PROGRAMMING AND INSTALLATION GUIDE

DualCom™ Series Universal Alarm Communicator

Digital Monitoring Products, Inc.
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ABOUT THE COMMUNICATOR

The DualCom™ communicator provides a fully supervised alarm communication path and integrated primary and secondary communication on one PCB. For commercial fire or residential fire installations, DualComNF modules feature primary network communication, secondary cellular communication, and two sets of tip and ring terminals. For non-fire residential installations, DualComWZ modules feature built-in primary Wi-Fi communication, secondary cellular communication, Z-Wave integration, and one set of tip and ring terminals.

Use the DualCom communicator to take over panels. The communicator can be connected to a control panel's dialer output and used to capture Contact ID messages based on SIA DC-05-1999.09-DCS. The communicator also provides four input zones and two open-collector outputs for connection to control panel outputs and zones. Connect to the bell output of an existing control panel using zone 4 on the communicator. The communicator operates in a variety of applications: CID Dialer Connection, Zones 1-4 Input Connections, or Zone 4 Bell Connection. See Applications.

DualComNF modules include a red enclosure and a Model 685-R (Red) Backbox.

Features
- Can be powered from 12 VDC or 24 VDC
- Zone 1-4 terminals with 12 V and 24 V power input
- EASYconnect™
- 2 sets of tip and ring terminals (DualComNF only)
- 1 set of tip and ring terminals (DualComWZ only)
- Programming header for connecting to a programming keypad
- LED to indicate armed state

What is Included
- PCB with enclosure
- Model 685-R Backbox (DualComNF only)
- Hardware pack
- External antenna

SYSTEM COMPONENTS

Terminals

Power Connection Terminals
The communicator may be powered from the 12 VDC or 24 VDC auxiliary output of the control panel. Observe polarity and use 18-22 AWG wire to connect the communicator terminal +12 to the +12 or +24 V positive terminal on the control panel auxiliary output. See Figure 1. Connect the communicator terminal G (ground) to the negative terminal on the control panel auxiliary output.

Control Panel Standby Power
During a power outage, the communicator draws power from the control panel's backup battery. The communicator must be included in the standby battery calculations for the control panel.

Zones 1-4
Terminals Z1 to Z3, G (ground), Z4+ and Z4- provide four zones to connect to individual relay outputs on the control panel. Zone 4 (Z4+ and Z4-) can be connected to the control panel bell output. See Zone 4 Bell Connection.

Open-Collector Outputs
Terminals O1 and O2 can be programmed to indicate the activity of the zones or conditions occurring on the system. Open-Collector outputs do not provide a voltage but instead switch-to-ground the voltage from another source. Maximum voltage is 30 VDC at 50 mA. The outputs can respond to any of the conditions listed below:
- Activation by zone condition: Steady, Pulse, Momentary, or Follow
- Communication
- Armed area annunciation
- Remote Arming Output

Dialer Connection
Directly connect the Telco phone line (tip and ring) from the control panel to the terminal R (Ring) and one into terminal T (Tip). For more information, refer to “CID Dialer Connection”.
Programming (PROG) Connection
A 4-pin programming header is provided to connect a keypad when using a DMP Model 330 programming cable. This provides a quick and easy connection for programming the communicator. For 24 VDC applications using the communicator, connect the keypad using a Model 330-24 4-wire programming harness with an in-line resistor. After programming is complete, remove the keypad.

Caution: If connecting to a 24 VDC control panel, do not connect a keypad using a Model 330 harness.

Tamper
The tamper is pressed when the cover of the communicator is secured onto the enclosure. When the cover is removed, the communicator sends a tamper trouble message to the central station.

Reset Button
The reset button is located on the upper right side of the circuit board and is used to reset the communicator. After resetting the communicator, begin programming within 30 minutes. If you wait longer than 30 minutes, reset the communicator again.

Note: After the panel is reset, cell suppression is disabled for 30 minutes.

Load Button
Firmware can be updated with the programming header. Firmware updates are available for download, free of charge, on the DMP Dealer Direct website at DMP.com/Dealer_Direct.

Caution: Do not connect a Model 401 to the communicator if using 24 V power.

Performing a Firmware Update
To update the communicator with a new firmware version, complete the following steps at the protected premise:

399 Programming Cable
1. Connect a DMP 399 Cable from the programming header to the serial port of your PC operating Remote Link and containing the communicator RU file.
2. Start Remote Link and create or open the account that matches the communicator to be updated.
3. Set the connection information type to direct with a baud rate of 38400 and choose the appropriate COM port.
4. Select Panel > Remote Update, then select the correct RU file for the communicator.
5. Press and hold the load button, then press and release the reset button.
6. Release the load button and select <Update> in Remote Link.
7. After the firmware update is completed, remove the 399 cable and press the reset button to resume normal operation.

Model 401 USB Flash Module
When loading the firmware RU file onto a USB drive, place the file in the root directory of the USB drive. The update cannot be inside a folder. Format the USB drive as FAT32.

Place only one firmware file in the root directory. If more than one RU file exists on the USB drive, the communicator will choose the RU file with the most recent date modified.

Caution: DualCom, CellCom, iCom, and XTL+ do not use the same RU files. Using the wrong RU file for the update will cause the communicator to stop working until the correct RU file is used to flash the firmware.

1. Connect the USB flash drive to the Model 401.
2. Press and hold the reset button on the communicator. You will continue to hold reset until step 6.
3. Connect the assembly to the communicator’s programming header.
4. Press and release the button on the Model 401.
5. With your finger still on RESET, press and hold the load button. Continue to hold LOAD until step 8.
6. Release the reset button.
7. Press and release the button on the Model 401.
8. When the green LED on the Model 401 starts a slow flash, release the load button. The slow flash will last 5 minutes, then the green LED will become steady, indicating the firmware version is updated.

Note: If the LED blinks rapidly, the update was unsuccessful. Press and release RESET. Begin again at step 1

9. Press and hold RESET. Remove the Model 401, then release RESET to resume normal operation.

In the event the Model 401 USB Flash Module is inadvertently removed from the communicator before the update finishes, repeat steps 1-9.
**Backlit Logo**
The backlit logo indicates the power and armed status of the communicator. Depending on the operation, the LED displays in red or green as listed in the Table 1. The LED indicates the armed state and status of the system primary power.

<table>
<thead>
<tr>
<th>COLOR AND ACTIVITY</th>
<th>OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Steady</td>
<td>Communicator Disarmed, Primary Power OK</td>
</tr>
<tr>
<td>No Light</td>
<td>No Power</td>
</tr>
<tr>
<td>Red Steady</td>
<td>Communicator Armed, Primary Power OK</td>
</tr>
</tbody>
</table>

*Table 1: LED Status*

**ECP and DSC Passthru**
Perform an ECP or DSC Passthru and communicate through the communicator over the host panel's bus. This also allows users to manage host panels through Virtual Keypad including arming, disarming, viewing zone status, bypassing zones, view history, manage users, and more.

**Note:** Programming a DSC panel remotely requires a Model 330-DSC Programming Harness (sold separately).
INSTALLATION

Select a Location
Install the communicator away from metal objects. Do not mount the communicator inside or on a control panel metal enclosure. Mounting the communicator on or near metal surfaces impairs cellular performance.

Mount the Communicator
The communicator should be mounted to a wall using the included #6 screws in the mounting holes. See Figure 1. Mount the communicator in a secure, dry place to protect the communicator from damage due to tampering or the elements. It is not necessary to remove the PCB when installing the communicator.

**Figure 1: System Components**
Wire the Communicator

When connecting component wires, route all wires so they will not interfere with the tamper switch. See Figure 2 and Figure 3 for wire routing options.

Figure 2: Wire Routing Option One

Figure 3: Wire Routing Option Two

Connect the Antenna

Place the antenna onto the SMA connector. Refer back to Figure 1. Twist the antenna until it is securely tightened. Replace the housing cover on the mounted base. Be sure to not damage any PCB components when removing or replacing the housing cover.
APPLICATIONS

The communicator can be used in a variety of applications.

CID Dialer Connection

Directly connect one or both tip and ring terminals from the control panel to the communicator. See Figure 4. This connection captures Contact ID messages from any fire panel that are based on the SIA communication standard DC-05-1999.09-DCS. Messages are then formatted into a Serial 3 message and sent to an SCS-1R Receiver or SCS-VR Receiver.

**Note:** CID Dialer Connection cannot be used when using Zone 4 Bell Connection. Do not connect telephone company wires to the communicator. Remove any connected telephone company wires from the control panel.

![Wiring Diagram for Tip and Ring Connection](image)

Communication Failure (DualComNF only)

The phone line voltage on the second tip and ring will drop when the DualComNF is in a communication failure state. This triggers the host panel to annunciate a communication failure. When communication is restored, voltage is restored on the second tip and ring terminal and the host panel sees a restoral on the phone line.

Zones 1-4 Input Connection

Connect each control panel relay output to a zone on the communicator. For programming purposes, the zone numbers are 1-4. The following are examples of how you might use this application for a burglary or fire alarm.

**Burglary**

Use a normally closed output on a burglary control panel to indicate a burglary alarm. The communicator zone should be programmed with a zone name and burglary zone type. When the output on the control panel turns on and trips the communicator zone, a message is sent to an SCS-1R or SCS-VR receiver at the central station. The zone name programming can be used to describe which control panel zone indicated a burglary. See Figure 5.

**Note:** Zone 4 can only be used as a standard input zone when not programmed as zone type Auxiliary 2 (A2). See Zone 4 Bell Connection.

![Wiring Diagram for Burglary Zones 1-4](image)
Zone 4 Bell Connection

Zone 4 (Z4+ and Z4-) can be connected to the control panel bell output. This zone detects an alarm condition on the control panel by monitoring the voltage and cadence timing of the bell output. The communicator evaluates the first 3.5 seconds of bell cadence timing to detect the type of alarm sent. See Figure 6.

To enable alarm detection operation, Zone 4 Bell Connection must be programmed as Zone Type (A2) in Zone Information programming. See Table 2 for bell cadence type, zone number, and type of message sent to the receiver. The communicator generates zones 5 and 6 using the zone name of zone 4 to send to the central station. Zones 5 and 6 cannot be preprogrammed in Zone Information. CID Dialer Connection cannot be used when using Zone 4 Bell Connection.

**Table 2: Message Breakdown**

<table>
<thead>
<tr>
<th>BELL CADENCE</th>
<th>ZONE NUMBER</th>
<th>TYPE OF MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady</td>
<td>Zone 4</td>
<td>Burglary</td>
</tr>
<tr>
<td>Pulse or Temporal 3</td>
<td>Zone 5</td>
<td>Fire</td>
</tr>
<tr>
<td>Temporal 4</td>
<td>Zone 6</td>
<td>Emergency or Carbon Monoxide</td>
</tr>
</tbody>
</table>

**Figure 6: Zone 4 Bell Cadence Information**

Steady

- On
- Off

Pulse

1.0 sec 1.0 sec 1.0 sec 1.0 sec

Temporal 3

- On: 0.5 sec 0.5 sec 0.5 sec 0.5 sec 1.5 sec
- Off: Each 0.1 sec On

Temporal 4

- On: Each 0.1 sec Off
- Off: Each 0.1 sec On

3.5 sec

Each 0.1 sec On

5.0 sec

Each 0.1 sec Off
Figure 7: Zone 4 Bell Connection
ECP Passthru Connection

The communicator can be connected to the ECP Bus of a compatible VISTA panel. Refer to “VISTA Panel Compatibility” for VISTA compatibility details. See Table 3 and Figure 8 for wiring details.

Configuration

To configure the communicator for ECP Passthru, set KEYPAD INPUT to ECP, program VISTA keypad device address 20, then use the ECP SETUP feature in the Diagnostics (DIAG) menu. For details, refer to “Keypad Input” and “ECP Setup”.

For more information about configuring ECP Passthru, refer to COM Series How-To Guide: ECP Passthru (LT-2209).

Program Vista Keypad Device Address 20

1. Power down and then power up the Honeywell panel.
2. Within 1 minute of powering up the Honeywell panel, simultaneously press and hold the # and * buttons on the keypad.
3. The keypad displays INSTALLER CODE. Enter the installer code (default is 4112), followed by 8 0 0.
4. Enter *193, then enter 1 0.
5. To save and exit programming, enter *99.

<table>
<thead>
<tr>
<th>COMMUNICATOR TO ECP WIRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicator Terminal</td>
</tr>
<tr>
<td>+DC</td>
</tr>
<tr>
<td>-DC</td>
</tr>
<tr>
<td>Z4+</td>
</tr>
<tr>
<td>Z4–</td>
</tr>
</tbody>
</table>

Table 3: ECP Terminal Connections

![Figure 8: ECP Passthru Wiring](image-url)
# VISTA Panel Compatibility

<table>
<thead>
<tr>
<th>Panel Type</th>
<th>ECP</th>
<th>Remote User Management</th>
<th>Remote Arming/Disarming</th>
<th>Remote Zone Status</th>
<th>Compatible with Compass</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISTA-10SE</td>
<td>Rev 15 or higher</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>VISTA-10P</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Firmware version 2.0 or higher</td>
</tr>
<tr>
<td>VISTA-15</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>VISTA-15P</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Firmware version 5.2 or higher</td>
</tr>
<tr>
<td>VISTA-20SE</td>
<td>Rev 12 or higher</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>VISTA-20P</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Firmware version 5.2 or higher</td>
</tr>
<tr>
<td>VISTA-20PI</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Firmware version 5.0 or higher</td>
</tr>
<tr>
<td>VISTA-21iP</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>VISTA-21iPLTE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Note:** Panels must be programmed in the Stay/Away mode for Remote Arming/Disarming (No Partitions). Vista 32, 40, 50, 128, 250 are not compatible with ECP Virtual Keypad and eSuite.
DSC Passthru Connection
The communicator can be connected to the DSC Bus of a DSC PowerSeries Model PC1616, PC1832, or PC1864. Refer to Table 4 and Figure 9 for wiring details.

Configuration
To configure the communicator for DSC Passthru, set KEYPAD INPUT to DSC and use the DSC SETUP feature in the Diagnostics (DIAG) menu. For details, refer to “Keypad Input” and “DSC Setup”.

For more about configuring DSC Passthru systems, refer to COM Series How-To Guide: DSC Passthru (LT-2208).

<table>
<thead>
<tr>
<th>COMMUNICATOR TO DSC WIRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicator Terminal</td>
</tr>
<tr>
<td>DC+</td>
</tr>
<tr>
<td>DC-</td>
</tr>
<tr>
<td>Z4+</td>
</tr>
<tr>
<td>Z4-</td>
</tr>
<tr>
<td>T or T1</td>
</tr>
<tr>
<td>R or R1</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>PROG</td>
</tr>
</tbody>
</table>

Table 4: DSC Terminal Connections

Figure 9: DSC Passthru Wiring
ARMING AND DISARMING

Use the Virtual Keypad App
Using a smartphone with the DMP Virtual Keypad App or a computer with VirtualKeypad.com, you can connect to the communicator to arm areas, turn outputs on and off, and add, edit, or remove users. See Figure 10.

Use Outputs
A burglary control panel zone may be programmed as an arming zone and connected to output O1 or O2. See Figure 11. Program the output number in armed output or remote arming output in output options when programming the communicator. See Armed Output or Remote Arming Output. The communicator output connections can be used with any of the applications listed in this guide. See Applications.

Communicator to Panel Burglary Zones
1. Connect the communicator’s Z1 (zone 1) terminal to the control panel’s armed output terminal.
2. Connect the communicator’s O1 (output 1) terminal to the control panel’s keyswitch or arming zone.

![Image of communicator to panel connection diagram]

Figure 11: Communicator to Burglary Control Panel Zones
Honeywell Vista 20 Panel Wiring

1. Connect the communicator’s Z1 (zone 1) terminal to output 17 on the control panel.
2. Connect the communicator’s O1 (output 1) terminal to the control panel’s keyswitch or arming zone.
3. Connect the T (tip) terminal on the communicator to terminal 23 on the control panel.
4. Connect the R (ring) terminal on the communicator to terminal 24 on the control panel.
5. Power the communicator by connecting its terminal +12V to terminal 5 on the control panel.
6. Connect the communicator’s GND (ground) terminal to terminal 4 on the control panel.

![Honeywell Vista 20 Series Control Panel to DualCom Diagram](image-url)

Figure 12: Vista 20 Series Control Panel to DualCom
ACTIVATE THE CELLULAR MODULE
For more information about using Dealer Admin, Tech APP, or Remote Link, refer to DMP.com/dmphelp.

**Dealer Admin Activation**
1. Find the customer and select their name.
2. The customer’s summary page opens. In the **Systems** section, press the Add icon.
3. Enter the system name.
4. In **System Type**, select **DualCom**.
5. In **Connection Type**, select **Cellular** or **EASYconnect + Cell Backup**.
6. In **SIM Number**, enter the SIM number and press **Get Status**.
7. Press **Activate**.
8. In **Account Number**, enter the system’s receiver number followed by the account number.
9. Select a **Rate Plan** for the communicator.
10. Enter the panel **Serial Number**.
11. Enter the panel **Remote Key**. The remote key must match the one programmed in panel **REMOTE OPTIONS**.
12. To confirm proper communication, press **Test Connection**.
13. A dialog pops up to ask if you want to perform the initial connection to the panel. Press **Yes**.
14. Configure additional options as needed, then press **Save**.

**Tech APP Activation**
1. Go to the **Customer Summary > Systems**.
2. Tap the Add icon.
3. Enter the **System Name**.
4. Enter the panel **Serial Number**.
5. In **System Type**, select **DualCom**.
6. In **Connection Type**, choose **Cellular** or **EASYconnect + Cell Backup**.
7. In **Account Number**, enter the system’s receiver number followed by the account number.
8. Enter the panel **Remote Key**. The remote key must match the one programmed in panel **REMOTE OPTIONS**.
9. Enter the **SIM Number** and tap **Get MEID/SIM Status**.
10. Select a **Rate Plan** for the communicator.
11. Configure additional options as needed, then tap **Save**.

**Remote Link Activation**
1. Go to **File > Panel Information**.
2. Press **New**.
3. In **Model**, select **DualCom**.
4. If necessary, enter a firmware version number in **Version**.
5. Enter the receiver number and account number, then press **OK**.
6. In **Connection Information**, select **Cellular**.
7. Enter the panel **Remote Key**.
8. Enter the cellular **Phone Number**.
9. Press **OK**.
10. Go to **Program > Communications**.
11. In **Connection**, press **Activate**.
12. Select **SIM** as the **SIM Type**.
13. Enter the SIM number, then select a **Rate Plan**.
14. Press **Activate**.
PROGRAMMING

Before You Begin
Read this guide before you begin programming. This guide allows you to quickly learn the programming options and operational capabilities of the DualCom. The communicator contains all of its programming information in an onboard processor and does not require an external programmer.

In addition to this manual, you should also be familiar with the following document:
• DualCom Communicator Programming Sheet (LT-1860)

Programming Sheet
Fill out the programming sheet included with this device before you begin programming. The programming sheet lists the various options available for programming the communicator and allows you to keep a record of what options you intend to enter, reducing programming errors.

Default Master Code
Universal Communicators Version 194 and higher ship with a unique four-digit default master code. This master code is generated with an algorithm that ensures it cannot be duplicated. The code can be modified or deleted in panel programming. To revert the default code to 99, use the Clear All Codes option found in the initialization menu. Panels ship with the master code on the serial number label in parentheses next to the serial number.

Getting Started
Initializing the Communicator
When programming a communicator for the first time or rewriting the entire program of an existing communicator, use the initialization programming option. See Initialization. Initializing clears the communicator’s memory and sets the highest user number to user code 99.

Accessing the Programmer
To access the programmer function of the communicator:
1. Connect the keypad to the programming header.
2. Press and release the reset button.
3. Enter 6653 (PROG). The keypad displays PROGRAMMER.

Programming Menu
The following is a list of programming menu options available in the programming menu. Press CMD to advance through the programming menu options. To select a menu option, press any select area when the desired menu option displays on the keypad. Use this list to navigate to your desired programming menu option in this guide.
• Initialization
• Communication
• Network Options
• Remote Options
• System Reports
• System Options
• Output Options
• Area Information
• Zone Information
• Stop
• Set Lockout Code
• Z-Wave Setup (DualComWZ only)
Reset Timeout

You must enter the programmer menu within 30 minutes of resetting the communicator to avoid reset timeout. After 30 minutes, if you attempt to program by entering the 6653 (PROG) code, the keypad displays **RESET PANEL**. You must reset the communicator and enter the program code within the next 30 minutes.

If you are already in the programmer menu and do not press any keys on the keypad for 30 minutes, the communicator exits programming. All data entered up to that point is saved in the communicator memory.

To exit the programmer menu, use the stop option. The stop option is the second-to-last option in programming and disarms all areas. The programming session is terminated and the keypad returns to status list or main screen.

Special Keys

The following keys and areas are common to all DMP LCD and graphic touchscreen keypads.

**Command**

Press **CMD** to advance through the programmer menu and through each step of a programming section. As you advance through the programmer menu, the keypad displays any current programming already stored in the communicator memory. If no change is required for an option, press **CMD** to advance to the next step.

**CMD** is also used to enter information into the communicator’s memory such as an IP address or a zone name. Press **CMD** after entering information.

**Back Arrow**

Use the back arrow to back up one step in a programming menu or to erase a typing error while entering information.

Select Areas

The top row of keys on LCD Keypads are called select areas. The select areas on graphic touchscreen keypads are along the top of the keypad. When you need to press a select area, the keypad displays the options.

When there are more than four response options available, press **CMD** to display the next set of options. Press the back arrow to return to the previous options.

**LCD Keypads**

The first select area is on the far left. The second select area is second from the left. The third select area is second from the right. The fourth select area is on the far right and is for special characters. See Figure 13.

**Graphic Touchscreen Keypads**

When instructed to press the first select area, touch select area 1; the second select area, touch select area 2; third select area, touch select area 3; and the fourth select area, touch select area 4. See Figure 14.
Letters and Special Characters

Use the number pad directions below to enter letters and special characters on a number pad or use the standard keyboard directions to enter letters and special characters on a standard keyboard.

Number Pad

1. Choose a character from Table 5.
2. Identify the number the character correlates with and press that number on the number pad.
3. Identify the select area for that character and press that select area on the keypad. To access the lowercase letter, press that select area again.
4. When the desired character displays on the keypad, return to step 1 to enter another character or press CMD if finished.

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>SELECT KEY 1</th>
<th>SELECT KEY 2</th>
<th>SELECT KEY 3</th>
<th>SELECT KEY 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>(</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>)</td>
</tr>
<tr>
<td>3</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>!</td>
</tr>
<tr>
<td>4</td>
<td>J</td>
<td>K</td>
<td>L</td>
<td>?</td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>N</td>
<td>O</td>
<td>/</td>
</tr>
<tr>
<td>6</td>
<td>P</td>
<td>Q</td>
<td>R</td>
<td>&amp;</td>
</tr>
<tr>
<td>7</td>
<td>S</td>
<td>T</td>
<td>U</td>
<td>@</td>
</tr>
<tr>
<td>8</td>
<td>V</td>
<td>W</td>
<td>X</td>
<td>,</td>
</tr>
<tr>
<td>9</td>
<td>Y</td>
<td>Z</td>
<td>space</td>
<td>_</td>
</tr>
<tr>
<td>0</td>
<td>-</td>
<td>.</td>
<td>*</td>
<td>#</td>
</tr>
</tbody>
</table>

Table 5: Entering Letters and Special Characters in the Number Pad

Standard Keyboard

- Press ABC to access uppercase letters.
- Press abc to access lowercase letters.
- Press !@# to access symbols and special characters.
- Press 123 to access the number pad.

Note: Not all keypad prompts accept letters and/or symbols. For example, pressing P on the ENTER CODE prompt could display a 6 on the keypad.

Current Programming

Each programming option that displays shows the information already programmed in the communicator memory. To change the already programmed information, simply replace the information. To change a programming option that requires a YES or NO response, press the select area for the desired response.
**INITIALIZATION**

This option allows you to set the communicator’s programmed memory back to the factory defaults in preparation for system programming.

After selecting **YES** to clear a section of memory, the communicator asks if you are sure you want to clear the memory. This is a safeguard against accidently erasing part of your programming. No memory is cleared from the programming until you answer **YES** to the confirmation prompt. See Figure 15.

Use YES/NO options to initialize programmable parts of the panel.

<table>
<thead>
<tr>
<th>CODES?</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Choose **YES** to advance to a confirmation prompt.

If you choose **YES**, the panel initializes that section of the program and advances to the next prompt.

If you choose **NO**, the panel advances to the next option and does not initialize that section of the program.

<table>
<thead>
<tr>
<th>Scheds?</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Choose NO to advance to the next option.

Choose **NO** to leave existing codes intact.

Choose **YES** to clear the user code memory and assign user code number 99 to user 20.

**CLEAR ALL CODES**

Choose **NO** to leave existing event memory intact.

Choose **YES** to clear all event memory in the display events buffer.

**CLEAR EVENTS**

Choose **NO** to leave existing zone information intact.

Choose **YES** to set all zones in the system to “UNUSED”.

**CLEAR ZONE PROGRAMMING**

Choose **NO** to leave existing communication programming intact.

Choose **YES** to clear communication to factory defaults.

**CLEAR COMMUNICATION**

Choose **NO** to leave the remainder of the existing communicator programming intact.

Choose **YES** to set the communicator programming back to factory default selections.

**SET TO FACTORY DEFAULTS**

Choose **NO** to leave the remainder of the existing communicator programming intact.

Choose **YES** to set the communicator programming back to factory default selections.

**Note:** Choosing **YES** does not clear the event memory, zone, user code information, or schedules.
COMMUNICATION
This option allows you to configure the communication settings for the communicator.

ACCOUNT NUMBER
Enter the account number sent to the receiver. The range is 1-65535. For account numbers of four digits or less, do not enter leading zeros.

TRANSMISSION DELAY
Enter the number of seconds the communicator waits before sending burglary alarm reports to the receiver. The range is 15-45 seconds. The default is 0. Enter 0 to disable this function.

COMMUNICATION TYPE
The communicator uses NET or WI-FI and CELL to connect with SCS-1R or SCS-VR receivers. DualComNF models use NET and CELL and default to NET. DualComWZ models use WI-FI and CELL and default to WI-FI.

BACKUP CELL?
If NET or WI-FI is selected as the primary communication type, BACKUP CELL will display and give you the option to enable or disable cellular backup.

TEST TIME
Enter the time of day the communicator should send the test report to the SCS-1R or SCS-VR receivers. Use entries between 12:00 to 11:59 and then choose AM or PM. To enable daily tests from the host panel, leave the time blank and enable test reports for receiver 1 and/or for receiver 2. See Test Report.

NET/CELL TEST DAYS
If you entered a test time, you can enter how often the panel test report is sent to the receiver. The range is 1 to 60 and the default is 1. Enter 0 to disable the test report.

CHECK-IN MINUTES
Check-in reports are a method of supervising the panel for communication with the receiver. Enter the number of minutes between check-in reports. The range is 3-240 minutes. The default is 0. Enter 0 to disable check-in minutes.

FAIL TIME MINUTES
Fail time allows the SCS-1R or SCS-VR receivers to miss a defined number of check-ins before logging that the panel is missing. For example, if cell check-in is 20 minutes and fail time is 30 minutes, the receiver only indicates a Panel Not Responding after 30 minutes. The fail time must be equal to or greater than the cell check-in minutes. If cell check-in is 20 minutes, the fail time must be 20 minutes or more. The range is 3-240 minutes. The default is 0.

BACKUP CHECK-IN MINUTES
Set the number of minutes between check-in reports for BACKUP CELL if it was enabled. The range is 3-240 minutes. The default is 0. Enter 0 to disable check-in minutes.

BACKUP FAIL TIME MINUTES
Set the number of minutes the receiver should wait to indicate that a panel is missing using BACKUP CELL if it was enabled. If cell check-in is 20 minutes, the fail time must be 20 minutes or more. The range is 3-240 minutes. The default is 0.
RECEIVER 1 PROGRAMMING
This option allows you to set the options for the first receiver the communicator attempts to contact when sending reports from the host panel and/or communicator. The communicator supports communication up to two receivers.

**Alarm Reports**
Choose **YES** to enable Abort, Alarm, Alarm Restoral, Alarm Bell Silenced, Ambush, Exit Error, and System Recently Armed reports to be sent to this receiver. The default is **YES**.
Choose **NO** to disable sending these reports to the receiver.

**Supervisory/Trouble Reports**
Choose **YES** to enable Supervisory, Trouble, Trouble Restoral, Force Armed, and Fault reports to be sent to this receiver. The default is **YES**.
Choose **NO** to disable sending these reports to the receiver.

**Opening/Closing and User Reports**
Choose **YES** to enable Opening/Closing, Schedule and Code Changes, and Bypass reports by user to be sent to this receiver. The default is **YES**.
Choose **NO** to disable sending these reports to the receiver.

**Test Report**
Choose **NO** to disable sending these reports to the receiver.

**First IP Address**
Enter the first (primary) IP address where the communicator sends cell messages. Enter all 12 digits and leave out the periods. For example, enter IP address 192.168.0.250 as 192168000250. The periods display automatically.

**First IP Port**
Enter the first IP port number to be used with the first IP address. The IP port identifies the port used to communicate messages with the communicator. The default IP port setting is **2001**.

**Second IP Address**
Enter the second IP address where the communicator sends network messages. Enter all 12 digits and leave out the periods. The periods display automatically.

**Second IP Port**
Enter the second IP port number to be used with the second IP address. The IP port identifies the port used to communicate messages to and from the communicator. The default IP Port setting is **2001**.
RECEIVER 2 PROGRAMMING
Set the options for the second receiver that the communicator attempts to contact when sending reports from the host panel or communicator. The communicator supports communication with up to two receivers.

Note: If you select YES for any of the receiver 2 options, you must have at least one IP address programmed in receiver 2 programming. The receiver 2 defaults are set to NO.

Alarm Reports
Choose YES to enable Abort, Alarm, Alarm Restoral, Alarm Bell Silenced, Ambush, Exit Error, and System Recently Armed reports to be sent to this receiver.

Choose NO to disable sending these reports to the receiver. The default is NO.

Supervisory/Trouble Reports
Choose YES to enable Supervisory, Trouble, Trouble Restoral, Force Armed, Late to Close, and Fault reports to be sent to this receiver.

Choose NO to disable sending these reports to the receiver. The default is NO.

Opening/Closing and User Reports
Choose YES to enable Opening/Closing, Schedule and Code Changes, and Bypass reports by user to be sent to this receiver.

Choose NO to disable sending these reports to the receiver. The default is NO.

Test Report
Choose YES to enable the recall test report from the host panel and/or communicator to be sent to the receiver.

Choose NO to disable sending this report to the receiver. The default is NO.

First IP Address
Enter the first (primary) IP address where the communicator sends cell messages. Enter all 12 digits and leave out the periods. For example, enter IP address 192.168.0.250 as 192168000250. The periods display automatically.

First IP Port
Enter the first IP port number to be used with the first IP address. The IP port identifies the port used to communicate messages with the panel. The default IP port setting is 2001.

Second IP Address
Enter the second IP address where the communicator sends network messages. Enter all 12 digits and leave out the periods. The periods display automatically.

Second IP Port
Enter the second IP port number to be used with the second IP address. The IP port identifies the port used to communicate messages with the panel. The default port is 2001.
NETWORK OPTIONS

Network options are provided to define the network configuration for the communicator. This information will be used during communication of messages via network.

Note: IP addresses and port numbers may need to be assigned by the network administrator. When entering an IP, gateway, or subnet mask address, be sure to enter all 12 digits and leave out the periods. For example, IP address 192.168.000.250 is entered as 192.168.0.250.

WI-FI SETUP

This option is for connecting to the desired Wi-Fi network and will display only when Communication Type is set to Wi-Fi. Press any select key or area to select.

WPS LIST MANUAL displays. Press the first select key or area to choose WPS to automatically connect to a WPS enabled router. Press the second select key or area to choose LIST and see the name and signal strength of any Wi-Fi routers in range. Press the third or fourth select key or area to choose MANUAL and enter the name of the Wi-Fi router you wish to connect to. Pressing CMD displays TEST. To select TEST, press the first select key or area to verify connection of your system to the Wi-Fi network.

WPS

When WPS is selected, SEARCHING displays. Press the WPS button on the Wi-Fi network router to which you are attempting to connect. SEARCHING displays for up to two minutes or until connected to the WPS enabled router. Refer to the router’s instruction manual for sending a security key to the communicator.

If the panel fails to connect to the WPS enabled router, WPS FAILED RETRY? NO YES displays. Press the fourth select key or area to RETRY or press the third select key or area to display WPS LIST MANUAL.

LIST

When LIST is selected, SEARCHING displays until any Wi-Fi networks are found in range. Once available Wi-Fi networks are found the keypad displays the name of the SSID (Wi-Fi Network name) and signal strength of each network. Press CMD to scroll through the list of available Wi-Fi networks. When the desired network is displayed, press any select key or area to connect.

Note: If the panel is unable to detect the security type, W/L SECURITY with the default security type WPA-PSK displays. If a different security type is required, press CMD and WEP WPA NONE displays. Press the select key or area of the desired security type to choose.

When connecting to the Wi-Fi network the panel also detects the security type in use and W/L KEY: ************ displays.

Enter the W/L KEY and the panel performs a connection test and CONNECTING displays. When successful, CONNECTED displays on the keypad. If the panel does not connect to the Wi-Fi network, NOT CONNECTED displays. Press CMD to return to the Wi-Fi setup main screen.

MANUAL

This option allows you to enter the desired network name using the keypad. When MANUAL is selected, the current settings display. Press CMD to continue with no change. SecureCom is the default.

Use the number keys on the keypad to enter a new or different SSID (Wi-Fi Network name), there is no need to press the select keys or areas. Once the SSID is entered, press CMD and SEARCHING displays.

When an SSID is entered for the first time or changed, the panel searches for the SSID entered to ensure communication. The keypad displays SSID FOUND or SSID NOT FOUND. When the SSID is found, the security type is also detected. Depending on the security type, the SSID might take several seconds to process.

Enter up to 32 characters for the SSID from the network router to identify the network LAN. The SSID is blank by default.

While searching, the keypad displays SEARCHING. If the communicator is unable to connect to the desired network and SSID NOT FOUND displays, press CMD to return to the main menu and WPS LIST MANUAL displays. Press CMD again to display TEST.

Enter the Wireless Network Key for the network and press CMD to save the key.
TEST
Press the first select key or area to select TEST and the communicator will attempt to verify connection of your system to the desired Wi-Fi network.

WIRELESS SECURITY TYPE
When successful, W/L SECURITY displays. Select the security type based on the network router programming. The default network security type is WPA-PSK. Press any select key or area to display the other security options. The available options are WEP, WPA, and NONE.
Press the first select key or area to choose WEP, press the second select key or area for WPA, press the third select key or area for NONE.

WIRELESS NETWORK KEY
This option displays only if the communication type is set to Wi-Fi and Security option is enabled. Enter the key provided from the network router’s programming. WEP requires a network password of 10 characters (WEP64) or 26 characters (WEP128), using a combination of the number 0-9 and the letters A-F (See the chart above to enter lowercase or special characters).
Note: Depending on the security type, the key might take several seconds to process.

DHCP MODE ENABLED
Choose YES if the communicator uses a dynamic IP address. The communicator will operate in DHCP and will not use the local IP address number. The default is YES.
Choose NO to have the communicator use the IP address entered in local IP address.

LOCAL IP ADDRESS
Enter the local IP address for the communicator. The local IP address must be unique and cannot be duplicated on the network. The default local IP address is 192.168.0.250.

GATEWAY ADDRESS
Enter the local gateway address. The gateway IP address is needed to exit the local network. The default gateway address is 192.168.0.1.

SUBNET MASK
Enter the local subnet mask assigned to the communicator. The default subnet mask address is 255.255.255.0.

DNS SERVER
Enter the IP address of the DNS (Domain Name System) used by the communicator to resolve domain names into IP addresses. The default address is 0.0.0.0.

PROGRAMMING PORT
Enter the programming port number. The programming port identifies the port used to communicate messages to and from the communicator. The default programming port setting is 2001.
REMOTE OPTIONS
This option allows you to enter the information needed for remote command/remote programming operation.

REMOTE KEY
Enter a code of up to eight digits for use in verifying the authority of a receiver to perform a remote command/programming session. The receiver must give the correct key to the communicator before access will be granted. All communicators are shipped from the factory with the remote key preset as blank.

To enter a new remote key, press any select area and enter any combination of up to 8 digits. The numbers you enter appear as asterisks.

REMOTE DISARM
Choose YES to enable the communicator to be disarmed remotely. The default is YES.
Choose NO to disable remote disarming.

APP KEY
Enter the 8-digit app key obtained in your dealer settings on Dealer Admin. This option is a security feature of the Virtual Keypad app and is used only when your dealer settings have EASYconnect set as the communication type. This option is used to eliminate the need for a static IP address programmed in network options. To enter a new App Key, press any select area and enter any combination of 8 digits. The default is blank.

SYSTEM REPORTS
This option allows you to select which reports the communicator sends to the receiver.

OPENING/CLOSING REPORTS
Choose NO to prevent sending opening/closing reports.
Choose YES to send opening/closing reports for each programmed area. The default is YES.

ZONE RESTORAL REPORTS
Specify whether the communicator sends zone restoral reports and when they will be sent.
Choose NO to prevent sending restoral reports from the communicator.
Choose YES to enable the communicator to send zone restoral reports when a zone restores from an alarm or trouble condition. The default is YES.

Note: The communicator sends zone restoral reports when a zone that has restored from an alarm or trouble is disarmed. Twenty-four hour zones send restorals immediately.
**SYSTEM OPTIONS**

This option allows you to select system wide parameters used in the operation of the communicator system.

**ENTRY DELAY 1**

Enter the entry delay time for all exit type zones programmed. When an armed exit type zone is faulted, the area must be disarmed before the entry delay expires or a fault will be detected. All burglary type zones are delayed along with the exit zone. Entry delay times range from 30-250 seconds. The default is 30 seconds.

**EXIT DELAY**

Enter the exit delay time for all exit type zones. When the exit delay time starts, all activity on exit and burglary zones is ignored until the exit delay expires. During exit delay, if an exit zone trips, then restores, and trips again, the exit delay timer restarts. This restart can occur only once. Exit delay times can be from 30-250 seconds. The default is 60 seconds.

Exit Error Operation: At arming, when an entry/exit zone (EX) faults at the end of the exit delay, a zone alarm and an exit error are sent to the receiver.

**CROSS ZONE TIME**

Enter the time allowed between zone faults. When a zone programmed for cross zoning faults, the communicator begins counting down the cross zone time entered here. If the same zone or another cross-zoned zone faults within this time, an alarm report is sent to the receiver.

If the cross zone time expires without the second zone fault, only a zone fault report from the first zone is sent to the receiver. The cross zone time can be from 4-250 seconds in one second increments. Enter 0 to disable the cross zone time feature. See Cross Zoning.

**POWER FAIL DELAY**

Enter the time allowed for a power failure to occur before sending a report. The delay time can be from 1-9 hours. When the power is off for the programmed delay time, a power failure report is sent to the receiver. For example, if the power failure delay is set for two hours, then the power failure report will be sent between 2-3 hours. Entering 0 sends the power failure report within 15 seconds.

**SWINGER BYPASS TRIPS**

Enter the number of times (1-6) a zone can go into an alarm or trouble condition within one hour before being automatically bypassed. Bypassed zones are automatically reset when the area they are assigned to is disarmed. All 24-hour zones are reset when any area of the system is disarmed. A programming stop operation restores a bypassed zone. Entering 0 disables this function. The default is 2.

**How it works**

The communicator hour timer starts at 59 minutes past the hour. If the hour timer expires before the trip counter is exceeded, the trip counter returns to 0. If the trip counter is exceeded before the hour expires, the zone is automatically bypassed by the communicator. A bypass report is sent to the receiver if bypass reports is set to YES.

**RESET SWINGER BYPASS**

Choose YES to reset an automatically bypassed zone when it remains in normal condition for one hour after being bypassed. A report of the automatic reset is sent to the receiver. Choose NO to disable automatic reset of a bypassed zone. The default is NO.
TIME CHANGES

Choose **YES** to allow the communicator to request automatic time changes from the SCS-IR or SCS-VR receiver. The receiver must be programmed to send and receive time change updates from the host computer at least every 24 hours. Choose **NO** to disable automatic time change requests. The default is **YES**.

HOURS FROM GMT

When time zone is programmed **YES**, enter the number (0-23) that indicates the Greenwich Mean Time zone (GMT) where the communicator is located. The default is **6**. See Table 6 for GMT values.

<table>
<thead>
<tr>
<th>GMT</th>
<th>CITY/TIME ZONE</th>
<th>GMT</th>
<th>CITY/TIME ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>London, Monrovia, Lisbon</td>
<td>12</td>
<td>Fiji, Marshall Island, Wellington</td>
</tr>
<tr>
<td>1</td>
<td>Cape Verde Island, Azores</td>
<td>13</td>
<td>New Cadelonia</td>
</tr>
<tr>
<td>2</td>
<td>Mid-Atlantic</td>
<td>14</td>
<td>Guam, Sydney</td>
</tr>
<tr>
<td>3</td>
<td>Buenos Aires, Georgetown</td>
<td>15</td>
<td>Tokyo, Seoul</td>
</tr>
<tr>
<td>4</td>
<td>Atlantic Time (Canada), Caracas</td>
<td>16</td>
<td>Hong Kong, Singapore</td>
</tr>
<tr>
<td>5</td>
<td>Eastern Time (US, Canada) Bogota</td>
<td>17</td>
<td>Bangkok, Hanoi</td>
</tr>
<tr>
<td>6</td>
<td>Central Time (US, Canada) Saskatchewan</td>
<td>18</td>
<td>Dhaka, Almaty</td>
</tr>
<tr>
<td>7</td>
<td>Mountain Time (US, Canada), Edmonton</td>
<td>19</td>
<td>Islamabad, Karachi</td>
</tr>
<tr>
<td>8</td>
<td>Pacific Time (US, Canada), Tijuana</td>
<td>20</td>
<td>Abu Dhabi, Kazan</td>
</tr>
<tr>
<td>9</td>
<td>Alaska</td>
<td>21</td>
<td>Moscow, Bagdad</td>
</tr>
<tr>
<td>10</td>
<td>Hawaii</td>
<td>22</td>
<td>Eastern Europe</td>
</tr>
<tr>
<td>11</td>
<td>Midway Island, Samoa</td>
<td>23</td>
<td>Rome, Paris, Berlin</td>
</tr>
</tbody>
</table>

Table 6: GMT Time Zones

KEYPAD INPUT

Select **NONE** to allow zone 4 to function as normally programmed. The default is **NONE**.

Select **ECP** to enable communication between the communicator and an Ademco/Honeywell panel using the +Z4- terminals. Using the Ademco/Honeywell ECP Bus, the communicator can add, delete, and change user codes as well as arm and disarm the Ademco/Honeywell panel. The communicator will forward alarm messages from the Ademco/Honeywell panel to the central station.

Select **DSC** to enable communication between the communicator and a DSC PowerSeries panel using the Z4- terminal. Using the DSC bus, the communicator can add, delete, and change user codes as well as arm and disarm the DSC panel. The communicator will forward alarm messages from the DSC panel to the central station.

See Ademco/Honeywell ECP Connection for examples of panel wiring and necessary Ademco/Honeywell panel programming.

CID FORMAT

Select **DMP** to send CID messages as Serial 3 format. Select **CID** to send messages as DMP string with raw CID message appended. Refer to Figure 16. Default is **DMP**.

This feature requires SCS-VR Version 1.4.6 and higher or SCS-150 Version 107 and higher.

---

The receiver sending the message

The message type that identifies the message as CID

The account number of the DMP panel

CID Identifier

The account number of the host panel

The event code for a Zone Fire Alarm

Partition Number

Zone Number

Checksum

The message

9910 3155 c 5550 18 1 110 00 010 2

Figure 16: CID Format Option
OUTPUT OPTIONS
This option allows you to program communicator output options. Switched ground (open collector) outputs are available using terminals O1 and O2 as the ground and your control panel for power. Select from outputs 1 or 2.

CUTOFF OUTPUTS
Define the operation of the two on-board outputs. For each programming option, enter the output you wish to activate or 0 for no output. Either or both of the outputs can be programmed here to turn off after the time specified in output cutoff time. To disable this option, press any select area to clear the display of output numbers and then press CMD.

OUTPUT CUTOFF TIME
If a cutoff output is assigned, you can enter a cutoff time for the output to remain on up to 15 minutes. If the output is turned off manually, the cutoff time is reset. The cutoff time can be 1-15 minutes. Enter 0 to provide continuous output.

Note: The output is cutoff within 60 seconds of the programmed cutoff time.
The cutoff timer is shared by all outputs. If a second output trips, the timer is not reset. Both outputs turn off when the original time expires.

COMM FAIL OUT: 0

COMMUNICATION FAILURE OUTPUT
This output/favorite turns on when the communicator fails to communicate with the receiver. To turn off communication failure output, disarm the communicator. Enter 0 to disable this output.

ARMED OUT: 0

ARMED OUTPUT
This output/favorite turns on any time an area of the system is armed. The output turns off when the system completely disarms. Enter 0 to disable this output.

RMT ARMG OUT: 0

REMOTE ARMING OUTPUT
When the system is armed or disarmed remotely from the Virtual Keypad App, VirtualKeypad.com, Remote Link, or from a schedule, this output turns on momentary for 0.75 seconds then turns off. This output can be used for panels that require a momentary short to an arming zone to arm and a momentary short to disarm.

HEAT SAVER TEMPERATURE
(DualComWZ only)
Enter the desired temperature setting for all Z-Wave thermostats when the system is armed ALL. When the system is disarmed, the thermostats return to their previous settings. The range is 1-99 degrees. Enter 0 to disable.

COOL SAVER TEMPERATURE
(DualComWZ Only)
Enter the desired temperature setting for all Z-Wave thermostats when the system is armed ALL. When the system is disarmed, the thermostats return to their previous settings. The range is 1-99 degrees. Enter 0 to disable.
**AREA INFORMATION**

This option allows you to assign functions to the area of the communicator. All non-24-hour zones must be assigned to an active area. See Zone Information for more information.

**AREA NUMBER**

Enter the number of the area you wish to program. Select from areas 1-6.

**AREA NAME**

Only those areas given names can have zones assigned to them. All others are marked "UNUSED". See Letters and Special Characters for more information.

To add an area name to the system, press any select area and enter up to 16 characters for the new name. Press CMD to continue. To mark an active area as unused, delete the old name by pressing any select key then press CMD. The communicator automatically sets the name as "UNUSED". If you have already initialized the communicator, all areas will be marked as "UNUSED".

**AUTOMATIC ARMING**

Choose **YES** to allow this area to arm automatically according to the opening and closing schedule. At arming, faulted zones are handled according to the option selected in bad zones. If a closing report is sent, the user number is indicated as **SCH** on the SCS-1R or SCS-VR receivers.

Choose **NO** to disable automatic arming for this area. The default is **NO**.

**BAD ZONES:**

- **BYP**: All bad zones are bypassed. A report of the bypass is sent to the receiver if bypass reports has been set as **YES**. The report indicates **SCH** as the user number.
- **FORC**: All bad zones are force armed. Zones force armed in a bad condition are capable of restoring into the system and reporting alarms if tripped. A report of the force arm is sent to the receiver. The report indicates the user number as **SCH**.
- **REF**: The automatic arming is refused and no arming takes place. Closing report is sent to the receiver.

**AUTOMATIC DISARMING**

Choose **NO** to disable automatic disarming by schedule for this area. The default is **NO**.

Choose **YES** to allow this area to automatically disarm according to a schedule. If an opening report is sent to the receiver, the user number is indicated as **SCH**.
ZONE INFORMATION

This allows you to define the operation of each protection zone used in the system.

ZONE NUMBER

The communicator has four zones to program. Enter the number of the zone you intend to program. To program zone 4, see Zones 1-4 Input Connection. Press CMD to enter a zone name. See Letters and Special Characters.

ZONE NAME

Press any select area and enter up to 16 characters for the zone name. A name must be given to each zone in the system. The zone name is sent to the receiver as part of a zone event report. A zone that is not part of the system must be marked "UNUSED". To mark a zone unused, delete the old name by pressing any select area, then press CMD. The programmer automatically programs the name as "UNUSED". If you selected ZONES NO YES to clear the communicator’s memory during initialization, the zones will already be marked "UNUSED". See Initialization.

ZONE TYPE

The zone type defines the response of the communicator to the zone being open or short. When you assign a zone type to a zone, responses are made automatically for the zone. There are 12 zone types to choose from including Blank.

To select a new zone type, press any select area. The display lists the four zone types shown below. When the zone type you want to select displays, press the select area below or on the name.

Blank (‐‐), Night (NT), Day (DY), or Exit (EX). Press CMD to display additional zone types.

Fire (FI), Panic (PN), Emergency (EM), or Supervisory (SV). Press CMD to display additional zone types.

Auxiliary 1 (A1), Auxiliary 2 (A2), Arming (AR), or Fire Verify (FV). Press the back arrow to display the previous zone types.

If you select Blank, Night, Day, Exit, Auxiliary 1, or Auxiliary 2 as the zone type, the zone must be assigned to an area. See Zone 1-4 Input Connection. If you select Fire, Panic, Emergency, or Supervisory as the zone type, these are 24-hour zones that are always armed and no area assignment is needed.

Area Assignment

All non-24-hour zones are automatically assigned to area 1. Enter the area number from 1-6 where this zone is being assigned.

Arming Zone Assignment

Specify the areas to be armed by the arming type zone. Press the appropriate numbers on the keypad to assign areas 1-6. When disarmed, all areas are disarmed.
**Style**

Specify the style for the arming/disarming operation. The default style is **TGL** (Toggle). Press any select area to display the style options. To view more style options, press **CMD**. The following is a description of the action for each option condition.

- **TGL (Toggle)**: When the zone changes from normal to shorted, the programmed areas toggle between the armed or disarmed condition. When restored to normal, no action occurs. When the zone is opened from a normal (disarmed) state, an alarm is reported and the zone is disabled until you disarm the area(s) from either the Virtual Keypad App, VirtualKeypad.com, or Remote Link.

- **ARM**: When the zone is shorted, the programmed area is armed. When restored to normal, no action occurs. When the zone is opened from a normal (disarmed) state, a trouble is reported. When opened from a shorted (armed) state, an alarm is reported.

- **DIS (Disarm)**: A short will disarm the area. When restored to normal, no action occurs. When the zone is opened from a normal (disarmed) state, trouble is reported.

- **STEP**: A short will arm the areas. A normal condition will cause no action. An open condition will disarm the areas. When using an arming/disarming keyswitch, locate the keyswitch within the protected area.

- **MNT (Maintain)**: When the zone is shorted, the programmed area is armed. When restored to normal, the area is disarmed and any alarm bells are silenced. When the zone is opened from a normal (disarmed) state, trouble is reported. If opened from a shorted (armed) state, an alarm is reported and the zone is disabled until you disarm the area from either the Virtual Keypad App, VirtualKeypad.com, or Remote Link.

**NEXT ZONE**

Choose **YES** to terminate the programming for a zone. You may enter a new zone number when **ZONE NO:** - appears on the display. Choose **NO** to make changes to the alarm action for a zone.

**ALARM ACTION**

Change the default alarm characteristics of a zone type. If you selected the non-24-hour zone type Blank, Night, Day, Exit, Auxiliary 1, or Auxiliary 2, the alarm action programming begins with Disarmed Open. If you selected the 24-hour zone type Panic, Emergency, or Supervisory, the alarm action programming begins with Armed Open.

**DISARMED OPEN**

Define the action taken by the communicator when the zone is opened while the area is disarmed. There are three actions to define: Message to Transmit, Output/Favorite Number, and Output Action.

You must also make these selections for the Disarmed Short, Armed Open, and Armed Short zone conditions.

**MESSAGE TO TRANSMIT**

You can send two report types to the receiver: Alarm and Trouble. These are represented by the characters **A** and **T**. Press any select area to display the zone report options.

- **ALARM**: Select **A** to allow an alarm report to be sent to the receiver. The zone name appears in the communicator’s alarmed zones status lists.
- **TROUBLE**: Select **T** to allow a trouble report to be sent to the receiver and the zone name to appear in the communicator’s alarmed zones status lists.
- **LOCAL**: Select **L** to prevent sending an alarm report to the receiver. The zone name appears in the communicator’s alarmed zones status lists.
- **- (dash)**: Select - to prevent sending reports to the receiver. There is no display in the communicator’s alarmed zones status list. Only the programmed output number activates.

**OUTPUT NO:**

Specify an output/favorite on the communicator to activate with a zone condition. The output/favorite can be activated regardless of the report to transmit or whether or not the zone is programmed as local. An output activated by a non-24-hour armed zone is turned off when the zone’s area is disarmed by a user. To enter an output number, press any select area followed by the output number 1 or 2.
OUTPUT ACTION

Enter an output number to display this option. This option allows you to assign an output action to the output. A description of the available output actions follows:

**STD** (steady): The output is turned on and remains on until the area is disarmed, an output cutoff time expires, or the output is reset from the keypad user menu.

**PLS** (pulse): The output alternates one second on, one second off until the area is disarmed, an output cutoff time expires, or the output is reset from the keypad user menu.

**MOM** (momentary): The output is turned on only once for one second.

**FLW** (follow): The output is turned on and remains on while the zone is in off, normal, or bad condition. When the zone restores, the output is turned off.

After you have selected the message to transmit, the display prompts you for the same three selections for Disarmed Short, Armed Open, and Armed Short conditions. If the zone is a 24-hour type, only the Armed Open and Armed Short conditions are displayed. When you have programmed all of the zone conditions, the panel displays the swinger bypass selection.

**SWINGER BYPASS**

Choose **YES** to allow the zone to be swinger bypassed by the communicator according to the programming in swinger bypass trips and reset swinger bypass.

Choose **NO** to disable swinger bypassing for this zone.

**How it works**

If within one hour, a zone trips the total number of times as specified in swinger bypass trips, the communicator bypasses it until the following conditions occur:

- The area in which the zone is assigned is disarmed.
- The zone is manually reset through the bypass zones keypad user menu function.
- The zone remains normal for one hour and reset swinger bypass is set to **YES**.

If the zone trips fewer than the specified times within one hour of the first trip, the bypass trip counter returns to 0 and the process must be repeated. A report of the swinger bypass is sent to the receiver if bypass reports is set to **YES**.

**CROSS ZONE**

Choose **YES** to enable cross zoning for this zone. Cross zoning requires this zone to trip twice, or this zone and another cross-zoned zone to trip, within a programmed time before an alarm report is sent to the receiver. To operate correctly, all cross-zoned zones need to be programmed as the same zone type.

When a cross-zoned zone trips, the output action assigned to the zone activates. The cross zone time specified in system options begins to count down. See Cross Zone Time. If another cross-zoned zone in the system faults, or if the first zone restores and faults again before the cross zone time expires, the bell turns on and the communicator sends an alarm report.

If no other cross-zoned zone in the system trips before the cross zone time expires, the communicator sends only a fault report from the first zone to the receiver. If cross zone is set to yes, a valid cross zone time must be programmed for this feature.

Choose **NO** to disable cross zoning for this zone. The default is **NO**.

**RECEIVER ROUTING**

This option displays if zone type is set for Auxiliary 1 or Auxiliary 2. Press any select area to select the receiver routing for the selected zone.

Select **NORM** to send alarm and supervisory/trouble messages from this zone to receiver 1 or receiver 2 as programmed within the receiver in communications.

Select 1 to send alarm and supervisory/trouble messages from this zone to receiver 1 only, regardless of the programming for the receiver in communications.

Select 2 to send alarm and supervisory/trouble from this zone to receiver 2 only, regardless of the programming for that receiver in communications.

Select **BOTH** to send alarm and supervisory/trouble from this zone to both receivers, regardless of the programming for either receiver in communications.

**ZONE NUMBER**

Enter the zone number you want to program next. Return to Zone Information and follow the descriptions of each programming option. If all zones are programmed, press the back arrow at the **ZONE NO** display to continue.
STOP

Press any select area to exit the programmer function of the communicator. When selected, the communicator performs an internal reset and exits the programmer.

SET LOCKOUT CODE

Press CMD at the stop option to display SET LOCKOUT CODE. This feature allows you to program a special code that will be required to gain access to the communicator’s internal programmer through the keypad.

Changing the Lockout Code
You can change this code at any time to any combination of numbers from 1-5 digits long (1-65535). Do not use leading zeros for the lockout code.

1. Press any select area. The keypad displays ENTER CODE.
2. Enter a 1-5 digit code and press CMD.
   Note: Do not enter a number higher than 65535.
3. Enter the new lockout code you just entered in the keypad and press CMD. The keypad displays CODE CHANGED.

Once you have changed the code, it is important that you write it down and store it in a safe place. Lost lockout codes require the communicator to be sent back into DMP for repair. You may cancel a lockout code by entering 00000 at the set lockout code command option.
Z-WAVE SETUP (DUALCOMWZ ONLY)

The system may include a DMP Z-Wave controller. The Z-Wave controller allows short range radio control of Z-Wave devices such as lighting control modules, thermostat controls, doors, and garage doors. Z-Wave Setup allows you to program the system to control the Z-Wave devices. Users can control Z-Wave devices from a smartphone, tablet, or desktop computer using the Virtual Keypad app or VirtualKeypad.com. The available setup options are Add, List, Remove, Favorites, Transfer, and Optimize.

- Select **ADD** to add a Z-Wave device to your system.
- Select **LIST** to display a list of Z-Wave devices already added and stored in your system.
- Select **REMOVE** to completely remove a Z-Wave device from your system.
- Select **FAV** to add, edit or remove a favorite.
- Select **XFER** to transfer Z-Wave device information from another manufacturer’s portable Z-Wave controller to your system.
- Select **OPT** to update communication with all Z-Wave devices programmed on your system. **OPT** can re-establish communication after a Z-Wave device has been moved to a different location.

**Note:** Only the master user code level can access Z-Wave setup through the user menu to program Z-Wave devices. For information on adding Z-Wave devices from the Virtual Keypad app, navigate to online help from the Settings tab in the app.

**Add Z-Wave Devices (ADD)**
This option allows you to add a Z-Wave device to a system. Once added, a Z-Wave device may be assigned to a favorite.

1. Access the user menu.
2. Press **CMD** until **ZWave SETUP** displays.
3. Press any select area. The keypad displays **ADD LIST REMOVE**.
4. Select **ADD**. **PROCESSING** may briefly display. When **PRESS BUTTON ON DEVICE TO ADD** displays, press the program button on the Z-Wave device. See the Z-Wave device’s documentation for more information.
5. When the device information is received by the system, the keypad beeps once and displays **DEVICE FOUND**.
6. Once added, the keypad displays the type of device and the default device name. Press **CMD**.
7. Press any select area and enter up to a 16 character custom name for the device.
8. Press **CMD** to store the new name.

**Note:** A maximum of 140 Z-Wave devices can be added to the system. When the maximum number of devices have been added, the keypad displays **ZWAVE TABLE FULL** and no additional Z-Wave devices may be added without removing some existing devices.

**List Z-Wave Devices (LIST)**
This option allows you to edit the name of a Z-Wave device or confirm radio communication with the Z-Wave device. When **LIST** is selected, the first Z-Wave device stored in the system is displayed. Press **CMD** to view the remaining devices. Lighting control modules are displayed first followed by doors and thermostat controls.

The available **LIST** options are: Rename and Status.

- Select **RENAME** to enter up to 16 characters for a new device name.
- Select **STATUS** to confirm radio communication with the Z-Wave device.

**Rename Z-Wave Devices**

1. Access the user menu.
2. Press **CMD** until **ZWave SETUP** displays.
3. Press any select area. The keypad displays **ADD LIST REMOVE**.
4. Select **LIST** to display **DEVICE LIST** and the first Z-Wave device stored. Press **CMD** to advance through the list of Z-Wave devices.
5. Press any select area to display **DEVICE RENAME STATUS**.
6. Select **RENAME** and enter up to 16 characters for a new device name.
7. Press **CMD** to save the new Z-Wave device name and return to the **DEVICE LIST**.
**Status of Z-Wave Devices**

1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Select LIST to display DEVICE LIST and the first Z-Wave device stored. Press CMD to advance through the list of Z-Wave devices.
4. Press any select area to display DEVICE RENAME STATUS.
5. Select STATUS to confirm radio communication with the Z-Wave device.
6. The device name and OKAY displays when the device stored in the system communicates.
7. Press CMD to return to the device list and display the next device in the list.
8. If the device stored in the system does not communicate, the device name and FAILED displays. Press CMD to display REMOVE FAILED DEVICE.
9. Choose YES to remove the failed device from the system memory. Choose NO to leave the device in the system memory and to return to the device list.
10. When the device has been removed, the device name and REMOVED is displayed and the system no longer tries to communicate with the Z-Wave device.

**Remove Z-Wave Devices (REMOVE)**

Each Z-Wave device added to your system remains in your system unless it is removed. This option allows you to remove Z-Wave devices from your system.

1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Select REMOVE. PROCESSING may briefly display. When PRESS BUTTON ON DEVICE TO REMOVE displays, press the program button on the Z-Wave device. The device name and REMOVED is displayed to indicate the Z-Wave device has been removed.

**Favorites (FAV)**

Z-Wave devices can be grouped together to create a favorite. This option allows you to program up to 20 favorites in your system and then add up to 25 Z-Wave devices in a favorite. When activated from the FAVORITE user menu, a command is sent to its Z-Wave Devices. A favorite can only be activated or turned on. A separate favorite must be created to change the conditions set by the first favorite.

For example, a favorite called “Movie Night” could lock the exterior doors, close the garage door, adjust the temperature, and dim the lights in the family room to the desired level. Another favorite called “Wakeup” could then turn on the lights, adjust the temperature, unlock the exterior doors, and raise the garage doors.

**Adding a Favorite**

1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Press CMD again to display FAV XFER OPT. Select FAV and FAVORITE NUMBER is displayed.
4. Enter a favorite number between 1 and 20 and press CMD. If the favorite number entered is unassigned, *UNUSED* displays. If the favorite is already assigned, you may change the name or press the back arrow and enter a new number.
5. Press any select area and a cursor displays. Enter a favorite name up to 16 characters. To remove a favorite, press CMD without entering a name.
6. Press CMD to save the favorite. ADD EDIT REMOVE displays.

**Add Devices to Favorites**

1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Press CMD again to display FAV XFER OPT. Select FAV and FAVORITE NUMBER is displayed.
4. Enter a favorite number between 1 and 20 and press CMD.
5. The favorite number and name displays. Press CMD and name the favorite. ADD EDIT REMOVE displays.
6. Select ADD and the first Z-Wave device stored in the system that has not already been added to this favorite is displayed. Remaining devices can be viewed by pressing CMD.
7. Press any select area to assign the displayed device to the favorite. The device name and the current device settings display. When added to a favorite, a Z-Wave device can be programmed to respond to various ON/OFF/LOCK/UNLOCK/HEAT/COOL commands based on your desired settings.

**Change Device Settings in Favorites**
Lights
1. Press any select area at SETTING and ON OFF DIM displays. Press the select area under the desired setting.
2. For ON or OFF setting, when selected, the favorite name and the next Z-Wave device stored in the system displays.
3. For DIM setting, DIM LEVEL with the current setting displays. To change the setting, press any select area and enter the new level (1-10) and press CMD.
4. The favorite name and the next Z-Wave device stored in the system displays.

Doors
Press any select area at SETTING and LOCK UNLOCK for doors and OPEN CLOSE displays for garage doors. To change the setting, press the select area under the new setting. The favorite name and the next Z-Wave device stored in the system displays.

Thermostats
1. Press any select area at SYSTEM and OFF CL HT displays. To change the setting of OFF, COOL, or HEAT, press the select area under the new setting.
2. Select OFF to display FAN SETTING.
3. Press any select area and ON AUTO displays. Press the select area under the desired new setting to change.
4. Select CL to display COOL.
5. To change the setting, press any select area, enter the new temperature and press CMD.
6. Press any select area and the keypad displays FAN SETTING.
7. Press any select area and ON AUTO displays. Press the select area under the desired new setting to change.
8. Select HT to display HEAT.
9. To change the setting, press any select area and enter the new temperature and press CMD.
10. Press any select area and the keypad displays FAN SETTING.
11. Press any select area and ON AUTO displays. Press the select area under the desired new setting to change.
12. The favorite name and the next Z-Wave device stored in the system displays.

Note: A maximum of 25 devices can be assigned to each favorite. When attempting to add a device and the maximum number of devices has been assigned, FAVORITE FULL is displayed. No additional Z-Wave devices may be added to this favorite. However, a new favorite may be created and devices added to the new favorite.

Edit Devices in Favorites
1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Press CMD again to display FAV XFER OPT. Select FAV and FAVORITE NUMBER is displayed.
4. Enter a favorite number between 1 and 20 and press CMD.
5. The favorite number and name displays. Press CMD and the favorite name and ADD EDIT REMOVE displays.
6. Select EDIT and the first Z-Wave device stored in the favorite displays. Remaining devices can be viewed by pressing CMD. Z-Wave devices are displayed by device type; Lights first, followed by Doors, and Thermostats last. By pressing CMD, you can scroll through the devices assigned to the selected favorite.
7. Press any select area to display the device name and the setting for the device.
8. Change settings as needed. Once the device settings have been entered, the favorite name and the next Z-Wave device stored in the selected favorite displays.

Remove Devices from Favorites
1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Press CMD again to display FAV XFER OPT. Select FAV and FAVORITE NUMBER is displayed.
4. Enter a favorite number between 1 and 20, press CMD.
5. The favorite number and name displays. Press CMD and the favorite name and ADD EDIT REMOVE displays.
6. Select REMOVE. The first Z-Wave device in the favorite displays. Other devices can be viewed by pressing CMD.
7. Press any select area to remove the device from the favorite. REMOVE DEVICE FROM FAV? NO YES displays. When YES is selected, the device is removed from the favorite.

Transfer Controller (XFER)
This option allows the transfer of all existing Z-Wave devices that are currently programmed in another manufacturer’s Z-Wave portable controller to your system. This operation will overwrite all Z-Wave devices that are programmed in your system. This option typically occurs at the time your DMP Z-Wave controller is installed. Initiate the transfer at
the other manufacturer’s Z-Wave portable controller after starting the transfer on the DMP keypad. Z-Wave devices are NOT overwritten until the transfer has been initiated at the other manufacturer’s Z-Wave portable controller. The transfer should not be stopped once the process has been initiated from the other manufacturer’s Z-Wave portable controller.

Transfer Operation
1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Press CMD again to display FAV XFER OPT.
4. Select XFER. The keypad displays XFER WILL DELETE EXISTING DEVICES then displays XFER CNTRL SURE? YES NO.
5. Choose YES to allow receipt of Z-Wave devices to your system. The keypad displays TRANSFERRING Z-WAVE DEVICES. Pressing the Back Arrow cancels the transfer.
   Choose NO to exit the XFER menu and return to ZWAVE SETUP. All programming will still be intact on the DMP Z-Wave controller and will cancel the transfer.
6. Initiate the transfer at the other manufacturer’s Z-Wave portable controller. All Z-Wave devices are added to the system with a default name (device type and number). A 16-character name may be assigned to the Z-Wave devices after the transfer finishes. When the transfer is complete, the screen will display ZWAVE SETUP.

Note: If TRANSMISSION FAILED displays on the screen, your system memory is cleared of all prior Z-Wave devices programming and will need to add each Z-Wave device individually.

Optimize (OPT)
Select optimize (OPT) to update communication with the all Z-Wave devices. Optimize can be used to re-establish communication after a Z-Wave device has been moved to a different location. When OPT is selected, the communicator makes three attempts to communicate with each Z-Wave device. Z-Wave devices that fail to communicate during the optimize process are not removed from programming.

1. Access the user menu. Press CMD until ZWAVE SETUP displays.
2. Press any select area. The keypad displays ADD LIST REMOVE.
3. Press CMD again to display FAV XFER OPT.
4. Select OPT, the keypad displays OPTIMIZE while the system is searching for Z-Wave devices.
5. The keypad will display OPTIMIZE SUCCESS when Z-Wave devices have been retrieved.
6. Press CMD to return to ZWAVE SETUP.

Note: The keypad will display OPTIMIZE FAILED when communication with a Z-Wave device is not established. Press CMD to return to ZWAVE SETUP and attempt optimize again. If communication with a Z-Wave device is not re-established during the optimize process, make sure the device is powered on. If the device that failed has power, add a repeater between the communicator and the device.
APPENDIX
This section provides additional zone and system information.

ECP Passthru

Program Vista Keypad Device Address 20
1. Power down and then power up the Honeywell panel.
2. Within 1 minute of powering up the Honeywell panel, simultaneously press and hold the # and * buttons on the keypad.
3. The keypad displays INSTALLER CODE. Enter the installer code (default is 4112), followed by 8 0 0.
4. Enter *193, then enter 1 0.
5. To save and exit programming, enter *99.

User Codes in the Ademco/Honeywell Panel
Because the communicator duplicates the panel's user codes, existing user codes in the Ademco/Honeywell panel, including master, must be added to the communicator. The DualCom must also have user 2 as a master using the same user code as the host panel user 2. This is required to allow codes added via App/Browser to be sent to the host panel. Any new user codes added to the communicator from the Virtual Keypad App will be automatically entered in the Ademco/Honeywell panel.

User codes from the Ademco/Honeywell panel that are designated as master or partition master should be configured as master codes in the communicator.

If the Ademco/Honeywell panel is armed/disarmed from a keypad, the communicator reports an opening/closing message by user 0 to the central station.

When the communicator is armed by the Virtual Keypad App or VirtualKeypad.com, the Ademco/Honeywell panel is also armed and the communicator reports an opening message. If opening and closing reports are enabled in the Ademco/Honeywell panel, a duplicate message will also be sent to the central station.

Note: Communicators with Version 194 and higher do not require you to log in to the VISTA panel with a master code to manage user codes remotely.

Manually Configure Communication with the Ademco/Honeywell Panel
The following steps describe how to configure Ademco/Honeywell control panels to communicate with the communicator. Only use these steps if programming isn’t configured automatically with ECP SETUP.
1. Program Position * 54: Enter 0. This enables no signaling delay.
2. Program Position * 55: Enter 1. This enables communication to the communicator.
3. Program Position * 84: Enter 0. This disables CP01 and allows remote Arm Away.
4. Program Position * 193: Enter 1 0. This enables the DualCom ECP Bus address.

If the Ademco/Honeywell panel fails to communicate with the communicator, program Position * 29 to enable the long range radio on the Ademco/Honeywell panel.

DSC Passthru

Remote Programming
DSC panels allow a 6-hour interval for remote programming connections after the panel is initially powered up. After that interval expires, technicians can re-enable DLS connection for another 6 hours by disarming the panel and entering the following code combination: *6 + [master code] + 5.
1. Right-click Remote Link and select Run as administrator.
2. If necessary, create the communicator account.
3. Double-click the communicator account.
5. Open DLS.
6. Double-click the DSC panel.
7. Edit programming as needed, then press the Upload Programming button.

False Alarm Reduction

System Recently Armed report
The system recently armed report (S78) is sent when a burglary zone goes into alarm within two minutes of the system being armed.
Diagnostics Function

The communicator contains a diagnostics function that allows you to test the integrity of the cellular communication, setup ECP and DSC Passthru, and check panel settings. To use diagnostics, reset the communicator and enter the diagnostics code **2313** (DIAG).

Communication Status

This option tests the individual components of cellular communication. The selected test will proceed until the first component failure or until all components have been tested with positive results. The test screen will display after each component and will be displayed for two seconds or until CMD has been pressed.

- **Cellular Signal Strength (CELL SIGNAL)**
  Test the cellular signal strength of the nearest carrier tower. Press any select area to display cell signal strength. The X’s represent the numerical value of the cell signal strength in -dBm. The bars represent signal strength 0-7.

- **Wi-Fi Signal Strength (WIFI SIGNAL)**
  Test the Wi-Fi connection with the network. Press any select area to display Wi-Fi signal strength. The X’s represent the numerical value of the signal strength in -dBm. The bars represent signal strength 0-7.

Panel Settings

Press a top row key to access the MAC address, serial number, model, and firmware version.

- **Serial Number**
  This number is the communicator serial number. Reference this number for communicator date-of-manufacture and hardware version. Press any select area to display the serial number.

- **Model Number**
  This menu option displays the model number of the communicator.

- **Firmware Version**
  This menu option displays the firmware version number of the communicator and date it was released.

- **Contact ID Recvd**
  This displays DTMF digits dialed from the burglary control panel.

ECP Setup

Automatically program ECP Passthru settings. This option is only available when **KYPD INPUT** is set to **ECP**.

1. Ensure keypad address 20 is programmed into the VISTA panel. Ensure the ECP panel IP address is set as default. Advance to **ECP SETUP** and press any select key or area.
2. At **ECP SETUP VISTA 128?** If the panel is a VISTA 128, select **YES**. If the panel is a different model, select **NO**.
3. At **INST CODE**, enter the ECP panel installer code and press **CMD**.
4. After configuration is finished, the keypad advances to **GET ZONES**. Press any select key or area.

As the communicator retrieves zones from the ECP panel, the number of zones is displayed and incremented as **ZONE CT** (zone count).

DSC Setup

Automatically program DSC Passthru settings. This option is only available when **KYPD INPUT** is set to **DSC**.

1. Ensure the DSC panel IP address is set as default. Advance to **DSC SETUP** and press any select key or area.
2. At **INST CODE**, enter the DSC panel installer code and press **CMD**.
3. After configuration is finished, the keypad advances to **GET ZONES**. Press any select key or area.
4. At **INST CODE**, enter the DSC panel installer code and press **CMD** to retrieve zones.

As the communicator retrieves zones from the DSC panel, the number of zones is displayed and incremented as **ZONE CT** (zone count).

Press any select key or area to initiate **DSC SETUP**. At **INST CODE**, enter the DSC panel installer code and press **CMD**. After attempting to program the DSC panel, the menu advances to **GET ZONES**. Press any select key or area to retrieve zones from the panel.

Exiting the Diagnostics program

Press **CMD** until **STOP** displays. Press any select area. The keypad returns to the status list display.
Using the 984 Command Function

When not in the programming menu, the function 984 + CMD can be entered at the keypad. The remote options menu appears. This menu contains the following options:

**NET**
The communicator allows you to perform a test on each component of the network communication paths. While the Status List displays, enter 984 and press CMD. The keypad display changes to NBR PICKUP NET CELL. Press the select area under NET to allow the panel to perform a Communication Status Test.

Upon entry of a network path when prompted, the test runs and the results display on the keypad in the order they were tested: LINK, DHCP, GATEWAY, DEST, NET COMM.

**CELL**
The communicator allows you to perform a test on each component of the cellular communication paths. While the status list displays, enter 984 and press CMD. Press the select area under CELL to allow the communicator to perform a communication status test. The keypad displays CELL IS BUSY if the modem is being tested from another keypad.

Upon entry of a cellular path when prompted, the test runs and the results display on the keypad in the order they were tested: MODEM OPERATING, IDENTIFIED, TOWER DETECTED, REGISTERED, CONNECT SUCCESS, and CELL COM GOOD. Press CMD to advance through the results. When the test is complete you are returned to the status list. See Diagnostic Functions for a description of the cellular status results.

### Using the Walk Test

The walk test feature allows a single technician to test all zones on the system. Conduct the walk test within 30 minutes of resetting the communicator. The walk test automatically ends if no zones are tripped for 20 minutes. TEST IN PROGRESS displays at all keypads.

When five minutes remain, TEST END WARNING displays. If any areas are armed, the walk test does not start and SYSTEM ARMED displays.

#### WALK TEST
To conduct the walk test, reset the communicator by momentarily pressing the reset button. From the keypad, enter 8144. The keypad displays WALK TEST. If the system is monitored, the system sends a system test begin report to the central station. All programmed zones are included in the test.

#### TRIP COUNTER FOR WALK TEST (STD)
Displays the number of zone trips during the walk test. Each time a selected zone trips, the keypad buzzes.

END - Press this select area to stop the walk test. When the walk test ends or a 20 minute timeout expires, a final sensor reset occurs. The system test end message is sent to the receiver along with verify and fail messages for each zone under test. Faulted zones display on the keypad.

#### TEST END WARNING
When no zones have been tripped and five minutes remain on the 20 minute walk test timer, the keypad displays TEST END WARNING and the keypad tones. If no additional test zone trips occur, the test ends and a final sensor reset automatically occurs. The system test end message is sent to the receiver along with verify and fail messages for each zone under walk test. Faulted zones display on the keypad.

#### FAILED ZONES DISPLAY
Each zone that did not trip at least once during the walk test displays on the keypad that initiated the test. Any Panic (PN) or Supervisory (SV) 24-hour zone that is faulted at the end of the walk test display a trouble condition for that zone regardless of the message programmed for the open or short condition of the zone and a zone trouble is sent to the receiver. Press CMD to display the next failed zone.
Cross Zoning

Caution must be taken when cross zoning devices to ensure that the cross zone time is long enough to allow a trip of both zones before it expires. A cross zone time that is too short may allow a trip of the zones and only a zone fault report be sent to the central station.

When a cross zoned zone trips, a FAULT report is sent to the SCS-IR or SCS-VR receivers. When two cross zoned zones trip within the cross zone time, both zones send ALARM signals to the receiver. For example, if zones 1 and 2 are cross zoned zones, and only zone 1 trips, a FAULT report is sent to the receiver for zone 1. If zone 1 trips and zone 2 trips within the cross zone time, an ALARM report is sent to the receiver for zone 1 and zone 2.

Note: To operate correctly, all cross-zone zones need to be programmed as the same zone type.

Z-Wave Information (DualComWZ only)

DualComWZ communicators are security enabled Z-Wave products and are designed to be used as primary controllers. The XFER feature allows an existing 3rd party network to be transferred into the communicator.

The communicator can support Z-Wave products from different vendors and product categories. It is recommended to use DMP devices for best performance.

Z-Wave terminology:

- Inclusion is the process of adding a device to the Z-Wave network. The new device is ‘included’ into the Z-Wave network.
- Exclusion is the process of removing a device from the Z-Wave network. The new device is ‘excluded’ from the Z-Wave network.
- Replication is the process of copying network information to another device (typically a Z-Wave controller) in the Z-Wave network.

Z-Wave Test Option (DualComWZ only)

This feature allows the installer to test communicator communication with Z-Wave devices. A successful test indicates a response from a device. Press any select area to view the Z-Wave device list.

Press CMD to advance through each Z-Wave device and press any select area to begin the test on the device displayed.

The name of the device displays above the device number. The current number of successful communications followed by the total number of attempts displays to the right of the device number. The test stops after 99 attempts.

Press CMD to view the final number of successful communications.
Arming/Disarming Ademco Vista Panels

The following steps describe how to configure the communicator to arm and disarm an Ademco Vista control panel from a schedule or remotely from the Virtual Keypad App, VirtualKeypad.com, or Remote Link™ using the remote arming output.

1. Connect output 17 (far left pin on the 7 pin header located in the middle of the PCB) to zone 1 (Z1) on the communicator. Connect a 1k ohm EOL resistor from zone 1 to ground (G).
2. Connect output 1 (O1) on the communicator to zone 3 (terminal 12) on the Vista control panel.
3. Begin programming by entering the installer code followed by 800. Press * and Field? displays.
4. Program zone 3 as an arming zone. Enter 56 and program the following:
   a. Set to Confirm? - Enter 0.
   b. Enter Zn Num. - Enter 03. Press * to continue.
   c. Summary Screen: Zn ZT P RC HW:RT - Press * to continue.
   d. Zone Type - Enter 77. Press * to continue.
   e. Report Code 1st 01 2nd 00 10 - Press * to continue.
   f. Hardware Type - Enter 0. Press * to continue.
   g. Resp Time - Enter 1. Press * to continue.
   h. Summary Screen: Zn ZT P RC HW:RT - Press * to continue.
   i. Program Alpha - Enter 0.
   j. Enter Zn Num displays. Enter 00 to exit.
5. Program output 17. Enter * or # displays. Press * and Field? displays. Enter 79 and program the following:
   a. Enter output No - Enter 17. Press * to continue.
   b. Output Normally Low - Enter 0. Press * to continue.
   c. Enter Output No displays. Enter 00 to exit.
6. Define output 17 actions. Enter * or # displays. Press * and Field? displays. Enter 80 and program the following:
   a. Program output 17 to turn on when armed Stay. Output Funct# - Enter 01. Press * to continue.
      • Summary Screen: 01 A E P Trig - Press * to continue.
      • Activated by: - Enter 2. Press * to continue.
      • Enter Zn Type - Enter 20. Press * to continue.
      • Output Action - Enter 2. Press * to continue.
      • Enter Output No. - Enter 17. Press * to continue.
      • Summary Screen: 01 A E P Trig - Press * to continue.
   b. Program output 17 to turn on when armed Away. Output Funct# - Enter 02. Press * to continue.
      • Summary Screen: 02 A E P Trig - Press * to continue.
      • Activated by: - Enter 2. Press * to continue.
      • Enter Zn Type - Enter 21. Press * to continue.
      • Output Action - Enter 2. Press * to continue.
      • Enter Output No. - Enter 17. Press * to continue.
      • Summary Screen: 02 A E P Trig - Press * to continue.
   c. Program output 17 to turn off when Disarmed. Output Funct# - Enter 03. Press * to continue.
      • Summary Screen: 03 A E P Trig - Press * to continue.
      • Activated by: - Enter 2. Press * to continue.
      • Enter Zn Type - Enter 22. Press * to continue.
      • Output Action - Enter 0. Press * to continue.
      • Enter Output No. - Enter 17. Press * to continue.
      • Summary Screen: 02 A E P Trig - Press * to continue.
   d. Output Funct# - Enter 00. Press * to continue.
7. Enter * or # displays. Press * and Field? displays. Enter 99 to exit programming.
8. Programming the communicator.
   a. Reset the communicator. Enter 6653.
   b. Press CMD to output options. Press any select area.
   c. Program output 1 in remote arming output. Press CMD to RMT ARMG OUT. Enter 1, then press CMD.
   d. Press CMD to zone information. Press any select area and Zone No displays.
   e. Enter 1. Press CMD.
   f. Enter a zone name. Press CMD.
   g. Program zone 1 as an arming zone. Zone Type displays. Choose arming zone type AR. Press CMD.
   h. Area: 1 displays. Press CMD.
   i. Style: TOGGLE displays. Choose MNT.
   j. Go to STOP then press and select key to save and exit programming.
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.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

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 one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

If necessary, the installer should consult the dealer or an experienced radio/television technician for additional suggestions. The installer may find the following booklet, prepared by the Federal Communications Commission, helpful:

“How to Identify and Resolve Radio-TV Interference Problems.”

This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402
Stock No. 004-000-00345-4

INDUSTRY CANADA
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.

NFPA 72
(DualComNF Only)
This equipment should be installed in accordance with Chapter 29 of the National Fire Alarm Code, ANSI/NFPA 72, (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269). Printed information describing proper installation, operation, testing, maintenance, evacuation planning, and repair service is to be provided with this equipment.

⚠️ Warning: Owner’s instruction notice, not to be removed by anyone except occupant.
Specifications
Primary Power  Nominal 12 VDC or 24 VDC
Current Draw at 12 VDC
   Standby  64 mA
   Alarm   109 mA Peak Cellular Communication
Current Draw at 24 VDC
   Standby  30 mA
   Alarm   82 mA Peak Cellular Communication

Dimensions and Color
Housing Dimensions  5.50”W x 3.75”L x 1.00”H
Housing Color
   DualComNF: Red
   DualComWZ: White

Ordering Information
DUALCOMW-LV  Wi-Fi and LTE (Verizon)
DUALCOMW-LA  Wi-Fi and LTE (AT&T)
DUALCOMWZ-LV  Wi-Fi and LTE with Z-Wave (Verizon)
DUALCOMWZ-LA  Wi-Fi and LTE with Z-Wave (AT&T)
DUALCOMNF-LV  Network and LTE (Verizon)
DUALCOMNF-LA  Network and LTE (AT&T)
DUALCOMN-LV   Network and LTE (Verizon)
DUALCOMN-LA   Network and LTE (AT&T)

Accessories
685-W    Surface Mount Conduit Backbox (white)
685-R    Surface Mount Conduit Backbox (red)
383      Replacement Dual Band Cellular Antenna
330-DSC  DSC Remote Programming Harness

Compatibility
ECP Passthru
   VISTA 15
   VISTA 20
   VISTA 21
   VISTA 128
DSC Passthru
   PC1616
   PC1832
   PC1864

Certifications
Cellular
   FCC Part 15: XMR201707BG96
   IC: 10224A-201709BG96
Z-Wave
   FCC Part 15: CCKPC0207
   IC: 5251A-PC0207
Wi-Fi
   FCC Part 15: VW4-ATWINC1500
   IC: 20266-WINC1500PB

Underwriters Laboratories (UL) Listed
   DualComN
   ANSI/UL 1610 Central Station Burglar
   DualComNF
   ANSI/UL 864 Fire Protective Signaling Systems
      (CID Capture)