

Train-O-Matic Smart Power Pack (SPP)



The Train-O-Matic Smart Powerpack (SPP) is compatible with all Train-O-Matic Lokommander II decoders, as well as with third party brands that have an energy buffer connection with three wires: U+, Masse/GND (Ground) and Charge. This includes ESU and Lenz. The manual that belongs to this Smart Power Pack will explain you how this Powerpack works in general and how to connect it to Train-O-Matic decoders. It can be downloaded here:

www.tramfabriek.nl/decoders.html

If you wish to connect it to a eligible ESU or Lenz decoder, read the decoder instructions of the particular decoder on how to connect the wires. It will also show you the CV settings, but for your convenience, they are also listed below.

The PowerPack automatically switches off when operated on an analog DC or AC layout. In such a case, the buffer function is unfortunately not possible due to technical reasons.

When you have too many high loads at power up the command station can go in short circuit mode. This might happen with too many locomotives with power packs. All of them will start to charge at power up. To avoid this, *only* a Train-O-Matic Lokommander II decoder allows you to change the start-up delay setting. This function is not available with other brands.

Train-O-Matic CV settings

ANALOG MODE OFF

CV 29 = 10 (analog mode off, as the powerpack doesn't work with analog mode on)

TIME OUT

CV 123 = time that the powerpack will give the extra power. Default value is set to 16, which is 0.25 seconds. Value 255 is 4 seconds.

START UP DELAY

CV 124* = Start up delay. Value in seconds. Default is set to 10, so SPP will be activated after 10 seconds. This is useful when you have more trains with a powerpack and they don't all start grabbing power the moment the system is turned on.

*Note: Before firmware 233 the start up delay was set with CV 152. Check the SPP manual to find out how to read the firmware version.

ESU CV settings

ESU v4 and v5 decoders have the three terminal points on the chip to connect to the Train-O-Matic Smart Power Pack.

TIME OUT

CV 113 In ESU terminology this is called "Power fail bypass" or "bypass time". The standard value is 50. The maximum value of CV113 is 255.

Lenz CV settings

Lenz calls the energy buffer "Uninterruptable Signal Processing" or in short "USP". The three connection points can be found on their Gold decoders. The Train-O-Matic Smart Power Pack is used in the same way.

TIME OUT

CV 112 = Default value is 16. Can be set between 0-255, though it will not have much effect if you go below the default value of 16.

A smaller supercapacitor

Optionally a smaller supercapacitor is available to replace a Train-O-matic SPP, ESU PowerPack or Lenz Power1 supercapacitor to fit in tight spaces.

1 x 1F Supercapacitor 2.7V Radial
200mOhm @ 1kHz

Sizes in comparison:

ESU - 8.2 x 14 mm

Train-O-Matic - 8.2 x 12 mm

AVX - 6.3 x 12 mm

Buy at www.tramfabriek.nl/decoders.html

