

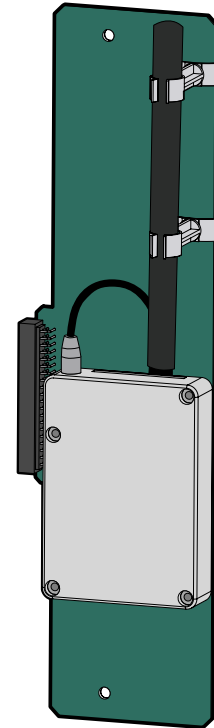
# IMMS-CELL-GSM

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## Cellular Communications Kit

Installation Instructions

**Hunter**<sup>®</sup>



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## **BEFORE YOU INSTALL**.....

The IMMS-CELL-GSM radio communications kit can only be installed in the IMMS-SI-HW Site Interface. Cellular communications are not designed for the IMMS-SI-MOD dial-up Site Interface, or for any version of the Controller Interface (CI).

This cellular communications system requires cellular telephone service with a compatible cellular supplier, which generally requires a paid subscription (see **Circuit Switched Data**, page 2). Contractual arrangements for the cellular telephone account, mobile number, and any billing related to cellular service are the responsibility of the end-user of the equipment. If you are not sure how to proceed, contact your local Hunter IMMS Wireless distributor or Hunter Industries before proceeding with installation.

## **OPERATING SYSTEMS: GSM, AND GSM-E** .....

At this time, IMMS is only available for GSM-based cellular systems. In North America, proven systems include Cingular and T-Mobile. (CDMA systems will not work for IMMS).

Europe and certain other international locations use the GSM standard, but in a different frequency range than North American systems. IMMS-CELL-GSM-E is compatible with most European and some other international carriers. Verify with your local carrier before installation.

IMMS-CELL-GSM 850/1900 MHz

IMMS-CELL-GSM-E 900/1800 MHz

## **CIRCUIT SWITCHED DATA (CSD)** .....

IMMS-CELL will only operate correctly using a Data number with "CSD" enabled.

You **MUST** inform your carrier that you will be operating over a CSD-enabled number, prior to installations.



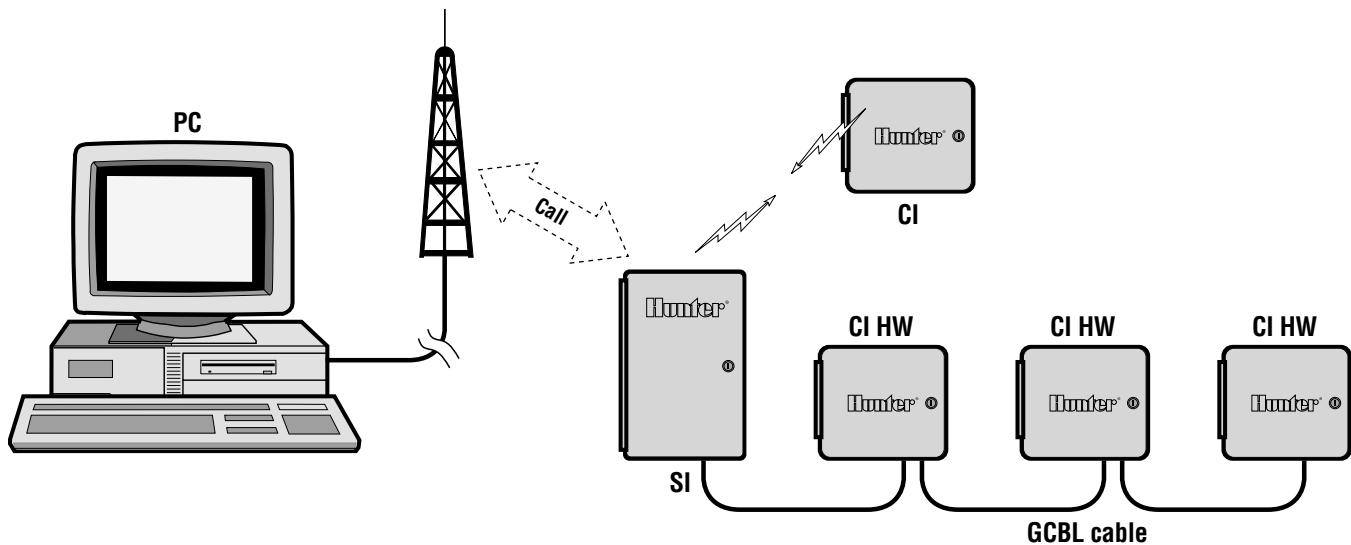
**NOTE: IMMS-CELL will use the "Data" telephone number supplied with the service. GSM accounts usually provide multiple telephone numbers, although many customers and retailers are not aware of this. Do not configure the Site to use the Voice, or optional Fax numbers... only the Data number will work correctly.**

IMMS-CELL is not IP-enabled and will not function correctly as a GPRS (General Packet Radio Service) or SMS (Short Message Service) modem.

CSD, operating through the Data telephone number, is the only correct configuration for IMMS.

## INSTALLATION NOTES.....

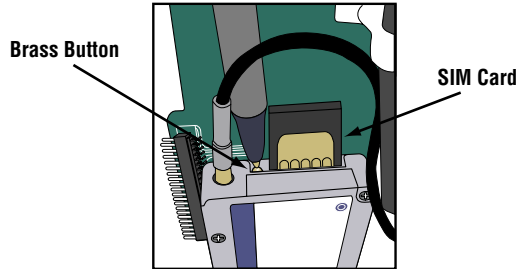
- A cellular modem can be installed in an SI (Site Interface), at the same time as the IMMS-R UHF radio kit. This permits communications to the SI from the computer over a cellular connection, and communications from the SI with both radio connection, and communications from the SI with both radio Controller Interfaces (CIs) and hardwire CIs in the same Site:



# INSTALLATION

## GSM (and GSM-E) modules:

The modem requires a Subscriber Identity Module (SIM) from the cellular provider in order to operate. Install the SIM into the slot in the top edge of the modem module as shown. If you need to remove a SIM, press the small brass button next to the SIM slot with the tip of a ballpoint pen, and the SIM card will be ejected.



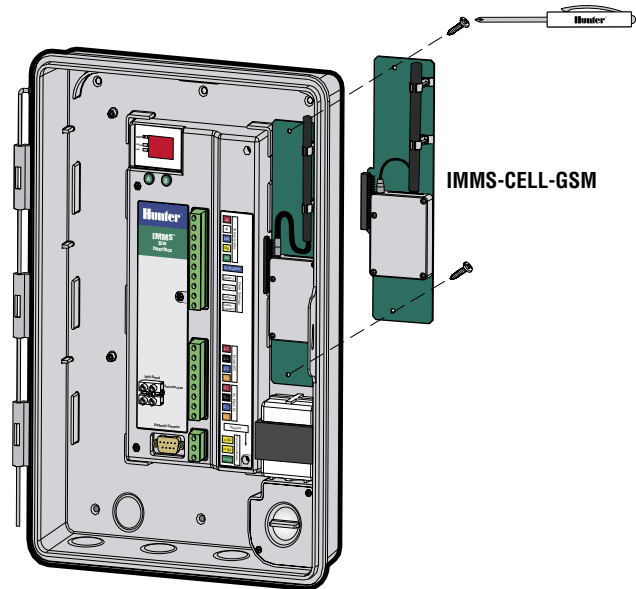
## Installation into the SI (Site Interface):

1. Open the Site Interface cabinet and locate the cellular modem area in the upper right corner of the cabinet.
2. Turn the power off to the SI, by unplugging the green 3-wire 24 VAC terminal from the SI wiring center.
3. Carefully fit the connector on the left side of the IMMS-CELL module into the mating socket on the right side of the raised SI wiring area, and slide into place. Avoid bending any pins!
4. You may secure the module into place using the supplied screws, through the holes in the top and bottom ends of the circuit board.
5. Apply power back to the SI. The display will show the "88" test pattern, then the version of the firmware, and the "01" address setting. As soon as the cellular module is recognized by the Site Interface, the display will show "CL".
6. If CL is not displayed, the installation has a problem. Check connector pins, and try again.

## Antenna connection:

The IMMS-CELL includes an antenna which is already connected, and which should be adequate for most installations.

In some rare cases, an external antenna may be required. The IMMS-CELL modem features an MMCX connector, which may be adapted to external cellular antennas. Contact your cellular provider to locate compatible external antennas for your frequency range. You may require a short adapter cable to convert from the MMCX connector to the connector on the external antenna.



# IMMS-CELL TEST PROCEDURE.....

When power is reapplied to the Site Interface after connection of IMMS-CELL, the SI display will go through the normal sequence (test pattern followed by version number), and then display "CL". This verifies the connection to a cellular modem.



**NOTE: This does not verify the cellular phone setup or cellular connection, only that the IMMS-CELL is correctly installed.**

Observe the LED light on the IMMS-CELL circuit board. If it is flashing, it is registered on the cellular service.

If it is on but not flashing, it is correctly installed in the SI but is not registering with the cellular provider. Refer to the SIM card instructions above and troubleshoot with the cellular provider.

If the light is not lit, the module may not be plugged in correctly... inspect pins, and reconnect.

Once the module is installed correctly, and the light is flashing (indicating that the cellular service is available), you can test the system from the IMMS software.

Complete configuration instructions are available in the IMMS on-line Help, but you will need to create a Site in the IMMS software, then go to the Configure Hardware settings.

Set the Communications type to "Modem" and enter the cellular DATA number, including area code or any other prefixes as necessary. Save the configuration, and then right-click the Site icon and choose a function or command to send to Site.

The Site should answer and the command should be executed. It is helpful to turn up the modem volume on the computer so that you can hear the dialing and data take place (this can be turned back down, or off, after initial testing is complete).

If communications fail, listening to the modem sounds can give valuable clues. You should be able to hear a dial tone, then outward dialing, and the SI should answer after one ring. In some cases, you may hear an error message from the cellular service. This could indicate that the service is not active.

If the Site answers, but communications fail afterward, this may be because the Voice or Fax numbers have been entered instead of the Data number. Check the number and try again.

If any problems persist, contact Hunter Technical Services at (760) 591-7383. It is always best to contact them when you are near the computer with the IMMS software installed.

