

Operating Instructions Model DB-301

Two Channel Loop Detector Demonstration Box

I. General Description

The DB-301 is used to demonstrate the features of Reno A & E's Models C, G, GT, 222, and 222S two channel loop detectors. It can also be used to test and/or troubleshoot problems with these detectors.

II. Operating Instructions

- 1) Connect the DB-301 to a 120 VAC power source.

NOTE: The DB-301 is designed for use with 24 VDC detectors only. Internal circuitry transforms the 120 VAC input voltage to 24 VDC. Do not connect the DB-301 to a 240 VAC power source.

- 2) Set the POWER switch to the OFF position and the two GREEN switches to their OFF positions. These switches are OFF when toggled down and ON when toggled up.
- 3) Connect the detector to the DB-301 by aligning the detector PC Board with the two card guides on the DB-301 detector receptacle. Slide the detector all the way into the receptacle. Be certain that the detector edge card connector is fully engaged in the DB-301 demonstration box receptacle.
- 4) Toggle the POWER switch to the ON (up) position.

If you have connected a Model C-1100 series detector to the DB-301, the CH. 1 and CH. 2 DET LEDs (on the demonstration box) should momentarily flash and the detector LCD should display the normal operation mode screen (three dashes in the seven segment display, **PRESENCE** or **PULSE** below the three dashes, and the Loop 1 symbol in the lower left hand corner of the display).

If you have connected a Model C-1200 series detector to the DB-301, the CH. 1 and CH. 2 DET LEDs (on the demonstration box) should momentarily flash, the CH. 1 and CH. 2 TS2 LEDs should illuminate, and the detector LCD should display the normal operation mode screen (three dashes in the seven segment display, **PRESENCE** or **PULSE** below the three dashes, and the Loop 1 symbol in the lower left hand corner of the display).

If you have connected a Model G or GT detector to the DB-301, the CH. 1 and CH. 2 DET LEDs (on the demonstration box) should momentarily flash and the CH. 1 and CH. 2 TS2 LEDs should illuminate.

If you have connected a Model 222 or 222S detector to the DB-301, the CH. 1 and CH. 2 DET LEDs (on the demonstration box) should momentarily flash.

- 5) Since the DB-301 can be used to demonstrate such a wide range of dual channel detectors, it is best to describe the function of each switch and LED and the two simulated loop zones rather than attempt to describe all the combinations of DB-301 and detector outputs and indications.

NOTE: Some of the functions described may not apply to all of the detectors that can be tested with the DB-301 demonstration box.

- a) LOOP A - Channel 1 (CH. 1) Loop Zone.
- b) LOOP B - Channel 2 (CH. 2) Loop Zone.
- c) POWER Switch - DB-301 and Detector Power Source Control.
- d) RESET Switch - Detector Reset.
- e) CH. 1 OPEN LOOP Switch - Simulates Channel 1 (CH. 1) Open Loop Condition.
- f) CH. 2 OPEN LOOP Switch - Simulates Channel 2 (CH. 2) Open Loop Condition.
- g) CH. 1 PHASE GREEN Switch - Simulates Channel 1 (CH. 1) Phase Green Input.
- h) CH. 2 PHASE GREEN Switch - Simulates Channel 2 (CH. 2) Phase Green Input.
- i) CH. 1 COUNT LED - Indicates Channel 1 (CH. 1) Count Output Signal.
- j) CH. 2 COUNT LED - Indicates Channel 2 (CH. 2) Count Output Signal.
- k) CH. 1 FAIL LED - Indicates Channel 1 (CH. 1) Fail Output Signal.

- l) CH. 2 FAIL LED - Indicates Channel 2 (CH. 2) Fail Output Signal.
- m) CH. 1 TS2 LED - Channel 1 (CH. 1) TS 2 Status Output Condition. (Continuous ON - Normal Detector Operation; Rapid Flash - Fail Condition.)
- n) CH. 2 TS2 LED - Channel 2 (CH. 2) TS 2 Status Output Condition. (Continuous ON - Normal Detector Operation; Rapid Flash - Fail Condition.)
- o) CH. 1 DET LED - Channel 1 (CH. 1) Detect Condition. (Continuous ON - Detector in Presence Mode; Single Flash - Detector in Pulse Mode.)
- p) CH. 2 DET LED - Channel 2 (CH. 2) Detect Condition. (Continuous ON - Detector in Presence Mode; Single Flash - Detector in Pulse Mode.)

NOTE: To simulate a vehicle detection, place one or both of the toy cars that were included with the DB-301 over the white squares labeled LOOP A (Channel 1) or LOOP B (Channel 2).

III. Connector Pin Assignments

Pin	Function	Notes
A	D.C. (-) Common	
B	D.C. (+) Power	
C	Reset Input	
D	Channel 1 Loop Input	
E	Channel 1 Loop Input	
F	Channel 1 Output, Relay Normally Open	Relay versions only
	Channel 1 Output, Drain / Collector	Solid state versions only
H	Channel 1 Output, Relay Common	Relay versions only
	Channel 1 Output, Source / Emitter	Solid state versions only
J	Channel 2 Loop Input	
K	Channel 2 Loop Input	
L	Chassis Ground	
S	Channel 1 Count Output	Models C-1201 and C-1203 only
W	Channel 2 Output, Relay Normally Open	Relay versions only
	Channel 2 Output, Drain / Collector	Solid state versions only
X	Channel 2 Output, Relay Common	Relay versions only
	Channel 2 Output, Source / Emitter	Solid state versions only
Y	Channel 2 Count Output	Models C-1201 and C-1203 only
1	Channel 1 Phase Green Input	Models C-1200 Series, G, and GT only
2	Channel 2 Phase Green Input	Models C-1200 Series, G, and GT Only
4	Channel 1 Loop Input	
5	Channel 1 Loop Input	
6	Channel 1 Fail Output	Models C-1202 and C-1203 only
7	Channel 1 TS 2 Status Output	Models C-1200 Series, G, and GT only
8	Channel 2 Loop Input	
9	Channel 2 Loop Input	
19	Channel 2 Fail Output	Models C-1202 and C-1203 only
20	Channel 2 TS 2 Status Output	Models C-1200 Series, G, and GT only

Note: All pins not listed have no connection.