supplied outside antenna (PN 288-PW) to vertical surface or pole with supplied hardware. Outside antenna must be mounted in a vertical position. Mount the outside antenna clear of metal objects and obstructions and as high as possible but take care not to exceed height of other roof mounted items such as A/C. The base of the antenna only can be attached or next to metal. The white fiberglass portion should not be next to metal. Antennas must be separated by a structure and a 20' or greater distance with as much vertical separation as possible. Vertical separation is better than horizontal.

**WARNING!** Only Digital Antenna authorized products may be used with the 4KMR-30U system. Using unauthorized equipment with the 4KMR-30U system will harm the system, can be detected and voids the warranty.

- 2. On supplied 30' cable (PN 240-30NM) (or optional 25' extension cable or 75' or 100' replacement **PowerMax**<sup>TM</sup> cable) attach N male connector to N female connector on outside antenna. Secure cable to the side or top of the RV with appropriate fasteners (not supplied). Route cable according to site installation plan to the DA4000MR unit.
- 3. Attach mini-UHF male connector at the end of the supplied 30' cable to DA4000MR unit on the port labeled outside antenna. Attach the 6' cable attached to the inside antenna and stand to the port labeled inside antenna. The inside antenna must be operated in a vertical position. **DO NOT turn the repeater on until antennas and cables are securely attached.**
- 4. The DA4000MR unit has four mounting holes that can be fastened to a secure surface. (fastening hardware not included)
- 5. When using 110VAC Plug 100-240VAC power supply to the DA4000MR unit. Plug the other end into standard 110VAC receptacle. When using 12VDC Plug the 12 VDC to 5 VDC power cable (PN DP515) into the DA4000MR unit. Plug the other end into a 12VDC cigarette style power source.

The 12 VDC power supply, PN DP515, has a micro-processor controller to turn the repeater off if not properly installed. If a red flashing light appears on the power supply, relocate the inside and outside antennas until the power supply has a constant green light. The power supply can be reset by unplugging the cigarette adapter from the power source.

#### WARNING!

To have DC power hardwired consult a professional electronics technician.

6. Turn the power switch to ON. If the light on the DA4000MR unit is green and the coverage area is greater than 1-2' then the 4KMR-30U system is operating. Test the amplifier/repeater system by making a cell call and verifying that the indicator light does not turn red. If the light on the DA4000MR unit is red immediately turn OFF the DA4000MR unit and refer to the Amplifier/Repeater status section.

## 7. Specifications

#### Amplifier/Repeater Unit PN DA4000MR

• Frequency:

Uplink: 824-849 MHz and 1850-1910 MHz Downlink: 869-895 MHz and 1930-1990 MHz

• Modulations: ALL

• Max Output Power: 3W (824-849 MHz), 2W (1850-1910 MHz)

• Dynamic Variable Gain: 44dB Max

Impedance: 50 ohmsNoise Figure: < 3dB</li>

• Power Consumption: Standby 5 vdc/0.5A, Uplink 5 vdc/1.5A

• Internal Fuse: 3A

• FCC approved, FCC ID: PZODA4000SBR

• Industry Canada approved, IC ID: 4260A-DA4000SBR

• Dimensions: 4.5" 1 x 4.0" w x 1.25" h (114mm x 102mm x 32mm)

• Weight: 12 oz (.345 kg)

• RF Connections:

Outside Antenna Port: Mini-UHF Female Inside Antenna Port: Mini-UHF Female

DC Power: Coaxial ID = 2.5mm, OD = 5.5mm (center positive)

• Indicator: Multi color status indicator

• Power Switch: Slide switch toward LED = ON

#### Outside Antenna PN 288-PW

• Radiation pattern: Omni-directional

• Gain: 9dBi

• Bandwidth VSWR: < 1.5:1 = 810-950 and 1800-1980 MHz

• Max input power: 250 watts

• Dimensions: 18" 1 x .75" OD ( 45.7 cm x .2 cm )

• Weight: 8 oz.

• RF connector: N female

• Wind rating: 121.8 mph

• Installation: supplied L-bracket and hardware for wall or pole

#### **Inside Antenna** PN 135-RD

• Radiation pattern: Omni-directional

• Gain: 3dB

• Bandwidth VSWR: < 1.5:1 = 810-950 and 1800-1980 MHz

• Max input power: 50 watts

• Dimensions: 3.5" 1 x .25" OD (45.7 cm x .2 cm)

• Weight: 2 oz.

• RF connector: mini-UHF male

• Installation: Freestanding swivel mount with 6' cable

#### Cable PN 240-30NM

• Length: 30'

• Impedance: 50 Ohm

• RF connectors: Type N male and mini-UHF male factory attached

• Attenuation at 800 MHz: 2.8dB per 30'

• Attenuation at 1900 MHz: 4.4dB per 30'

### **Power Supply** PN DP255

• Input: 100-240VAC 50/60 Hz

Output: 5VDC 2.5AMounting: Wall typeCord Length: 10' (3m)

• Output plug: 5.5 x 2.5 x 11mm

#### Power Cable PN DP515

• Input: 9VDC to 24 VDC

• Output: 5VDC 2.5A

• Connector: Cigarette lighter style

• Internal fuse: 3A

Cord Length: 76" (1.93m)Output plug: 5.5 x 2.5 x 11mm

## 8. Antenna & Accessory Options

For complete specifications	White	Black			
Visit www.DigitalAntenna.com	PN	PN			
Omni-directional Cell Antennas (Outside)					
2.5' Dual Band 9dB Gain Cellular Antenna w/ male 1"-14	854-CW	854-CB			
4' Dual Band 9dB Gain Cellular Antenna w/ male 1"-14	883-CW	883-CB			
8' Dual Band 9dB Gain Cellular Antenna w/ male 1"-14	897-CW	897-CB			
2.5' Dual Band 9dB Gain Cellular Antenna w/ wall-pole base	996-CW	996-CB			
4' Dual Band 9dB Gain Cellular Antenna w/ wall-pole base	962-CW	962-CB			
8' Dual Band 9dB Gain Cellular Antenna w/ wall-pole base	967-CW	967-CB			
High Gain Directional Cell Antennas (Outside)					
Multi-Band 9 dB gain Panel Antenna	426-PW	N/A			
Multi-Band 10 dB gain Directional Antenna	N/A	489-DB			
Low Band (800 MHz) 14 dB gain Yagi Cellular	N/A	408-YB			
High Band (1900 MHz) 14 dB Yagi Cellular	N/A	419-YB			
High Gain Cell Antennas (Inside)					
Multi-band Ceiling Mount Antenna	433-CM	N/A			
Multi-Band 9 dB gain Directional Panel Antenna	426-PW	N/A			
Cables					
25' Extension Cable (for use with 30' cable 240-30NM only)	340-25NE				
50' PowerMax <sup>TM</sup> DA340 Cable Assembly (for outside antenna)	340-50NM				
75' PowerMax <sup>TM</sup> DA340 Cable Assembly (for outside antenna)	340-75NM				
100' PowerMax <sup>TM</sup> DA340 Cable Assembly (for outside antenna)	340-100NM				
100' up to 150' DA440 Bulk Cable (for outside antenna)	DA440				
10' DA240 Cable Assembly (extends 135-RD inside antenna)	240-10FM				
20' DA340 Cable Assembly (extends 135-RD inside antenna)	340-20FM				
25' DA340 Cable Assembly (extends 135-RD inside antenna)	340-25FM				
Connectors					
Mini-UHF Male (RG174 cable)	DA274				
Mini-UHF Male (DA340 cable)	DA434				
Mini-UHF Male (DA440 cable)	DA442				
Type N Female (DA340 cable)	DA371				
Type N Female (DA440 cable)	DA390				
Type N Male (DA340 cable)	DA445				
Type N Male (DA440 cable)	DA473				
Miscellaneous					
Ferrule for mounting PN 288-PW on 1"x14 male threads	F114				
2-way Cellular Combiner w/ mini-UHF female connectors	DA-2100				

Digital Antenna manufactures cellular amplifiers, repeaters and antennas to enhance communication on land or sea. All products are designed, engineered and manufactured by Digital Antenna in the USA. Visit <a href="www.DigitalAntenna.com">www.DigitalAntenna.com</a> to view our complete product line.

## 9. Technical Support

For answers to most questions access Digital Antenna's knowledgebase and Troubleshooter section on Digital Antenna's website <a href="www.DigitalAntenna.com">www.DigitalAntenna.com</a>. When contacting Digital Antenna regarding your repeater, locate the product's serial number on the DA4000MR unit before calling. The serial number is located on the bottom of the DA4000MR unit. The DA4000MR serial number must be available to authorize technical support and/or establish a return authorization.

For installation support contact your dealer. For system warranty issues contact Digital Antenna Technical Support between the hours of 9:00 AM and 5:00 PM EST, at 954-747-7022 or e-mail <a href="mailto:support@DigitalAntenna.com">support@DigitalAntenna.com</a>. The 4KMR-30U system must be used with Digital Antenna authorized equipment. The technical support team will only support Digital Antenna authorized equipment. Contact your dealer for installation questions.

For answers to Frequently Asked Questions visit www.DigitalAntenna.com