

Aristocraft “Dash-9”

Simple Retrofit

Modifying an ‘Aristocraft dash 9’ (Figure 1) with a XXL decoder.

The locomotive has head lights front and rear, Ditchlights and Positions lamps and a smoke generator.

To keep the conversion effort relatively simple, the existing interface is used as much as possible.

The smoke unit is switched using a relay due to its high power consumption.

It may be operated by a F-button and by the existing sliding switch.

In addition, the Ditchlights flash and are switchable. The Position lamps are allways lit.



Figure-1: Aristocraft “Dash-9”

Required parts:

1x 8153001 XXL-Dekoder

1x 8150501 DCC Interface cable (for LGB® & Aristocraft® interfaces)

Additional cable (minimum 0.25mm²)

Relay

Fitting:

- Remove the roof around the smoke generator.
- Remove 6 screws and remove the electronics.
- Connect the interface cable to the decoder as per Figure 2.
[Anschluss XXL / XL / XLS an Aristocraft Schnittstelle](#)
- Remove the dummy interface connector and connect the decoder (Figure 3). Use the arrow to ensure the correct orientation of the decoder interface connector.

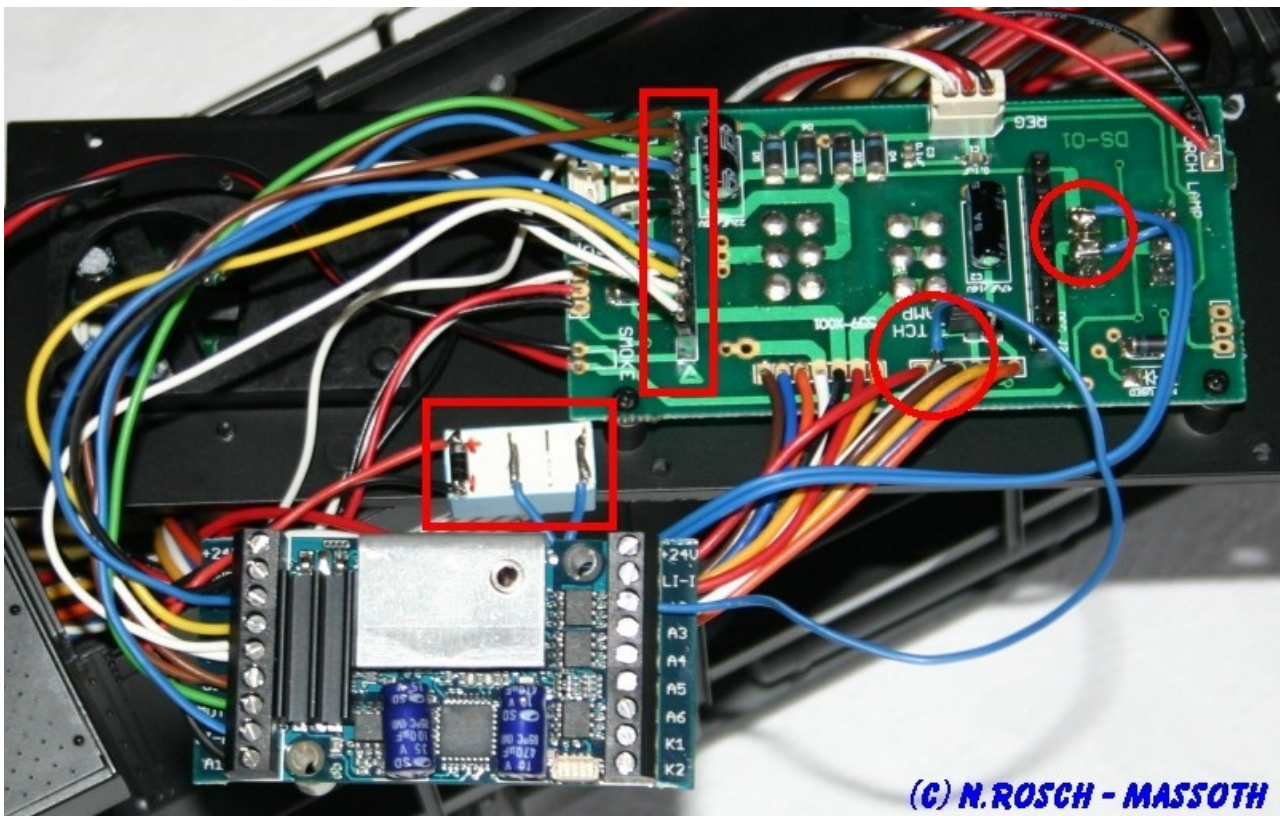


Figure-2: Decoder Plug connections

- Connect the relay for the smoke generator:
- Solder 2 wires (Figure 3: 2 x blue) to the “SMOKE” switch and connect them to the switched terminals on the relay as per Figure 4.
- Connect the relay coil to the decoder “+ 24V” and A1 terminals. (Don’t forget the protection diode!) as per Figure 4.

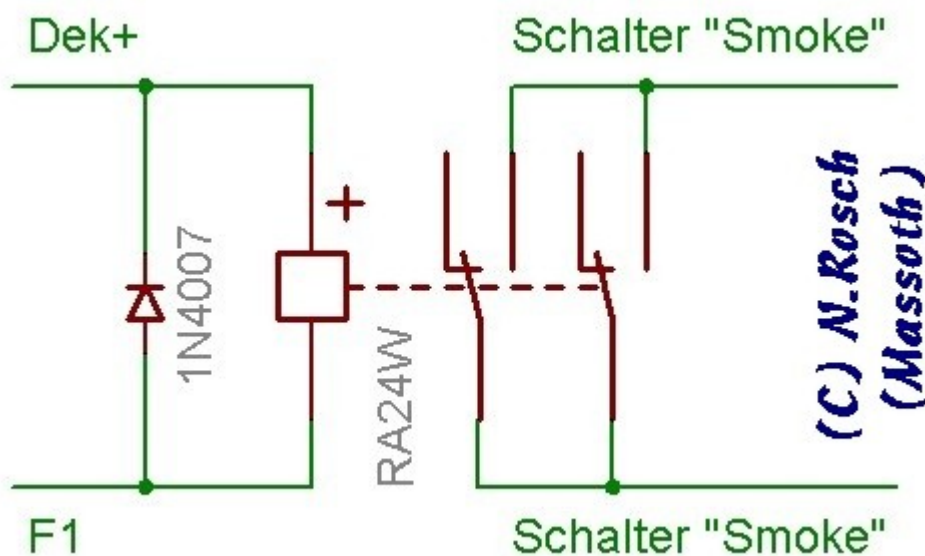


Figure-3: Relay wiring for smoke generator

- Connect a single cable from the decoder A2 terminal to the board to switch the Ditchlights (single blue cable in Figure 3). Remove the “Ditch Lamp” “Jumper”
- Configure the decoder to the recommended settings. Check the settings and the wiring.
- Secure the decoder and reassemble the loco.

Additional Note:

The loco requires approximately 2.0 amps (with lighting and smoke) when idle. With a large load and on a climb that grows to 5.0 amps.

Therefore it is prudent to use XXL decoders for locomotives of this size.

See the topic: Determine current needs!

Required Programming:

The smoke generator is switched via the A1 output with F1 (CV54 = 1)

The Ditchlights be connected via the A2 output with F2 (CV56 = 2)

The Ditchlights blink 2x per second (CV57 = 2)

Thanks Mark Munday for translating.

Enhanced retrofit

In addition to previous instructions a S decoder and a pulsed smoke generator is connected here.

Additional needed parts:

1 x 8413501 Pulsed smoke generator

1 x 8412901 Tubeset

1 x 8222100 S-Decoder Diesel Universal (if needed, preprogrammed with AMD 103 Genesis (US Diesel loco) Sound)

A suitable sound is in progress and will be published.

1 x 8312001 MiniCT Decoder cable 2-pole (300mm)

2 x LGB Screws 3x18mm

2 x Spacer sleeves 9-10mm

The connection of the relais is not used here!

Retrofit of the pulsed smoke unit:

Remove from PCB mounting board as shown in figure 4 the bridge.

Then mount the pulsed smoke unit that the unit output align with the rectangular opening.

Mark the 2 mounting holes at the PCB mounting board.

Drill it with appr. 2,8mm.

Mount the pulsed smoke unit like shown in the picture.



Figure-4: Modification of the PCB mounting board

Now cut from the 12mm tube a piece with a length of 18-20mm.
Mount the tube like shown in figure 5.



Figure-5: Mounting the tube

Retrofit of the S-Decoder:

Normally in the locomotive is already an 8 Ohm loudspeaker preassembled.
Therefore, solder the 2 pole cable with Mini-CT to the speaker connectors.

Mount the S Decoder like shown in figure 6 with the adhesive tape.



Figure-6: Retrofit of S-Decoder

Both the pulsed evaporators as well as the S decoders are now connected in accordance with the instructions to the track.

You can find the track connection on the outer pins of the interface plug.

Programming:

At S decoders no further change is (except the locomotive address) needed.

Please set following values to the pulsed smoke unit:

CV 15=0 First lock every programming

CV 15=160 Disable programming lock on pulsed smoke unit

CV 49=2 Massoth configuration without SUSI

CV 50=0 DIP Switch off, set configuration with CV to Diesel mode

CV 64=80 Decrease fan speed on drive

CV 15=0 Set programming lock

- [Aristocraft "Dash-9"](#)
 - [Simple Retrofit](#)
 - [Enhanced retrofit](#)