



Choosing locomotive decoders

Choosing a locomotive decoder isn't hard. Here are a few reminders

1 - Pick the right protocol

Check your digital command station and your existing trains. DCC is the most common format if you're not sure

All scales, 2-rail tracks



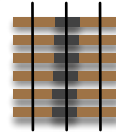
DCC

All scales.
Most used protocol
worldwide.

Selectrix

Mostly N, Z and H0.
Popular mostly in German
speaking countries.

Märklin 3-rail H0



Motorola, Mfx M4

Märklin H0 (mostly).
Defacto protocol for 3-rail
systems.

2 - Pick the right interface

Without digital interface

Get a decoder with wires. There will be lots of DIY and soldering involved, don't hesitate to ask your model railroading store to do it!

With digital interface

Check which plug your locomotive has (NEM651, NEM652, Next18, mTc14, mTc21, PluX-something...).
Select decoder accordingly.
A few specific cases for proprietary interfaces: e.g. Kato N without NEM651, you need a Kato decoder.

3 - Check available space

Small scales (N, Z...) and small engines: check the dimension of the decoder and the space available. Make sure it will fit!

4 - Check decoder specs

Functions (software)

For advanced users: different brands offer different programming functions (lighting, timers...). Read the manual and see if you find what you need. For basic users, most decoders will do.

Outputs & hardware

Check the decoder is made for your scale (A or mA rating enough for your motor).
For advanced users: check the available outputs suit your needs.

In a nutshell

1 Except in some rare cases, the brand of the decoder doesn't matter.

2 If your locomotive doesn't have a digital interface, you can ask a professional model RR to install the decoder for you!

