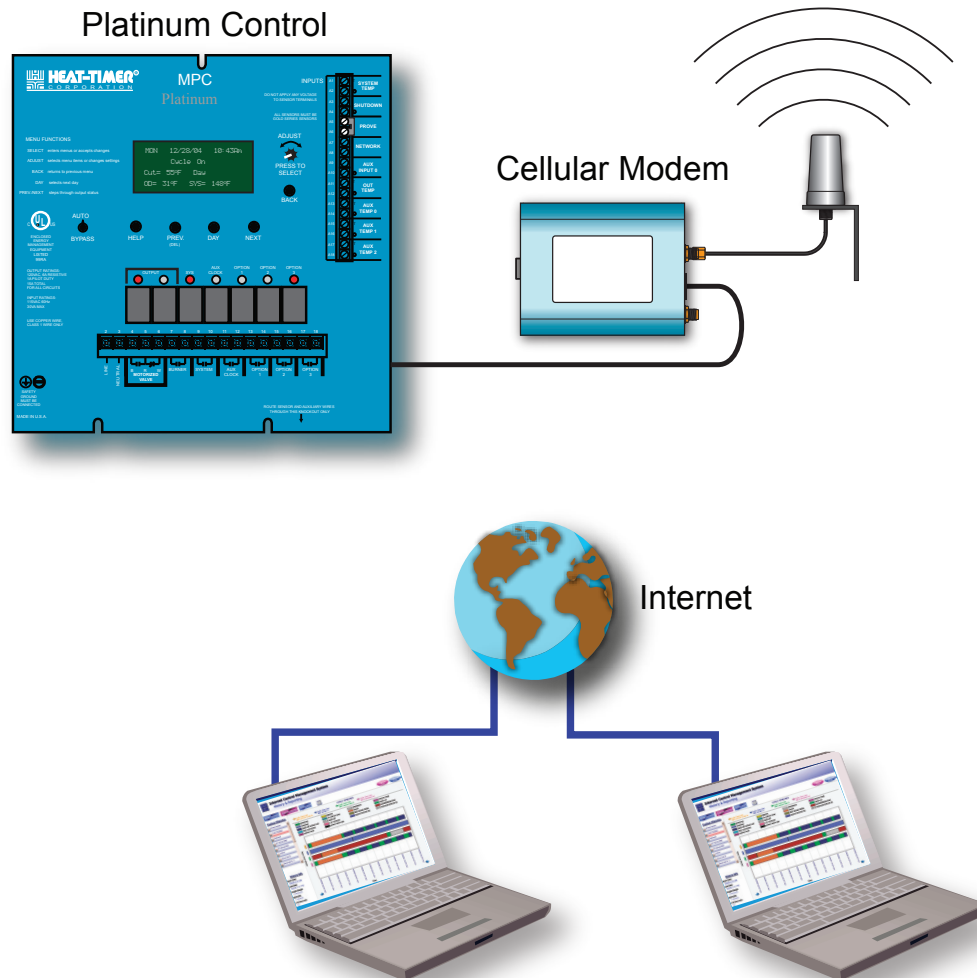


Installation and Operation Manual

Installing Cellular Internet Communication for a Platinum RINet Control

Cellular Internet Communication



⚠ WARNING

This modem is the property of Heat-Timer Corporation. The use of this modem to provide Internet to other than the Heat-Timer control may risk account suspension and additional charges.

Cellular Internet Connection Concept

Heat-Timer, being the leader in heating controls, developed the Platinum control Internet communication package (-RINet) to give the user setting adjustment, monitoring, recording history, and alarming capabilities. With this communication option, users can view and change settings remotely from any Internet capable computer. In addition, this option gives Platinum controls the capability of connecting to a large number of sensors ranging from wireless to hard wired that can measure temperature, switch closure, pressure, vacuum, humidity, oil level, and pulse count meter.

The Cellular Modem can be used to connect the Platinum control to the Internet where using other Internet connection options proves impractical. Heat-Timer provides the complete kit for the installation (See Item List).

Installation Steps

- Install the Platinum control, the Modem Box, and the Cellular Modem.
- Connect the Ethernet cable to the Cellular Modem and the Platinum control.
- Configure the Platinum control Internet ID to solo.

Item List

Each Platinum RINet control comes complete in three boxes:

(1) Platinum Box:

- Platinum control with built-in Internet communication hardware and software
- Standard Sensors

(2) Modem Box:

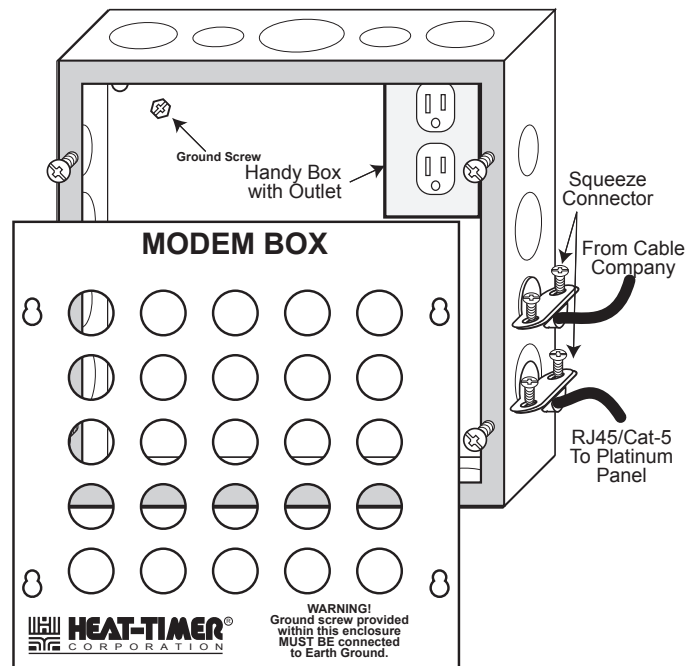
- Modem Metal Box
- Duplex Electrical Outlet
- Ethernet Cable (CAT-5E)
- Connectors

(3) Cellular Box:

- Cellular Modem
- Cellular Modem Power Supply
- Antenna Kit (Antenna, Bracket assembly, extension cable included)

Modem Box Installation

- The Cellular Modem is connected to both the Platinum control and the antenna. Thus, the Modem Box location which is housing the Cellular Modem location is determined by the location of both the antenna and the Platinum control.
- First locate the antenna and the modem to achieve the best cellular signal. If the modem location is far from the Platinum control, use a long CAT-5E Ethernet cable to connect the modem to the Platinum control. If the modem is far from the antenna, use the antenna extension cable (15' long).
- Install the duplex electrical outlet (provided) in the Modem Box. The outlet's power must be sourced separately, DO NOT connect the duplex electric outlet to the Platinum control Option Relays or Aux Relay.
- Connect the Ethernet cable (supplied) to the back of the Platinum control. The other end of the cable must be extended to the Modem Box.
- Power the Cellular Modem through the duplex outlet.
- Connect the Ethernet cable to the Cellular Modem's Ethernet socket.
- For security, replace two of the Modem Box Cover screws with the Locking Screws. A special screw-driver socket is required and supplied.



Wiring

The Modem Box provided with each RINet Platinum control is designed to house the duplex electrical outlet and the modem.

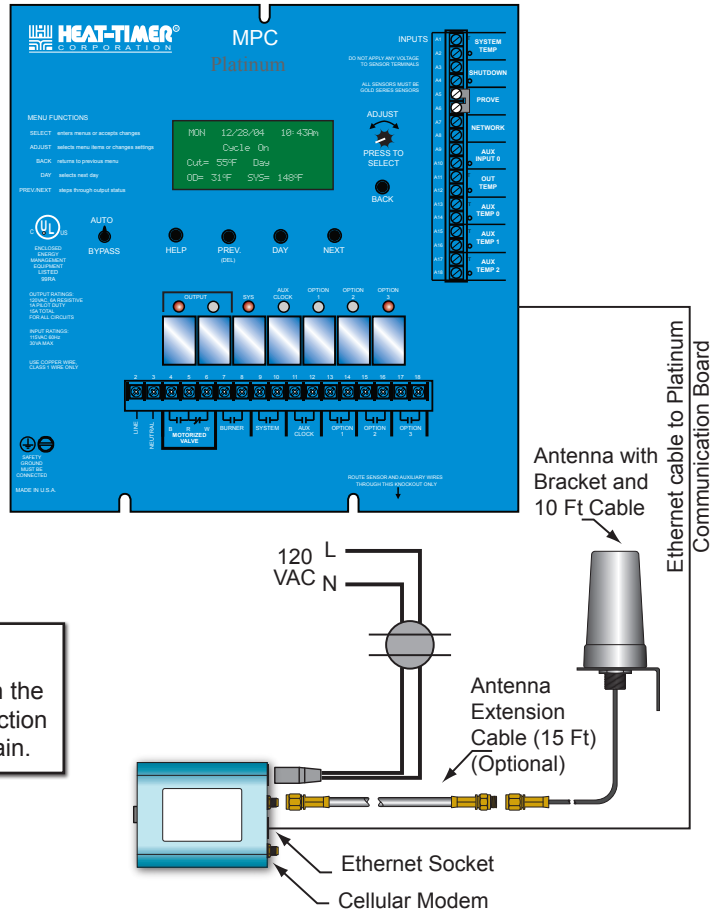
⚠ WARNING
DO NOT Connect Modem Box Outlet to Platinum relays. Cellular Modem requires uninterrupted power. DO NOT drill new knockouts into any Heat-Timer enclosure as it will VOID the control warranty.

Powering The Modem

- The duplex electric outlet power source **MUST NOT** be wired to the Last Option relay on the Platinum RINet. The Cellular Modem power must be sourced separately for uninterrupted Internet connection.
- Class 1 voltage wires (120 VAC) must use a different knockout from Class 2 voltage wires.

Ethernet Connection

- Class 2 voltage wires must use a different knockout from Class 1 voltage wires (120 VAC).
- Connect one end of the Ethernet cable (provided) to the Cellular Modem's Ethernet socket.
- Bring the Ethernet line through one of the Platinum Enclosure side knockouts.
- Plug the Ethernet cable to the Ethernet socket on the Communication Board on the back of the Platinum control.



⚠ WARNING
The Cellular Modem is configured by Heat-Timer. **DO NOT** Push the Cellular Modem Reset button. This will cause the Internet connection to stop and Heat-Timer will need to re-configure the modem again.

Antenna

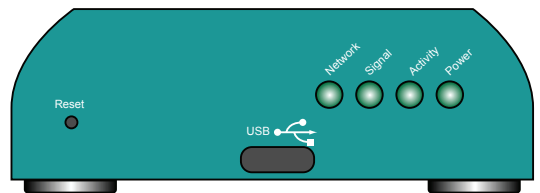
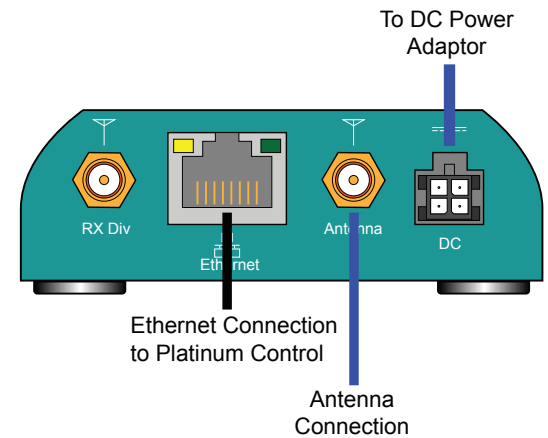
- After threading the antenna wire through the mounting bracket and nut, attach the antenna cable to the Cellular Modem's male socket "Antenna".
- Make sure that the Cellular Modem's Signal light is blinking or on before installing the antenna bracket to the wall.
- Install the antenna outdoors or as close as possible to an outside window in an area with good wireless signal. Install the antenna at least 10 Ft. above the ground to avoid tampering and signal obstruction. Use the bracket provided to mount the antenna to the building.
- The Antenna is equipped with a 10 Ft cable. However, a 15 Ft Antenna Extension Cable is provided in cases where the antenna is to be mounted further from the modem.

⚠ ALERT
Only a single Antenna Extension Cable can be used with a single antenna.

Cellular Modem LEDs

Upon powering the Cellular Modem, it may take up to three minutes for it to fully initialize and acquire a cellular signal. When the modem is online, both the Network and Power LEDs will be on steady.

- Power: Indicates that the modem is powered.
- Activity: Light will flash as data is transferred to and from the modem.
- Signal: Light shows the strength of the signal. The faster the blinking the stronger the signal. However, this LED may be off due to no communication. A steady on LED indicates a very strong signal.
- Network: Indicates a successful connection to the cellular network.



Cellular Signal Strength

- To test for best cellular signal strength while connected to the Platinum control, use the RSSI (cellular Signal Strength) screen. This screen does not refresh the RSSI value. Thus, repeating the process each time the modem antenna is relocated is essential.
- To reach this menu hold down the **ADJUST/SELECT** button on the Platinum control until the control serial number is displayed. Then, while still holding the **ADJUST/SELECT** button, press the **NEXT** button 3 times. This shall display the screen with the RSSI reading.
- The RSSI reading needs to be higher than 50 for reliable communication. The following is a list of possible RSSI readings:
 - 000 No antenna is connected to the Cellular Modem.
 - 001 The signal is very weak. Move antenna to a better location.
 - 002 - 049 Unreliable communication. Move antenna to a better location.
 - 050 - 100 Reliable communication. The higher the value the better the communication.

```
MAC:  
Ofs: 0  
RSSI: 66
```

ALERT

Measuring the cellular signal using the RSSI screen is only available on Platinum controls with software 7.08 or higher and Communication card 2.82 or higher.

Configuring Platinum Control

SELECT *Settings/System Settings/More Settings/Remote Interface*

The only Platinum control configuration required is the Internet ID field.

```
----- INTERNET ID -----  
Solo - > Solo  
[■ ]
```

Internet ID

Solo, 1 through 32, Custom

Default: Solo

- Set the Internet ID to Solo.
- When sharing the modem between multiple controls, the use of an Internet Router and the configuration of the router is required.

Troubleshooting

Network LED is Off

- If this is a new installation, the modem may take up to three minutes to get full communication. In this case wait a few minutes and check the LED again.
- If this is an existing installation, then make sure that the antenna signal is unobstructed. Try moving the antenna to a different location and wait a few minutes before examining the LEDs.

Signal LED is Off

- If the Network LED is on, check the Platinum control IP Address. If it has an IP and a gateway, then the modem is working fine. However, there is no current activity. This light will come back on when communication takes place.
- If the Network LED is off, change the antenna location. The current location may not have a good signal.

Signal LED is Blinking Slowly

- This indicates a weak cellular signal. Change the antenna location.

No RSSI

- This indicates that the Cellular Modem does not have power or antenna or the antenna requires relocation. The modem may take up to 5 minutes to gain a signal.