

EA_Gatekeeper model 2240: GE MDS SD2-ready kit

Installation instructions
IL42-5042A

General

NOTICE

For information on placing the gatekeeper into service, see the EA_Gatekeeper model 2210 installation instructions (IL42-5039).

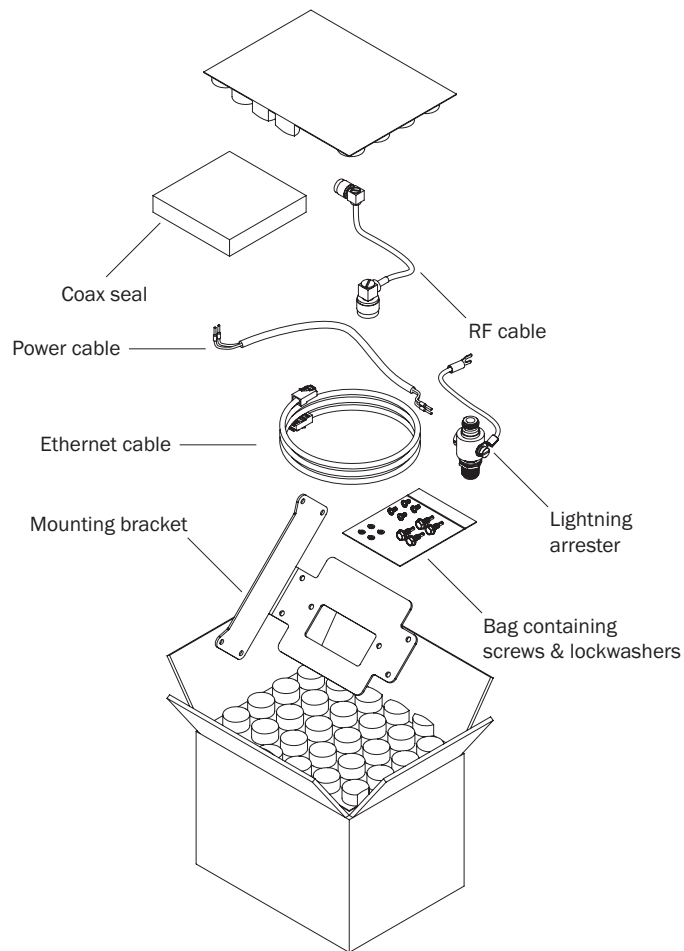
For information regarding configuration and operation of your GE MDS radio, please contact your GE representative.

This instructional leaflet provides detailed instructions on installing an EA_Gatekeeper model 2240 with a GE MDS SD2 P2P modem using Elster hardware kit 1C12599G02. This hardware kit includes the following parts for equipping the EA_Gatekeeper with necessary hardware to support an external remote directional antenna (see also Figure 1):

Item	Elster part number	Quantity
RF cable RA-TNC to RA-N, 8 inch	1B12539G03	1
Lightning arrester kit (arrester and 8-inch ground wire)	1B12582G01	1
Screw pan head, 6-32 × 1/4 inch	3A35427H01	6
Lockwasher, #6, spring	3A35225H17	6
Mounting bracket	1C12652H01	1
Scre, self-drilling, #10-16 × 5/8 inch, hex	3A35226H48	4
Power cable, 13 inch	1B12544G01	1
Ethernet cable, 20 inch	1B11989G02	1
Bag, poly zip, 3 inch × 4 inch	3A35233H07	1
Coax sealant	3A35281H01	1

This hardware kit does not include the GE MDS SD2 radio, directional antenna, or remote antenna cable. These parts can be purchased from normal distribution channels or from Elster. Contact your Elster representative if additional assistance is required.

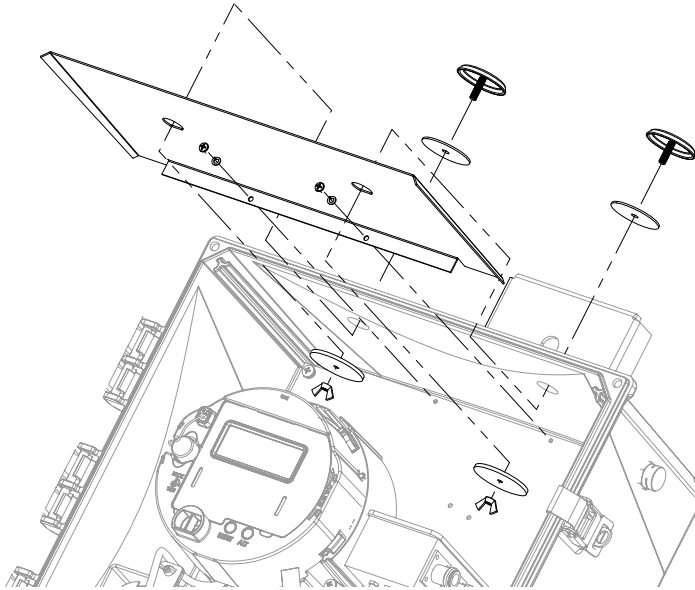
Figure 1.



Installing the GE MDS SD2 radio

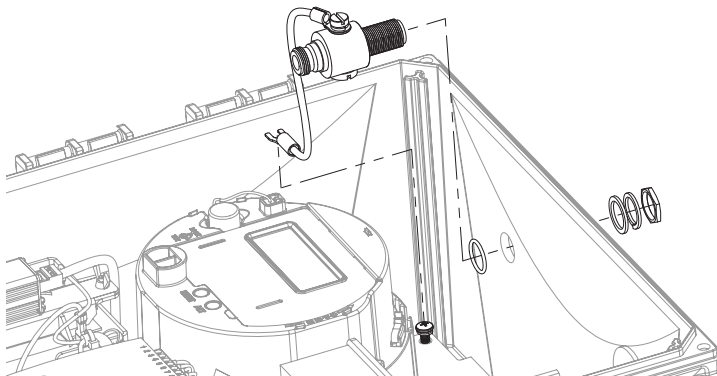
- 1 Remove the two hole plugs located in the top surface of the enclosure. They are secured with wing nuts. Keep one set of hole plug HW. The second set of hole plug HW can be discarded.
- 2 Remove the 2 Phillips screws and lock washers retaining the top ground plate in the enclosure and discard.
- 3 Slide the top ground plate out of the enclosure and discard (see Figure 2).

Figure 2.



- 4 Reinstall one hole plug in the right hand side top enclosure hole. Be sure the gasket is in place, the hole plug is centered, and the large metal washer is installed over the threads on the inside of the enclosure. Tighten the wing nut securing the hole plug until the gasket is compressed and the plug is seated flush against the outside enclosure surface.
- 5 Install the lightning arrester kit into the left hand hole in the top of the enclosure (see Figure 3).
 - a Ensure the O-ring is in place on the sealing surface of the lightning arrester.
 - b Ensure the sealing surface of the enclosure is clean and smooth.
 - c Insert the lightning arrester such that the ground wire is extending towards the enclosure base plate.
 - d Torque the lightning arrester retaining nut to 30 in-lbs.
 - e Loosen the top left screw securing the enclosure base plate. This screw does not need to be removed: it needs only be loosened enough to slide the spade connector on the ground wire under the screw head.
 - f Slide the spade connector under the head of the base plate screw and tighten to 24 in-lbs.

Figure 3.



- 6 Install the GE MDS radio to the supplied bracket using the #6 screws and lock washers provided in the kit (see Figure 4). Torque the screws to 6 in-lbs
- 7 Install the radio and bracket inside the enclosure. Secure the bracket to the enclosure base plate using the #10 self drilling screws included in the kit. The bracket holes will align with existing holes in the enclosure base plate (see Figure 5). Torque to 24 in-lbs.

Figure 4.

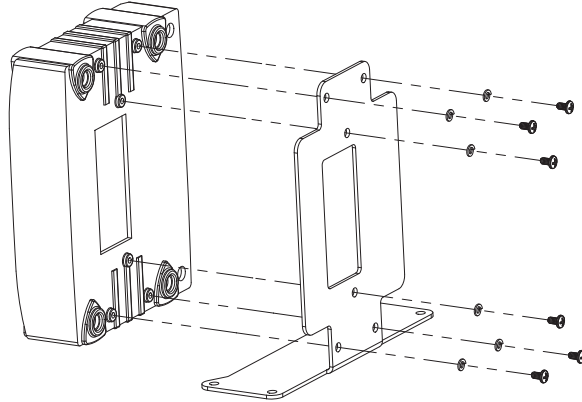
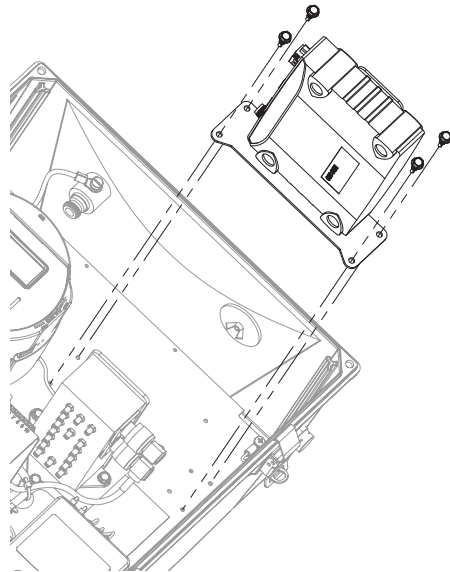


Figure 5.



- 8 Install the RF cable between the GE MDS radio and the antenna lightning arrester previously installed in the enclosure (see Figure 6 through Figure 8). Tighten with soft-jaw pliers.
- 9 Route the Ethernet cable between the electronics module and the RF cavity filter and alongside the battery bracket, terminating the RJ-45 connector into the bottom of the Ethernet transient surge suppressor.
- 10 Connect the power cable to the GE MDS radio. The red wire will connect to the '+' terminal on the radio, and the black wire will terminate on the '-' terminal on the radio. Route the modem DC power cable between the electronics module and the RF cavity filter to the top side of the DIN rail terminals located to the left of the power supply/battery charger. Terminate the power cable.

- 11 Install the external remote antenna a minimum of 10 feet above the EA_Gatekeeper enclosure. This antenna is not included in the radio mounting kit and must be purchased separately.
- 12 Install the RF cable to both the EA_Gatekeeper lightning arrester and the RF terminal of the external remote antenna. To prevent moisture from entering the RF connectors, use the supplied coax sealant to waterproof each termination of the RF cable.

Figure 6.

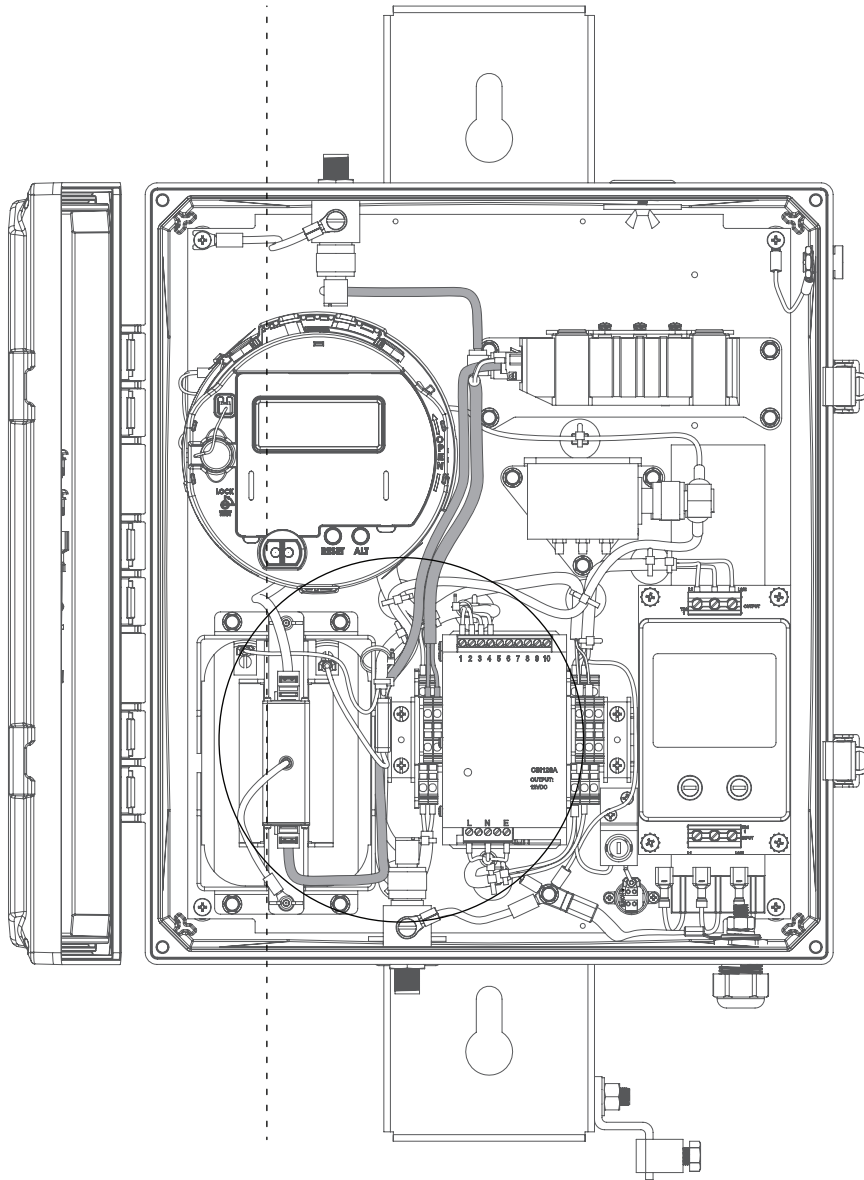


Figure 7.

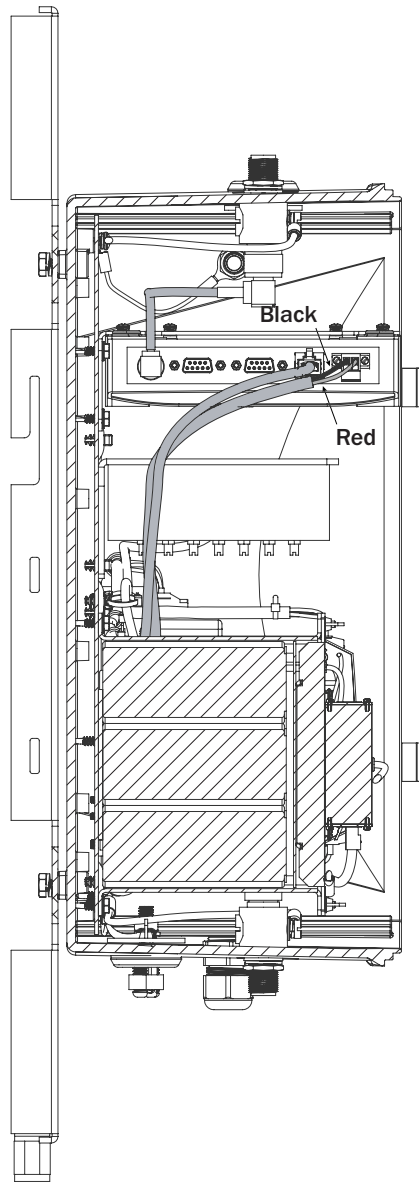


Figure 8.

