The AM-RRR remote radio receiver is designed for use with Linear’s AE1000Plus, AE2000Plus, and AM3Plus access control systems. The AM-RRR functions as a remote device that extends the radio range control or supplies localized radio reception for the controller.

Three antenna types can be used with this receiver. The cabinet mounted type “F” connector is for connection to the antenna. The local whip antenna (supplied) screws directly on to the receiver’s connector. The directional (EXA-2000) and omni-directional (EXA-1000) remote antennas wire to the receiver’s antenna connector with type RG-59 cable.

An on-board RADIO RANGE knob allows adjustment of the receiver’s gain. It can be set to limit the maximum radio range that the receiver can achieve. Two indicators display the receivers performance and operation. The two color red/green STATUS indicator lights red when the receiver is getting DC power and turns green when access is granted to a transmitter. The RADIO indicator lights when the receiver detects a radio signal. It can be used for trouble shooting and verifying system performance. Receiver test points are provided for listening to the incoming signals.

The AM-RRR remote radio receiver connects to the controller control unit through a six-wire cable. A rotary switch in the AM-RRR selects the PBUS device address for the receiver. Each PBUS device connected to the controller must be set to a different PBUS device address. Power is supplied to the receiver from the PBUS controller.

The receiver is housed in a weather-resistant enclosure and can be mounted indoors or outdoors. Gaskets and a weather-tight wiring strain relief seal the unit from the elements.

### TYPICAL INSTALLATION

1. **Open Case**
   - Remove four screws and washers
   - Board slides out from 3rd slot up inside case

2. **Set PBUS Device Address**
   - Set device address selector
   - Set to position 1-6
   - (Must be different from all other PBUS devices)

3. **Locate Components**
   - Radio range knob
   - Clockwise for maximum range
   - GND
   - Radio test points
   - Status indicator
   - Red = Power
   - Green = Access
   - Power & data terminals (connects to AM/II)
   - Antenna connector (hidden)
   - Antenna connector

4. **Cable Length Formula**

<table>
<thead>
<tr>
<th>Cable Run</th>
<th>Cable Type</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 FEET MAXIMUM</td>
<td>BELDEN 9501 (24 AWG)</td>
<td>FEET x LOAD UNITS = 3,000 MAXIMUM</td>
</tr>
<tr>
<td>500 FEET MAXIMUM</td>
<td>WEICO 9405 (20 AWG)</td>
<td>FEET x LOAD UNITS = 10,000 MAXIMUM</td>
</tr>
</tbody>
</table>

**AM-RRR Mounted outside building**

**Homerun Wire Each AM-RRR to the Controller**

**Each AM-RRR equals 4 load units**

**Linear**

USA & Canada (800) 421-1587 & (800) 392-0123
(760) 438-7000 - Toll Free FAX (800) 468-1340
www.linearcorp.com

**AM-RRR equals 4 load units**

**Cable Length Formula for Each AM-RRR Used in System**

**Set to Position 1-6 (Must be different from all other PBUS devices)**

**Printer’s Instructions:**

INSTR, INSTL, AM-RRR LINEAR P/N: 212045 C - INK: BLACK - MATERIAL: 20 LB. MEAD BOND - SIZE: 11.000” X 8.500” - SCALE: 1-1 - SIDE 1 OF 2
5. CONNECT AM-RRR TO CONTROLLER

6. CLOSE CASE AND MOUNT UNIT

7. INSTALL ANTENNA

5. CONNECT AM-RRR TO CONTROLLER

6. CLOSE CASE AND MOUNT UNIT

7. INSTALL ANTENNA

8. PROGRAM SYSTEM

9. TEST SYSTEM

LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twelve (12) months. This warranty extends only to wholesale customers who buy direct from Linear or through Linear’s normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer’s warranty, if any. There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation. All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. This Linear LLC Warranty is in lieu of all other warranties express or implied. All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

IMPORTANT !!!

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signalling. However, there are some limitations which must be observed.

* For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.

* A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.

* Changes or modifications to the device may void FCC compliance.

* Infrequently used radio links should be tested regularly to protect against undetected interference or fault.

* A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

PROGRAMAM-RRR TO CONTROLLER

PWR

GND

DAT1

DAT0

DVAL

PCLK

ACCESS CONTROL
SYSTEM PBUS
TERMINALS

PWR

GND

DAT1

DAT0

DVAL

PCLK

CONNECT WIRES TO
AM-RRR TERMINALS

WIRING

STRAIN RELIEF

(DRILL LATER)

INDICATOR
VIEWING WINDOW

WIRING

STRAIN RELIEF

CONNECT WIRE TO
AM-RRR TERMINALS

SLIDE BOARD INTO
3RD SLOT UP

TIGHTEN AFTER INSTALLATION

ATTACH CASE TO
MOUNTING SURFACE

USE SCREW ANCHORS
OR APPROPRIATE HARDWARE
FOR MOUNTING

ATTACH CASE TO
MOUNTING SURFACE

USE SCREW ANCHORS
OR APPROPRIATE HARDWARE
FOR MOUNTING

OMNI-DIRECTIONAL
EXA-1000 ANTENNA
MOUNTED ON POLE

DIRECTIONAL
EXA-2000 ANTENNA
MOUNTED ON POST

LOCAL WHIP
ANTENNA (SUPPLIED)
CONNECTED DIRECTLY TO
RECEIVER

Screw CONNECTOR
ONTO RECEIVER

FOLLOW EXA ANTENNA
INSTRUCTIONS WHEN
CONSTRUCTING ANTENNA

SECURE CASE
WITH FOUR SCREWS AND
WASHERS