


## 87 Series Relay Output Module

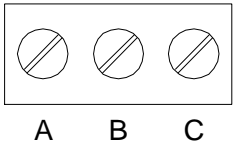


**WARNING**

*Use the relay for annunciator applications only.  
Do not use it for control.*

### Relay Connectors

A SPDT Relay is available through the three pins of the relay port terminal strip (marked P5). The relay terminal strip is shown below. The relay is a single pole double throw (SPDT), rated 120VAC @ 1A.

| 3 Pin Relay Terminal Strip (P5)   | Pin | Function             |
|---|-----|----------------------|
|  | A   | Normally Closed (NC) |
|   | B   | Common               |
|   | C   | Normally Open (NO)   |

### Activate Relay

A 87 series display can be programmed to activate the relay when a trigger point is reached. The relay can also be activated serially by using the **Relay** command. The Relay command string begins with the ASCII character **R** (52 hex/82 decimal). Note that the **R** must be upper case, and must be followed by one character (which determines what relay action will occur). The available actions are:

| <u>Action</u>  | <u>ASCII Character</u> | <u>Hex/Decimal Representation</u> |
|----------------|------------------------|-----------------------------------|
| Turn relay on  | 1                      | 31 hex/49 decimal                 |
| Turn relay off | 0                      | 30 hex/48 decimal                 |
| Sequence A     | A                      | 41 hex/65 decimal                 |

Relay Sequence A is user definable as either a Delay On Relay or Cycle Relay. VDP4 is required to change this parameter. The Delay On Relay selection allows adjustment of the delay and duration time. These settings are adjustable from .1 to 25.5 seconds. The Cycle Relay selection allows specifying the ON time (.1 to 25.5 seconds), OFF time (.1 to 25.5 seconds), and number of cycles to perform (adjustable from 1 to 255 times).

The following examples assume that addressing and checksums are not being used, and that Terminator has been selected as <CR>. Also note that the header of the packet <SOH>s: has the effect of broadcasting to all displays, overriding any group or individual address a display might be set to.

| To....             | Transmit      |
|--------------------|---------------|
| Turn the relay on  | <SOH>s:R1<CR> |
| Turn the relay off | <SOH>s:R0<CR> |
| Trigger Sequence A | <SOH>s:RA<CR> |