

Decoders: Too many features that are never used, a myriad of light options and functions that are rarely needed, too many wires, too big to fit easily... the list goes on. Why does nobody actually think about the end user first?

It's not that its hard to design a good decoder, but so much effort is often put into software that the practical things can be lost when it comes to the physical design.

DCCconcepts have done well with decoders, and our existing range has been well liked by most... but it has become increasingly clear as we talked to users across the world that some issues were almost ignored, and that some prototypes, made to a smaller loading gauge than the USA and parts of Europe, can give modellers a real headache when it comes to installing a decoder into a scale model.

## We therefore took a different approach to the creation of our new range.

The name we chose says it all... **>en**. We ignored convention, looking across problems not at them. We looked at need not want... and we enjoyed doing it.

Decoder Size reductions... fewer wires and less wiring... big performance in small spaces, "Big power" decoders still small enough for smaller loco's in larger scales.

Settings "out of the box" that deliver super-smooth loco drive & importantly, very affordable, higher quality yet even smaller Stay-Alives™. BEMF that never needs adjusting. Enough light functions to do the job and features to satisfy anyone.

Reliability. Ease of understanding. Affordability.... Easy installation. Sticking to standards. Addition of functions only where they are really needed. All important.

With the software already having been in creation for over a year, ignoring the normal and using those thoughts as a "New approach to design" was actually fun.

## We've called this range **en**. Read on ...and understand why.

**Cen**: Seven all-new designs, from the worlds smallest direct plug decoder to the smallest "Big decoder" there is... with 6 functions and a herculean motor drive. Multiple options so one decoder will fit many loco types. Two new Stay-Alives™, smaller & thinner to help you install them, but also far more powerful. Single and five-packs to offer exceptional value. We really like **Cen**. We hope you do too!





A decoder range with a unique personality all its own... With exceptional performance & outstanding usability.

## Small things should always come first:



The worlds smallest direct plug 8-pin decoder. It has 4x100mA light functions.... and it is wired ready for the Stay-Alive™ provided in the pack.

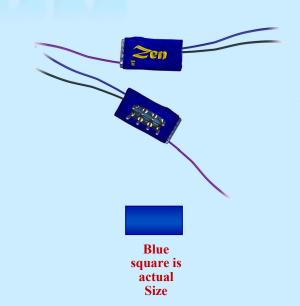
#### Model number ZN8D.

Zen Nano Direct really is unbelievably small. So small in fact that its dimensions are less than the blanking plug that you'll remove to install it.

It's only 15x7x5mm.

It has a 750 mA / 1 amp motor drive.

Zen Nano Direct is smaller than many DCC blanking plugs... fits anywhere!



Small things can still be versatile:



# NANO 8-pin Wired...

We start off with the world's smallest, then shrink it! With the same footprint as NANO 8-pin direct, we added wires... and shrunk it in thickness by nearly 50% to create a super-small go-anywhere wired decoder. It has 2x100mA light functions.... and is wired ready for the Stay-Alive™ provided.

Model number ZN8H.

It is only 15x7x2.7mm

It has a 750mA / 1 amp motor drive.

Zen Nano with NEM652 8-pin harness is the ultimate "go-anywhere" decoder.







A decoder range with a unique personality all its own... With exceptional performance & outstanding usability.

### The simplest way for N scale installation



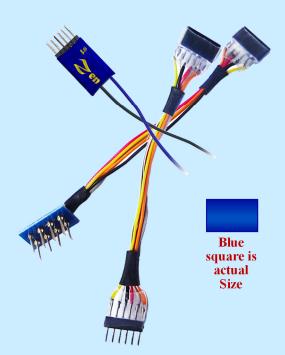
Made to NEM651 6-pin standards the ZN6D fits beautifully in any loco with a direct plug interface. ZN6D has 2x100mA light functions.... and like all ZEN decoders it is wired ready for the super slim  $Stay-Alive^{TM}$  that is provided in the pack.

#### Model number ZN6D.

Zen 6-pin direct is an easy-to-install NEM651 type decoder designed for direct plug installation.

It's only 13.5 x 8.5 x 3mm

It has a 750mA / 1 amp motor drive.







Why should we restrict the possibilities?

# **2011** 6-pin Versatile

Take an NEM651 6-pin decoder with beautifully smooth motor drive and excellent installability and add some real installation versatility!

The ZN68 really will go anywhere, because we've included in the pack the decoder, a "stay-alive"<sup>TM</sup> an NEM651 6-pin and an NEM652 8-pin harness to give you total choice.

It also has 2x100mA light functions, and is wired ready for the Stay-Alive<sup>TM</sup> provided in the pack.

Model number ZN68.

Only  $13.5 \times 8.5 \times 3$ mm. 750mA / 1amp motor drive.

Zen ZN68 with Direct 6-pin plus 6 & 8pin harness options is the perfect choice because it really does fit everything!







A decoder range with a unique personality all its own... With exceptional performance & outstanding usability.

Any way round, it just fits... easily!



Some HO & OO locos are long and narrow, some wide but tight. With an 8-pin interface built into the decoder the ZN360 is a more conventional size but has a smaller footprint... Our twin-PCB design means it always fits irrespective of 8-pin orientation.

ZN360 has 4x 100mA light functions... and like all ZEN decoders it is wired ready for the super slim Stay-Alive<sup>TM</sup> that is provided in the pack.

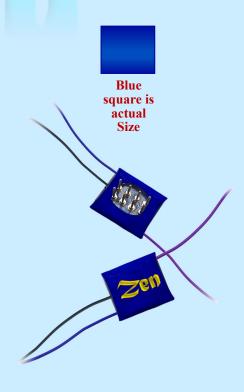
### Model number Z360.

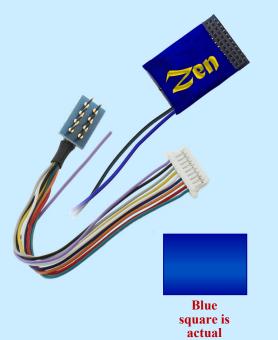
It's only 14.2 x12.5 x3.5mm

It has a 750mA / 1 amp motor drive.

Clever design makes installation simpler!

Size





Both 21MTC and 8-pin in ONE decoder...

**218** 

Why do loco makers have to make it so hard? If you model UK prototype, then there is a fair chance that you will end up buying both 21mtc and 8-pin NEM652 locomotives, and you will never know which is inside until you decide on the loco!

Zen 218 takes away the gamble by incorporating both 21pin and 8-pin in one decoder. It has four 100mA light functions. Of course it's also wired ready for the superslim Stay-Alive™ that's in the pack.

Model number Z218.

It has a 750mA / 1 amp motor drive.





The name just seemed to suit it...



As the name suggests... a cheerfully large decoder that's as tough as nails... but still small enough to get into the heart of any suitable locomotive...

Designed for O and larger scales, we've done our best to also keep it small enough to fit some of the larger articulated or double-motor HO, OO or S scale loco's. **Buddha is tough!** It has a 3 amp continuous motor drive capable of handling short-term peaks of 5 amps.

**Buddha is protected!** It has overload and thermal as well as short circuit protection. Virtually un-killable!

**Buddha will never hesitate either...** it has built-in brown-out protection for the microprocessor and can be connected to ANY form of power protection such as our DCCconcepts "Stay-Alive"<sup>TM</sup> (included in the pack)

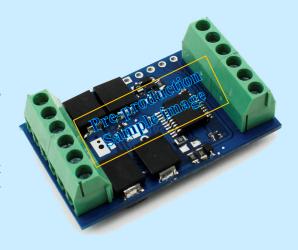
Normal decoder wire just won't cope. Big power needs bigger wire, so Buddha has convenient screw connectors, nicely arranged with all functions at one end, all power connections at the other...

**Buddha has six 250mA light functions....** and like all of our ZEN decoders it is wired and ready for the slim Stay-Alive™ that is provided in the pack.

Model number ZBHP.

Buddha is  $40 \times 25 \times 10$ mm with a 3amp motor drive.

Buddha: Smooth, smart, safe & beautiful!





Blue square is actual Size