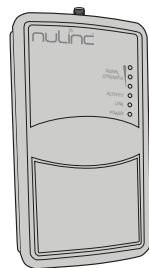


UC330-VC

nuLinc™

CDMA Cellular Communicator

Installation Instructions



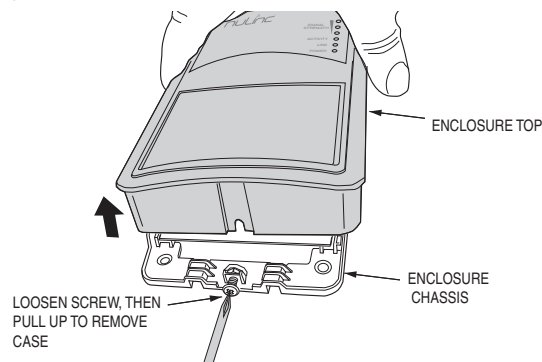
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3. ON-LINE ACTIVATION / REMOVING COVER

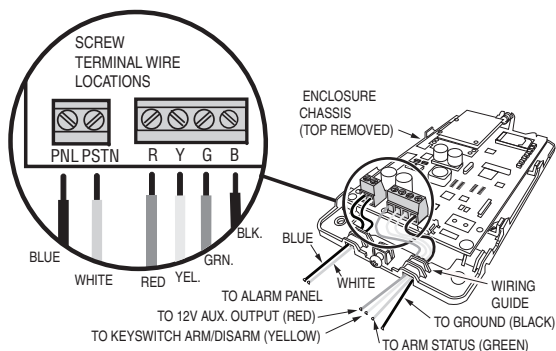
Log onto <http://www.linearinc.com> to setup a Dealer account and activate the device. This should be done prior to installing the UC330-VC at the customer location.

Open UC330-VC enclosure by loosening screw on enclosure chassis and lifting up on the enclosure top.



6. CHASSIS TERMINAL BLOCK WIRING

Using the color coded connector wires (provided) insert into screw terminals on UC330-VC enclosure chassis as shown in diagram. Feed wires through wiring guides located at the bottom edge of the chassis. **NOTE:** Install in accordance with the National Electrical Code, ANSI/NFPA 70.



1. PRODUCT DESCRIPTION

The UC330-VC CDMA Cellular Communicator functions as a phone line replacement for alarm panel Central Station reporting. It replaces the traditional wired phone line servicing the alarm panel with a device that communicates via cellular airwaves.

The communicator has an input to detect the alarm panel's arming status and an output to arm and disarm the alarm panel via the panel's key switch input. The communicator is powered and battery backed up directly from the alarm panel.

Seven indicators display setup information and status during operation. The cellular signal strength is also displayed by the indicators.

A remote antenna with an 8 ft. lead is supplied with the UC330-VC Cellular Communicator. It should be oriented and placed in a location that provides the best radio signal strength.

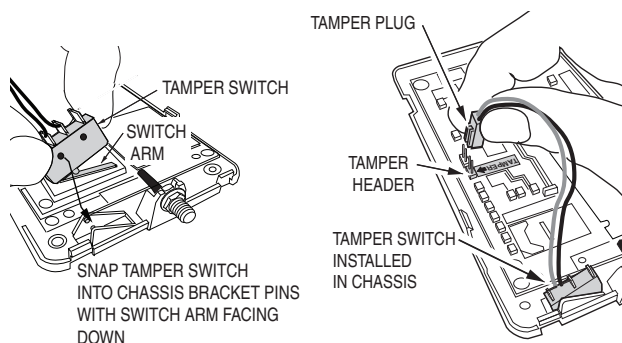
The unit also includes an optional tamper switch that, once installed, will notify the Central Station if the communicator is tampered with or removed from its mounting location.

The communicator will need to be activated on-line before use. Refer to these instructions and the on-line LinearLinc/nuLinc Dealer setup information on the LinearLinc Web site.

To setup the nuLinc remote arm/disarm and system arming status connections, the alarm panel's armed output polarity and key switch input polarity and type will need to be programmed in the panel. Refer to the alarm panel's instructions and the on-line UC330-VC Alarm Panel Connections & Programming Technical Bulletin (TB2013-004) for details.

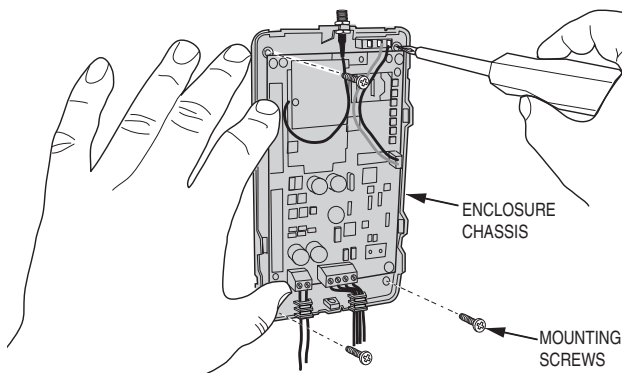
4. INSTALLING AND WIRING TAMPER ALARM SWITCH

If a Tamper Alarm is required, install Tamper Switch (included) into the enclosure chassis bracket as shown. Be sure that the tamper switch "snaps" into the bracket pins face down and pivots freely. After installing Tamper Switch into enclosure chassis, plug the tamper plug into the Tamper Header. The location is shown with a label and arrow on the circuit board.

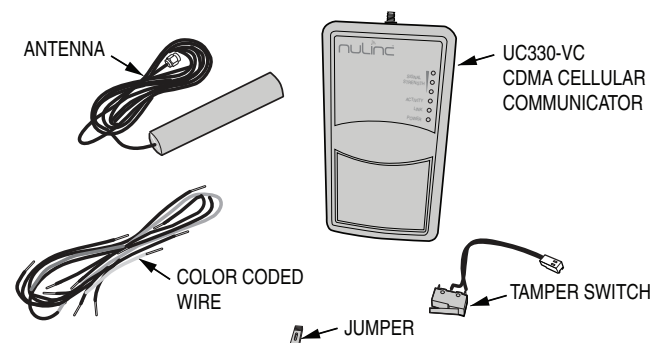


7. MOUNTING ENCLOSURE CHASSIS

Determine location for UC330-VC enclosure chassis and install using 4 mounting screws (provided). **NOTE:** Install in the same room and up to 3 feet away from alarm panel.

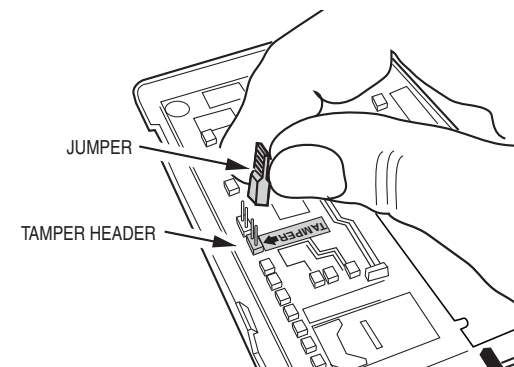


2. MODULE COMPONENTS



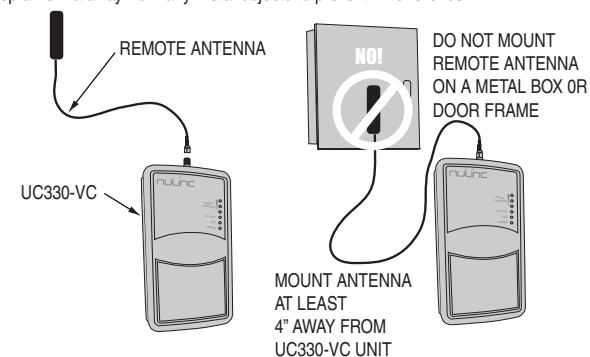
5. WIRING TERMINATION (IF NOT USING TAMPER SWITCH)

If a Tamper Switch is not required, plug the Jumper (provided) in place on the Tamper Header pins to prevent the tamper alarm from being raised.



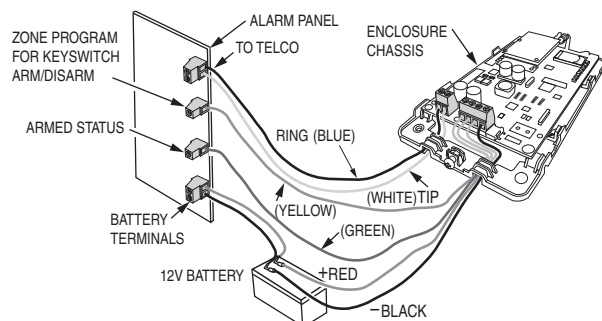
8. ANTENNA INSTALLATION

Fasten remote antenna to top of UC330-VC enclosure. Remove backing from sticky tape on antenna. Place antenna at an optimal location that maximizes signal strength, usually highest point above enclosure. Refer to Figure 12 for signal strength indicators. Be sure to keep antenna away from any metal objects to prevent interference.



9. WIRING UC330-VC TO ALARM PANEL

Power down the alarm panel and disconnect battery. Connect the UC330-VC to the alarm panel's 12VDC auxiliary output, telco ring and tip, key switch arm/disarm, and armed status terminals using the color coded wires (provided). After connecting all appropriate wires and battery, turn on power to the alarm panel.



REFER TO ALARM PANEL MANUAL INSTRUCTIONS FOR PROGRAMMING & WIRING

12. WIRELESS SIGNAL STRENGTH

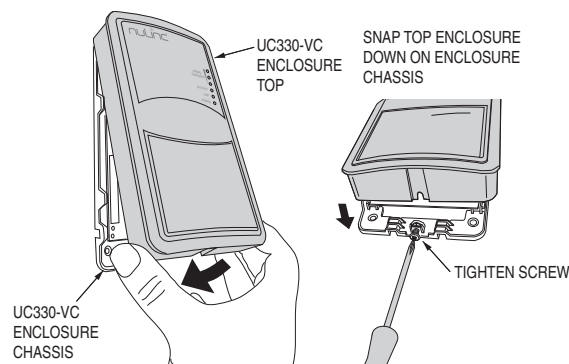
The SS1, SS2, and SS3 LEDs indicate wireless signal strength as shown below.

*SIGNAL STRENGTH	SS1	SS2	SS3
No reading available (eg modem is being reset)	OFF	OFF	OFF
Attempting to register on network	FLASH	OFF	OFF
<-89dBm Unacceptable	ON	OFF	OFF
-89dBm to -83dBm Poor	ON	FLASH	OFF
-83dBm to -77dBm Good	ON	ON	OFF
-77dBm to -70dBm Very Good	ON	ON	FLASH
>-70dBm Excellent	ON	ON	ON

*Unit is a global CDMA communicator that will locate the strongest cellular signal regardless of carrier and will periodically scan and automatically change to a stronger cellular carrier signal.

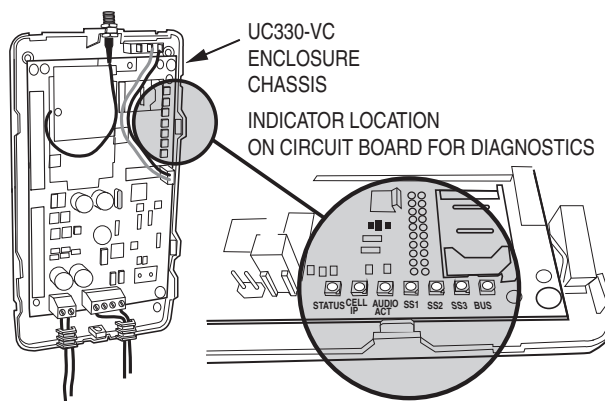
15. FINAL INSTALLATION

To close the UC330-VC unit, place the top over the base at the antenna end, then lower the lid until it sits flush with the base. Finally, insert and tighten the locking screw at the base of the enclosure chassis. Observe warning regarding mounting of remote antenna location.



10. LED STATUS INDICATORS

The UC330-VC has indicators which display unit status. They are located on the upper right edge of the circuit board. See chart in following box for unit status descriptions.



13. COMMUNICATOR ACTIVATION AND START-UP

NOTE: The unit must be activated prior to testing and use. After activating UC330-VC, the expected start-up sequence is as follows:

1. Power indicator flashes for 10 seconds then comes on solid
2. Within 30 seconds, the CELL IP indicator should start to flash slowly
3. Within 60 seconds, the CELL IP indicator should go solid. This may take up to fifteen minutes in poor reception areas.
4. If this is the initial power on or power on after a firmware upgrade, the unit will receive its configuration and may reboot.
5. Steps 1-3 above will then occur again

Once activated and connected, the normal Indicator status is

- Status Indicator: Solid
- Cell IP: Solid
- SS1, SS2, SS3: wireless signal strength

If this is not observed, consult the table in Step 14.

16. SYSTEM TESTING

Before leaving site, complete the following installation checks:

1. UC330-VC mounted in tamper-proof enclosure.
2. UC330-VC powered from battery-backed power system and power budget has been checked (UC330-VC draws average of 50mA, peak of 230mA).
3. Wireless signal strength is acceptable range or better
4. UC330-VC communicating with central station (Cell IP solid)
5. Alarms have been generated from the alarm panel and correct reception has been confirmed at the central station.

This equipment should be installed in accordance with Chapter 2 of the National Fire Alarm Code, ANSI/NFPA 72. (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269)

SPECIFICATIONS:

Voltage: 10VDC to 18VDC
Current: (@10V) 50mA average, 230mA peak
 (@12V) 45mA average, 180mA peak

Environmental Conditions: -10 to +70 degrees C
 5% to 90% relative humidity non-condensing

Panel Interface: Dial Capture
Wireless Interface: CDMA network compatible

11. UNIT LED INDICATOR STATUS DESCRIPTION

INDICATOR	DESCRIPTION
STATUS	OFF - the unit is not powered FLASHING - the unit is booting SOLID - the unit is powered and ready
CELL IP	OFF - the unit does not have IP connectivity over cellular network SLOW FLASHING - the unit has an IP address but is not connected to a LinearLink server SOLID - the unit has established a secure communications session with a LinearLink server
AUDIO ACT	SOLID - alarm panel communicating
SS1, SS2, SS3	Wireless signal strength indicators. Refer to next table
BUS	Not used

14. TROUBLESHOOTING GUIDE

CONDITION	CAUSE	ACTION
POWER LED OFF	Inadequate power supplied to UC330-VC	Check 12VDC @ 230mA is available.
CELL IP LED OFF	No network coverage, SIM not activated or wireless authentication failed.	Call Technical Services
CELL IP LED FLASHING	Network connectivity good, but account is not activated in LinearLink server.	
SS1 FLASHING	The SIM card has not been activated	
SS2 OFF	The signal for wireless communications is too low	Move antenna until SS2 is flashing or solid. A higher gain antenna may be needed.
SS2 SOLID or FLASHING	Acceptable wireless signal strength	No action needs to be taken.
SS3 SOLID or FLASHING	Excellent wireless signal strength	

LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twelve (12) months. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear Corporation for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until Warranty Expiration Date as labeled on the product. **This Linear LLC Warranty is in lieu of all other warranties express or implied.** All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

IMPORTANT !!!

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.

- For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.