



aero-k

Wi-Fi/Ethernet Alarm System Communicator

Installation Guide

1. Overview

1.1. Description

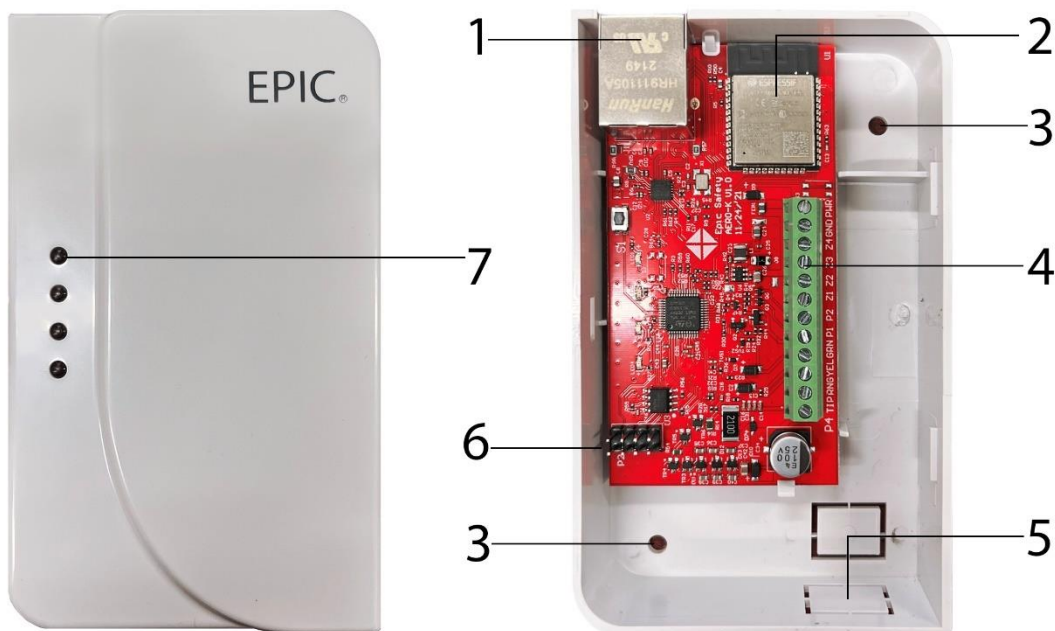
Aero-K is a primary alarm communicator that uses Wi-Fi and Ethernet technology. It uses line capture to monitor any alarm system that uses SIA and CID formats. It can also connect to the DSC power series keybus to monitor these systems and provide users the ability to access their systems remotely from anywhere via Aryo Cloud platform on the web and iOS and Android smartphones.

Aero-K uses 3 zones to monitor legacy systems for legacy burglary, fire, and panic alarms. Aero-K uses zone 1 and PGM 1 for keyswitch arming and disarming. Refer to Section 5 (PGM Output Functions) for information on the PGM multipurpose functionality.

1.2. In the box

- aero-K
- Quick installation guide

1.3. Identifying the Parts



- | | |
|-------------------|----------------------|
| 1) RJ45 connector | 4) Terminal block |
| 2) WiFi module | 5) Wire entrance |
| 3) Mounting holes | 6) RF Expansion port |

2. Introduction

2.1. Features

- **Keybus** enables Aero-K to communicate with the panel and keypads directly for faster status reporting. It also allows for use of additional commands such as zone status, bypass/unbypass, and no entry delay arm.
- In case the alarm panel does not support keybus, **keyswitch** arming enables Aero-K to arm and disarm the system.
- **Line capture** allows Aero-K to detect and capture **CID** and **SIA** events and monitor any alarm system that uses these two formats.
- In case the panel does not support CID/SIA formats, Aero-K can use 3 input zones to monitor **legacy** alarm panel outputs by providing **burglary**, **fire**, and **panic** alarms.
- Aero-K sends **full event reporting** and **zone/partition status** when connected to Aryo cloud.
- Aero-K **troubles** such as power, network, and communication failures are monitored and reported.

2.2. Aero codes

Aero-K uses one master code (for the main user) and up to 40 user codes to arm and disarm the host control panel when keyswitch arming is used or if keybus connection is not used or available. These codes are different from the alarm panel Master and User Codes. If Aero-K master code is lost, it can be reprogrammed by the Dealer.

2.3. Monitoring options

2.3.1. Keybus - Keybus monitoring is available for DSC PowerSeries and Honeywell Vista series panels. Connect **YEL** and **GRN** terminals to keybus terminals of these panels to fully interact with the alarm panel. The events and status signals are sent to Aryo cloud and the Central Monitoring Station (CMS).

2.3.2. Line capture - Line capture monitoring is available to connect the **TIP** and **RNG** terminals to any panel that can communicate in CID and SIA formats. The signals are captured and sent to Aryo cloud and the monitoring center.

2.3.3. Keybus and line capture- both keybus and line capture monitoring can be used as described in sections 2.3.1 and 2.3.2.

2.3.4. Legacy - When panels are not capable of communicating in CID and SIA formats, Aero-K uses three input zones to monitor alarm signals for **burglary, fire, and panic alarms**. These signals are then sent to Aryo cloud and the CMS.

3. Pre-Installation Recommendations

- Conduct a placement test to find a suitable location with the best Wi-Fi signal.
- Wiring can only be done when both Aero-K and the alarm panel are powered down.
- Do not route any wire over the alarm panel or Aero-K circuit boards.
- Install and program your alarm panel before connecting it to Aero-K.
- Install and operate Aero-K within its specified temperature ranges to prevent any possible damage.
Do NOT install the unit close to heating source, direct sunlight, or in a damp location.
- Do NOT connect Aero-K to a phone line. This will damage the device.
- Always connect Aero-K to an approved power source and battery backup.

3.1. Cable length

Using Station Z or CAT 5 type wire, Aero-K can be installed up to 1000 feet away from the alarm panel. For installations with over 1000 feet distance between the alarm panel and the device, use higher gauge wire(s) considering the guidelines below.

3.1.1. Cable length chart

Cable Type & Size	Number of wires	Communication Format	Keybus & Power	Keybus & Tip/Ring	Tip/Ring & Power	Keybus & Tip/Ring & Power
Station Z 4 x 22AWG DO NOT CONNECT SPARE WIRES	One wire	Keybus	1000ft	-	-	-
		CID	-	200ft	1000ft	-
		SIA	-	100ft	1000ft	-
	Two wires	Keybus	1000ft	-	-	-
		CID	-	1000ft	1000ft	-
		SIA	-	1000ft	1000ft	-
	Three wires	Keybus	-	-	-	-
		CID	-	-	-	1000ft
		SIA	-	-	-	1000ft
CAT 5 8 x 24AWG DO NOT CONNECT SPARE	One wire	Keybus	1000ft	-	-	-
		CID	-	1000ft	1000ft	200ft
		SIA	-	1000ft*	1000ft	200ft
		Keybus	1000ft	-	-	-

WIRES Power +: Orange pair Power -: Blue pair Keybus GRN: Green Keybus YEL: White/Green TIP: Brown RING: White/Brown	Two wires	CID	-	1000ft	1000ft	1000ft
		SIA	-	1000ft	1000ft	1000ft
	Three wires	Keybus	-	-	-	-
		CID	-	-	-	1000ft
		SIA	-	-	-	1000ft
			-	-	-	

*For this specific configuration, power cable must not exceed 500ft.

4. Performance Guide

4.1. Signal level

The signal level is reported using RSSI (Received Signal Strength Indicator) method which can be converted to dBm (decibel-milliwatts). The RSSI and corresponding signal strength bar can be seen in the table below:

RSSI	Signal level (dBm)	Service Level
<=15	<=83	No Signal
16 - 19	-81 ~ -75	Acceptable
20 - 31	-73 ~ -51	Good

4.2. Temperature

For correct operation, the unit must be in the operating range for temperature level. The different temperature levels and their corresponding interpretations are listed below. The temperature for the unit can be viewed on the cloud.

Aero-K (°C)	Interpretation
< -5 °C	Low – Aero-K will trigger low temperature trouble event.
-5 °C to 50 °C	Normal
> 51 °C	High – Aero-K will trigger high temperature trouble event.

4.3. Voltage

For proper operation, both alarm panel and Aero-K should be powered by approved power source within the recommended range. Different voltage levels and corresponding interpretations for the alarm panel are listed below.

Panel Voltage (VDC)	Interpretation
< 9	Low voltage - Aero-K will trigger low voltage trouble event.
10.1 – 13	Acceptable
13.1 – 14.5	Good
> 14.5	High voltage - Aero-K will trigger high voltage trouble event.

4.4. Button Functions

Aero-K button is used for a few functions according to the table below:

Button Press Time (sec)	Function Name	Function Use	Duration time	LED Indicators
<5 sec	Self-Test	To send device information such as signal level, voltage, and temperature to Aryo cloud.	Immediate	Blinks once
5 sec	Signal Level Mode	To select the best mounting location based on the signal level of Aero-K. LED Indications RSSI LED 1 Blink 0 ~ 9 LED 1 On 10 ~ 12 LED 2 Blink 13 ~ 16 LED 2 On 17 ~ 19 LED 3 Blink 20 ~ 22 LED 3 On 23 ~ 25 LED 4 Blink 26 ~ 28 LED 4 On 29 ~ 31	30 sec	Slow blinking
10 sec	Reboot Device	If required for trouble shooting or WiFi setting re-configuration	Immediately	Fast blinking
15 sec	Reset SSL	When a device is reused for a new client or moved to a new location.	Immediately	Alter blinking

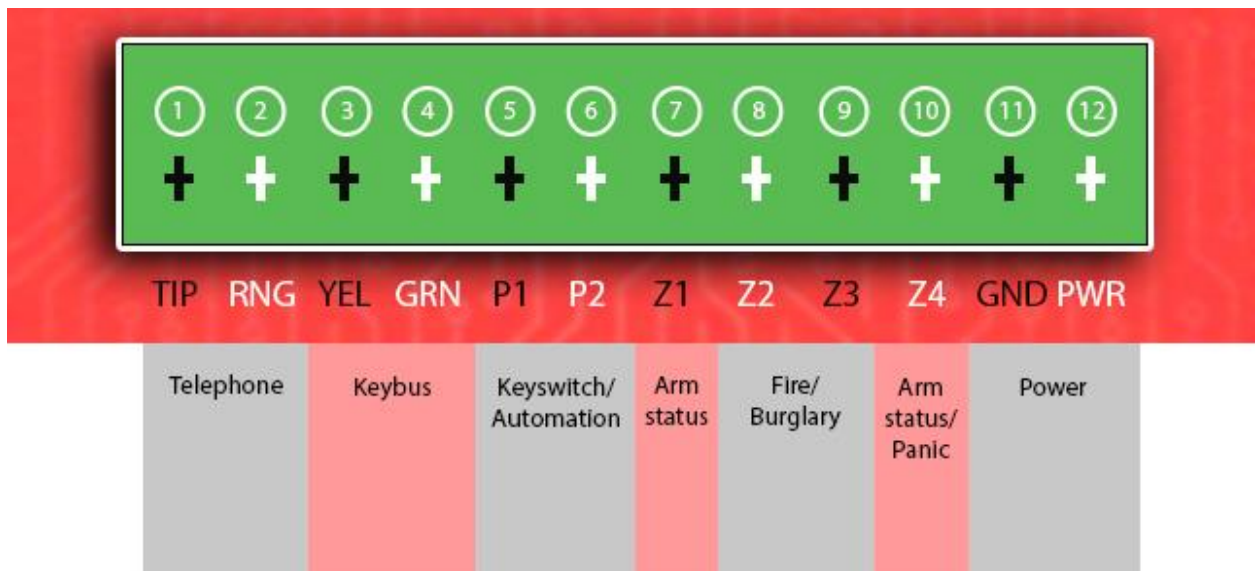
4.5. LED Indications

Condition	Status	LED	Color	On	Off	Fast blink	1 blink	2 blinks
Power	DC power on	1	Red	X				
	DC power off	1	Red		X			
	Device not registered	1	Red				X	
	Device troubles	1	Red			X		
Network Status	Connected to a network via Ethernet	2	Green	X				
	Connected to a network via Wi-Fi	2	Green				X	
	Not connected to a network (SSID exists).	2	Green		X			
	Not connected to a network, Waiting for setting Wi-Fi SSID and password	2	Green			X		
	Poor signal in Wi-Fi mode	2	Green					X
Server Network	Connecting to server	3	Green				X	
	Disconnected from server	3	Green		X			
	Communicating with server	3	Green			X		
	Connection with server is normal, but not communicating	3	Green	X				
Panel Communication	Line Capture	4	Green				X	
	Keybus	4	Green			X		
	Line Capture and Keybus	4	Green	X				
	Legacy	4	Green		X			
	Firmware update in progress	All	Red/Green	Alternating LEDs. LEDs 1&2 are on/off while LEDs 3&4 are off/on.				

LINK/ACT Network	Connected to the network(LINK)	5*	Green	X				
	Communicating with network(ACK)	5	Green			X		
	Not connected to the network	5	Green		X			
LINK100 Network	Connected with 100M network(Good speed)	6*	Yellow	X				
	Not connected to 100M network	6	Yellow		X			

*LEDs on RJ45 connector

4.6. Terminal Connections



4.6.1. Aero-K Terminals Description

Terminal Name	Connections
Tip (TIP)	Connects to the alarm panel TIP terminal for detection and capture of CID and SIA events to be sent to Aryo cloud and the CMS.
Ring (RNG)	Connects to alarm panel RING terminal for detection and capture of CID and SIA events to be sent to Aryo cloud and the monitoring center.
Keybus Yellow (YEL)	Connects to the alarm panel keybus YEL terminal to fully interact with keybus communication (if supported by the alarm panel).
Keybus Green (GRN)	Connects to alarm panel keybus GRN terminal to fully interact with keybus communication (if supported by the alarm panel).
PGM 1 (P1)	Triggers the alarm panel keyswitch zone to arm/disarm when monitoring legacy panels or in dial capture mode with remote arm/disarm. See Section 5 for keybus operation details.
PGM 2 (P2)	Used as a multipurpose programmable output to control various functions. For details, see Section 5 .
Zone 1 (Z1) (Dry contact only)	Used for Arm/disarm status of partition 1 on the alarm panel when connected to arm status PGM.
Zone 2 (Z2) (Dry contact only)	Used as the common burglary input to monitor the burglary alarm signal received from the alarm panel output. For DSC panels, this zone can be used for both fire and burglary detection when connected to the siren output.
Zone 3 (Z3) (Dry contact only)	Used as the common fire input to monitor the fire alarm signal received from the alarm panel output.
Zone 4 (Z4) (Dry contact only)	Used as the common panic input to monitor the panic alarm signal received from the alarm panel output. Can also provide arm/disarm status of partition 2 of the panel when not monitoring legacy panels.

Ground (GND)	Ground
Power (PWR)	12-14 VDC

Other Hardware:

- RF expansion port is for future addition of more wireless capabilities to Aero-K.

4.7. Connections Description

4.7.1. Power

Aero-K could be powered by an alarm panel auxiliary 12-14 VDC. External auxiliary power source with backup battery can be used if they use a common ground. These devices can still operate with a power range of 5 to 20 VDC. Aero-K monitors panel voltage and generates power trouble when voltage drops below 9 VDC.

4.7.2. Keybus

Aero-K supports DSC PowerSeries and Honeywell keybus interface. Yellow (YEL) and Green (GRN) terminals can be connected to Aero-K YEL and GRN to allow interaction with DSC PowerSeries panels to monitor events and provide status of the alarm panel.

4.7.3. Tip/Ring

Aero-K TIP/RNG terminals connect to the Tip/Ring interface of any alarm panel that uses CID or SIA format to capture all generated signals and send them to Aryo cloud and the CMS.

4.7.4. Zones

Aero-K provides four zone inputs. Zones 1 and 4 are used for partition 1 and partition 2 arm status, respectively. For legacy panels that do not use CID/SIA format, zones 2-4 are used for burglary, fire, and panic alarms respectively.

4.7.5. PGMs

Aero-K has two PGM outputs for keyswitch arming and automation functionality as outlined in **Section 5** below.

5. PGM Output Functions (Automation)

5.1. Features

Aero-K features up to two programmable outputs (PGMs) for various household use. These PGMs can be used to control garage doors, sirens, and strobe lights, among various other uses depending on Aero-K communication type. See the table below for the details.

5.2. Keyswitch - Dial Capture/ Legacy

When using Aero-K for dial capture or legacy monitoring and remote arm/disarm, PGM 1 must be connected to a keyswitch zone on the alarm panel. For remote arm/disarm on two partitions systems (dial capture only), PGM 2 must be connected to another keyswitch zone on the alarm panel. Any available PGM can be used for automation functionality.

5.3. Keybus

When using keybus for monitoring, both PGM 1 and 2 can be used for automation functionality, as remote arm/disarm is handled by the keybus connections.

5.4. PGM Output Function Table

1. Using Keybus								
Output	Momentary/ Maintained	Time Duration	Keyswitch 1	Garage Door	Open Door Strike	Open Gates	Siren	Strobe
PGM 1	Momentary	2 sec		0				
	Maintained	5 sec -300 sec			0			
	Maintained	5 sec -300 sec				0		
	Maintained	5 sec -300 sec					0	
	Maintained	5 sec -300 sec						0
Output	Momentary/ Maintained	Time Duration	Keyswitch 2	Garage Door	Open Door Strike	Open Gates	Siren	Strobe
PGM 2	Momentary	2 sec		0				
	Maintained	5 sec -300 sec			0			
	Maintained	5 sec -300 sec				0		
	Maintained	5 sec -300 sec					0	
	Maintained	5 sec -300 sec						0
2. Using Dial Capture (Tip/Ring)								
Output	Momentary/ Maintained	Time Duration	Keyswitch 1	Garage Door	Open Door Strike	Open Gates	Siren	Strobe
PGM 1	Momentary	1 sec	0					
	Momentary	2 sec		0				
Output	Momentary/ Maintained	Time Duration	Keyswitch 2	Garage Door	Open Door Strike	Open Gates	Siren	Strobe
PGM 2	Momentary	1 sec	0					
	Momentary	2 sec		0				
	Maintained	5 sec -300 sec			0			

	Maintained	5 sec -300 sec				0		
	Maintained	5 sec -300 sec					0	
	Maintained	5 sec -300 sec						0
3. Using Legacy								
Output	Momentary/ Maintained	Time Duration	Keyswitch 1	Garage Door	Open Door Strike	Open Gates	Siren	Strobe
PGM 1	Momentary	1 sec	0					
	Momentary	2 sec		0				
Output	Momentary/ Maintained	Time Duration	Keyswitch 2	Garage Door	Open Door Strike	Open Gates	Siren	Strobe
PGM 2	Momentary	2 sec		0				
	Maintained	5 sec -300 sec			0			
	Maintained	5 sec -300 sec				0		
	Maintained	5 sec -300 sec					0	
	Maintained	5 sec -300 sec						0

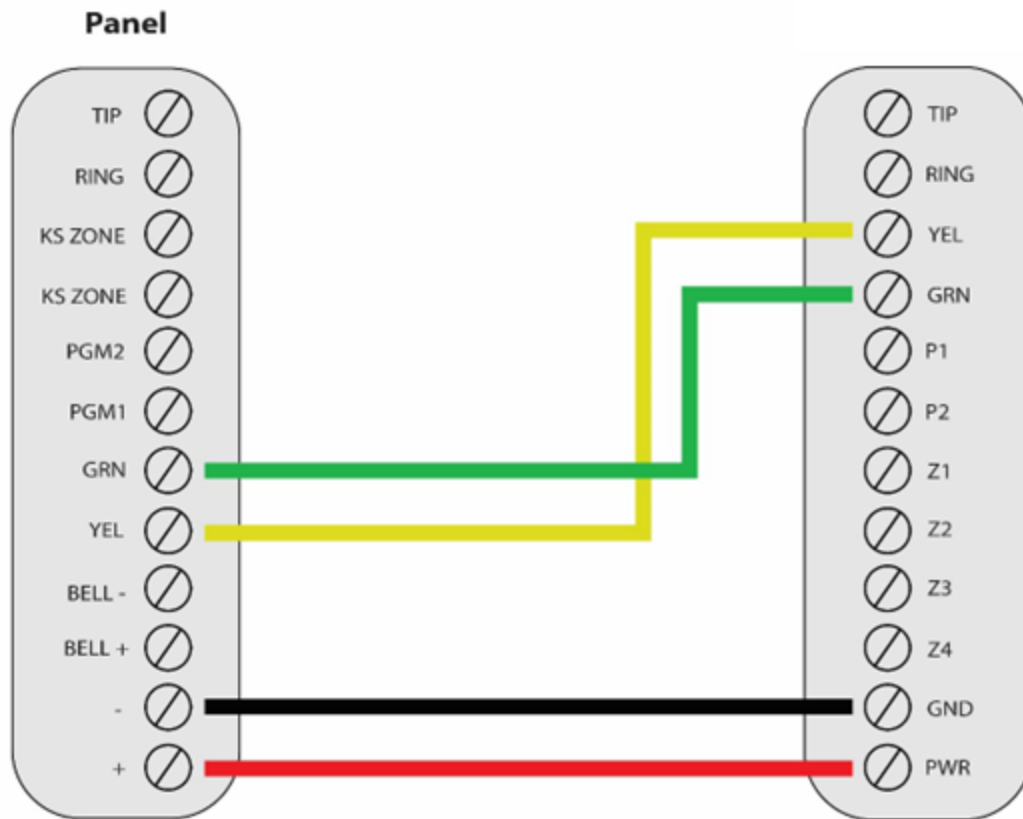
6. Installation & Programming

6.1.DSC PowerSeries Alarm Panels

6.1.1. Keybus Monitoring

DSC PowerSeries alarm panels can be connected to Aero-K via keybus terminals to monitor and control the alarm system remotely. All keybus functionalities are also available for users on the app.

6.1.1.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.1.1.2. Programming Instructions

Make sure to disable communications and program the alarm panel as a local system. No further programming is required for keybus monitoring of DSC PowerSeries panels.

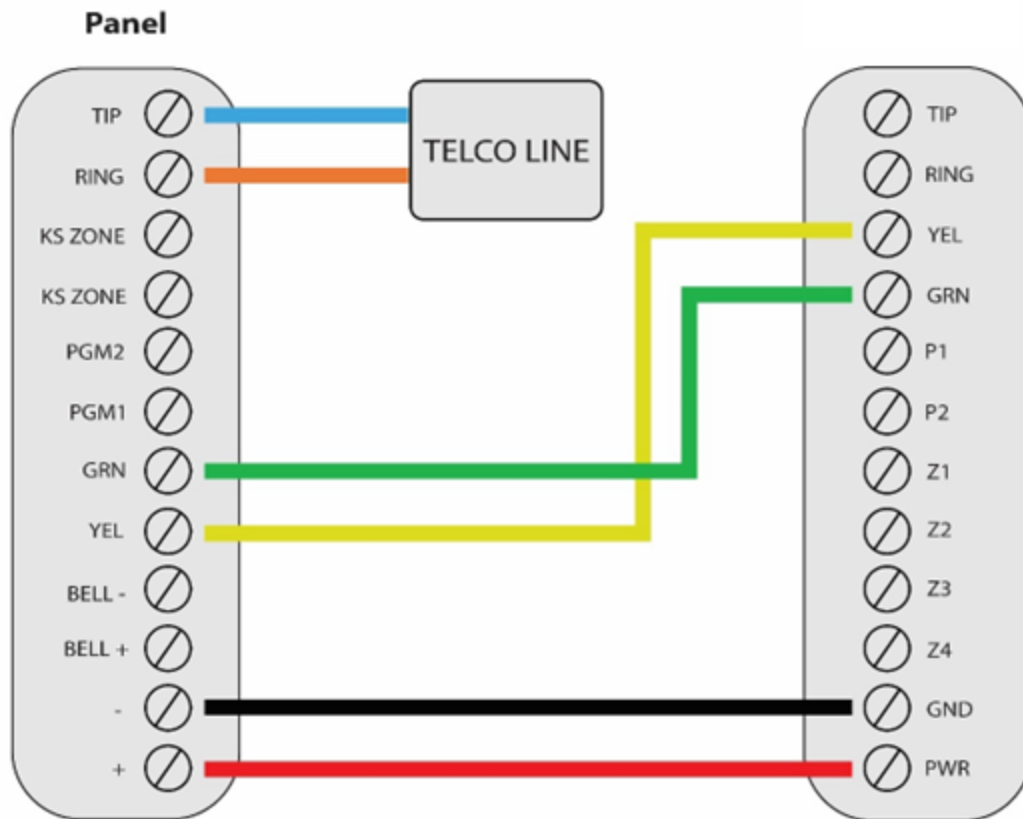
Keybus-compatible DSC PowerSeries alarm panels:

PC1864, PC1832, PC1616, PC5020, PC5010, PC1575, PC1555, PC585, PC580

6.1.2. Keybus and Digital Account Monitoring

When DSC PowerSeries alarm panels are connected to Aero-K via keybus, a digital account with phone line can co-exist providing a backup communication to monitor and control the system remotely.

6.1.2.1. Wiring Diagram



**Colours are for demonstration purposes only*

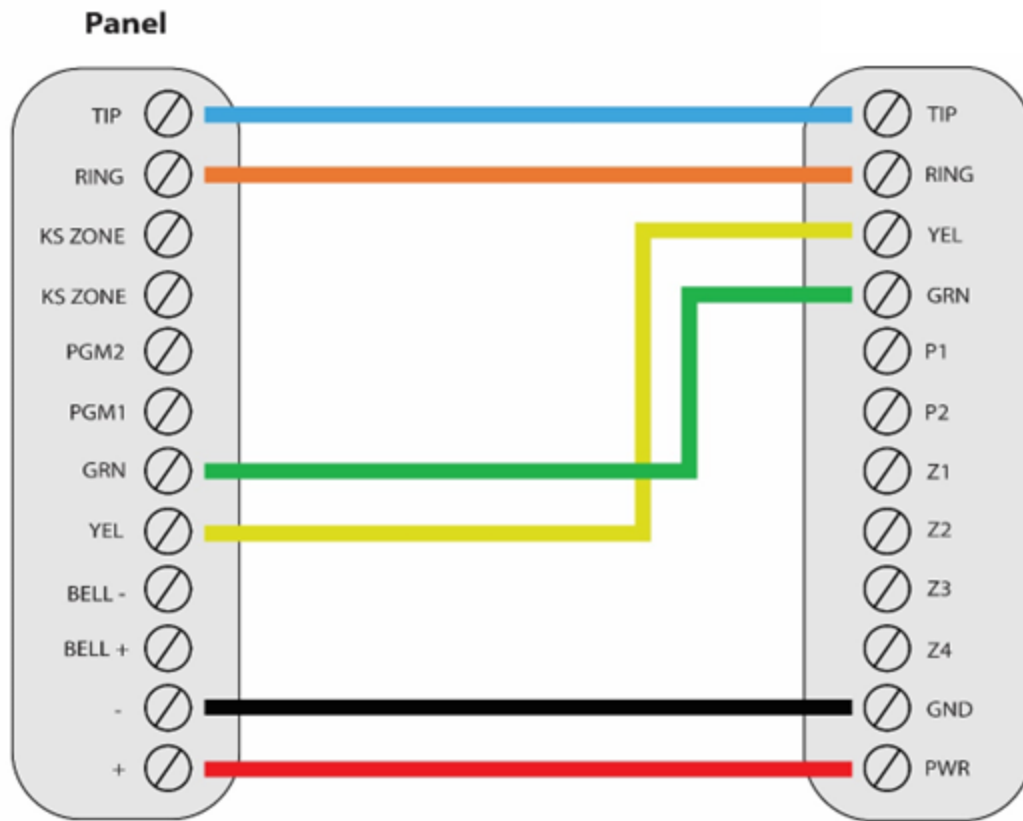
6.1.2.2. Programming Instructions

If the DSC PowerSeries alarm panel is connected to a land line via Tip/Ring, connect the Aero-K using the 4-wire configuration above. Program the panel for digital account.

6.1.3. Keybus and Dial Capture (Tip/Ring) Monitoring

PowerSeries alarm panels connected to keybus can also be connected to Tip/Ring on Aero-K for monitoring. Wiring and programming instructions are described below.

6.1.3.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.1.3.2. Programming Instructions

6.1.3.2.1. PC1864/1832/1616

Section	Description
[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]	Enter a system account number.
[311] - [318]	Enter an account number for each partition if SIA format is not being used.
[350]	Enter 03 or 04 for CID or SIA reporting, respectively.
[351] - 358]	Turn option 1 on for each partition alarm/restore reporting.

[367]- [374]	Turn option 1 on for each partition open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring. Option 4 must be off.
[381]	Options 3 and 7 must be off for automatic SIA and CID reporting.

6.1.3.2.2. PC5010

Section	Description
[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]-[311]	Enter an account number for each partition if SIA format is not being used.
[360]	Enter 03 for CID reporting or 04 for SIA.
[361]-[362]	Turn option 1 on for each partition alarm/restore reporting.
[365]-[366]	Turn option 1 on for each partition open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring. Option 4 must be off.
[381]	Option 3 must be off for automatic SIA reporting.

6.1.3.2.3. PC5020

Section	Description
[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]	Enter a system account number.
[311]-[317]	Enter an account number for each partition if SIA format is not being used.
[350]	Enter 03 for CID reporting or 04 for SIA.
[351]-[358]	Turn option 1 on for each partition alarm/restore reporting.
[367]-[374]	Turn option 1 on for each partition open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring. Option 4 must be off.
[381]	Options 3 and 7 must be off for automatic SIA and CID reporting.

6.1.3.2.4. PC1555

Section	Description
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[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]	Enter a system account number.
[360]	Enter 03 for CID reporting or 04 for SIA.
[361]	Turn option 1 on for alarm/restore reporting.
[365]	Turn option 1 on for open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring. Option 4 must be off.
[381]	Options 3 and 7 must be off for automatic SIA and CID reporting.

6.1.3.2.5. PC1575

Section	Description
[08]	Turn options 5 and 6 off.
[10]	Turn option 6 on.
[31]	Enter any phone number.
[34]	Enter a system account number.
[36]-[46]	Set reporting codes for all desired events (when using CID).
[50]	Enter 03 for CID reporting or 04 for SIA.
[51]	Turn on option 1 for alarm/restore reporting.
[53]	Turn option 1 on for open/close reporting.
[60]	Turn on options 1 and 2 to enable communicator for digital monitoring. Option 3 must be off.
[61]	Option 6 must be off for automatic SIA reporting codes.

6.1.3.2.6. PC580/585

Section	Description
[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]	Enter a system account number.
[360]	Enter 03 for CID reporting or 04 for SIA.

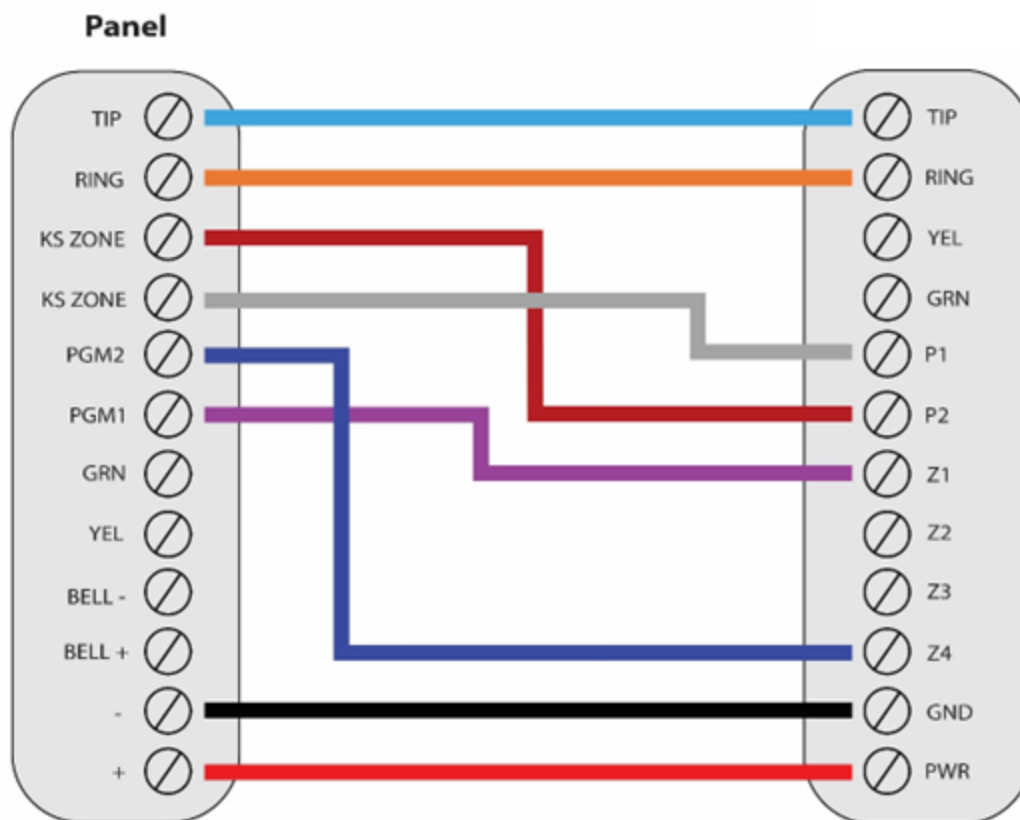
[361]	Turn option 1 on for each partition alarm/restore reporting.
[365]	Turn option 1 on for each partition open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring. Option 4 must be off.
[381]	Options 3 and 7 must be off for automatic SIA and CID reporting.

6.2.DSC Alarm Panels

6.2.1. Dial Capture (Tip/Ring) Monitoring and Keyswitch

For DSC panels that do not support keybus use Tip/Ring and keyswitch to monitor and control your system remotely.

6.2.1.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.2.1.2. Programming Instructions

To monitor DSC alarm panels with dial capture, program your system as described below. Instructions in *italics* are for optional remote arming with keyswitch. PGMs on Aero-K can be connected to any zone programmed as keyswitch for remote arming functionality.

6.2.1.2.1. ALEXOR (PC9155)

Section	Description
[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]	Enter a system account number.
[350]	Enter 03 for CID reporting or 04 for SIA.
[351]	Turn option 1 on for alarm/restore reporting.
[367]	Turn option 1 on for open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring.
[381]	Options 3 and 7 must be off for automatic SIA and CID reporting.
<i>[001]</i>	<i>Set a zone to 22 for keyswitch arm.</i>
<i>[009]</i>	<i>Set PGM1 to 05 for partition armed status monitoring.</i>
<i>[023]</i>	<i>Turn on option 8 for keyswitch to arm in Away mode.</i>
<i>[501]</i>	<i>Option 3 must be on.</i>

6.2.1.2.2. IMPASSA (SCW9055/9057)

Section	Description
[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]	Enter a system account number.
[350]	Enter 03 for CID reporting or 04 for SIA.
[351]	Turn option 1 on for alarm/restore reporting.
[367]	Turn option 1 on for open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring.
[381]	Options 3 and 7 must be off for automatic SIA and CID reporting.

[001]	Set a zone to 22 for keyswitch arm.
[009]	Set PGM1 to 05 for partition armed status monitoring.
[023]	Turn on option 8 for keyswitch to arm in Away mode.
[501]	Option 3 must be on.

6.2.1.2.3. NEO (HS2016/2032/2064/2128)

Section	Description
[015]	Turn option 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
[310]	Enter a system account number (first entry) and an account number for each active partition.
[311]-[318]	Turn on option 1 for each partition alarm/restore (first entry) and open/close (third entry) reporting.
[350]	Enter 03 for CID reporting or 04 for SIA.
[380]	Turn option 1 on to enable communicator for digital monitoring. Option 4 must be off.
[001]	Set a zone to 66 for keyswitch arm on partition 1 (set another for partition 2).
[009]	Set PGM1 to 115 for partition 1 armed status monitoring (set PGM2 for partition 2).
[010]	Option 1 must be on for both 001 (PGM1) and 002 (PGM2) subsections.
[022]	Turn on option 8 for keyswitch to arm in Away mode.

6.2.1.2.4. PC4020 MAXSYS

Section	Description
[0004000000]	Enter any phone number.
[0004000001]	Enter 04 for CID or 05 for SIA format.
[00040003]	Enter a system account number.
[01000100]- [01000800]	Enter an account number for each active partition.
[000401]	Enable "DTMF Dialing", "AutoReport SIA", and "Auto Contact ID" options, and disable "TLM Enabled" option.
[0004000002]	Enable alarm/restore and open/close reporting.
[000700]- [000701]	Set PGM1 to 06 for armed status and assign it to partition 1 (PGM2 for partition 2).

<i>[0100010300]- [0100020300]</i>	<i>Set a zone to 26 for momentary keyswitch arm on partition 1 (set another for partition 2).</i>
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6.2.1.2.5. SCW9045/9047

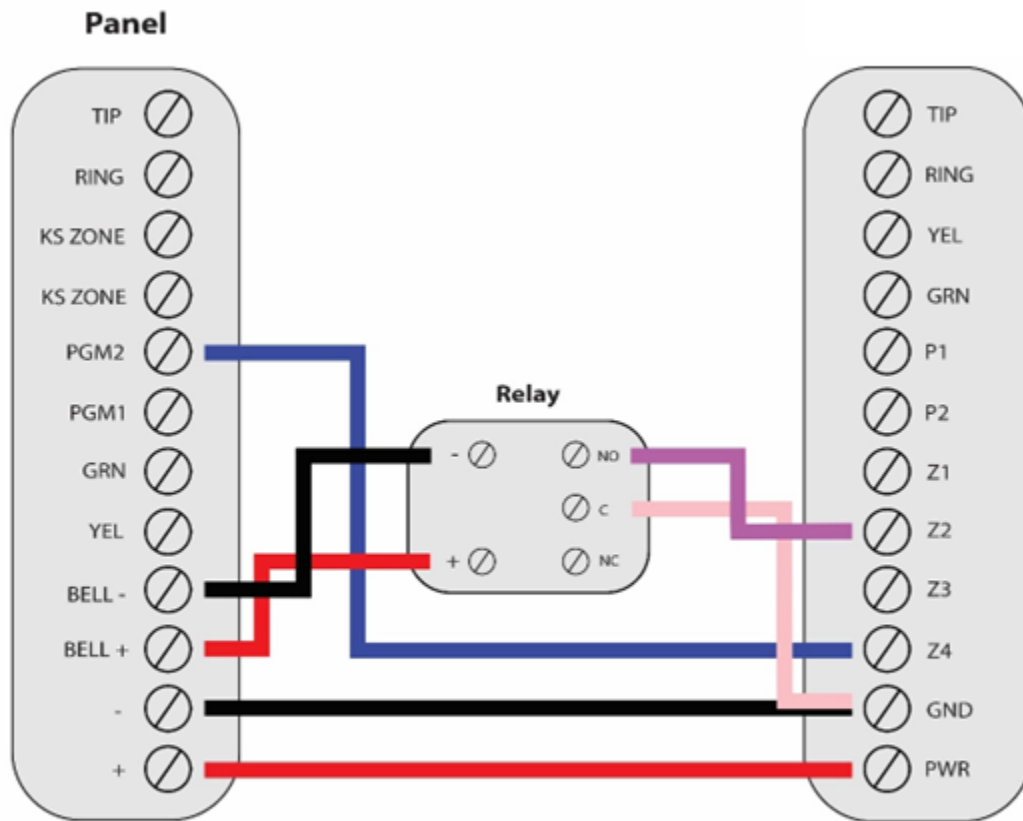
Section	Description
[015]	Turn options 4 on, and options 7 and 8 off.
[301]	Enter any phone number.
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[350]	Enter 03 for CID or 04 for SIA.
[351]	Turn option 1 on for alarm/restore reporting.
[367]	Turn option 1 on for open/close reporting.
[380]	Turn option 1 on to enable communicator for digital monitoring.
[381]	Options 3 and 7 must be off for automatic SIA and CID reporting codes.
<i>[001]</i>	<i>Set a zone to 22 for keyswitch arm.</i>
<i>[009]</i>	<i>Set PGM1 to 05 for partition armed status monitoring.</i>
<i>[501]</i>	<i>Option 3 must be on.</i>

6.3. DSC Legacy Alarm Panels

6.3.1. With Keyswitch

For DSC alarm panels without CID or SIA format communications, a relay is required to monitor alarms. Connect the relay as described below for fire/burglary monitoring and keyswitch remote arming.

6.3.1.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.3.1.2. Programming Instructions

To monitor legacy DSC alarm panels that do not support CID or SIA format, program your system as described below. Instructions in *italics>* are for optional remote arming with keyswitch. PGMs on Aero-K can be connected to any zone programmed as keyswitch for remote arming functionality.

6.3.1.2.1. PC2525

Section	Description
[10]	Turn option 4 on.
[11]	Turn options 7 and 8 on.
[46]	Turn option 1 on to disable communicator.

[01]	Set a zone to 9 for keyswitch arm.
[06]	Set PGM to 04 for armed status monitoring.

6.3.1.2.2. PC2550

Section	Description
[15]	Turn options 1 and 6 on.
[16]	Turn options 5 and 7 on.
[30]	Set AUX input (first entry) to 3 for momentary keyswitch and PGM (second entry) to 7 for armed status monitoring.

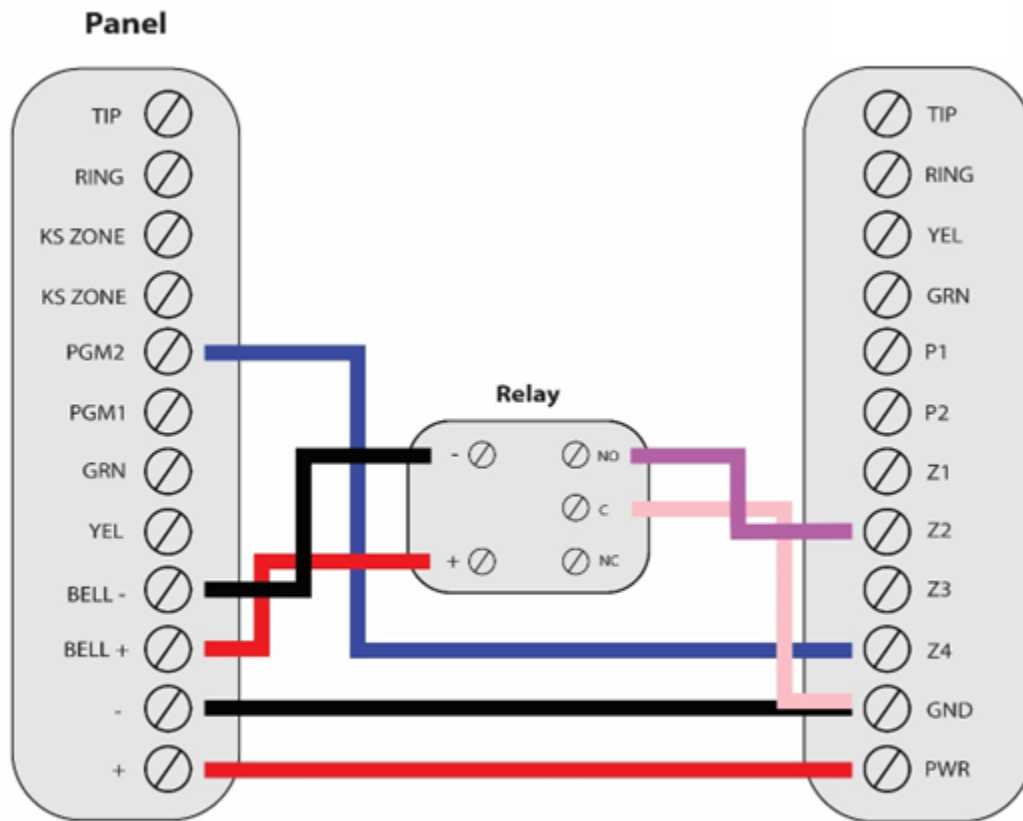
6.3.1.2.3. PC3000

Section	Description
[18]	Turn options 1 and 6 on.
[19]	Turn options 5 and 7 on.
[51]	Turn option 4 off.
[28]	Set AUX input to 3 for keyswitch (first entry) and PGM (second entry) to 7 for armed status monitoring.

6.3.2. Without Keyswitch

For DSC legacy panels without keyswitch, connect a relay as described below for fire/burglary monitoring.

6.3.2.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.3.2.2. Programming Instructions

6.3.2.2.1. PC1500/1550

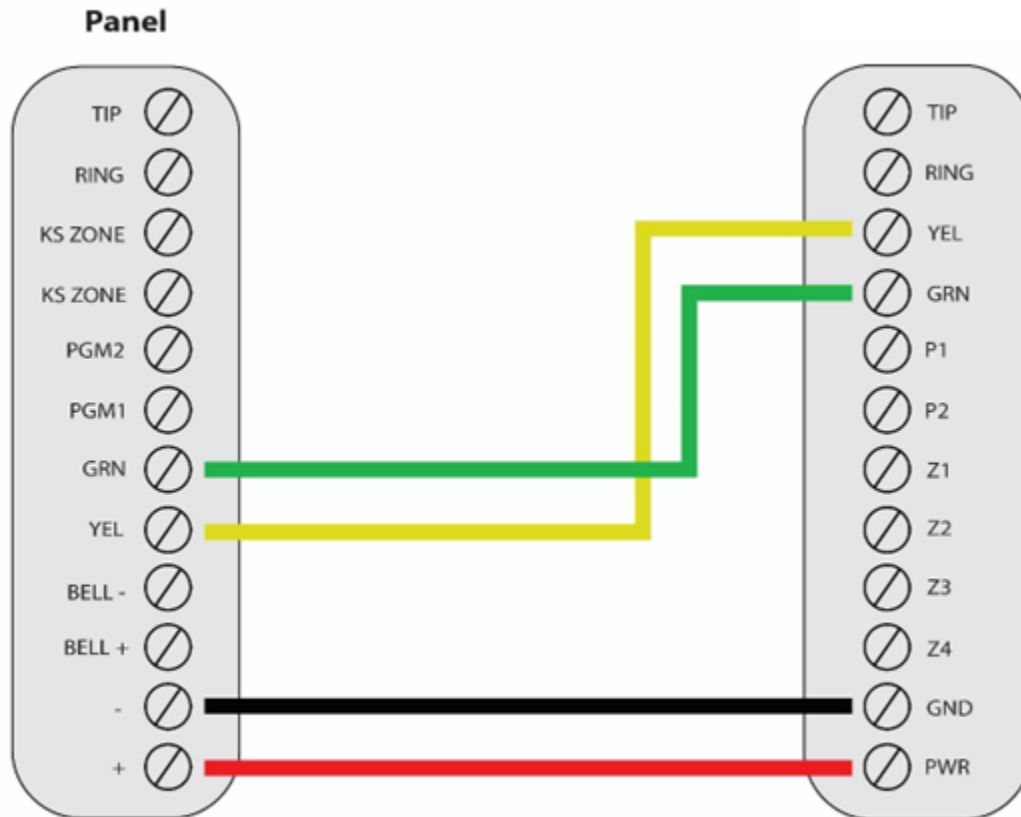
Section	Description
[12]	Turn options 1 and 6 on.
[32]	Turn options 2 and 6 on.
[34]	Turn off options 2 and 5.

6.4.Honeywell Alarm Panels

6.4.1. Keybus Monitoring

Honeywell alarm panels can be connected to Aero-K via keybus to monitor and control your system remotely.

6.4.1.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.4.1.2. Programming Instructions

Make sure to disable communications and program the panel as a local system. No further programming is required for keybus monitoring of Honeywell alarm panels.

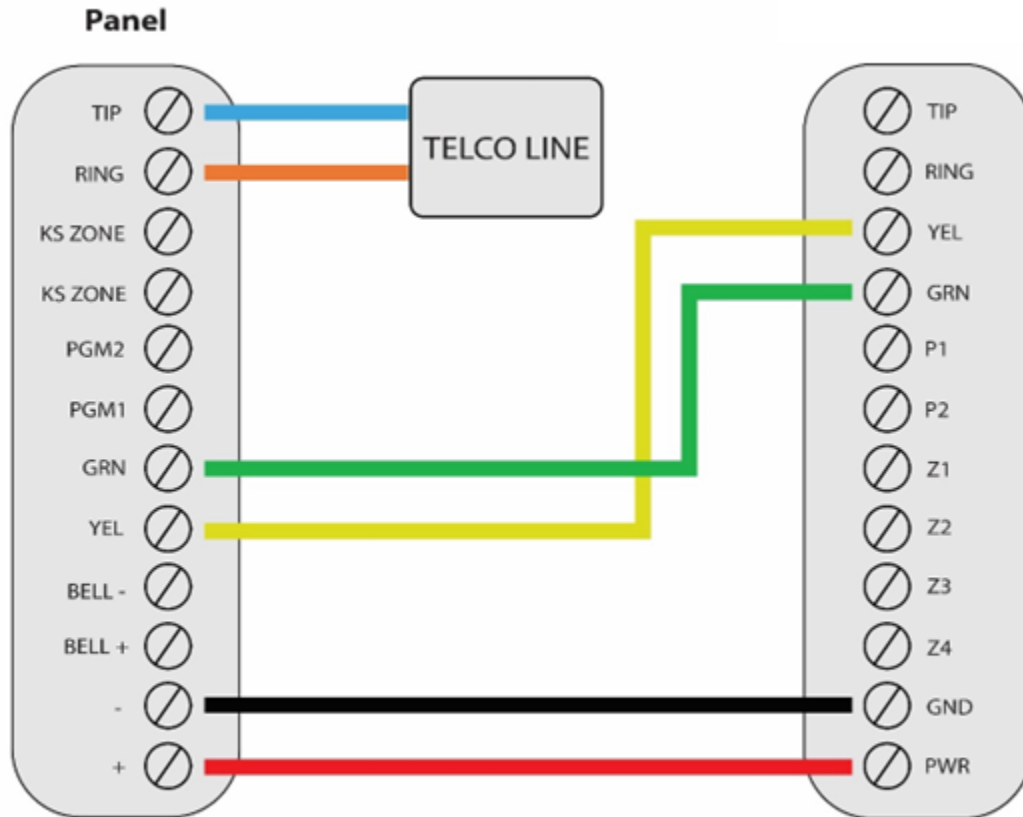
Keybus-compatible Honeywell alarm panels:

Vista 10P, Vista 15P, Vista 20P, Vista 21iP, Vista 48LA, Vista 50P, Vista 128BP

6.4.2. Keybus and Digital Account Monitoring

Honeywell panels can be connected to Aero-K via keybus alongside an existing digital account to monitor and control your system remotely.

6.4.2.1. Wiring Diagram



**Colours are for demonstration purposes only*

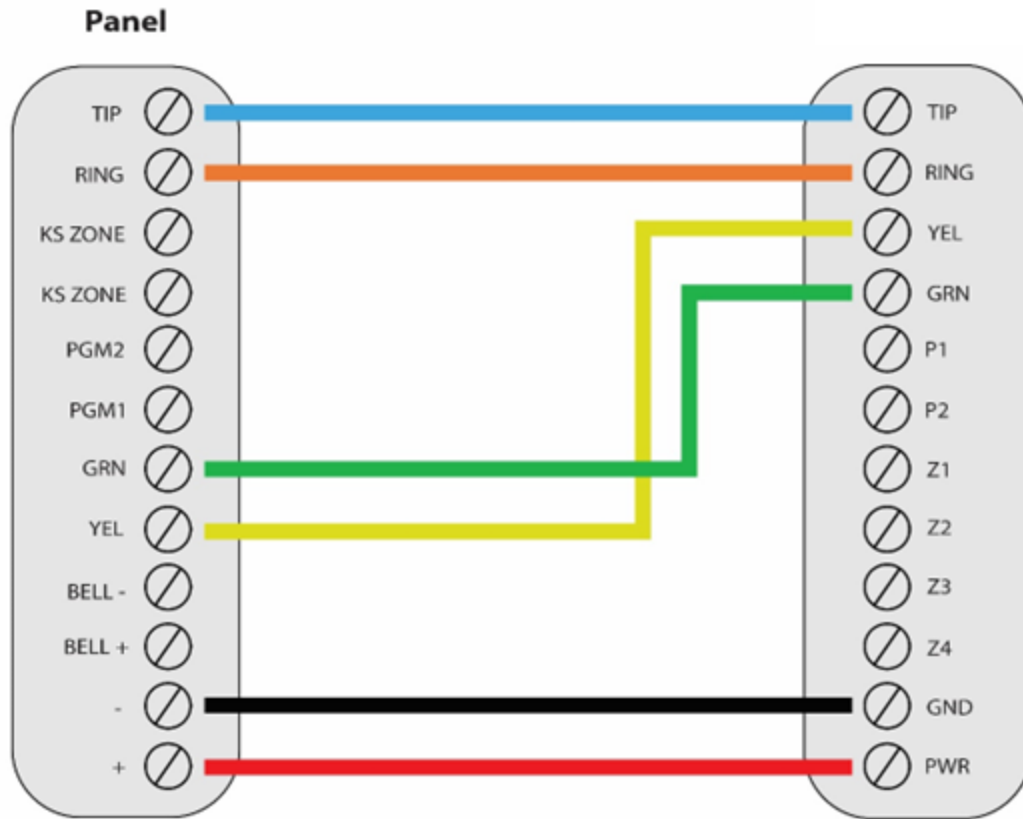
6.4.2.2. Programming Instructions

If your Honeywell alarm panel is connected to an external phone line with a digital account, connect the Aero-K device using the 4-wire keybus configuration above. There is no need to modify your previous programming settings for full keybus functionality.

6.4.3. Keybus and Dial Capture (Tip/Ring)

Honeywell panels connected to keybus can also be connected to Tip/Ring for dial capture monitoring as a backup. Wiring and programming instructions are described below.

6.4.3.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.4.3.2. Programming Instructions

6.4.3.2.1. Vista 10P(SIA)/15P(SIA)/20P(SIA)/21ip/48LA

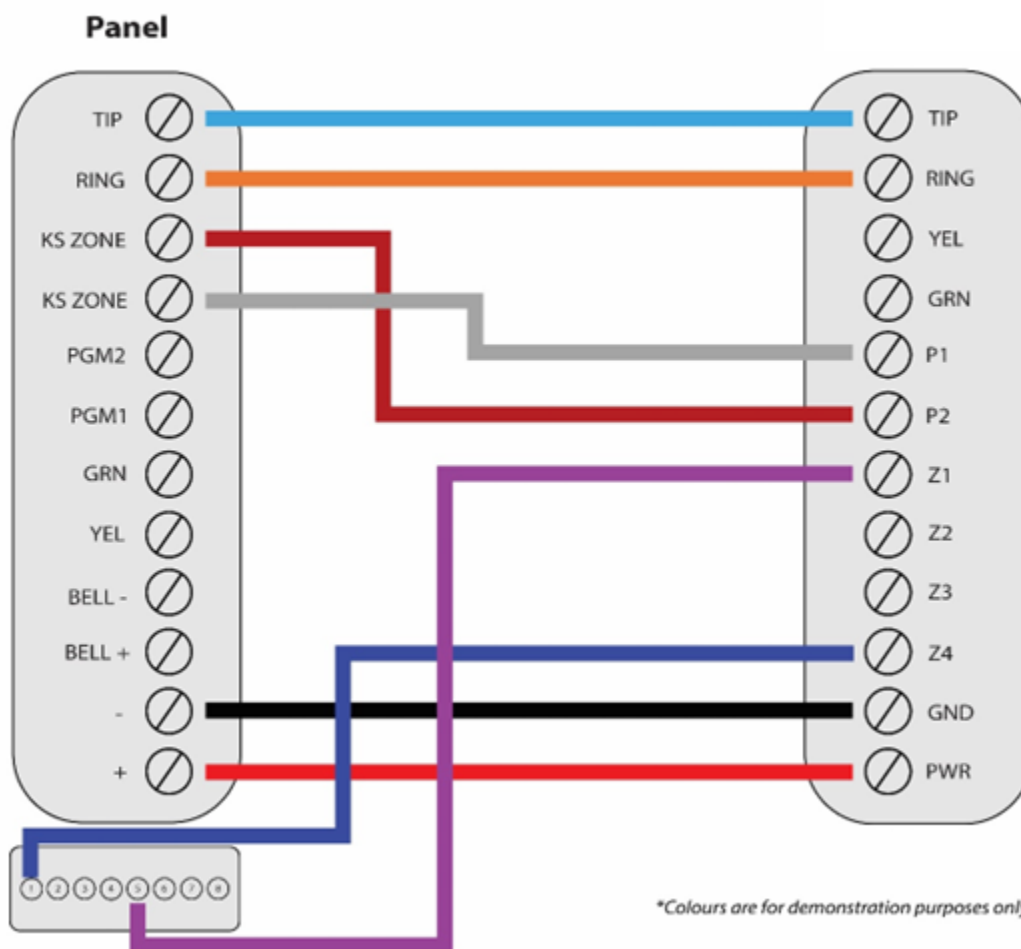
Section	Description
*41	Enter any phone number.
*43	Enter an account number for partition 1.
*45	Enter an account number for partition 2 (Vista 20P/21ip/48LA).
*48	Set the report format to 7 for CID.
*65-*66	Enter 1 in each entry to enable open/close report codes for partitions being used.
*70	Enter 1 to enable alarm restore report codes.

6.4.4. Dial Capture (Tip/Ring) Monitoring and Keyswitch

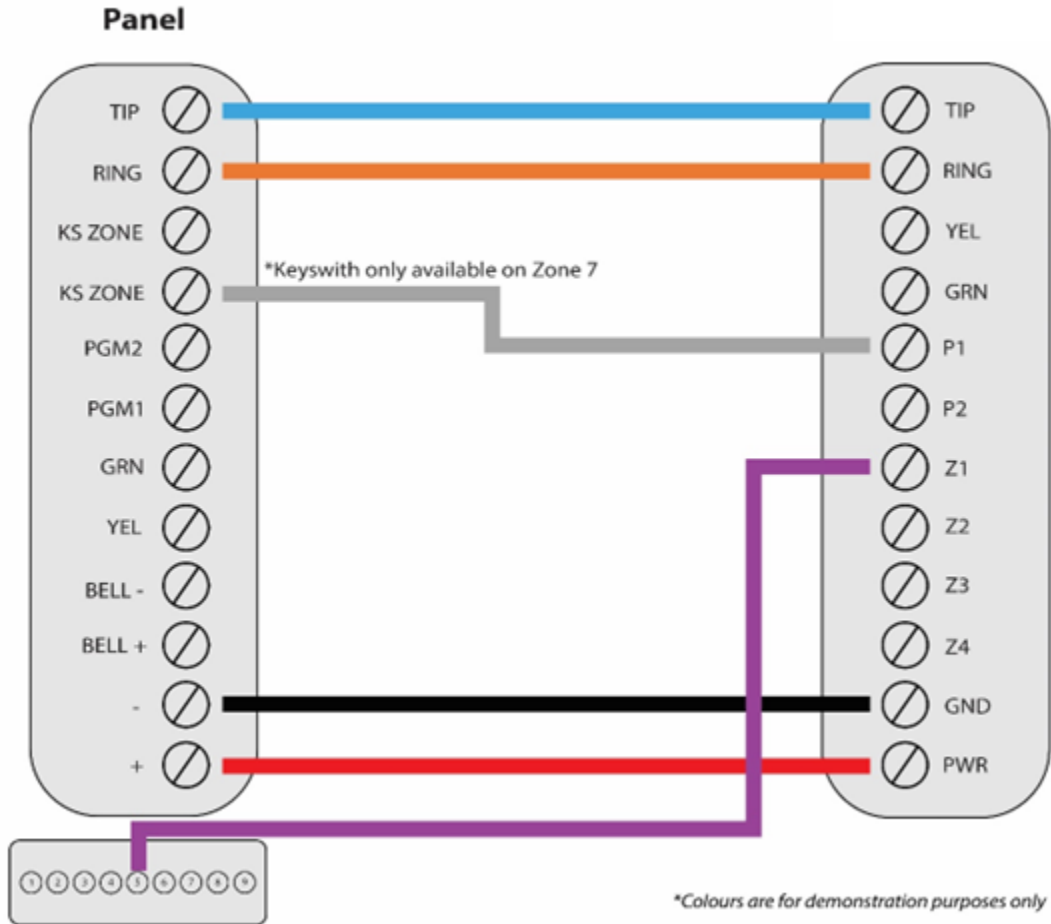
For Honeywell alarm panels that do not support keybus, use Tip/Ring and keyswitch to monitor and control your system remotely.

6.4.4.1. Wiring Diagram

6.4.4.1.1. 10P(SIA)/15P(SIA)/20P(SIA)/21ip/48LA



6.4.4.1.2. Vista 50P & 40



6.4.4.2. Programming Instructions

To monitor Honeywell alarm panels with dial capture, program your system as described below. Instructions in *italics* are for optional remote arming with keyswitch. PGMs on Aero-K can be connected to any zone programmed as keyswitch for remote arming functionality.

6.4.4.2.1. Vista 10P(SIA)/15P(SIA)/20P(SIA)/21ip/48LA

Section	Description
*41	Enter any phone number.
*43	Enter an account number for partition 1.
*45	Enter an account number for partition 2 (Vista 20P/21iP/48LA).

*48	Set the report format to 7 for CID.
*65-*66	Enter 1 in each entry to enable open/close report codes for partitions being used.
*70	Enter 1 to enable alarm restore report codes.
*56	Set a zone to 77 for keyswitch arm on partition 1 (set another for partition 2 if available)
*79	Set to 1 (normally low) for OUTPUT 17 & 18 (if required).
*80	Follow the below table for PGM outputs programming.

Keypad Display	Partition 1	Partition 2 (if required)
Define the first function for each output		
Output funct#*	01	11
Activated by	2	2
Zn Type	20 (stay arm)	20 (stay arm)
Partition	1	2
Output action	0 (off)	0 (off)
Output No.	17	18
Define the second function for each output		
Output funct#	02	12
Activated by	2	2
Zn Type	21 (away arm)	21 (away arm)
Partition	1	2
Output action	0 (off)	0 (off)
Output No.	17	18
Define the third Function for each output		
Output funct#	03	13
Activated by	2	2
Zn Type	22 (disarm)	22 (disarm)
Partition	1	2
Output action	2 (stay closed)	2 (stay closed)
Output No.	17	18

6.4.4.2.2. Vista 50P & 40

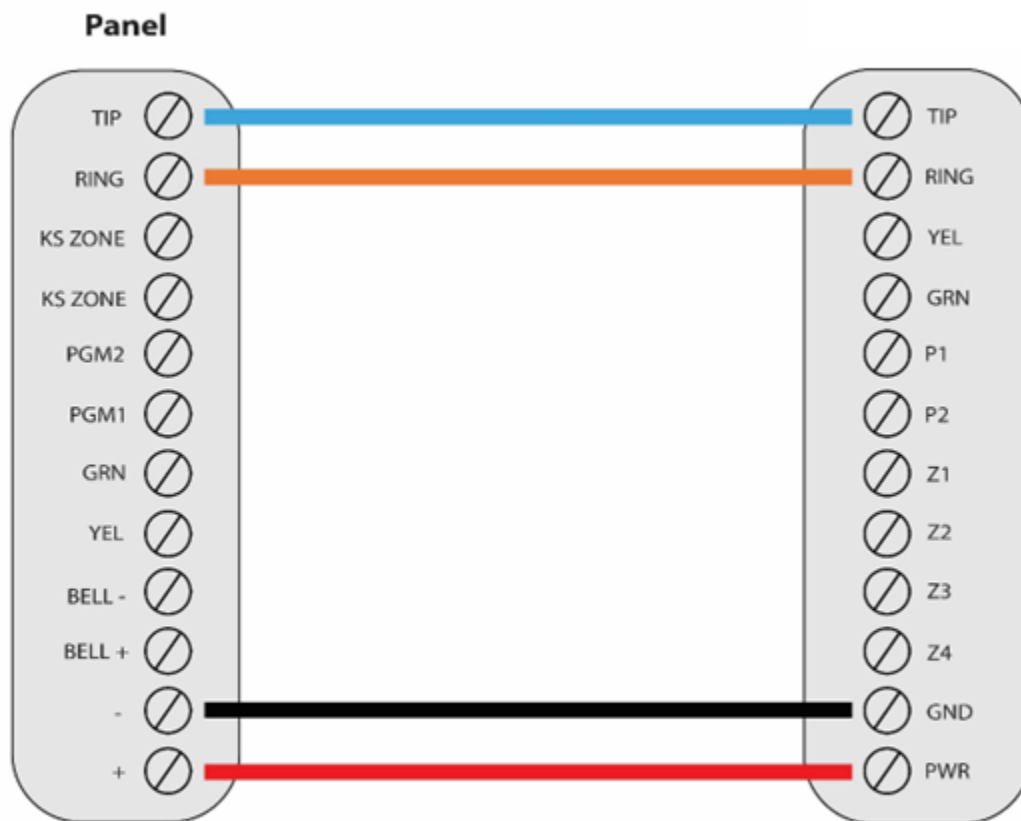
Section	Description
*32	Enter a system account number.
*33	Enter any phone number.
*45	Set the report format to 1 for CID.
*79-*80	Enter 1 to enable alarm restore reporting for all zone types.

*81	Enter 1 to for both open and close reports
*15	Enter 1 to enable keyswitch for partition 1.
*40	Enter 1 to enable open/close reporting for keyswitch.
1*46	Set Out 1 function to 1 for keyswitch armed status monitoring.
2*20	Enter 1 to enable J7 triggers.

6.4.5. Dial Capture (Tip/Ring) Monitoring

For Honeywell alarm panels that do not support keyswitch, use Tip/Ring to monitor your system remotely.

6.4.5.1. Wiring Diagram



*Colours are for demonstration purposes only

6.4.5.2. Programming Instructions

To monitor Honeywell alarm panels with dial capture, program your system as described below.

6.4.5.2.1. FA162C

Section	Description
*41	Enter any phone number.
*43	Enter an account number for the panel.
*48	Set the report format to 7 for CID reporting.
*65-66	Enter 1 in each entry to enable open/close reporting.
*70	Enter 1 to enable alarm restore reporting.

6.4.5.2.2. Vista 10/10SE/VIA30 & FA147C/148C

Section	Description
*41	Enter any phone number.
*43	Enter an account number for the panel.
*46	Set the report format to 07 for CID reporting.
*65-66	Enter 1 in each entry to enable open/close reporting.
*70	Enter 1 to enable alarm restore reporting.

6.4.5.2.3. Vista 15/15SE

Section	Description
*41	Enter any phone number.
*43	Enter an account number for the panel.
*46	Set the report format to 07 for CID reporting.
*65-66	Enter 1 in each entry to enable open/close reporting.
*70	Enter 1 to enable alarm restore reporting.
*92	Set to 0 to disable TLM.

6.4.5.2.4. LYNX 5100/5210

Section	Description
Reporter – Primary CS	Set to CID 4 digit or SIA.

Info – Phone type	
Reporter – Primary CS Info – Phone Number	Enter any phone number.
Reporter – Primary CS Info – Account Number	Enter an account number for the panel.
Reporter – Primary CS Info – Report Alarms	Enable alarm reporting.
Reporter – Primary CS Info – Report Open/Close	Enable open/close reporting.
Reporter – Report Selection	Enable open/close and alarm/restore reporting.

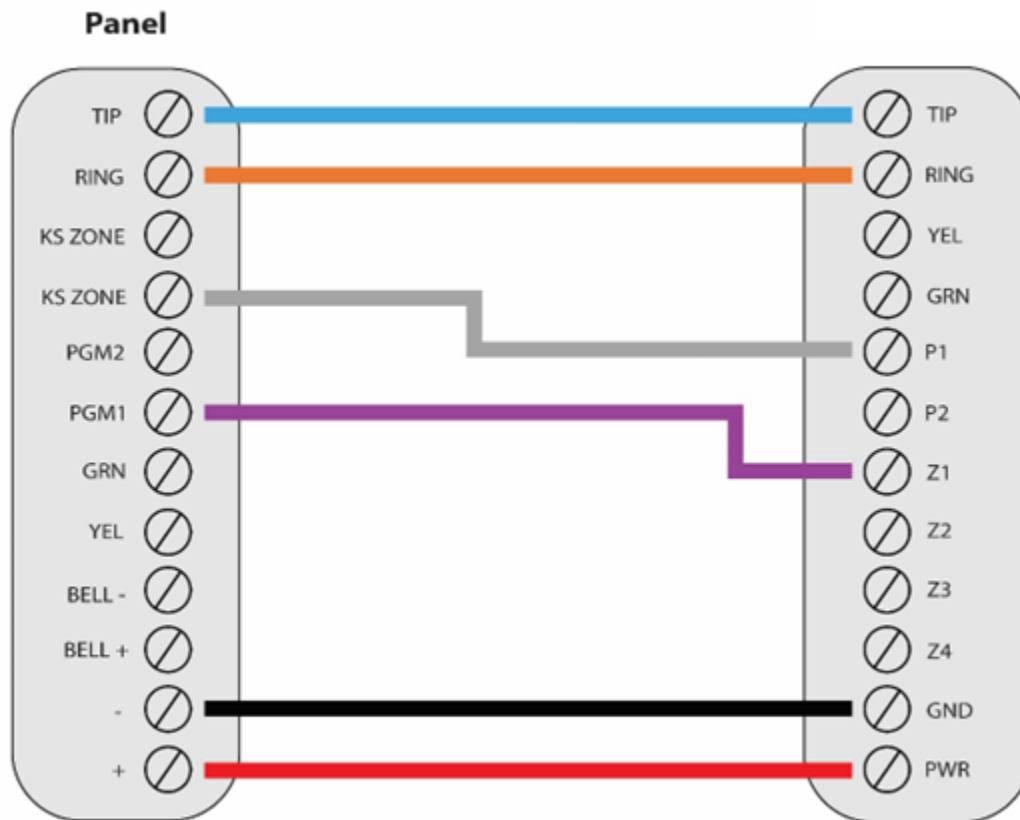
6.5. Interlogix Alarm Panels

6.5.1. Dial Capture (Tip/Ring) Monitoring and Keyswitch

For Interlogix panels that support CID or SIA format, use Tip/Ring and keyswitch to monitor and control your system remotely.

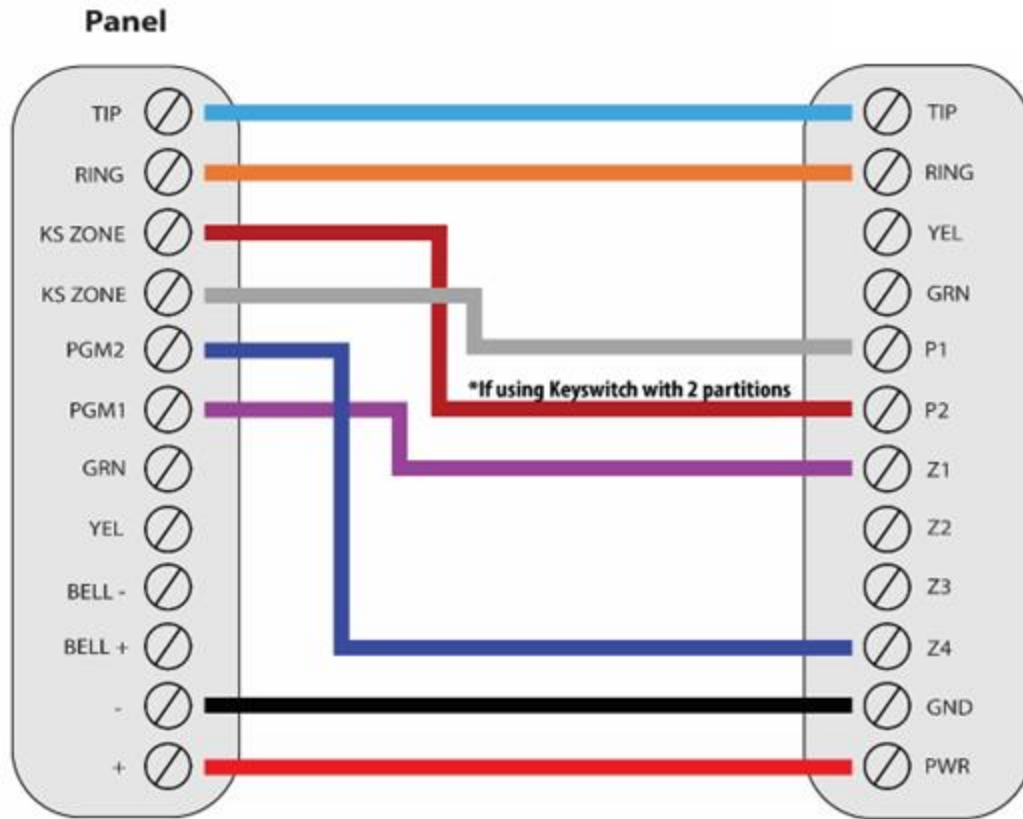
6.5.1.1. Wiring Diagram

6.5.1.1.1. Concord/Concord Express



**Colours are for demonstration purposes only*

6.5.1.1.2. NX4/NX6V2/NX8_8V2/NX8E



**Colours are for demonstration purposes only*

6.5.1.2. Programming Instructions

To monitor Interlogix alarm panels with dial capture, program your system as described below. Instructions in *italics* are for optional remote arming with keyswitch. PGMs on Aero-K can be connected to any zone programmed as keyswitch for remote arming functionality.

6.5.1.2.1. Concord

Section	Description
0010-0060	Enter an account number for each partition.
01000	Enter any phone number.
01001	Turn on to enable high-level reports.
01004	Turn on to enable open/close reports.

01006	Enter 1 for SIA or 2 for CID reporting.
06100-06600	Turn on to enable opening reports.
06101-06601	Turn on to enable closing reports.
0014	<i>Assign a keyswitch zone to partition 1.</i>
0024	<i>Assign a keyswitch zone to partition 2</i>
0015-0025	<i>Enter 1 to set the keyswitch style to Transition.</i>
080 or 083	<i>Program (learn) or edit the keyswitch zone to G28 NC.</i>
11110	<i>Set OUT1 partition to partition 1 (OUT2 to partition 2).</i>
11111	<i>Set OUT1 (and OUT2) configuration to 00903 to monitor armed status.</i>

6.5.1.2.2. Concord Express

Section	Description
0010	Enter an account number for the panel.
0100	Enter any phone number.
0101	Turn on to enable high-level reports.
0103	Turn on to enable open/close reports.
0105	Enter 1 for SIA or 2 for CID reporting.
0510	Turn on to enable opening reports.
0511	Turn on to enable closing reports.
0015	<i>Assign a keyswitch zone to partition 1.</i>
070 or 073	<i>Program (learn) or edit the keyswitch zone to G28 NC.</i>
09100	<i>Set OUT1 configuration to 00903 to monitor armed status.</i>

6.5.1.2.3. NX4

Section	Description
Location 0	Enter any phone number.
Location 1	Enter an account number.

Location 2	Select 13 for CID or 14 for SIA reporting.
Location 4 Segment 1	Select options 1 and 2 to enable alarm/restore and open/close reports.
Location 23 Segment 3	Select options 1 and 3 to enable open/close and alarm restore reports.
<i>Location 47-48</i>	<i>Set an AUX output to 21 for system armed status monitoring.</i>
<i>Location 110-169 (odd-numbered locations)</i>	<i>Enter 3 to set a zone to keyswitch for remote arming.</i>

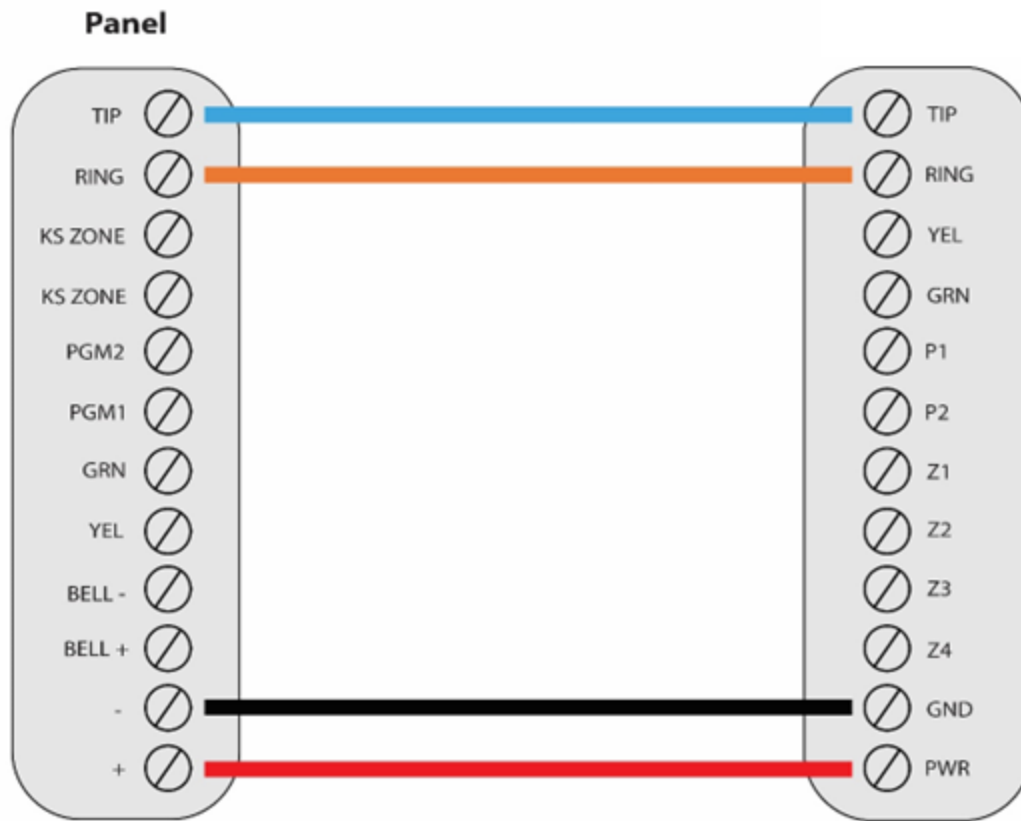
6.5.1.2.4. NX6V2/NX8_8V2/NX8E

Section	Description
Location 0	Enter any phone number.
Location 1	Enter an account number.
Location 2	Select 13 for CID or 14 for SIA reporting.
Location 4 Segment 1	Select options 1 and 2 to enable alarm/restore and open/close reports.
Location 23 Segment 3	Select options 1 and 3 to enable open/close and alarm restore reports.
<i>Location 26</i>	<i>Assign a partition to each zone.</i>
<i>Location 45</i>	<i>Assign a partition to each AUX output.</i>
<i>Location 47-48</i>	<i>Set an AUX output to 21 for partition 1 armed status monitoring (set another for partition 2).</i>
<i>Location 110-169 (odd-numbered locations)</i>	<i>Enter 3 to set a zone to Keyswitch for partition 1 remote arming (set another for partition 2).</i>

6.5.2. Dial Capture (Tip/Ring) Monitoring

For Interlogix alarm panels that support CID or SIA format without keyswitch, use Tip/Ring to monitor your system remotely.

6.5.2.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.5.2.2. Programming Instructions

To monitor Interlogix alarm panels with dial capture, program your system as described below.

6.5.2.2.1. Simon XT/XTi/XTi-5

Section	Description
Phone #1	Enter any phone number.
Account Number	Enter an account number.
Ph.1 Rpt Mode	Set reporting mode to All CID or All SIA.
DTMF Dial	Turn on to enable DTMF dialing.

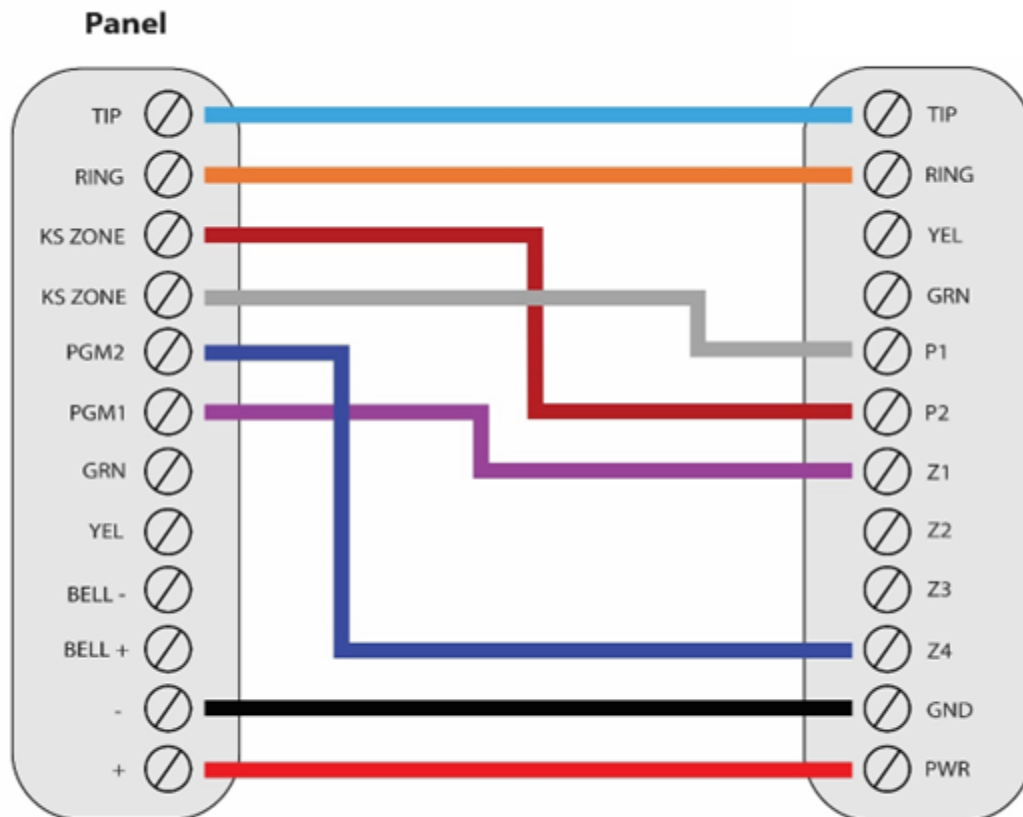
Opening Rpts.	Turn on to enable opening reports.
Closing Rpts.	Turn on to enable closing reports.

6.6.Paradox Alarm Panels

6.6.1. Dial Capture (Tip/Ring) Monitoring and Keyswitch

For Paradox panels that support CID or SIA formats, use Tip/Ring and keyswitch to monitor and control your system remotely.

6.6.1.1.Wiring Diagram



**Colours are for demonstration purposes only*

6.6.1.2.Programming Instructions

To monitor Paradox alarm panels with dial capture, program your system as described below. Instructions in *italics* are for optional remote arming with keyswitch. PGMs on

Aero-K can be connected to any zone programmed as keyswitch for remote arming functionality.

6.6.1.2.1. SP1728/1738/1728EX/1738EX

Section	Description
131	Turn option 1 on to report disarming.
135	Turn options 3 and 4 on and options 1 and 2 off.
136	Turn option 3 on for automatic CID reporting codes.
140	Set 1 st digit to 5 to enable CID.
143-144	Enter an account number for each partition.
151	Enter any phone number.
001-016	<i>Set an on-board zone to 7 for keyswitch and turn option 1 on for partition 1 (set another for partition 2).</i>
066-068	<i>Set the PGM delay to 0 (follow deactivation).</i>
120	<i>Set PGM1 activation to 02 10 01 for partition 1 armed status monitoring.</i>
121	<i>Set PGM1 deactivation to 02 09 01.</i>
122	<i>Set PGM2 activation to 02 10 02 for partition 2 armed status monitoring.</i>
123	<i>Set PGM2 deactivation to 02 09 02.</i>

6.6.1.2.2. EVO 192/EVO HD

Section	Description
[3035]	Turn option 6 off for multi-partition.
[3036]	Turn options 3 and 4 on, and options 1 and 2 off.
[3061]- [3068]	Enter an account number for each partition.
[3070]	Select 5 or 6 for CID or SIA reporting, respectively.
[3071]	Enter any phone number.
[0101]- [0196]	<i>Enter 0 to choose "Disabled" zone definition for a zone. Enter 1 or 2 to assign the zone to partition 1 or 2 for keyswitch.</i>
[0501]- [0532]	<i>Enter panel serial number and set input # to 001 for each keyswitch used.</i>
[0601]- [0632]	<i>Set the selected zone for partition 1 to keyswitch (and the other one to partition 2), set definition to 1 for momentary keyswitch, turn all other options off.</i>
[0910]- [0913]	<i>Set activation event group to 064, feature group to 001, start and end # to 000 for partition 1 armed status monitoring.</i>

[0920]- [0923]	Set activation event group to 064, feature group to 002, start and end # to 000 for partition 2 armed status monitoring.
[0914]- [0917]	Set deactivation event group to 014, feature group to 000, start and end # to 000 for partition 1.
[0924]- [0927]	Set deactivation event group to 014, feature group to 000, start and end # to 000 for partition 2.

6.6.1.2.3. SP728(EX)/738(EX)

Section	Description
086	Turn options 7 and 12 on, and options 2 nd , 1, and 11 off.
038	Set to 0 (key 10) for automatic CID reporting codes.
016-023	Enter any phone number.
032-035	Enter an account number.
086	Turn option 3 on, and option 2 off for momentary keyswitch.
039	Set to 2 nd to enable normally open PGM.
040	Set to 2/9 for armed status output.
042	Set to 2 nd /3 for armed status output.

6.6.1.2.4. SP4000

Section	Description
800	Turn options 1 and 2 off, and option 6 on.
801	Turn option 1 off for disarm reporting.
802	Turn options 1 and 5 on for alarm/restore and open/close reporting.
810	Select 4 for CID or 5 for SIA.
811-812	Enter an account number for each partition.
815	Enter any phone number.
001-032	Enter 26 to set a zone to momentary keyswitch (first entry) for partition 1 (set another for partition 2).
220	Set PGM1 activation event group to 02 and sub-group to 12 to select "Arm partition". Enter 01 to assign it to partition 1.
221	Set PGM1 deactivation event group to 02 and sub-group to 11 to select "Disarm" for partition. Enter 01 to assign it to partition 1.
261	Turn option 2 off for normally open PGM operation.

281	<i>Set PGM delay time for PGMs 1 to 000.</i>
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6.6.1.2.5. SP5500/6000/7000

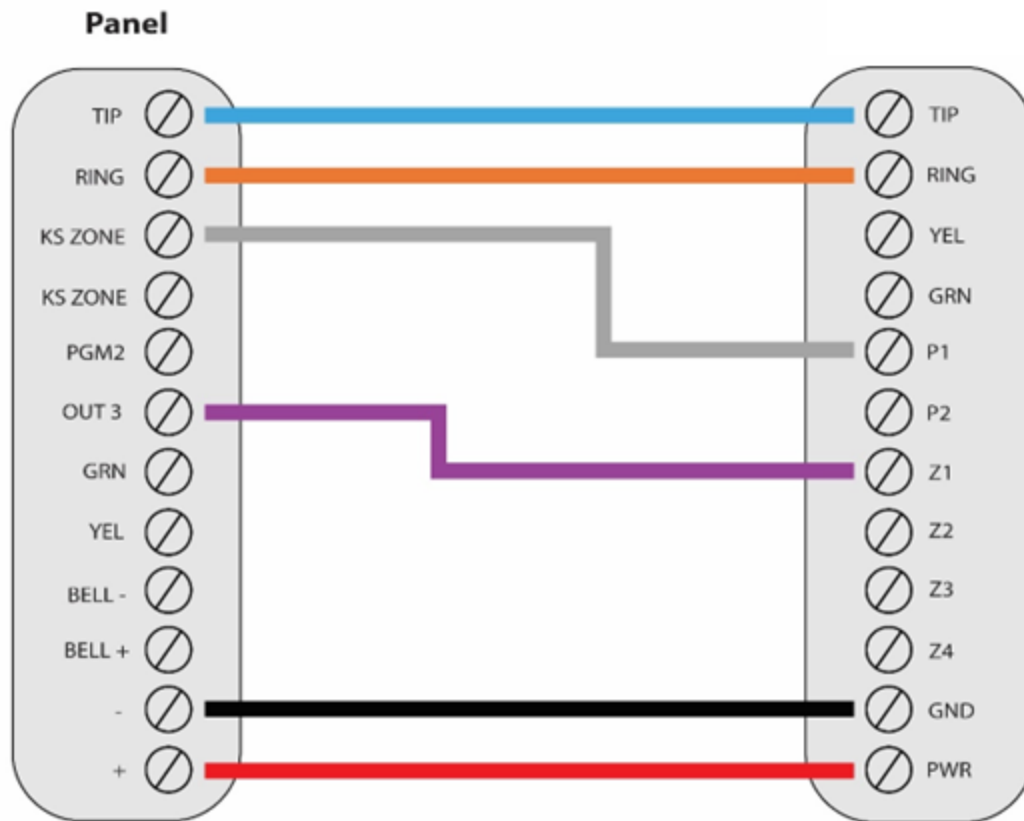
Section	Description
800	Turn options 1, 2, 3, and 4 off, and option 6 on.
801	Turn option 1 off for disarm reporting.
802	Turn options 1 and 5 on for alarm/restore and open/close reporting.
810	Select 4 for CID or 5 for SIA.
811-812	Enter an account number for each partition.
815	Enter any phone number.
001-032	<i>Enter 26 to set a zone to momentary keyswitch for partition 1 (set another to keyswitch for partition 2).</i>
220	<i>Set PGM1 activation event group to 02 and sub-group to 12 to select "Arm partition". Enter 01 to assign it to partition 1.</i>
221	<i>Set PGM1 deactivation event group to 02 and sub-group to 11 to select "Disarm" for partition. Enter 01 to assign it to partition 1.</i>
222	<i>Set PGM2 activation event group to 02 and sub-group to 12 to select "Arm partition". Enter 02 to assign it to partition 2.</i>
223	<i>Set PGM2 deactivation event group to 02 and sub-group to 11 to select "Disarm" for partition. Enter 02 to assign it to partition 2.</i>
261-262	<i>Turn option 2 off for normally open PGM operation.</i>
281-282	<i>Set PGM delay time for PGMs 1 & 2 to 000.</i>

6.7. ELK M1 Alarm Panels

6.7.1. Dial Capture (Tip/Ring) Monitoring and Keyswitch

For ELK M1 alarm panels, use Tip/Ring and keyswitch to monitor and control your system remotely.

6.7.1.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.7.1.2. Programming Instructions

Section	Description
T1 01	Set to 01 for CID or 02 for SIA.
T1 02	Set to 0 to always report.
T1 03	Enter any phone number.
T1 05	Enter an account number.
T1 13	Turn on to enable alarm/restore reporting.
AR1 04-19	Enter 01 in each entry to enable open/close reporting.
UR 001-201	Enter 01 in each entry to enable open/close reporting codes for each user.

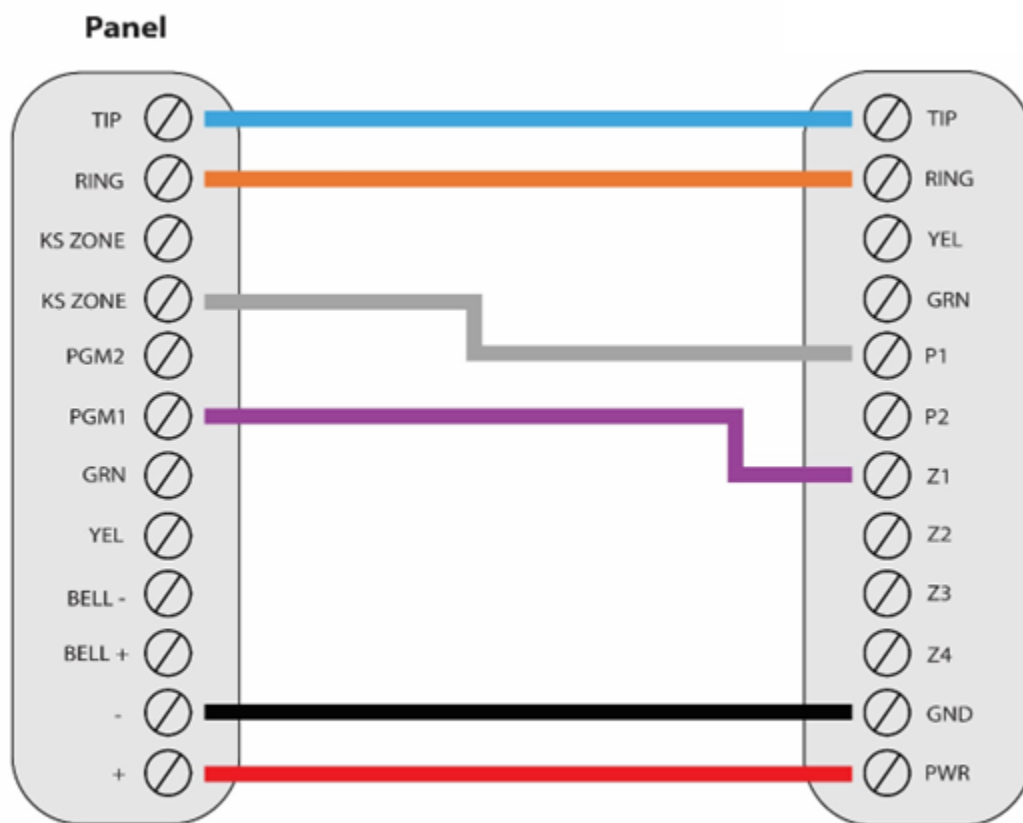
Keyswitch & Output	Program a zone for momentary keyswitch and select Out 3 for PGM, using alarm panel's PC software.
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6.8.Napco Alarm Panels

6.8.1. Dial Capture (Tip/Ring) Monitoring and Keyswitch

For Napco Alarm panels that support CID (Point ID) or SIA format, use Tip/Ring and keyswitch to monitor and control your system remotely.

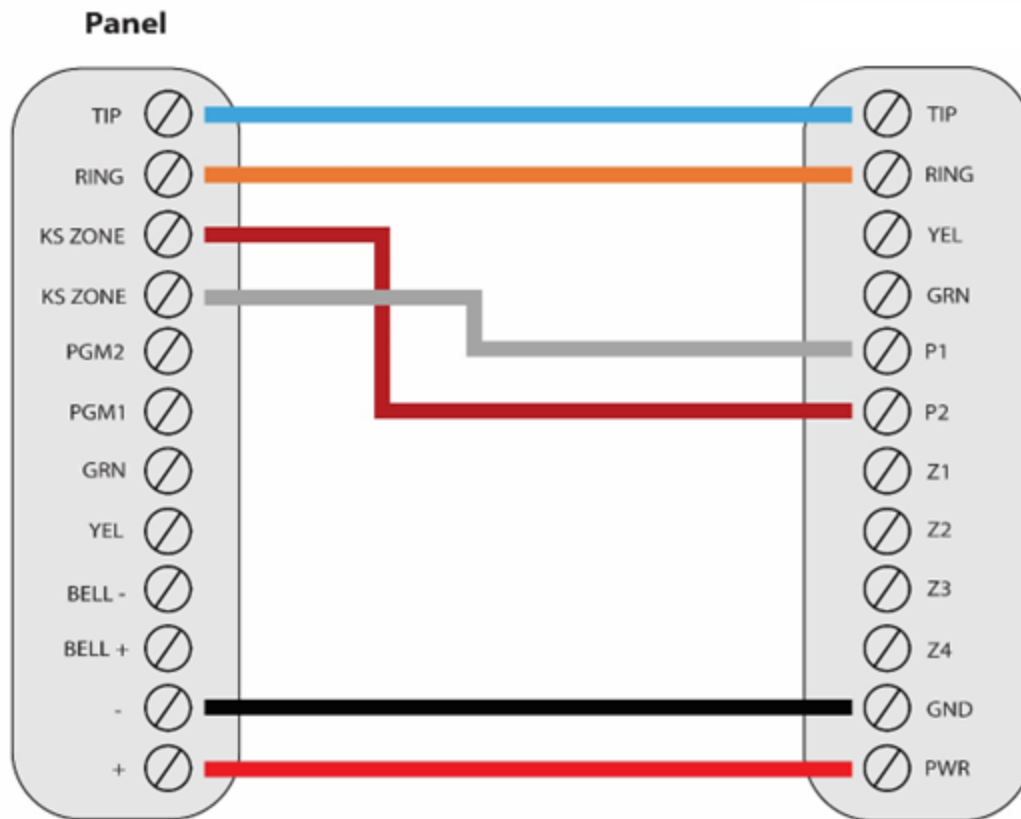
6.8.1.1. P801, XP400/600



*Need RJ31X jack for P801

*Colours are for demonstration purposes only

6.8.1.2. P816/1632/1664/3200/9600, X255



**Colours are for demonstration purposes only*

6.8.1.3. Programming Instructions

To monitor Napco panels with dial capture, program your system as described below. Instructions in *italics* are for optional remote arming with keyswitch. PGMs on Aero-K can be connected to any zone programmed as keyswitch for remote arming functionality.

6.8.1.3.1. P801/XP400/XP600

Section	Description
[30]	Enter an account number.
[31]	Enter any phone number.
[32]	Set the receiver format to 6 for CID (Point ID).
[34]-[36]	Turn each option on to enable alarm/restore reporting for all zones and keypad alarms.

[37]-[38]	Turn option 4 on to enable alarm/restore reporting for fire alarms.
[39]	Turn each option on to enable open/close reporting for all users.
[61]	Set appropriate CID (Point ID) codes for all zones.
[25]	<i>Turn option 4 on for system armed status monitoring. Turn all other options off.</i>
[26]	<i>Turn option 1 on to enable momentary keyswitch.</i>
[27]	<i>Turn option 1 on to switch to Normally Open keyswitch (P801).</i>

6.8.1.3.2. P816

Section	Description
0170	Enter C for CID (Point ID) or B for SIA format on the right digit.
0172-0191	Enter any phone number (each digit in one section).
0275-0 278	Enter a system account number (each digit in one section).
0319	Enter the alarm restore reporting code.
0326-0329	Enter open/close reporting codes.
0358-0373	Enter appropriate reporting codes for all zones.
0495/0550	<i>Set a zone to keyswitch arm.</i>

6.8.1.3.3. P1632

Section	Description
0170	Enter C for CID (Point ID) or B for SIA format on the right digit.
0172-0191	Enter any phone number (each digit in one section).
0275-0278	Enter a system account number (each digit in one section).
0319	Enter the alarm restore reporting code.
0326-0329	Enter open/close reporting codes.
0358-0389	Enter appropriate reporting codes for all zones.
0495/0550	<i>Set a zone to keyswitch arm for partition 1 (set another for partition 2).</i>

6.8.1.3.4. P1664

Section	Description
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0460	Enter C for CID (Point ID) or B for SIA format on the right digit.
0462-0481	Enter any phone number (each digit in one section).
0592-0595	Enter an account number (each digit in one section).
0670	Enter the alarm restore reporting code.
0677-0680	Enter open/close reporting codes.
0720-0783	Enter appropriate reporting codes for all zones.
0800-0835	Turn each option on to enable open/close reports for all users.
0905/0969	<i>Set a zone to keyswitch arm for partition 1 (set another for partition 2).</i>

6.8.1.3.5. P3200/P9600/X255

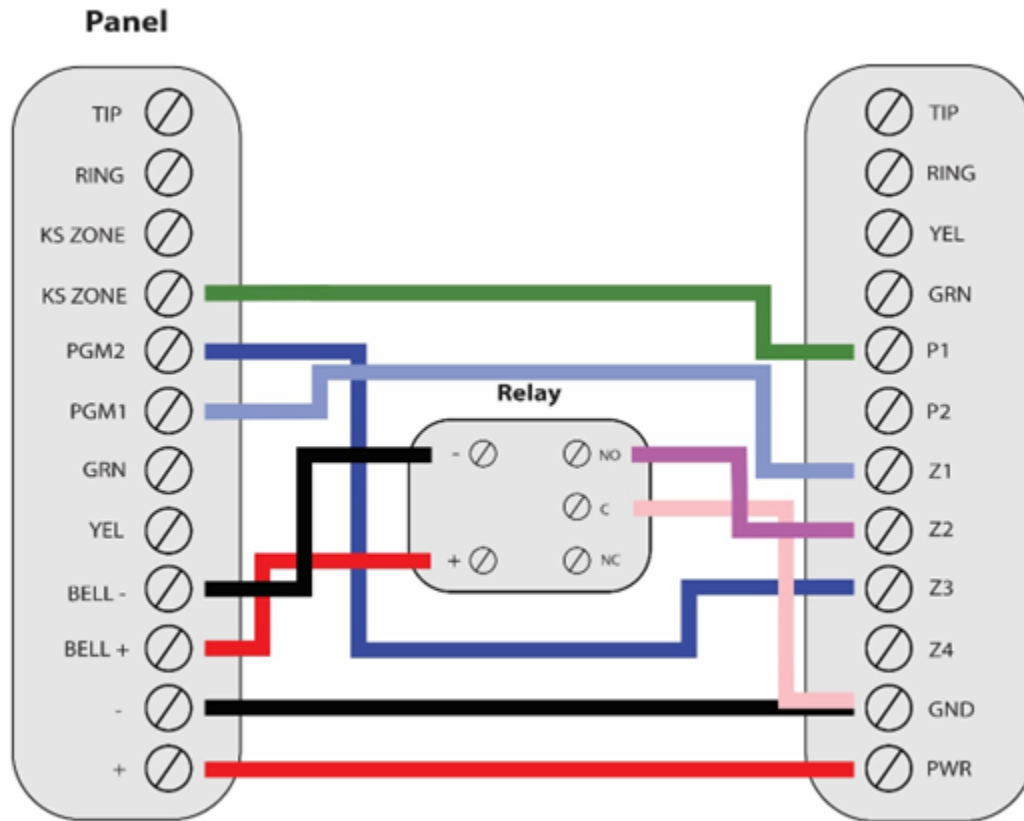
Section	Description
0525	Enter C for CID (Point ID) or B for SIA format on the right digit.
0527-0546	Enter any phone number (each digit in one section).
0714-0717	Enter an account number (each digit in one section).
0860	Enter the alarm restore reporting code.
0864-0867	Enter open/close reporting codes.
0910-1005	Enter appropriate reporting codes for all zones.
1030-1081	Turn each option on to enable open/close reports for all users.
1206/1306	<i>Set a zone to keyswitch arm for partition 1 (set another for partition 2).</i>

6.9. Legacy Alarm Panels (Non-DSC)

6.9.1. With Keyswitch

For alarm panels without CID or SIA communications, a relay is required to monitor burglary alarms and a PGM is required to monitor fire alarms. Connect the relay and PGMs as described below for fire/burglary monitoring and keyswitch remote arming.

6.9.1.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.9.1.2. Programming Instructions

6.9.1.2.1. Remote arming via keyswitch

Programming Description
Set a zone or input to momentary keyswitch arm.
Set PGM1 to arm status monitoring.
Enable keyswitch to arm in away mode only.

6.9.1.2.2. For monitoring via relay

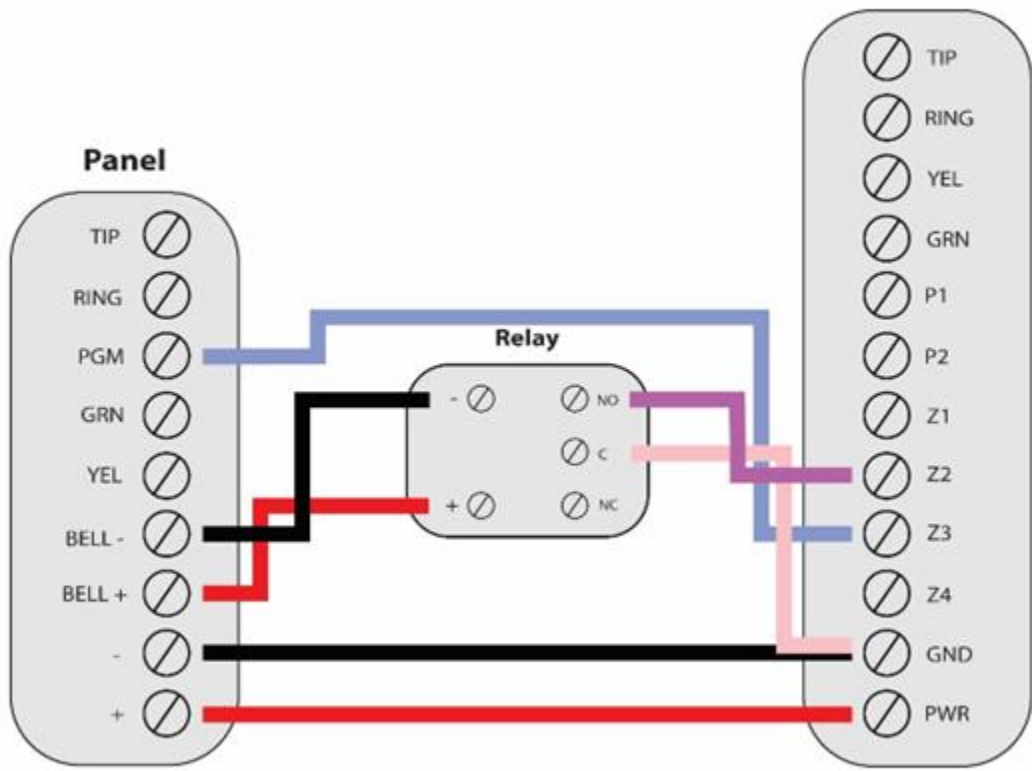
Programming Description
Set PGM2 to activate on fire alarms.

Enable bell audible panic alarm.
Disable telephone line troubles and monitoring.
Disable bell output for all other events.

6.9.2. Without Keyswitch

For legacy alarm panels without keyswitch, connect a relay as described below for fire/burglary monitoring.

6.9.2.1. Wiring Diagram



**Colours are for demonstration purposes only*

6.9.2.2. Programming Instructions

6.9.2.2.1. For monitoring via relay

Programming Description

Set PGM2 to activate on fire alarms.
Enable bell audible panic alarm.
Disable telephone line troubles and monitoring.
Disable bell output for all other events.

7. Trouble Conditions

7.1 Primary Power Failure

If alarm panel power falls below 9V, Aero-K will send a trouble event to Aryo cloud server and CMS.

7.2 Network Signal

If radio signal is poor, Aero-K will send a trouble event to Aryo cloud server and CMS.

7.3 WiFi Signal Error

If WiFi is configured but there is no connection, Aero-K will send a trouble event to Aryo cloud server and CMS.

7.4 Ethernet Error

If Ethernet cable is plugged in but there is no connection, Aero-K will send a trouble event to Aryo cloud server and CMS.

7.5 Tip & Ring Communication Status

During normal operation, if Tip & Ring signal is not detected, Aero-K will send a trouble event to our cloud server and CMS.

7.6 Keybus Communication Failure

When connected to a DSC and Honeywell alarm panel keybus, Aero-K continuously supervises the keybus communication path for normal operation. If Aero-K stops receiving data from the keybus line, Aero-K will send a trouble event to Aryo cloud server and CMS.

7.7 Aryo Communication Failure

If there is any error or failure in device communication with the cloud, Aero-K will send a trouble event to Aryo cloud server and CMS.

7.8 High/Low Temperature

If the temperature goes above 50 degrees Celsius or falls below -5 degrees Celsius, Aero-K will send a trouble event to Aryo cloud and the CMS.

Aero-K also monitors some important parameters such as alarm panel power, temperature, communication of keybus and Tip/Ring of the alarm panel for proper functionality and would report these conditions to Aryo Cloud and the CMS.

CID codes for supervisory and troubles

Power	970
Network Signal	971
WiFi Signal Error	972
Ethernet Error	973
DTMF Communication error	974
Keybus Communication Failure	975
Aryo Communication Failure	976
High Temperature	977
Low Temperature	978

8. Troubleshooting

Trouble	Indication	Solution
Primary Power Failure	First LED blinking quicklu	Check the AC power of the alarm panel. Check if the battery of the alarm panel is operating normally.
Network Signal	1. First LED blinking quickly 2. Second LED blinking slowly	Move the antenna or AERO-K to a place where the signal is well received.
WiFi Signal Error	1. First LED blinking quickly	1. Press the button shortly (less than 5 seconds).

	2. Second LED blinking quickly	2. Check if the WiFi is configured properly. 3. Check the router. Power down the router and power up it (if required). 4-Power down and up the device.
Ethernet Signal Error	1. First LED fast blinking 2. Second LED blinking quickly	1-Check both cable connections on both ends. 2-Check the router and power down if required.
Keybus Communication Failure	1. First LED blinking quickly 2. The forth LED blinks slowly or is off.	Check if the keybus line (Yellow, Green) is connected to the alarm panel and the AERO-K is well connected.
Aryo Communication Failure	1. First LED blinking quickly 2. Second LED blinking quickly 3. Third LED blinks slowly or is off	If it does not operate normally even after waiting for a while, check the following. 1. Check that the Ethernet cable connection and WiFi configurations. 2. Check that the device is properly registered in the cloud server.
High/Low Temperature	1. First LED blinking quickly	Check the ambient temperature, identify the cause of the temperature abnormality, and eliminate the cause.
Tip & Ring Communication Status	1. First LED blinking quickly 2. The forth LED blinks quickly or is off	1. Check if the Tip & Ring line is connected to the alarm panel and the device is well connected. 2. Check the settings of the alarm panel (CID or SIA).

9. Specifications

HARDWARE	Aero-K
Dimensions	115mm*70mm*26.7mm
Weight	82g
Operating temperature	32°F to 120°F (0°C to 48.9°C)
Humidity	86%
Input voltage	9-14 VDC
Operating voltage	5-20 VDC
Mounting	2 screw holes
Average current draw at 13.5V (Ethernet)	70 mA
Max current draw at 13.5V (Ethernet)	95 mA
Average current draw at 13.5V (Wi-Fi)	50mA
Max current draw at 13.5V (Wi-Fi)	80 mA
Operating Power	5-20 VDC
Keybus (DSC & Honeywell)	Y
Tip/Ring	Y
Input Zone	4
PGMs	2
Status LEDs	4
RF Expansion Port	1
Communication	Ethernet & WiFi
Certification	FCC, IC

10.Repair Under Warranty

All the warranty claims must be accompanied by a Return Merchandise Authorization (RMA) number which must be obtained before merchandise can be returned for any warranty replacement or repair. To request an RMA number, the customer can contact Epic's Technical Support Center via telephone. The Technical Support Center will provide troubleshooting assistance and if they find the product to be defective, will issue an RMA number. The RMA number must be displayed on the outside packing of the returned item. Transportation charge, if any, incurred in connection with the return of a defective item to Epic shall be borne by the

customer. Any collect shipments returned to Epic will be refused. Epic shall fix the goods without extra costs under warranty period.

Epic shall pay any transportation charge incurred with the redelivery of a repaired or replacement item or ship the warranty item with customer's next order. If, however, Epic reasonably determines that the item can function, the customer shall pay all the transportation charges. If Epic determines, at its sole discretion, that the allegedly defective item is not covered by the terms of the warranty provided hereunder or that a warranty claim is made after the warranty period, the cost of repair by Epic, including all shipping fees, shall be paid by the customer.

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