

PLM Reader

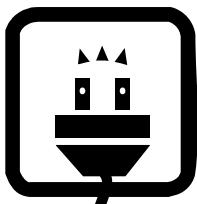
Model R22-1012 with P10-xx10 PlugSert option

Installation Instructions



RadarFind™ Corporation
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www.radarfind.com



	<p>DANGER:</p> <ul style="list-style-type: none">• Risk of electric shock. Disconnect all supplies before working on any circuit.• It is important to follow all instructions shipped with this product. Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.
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Cautions:	<ul style="list-style-type: none">• Risk of malfunction. Use only copper wires of size 12AWG (or larger) suitable for 105°C (221°F).• Installation should conform to national, state, and local electrical codes.• Gauge of electric supply wires should be of appropriate section, function of line current, as per NEC electrical code.• This device must be installed directly into the electrical system.• This device must be installed by a trained and licensed electrician who is thoroughly familiar with the National Electrical Code and follows the NEC Guidelines as well as state and local codes.
Reader Model R22-1012 Fcc ID: URGR221012	<p>[15.19] This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.</p> <p>[15.21] Information to user: Changes or modifications not expressly approved by the RadarFind Corporation could void the user's authority to operate the equipment</p> <p>[15.105] NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.</p> <p>[15.247] This equipment operates under Section 15.247 of the Title 47 FCC Rules.</p> <p>[15.249] This equipment operates under Section 15.249 of the Title 47 FCC Rules.</p>

General Safety Information

- Wear safety goggles when working under conditions that might be hazardous to your eyes.
- Keep tools where you and others will not fall over them.
- Keep the installation area clear during the installation.
- Do not wear loose clothing that could become caught in the equipment.

Electrical Safety Information

- Before working on electrical equipment, remove jewelry (necklaces, rings, watches, and so on).
- Locate the emergency on/off switch closest to the installation site.
- Before installation, turn OFF the power.
- Refer to the site's safety precautions for details about site-specific hazards.
- Refer to the Reader name plate for information on voltage and current.

Preparing for Installation

Note: Read all instructions before installing or operating this equipment.

Site Selection Criteria

The selection of the mounting location for the reader and the method of connecting it into the existing electrical system must be accomplished under the direction of the facilities engineer and the safety engineer responsible for the proposed building or location.

The installation location must be indoors and protected from all weather and water. All provided mounting fasteners must be used for secure and safe attachment.

Equipment Assessment

Caution:	If the equipment is damaged, do not attempt to install or operate it.
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1. When the equipment arrives, unpack the unit(s).
2. Check for damage that may have occurred in transit.
3. Contact the carrier immediately to file a claim stating the extent of the damage, or contact Radarfind customer service for repair or replacement.
4. Review the following checklist to ensure that all necessary materials are available for installation.

Reader unit

- 2—3/4" #6 screws – For mounting Reader to existing electrical box. Wired Reader only
- 4—hollow wall “Polly” anchors
- 4—3" #6 screws for use with the “Polly” wall anchors
- 4—plastic mounting hole plugs



Installing a RadarFind Plug-in Reader

Warning: ALWAYS confirm that Location ID label on top of Reader matches Location ID on map for where Reader will be installed. If it is necessary to install a Reader in any other location for any reason RadarFind must be notified immediately.

Note: A RadarFind Reader can only be installed with the ground pin orientation the same as the existing receptacle. If it is necessary to install a Reader 180 degrees off-axis from the existing receptacle the orientation of the existing receptacle must be reversed by an electrician.

Plug-in Installation Procedure



1. Unscrew Reader receptacle plate screw approximately $\frac{3}{4}$ "
2. Remove existing receptacle cover plate.
3. Plug Reader into existing receptacle
4. Level Reader and mark wall for four corner mounting anchors.
5. Remove Reader.
- 6.
7. Insert included wall anchors at punch marked locations, tighten until securely compressed into wall, then remove screws from anchors and discard. (The heads on the anchor screws are too large to be used in the Reader)



8. Plug Reader into receptacle.
9. Insert and secure 4 corners using the (4) 3" #6 screws, tighten to 12 inch pounds.
10. Tighten Reader receptacle cover plate screw
11. Plug four corner holes with plugs provided.

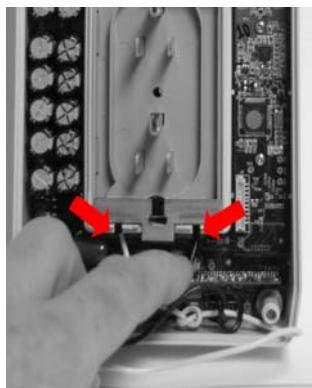
Hard wiring a Reader

In places where the Reader must be installed off-axis to the receptacle or over a quad box the Reader Plug-Sert must be removed and the Reader must be wired directly into the receptacle box.

Removing the Plug-Sert from Reader



1. Remove Reader back plate
2. Remove Reader cover plate
3. Loosen Plug-Sert wire tap screws, from the bottom front of the Reader behind the receptacle



4. Pull Reader tap wires out of Plug-Sert from inside the back of the Reader
5. Remove receptacle mounting screws
6. Pull the Plug-Sert out of the front of the Reader



7. Feed Reader tap wires through slots in Reader cavity
8. Replace Reader back plate
9. Proceed with wired Reader instructions on next page.



Hard wired Reader Installation Procedure

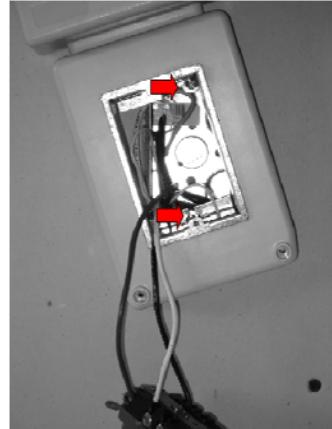
1. Turn off the power to the outlet.



2. Remove the existing receptacle cover plate and mounting screw, set aside screws for use later.
3. Unscrew receptacle, save screws for later use, and pull receptacle out of box.

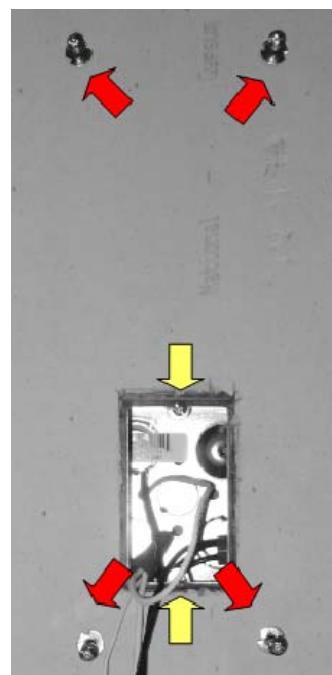
NOTE: If Reader orientation is off axis to the existing receptacle or if the existing receptacle is an quad see Reader mounting adapter plate 80-000-1019 adapter plate. (Pg. 10)

4. Start bottom receptacle mounting screw from installation kit into the box hole, (YELLOW) leaving approx 1/2" protruding, cut screw if required to avoid contact with wires in the box.

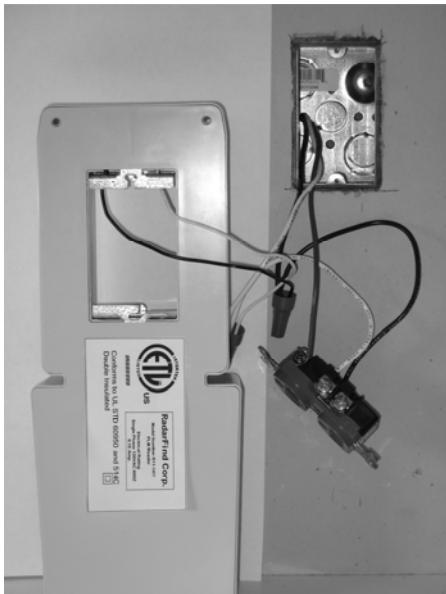


5. Pull receptacle through Reader from back and place Reader temporarily over box, sliding slot in Reader mounting frame over bottom box screw, level, and mark corner holes with punch.

6. Remove Reader. Insert included wall anchors at punch marked locations, tighten until securely compressed into wall, then remove screws (RED) from anchors and discard. (The heads on the anchor screws are too large to be used in the Reader)



7. Start top receptacle mounting screw into the box hole, (YELLOW) leaving approx 1/2" protruding, cut screw if required to avoid contact with wires in the box.



8. Wire Reader into circuit with Reader leads protruding from rear of Reader.
9. Pass receptacle through reader cavity and tip Reader onto the protruding box screws (RED) by sliding slotted end of metal mounting frame onto bottom screw, tipping the Reader to left and turning clock-wise onto top screw.

IMPORTANT ! Use caution to assure that no wires are caught under metal Reader frame.

10. Tilt the Reader straight, level, and tighten box screws loosely.
11. Insert and secure 4 corners using the (4) 3" #6 screws, tighten to 12 inch pounds.
12. Tighten box screws (RED) and reinstall receptacle onto Reader mounting bracket using the original receptacle screws, tighten to 12 inch pounds.



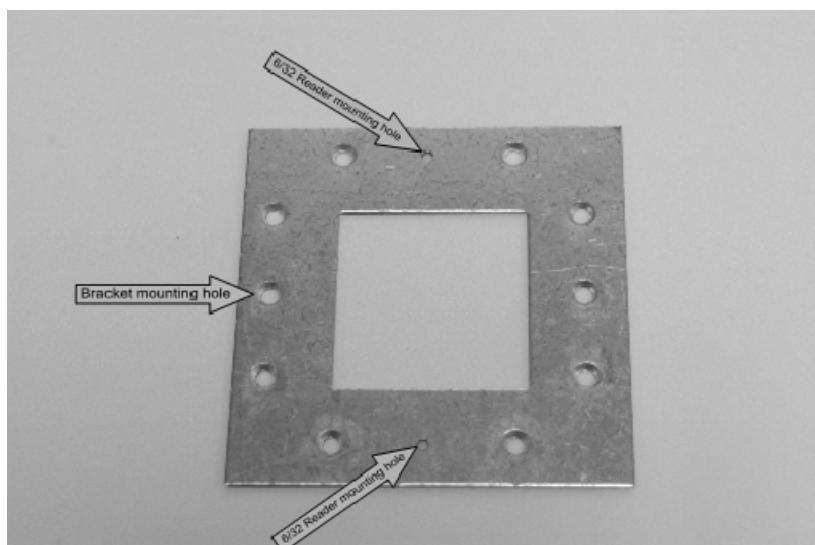
13. Replace outlet plate and cover four mounting holes with plastic plugs, provided.
14. Restore power to the outlet.

Note : See Reader mounting adapter plate (Pg. 10) for mounting at 90 Degrees to single gang receptacles or on quad-box receptacles.

Accessories

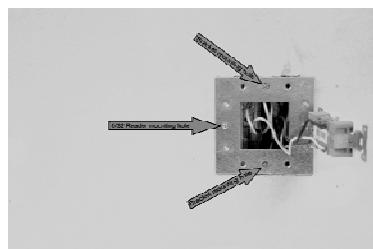
Reader mounting adapter plate – 80-000-1019

In some cases other objects near a receptacle, such as railings or cabinets, will prevent the Reader from being installed in its default position or orientation. RadarFind Readers may be hard wired at a 90 degree angle over single gang wall receptacles or in any orientation over quad receptacles with the accessory adapter plate.



1 – Remove PlugSert module from Reader

2 - Remove cover plate and receptacle mounting screws, tip receptacle up from wall.



3 – Install adapter plate with tapped 6/32 Reader mounting holes for desired Reader orientation.



4 – Install Reader onto adapter plate according to the Hard wired Reader Installation Procedure.

Tamper-resistant mounting accessories

RadarFind R11-1411 Readers are packaged with standard 6/32 combination head screws for the center plate retention screw and the four corner anchor screws. Tamper resistant screws and matching drivers are available as accessories.

Note: The Reader UL 914C approval - for use as an electrical extension ring - when installed as a direct wired device requires the use of the provided wall anchors on all four corners. The 50-100-1020 tamper-resistant screws are custom manufactured for use with these UL approved wall anchors.

RadarFind R11-1411 Reader Accessories

<u>Part Number</u>	<u>Description</u>
80-100-1019	Adapter mounting plate for R11-1411 Reader
50-100-1019	(1) 6/32 2" tamper-resistant center plate screw for R11-1411 Reader
50-100-1020	(4) 6 /32 3" tamper-resistant wall mounting screws for R11-1411 Reader
50-100-1021	Tamper-resistant screw driver for 50-100-1019
50-100-1022	Tamper-resistant screw driver for 50-100-1020 for R11-1411 Reader

Technical Specifications:
Part # - R22-1012

AC supply: 108-130 VAC RMS, single phase 60HZ
Power: 1.2 VA

Double Insulated

Communications: FHSS FCC Subpart 15.249 and 15.247
RF frequency range: FSK channel between 902 and 928 MHz
Transmit power: +8dBm maximum
Antenna: 6 dB gain cardioid
Operating: 0 to 40° C, 5% to 90% RH, non condensing
Dimensions: 5" W x 12.3" L x 2.25" D
(4 mounting holes for wall anchors)

