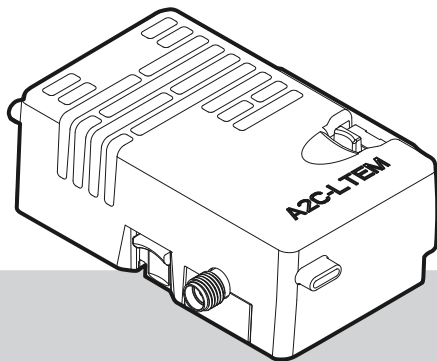


# A2C-LTEM

*INSTALLATION GUIDE*



## **Installation Guide**

Cellular Communication Module  
for Hunter ACC2 Controllers

**Hunter**<sup>®</sup>

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Need more helpful information on your product?  
Find tips on installation, controller programming, and more.



[hunter.help/centralus](https://hunter.help/centralus)

## PREPARATION

The A2C-LTEM Cellular Communication Module can be used in both North American and international installations. Each module includes a preregistered Nano SIM card for use in Hunter controllers only. The card will not work in other devices.

This SIM card requires a service plan. The controller setup process will include simple steps for entering secure billing and payment information.

If your organization requires you to use a different plan or account, the Nano SIM card must be replaced with one supplied by your organization. You will be required to enter the Access Point Name (APN) used by your organization in the controller setup screens.

The original ACC2 Facepack could not support a cellular module. If the controller detects an incompatible cell module, a warning message will appear in the controller display, as shown on the right. ACC2 Controllers require a facepack (Feb 2020 or newer).



*If the module will be used to connect the controller to the internet, a Hunter Centralus™ account is required to complete final controller configuration in the software application. Visit [centralus.hunterindustries.com](https://centralus.hunterindustries.com) to set up a free Hunter account in advance, so your installation can be completed and tested.*



[hunter.info/centralushome](https://hunter.info/centralushome)

### Network Info


Facepack Replacement Needed  
Contact Hunter® Distributor

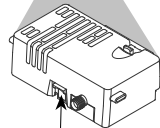
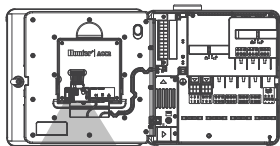
## INSTALLATION

Turn off the controller power using the power switch on the bottom of the transformer.

### Module Installation

Remove the dust cover, or existing module, from the bottom rear of the controller facepack. Push up on the spring-loaded button and pull downward to remove.

 *Facepacks prior to May 2022 do not require the included ribbon cable.*



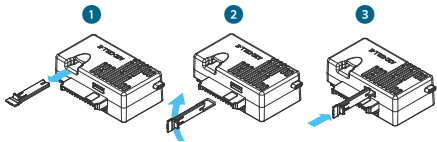
Push up

Slide in the new module until the lock clicks.

### SIM Card Replacement

The module includes a tool for Nano SIM card removal or installation. This tool is normally used only when changing from the Hunter-supplied SIM card to a local SIM card.

1. Remove the tool from the receptacle on the module.
2. Insert it in the SIM card slot. Gently press on the SIM card with the tool and release. The SIM card will eject partially. The tool can also be used to remove the SIM card, if necessary.
3. Before inserting a new SIM card, confirm that it is correctly oriented as indicated by the icon on the product. Load the SIM card into the tool and push it gently into the slot until it clicks into place.

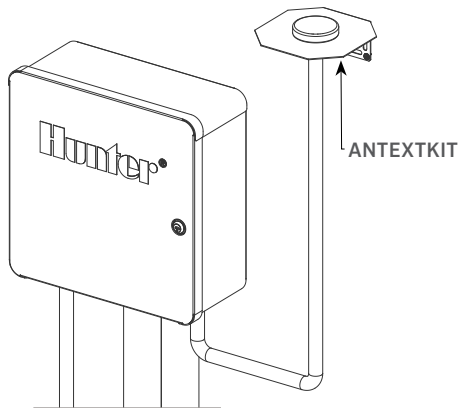


## Antenna Installation

1. **Plastic Controllers:** Carefully drill a ½" (13 mm) hole in the top of the plastic wall mount indicated by the printed circle on top of the controller. Remove all plastic debris left behind after drilling.
2. Remove the nut from the antenna assembly. Route the antenna cable through the hole and the nut. Apply RTV sealant around the hole, filling the gap between the enclosure hole and the mounting threads. Tighten the nut securely.
3. Route the antenna cable through the track on the back of the doorframe to the module in the facepack. Leave just enough slack to allow the door to open and close without pinching the cable.
4. Connect the cable to the module and tighten by hand.

**Existing Metal Enclosures:** The antenna must be installed outside the controller enclosure on a metal bracket. **Do not drill the enclosure directly.**

These installations require a Hunter model ANTEXTKIT wall bracket for completion.



The antenna includes approximately 9' (2.8 m) of cable. Choose a bracket mounting location that will allow the antenna cable to be routed through the conduit to the openings in the bottom of the controller, and then through the track on the doorframe to the cellular module.

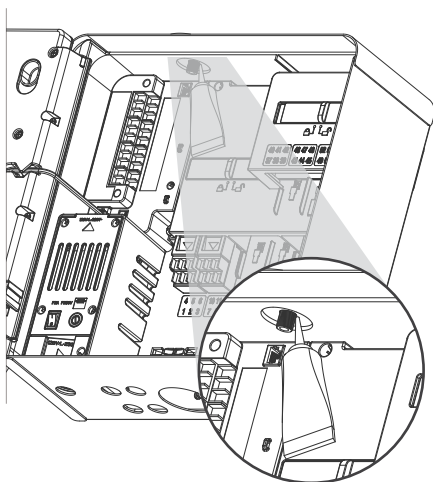
Mount the bracket as high as possible on the wall with mounting hardware appropriate for the mounting surface.

## Installation

1. Route the antenna cable through the hole in the bracket. Install the antenna on the bracket with the nut. Tighten the nut securely.
2. Route the cable from the bracket through the conduit down, over, and into the controller enclosure via the conduit holes in the bottom of the enclosure.
3. Route the antenna cable through the track on the back of the doorframe to the module in the facepack. Leave just enough slack to allow the door to open and close without pinching the cable.
4. Connect the cable to the module and tighten by hand.


**Metal Controllers:** Metal controllers include a hole plug assembly in a predrilled factory hole on top of the controller. Remove the nut on the inside of the controller to remove the plug.

1. Route the cable through the predrilled hole and the antenna nut. Then tighten the nut on the antenna securely.
2. Apply RTV sealant around the hole, filling the gap between the enclosure hole and the mounting threads.

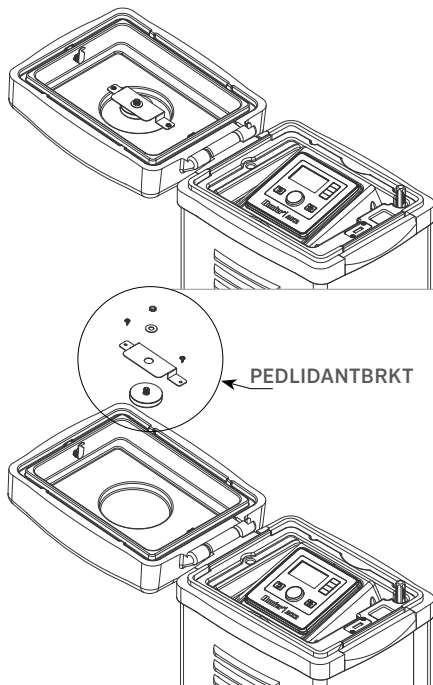


**Plastic Pedestal:** Plastic pedestal mounting requires a Hunter model **PEDLIDANTBRKT** plastic pedestal lid adapter.

1. Route the antenna cable through the hole in the bracket. Secure the antenna to the mounting bracket with the supplied nut.
2. Use the included screws to install the bracket so the antenna protrudes into the recess in the pedestal lid as shown.
3. Install the plastic cable guides as shown to secure the antenna cable and prevent it from pinching the cable when the lid is closed.
4. Route the cable down the hole to the side of the facepack frame. Connect it to the connector on the A2C-LTEM Module.


 *Do not allow any metal portion of the antenna cable to touch metal or earth ground with the power on.*

Turn on the controller power. After the controller reboots, the Networking icon should appear on the bottom of the Home screen.



The Status icon will appear red until the module is connected to a cellular service. It should connect automatically within a few minutes if a qualifying cell tower is within range. The Connected icon will appear green.

The physical installation is now complete.

 *Centralus Software setup and cellular billing subscription should be completed shortly after module connection.*

The following section describes how to set up the cellular service and add the controller to Centralus Software. This process should be completed by the controller owner since that person will need to enter billing and payment information for the cellular data service.

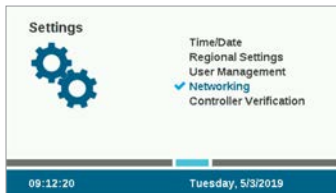


Connection status icon

## CONFIGURATION AND CONNECTION

Press the Main Menu button, and turn the dial to the Settings menu. Push the dial to select.

Dial down to the Networking option and select it by clicking in the dial.

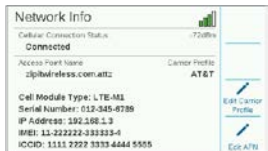


The Networking screen will display information about the cell module, including connection status and serial number.

**Access Point Name (APN):** The access point name tells the module where to connect for data purposes.

Zipitwireless.com will be preselected for the APN setting. This option will work for North American and most EU customers who plan to use the Hunter SIM card. Customers in other international markets must purchase a compatible local plan and SIM card.



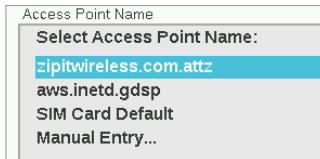


If you plan to use the available Hunter/Zipit choices on the supplied SIM card, you may skip the next section and proceed directly to Software Setup.

**Using a Different Service Provider:** Customers who supply their own SIM card and data plan must change the APN for the device to connect.

To purchase your own SIM card and data plan, you should know: The A2C-LTEM Module is 4G cellular ONLY. It will not function in 3G systems.

The A2C-LTEM Module must use either: CAT-M1 (recommended) or NB-IoT cell data technology.



These services must be specified when purchasing a data plan. Availability may vary by country and cell carrier, but it must have one of these two options on the plan.

The A2C-LTEM Module uses Nano SIM cards, so be certain to obtain the correctly sized SIM card. Some cards are perforated to fit different sizes; these are acceptable if they are trimmed down to the Nano size.

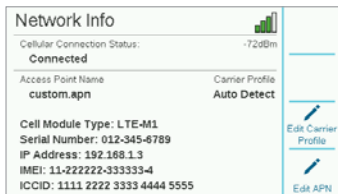
North American customers also have the option to use the A2C-LTEM Module in Verizon systems with a CATM1 or NB-IoT service plan and SIM card from Verizon. (They may call these “M2M Plans.”)

The carrier must supply the APN for the local service. Press the Edit APN soft key on the Networking screen to select or enter the local APN for the carrier.

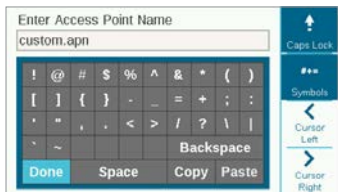
Use the dial to scroll through the choices, and click the dial to select one:

- aws.inetd.gdsp is for Vodafone via the Hunter/Zipit SIM card
- SIM card default will attempt to find the correct APN on the installed SIM card
- Manual Entry is for users who must enter an APN for another carrier

# Configuration and Connection

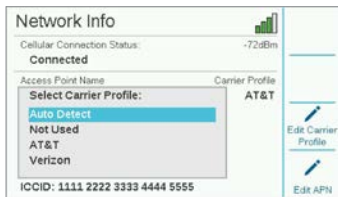


The keyboard entry screen will appear. Use the keyboard to enter the APN exactly as specified by your organization. Press the Symbols soft key to find periods, slashes, and other punctuation marks as needed.



When the new APN is complete, review it to make sure the information is correct. Turn the dial to Done on the keyboard and select it. The screen will return to the Network Info page and show the new APN. The module is now ready to connect in the software.

**Edit Carrier Profile:** This is used to speed up connection time. North American users can choose AT&T or Verizon, so the modem only needs to search frequency bands in use by those carriers. If successful, the Connection Status will show Initializing, Registering..., and finally Connected when successful. The Signal Strength symbol and value will appear in the upper right of the screen.



**Auto Detect:** This will allow the A2C-LTEM Module to find the correct band on the SIM card. International users should always select this first. If successful, the Connection Status will show Initializing, Registering..., and finally Connected when successful. The Signal Strength symbol and value will appear in the upper right of the screen. If the module does not connect, select the Carrier Profile "Not Used."

**Not Used:** This allows the modem to search all 15 possible cellular frequency bands. It may take up to 20 minutes or more. When the modem finds the appropriate band, the connection status should change to Connected and the signal strength information will appear.

Use an internet-connected computer or mobile device to go to [centralus.hunterindustries.com](https://centralus.hunterindustries.com).

### SOFTWARE SETUP

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[hunter.help/centralussetup](https://hunter.help/centralussetup)

Once the A2C-LTEM Cellular Communication Module is installed in an ACC2 Controller and powered on, it is ready for connection to the internet. To complete the setup, you must activate a cellular data subscription and add the controller to the Centralus Platform. Scan the QR code above for additional step-by-step instructions.

## TROUBLESHOOTING

### Signal Strength

The maximum signal strength value is -51 dBm. The signal strength is shown in the upper right corner of the Networking screen. The closer the number is to zero, the better the signal.

Generally, a signal of -85 dBm is adequate for reliable communications. Readings of -99 dBm or higher will be unreliable. Signal strength can be improved by elevating the antenna location with an external bracket (504494), and/or by ensuring that the antenna is not shielded by heavy metal objects or excessive foliage.

For complete setup information, scan the QR code or visit [hunterindustries.com](http://hunterindustries.com).



[hunter.help/centralus](http://hunter.help/centralus)

## COMPLIANCE AND APPROVALS

### FCC Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 taking one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Changes or modifications not expressly approved by Hunter Industries could void the user's authority to operate this device. If necessary, consult a representative of Hunter Industries Inc. or an experienced radio/television technician for additional suggestions.

To satisfy FCC RF Exposure requirements for mobile and base station transmission devices, a separation distance of 10" (25 cm) or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## **Innovation, Science, and Economic Development Canada (ISED) Compliance Notice**

This device contains licence-exempt transmitter(s)/ receiver(s) that comply with Innovation, Science, and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

- This device may not cause interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- L'appareil ne doit pas produire de brouillage, et
- L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment is approved for mobile and base station transmitting devices only. Antenna(s) used for this transmitter must be installed to provide a separation distance of at least 25 cm (10") from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est approuvé pour la mobile et la station base dispositifs d'émission seulement. Antenne(s) utilisé pour cet émetteur doit être installé pour fournir une distance de séparation d'au moins 25 cm (10") à partir de toutes les personnes et ne doit pas être situé ou fonctionner en conjonction avec tout autre antenne ou émetteur."

## Certificate of Conformity to European Directives

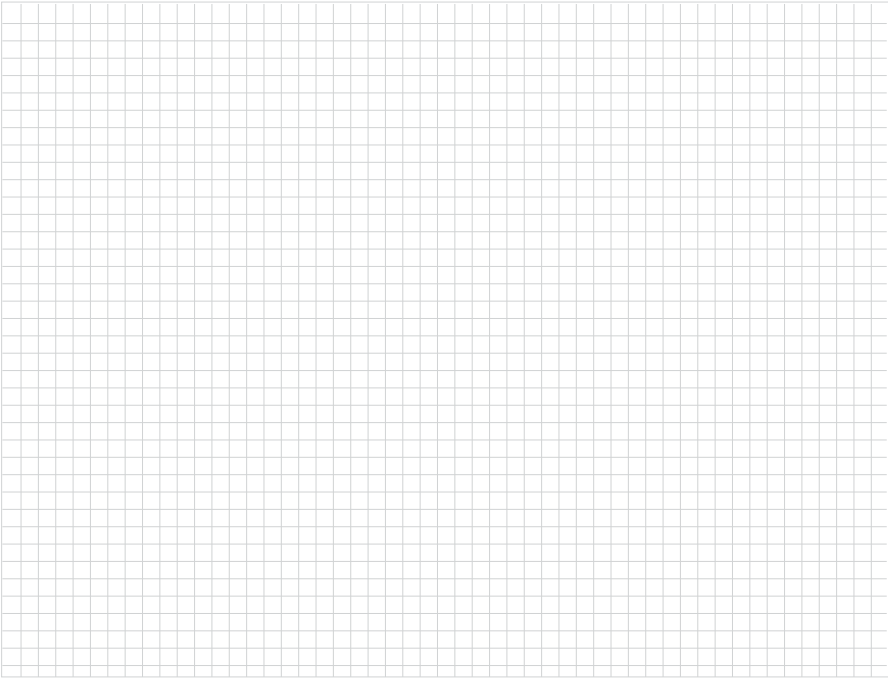


Hunter Industries hereby declares that the A2C-LTEM device is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://subsite.hunterindustries.com/compliance/>



This symbol means the product must not be discarded as household waste and should be delivered to an appropriate collection facility for recycling. Proper disposal and recycling helps protect natural resources, human health, and the environment. For more information on disposal and recycling of this product, contact your local municipality, disposal service, or the shop where you bought this product.

Frequency Band (MHz)	Maximum Power (mW)
LTE 700, 800, 850, 900, 1700, 1800, 1900, 2100	199.5



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Helping our customers succeed is what drives us. While our passion for innovation and engineering is built into everything we do, it is our commitment to exceptional support that we hope will keep you in the Hunter family of customers for years to come.

A handwritten signature in black ink, appearing to read "Gene Smith". The signature is fluid and cursive, with a long horizontal stroke at the end.

**Gene Smith, President,  
Landscape Irrigation and Outdoor Lighting**

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hunterindustries.com

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