



70100-6101

# Outdoor Reader

Installation Instructions



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## OUTDOOR READER INSTALLATION

### About the Outdoor Reader

The outdoor reader unit has two separate components:

- The case (called the *weather shield*) protects the reader from bad weather.
- The *HandReader* is able to function in much colder weather than regular readers when ordered with an internal heater (INT-HTR).



### How the HandReader and internal heater work

In cold weather, when one places a hand on the HandReader, a mist forms around the hand. This distorts the image so the reader doesn't recognize the hand. To prevent this problem, the HandReader can be ordered with an internal heater. To accommodate the heater in the platen, the HandReader uses a 24 VDC, 2 amp power supply; this is different from the power supply for indoor readers.

### UL Disclaimer

The reader is UL approved for indoor use only.

# INSTALLATION INSTRUCTIONS

## Before you start the installation

Before you start installing the reader and weather shield, pick an appropriate location for the reader. (See the reader manual for more information about where to locate the reader in relation to the door.)

Also make sure that you are familiar with local building codes that affect this installation and that you have the appropriate tools and fasteners.

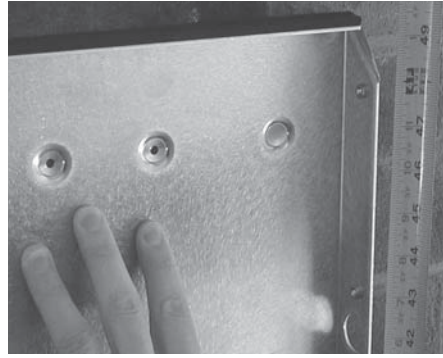
## Tools you will need for the installation

- a. To install the reader, you need:
  - A level
  - A measuring tape
  - A Phillips screwdriver
  - A drill with  $\frac{1}{4}$  and  $\frac{1}{2}$  inch bits
- b. Materials you must provide
  - wiring raceways approved by local code
  - the appropriate fasteners to secure the reader to the wall

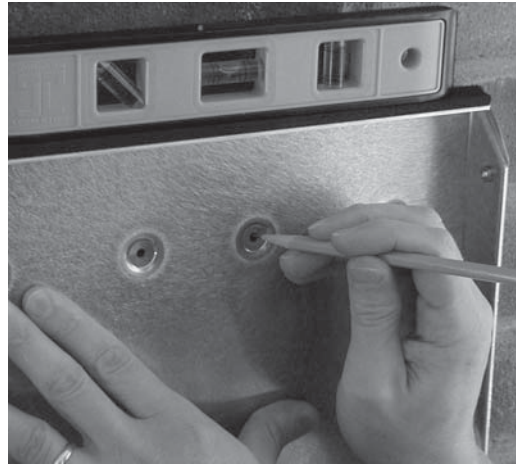
## Installing the weather shield's back panel and wall mount

1. Hold the weather shield's back panel against the wall so the top of it is 49.5 inches (126 cm) from the floor or ground.

*When the installation is done, this will put the reader platen 40 inches (roughly 102 cm) from the ground.*



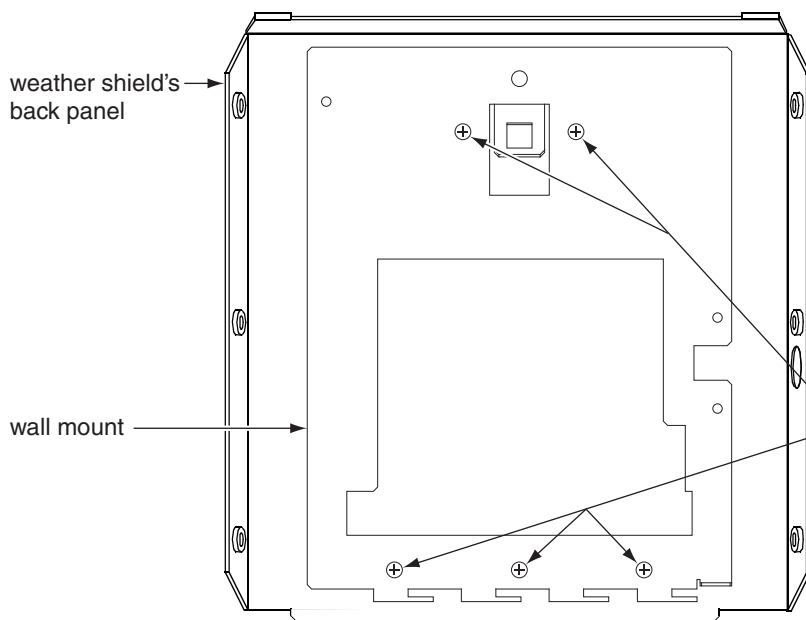
2. Make sure the top of the back panel is level.
3. Mark the location of the five screw holes (two on the top and three on the bottom). Also mark the location of the wiring hole if you plan to run the wiring straight through the wall.



4. If needed, drill holes for each of the holes that you marked.

*The size of the holes and the method you use to fasten the weather shield's back panel and wall mount to the wall depends on the type of wall, on the fasteners you have, and on any local building code requirements.*

- **For wooden walls:** You may need to drill pilot holes for your screws so you don't split the wood.
  - **For hollow walls:** You will probably want to use toggle bolts or some similar type of fastener designed for hollow walls. The size of the holes you need depends on the fastener.
  - **For a solid wall (e.g., brick or masonry):** It's most common to use ¼ inch expansion anchors. Drill ¼ inch diameter holes that are ¼ inch deeper than the anchors.
5. Screw the weather shield's back panel and the wall mount to the wall.



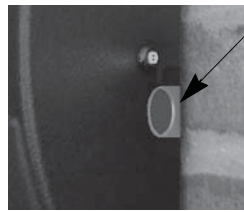
Place the back panel of the weather shield on the wall, and then place the wall mount on top of it so the screw holes line up. (This diagram shows the wall mount without the foam for detail purposes, but you must keep the foam on the wall mount for the reader to seal properly.)

There are two screws on the top and three screws on the bottom. Firmly tighten all the screws.

6. If you will use surface conduit to bring the wiring to the reader, notch the side of the weather shield and reader at the appropriate places. (Skip this step if your wiring will come straight through the wall.)

*To find the location for the hole in the weather shield, put the case on the back panel and mark the location of the conduit hole on the right side of the weather shield's back panel.*

*The location for the hole is already marked on the reader (on the left side if you are looking at it from the back).*



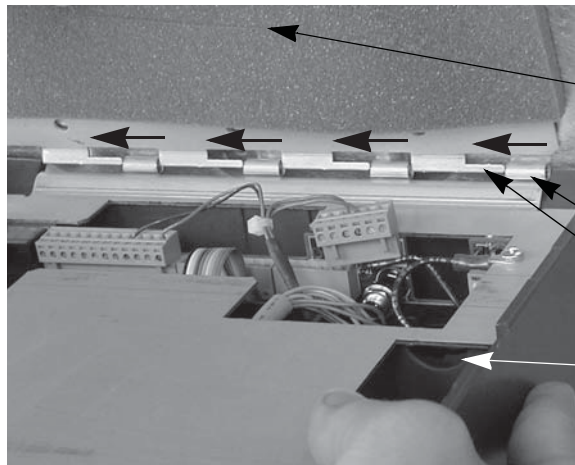
Make a notch in the side of the case so it lines up with the hole for the conduit in the side of the weather shield's back panel.

## Running the wiring

7. Run the wiring for the reader, but don't connect the wires to the green terminal connectors yet.
  - Make sure that you follow all local electrical codes in bringing the wiring to the reader.
  - See the reader manual for wiring instructions.
  - See step 9 before you connect the green terminal connectors.
  - Make sure that you use an appropriate power supply. The HandReader with heated platen uses a 24 VDC, 2 amp power supply rather than the 12± volt power supply that regular readers use.

## Mounting the reader

- Line up the slots at the bottom of the reader's back with the four hinge pins at the bottom of the wall mount. Slide the reader to the left so the pins go in the slots. This fastens the reader to the wall and wall mount and forms a hinge.



Wiring that comes through the wall passes through this slit.

These slots slide over these pins, fastening the reader to the wall mount and forming a hinge.

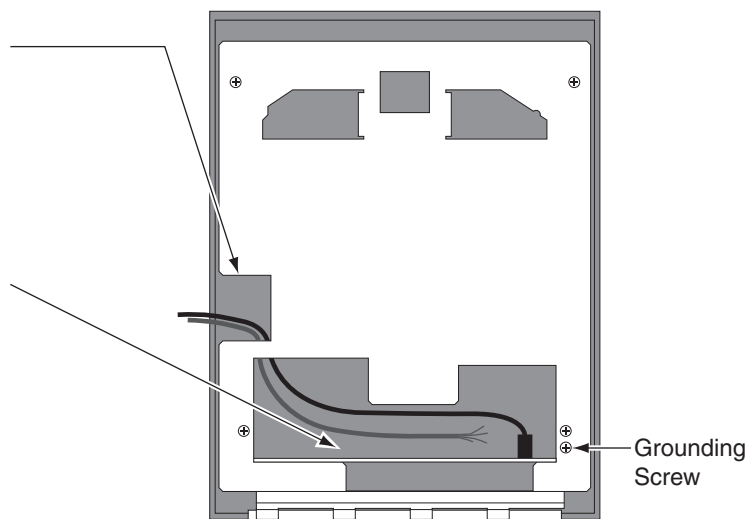
If using surface conduit, all wiring must pass through this hole (see step 9).

- Connect the wiring and power to the reader.

**If you are using surface conduit:** Make sure all the wires pass through this hole in the reader before you connect the wires to the green terminal connectors. The green terminal connectors won't fit through this hole, and the wires must pass through this hole so they don't get pinched when you close the case.

**If the wiring will come through the back of the reader:** The wires enter directly into the wiring area through the slit in the black foam. This is the easiest way to do the wiring.

See the reader manual for instructions on which wires must connect to which terminal pins.



- Put the key in the lock on the side of the reader, turn the key clockwise, close the reader, and then turn the key counterclockwise to lock the reader.

*Don't try to shut the reader without using the key; this will bend the locking mechanism.*

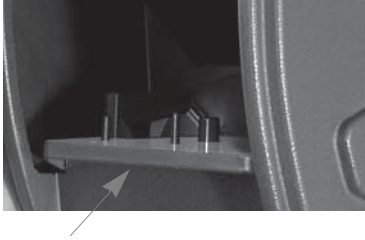
- Test the reader to make sure it is wired and communicating correctly.

*Do this prior to installing the weather shield; you can't open the reader back up to adjust wiring or connections with the weather shield in place.*

## Mounting the weather shield over the reader

12. Place the weather shield over the reader. You must place the bottom of the case on first and then push in the top.

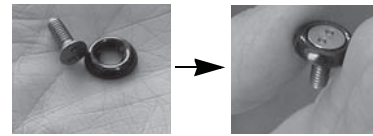
*The bottom of the case must go on first so the lip at the bottom of the opening slips under the platen rather than sliding in front of it.*



*Make sure the lip at the bottom of the opening in the weather shield slips under the platen.*

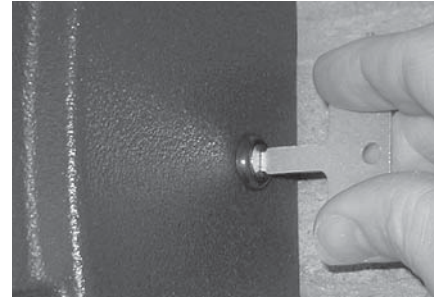


13. Put a washer on each of the six screws.



14. Use the tool with two small prongs on the end to insert the screws that hold the weather shield onto the weather shield's back plate.

*This tool provided with the reader may be slightly different than the key shown in this picture.*



15. If needed, use the RTV sealant we provided to seal any places on the top or sides where water might get behind the weather shield.

*The black pad on the back side of the weather shield's back panel adequately seals the back on a flat wall, but on brick, clapboards, or other surfaces that aren't flat, use the sealant to fill any gaps.*

*Do NOT caulk the bottom of the case! In cool damp weather, moisture can condense inside the weather shield. Leaving the bottom uncaulked lets any water droplets that form run out instead of collecting inside the case.*