# Signalist DP8



# Dapol semaphore signal adaptor manual

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### Signalist DP8 user manual

#### **Overview**

The signalist DP8 is an 8-channel isolator module primarily intended for activating Dapol semaphore signals from DCC in conjunction with the Signalist SC1 decoder. It can be used to activate almost anything that is activated by a simple low current pushbutton or switch and may be useful to interface products not intended to be controlled externally such as many battery operated toy sound effects.

As well as the eight separate channels there is a low voltage DC power supply intended to power Dapol semaphore signals from either 16V AC, 12V DC (up to 18VDC if from a regulated supply) or DCC track supply (for track supplies higher than 10V).

#### Configuration

The only configuration required is the set CV38 on the attached SC1 to 15

#### Connection

The following section shows how to connect the DP8 to an SC1 and DCC.

#### **Power connection**

Power is supplied to the DP8 via the ~ terminals on J3 as shown in Figure 1. Power can be 12V DC, up to 18V regulated DC, 16V AC or DCC track supply if it is higher than 10V. There is no need to power the DP8 if there is nothing connected to the R and B terminals of J3.



FIGURE 1

An SC1 should be connected to J1 of the DP8 with nine wires as shown in Figure 2. There is no limit to the length of the wires between the DP8 and SC1, but it makes sense to position the SC1 as close to the DP8 as possible to reduce the wiring required



#### FIGURE 2

Dapol semaphore signals should be connected to the DP8 as shown in Figure 3. It is possible to power the Dapol semaphore signal from 16V AC if it is available, but if not connect the red and black wires from the Dapol signal to the R and B terminals of J3 respectively. Up to eight Dapol signals can be connected to the R and B terminals. The yellow wires of each Dapol semaphore signal should go to one of the eight pairs of terminals on J2.



FIGURE 3

#### Operation

Refer to the SC1 manual for normal operation via DCC, but should your signal be out of sync for any reason just press the button adjacent to the yellow wires of the affected signal once to resync it.

#### **Specification (PSU section)**

Maximum voltage	24V* DCC track
	16V AC or unsmoothed DC
	19V* regulated DC
Minimum voltage	10V DCC track
	8V AC or unsmoothed DC
	10V regulated DC
Output voltage	8V-9V DC
Output current	100mA continuous
	1A peak
Current consumption	10mA
Number of outputs	8

\* Good ventilation is required when using input voltage above 12V or when operating signals intensively to prevent overheating.

#### Additional support

The Signalist DP8 is a simple product that should not cause any issues. If you need any support on things covered in this manual or for things that have not been covered support is available at the Signalist support forum:-

http://signalist.proboards.com/

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