Interfacing Lutron® RadioRA® 2 Systems with Honeywell VISTA Security Systems using the 4232CBM

RadioRA® 2 systems can be integrated with Honeywell VISTA-15P, -20P, -21iP, -128BPT, -128FBPT, -250BPT, -32FBPT, and equivalent panels offered by First Alert Professional authorized dealers.

Integrating Honeywell VISTA panels with RadioRA® 2 light, shade/drapery, and temperature control systems adds a visual element to security in addition to the energy savings, convenience, and ambiance that homeowners can enjoy daily.

Requirements

To interface a RadioRA® 2 system with a compatible Honeywell VISTA panel offered by First Alert Professional authorized dealers, you will need:

- RadioRA® 2 system with Main Repeater (RR-MAIN-REP-WH)
- RadioRA® 2 programming software version 6.2 or higher
- Honeywell VISTA security panel with minimum firmware version:
    - 3.13 for Vista-21iP
    - 9.12 for Vista-15P, -20P
    - 10.3 for Vista-128BPT, -128FBPT, -32FBPT
    - 10.4 for Vista-250BPT, -250FBPT
- Honeywell Connected Building Module (4232CBM)
- Null Modem Serial Cable or Null Modem Adapter with a Straight-through Serial Cable
- General understanding of RadioRA® 2 systems and Honeywell VISTA security panels

Steps to Integrate RadioRA® 2 Systems with Honeywell VISTA Security Panels

1. Install and program the Honeywell VISTA security system according to the Honeywell instructions.

2. Program the Honeywell VISTA security system to enable the extra Remote Interactive Service (RIS) settings that allow for integration[1]:

   A. Instructions for VISTA-15P, -20P, and -21iP panels:

   - ***91 Option Selection** (SIA Panels: Options/Call Waiting Disable and RIS Enable)[2]
     - Field 1 is for Options (refer to the Honeywell control programming instructions for appropriate values)
     - Field 2 is for RIS Enable; enter "2" (enter "3" for SIA panel if Call Waiting Disable is desired)
   - ***190 Keypad 2 Device Address 17**[3]
     - 1 for entry 1
     - 2 (or sound-suppression choice) for entry 2

   B. Instructions for VISTA-128BPT, -128FBPT, -250BPT, -32FBPT panels:

   - **#93 Device Programming** (program two device addresses to enable RIS)
     - Choose one device address (address 25 is recommended) to type 12. This enables RIS on the address you select[2]
     - Choose another device address (address 17 is recommended) to type 01. This makes the keypad at the address you selected an alpha keypad[3]

   Note: The default ECP (keypad bus) address for RIS functionality is 25 (recommended use).

3. Install and program the Lutron® RadioRA® 2 system using RadioRA® 2 programming software version 6.2 or higher.

4. Using the RadioRA® 2 programming software, program appropriate phantom buttons associated with each security action as described on the following pages.

5. Wire the Honeywell VISTA security panel to the RadioRA® 2 Main Repeater using the 4232CBM (see the ***Wiring*** section).

Security Actions and Associated RadioRA® 2 Scenes

When integrated, security system actions (Arm/Away, Arm/Stay, Disarm, Intrusion, and Emergency) send RS232 commands to the RadioRA® 2 Main Repeater. Each security command for each security system partition is associated with specific phantom buttons on the Main Repeater. Each phantom button may be programmed to deliver a desired scene. The corresponding phantom button programming is automatically executed when the security command is received from the security system.

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1   These settings have been tested on a single-partition and single-keypad Honeywell Security System. For alternate configurations, please contact Honeywell Security System Technical Support at 1.800.645.7492.

2   Enabling RIS will set the RIS ECP Address to 25 by default. This address is entered when programming the RadioRA® 2 system (covered in the ***Programming the Phantom Buttons*** section).

3   When programming the RadioRA® 2 system, you will need an Alpha Keypad ECP Address (covered in the ***Programming the Phantom Buttons*** section). Programming will set address 17 as the Alpha Keypad ECP Address in the RadioRA® 2 software.

Security Actions and Associated RadioRA® 2 Phantom Button Programming

This table explains the various security actions to which a RadioRA® 2 system can respond, and provides the recommended RadioRA® 2 scenes that will be activated depending on the "Time of Day".

Security Action	Time of Day	Phantom Button Programming Activated	Desired Effect
Arm/Away	All Day	Away Scene + Away Timeclock Mode	• Save energy: – turn off lights and plug-in modules – close shades/draperies – set back temperature • Add visual enhancement to the security system; make the home appear occupied: – adjust lights and shades/draperies with randomized events
Arm/Stay	Before Sunset	*(none)*	• Operate the RadioRA® 2 system normally if the home is occupied during the day • Adjust the RadioRA® 2 system nighttime settings (to activate after homeowners have had enough time to get into bed) if the security system is armed after dark: – turn off all lights and plug-in modules – close all shades/draperies – set back the temperature for sleeping
	After Sunset	Goodnight Scene	
Disarm	Before Sunset	Away Timeclock Turned Off	• Return the home to Normal mode (turn off events that are programmed to happen during the Away mode) • If after dark, set desired levels for nighttime occupancy; create a well-lit pathway into the home: – adjust lights, shades/draperies, temperature, plug-in modules
	After Sunset	Away Timeclock Turned Off + Welcome Scene	
Intrusion	All Day	Exterior Flash + Interior Full	• Provide a visual alert and draw attention to the home in the event of an intrusion: – turn on all interior lights to 100% – open all shades/draperies – flash exterior lights Note: the local operation of all system devices is locked out until the fault is cleared at a security system keypad.
Emergency	All Day	Emergency Scene + Exterior Flash	• Provide a visual alert and draw attention to the home in the event of an emergency: – open all shades/draperies – flash exterior lights – customize function of interior lights (e.g., in the event of a fire, a low-lit pathway can lead the way out of the home instead of having all lights come on to 100%, which would reduce visibility if smoke were present).

Example Programming for RadioRA® 2 Phantom Button Scenes

This table describes how to program lights, shades/draperies, HVAC, plug-in modules, and the timeclock so that the RadioRA® 2 phantom button scene achieves the desired effect when the associated security event occurs.

Scene[1]	Button Type[2]	Example Programming				
		Lights	Shades/Draperies	HVAC	Plug-in Modules	Timeclock
Emergency	Single/Multi-Room Scene	Interior lights come on to 25%	Open			
Interior	Security Mode	Interior lights come on to 100%	Open			
Exterior Flash	Security Mode	Exterior lights flash				
Away	Single/Multi-Room Scene	Lights off (delayed-off for exit pathways)	Close		Off	
Welcome	Single/Multi-Room Scene	Entry, Foyer, Kitchen lights on to 75%	Open			
Goodnight	Single/Multi-Room Scene	Evening light levels	Close	Set Back	Off	
Away Mode	Timeclock Mode			Set Back		Away Mode

[1] See the following page for Phantom Button mapping.

[2] This button type must be used when programming the phantom button to ensure proper operation.

# Phantom Button Scenes and Affected Security Partitions

The RadioRA® 2 Main Repeater has 100 phantom buttons available for use with integration. Buttons 76–100 are configured to receive commands from security systems. This table shows which Phantom Button Scene is activated when commands are received from up to four partitions in the security system.

Phantom Button	Security System Partition
100–Emergency	All
99–Interior	All
98–Exterior Flash	All
97	All
96	All
95–Away	1
94–Welcome	1
93–Goodnight	1
92–Away Mode	1
91	1
90–Away Scene	2
89–Welcome	2
88–Goodnight	2
87–Away Mode	2
86	2
85–Away Scene	3
84–Welcome	3
83–Goodnight	3
82–Away Mode	3
81	3
80–Away Scene	4
79–Welcome	4
78–Goodnight	4
77–Away Mode	4
76	4

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Technical Support — 800.523.9466

Programming the Phantom Buttons

Open an existing RadioRA® 2 programming software job file or create a new file. If starting a new file, complete the Project Setup Guide.

1. Find the Main Repeater in the "Design" tab that will be used to connect to the 4232CBM interface. Right click on this Main Repeater and select "Edit" from the menu.
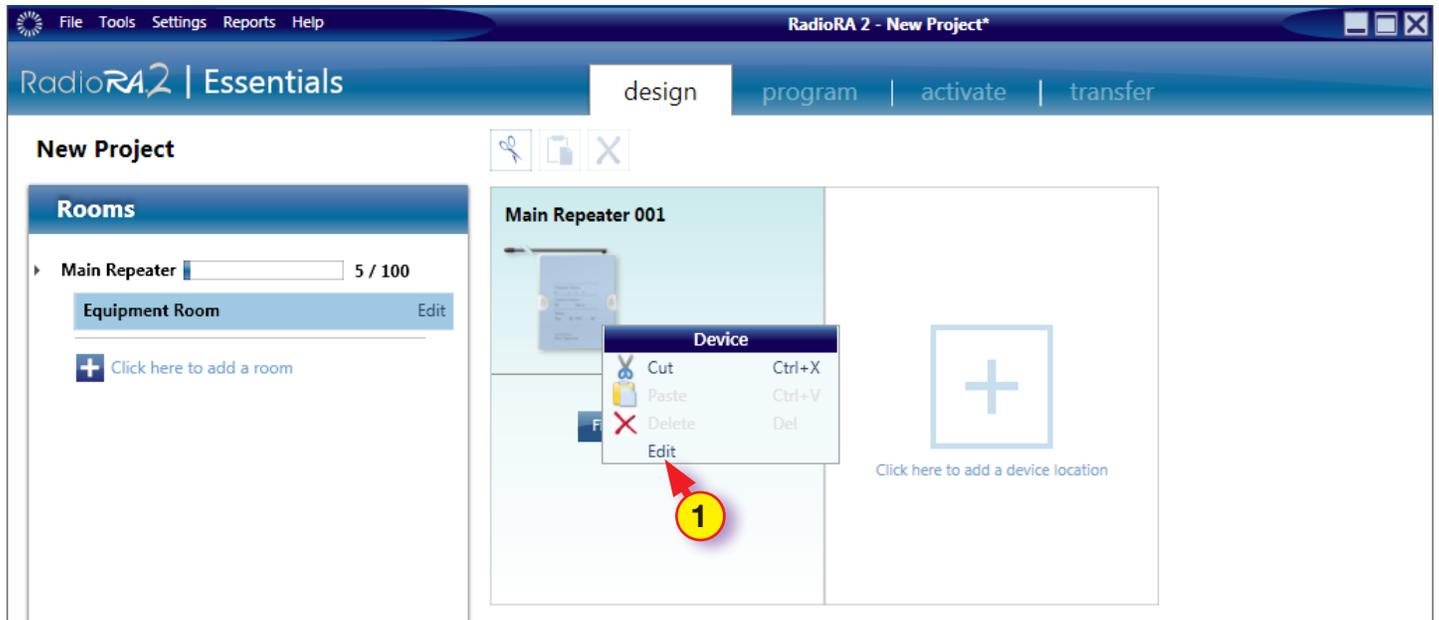

2. Select "Honeywell Security panel with 4232CBM" from the "RS232 Connection" drop down menu.
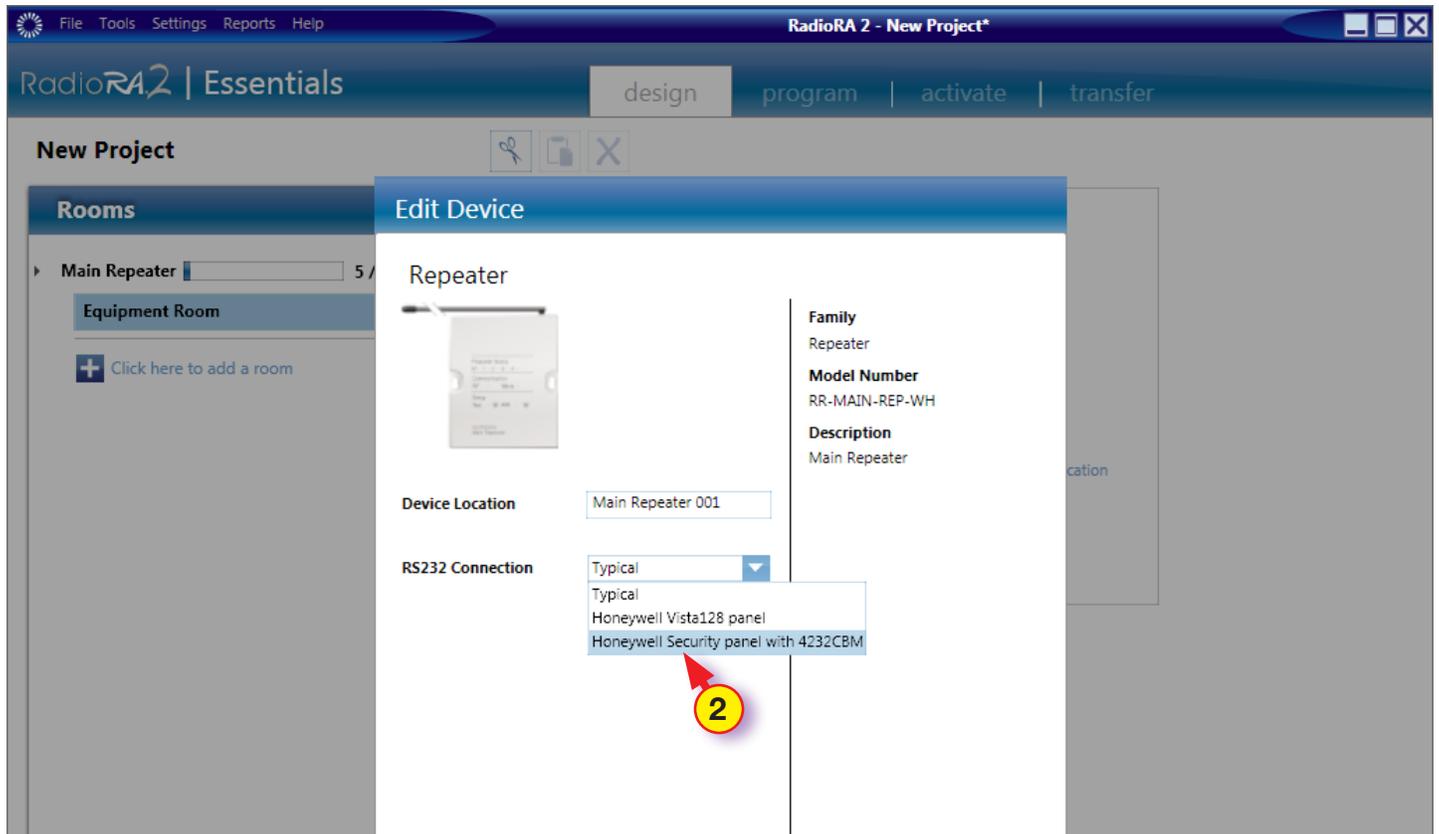
Programming the Phantom Buttons (continued)

3. Enter the "Alpha Keypad ECP Address" and the "RIS ECP Address". These addresses are defined in step 2 of the **Steps to Integrate RadioRA® 2 Systems with Honeywell VISTA Security Panels** section.

4. Click "Done" and finish designing the rest of the project in the "Design" tab.
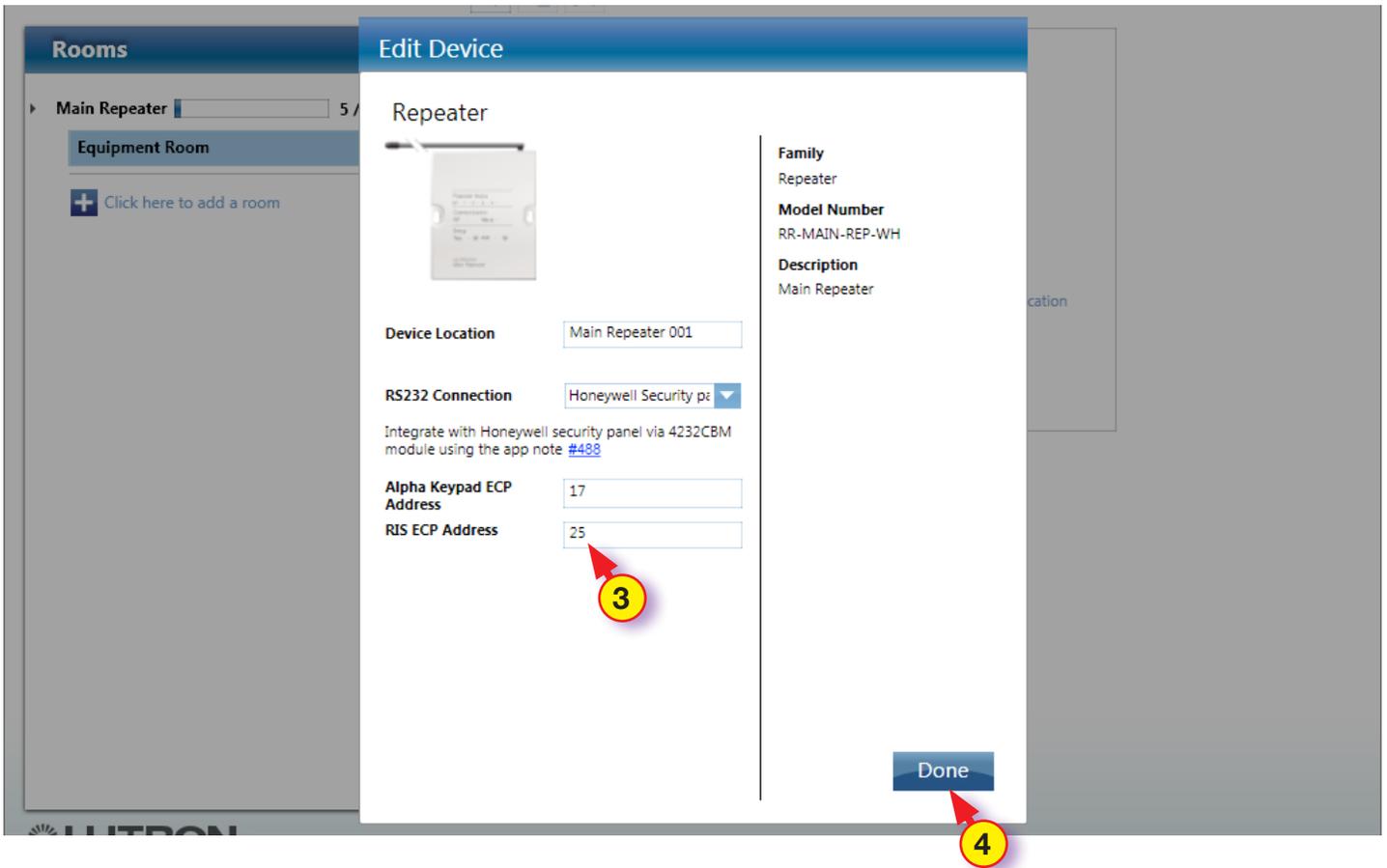
5. Select the "Program" tab.

6. Find the Main Repeater using the "Selected Device Location" drop-down menu.
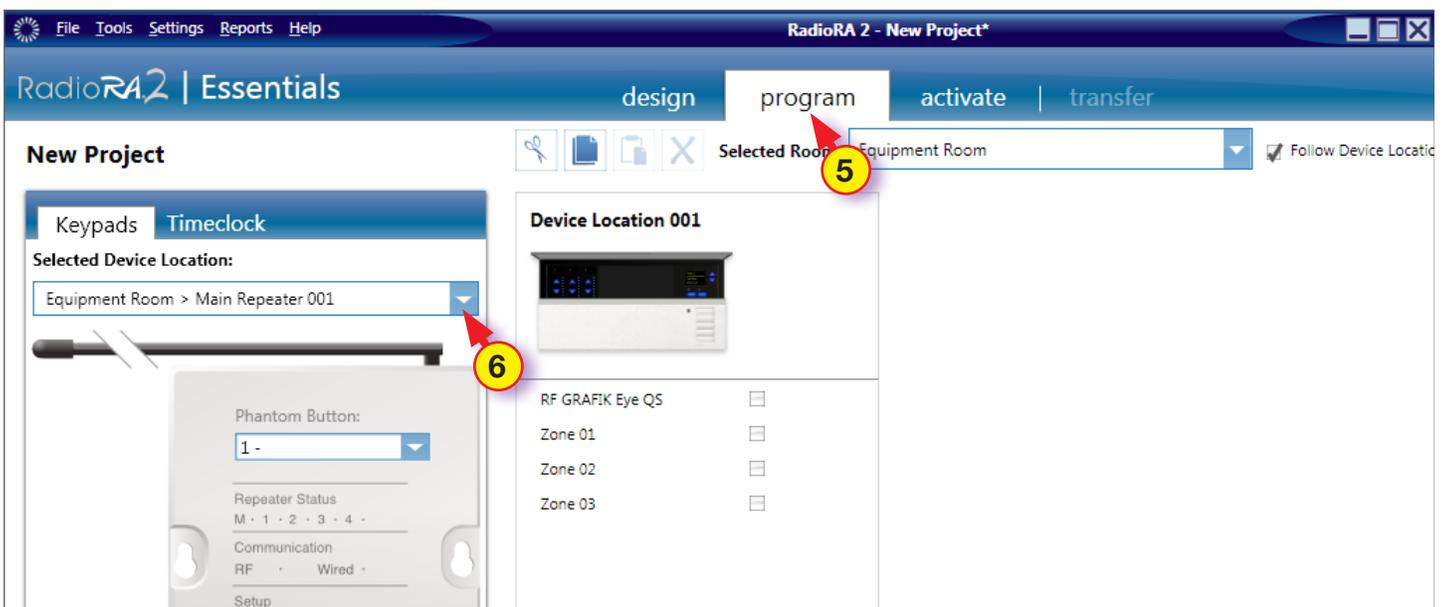
Programming the Phantom Buttons (continued)

7. Select the desired button from the "Phantom Button" drop-down menu.

Programming the Phantom Buttons (continued)

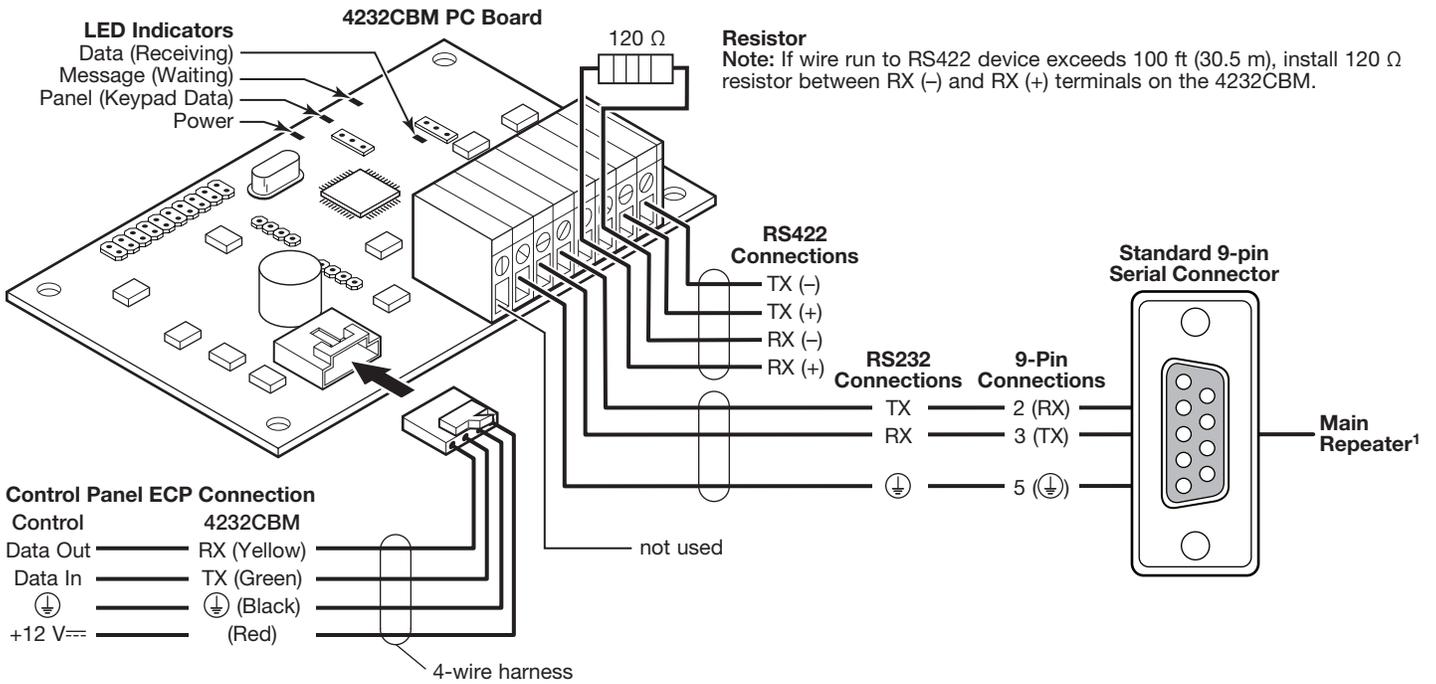8. Choose the appropriate "Selected Button Type".
9. Program Devices and Levels.

Repeat steps 7–9 to program any remaining buttons.

Note: You must also complete the activation and transfer steps for the programming to take effect.

Wiring

Wire the Honeywell VISTA security panel to the RadioRA® 2 Main Repeater as illustrated below.

LED Indicators
Data (Receiving)
Message (Waiting)
Panel (Keypad Data)
Power

4232CBM PC Board

120 Ω

Resistor
Note: If wire run to RS422 device exceeds 100 ft (30.5 m), install 120 Ω resistor between RX (–) and RX (+) terminals on the 4232CBM.

RS422 Connections
TX (–)
TX (+)
RX (–)
RX (+)

Standard 9-pin Serial Connector

RS232 Connections — **9-Pin Connections**
TX — 2 (RX)
RX — 3 (TX)
⏚ — 5 (⏚)

Main Repeater[1]

Control Panel ECP Connection

Control	4232CBM
Data Out	RX (Yellow)
Data In	TX (Green)
⏚	⏚ (Black)
+12 V⎓	(Red)

not used

4-wire harness

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[1] Connect to Main Repeater using null modem serial cable or null modem adapter with a straight-through serial cable.

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