

UC330-VC Alarm Panel Connections & Programming

Summary

Linear's nuLinc UC330-VC CDMA Cellular Communicator functions as a phone line replacement for alarm panel Central Station reporting. It replaces the traditional wired telephone land-line servicing the alarm panel with a wireless device that communicates over cellular.

To the alarm panel, the communicator simulates a standard telephone line and central station receiver, supporting dial tone, handshake, report acknowledgement, and kiss-off signals. The communicator sends the alarm panel reports through the cellular network to a LinearLinc authorized central station.

The communicator also features remote or mobile device control of the system. Arming and disarming of the alarm panel can be controlled, and the armed status of the alarm panel can be viewed.

This Technical Bulletin describes the communicator and the alarm panel connections, and typical alarm panel programming required to support the communicator. Programming steps for several common alarm panels are also included.



nuLinc UC330-VC Cellular Communicator

Connections

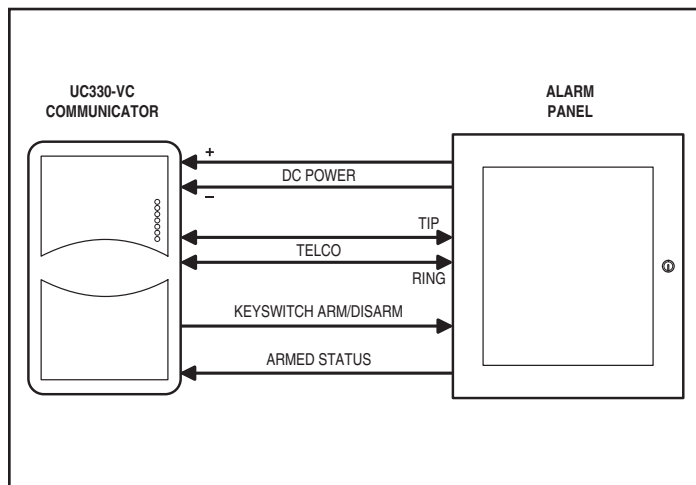
The communicator requires four connections to the alarm panel:

- **POWER** - The communicator receives 12 VDC power from the alarm panel's auxiliary power output or connection directly to the alarm panel's backup battery. **This connection powers the communicator.**
- **TELCO** - The alarm panel's ring and tip terminals that would normally connect to the installations land-line telephone jack now connect to the communicator's PSTN input. **This connection is for two-way cellular communication between the alarm panel and the central station.**
- **ARM/DISARM KEYSWITCH INPUT** - An alarm panel keyswitch input, or zone programmed as an arm/disarm zone, connects to the communicator. **This connection is for arming and disarming the alarm panel.**
- **ARMED STATUS OUTPUT** - An alarm panel output programmed to indicate the armed status of the system connects to the communicator. **This connection is for monitoring the alarm panel's arming status.**

General Programming

Some general alarm panel programming is the same regardless of the alarm panel type.

- **DIALING FORMAT** - Set the alarm panel to dial out using DTMF tone dialing and report in Ademco Contact ID or SIA format.
- **ARM/DISARM KEYSWITCH INPUT** - Set an available alarm panel zone to arm/disarm keyswitch operation. The recommended setting for the zone is normally open and momentary (other configurations for normally closed, or constant state input are also supported).
- **ARMED STATUS OUTPUT** - Set an alarm panel output to follow the system's arm disarm status. Positive or negative signal while armed is supported by the communicator programming.
- **AWAY / STAY MODES** - Disable any alarm panel setting that automatically switches the system from Away Mode to Stay or Home Mode.



Communicator and Alarm Panel Connections

See the next two pages for Alarm Panel programming

UC330-VC Alarm Panel Connections & Programming (continued)

Ademco Vista Panel

Requirements

1. Available hardwire zone that is not doubled.
2. Available output terminal or wire (Usually has 4-wire harness included with the kit. Suggest using Output #18, green wire).

Arm/Disarm Keyswitch Input (YELLOW WIRE)

Connection

Determine which of the two terminals for that zone is the +12V terminal. Look on the alarm panel diagram, usually labeled High or Zone XX. Also can be found by using voltmeter and using the black probe on the Negative(-) terminal or the GND terminal and using the red probe to determine which terminal has +12V.

- The Yellow wire from the UC300-VC **Y** terminal connects to this alarm panel terminal.
- An EOL resistor is not required. (Note: An EOL resistor can be used for wiring supervision, add the EOL resistor across UC300-VC **Y** & **B** terminals).

Zone Programming

The zone needs to be programed to be Normally Open.

- Go to Field *56 Zone type = 77 (Keyswitch)

Armed Status Output (GREEN WIRE)

Connection

Use alarm panel Output #18 (can also use Output #17).

- Connect UC300-VC **G** terminal to alarm panel programmed Output #18

Programming

Programming Output 18 to indicate Armed (Stay or Away) and Disarmed Modes.

- Use PGM Output #18
- Enter Installer Code + 800
- Field *79, Output #18, Normally Low = 0 = No
- Field *80, Output Function = 01, Activate by Zone Type = 2, Enter Zone Type = 22 (Disarming), Enter Output No. = 18, Output Action = 0 = Off
- Field *80, Output Function = 02, Activate by Zone Type = 2, Enter Zone Type = 20 (Arm Stay), Enter Output No. = 18, Output Action = 2 = Stay Closed
- Field *80, Output Function = 03, Activate by Zone Type = 2, Enter Zone Type = 21 (Arm Away), Enter Output No. = 18, Output Action = 2 = Stay Closed
- Disabling Automatic Armed Stay
- Field *84, Set to 0

GE Security Concord 4 Panel

Requirements

1. Available hardwire zone that is not doubled.
2. Available output terminal (suggest using Output #2).

Arm/Disarm Keyswitch Input (YELLOW WIRE)

Connection

Determine which of the two terminals for that zone is the +12V terminal. Look on the alarm panel diagram, usually labeled High or Zone XX. Also can be found by using voltmeter and using the black probe on the Negative(-) terminal or the GND terminal and using the red probe to determine which terminal has +12V.

- The Yellow wire from the UC300-VC **Y** terminal connects to this alarm panel terminal.
- Add the EOL resistor across UC300-VC **Y** & **B** terminals.

Zone Programming

Add hardwire zone as a Sensor #.

- System Programming >> Sensors >> Learn Sensor (shortcut 080)
- Choose Partition 1 (or other partition for alarm panel setup)
- Choose Group 28
- Trip Sensor by placing the jumper over the config mode pins. Retry if sensor is not learned
- Record Sensor # from previous step
- Exit Sensor programming

Define Sensor # as a keyswitch.

- System Programming >> Security >> Partition 1 >> Keyswitch Sensor (shortcut 0014)
- Set to Sensor # from above add hardwire zone step
- Set Keyswitch Type to Transition. System Programming >> Security >> Partition 1 >> Keyswitch Style (shortcut 0015)
- Set to Transition

✓ **NOTE: Transition state keyswitch sensor is officially supported (Please call Linear Technical Services if transition state is not available).**

Armed Status Output (GREEN WIRE)

Connection

Use alarm panel Output #2.

- Connect UC300-VC **G** terminal to alarm panel Output #2

Programming

- System Programming >> Onboard Options >> Output Programming >> Output 2 >> Partition Assign (shortcut 11110)
- Set to 1 (usually, or whatever partition alarm system is setup to)
- System Programming >> Onboard Options >> Output Programming >> Output 2 >> Configuration (shortcut 11111)
- Enter 00903

✓ **NOTE: 009 means armed stay or away states, 03 means to activate output continuously.**

GE Security Concord Express Series

Refer to the Concord 4 instructions. The keyswitch can only arm partition 1 due to panel support.

UC330-VC Alarm Panel Connections & Programming (continued)

GE Security NX Series Panels

Requirements

1. Available hardwire zone that is not doubled.
2. Available auxiliary output terminal.

Arm/Disarm Keyswitch Input (YELLOW WIRE)

Connection

Determine which of the two terminals for that zone is the +12V terminal. Look on the alarm panel diagram, usually labeled High or Zone XX. Also can be found by using voltmeter and using the black probe on the Negative(-) terminal or the GND terminal and using the red probe to determine which terminal has +12V.

- The Yellow wire from the UC300-VC **Y** terminal connects to this alarm panel terminal
- Do not use an EOL resistor

Zone Programming

The zone needs to be programmed to be Normally Open.

- Enter programming mode
 - Go to location 25, The segment number is the hardwire zone number
 - Program a 11 to define that segment/zone as a keyswitch type zone
- Disable the panel setting that automatically switches the system from Away Mode to Stay Mode.
- Enter programming mode
 - Go to location 23
 - Segment 4 and option 2 must be selected

Armed Status Output (GREEN WIRE)

Connection

Use the programmed alarm panel auxiliary output.

- Connect UC300-VC **G** terminal to alarm panel Auxiliary #1 output

Programming

Select auxiliary output number. In programming mode, go to the location corresponding to the output number used.

- AUX1 (Location 47)
- AUX2 (Location 48)
- AUX3 (Location 49)
- AUX4 (Location 50)
- In selected location, program a 21 in segment 1, and a 0 in segment 2

DSC Power Series Panels

Requirements

1. Available hardwire zone that is not doubled.
2. Available output terminal (suggest using Output #1).

Arm/Disarm Keyswitch Input (YELLOW WIRE)

Connection

Determine which of the two terminals for that zone is the +12V terminal. Look on the alarm panel diagram, usually labeled High or Zone XX. Also can be found by using voltmeter and using the black probe on the Negative(-) terminal or the GND terminal and using the red probe to determine which terminal has +12V.

- The Yellow wire from the UC300-VC **Y** terminal connects to this alarm panel terminal.
- An EOL resistor is required. Wire the EOL resistor across UC300-VC **Y** & **B** terminals.

✓ **NOTE: Only momentary keyswitch arming is supported. (Please call Linear Technical Services if momentary keyswitch state is not available).**

Zone Programming

The zone needs to be programmed for momentary keyswitch arm/disarm.

Section 001 (for partition 1)

- Use arrow key and scroll to hardwire zone being used
- Input type 22 for momentary keyswitch
- Press # to exit

Section 021

- Set Option 6 to OFF so keyswitch can always disarm system

Section 023

- Set Option 8 to ON so keyswitch will always arm in away mode

Armed Status Output (GREEN WIRE)

Connection

Use alarm panel Output #1 (can use Output #2).

- Connect UC300-VC **G** terminal to alarm panel PGM1

Programming

Program Section 009

- Set Input 05 to output active when armed
- Press # to exit