About Output Device Programming (*79/*80 Menu Mode)

Output Devices: The VISTA-20P system supports up to 16 relays and/or Powerline Carrier devices (X-10 devices) plus 2 built-in trigger outputs in any combination. These 18 “outputs” are assigned to system-wide output numbers (01-18). Use *79 Menu Mode to assign output numbers and map them to device addresses.

The VISTA-15P supports 8 relays and 2 built-in trigger outputs (total 10 outputs).

Output Functions: The system also provides installer-defined output functions, which can be assigned to any of the physical outputs. Therefore, the action of any one of the outputs can be based on as many of these defined functions as desired. This lets a single relay or X-10 device perform many functions.

The control supports: V20P = up to 48 defined functions; V15P = up to 24 functions

Use *80 Menu Mode to define output functions.

Relays and output devices are not recommended for life safety applications.

NOTE: When navigating the *79 and *80 menus: The [✱] key is used to accept an entry and advance to the next prompt. The [#] key is used to revert back to the last question to check or change an entry. Press [✱] to go forward again.

Programming Output Devices

1. Use *79 Menu Mode to assign module and output numbers and map them to device addresses.
   NOTE: You must map output devices using *79 Menu Mode before you can use *80 menu Mode.
2. Use *80 Menu Mode to create output definitions, which control the output devices, if desired.
3. Use *81 Zone List Menu mode to define zone lists for use with output devices if the device action is based on more than one zone.
   • To program a device for manual activation (user code + [✱] [7] / [#] [8] + 2-digit device number) or for scheduled automatic activation, simply map the device using *79 Menu mode.
   • To program a device to automatically activate upon a system event (or function key), use *79 Menu mode to map the device, then use *80 Menu mode to define the automated device action.

*79 Menu Mode: Output Device Mapping

Use this menu to assign Relay Module device addresses and specific relay numbers, and Powerline Carrier unit numbers. The system is based on predefined module addresses for 4204 and 4229 modules. Refer to the table shown at the “Module Address” prompt on the next page and set the modules’ addresses (via module DIP switches) accordingly.

The following table shows how these outputs are identified.

<table>
<thead>
<tr>
<th>This output...</th>
<th>is identified by...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relays</td>
<td>the Relay Module’s device address and the relay position on that module (i.e. the physical relay number, 1-4, on that module).</td>
</tr>
<tr>
<td>X-10 Device</td>
<td>a house ID (entered in data field *27) and the unit number of the device.</td>
</tr>
<tr>
<td>Built-in Outputs</td>
<td>the output number assigned, 17 for Trigger 1 and/or 18 for Trigger 2.</td>
</tr>
</tbody>
</table>
Start Output Device Mapping by pressing *79 while in Data Programming Mode.

**79 Menu Mode**

**Device Output Number**

01-18 = VISTA-20P relays/X-10; 01-08, 17, 18 = VISTA-15P relays/X-10

[*] to continue; 00 to quit

This is the logical (or reference) relay number as used in the system. Relays and X-10 devices are numbered 01-16; the on-board triggers are numbered 17 and 18 and can be programmed for inverted output, if required. Use the worksheet on the Programming Form (printed separately) to organize device numbers.

**Output Normally Low** (prompt appears only for Triggers 17 and 18)

0 = no (standard default); 1 = yes

[*] to continue

Selecting 0 (no) sets the output level normally high (default setting).
Selecting 1 (yes) sets the output normally low.
Output Trigger 17 can be used for resetting 4-wire smoke detectors by connecting it to the negative power terminal of the smoke detector, selecting 1 at this prompt, and setting as zone type 54, fire zone reset, in *80 Menu mode.

After entry, display returns to Output Number prompt. Use *80 Menu mode to program the function of the trigger.

**Output Type**

0 = delete; 1 = relay on 4204/4229 module; 2 = Powerline Carrier device (X-10)

[*] to continue

Select whether this is a relay or a Powerline Carrier (X-10) device.
If Powerline Carrier is selected, go to “A” prompt.
If relay is selected, skip to “B” prompt.

**“A”**

**Unit Number** (prompt appears if X-10 is selected)

01-16 = predefined address

[*] to continue

Enter the unit code (set at the device) and press [*].
The system returns to the Output Number prompt.

**“B”**

**Module Address** (prompt appears if relay is selected)

07-15 = predefined address

[*] to continue

Enter the predefined address for this module as listed below. Make sure the module’s DIP switches are set to the selected address.

**Module Addresses**

<table>
<thead>
<tr>
<th>Address</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>1st 4229 (with zones 09-16)</td>
</tr>
<tr>
<td>08</td>
<td>2nd 4229 (with zones 17-24)</td>
</tr>
<tr>
<td>09†</td>
<td>3rd 4229 (with zones 25-32)</td>
</tr>
<tr>
<td>10†</td>
<td>4th 4229 (with zones 33-40)</td>
</tr>
<tr>
<td>11†</td>
<td>5th 4229 (with zones 41-48)</td>
</tr>
<tr>
<td>12</td>
<td>1st 4204</td>
</tr>
<tr>
<td>13</td>
<td>2nd 4204</td>
</tr>
<tr>
<td>14†</td>
<td>3rd 4204</td>
</tr>
<tr>
<td>15†</td>
<td>4th 4204</td>
</tr>
</tbody>
</table>

† These addresses apply to VISTA-20P only.

**Relay Position**

1-4 = relay position

[*] to continue

This is the actual (or physical) relay number with respect to the Relay Module upon which it is located. For 4204 modules, relay numbers are 1-4. For 4229 modules, relay numbers are 1-2.

The system returns to the Output Number prompt for programming the next device.
*80 Menu Mode: Defining Output Functions

Use this mode to program output function definitions (up to 48 functions) that provide automated control of any of the output devices, based on events occurring on individual zones or zones with certain zone types. Each output definition is identified by an output function number, and includes the following components:

Output Definition Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Function No.</td>
<td>A reference number that defines an output’s characteristics.</td>
</tr>
<tr>
<td>Activated By</td>
<td>Determines whether the initiating event occurs on a zone, a zone list, or a zone type.</td>
</tr>
<tr>
<td>Event</td>
<td>Event that triggers the output action. Can be an event occurring on a specific zone number or a zone list, or a specific zone type.</td>
</tr>
<tr>
<td>Partition</td>
<td>If the output is activated by zone type, this defines the partition in which the programmed event is to cause the device action.</td>
</tr>
<tr>
<td>Output Action</td>
<td>Defines the action of the relay/X-10 device when the defined event occurs. Can close for 2 seconds, stay closed until reset, continuously pulse (1-second close-open-close-open, etc.), toggle the device state, or activate for a defined duration (set in data field *177).</td>
</tr>
<tr>
<td>Output No.</td>
<td>Assigns this function to a specific output number (defined in *79 Menu Mode). This is the output number that will perform this function upon the triggering event. Note that each defined function is associated with only one output number. This means that if more than one output device needs to perform this particular function, you need to define another output function number with the same attributes, but assign the appropriate output number. (i.e. output devices can be assigned more than one function number, but each function number can only be assigned a single output number.</td>
</tr>
</tbody>
</table>

For example, if you want to pulse a strobe light upon fire alarms on zone 4 using a relay mapped to output number 2 (as programmed in *79 Menu Mode), program the following in *80 Menu Mode:

**Prompt**

<table>
<thead>
<tr>
<th>Output Funct. #</th>
<th>=</th>
<th>01 (assuming this is the first output function)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated By:</td>
<td>=</td>
<td>3 (zone number)</td>
</tr>
<tr>
<td>Enter Zn No.</td>
<td>=</td>
<td>04 (requires 2-digit zone numbers)</td>
</tr>
<tr>
<td>Output Action</td>
<td>=</td>
<td>3 (continuous pulse)</td>
</tr>
<tr>
<td>Output Number</td>
<td>=</td>
<td>02 (device mapped in *79 Menu Mode)</td>
</tr>
</tbody>
</table>

Start Output Definition mode by pressing *80 while in Data Programming mode.

**80 Menu Mode**

*80 Menu Mode

**Output Function No.**

VISTA-20P: 01-48 = output function number; VISTA-15P: 01-24 = output function number

[*] to continue; 00 to quit

Enter the output function number to be defined (or 00 to exit).

**Summary Screen**

[*] to continue

This screen displays a summary of the current output programming (for this example, Zone List has been selected-this is the default screen).

A = Output Action; E = Triggering event; P = Partition; Trig = Trigger type

**NOTE:** A question mark in the summary screen indicates that the device number shown has not been mapped. Use *79 Menu mode to map the device.

**Activated By**

0 = delete
1 = zone list (go to “A” prompt)
2 = zone type (go to “B” prompt)
3 = zone number (go to “C” prompt;)

[*] to continue

Select where the initiating event for this output definition is to occur as follows:

If you enter “0,” the following prompt appears:

Delete?

0 = NO, 1 = YES

Press 1 to delete this output definition. The system deletes the output function and any previous programming.
Zone List (prompt appears if zone list was selected)
01-08 = zone list; [*] to continue
Enter the desired zone list number associated with this output number.

NOTE: Do not use pager zone lists 09-12 in output definitions.
Enter the zone list event that will activate this output.

Enter Event
0 = restore; 1 = alarm;
2 = fault; 3 = trouble

NOTE: For alarm, fault, and trouble, an event on ANY zone in the list activates the output, but ALL zones in the list must be restored before the output is restored.
Press [*] to continue and skip to the “Output Action” prompt.

Zone Type (prompt appears if zone type was selected)
Enter the desired zone type associated with this output number. See below for a list of available zone types.

CHOICES FOR ZONE TYPES:
00 = Not Used 05 = Day/Night 12 = Monitor Zone
01 = Ent/Exit #1 06 = 24 Hr Silent 14 = Carbon Monoxide
02 = Ent/Exit #2 07 = 24 Hr Audible 16 = Fire w/verification
03 = Perimeter 08 = 24 Hr Aux 23 = No Alarm Response
04 = Interior Follower 09 = Fire 24 = Silent Burglary
10 = Interior w/Delay 77 = Keyswitch Zone
81 = AAV Monitor Zone
90-91 = Configurable

CHOICES FOR SYSTEM OPERATION:
20 = Arming–Stay 36 = “At Bell Timeout”*** 52 = Kissoff
21 = Arming–Away 38 = Chime 54 = Fire Zone Reset
22 = Disarming 39 = Any Fire Alarm 55 = Duesess
31 = End of Exit Time 40 = Bypassing 60 = AAV
32 = Start of Entry Time 41 = “AC Power Failure” 66 = Function Key†
33 = Any Burglary Alarm 42 = “System Battery Low” 67 = Bell Fail
43 = Comm. Failure 68 = Telco Line Cut
78 = Keyswitch Red LED
79 = Keyswitch Green LED

** Use 0 (Any) for Partition No. (P) entry.
*** Or at Disarming, whichever occurs earlier.
† Use *57 Menu Mode to assign the function key (function “07”).

Note: In normal operation mode:
Code + # + 7 + NN Key Entry starts Device NN.
Code + # + 8 + NN Key Entry stops Device NN.
Enter the partition in which this zone type will occur.

01 Partition
Any partition

Press [*] to continue and skip to the “Output Action” prompt.

Zone Number (prompt appears if zone number was selected)
Enter the desired zone number associated with this output number.
Press [*] to continue.
Enter the zone event that will activate this output.

01 Enter Event
Restore

Press [*] to continue to the “Output Action” prompt.

Output Action
0 = off 4 = Change Device State
1 = Close for 2 seconds 5 = Duration 1 (see data field *177)
2 = Stay Closed 6 = Duration 2 (see data field *177)
3 = Pulse on & off (1 sec ON, 1 sec OFF)
Enter the desired device action as listed above. Press the [*] key to continue.
Enter Output No.
R02 02

Output Number
01-16 = VISTA-20P output no.; 01-08 = VISTA-15P output no.; 17-18 = on-board triggers
Enter the device output number (programmed in *79 Menu Mode) you want associated with this output. Press [✱] to continue.

02 A E P TRIG
R02 1 1 3 ZL=00

Summary Screen
A summary screen appears showing the programmed settings.
Press [✱] to continue.

About Zone Lists (*81 Menu Mode)
Zone lists let you group individual zones for use with certain system actions. The following table shows the available zone lists and their purposes:

<table>
<thead>
<tr>
<th>List No.</th>
<th>Used for...</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>general purpose (GP)</td>
<td>• Any list may include any or all of the system’s zone numbers. • A zone list can be assigned to more than one output relay.</td>
</tr>
<tr>
<td>3</td>
<td>chime-by-zone (see field *26 to enable option)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>cross zones (see note at right)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>night stay zones</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>general purpose</td>
<td>• Zone List 4: When creating zone list 4 for cross zoning, include only zones assigned to zone types 3, 4, or 5. Do not include zones that have delays (entry/exit zones, interior w/delay) or 24-hour zones, as these zone types may produce unpredictable operation and may not function as intended. See field *85 for Cross Zone Timer option.</td>
</tr>
<tr>
<td></td>
<td>V20PSIA/V15PSIA</td>
<td>See field *50 for Dial Delay Disable option.</td>
</tr>
<tr>
<td>7</td>
<td>general purpose</td>
<td>• Zone List 6: V20PSIA/V15PSIA: See field *93 for Unlimited Reports option.</td>
</tr>
<tr>
<td></td>
<td>V20PSIA/V15PSIA</td>
<td>unlimited reports</td>
</tr>
<tr>
<td>8</td>
<td>general purpose</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>zones that activate Pager 1</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>zones that activate Pager 2</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>zones that activate Pager 3 (VISTA-20P)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>zones that activate Pager 4 (VISTA-20P)</td>
<td></td>
</tr>
</tbody>
</table>

Zone List Programming
1. Select an appropriate zone list number.
2. Add the desired zone numbers to be included in that list.
Start Zone List Program Mode by pressing [*81 while in Data Programming mode.

*81 Menu Mode

Zone List Number
01-12 = zone list number; [*] to continue
Enter the Zone List Number to program (or 00 to quit). Press [✱] to advance.
In the following displays, zone list 01 has been selected for programming.

Zone Number
01-64† = zone numbers followed by [*] to accept each zone; 00 to continue
Enter each zone number to add to the zone list, followed by pressing [✱] (example, 01*, 02✱, 03✱). After all zones are entered, press 00 to continue.
IMPORTANT: Do not include fire zones in zone lists that are used to STOP device actions.
† VISTA-20P = 01-64; VISTA-15P = 01-06, 09-34, 49-56.

Deleting Zone Lists
0 = don’t delete list; 1 = delete this zone list; [*] to continue
To delete the zone list, enter 1. All zones in the zone list will be deleted automatically and the system returns to the Zone List No. prompt.
To save the zone list, enter 0.

Deleting a Zone
0 = don’t delete zones; 1 = go to next prompt to delete zones; [*] to continue
To save the zone list, enter 0 and the system returns to the Zone List No. prompt.
To delete a zone or zones in a zone list, enter 1 to continue.

Delete the Zone
01-64† = zones to be deleted from list followed by [*] to accept each zone; 00 to continue
Enter each zone to be deleted from the list, followed by [✱]. After all zones to be deleted are entered, enter 00 to return to the Zone List No. prompt so that another list can be programmed, if desired.
† VISTA-20P = 01-64; VISTA-15P = 01-06, 09-34, 49-56.