

# ADEMCO VISTA-20P Series / VISTA-15P Series Security Systems

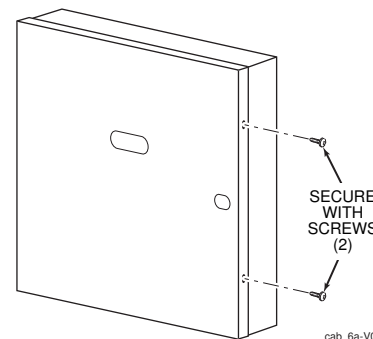
## Quick Installation Guide (A copy of the Installation and Setup Guide is available upon request)

FOR DOCUMENTATION AND ONLINE SUPPORT: <http://www.security.honeywell.com/hsc/resources/MyWebTech> (see instructions K5305-1V9 or higher)

These instructions apply to the following Honeywell security systems:  
 ADEMCO VISTA-20P, VISTA-20PSIA, VISTA-20PCN, VISTA-15P, VISTA-15PSIA, VISTA-15PCN  
 Features and procedures apply to all, except where differences are noted.  
 VISTA-20PSIA and VISTA-15PSIA are certified SIA-compliant controls that meet SIA specifications for False Alarm Reduction.

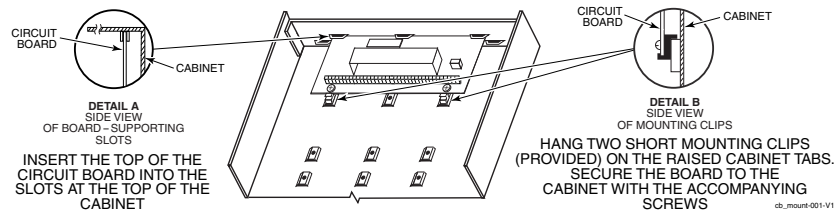
### Mount the Control.

1. Remove the cabinet door. Remove the cabinet knockouts needed for wiring entry.
2. Mount the control cabinet to a sturdy wall in a clean, dry area, which is not readily accessible to the general public, using fasteners or anchors (not supplied) with the four cabinet mounting holes.
3. When installation and wiring is completed, install the cabinet door and secure by using 2 screws (supplied) through the door's edge.



Securing the Cabinet Door

4. Mount the PC Board. Refer to the diagram below. If mounting an RF Receiver inside the cabinet, remove the receiver board from its case, then insert the top of the board into the slots at the top of the cabinet. Install the control board below the receiver board using the clips and screws provided. Insert grounding lugs into the left-hand terminals of the antenna blocks and secure them with the screws provided. Insert the receiver's antennas into the blocks' right-hand terminals, and tighten the screws.



Mounting the PC Board

### Connect the Transformer & Battery.

#### 1321 Transformer (1321CN in Canada)

- Do not plug the transformer into the AC outlet until all wiring connections to the control are complete. As a safety precaution, always power down the control when making such connections.

#### 1361X10 Transformer

(required if using Powerline Carrier devices)

1. Splice one end of a 3-conductor cable to the wire ends of the SA4120XM-1 cable.
2. Connect the SA4120XM-1 cable plug to the 8-pin connector on the control.
3. Connect the other end of the 3-conductor cable to the 1361X10 Transformer.

**Canadian Installations:** For Powerline Carrier Devices, use the PSC04 X-10 Interface and trigger pins.

#### Battery Connections

- After all connections to the control are completed and **after AC power has been applied**, connect the red and black flying leads on the control board to the battery.
- **IMPORTANT:** This control will not power-up on battery alone (AC power must be applied). However, once the system is powered up, it will operate on battery if AC is lost.

**UL** For UL installations and Residential fire installations, refer to the chart below for the correct battery size required to meet the mandatory standby time.

#### CALIFORNIA STATE FIRE MARSHALL (CSFM) AND UL RESIDENTIAL FIRE

##### 24-HOUR BATTERY BACKUP REQUIREMENTS

The California State Fire Marshal and UL have regulations which require that all residential fire alarm control panels must be provided with a backup battery which has sufficient capacity to operate the panel and its attached peripheral devices for 24 hours in the intended standby condition, followed by at least 4 minutes in the intended fire alarm signaling condition. This control panel can meet these requirements without using a supplementary power supply, provided that the panel's auxiliary power and bell output currents are limited as listed below.

#### OUTPUT LIMITATIONS AND REQUIRED BATTERIES

OUTPUT CURRENT LIMITS		BATTERY INFORMATION	
Current Total	Max. Aux. Current	Battery Capacity (Amp/Hrs)	Recommended Battery (Yuasa No.)
600mA	45mA	4AH	NP4-12 (or ADEMCO 467)
maximum total of auxiliary power plus bell output currents	160mA	7AH	NP7-12
	200mA	8AH	NP4-12 (two) ‡
	425mA	14AH	NP7-12 (two) ‡
	500mA	17.2AH	NPG18-12

‡ **NOTE:** Use two batteries, connected in parallel. Obtain an Ademco Battery Harness Kit SA5140-1. (Both batteries will fit inside the cabinet.)

### Connect Devices, Zones, Sounder, and Phone Line.

Refer to the Wiring Diagram on the reverse side for connection information. **NOTE:** This system uses a range of reserved addresses for each type of device.

#### 1. Connect keypads and other addressable devices to the ECP terminals 4-7.

Refer to the wiring chart below for wire sizes and maximum wire run lengths.

Wire Size	TOTAL CURRENT OF ALL DEVICES CONNECTED TO A SINGLE WIRE RUN				
	50 mA or less	100 mA	300 mA	500 mA	600 mA
#22	900ft (274m)	450ft (137m)	150ft (46m)	90ft (27m)	75ft (23m)
#20	1400ft (427m)	700ft (213m)	240ft (73m)	140ft (43m)	120ft (37m)
#18	1500ft (457m)	1100ft (335m)	350ft (107m)	220ft (67m)	170ft (52m)
#16	1500ft (457m)	1500ft (457m)	550ft (168m)	350ft (107m)	270ft (82m)

The length of all wire runs for both partitions combined must not exceed 1500 feet (457m) when unshielded quad conductor cable is used (750 feet if shielded cable is used).

#### Standard Keypads (6150 / 6160 series)

- Keypad addresses range from address 16-23. Set each keypad's address accordingly.
- **NOTE:** Address 16 is reserved for the first keypad and is always enabled in the control.
- Use data fields \*190-\*196 to enable keypads and set their sounding options.

#### Expander Modules (4219, 4229)

- Connect desired field wiring to the module's zone terminals.
- Expander module addresses range from 07-11. Set each module's DIP address accordingly.
- Use \*56 Menu mode to program zone characteristics.

#### Touchscreen Keypads (6270 / 6271 series, 8132 series; V20P = up to 4; V15P = up to 2)

- Use of touchscreen keypads is independent from and in addition to the eight (8) standard keypads.
- Set each touchscreen's address accordingly (1, 2, 5, 6; see table on back) and enable in field \*189.
- Make sure the auxiliary current drain is within the control's limitation. Otherwise **use an external power supply** to power the touchscreen keypads.

#### RF Receiver (5881, 5883, RF Keypad)

- 5881L / 5882L = up to 8 RF zones; 5881M / 5882M / 6150RF = up to 16 RF zones
- 5881H / 5882H / 5883 / 6160RF = up to system maximum RF zones
- Set the receiver's address to 00 using the module's DIP switches.
- If using wireless keypads, set field \*24 RF House ID Code appropriately.

If receiver is mounted remotely, note the following:

- Do not locate the receiver or transmitters on or near metal objects. This will decrease range and/or block transmissions.
- Do not locate the RF receiver in an area of high RF interference (indicated by frequent or prolonged lighting of the receiver's LED; random flicker is OK).
- Do not locate RF receiver closer than 10 feet from any keypads.

### Program the Control.

Refer to the Programming Guide to program the control.

(The control can also be programmed via the Compass Downloader.)

1. Enter Programming Mode: installer code + 8-0-0.
2. Change the default Installer Code using field \*20.
3. Enter the appropriate central station phone numbers and account numbers.
4. Program the system data field options as desired.
4. Use the various menu modes to program zones, relay outputs, descriptors, etc.
5. If AVS system is installed, use the appropriate AVS Quick Program Command.
6. Program Schedules (if used): Master code + [#] + 64
7. Enable RF button keyfobs (if used) and assign to user numbers accordingly.
8. Show the Master user how to change the default Master code:  
master code + [8] + 0-2 + new code + new code again

### Test the System.

**Sniffer Mode Test:** To verify that all transmitters have been properly programmed, disarm all partitions.

1. From a keypad in partition 1, enter Installer code + [#] + 3. All programmed transmitters are displayed.
2. Fault all transmitters in turn. The display clears each transmitter as a signal is received.
3. Exit Sniffer mode: Installer code + 1 (OFF). Mode does not automatically expire; you must exit manually.

#### System Test

1. Disarm the system and close all protected windows, doors, etc.
2. Enter the Installer code + [5] (TEST), then press 0 = walk. (Option 1 = Dial checks phone line integrity.)
3. Listen. The external sounder should sound for about 1 second then turn off.
4. Fault all zones in turn and listen for three beeps from the keypad. ID of each faulted point should appear on the keypad display. The display clears when the zone is restored.
5. Test all smoke and CO detectors following the manufacturer's instructions and check the display.
6. When all zones have been checked and are intact (closed), there should be no zone identification numbers displayed on the keypad.
7. Exit test mode: security code + [1] (OFF).

#### Relay Modules (4204)

- Connect desired field wiring to the module's relay contact terminals.
- Relay module addresses range from address 12-15. Set each module's DIP address accordingly.
- Use \*79 / \*80 Menu modes to map each device address and define output functions.

#### Communication Device (7847i, 7845GSM, 7845i-GSM, GSMV)

- Set the communication device to address 03.
- Use \*29 Menu mode to enable and program the device.

#### AVS System

- If used, follow the installation instructions provided with the module.
- Connect the AVS module to the control's ECP terminals and connect all other ECP devices to the AVS module's ECP terminals.
- Set the AVS address using its DIP switches: V15P = 08; V20P = 11
- Use the desired AVS Quick Program Command to set pre-defined options:  
installer code + [#] + 0 + 3: enable AVS operation  
installer code + [#] + 0 + 4: enable AVS and enable panel sounds on AVST speaker
- Use field \*55 Dynamic Signaling Priority to select the desired reporting paths.

#### 2. Connect hardwire zones to the appropriate zone terminals 8-20.

#### 3. On-Board Trigger Connections

- Connect field wiring to the appropriate trigger pin using the SA4120XM-1 cable (if using 1361X10 transformer) or the 4-wire cable (N4632-4, not supplied).
- Trigger outputs are normally high, and go low upon programmed condition (can be set inverted).
- Use \*79/\*80 Menu modes to program the trigger outputs.
- Output 17 (pin 1) = supports up to 100mA max; Output 18 (pin 5) = supports up to 20mA max

#### 4. Install Wireless Zone Transmitters.

- Use \*56 Menu mode to program wireless zones and enroll the transmitters.
- Use the Go/No Go Test mode to verify adequate signal strength from each transmitter location:  
Enter Installer code + [#] + 4, then fault each transmitter and listen for 3 beeps at the keypad and the zone display. Exit mode: user code + 1 (OFF).

#### 5. Connect the external sounder to terminals 3 and 4.

- If supervised output desired, see Sounder Supervision wiring diagram on reverse side, and set field \*91 Option Selection for Bell Supervision.

#### 6. Connect the phone line using terminals 21-24.

- Use an RJ31X jack as shown in the diagram on reverse side.

### Major Features and Capacities

Feature	VISTA-20P	VISTA-15P
Partitions	2 plus common area	not partitioned
Zones	48 plus 16 keyfob zones for total of 64 zones: • 8 hardwired zones (1-8) • Up to 40 additional wired zones (9-48) using up to 5 4219/4229 modules • Up to 40 wireless zones (5800 series; zones 9-48) • 4 configurable zone types	32 zones plus 8 keyfob zones for total of 40 zones: • 6 hardwired zones (1-6) • Up to 16 additional wired zones (9-24) using up to 2 4219/4229 modules • Up to 26 wireless zones (5800 series; zones 9-34) • 2 configurable zone types
Security Codes	48	32
Schedules	32	8
Keypad macros	4	2
Event Logging	100	50
Paging	4	2
Keypads	8	8
Touch Screen Devices	4	2
4219, 4229	5	2
4204	4	2
Output Relays / X-10 devices	16	8
On-Board Triggers	2	2
Output Functions	48	24

#### WARRANTY INFORMATION

For the latest warranty information, please go to:  
[www.honeywell.com/security/hsc/resources/wa](http://www.honeywell.com/security/hsc/resources/wa)



K5305-1QGV3 2/11 Rev. A



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## AC POWER AND BATTERY CONNECTION

### TRANSFORMER

- CONNECT THE TRANSFORMER TO TERMINALS 1 AND 2. SEE WIRE RUN CHART.

USE CAUTION WHEN WIRING THE TRANSFORMER TO THE CONTROL TO GUARD AGAINST BLOWING THE TRANSFORMER FUSE (THE FUSE IS NON-REPLACEABLE).

Distance from control	Wire Size
Up to 50 feet	# 20
50 - 100 feet	# 18
100 - 200 feet	# 16

- AFTER ALL WIRING CONNECTIONS ARE COMPLETE, PLUG TRANSFORMER INTO A 110VAC UNSWITCHED OUTLET (24HR).

• USE 1361X10 TRANSFORMER INTERFACE WHEN POWER LINE CARRIER DEVICES ARE BEING USED.

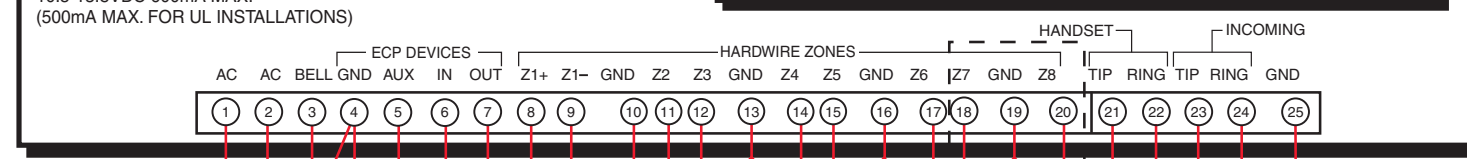
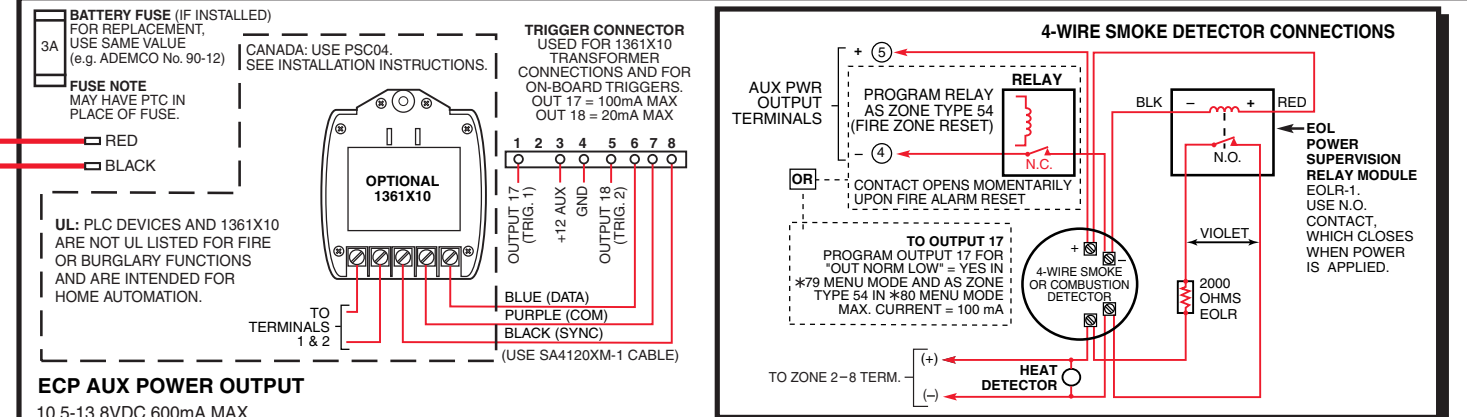
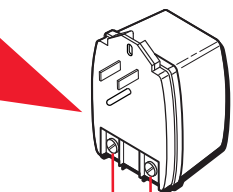
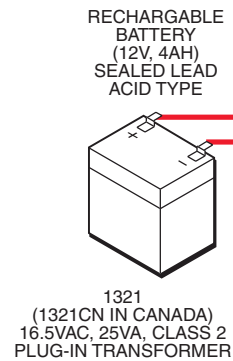
• \*AC LOSS\* DISPLAYED IF VOLTAGE FALLS BELOW 16.5VAC.

### BATTERY

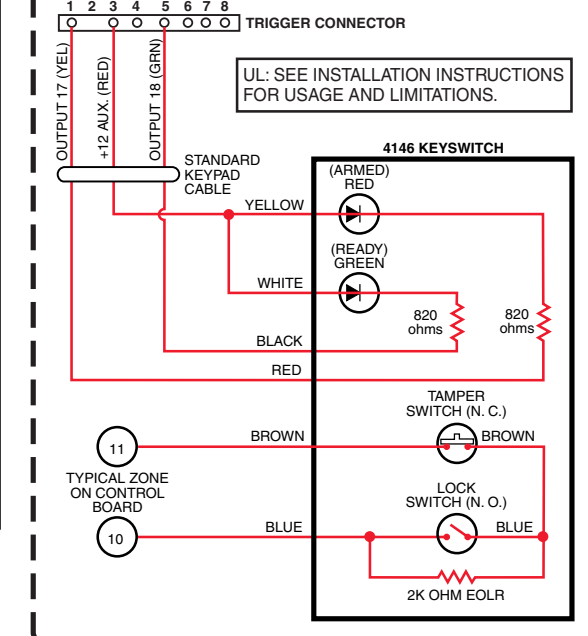
- PLACE THE 12-VOLT BACKUP BATTERY IN THE CABINET.

- AFTER ALL CONNECTIONS TO THE CONTROL ARE MADE AND AFTER AC POWER HAS BEEN APPLIED, CONNECT THE RED AND BLACK FLYING LEADS TO THE BATTERY.

**IMPORTANT: THE PANEL WILL NOT POWER UP INITIALLY ON BATTERY POWER ONLY. YOU MUST PLUG THE TRANSFORMER IN FIRST, AND THEN CONNECT THE BATTERY.**



## KEYSWITCH WIRING CONNECTIONS



## EARTH GROUND CONNECTION

THIS CONTROL DOES NOT NORMALLY NEED AN EARTH GROUND. IF DESIRED FOR ADDITIONAL PROTECTION, CONNECT TERMINAL 25 TO A GOOD EARTH GROUND. EXAMPLES OF GOOD EARTH GROUNDS:

**METAL COLD WATER PIPE:** USE A NON-CORROSIVE METAL STRAP (COPPER IS RECOMMENDED) FIRMLY SECURED TO THE PIPE TO WHICH THE GROUND LEAD IS ELECTRICALLY CONNECTED AND SECURED.

**AC POWER OUTLET GROUND:** AVAILABLE FROM 3-PRONG, 120VAC POWER OUTLETS ONLY. TO TEST THE INTEGRITY OF THE GROUND TERMINAL, USE A 3-WIRE CIRCUIT TESTER WITH NEON LAMP INDICATORS, SUCH AS THE UL LISTED IDEAL MODEL 61-035, OR EQUIVALENT, AVAILABLE AT MOST ELECTRICAL SUPPLY STORES.

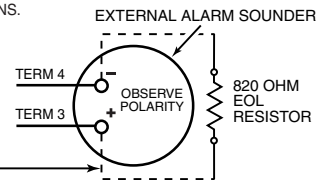
## SOUNDER CONNECTION

- CONNECT SOUNDER TO BELL TERMINALS 3 (+) AND 4 (-).
- SOUNDER ACTIVATES UPON ALARM EVENT.
- ALARM OUTPUT: 10.5-13.8VDC, 2A MAX. (600mA MAX. FOR UL USAGE, INCLUDING AUX POWER). STEADY FOR BURGLARY/PANIC. TEMPORAL PULSE SOUNDING FOR FIRE. UL: MUST BE A UL LISTED AUDIBLE SIGNAL APPLIANCE RATED FOR 10.2-13.8 VDC AND BE MOUNTED INDOORS.
- CAN USE ADEMCO No. 702 SIREN, OR 12V BELL.
- A BATTERY MUST BE INSTALLED BECAUSE THE BATTERY SUPPLIES THE SOUNDER CURRENT.

### FOR SOUNDER SUPERVISION

UL: BELL SUPERVISION IS REQUIRED FOR FIRE ALARM INSTALLATIONS.

IF BELL SUPERVISION IS ENABLED (\*91 ENABLED) CONNECT AN 820 OHM RESISTOR ACROSS THE EXTERNAL SOUNDER AS SHOWN BY THE DOTTED LINE.



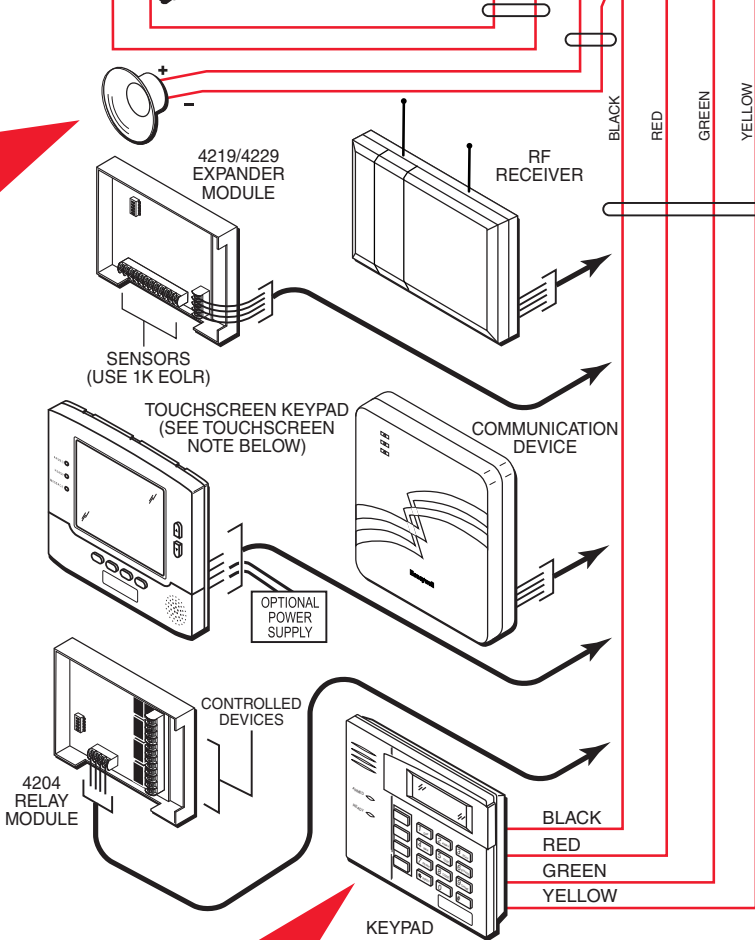
DO NOT CONNECT THE RESISTOR DIRECTLY TO THE ALARM OUTPUT TERMINALS!

## RF RECEIVERS & TRANSMITTERS

- SET RECEIVER DEVICE ADDRESS TO "00" (SET SWITCHES TO THE RIGHT, "OFF" POSITION).
- MOUNT THE RECEIVER INSIDE THE CABINET OR REMOTELY WITHIN A NOMINAL RANGE OF 200 FEET FROM TRANSMITTERS, IN A HIGH, CENTRALLY LOCATED AREA.
- CONNECT THE RECEIVER'S WIRE HARNESS TO THE CONTROL'S ECP TERMINALS. SEE RECEIVER'S INSTRUCTIONS FOR ANTENNA MOUNTING, ETC.
- INSTALL TRANSMITTERS ACCORDING TO THEIR INSTRUCTIONS.

WIRELESS ZONE NUMBERS	
VISTA-20P	VISTA-15P
40 TRANSMITTER ZONES: 9-48	26 TRANSMITTER ZONES: 9-34
16 BUTTON ZONES: 49-64	8 BUTTON ZONES: 49-56

**ULC NOTE:** THE RF SUPERVISION PERIOD FOR THE V20PCN AND V15PCN IS THREE HOURS FOR FIRE ZONES (ZT 9 AND 16) AND 12 HOURS FOR ALL OTHER ZONE TYPES.



## KEYPADS AND ADDRESSABLE DEVICE CONNECTION

- CONNECT KEYPADS AND OTHER ADDRESSABLE DEVICES TO ECP TERMINALS 4-7. (SEE "SETTING KEYPAD ADDRESS" BOX TO SET KEYPAD ADDRESSES.)

**TOUCHSCREEN NOTE:** TOUCHSCREEN KEYPADS MAY REQUIRE AN EXTERNAL POWER SUPPLY DUE TO AUX POWER LIMITATIONS.

- SET EACH MODULE'S ADDRESS ACCORDINGLY:

DEVICE	ADDRESS	DEVICE	ADDRESS
KEYPADS	16 - 23	5800TM	28 (PART. 1 ONLY)
4219, 4229	07 - 11	COMM DEVICE	03
4204	12 - 15	4286	04
RF RECEIVER	00	TOUCH SCREENS	V15P: 1, 2 V20P: 1, 2, 5, 6

## HARDWIRE ZONE CONNECTION

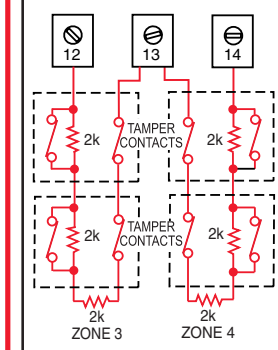
- OPEN CIRCUIT DEVICES CONNECT IN PARALLEL ACROSS THE LOOP; FOR EOLR ZONES, CONNECT THE EOLR ACROSS THE LOOP WIRES AT THE LAST DEVICE.
- CLOSED CIRCUIT DEVICES CONNECT IN SERIES IN THE HIGH (+) SIDE OF THE LOOP; FOR EOLR ZONES, CONNECT THE EOLR IN SERIES FOLLOWING THE LAST DEVICE.

**EOLR NOTE:** IF THE EOLR IS NOT AT THE END OF THE LOOP, THE ZONE IS NOT PROPERLY SUPERVISED AND THE SYSTEM MAY NOT RESPOND TO AN "OPEN" ON THE ZONE.

**UL NOTE:** FOR UL COMMERCIAL BURGLARY ALARM INSTALLATIONS, USE EOLR ZONES.

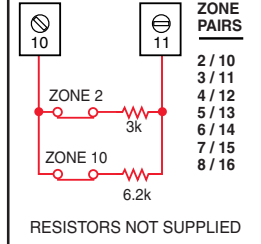
### DOUBLE-BALANCED ZONE VISTA-20P ONLY

PROVIDES ZONE TAMPER PROTECTION AND SHOULD BE USED AS BURGLARY ZONES ONLY. A SHORT ACROSS THE EOL CAUSES A TAMPER CONDITION.

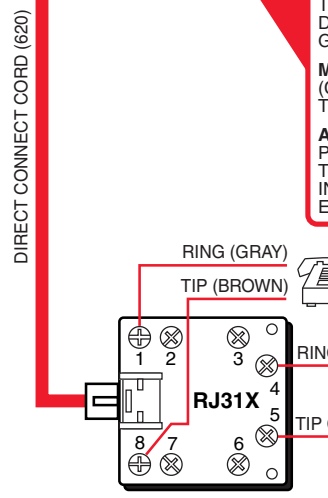


### ZONE DOUBLING VISTA-20P ONLY

PROVIDES TWO HARDWIRED N.C. ZONES FOR EACH STANDARD HW ZONE (BUT DOES NOT INCREASE TOTAL NUMBER OF ZONES SUPPORTED). A SHORT ACROSS THE EOL ON EITHER ZONE CAUSES A TAMPER CONDITION. ZONE NUMBERS USED FOR DOUBLING CANNOT BE USED FOR ANYTHING ELSE.



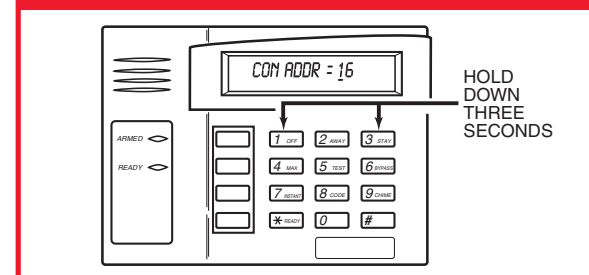
DO NOT USE DOUBLE-BALANCED ZONES OR ZONE DOUBLING FOR FIRE ZONES.



## PHONE CONNECTION

- CONNECT PHONE LINE DIRECT CONNECT CABLE WIRES TO TERMINALS 21-24 AS SHOWN. WIRE COLORS REPRESENT THE COLORS OF THE CABLE TO THE RJ31X JACK.
- CONNECT INCOMING PHONE LINE AND HANDSET WIRING TO THE MAIN TERMINAL BLOCK (VIA AN RJ31X JACK; CA38A IN CANADA) AS SHOWN.

## SETTING KEYPAD ADDRESS



- POWER UP THE KEYPAD. WITHIN 60 SECONDS OF POWER-UP, PRESS AND HOLD DOWN THE [1] & [3] KEYS AT THE SAME TIME FOR 3 SECONDS.
- ENTER THE PROPER "TENS" DIGIT OF THE KEYPAD'S ADDRESS, THEN ENTER THE PROPER "ONES" DIGIT OF THE KEYPAD'S ADDRESS.

**NOTE:** FIRST KEYPAD IS ADDRESS 16

- PRESS [\*] TO SAVE THE DISPLAYED ADDRESS AND EXIT ADDRESS MODE.