### **Detection and Control Components**



# ANN-80 80 Character LCD Serial Annunciator (542R/542D)

#### **Features**

- Backlit 80-character LCD display (20 characters x 4 lines)
- · Mimics all display information from the host panel.
- Control switches for System Acknowledge, Signal Silence, Drill, and Reset.
- Control switches can be independently enabled or disabled at the AUTOPULSE 542R/542D Control Panel.
- Keyswitch enables/disables control switches and mechanically locks annunciator enclosure
- Keyswitch can be enabled or disabled at the AUTOPULSE 542R/542D Control Panel.
- · Enclosure supervised for tamper.
- System status LEDs for AC Power, Alarm, Trouble, Supervisory, and Alarm Silence.
- Local sounder can be enabled or disabled at the AUTOPULSE 542R/542D Control Panel.
- ANN-80 connects to the ANN-BUS terminal on the AUTOPULSE 542R/542D Control Panel and requires minimal panel programming.
- Displays device type identifiers, individual point alarm, trouble, supervisory, zone, and custom alpha labels.
- Time-and date display field.
- · Aesthetically pleasing design constructed of durable Lexan.
- · Surface mount directly to wall or to single, double, or 4 in.
- (102 mm) square electrical box.
- ► Semi-flush mount to single, double, or 4 in. (102 mm) square electrical box.
  - Can be remotely located up to 6,000 ft (1,800 m) from the panel.
  - Backlight turns off during AC loss to conserve battery power but will turn back on if an alarm condition occurs.
  - May be powered by 24 VDC from the host AUTOPULSE 542R/542D Control Panel or by remote power supply (requires 24 VDC).
  - Up to eight (8) ANN-80s can be connected on the ANN-BUS.



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#### Description

The ANN-80 Annunciator is a compact, backlit, 80-character LCD fire annunciator that mimics the AUTOPULSE 542R/542D Control Panel display. It provides system status indicators for AC Power, Alarm, Trouble, Supervisory, and Alarm Silenced conditions. The ANN-80 and the AUTOPULSE 542R/542D Control Panel communicate over a two-wire serial interface employing the ANN-BUS communication format. Connected devices are powered, via two additional wires, by either the host AUTOPULSE 542R/542D Control Panel or a remote UL-listed, filtered power supply.

The ANN-80 displays English-language text of system point information including device type, zone, trouble or supervisory status, as well as any custom alpha labels programmed into the control panel. It includes control switches for remote control of critical system functions. (A keyswitch prevents unauthorized operation of the control switches).

Up to eight (8) ANN-80s may be connected to the ANN-BUS of the AUTOPULSE 542R/542D Control Panel. Minimal programming is required, which saves time during system commissioning.

The ANN-BUS can be powered by an auxiliary power supply when the maximum number of ANN-BUS devices exceeds the ANN-BUS power requirements. See the AUTOPULSE 542R/542D manual for more information.

Each ANN-BUS device requires a unique address (ID Number) in order to communicate with the AUTOPULSE 542R/542D Control Panel. A maximum of eight (8) devices can be connected to the AUTOPULSE 542R/542D Control Panel ANN-BUS communication circuit. See the AUTOPULSE 542R/542D manual for more information.

#### **Controls and Indicators**

- AC Power
- Alarm
- Trouble
- Supervisory
- · Alarm Silenced

#### **Specifications**

- Operating voltage range: 18 VDC to 28 VDC
- Current consumption @ 24 VDC nominal (filtered and non-resettable): 40 mA maximum.
- Ambient temperature: 32 °F to 120 °F (0 °C to 49 °C).
- Relative humidity: 93% ± 2% RH (non-condensing) at 90 °F ± 3 °F (32 °C ± 2 °C).
- ▶ 5 3/8 in. (137 mm) high x 6 7/8 in. (175 mm) wide x 1 3/8 in.
- ► (35 mm) deep
  - For use indoors in a dry location.
- · All connections are power-limited and supervised.

#### Wiring Requirements

The ANN-80 connects to the AUTOPULSE 542R/542D Control Panel ANN-BUS communications circuit. To determine the type of wire and the maximum wiring distance that can be used with AUTOPULSE 542R/542D Control Panel ANN-BUS accessory modules, it is necessary to calculate the total worst case current draw for all modules on a single 4-conductor bus. The total worst case current draw is calculated by adding the individual worst case currents for each module.

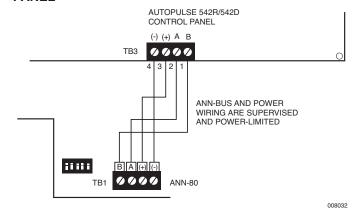
**Note:** For total worst case current draw on a single ANN-BUS, refer to the AUTOPULSE 542R/542D manual.

After calculating the total worst case current draw, the table below specifies the maximum distance the modules can be located from the AUTOPULSE 542R/542D Control Panel on a single wire run. The table ensures 6.0 volts of line drop maximum. In general, the wire length is limited by resistance, but for heavier wire gauges, capacitance is the limiting factor.

These cases are marked in the chart with an asterisk (\*). Maximum length can never be more than 6,000 ft (1,800 m), regardless of gauge used. See table below.

A 14 to 18 AWG ( $0.75-2.08~\text{mm}^2$ ) wire for 24 VDC power circuit is acceptable. All connections must be power-limited and supervised. A maximum of eight (8) ANN-80 modules may be connected to this circuit.

## ANN-80 Wiring to AUTOPULSE 542R/542D CONTROL PANEL



#### **Agency Listings and Approvals**

UL																S	35	,
FM														Α	pp	ro۱	/ed	
<b>CSFM</b>											7	16	35	-0	59	95:	118	6

#### **Ordering Information**

·		Ship Weig	
Part No.	Description	lb	(kg)
435355	ANN-80 80 Character LCD Serial Annunciator	3	(1.4)

Communication Pair Wiring Distance: AUTOPULSE 542R/542D Control Panel to Last ANN-BUS Module Total Worst Case												
Current Draw (amps)	22 Ga	auge	18 G	auge	16 G	auge	14 Gauge					
0.100	1,852 ft	(565 m)	4,688 ft	(1,429 m)	*6,000 ft	(1,829 m)	*6,000 ft	(1.829 m)				
0.200	926 ft	(282 m)	2,344 ft	(715 m)	3,731 ft	(1,137 m)	5,906 ft	(1,800 m)				
0.300	617 ft	(188 m)	1,563 ft	(476 m)	2,488 ft	(758 m)	3,937 ft	(1200 m)				
0.400	463 ft	(141 m)	1,172 ft	(357 m)	1,866 ft	(569 m)	2,953 ft	(900 m)				
0.500	370 ft	(113 m)	938 ft	(286 m)	1,493 ft	(455 m)	2,362 ft	(720 m)				
0.600	309 ft	(94 m)	781 ft	(238 m)	1,244 ft	(379 m)	1,969 ft	(600 m)				
0.700	265 ft	(81 m)	670 ft	(204 m)	1,066 ft	(325 m)	1,687 ft	(514 m)				
0.800	231 ft	(70 m)	586 ft	(179 m)	933 ft	(284 m)	1,476 ft	(450 m)				
0.900	206 ft	(63 m)	521 ft	(159 m)	829 ft	(253 m)	1,312 ft	(400 m)				
1.000 (max.)	185 ft	(56 m)	469 ft	(143 m)	746 ft	(227 m)	1,181 ft	(360 m)				