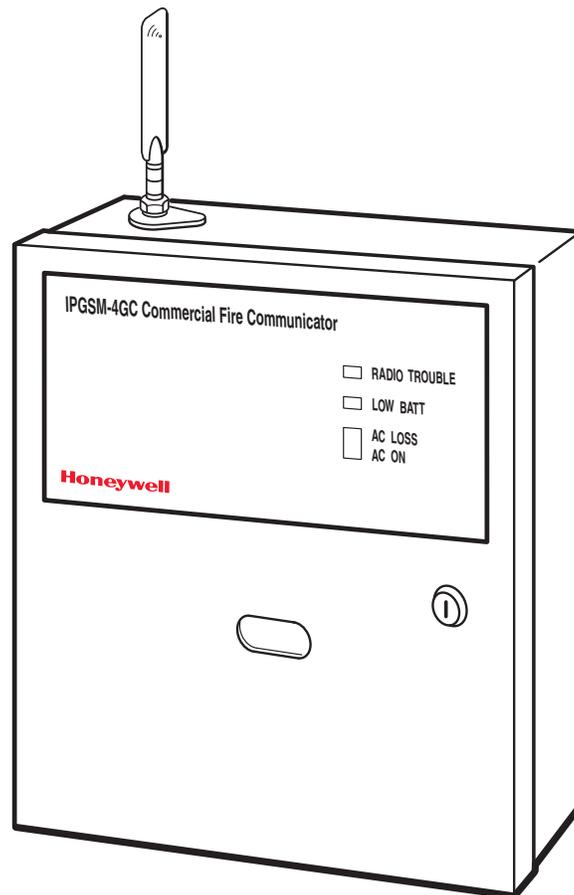


## IPGSM-4GC

### Commercial Fire Communicator

### Installation and Setup Guide



# Contents

General Information .....	1
Package Contents.....	1
Compatible Fire Panels.....	1
Operation .....	1
Installation.....	1
ULC Compliance .....	1
STEP 1 – Setup the Customer Account.....	2
STEP 2 – Register the Communicator with AlarmNet .....	2
STEP 3 – Determine the Signal Strength and Select a Location .....	2
STEP 4 – Mount and Wire .....	3
Wiring the 659EN Line Fault Monitor (if required) .....	6
STEP 5 – Program the Communicator .....	7
STEP 6 – Configure the Fire Panel .....	8
STEP 7 – Test the System .....	8
Dialer Capture Module Information .....	9
LED Display Information .....	9
PowerBoost1 Information.....	10
Communicator Information.....	11
RF Specifications .....	12
Central Station Messages .....	12
IPGSM-4GC Trouble Detection Information .....	13
IPGSM-4GC Specifications .....	13
Wiring Diagram .....	Inside of Back Cover

### General Information

The IPGSM-4GC Commercial Fire Communicator (henceforth referred to as IPGSM-4GC) includes everything you need to upgrade a commercial fire system that previously reported by POTS to a system that uses the Internet as its primary reporting path, and uses a GSM cellular reporting path as a backup. In addition, the communicator's power module (PowerBoost1) monitors and reports AC power loss, and low battery conditions.

NOTE: When programmed for an IP, or GSM, or IP & GSM reporting path, this product functions as an ACTIVE communication system.

### Package Contents

- Red Fire Cabinet and Back Plate
- Antenna and Mounting Adapter
- Mounting Rails (for above)
- Cam Lock with Key
- PowerBoost1
- Hardware Bag
- Dialer Capture Module
- Battery harness/fuse (# 100-02415)
- Transformer, 18VAC
- Communicator
- Ferrite Filter
- (# 1451-UL9)
- 50 ohm cable assembly (for antenna)
- LED Display board

### Compatible Fire Panels

The IPGSM-4GC is compatible with all ULC Listed Fire Panels that use the Contact ID communication format, as described in the SIA DC-05 Standard, and have the model 659EN Line Fault Monitor installed.

After completing the field installation, verify communications with the central station is successful by sending several events. Also, get confirmation that these events were received.

**IMPORTANT:** For a fire panel that has more than 9 active zones (or partitions), the first 9 zones are reported to the central station uniquely. Beyond 9 zones, only the 2nd digit of the zone is reported along with a leading zero (example partition 14 is reported as 04). **The installer must inform the central station of this condition.**

### Operation

The IPGSM-4GC replaces the fire panel's POTS communications path. When an event occurs, the fire panel goes off-hook to dial the central station. The IPGSM-4GC detects the off-hook condition and provides the fire panel with a dial tone. When the fire panel detects the dial tone, it begins dialing the central station. The IPGSM-4GC considers the three second period after dialing as the number dialing has been completed. After the dialing is completed, the Dialer Capture Module returns a handshake to the fire panel.

The fire panel then sends the contact ID reports to the IPGSM-4GC, which in turn sends a kiss-off after the report is successfully received from the fire panel. Within the IPGSM-4GC, the Dialer Capture Module sends the contact ID reports over the ECP bus to the Communicator. When all the reports are sent, the fire panel goes on-hook. The IPGSM-4GC then transmits the messages to the central station (either over the internet or the GSM network).

### Installation

#### ULC Compliance

This product is compliant with CAN/ULC-S559 (Equipment for Fire Signal Receiving Centers and Systems). To meet this specification ensure the following:

- IPGSM-4GC must be installed in accordance with Canadian Electrical Code, Part 1.
- IPFSM-4GC must be used with compatible Fire Panels that have the 659EN Line Fault Monitor installed.
- IPGSM-4GC must be mounted in the same room and within 20 feet of the fire panel.
- The Telco line wiring and the Power Transformer wiring must be routed through conduit.
- IPGSM-4GC, and all equipment used for the IP connection (such as the router, hub, modem, etc.) shall be listed, must be powered from an un-switched branch circuit, and be provided with appropriate standby power.
- IPGSM-4GC must use a 7AH battery (not supplied) to provide 24-hour backup capability.

### **STEP 1 – Setup the Customer Account**

The communicator requires a subscriber account (customer account) to be setup with AlarmNet Direct. This is accomplished by registering the communicator with AlarmNet. Registering, enables the fire panel to send reports.

To setup the customer account you will need to contact the central monitoring station to get account information, and have access to the AlarmNet Direct website. To access the AlarmNet Direct website visit –

**<https://services.alarmnet.com/AlarmNetDirect>**

If you do not wish to use the AlarmNet Direct website, you may call AlarmNet to setup the account, just phone 800-222-6525, then select option 1. (Monday–Friday 8:00 am to 9:00 pm, Saturday 9:00 am to 5:30 pm EST)

Have the following information ready:

- Primary City ID (two digits), obtained from your monitoring station.
- Primary Central Station ID (two digits), obtained from your monitoring station.
- Primary Subscriber ID (four digits), obtained from your monitoring station.
- Communicator's MAC ID, and MAC CRC number located on outside of box, and inside the communicator.

**Note:** The SIM supplied for the IPGSM-4GC is already activated. Therefore no SIM activation is necessary.

### **STEP 2 – Register the Communicator with AlarmNet**

Registering the communicator activates the account with AlarmNet and enables the fire system's control panel to send reports. There are three methods that can be used to register the communicator.

- Register the communicator by logging into AlarmNet Direct and choosing "Show Programmed Devices GSM/I". Search for the account using the Account Information or MAC ID. Under the "Actions" column, use the pulldown menu and choose Register. OR
- After the IPGSM-4GC is installed and programmed, you can register the communicator by clicking the Tamper Switch 3 times. OR
- After the IPGSM-4GC is installed and programmed, you can register the communicator using the 7720P Programming tool. Simply: Press [Shift ] then press [↑]. Please wait for "Registration SUCCESS" message.

### **STEP 3 – Determine the Signal Strength and Select a Location**

IMPORTANT - Do Not mount this device outdoors.

#### **RF Exposure**

**Warning** – The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.8 inches) from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

When choosing a suitable mounting location, understand that signal strength is very important for proper operation. For most installations using the supplied antenna, mounting the unit as high as practical, and avoiding large metal components provides adequate signal strength for proper operation.

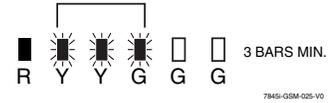
In this procedure, you will use the Communicator to determine signal strength in order to find a suitable mounting location.

**Note:** Since the SIM is already activated, the RSSI signal strength indicators will indicate signal strength.

1. For this procedure you will need a fully charged 12V battery.
2. Attach the Antenna Mounting Adapter, RF cable, and Antenna (see illustration on page 6).

## IPGSM-4GC Commercial Fire Communicator – Installation and Setup Guide

3. Temporarily wire the battery's negative [-] terminal to TB1-4 on the communicator, then wire the battery's plus [+] terminal to TB1-2 on the communicator. Wait about one minute for the communicator to initialize.
4. Position the assembly near a suitable mounting position and observe the RSSI display.
5. Look for a mounting position that yields at least 3 bars lit solid. For optimal performance 4 or 5 bars are better.
6. Verify the signal strength remains steady for a few minutes, then mark that mounting position. Disconnect the battery.



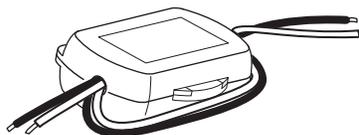
### STEP 4 – Mount and Wire

- For ULC compliant installations, refer to the topic on *ULC Compliance* in this manual.
- For ULC compliant installations, the Telco line wiring and the Power Transformer wiring must be routed through conduit.
- For Dry/Indoor use only.
- Additional cabinet wiring may be routed through conduit if desired.

This communicator comes partially assembled with all the components mounted except the external Antenna, LED Display board, and PowerBoost1. To protect certain components on the PowerBoost1, it is shipped un-mounted. All internal wiring is complete.

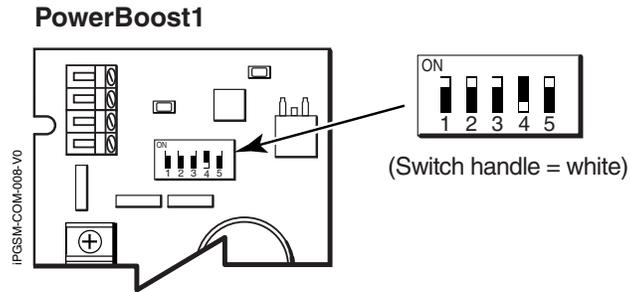
**Note:** Refer to the diagram on page 6, and to the Wiring Diagram on the inside of the back cover of this manual for wiring and component identification.

1. Remove knockouts from cabinet to accommodate the power input wires, and wiring to the fire panel. (DO NOT REMOVE the two knockouts directly above the PowerBoost1.) Then mount the cabinet securely to the wall using 4 screws or bolts. Use screws or bolts that are suitable for the material being anchored to.
2. Ensure the cabinet door lock is installed.
3. Install the two plastic mounting rails for the LED Display board. They simply snap into the back plate holes.
4. Connect the LED Display board to its connector, then slide the board into the mounting rails. (Refer to the "*LED Display Information*" topic if a wire is detached from its connector.)
5. Carefully remove the packaging material that surrounds the PowerBoost1.
6. Mount the PowerBoost1 on the three unused standoffs. Use the two metal screws and lock washers to fasten the left side of the circuit board. Ensure the lock washers are located between the circuit board and the head of the two metal screws. The right side of the board just snaps in place on the upper right standoff.
7. Use the 1451-UL9 Wired Transformer directly connected to un-switched facility power. Connect and route 14AWG (minimum) insulated wire from facility ground to the 1451-UL9 enclosure ground post and through the conduit to the IPGSM-4GC cabinet ground post.
8. Route wire (minimum 18AWG) from the transformer secondary, through the conduit to the cabinet. Pass the wires through the Ferrite Filter, then loop the wires back through again making a loop. (Ensure the wire ends that connect to the PowerBoost1 are tinned or equivalently arranged.) Connect the wires to the PowerBoost1 AC terminals. **At this time DO NOT apply power.**



9. Ensure all ground connections are tight.
10. Connect the Ethernet cable and the Telco 1 and Telco 2 lines. If you choose to use an optional Cabinet Tamper Switch (if the fire panel supports it) mount and wire it.

11. Verify the PowerBoost1 DIP switches are configured as shown below.

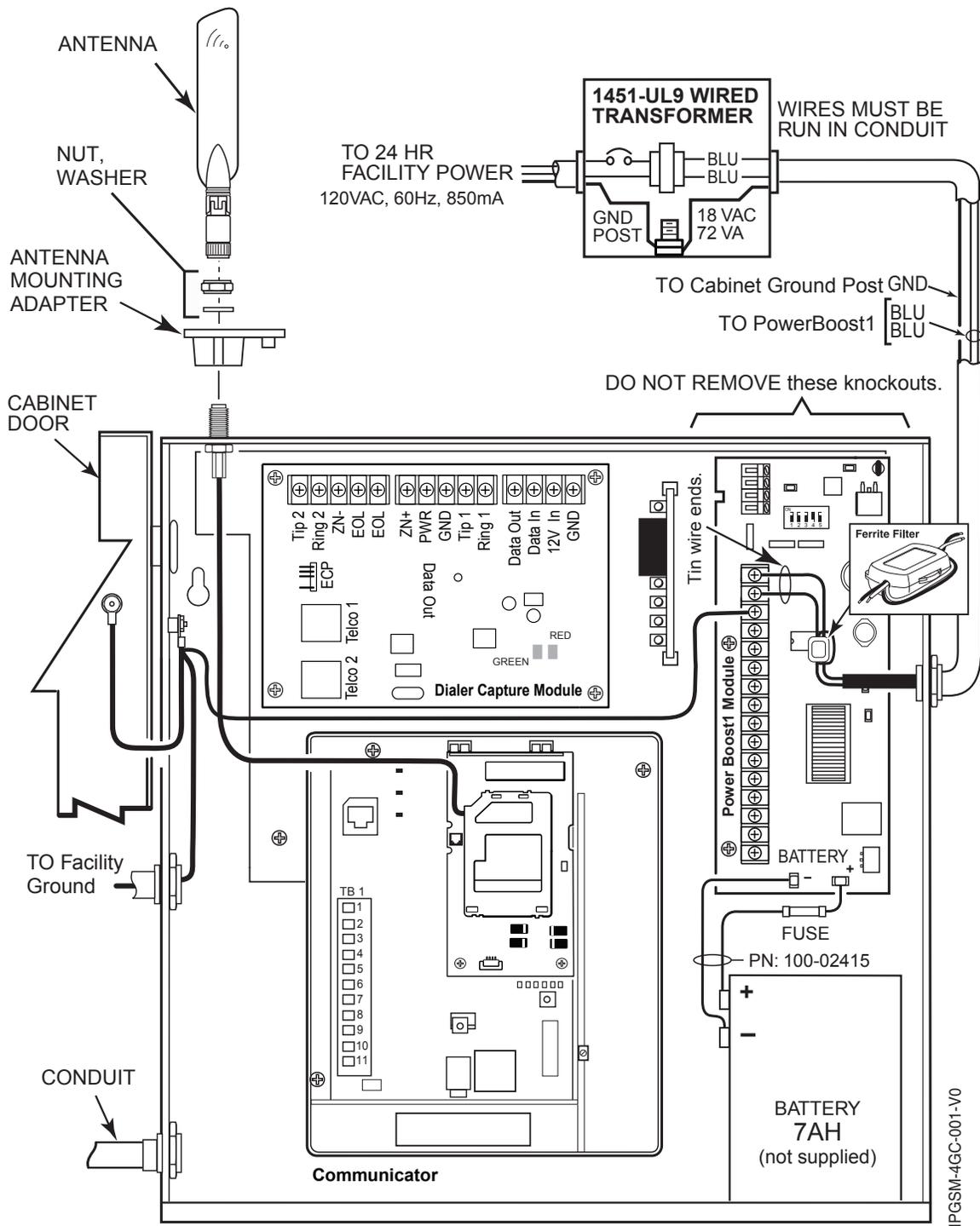


12. Ensure the following:

- LED Display board is fully seated.
- All wiring terminals and connectors are tight.
- All wiring has been completed and secured with cable ties.

13. Install the battery (not supplied). Apply power to the 1451-UL9 Wired Transformer, and attach the battery cable.

# IPGSM-4GC Commercial Fire Communicator – Installation and Setup Guide



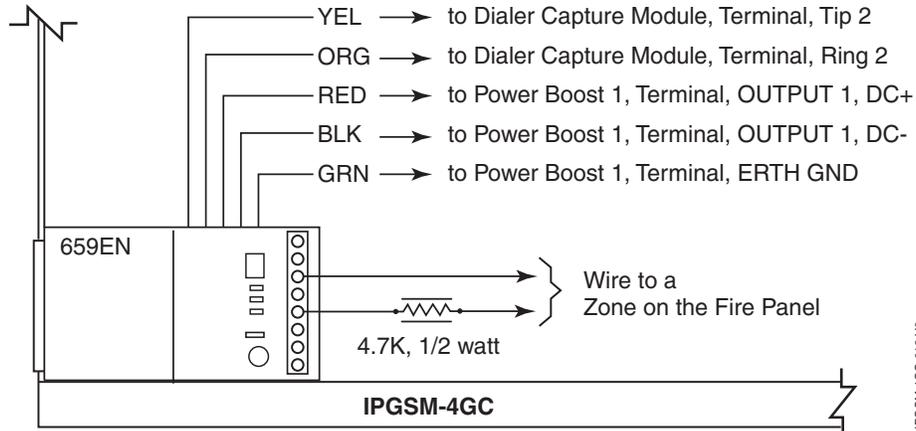
## Wiring for Grounds, Power, and RF

## IPGSM-4GC Commercial Fire Communicator – Installation and Setup Guide

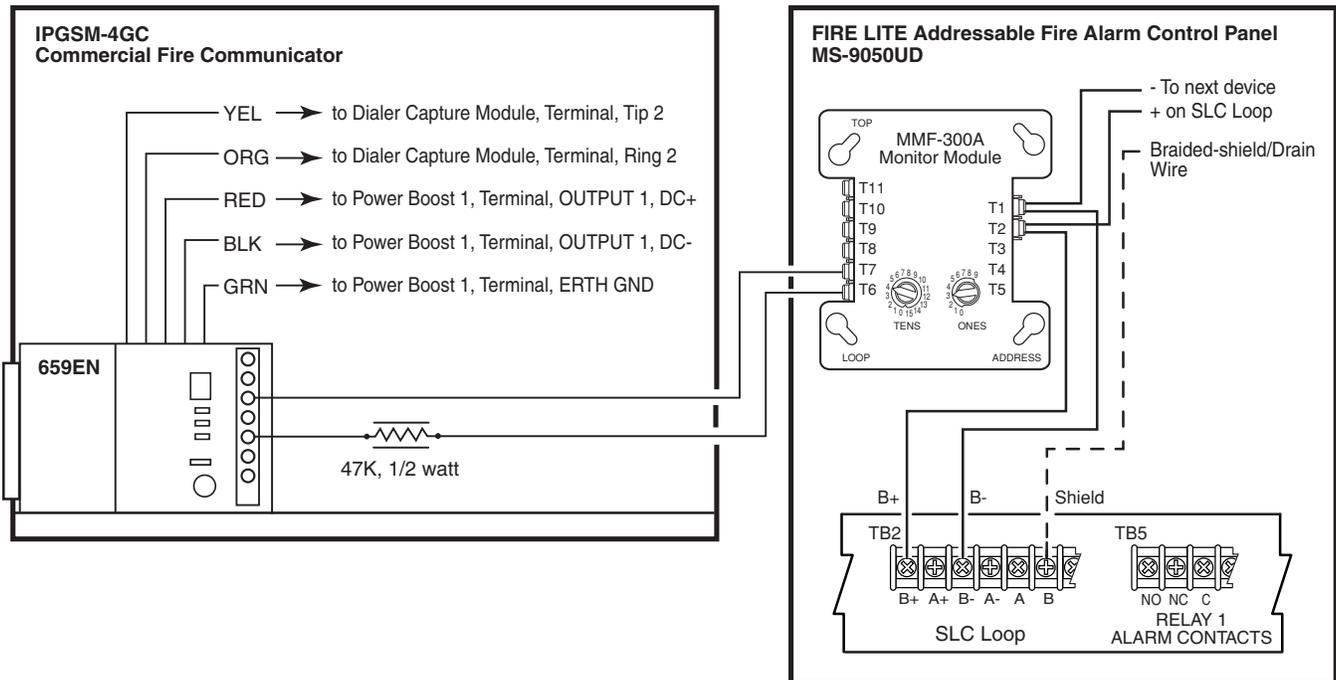
### Wiring the 659EN Line Fault Monitor (Required for ULC)

The IPGSM-4GC is compatible with Fire Panels when the model 659EN Line Fault Monitor, (also known as the HFS-659EN), is installed. Note, the wire colors may vary.

1. Refer to the installation guide for the 659EN.
2. Mount the 659EN on the lower left side of the IPGSM-4GC cabinet.
3. **DO NOT** cut the 659EN's BLACK Output Relay Jumper or the BLUE Voltage Trip Threshold Jumper.
4. Complete the interface wiring as shown below:



### Example wiring for an addressable fire control panel:



**STEP 5 – Program the Communicator**

You must use the 7720P Programming tool to program the IPGSM-4GC.

When using the 7720P Programming tool, the values given below are for most installations. Press the [#] key to accept the displayed default value (xxx) or enter the new value and press the [#] key for the next prompt. Use the [Space] key to scroll through a list of options.

1.	(no display)	Connect the 7720P. (You can use the [Shift + A] key to check the software revision.)
2.	7720P PROGRAMMER	Press [#].
3.	Strt Prog Mode? Y/N	Press [Shift] then [Y], then [#].
4.	Program Device? Y/N	Press [Shift] then [Y], then [#].
5.	Com Path Choice (IP&GSM)	Press [Space] to scroll choices; IP&GSM, IP, or GSM. (When IP, or GSM, or IP&GSM is chosen, the IPGSM-4GC functions as an active communication system.) At choice, press [#].
6.	Primary City ID (??)	Enter number 01-99, then press [#].
7.	Primary CS ID (??)	Enter number 01-FE, then press [#].
8.	Primary Sub ID (????)	Enter number 0001-9999, then press [#].
<b>Note:</b> If a Com Path Choice of IP&GSM or IP was selected, prompt 9 will appear.		
9.	Use DHCP? Y/N (Y)	If your router is configured for DHCP, press [Shift] then [Y], then press [#].
<b>Note:</b> If DHCP is not selected (your router is set for a static IP), prompts 10 through 13 will appear. Use the [Space] key to advance to the next address part.		
10.	NIC IP Address: 255.255.255.255	Enter choice, then press [#]. Follow the prompts.
11.	Subnet Mask: 255.255.255.255	Enter choice, then press [#]. Follow the prompts.
12.	Gateway IP Address: 255.255.255.255	Enter choice, then press [#]. Follow the prompts.
13.	DNS Serv IP Addr: 255.255.255.255	Enter choice, then press [#]. Follow the prompts.
14.	Review? Y/N	Enter choice, then press [#]. Follow the prompts.
15.	Create Password? Y/N	Enter choice, then press [#]. Follow the prompts.
16.	Exit Prog Mode? Y/N	Press [Shift] then [Y], then press [#].
17.	DONE	

- Notes:**
- If an error in programming occurs, set the factory defaults (see next topic) and reprogram.
  - The IP Fault Time, and the GSM Fault Time are each fixed at 1 minute and are not programmable.

## IPGSM-4GC Commercial Fire Communicator – Installation and Setup Guide

To exit the programming mode, press [N] in response to the "Review?" prompt. Then press [Y] to the "Exit Prog Mode?" prompt. Upon exiting, the root file is updated to log the changes made. A message is displayed telling the user that this step is being executed. When complete, the message "DONE" is displayed to indicate the file was successfully uploaded.

**Note:** If critical configuration changes were made, such as the mode of operation, the communicator will reset to ensure that the programming features are enabled.

If the file is not successfully uploaded, one of the following prompts will be displayed. Follow the steps shown below until the upload is successful.

Display	Description	What to do
Cannot Upload Try Again? Y/N_	Communicator is not yet initialized.	Wait for RSSI indicator LEDs to be lit. Press [Y].
Failed to Update Root File!	Network problem, or you answered "N" to "Cannot Upload Try Again?" prompt.	Initiate the Force Server Update Command by pressing the [0] key.

### Setting Factory Defaults

To reset the programming options to factory-default values, at the "Exit Prog Mode?" prompt press [Shift] plus [ESC]. Note, setting the factory defaults will also erase any password that may have been entered.

Set Default? Y/N_	Press [Y] to reset factory default values. Press [N] to cancel this function.
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Press [Shift] then [Y], then [#]. The Create Password prompt appears, follow the prompts then exit.

### **STEP 6 – Configure the Fire Panel**

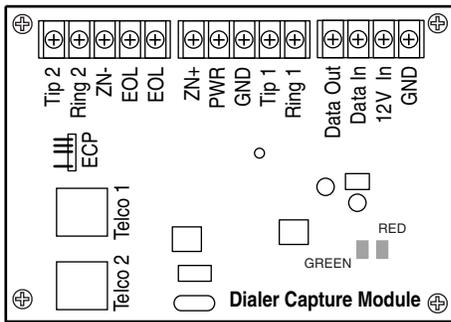
1. Ensure the Phone Line Supervision (or Telco Fault) on the panel is enabled. Then choose a setting that is no higher than 90 seconds (or as close to that as the panel allows).
2. Ensure no more than 1 pause character (usually a comma) is programmed into the dialing string (usually 2 seconds). Note, this is necessary since the Dialer Capture Module waits only 3 seconds after the phone number is dialed. Having more than 3 seconds of pause time will cause it to think the phone number is complete and cause it to generate the high-low tones at an incorrect moment.

### **STEP 7 – Test the System**

1. Close the 1451-UL9 Wired Transformer enclosure, then close and lock the cabinet cover.
2. Refer to the fire panel's installation/operation guide for the testing procedure.
3. (Notify the monitoring station that a test will be conducted.) Test the system to ensure it is operating.
4. Verify communications with the monitoring station is successful by sending several events. Also, get confirmation that these events were received.

### Dialer Capture Module Information

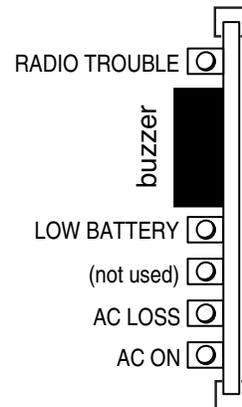
LED Indicator	STATUS
RED – Steady ON	Messages exist in buffer.
RED – Flashing	No messages to be sent. Waiting for messages.
GREEN – Steady ON	Normal Indication.
GREEN – Blinks every 2 sec.	PowerBoost1 communication problem.
GREEN – Blinks twice every sec.	Connection with the Communicator is lost.
GREEN – Blinks 10 times every sec.	PowerBoost1 and Communicator connections are lost.



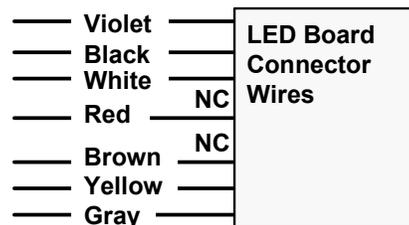
**Note:** Telco ports 1 (primary dialer) and 2 (secondary dialer) may be used instead of the terminal board. Whichever connection method is used, both Telco paths must be connected to the Fire Panel.

### LED Display Information

Status	LED Indicator
RADIO TROUBLE	Yellow – ON when radio trouble is present. <ul style="list-style-type: none"> <li>Both IP and GSM communication paths are lost.</li> <li>Communicator radio is not registered.</li> <li>Old Alarm Time has been exceeded. (Message has not been delivered within the fixed 10 minute window.)</li> </ul>
	Buzzer – Upon loss of AC power, this will beep once every 10 seconds.
LOW BATTERY	Yellow – ON when battery is low (<11.5VDC).
	Yellow – (not used)
AC LOSS	Yellow – ON when no AC is present (< 90VAC).
AC ON	Green – ON when AC is present.



**Note:** If a wire pulled out of the LED Board Connector refer to the diagram on right and reinsert wire, ensuring the connector pin is locked in.

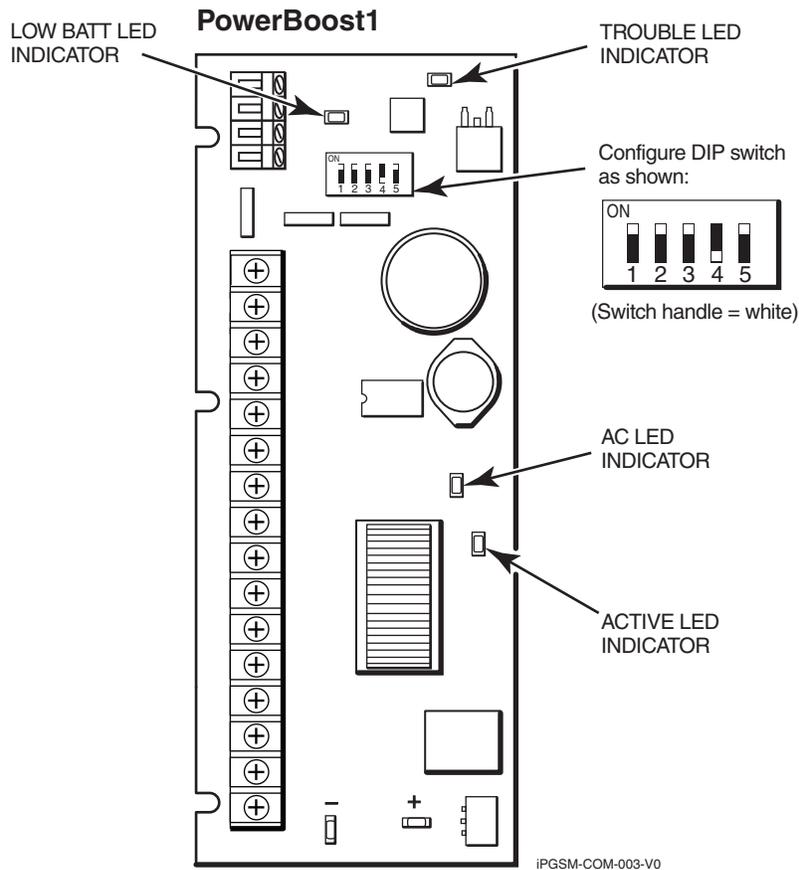


## PowerBoost1 Information

LED Indicator	STATUS
AC (green)	AC power available.
ACTIVE (green)	Cyclical flashing – normal communications. Repetition of 3 flashes – loss of communications.
LOW BATT (yellow)	Missing or low battery.
TROUBLE (yellow)	One or more trouble conditions exist, such as; overload, output supervision, ground fault, or charger failure.

### Notes:

- If AC power is lost and the battery voltage falls below 10v, the PowerBoost1 output voltage will be turned off. The output power is turned back on when AC power is restored.
- You must use the DIP switch settings shown below.



## Communicator Information

ON – NOT registered with AlarmNet. OFF – Registered with AlarmNet. FAST BLINK – Download session with Compass in progress. SLOW BLINK – In unison with yellow LED, registration in progress.	<b>GRN</b> 		<b>Cellular Status LED</b> Voice Session – Short blink every second Data Session – Short blink every 2 seconds Connected to Cell network – Short blink every 4 seconds No or deactivated SIM – Long blink every second
ON – Message transmission pending. QUICK PERIODIC BLINK – Normal. FAST BLINK – Message waiting for network ACK. SLOW BLINK – Idle power abnormal. SLOW BLINK – In unison with green LED, registration in progress.	<b>YEL</b> 		
ON – No contact with network. OFF – Normal. SLOW BLINK – Loss of communication with the Dialer Capture Module (ECP fault). FAST BLINK – No network contact AND loss of communication with the Dialer Capture Module.	<b>RED</b> 		

**Note:** If all LEDs FAST BLINK in unison with the RSI LEDs this indicates a Hardware Error.

ON – 100 MB/S link to Internet. OFF – 10 MB/S link to Internet.	<b>Link Speed</b> <b>GREEN</b>	
ON – Link detected. OFF – No link detected. FAST BLINK – Network activity.	<b>Ethernet Link/Activity</b> <b>GREEN</b>	

**MODULE'S RECEIVED SIGNAL STRENGTH (RSSI)**

When the **Mode Switch** is NOT depressed, LED 1 will illuminate red.

- The remaining LEDs indicate RSSI (Received Signal Strength).

**MODULE'S OPERATION MODE**

When the **Mode Switch** IS depressed, LED 1 will be OFF.

- LEDs 2 and 3 indicate the module's communication mode with the control panel.

Mode	LED 2 (yellow)	LED 3 (yellow)
ECP	OFF	OFF
Zone	ON	OFF
4204	OFF	ON
2 - 4204	ON	ON

**MODULE'S STATUS**

When the **Mode Switch** IS depressed, LED 1 will be OFF.

- LEDs 4, 5, and 6 indicate the module's Status.

LED 4 (green)	LED 5 (green)	LED 6 (green)
ON - Connected to Internet.  OFF - Not connected to Internet.	ON - GPRS service available.  OFF - No GPRS service available. FAST BLINK - GPRS in use.	ON - Module registered, no second site available.  OFF - Module not registered with network carrier.  SLOW BLINK - Module registered, second site available, and low signal strength.  NORMAL BLINK - Module registered, second site available, acceptable signal strength.  FAST BLINK - Module registered, second site available, excellent signal strength.

IPGSM-4GC-012-V0

**RF Specifications**

<b>Frequency Bands</b>		
2G	GSM/GPRS/EDGE	Quad Band, 850/900/1800/1900 MHz
3G/4G	UMTS/HSPA+	Band V, Band II
<b>Output Power</b>		
2G	GPRS	+33dBm, GMSK modulation
	EDGE	+27dBm, 8-PSK modulation
3G	UMTS	+24dBm, QPSK modulation
	WCDMA	+24dBm, QPSK modulation
4G	HSPA+	+24dBm, 64 QAM modulation
	WCDMA	+24dBm, 64 QAM modulation

**Central Station Messages**

<b>Alarm Condition</b>	<b>Alarm Code</b>	<b>Restore Code</b>
Power On / Reset	E339 C0803	N/A
ECP Supervision <b>(Compromise Indication)</b>	E355 C0000	R355 C0000
Primary Communication Path Supervision	E350 C0951	R350 C0951
Secondary Communication Path Supervision	E350 C0952	R350 C0952
Periodic GSM Comm Path Test Failure (We do not send a restoral R358 C0803, we send a failure message every day after the radio attempts to test and fails.)	E358 C0803	N/A
<b>Trouble Reporting:</b> When a single fault (open or short IP, GSM suppression, low/missing battery, AC loss) occurs, and the communicator is programmed for an IP& GSM communication path, multiple alarm Codes and their appropriate Restore Codes are reported to the Central Station.  <u>IPGSM-4GC communicator fault</u> – The Fire Panel sends out a E380, and E352 message via Telco #1, these are then relayed to the central station via the IPGSM-4GC.  <u>Telco line 1 fault</u> – The Fire Panel sends out a E380, and E351 message via Telco #2, these are then relayed to the central station via the IPGSM-4GC.  <u>Telco line 2 fault</u> - - Fire Panel sends out a E380, and E352 via Telco #1, these are then relayed to the central station via the IPGSM-4GC.	E380, E351, E352 codes as appropriate.	N/A
<b>Test</b>	<b>5555 5555 9</b>	<b>N/A</b>
<b>Specific to COMMERCIAL Control Panels (Such as the VISTA-32FB, and VISTA-128FBP/250FBP series.)</b>		
Communicator Trouble (low battery, ECP bus, network) <b>(Possible Compromise Indication)</b>	E333 C0803	R333 C0803
Radio Loss of Signal <b>(Possible Compromise Indication)</b>	E357 C0803	R357 C0803 or R380 C0803
Radio Fault (low battery, tamper, ECP Bus)	E333 C0803	R333 C0803
<b>AlarmNet Messages</b>		
Communication failure. <b>(Possible Compromise Indication)</b>	5555 1555 6	5555 3555 6
Authorized Radio Substitution	00D0 010C 0	N/A
Unauthorized Radio Substitution Attempt	00D0 010E 0	N/A
Service Termination	00D0 020E 0	N/A

### **IPGSM-4GC Trouble Detection Information**

Telco 1 is used for the Fire Panel to output contact ID messages to the IPGSM-4GC, and Telco 2 is used by the IPGSM-4GC to report faults to the Fire Panel. If Telco 1 is not operational, the Fire Panel will use Telco 2 to report events if there are no faults in the Communicator.

<b>Fault Condition</b>	<b>Indication to Fire Panel</b>
PowerBoost1 fault	Telco 2 is cut.
Communicator fault <ul style="list-style-type: none"> <li>• Failure of the communications path when <u>IP only</u> or <u>GSM only</u> is programmed as a communications path.</li> <li>• Failure of both communications paths when <u>IP&amp;GSM</u> is programmed as a communications path.</li> </ul>	Telco 2 is cut.  Telco 1 and 2 are cut.
Dialer Capture Module buffer is full.	Hang up. (Panel will retry, giving the buffer a chance to empty.)

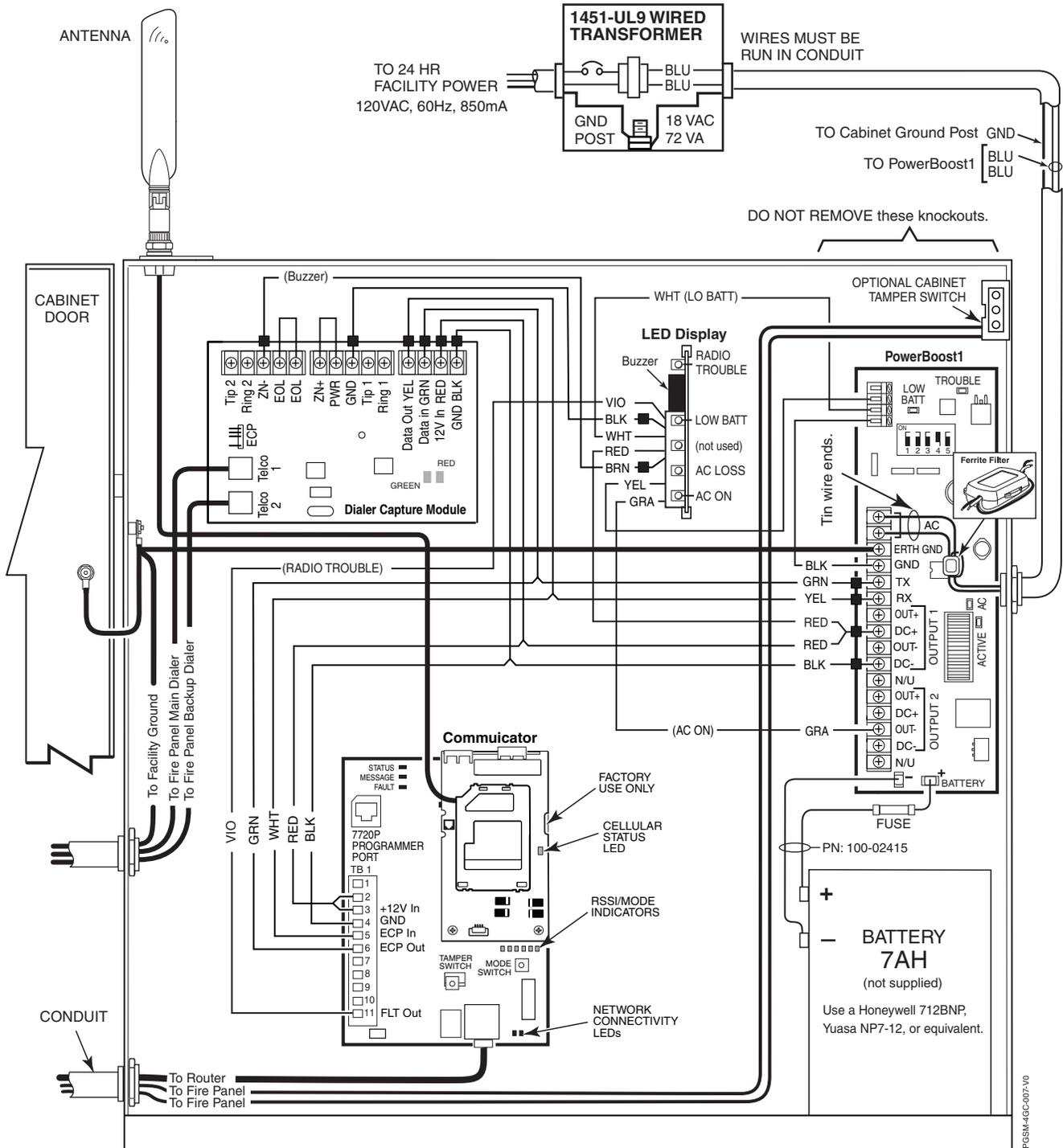
### **IPGSM-4GC Specifications**

<b>ITEM</b>	<b>SPECIFICATION</b>
<b>Cabinet Dimensions:</b>	Width 12 3/4 inches, Height 14 7/8 inches, Depth 3 inches
<b>Transformer:</b> 1451-UL9	Primary – 120VAC, 60Hz, 850mA, Secondary – 18VAC, 72VA
<b>Battery:</b>	12V, 7Ah sealed lead acid type (not supplied) Use a Honeywell 712BNP, Yuasa NP7-12 or equivalent.
<b>Battery Charging Current:</b>	maximum 1A
<b>Battery Discharge Current:</b>	standby 230mA, active 950mA
<b>Environment:</b>	Operating temperature: –20° to +55°C, for ULC installations 0°C to +49°C Storage temperature: –40° to +70°C Humidity: 0 to 95% relative humidity, non-condensing, for ULC installations 0% to 93% Altitude: to 10,000 ft. operating, to 40,000 ft. storage
<b>Supervision:</b>	The Radio (communicator), battery, and AC power, conditions are monitored by the cabinet indicator LEDs:  RADIO TROUBLE lights when any of these conditions exist. <ul style="list-style-type: none"> <li>• Both IP and GSM communication paths are lost.</li> <li>• Communicator radio is not registered.</li> <li>• Old Alarm Time has been exceeded. (Message has not been delivered within the fixed 10 minute window.)</li> </ul> LOW BATTERY lights when the battery voltage is less than 11.5VDC. AC LOSS lights when the AC power is less than 90VAC.

## NOTES

# Wiring Diagram

The wiring diagram below is depicted for point-to-point electrical connection checks used for troubleshooting or component replacement. It is not intended to show the physical routing of wires. When replacing a wire or component, ensure the wire is routed in the same manner as the original factory wire. (Note: Wire colors may vary.)



- NOTES**
- All circuits are power limited except the backup battery which is non-power limited.
  - Non-power limited wiring must be separated from the power limited wiring by at least 1/4 inch.
  - If desired, use a Honeywell 955WH Tamper Switch with the 28-2 bracket.

#### FEDERAL COMMUNICATIONS COMMISSION STATEMENTS

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

#### CLASS B DIGITAL DEVICE STATEMENT

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information:

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- If using an indoor antenna, have a quality outdoor antenna installed.
- Reorient the receiving antenna until interference is reduced or eliminated.
- Move the radio or television receiver away from the receiver/control.
- Move the antenna leads away from any wire runs to the receiver/control.
- Plug the receiver/control into a different outlet so that it and the radio or television receiver are on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

#### INDUSTRY CANADA CLASS B STATEMENT

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

#### FCC / IC STATEMENT

This device complies with Part 15 of the FCC Rules, and RSS210 of Industry Canada. 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.

Cet appareil est conforme à la partie 15 des règles de la FCC & de RSS 210 des Industries Canada. Son fonctionnement est soumis aux conditions suivantes: (1) Cet appareil ne doit pas causer d'interférences nuisibles. (2) Cet appareil doit accepter toute interférence reçue y compris les interférences causant une réception indésirable.

#### RF Exposure

**Warning** – The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.8 inches) from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

#### DOCUMENTATION AND ONLINE SUPPORT

For the latest documentation and online support information, please go to:

<http://www.honeywellpower.com>

Contact Technical support at 1-800-778-9958 Ext. 3131

#### WARRANTY

For the latest warranty information, please go to:

<http://www.honeywellpower.com/warranty.html>

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