

The PSX-AR Auto-Reverser & Circuit Breaker

How to use it, how to connect it and how to set it up for best results

We do like this product, but the PSX manual is to say the least complex and a little confusing for many. Most of you will be happy to just get it installed and working on your layout in the simplest and most efficient manner, so we've simplified all of that in a single page.

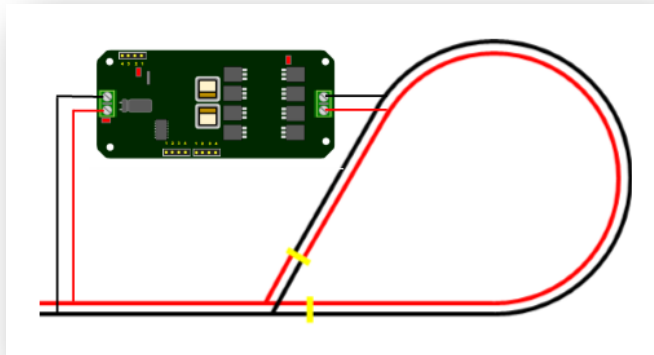
(Of course, there will be those who wish to explore the limits - so we've included a full copy of the PSX-AR manual as a PDF with your PSX-AR Auto-Reverser & Circuit Breaker. You will find it on a DCCconcepts branded USB memory card/stick included in the packaging)

If you still have some questions, please do not hesitate to ask. Please call us on 01729 821 080 or email salesuk@dccconcepts.com

How to set up your layout wiring to make best use of this DCC Auto-Reverser

This auto-reverser reverses the polarity of the reverse loop while the train is running in the loop. It is combined with a circuit breaker that will both add protection to starter sets with minimal built-in protection & supplement the circuit breaker already built in others.

Please Note: The PSX-AR auto-reverser is for DCC only



The wiring of your PSX-AR is very simple:

- (1) Gap the track as shown in yellow (both rails please).
- (2) Connect DCC track power to the LHS connector.
- (3) Connect the RHS output to the loop. That's it!

Tip: FILL the gaps with small bits of thin plastic sheet and file to the rail profile. Alternatively, stagger the gaps by 3 ~ 5 mm

This is to stop metal rolling stock wheels accidentally short circuiting the system - Staggered gaps OR a plastic infill in the gaps will stop wheels dropping into the gap while the electrically connected SETS of loco wheels will correctly bridge the breaks.

Operation

- * When power is on Red LEDs 1 & 2 will light up
- * If LED 3 stays on, there may be a short circuit in the main or reverse loop track. (Please check carefully and remove short circuits before continuing)
- * LED 3 blinks if loop polarity is reversed

Setting TRIP CURRENT on your PSX - AR's built-in Circuit Breaker

Out of the box, your new PSX-AR circuit breaker will add protection and buffer your DCC system from voltage spikes and any harmful short circuits, but it will need to be set up to match the capabilities of your DCC system for the best results.

We now need to set the PSX trip current so that your PSX circuit breaker will act BEFORE the limit of your control system is reached.

That way, the system is properly protected. All you need to do is use the solder pads (marked J6 in the drawing above) to make a simple soldered link between two of them to set the trip current.

The diagram above tells you which two to use and it also recommends selections based on the total output power of your DCC system.

DCC systems with lower power limits, small power supplies or with limited overload protection: SET IT TO TRIP AT 1.27 Amps. This will cover Roco, Roco Z21 Black and White, Bachmann Dynamis & EZ Command, ALL Hornby, NCE PowerCab, Piko, Digitrax Zephyr ,etc.

DCC Systems with 4~6 Amp power limits and good quality substantial power supplies: SET IT TO TRIP AT 3.81 Amps i.e. leave as it is. This covers ESU ECoS, NCE PowerPro Systems, ZTC full system, Digitrax 5 Amp systems and all other "full power output" combinations.

DCC systems for O and larger scales: Please note we also think that "fine scale O scale layout systems" should usually be set to this level as modern O scale uses very little power. However, if you so have older O scale or "tinplate" or "hi-rail" O scale, then you should experiment with higher trip currents PROVIDING of course that they are lower than your DCC systems rated power output)

For the adventurous: As you will find in the extended manual, it is possible to set trip current using CVs but the process is not that simple and some systems may not make this possible.

More details can be found in the full copy of the manual that is on the Complimentary DCCconcepts USB drive we have provided.

