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# **AEP-3**

## **EXPANDED RELAY OUTPUT BOARD**

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### **INSTALLATION MANUAL**

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# AEP-3 Expanded Relay Output Board

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## OVERVIEW AND SPECIFICATIONS

The AEP-3 Relay Output Board provides eight auxiliary relay outputs for use with the N-1000-II/N-800 control panel. The N-1000-II/N-800 supports up to two AEP-3s, allowing control of up to 24 total relays (eight per AEP-3 plus eight on the N-1000-II/N-800).

AEP-3 specifications are given below:

### Power Requirements:

The AEP-3 requires a 12 VAC (20 VA) power supply or a 12 VDC (500 mA) power supply such as the PS-1-12 with battery backup.

### Battery Backup:

If required, must use a power supply with its own battery backup.

**Fuses:** Glass 3AG 2 amp.

### Relays:

Eight single-pole, single-throw (DPDT) dry relay contacts with both normally-open and normally-closed sides, rated for 24 VDC at 2.5 amps.

**Cable to Control Panel:** Four wires, 24 gauge (supplied).

**Maximum Distance to Control Panel:** 2 feet

**Operating Temperature:** 35 to 110 degrees F (2 to 43 degrees C.)

**Operating Relative Humidity:** 0 to 90%, non-condensing.

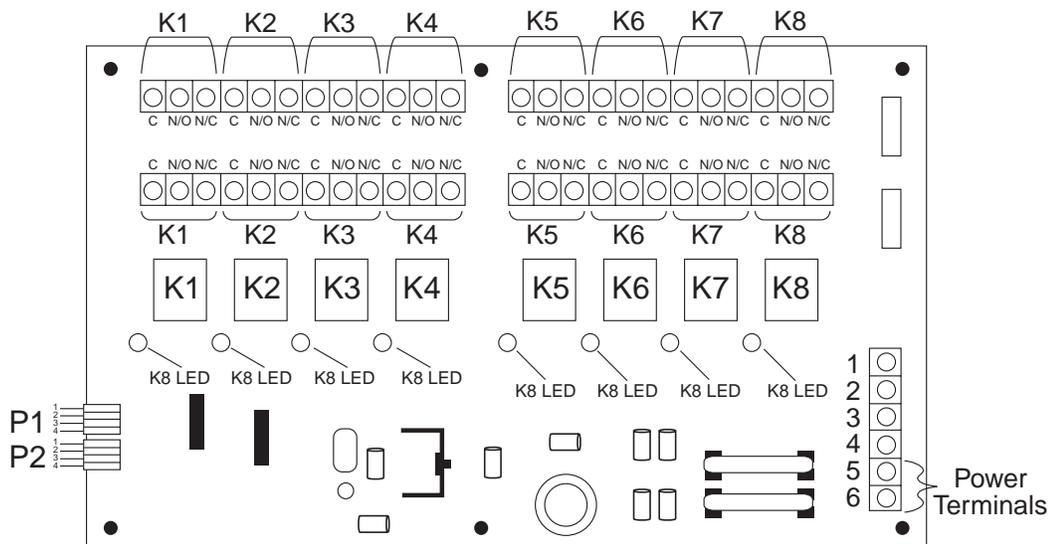
### Dimensions:

Height: 6 inches (152 mm)

Width: 10 inches (254 mm)

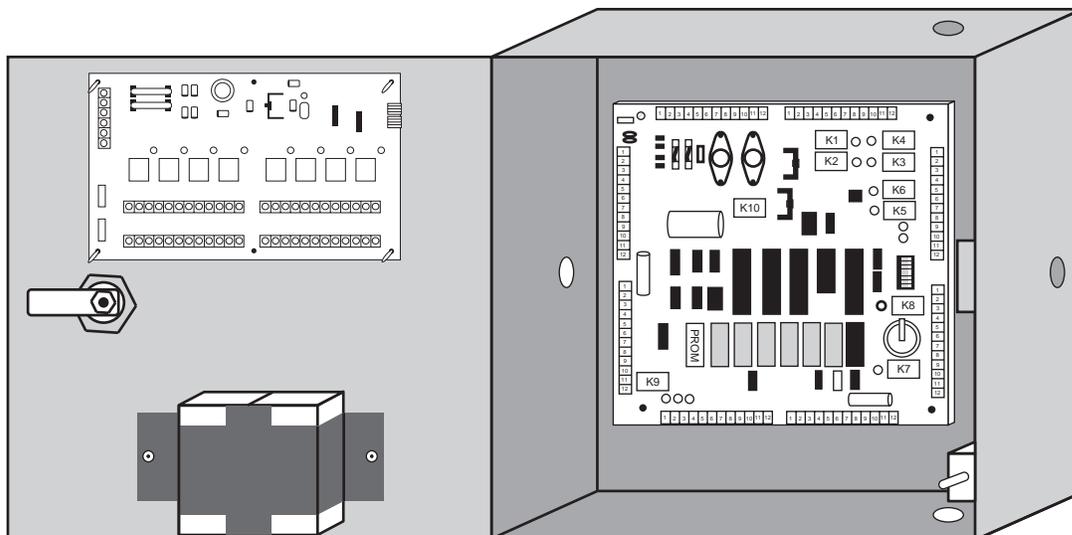
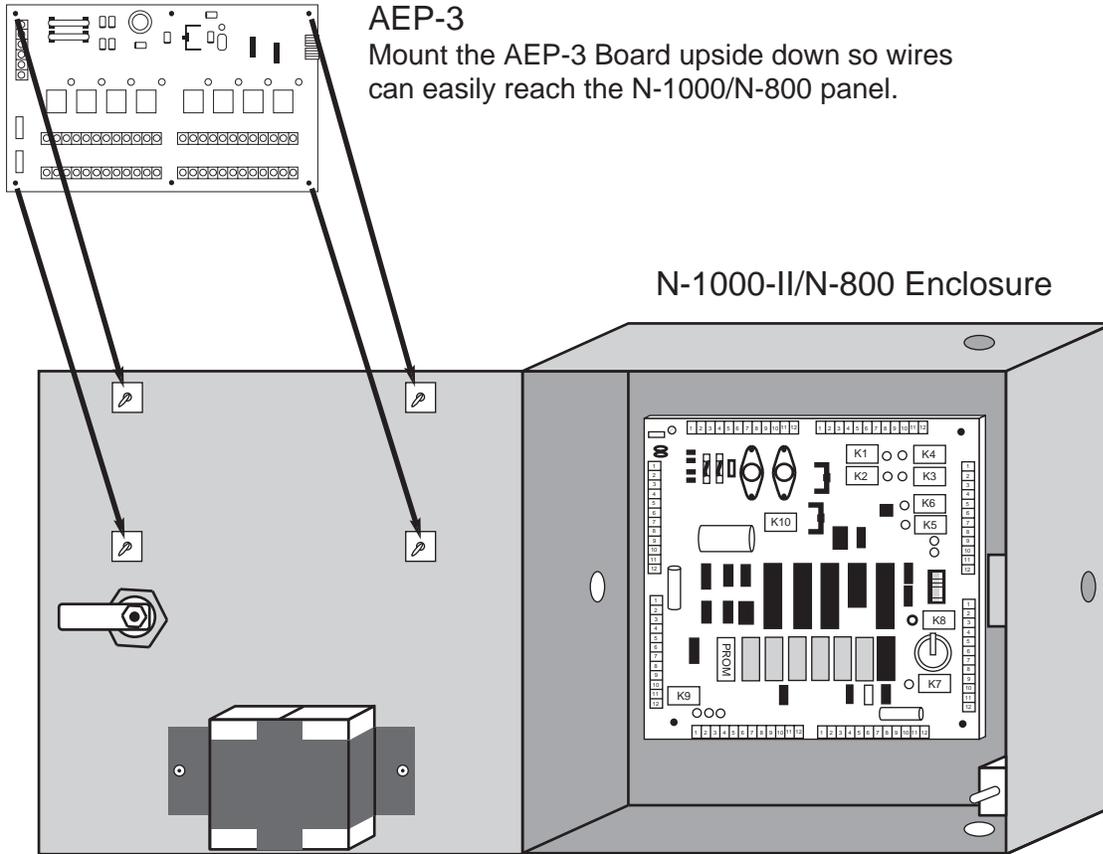
*The N-1000-II-X and N-800-X (expanded relay versions of the N-1000-II and N-800) are not required for AEP-3 operation.*

## AEP-3 Board



## MOUNTING

The AEP-3 can be mounted on the inside cover of the N-1000-II/N-800 enclosure with four provided stick-on holders, as shown below:



# AEP-3 Expanded Relay Output Board

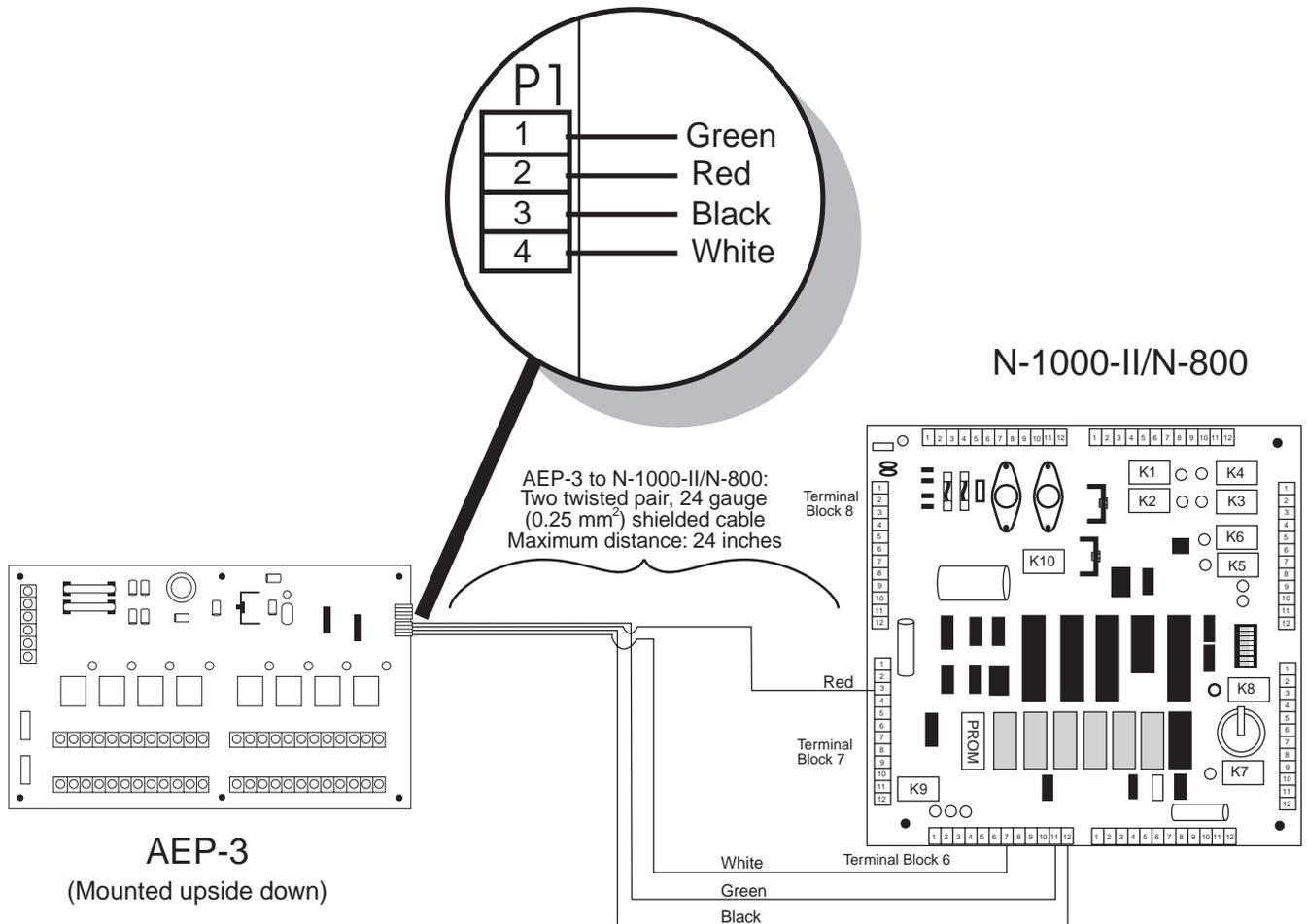


## WIRING: AEP-3 TO N-1000-II/N-800

The four wire color-coded cable is required between the AEP-3 and the N-1000-II/N-800. AEP-3 to N-1000-II/N-800 connections are shown on the following pages:

One AEP to N-1000-II/N-800:

AEP-3:			N-1000-II/N-800:	
Terminal Block	Terminal	Wire Color	Terminal Block	Terminal
P1	1	Green	6	11
P1	2	Red	7	3
P1	3	Black	6	12
P1	4	White	6	7





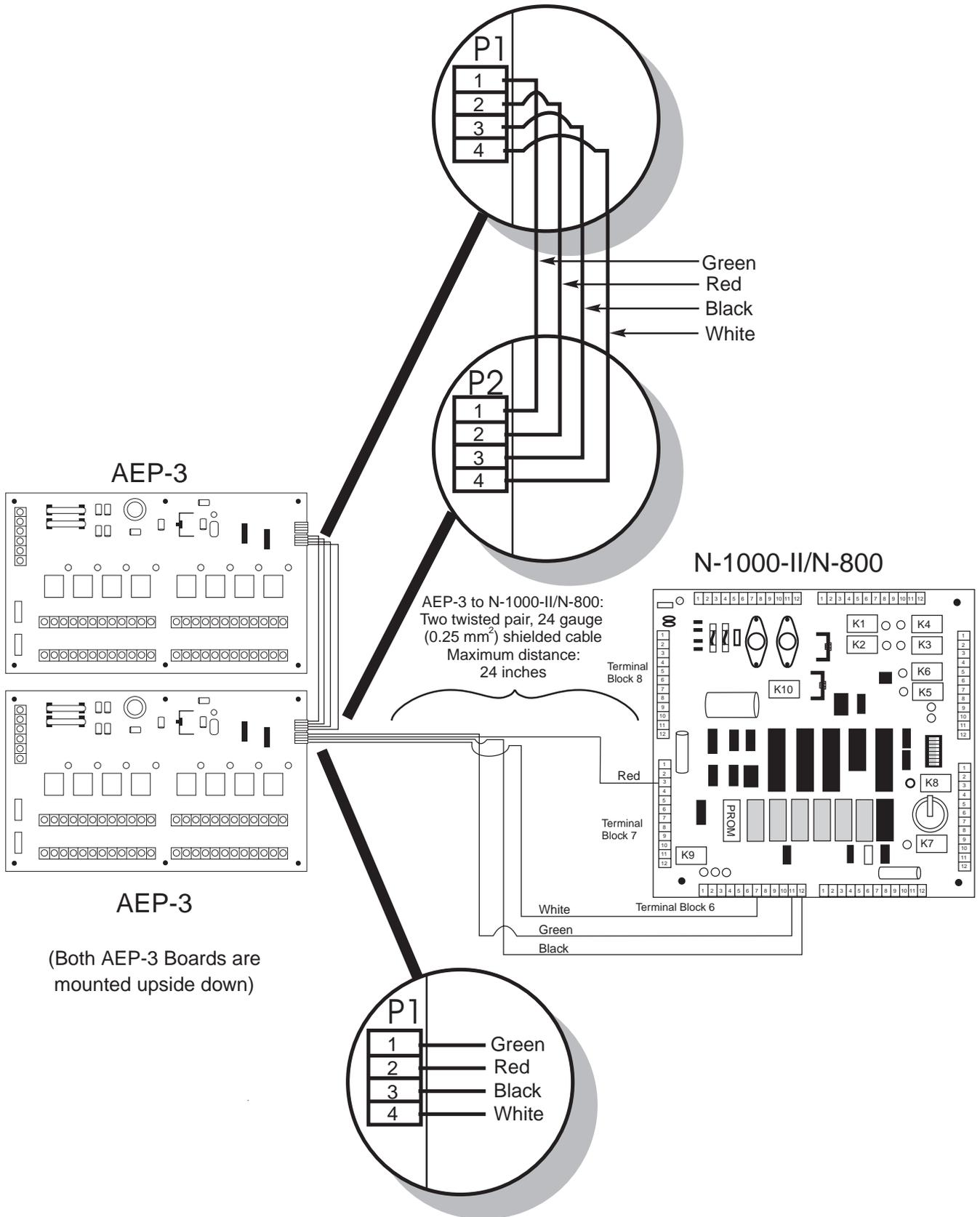
# AEP-3 Expanded Relay Output Board

Two AEPs to N-1000-II/N-800:

First AEP-3:			N-1000-II/N-800:		
Terminal		Wire	Terminal		
<u>Block</u>	<u>Terminal</u>	<u>Color</u>	<u>Block</u>	<u>Terminal</u>	
P1	1	Green	6	11	
P1	2	Red	7	3	
P1	3	Black	6	12	
P1	4	White	6	7	

Second AEP-3:			First AEP-3		
Terminal		Wire	Terminal		
<u>Block</u>	<u>Terminal</u>	<u>Color</u>	<u>Block</u>	<u>Terminal</u>	
P1	1	Green	P2	1	
P1	2	Red	P2	2	
P1	3	Black	P2	3	
P1	4	White	P2	4	

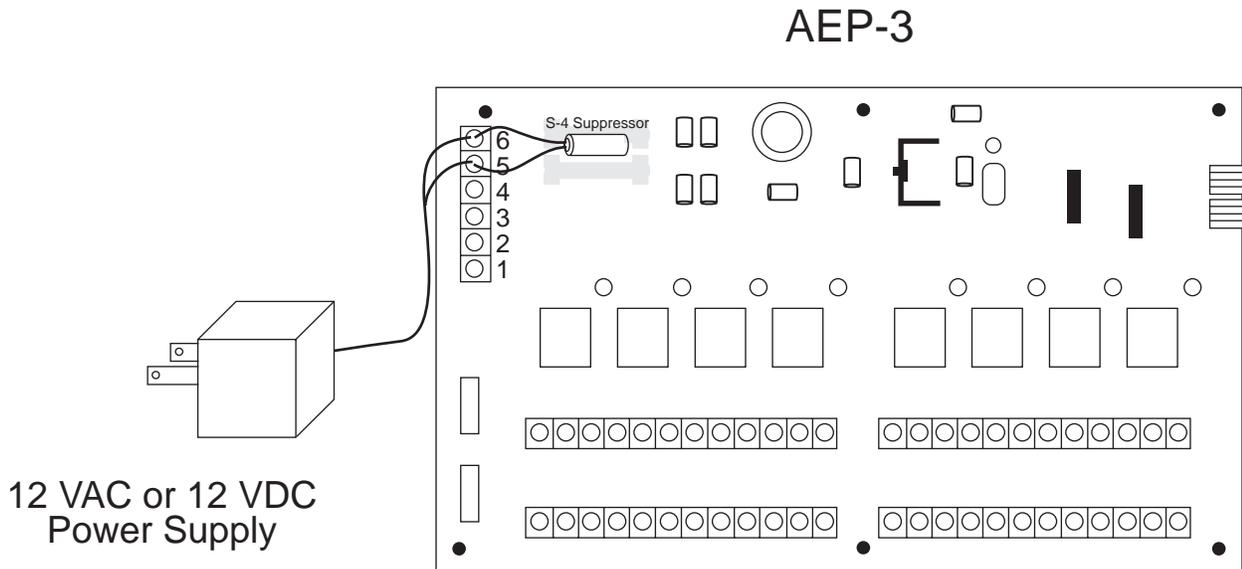
# AEP-3 Expanded Relay Output Board



# AEP-3 Expanded Relay Output Board

## POWER

The AEP-3 requires an 12 VAC (20 VA) power supply or a 12 VDC (500 mA) primary power supply such as the PS-1-12 with battery backup. Connect the primary power supply to the AC power terminals, without regard to polarity. AEP-3 primary power supply connections are shown below:



(Mounted upside down)

## OPERATION/PROGRAMMING

When programming, AEP-3 relays are specified by the output numbers shown below:

### First AEP-3:

AEP-3 Relay	Programming Output Number
K1	17
K2	18
K3	19
K4	20
K5	21
K6	22
K7	23
K8	24

### Second AEP-3:

AEP-3 Relay	Programming Output Number
K1	25
K2	26
K3	27
K4	28
K5	29
K6	30
K7	31
K8	32

AEP-3 outputs (17-32) **MUST** be programmed through group definitions and **CANNOT** be addressed individually. Individual control of all AEP-3 outputs (17-32) requires use of 16 groups (group #1= output #17, group #2= output #18, group #3= output #19, etc.).

AEP-3 outputs (17-32) can be grouped in any combination with N-1000-II/N-800 outputs and then programmed via groups.

*N-1000-II/N-800 auxiliary outputs #9, #15 and #16 are required for AEP-3 operation and **CANNOT** be used for other purposes.*

### Example

**Given:** Want to pulse output #17 on the AEP-3 connected to control panel #1.

**Commands:** `_G= 1_1_17`  
Group #1 on panel #1 is defined as output #17.

`_O= 1_G_1_P`  
Group #1 (output #17) on panel #1 is pulsed.

*See N-1000-II/N-800 Programming Manual for programming command information.*



# AEP-3 Expanded Relay Output Board

## Example

**Given:** Want to energize outputs #20, #23, #25 and #28 on the AEP-3s connected to control panel #2.

**Commands:** `_G=2_1_20_23_25_28`

Group #1 on panel #2 is defined as outputs #20, #23, #25 and #28.

`_O=2_G_1_E`

Group #1 (outputs #20, #23, #25, and #28) on panel #2 is pulsed.

*See N-1000-II/N-800 Programming Manual for programming command information.*

## Example

**Given:** Want to assign a 10 second pulse time and timezone #5 to outputs #6, #8, #19 and #32 on control panel #3.

**Commands:** `_G=3_1_6_8_19_32`

Group #1 on panel #3 is defined as outputs #6, #8, #19, #32.

`_V=3_G_1_10_5`

Group #1 (outputs #6, #8, #19 and #32) on panel #3 is assigned a 10 second pulse time and timezone #5.

*See N-1000-II/N-800 Programming Manual for programming command information.*

# AEP-3 Expanded Relay Output Board





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