

## Our DCC Controller "Brand-by-Brand" opinion

### Which "controller" brands do we like, what are our "likes and dislikes" about the brands.... and why?

Now HERE I really am treading on eggs – my opinion is guaranteed to suit only one person perfectly, and that is ME – but perhaps my own preferences, which evolved based on hands on experience, PLUS feedback from many happy clients, have value in the same way that any other "users" opinion is useful.

Cannot review them all here so forgive me if your choice is missing... However I have chosen some of the most widely distributed and thrown in a couple that are worthy of note on either positive or negative issues for balance.

We stock some of these brands and not others...however I won't define which here because I want you to read through this section as neutrally as possible.

I'm of course happy to explain in detail to you, quote you and recommend if that's what you'd like, but first, PLEASE, let's go through the thinking process.

**The comment order indicates nothing - they are arranged alphabetically.**

#### **BACHMANN DYNAMIS:**

**With basic information released well before it was available, there was a lot of excitement around the development of Dynamis.**

**Bachmann partnered with ESU for this product and so the anticipation was for something that might be a bit special, but in the reality is, it is quite clear it has been designed to a price and unfortunately, the result is, it delivers far less than most expect!**



**I LIKE:** The fact it is wireless at an entry level cost, I like the fact it has full addressing ability and I like its price point, but it stops there.

**I LIKE:** The ability to use alphanumeric addressing of locomotives

**I DISLIKE:** The fact that the infra-red is negatively affected by fluorescent tubes AND sunlight and it is far too directional for all but the smallest layout. For any larger or round the walls layout, it is necessary to mount repeaters for the IR sensors, or everything stops every time the handset loses contact with the base station!

**I DISLIKE:** The fact that it cannot read decoder information as that is important if you want to be able to get the best from DCC. (As with the earlier Roco Maus 2, its necessary to spend a lot more on a bigger base station to get an important basic feature such as CV read-back, and I think that is wrong).

**I DISLIKE:** Its ergonomics and general shape - And the flimsiness of the joystick control, which is less than precise and takes a lot of getting used to!

Overall it is very much like a "Play station" controller and needs two hands to operate. The large screen is very good and easy to read but it (and the IR transmitter) chews up batteries VERY fast!

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### If we now add the Pro Box & IR repeater to the Dynamis...

It becomes a very different product, and is becoming feature compatible with fully fledged systems, so a secondary set of comments are due.

**I LIKE:** The fact that the IR repeater, if mounted where it will give much wider coverage than the original Dynamis IR receiver, gets rid of the "dead spots" that cause layout shutdown and keep communications constant, making the wireless feature work properly for the first time. You'll still need to be careful about Fluorescent lights and sunlight though!

**I LIKE:** The fact that reading CV's is now possible

**I LIKE:** The fact that you now have a proper programming track ability

**I LIKE:** The fact that it holds all roster info in the Pro-Box so its available to all handsets...

**So - I would strongly recommend any existing Dynamis owners to make the upgrade!**

BUT, to be honest, it still has limitations:

**I DISLIKE:** The limit of only 4 Handsets... other brands offer a much bigger flexibility in that area

**I DISLIKE:** the fact that the Pro-box has not been fitted with the promised computer interface, and it NEVER will be! That is something that is a must for a full system these days.

So... as Dynamis + Pro-Box is now at the cost of a full system from major competitors, if you don't already own a basic Dynamis and there is even the glimmer of a possibility that you may want some form of "added intelligence" to help you operate your layout...

**Then I strongly suggest that it'll pay you to look closely at other "full feature systems" before investing.**

## DIGITRAX:

**An earlier market leader in the USA, and one of the first widely sold brands. Digitrax has a very wide array of systems and accessories.**

Digitrax is also an innovator and they have a good wide cross section of smaller manufacturers following their lead, so while their Loco-net bus is a proprietary way of communication between controller and accessories, it is widely supported. Widely stocked Digitrax has a wide base of users in UK, AU and Europe.

**I LIKE:** The new "super chief extra" with the DT402 handset, and the excellent value "Zephyr Extra" entry-level units. Both offer good feature levels, greatly improved operability and maintain good expandability.

**I'm unsure in some ways about the DT402 handset:** It is very clever feature wise, about the same as an NCE ProCab, but all its buttons are the same size and shape and that makes it look a bit like an electronic porcupine... very confusing because there's no visual aid in the shape and no helpful ergonomics in the design... a real shame! So: DT402 handset and variants, while technically good, are quite hard to understand for most – so even after many operating sessions owners are still confused! I know because I help DT402 users more often than any others!

[Click the picture to review part of the Range of DIGITRAX systems at The DCCconcepts website](#)



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*Continued...*

**I REALLY DISLIKE:** – Digitrax manuals – They are famous for inclusion of techno-speak mixed with marketing babble and hype, so they can be "a very difficult read" and are often almost unintelligible until one has learned to "speak Digitrax".

Of course, if you are patient and really dig deep in the manuals, you can get used to them... BUT - new users often need help or a plain English translation – best provided by either a local user of the excellent Digitrax user group.

**I SORT OF LIKE:** Their willingness to add new features and test the waters with new technology. This is slightly tempered by their lack of cooperation within the industry as I feel it weakens the cross-compatibility of the DCC standards.

**I'M AMBIVALENT ABOUT:** Their warranty approach... for decoders. They are fine with control systems, but they can be far less understanding than any of the other major brands when it comes to their decoders, to the point that whilst retail dealers may be more understanding, the Digitrax factory attitude seems to almost say "be careful - we only warrant decoders until the day they are installed"

## ESU "ECos" system:

**A console type system. This is a "computer operating system based" and very good looking unit with twin controllers, full colour touch screen and many modern features.**

ESU are the makers of what are super-successful sound decoders, the ESU LokSound Series, and as these are used by many European loco brands, ESU may now be the largest single DCC producer world-wide.

This system can be upgraded via the very convenient direct software update facility so it is hard to keep pace with what it can do - It is definite one for the technophile who likes hi-tech toys & touch-screens!

**I LIKE:** Many, many things about this unit, including its ability to record names as well as numbers for loco's, its smart motorized knobs, its touch screen ability, its competent computer-like operating system etc...

**I LIKE:** The ability to connect it via Ethernet to update software via the Web. Features and abilities are actively upgraded on a regular basis.

**I LIKE:** The "on-screen help" - Unlike the manuals, this provides good information and is easily accessed, just like the help button on a computer screen

**I DISLIKE:** The fact it is a fixed console type system. Radio control handsets are available, They are very smart looking but be aware that they are also expensive, yet do not offer total control (some things must still be done via the console)

**I DISLIKE:** The manuals - Like Lenz, they are badly translated from German to English.

**Take your time looking over ECos...** and read as much about it as you can, because it is far from a low cost unit and a console type system isn't every ones best choice...However it is a very, very clever system, and if after looking past the fancy panels and design to its real abilities and wide feature level, it clearly fits your need, then don't hesitate.... It's a very nice product that is well supported by its manufacturer that we're happy to recommend.

[Click on the picture to review ECos](#)



[on The DCCconcepts website](#)

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### HORNBY Digital:

We all had high hopes... but this brand had a disastrous start to its involvement with DCC and while it has gradually become better, we are afraid that to us, still has a very long way to go to before I can recommend it with any confidence. No likes and dislikes here, just a comment on each.

**HORNBY SELECT:** A train-set controller at best. A definite NO from us! This was Hornby's first digital controller and is still sold, however it has significant problems with its digital waveform and should be avoided. It is so far off specification that calling it DCC at all is drawing a long bow!

This is not just my opinion - "Model Eisenbahn" who are one of Europe's most highly respected professional model railway magazines reviewed this product in early 2008. The comprehensive review was in German of course, but there was no mistaking its conclusion, as it was entitled in plain English "Return to Sender". Hopefully it'll be dropped soon. **We have our fingers crossed for the sake of all who accidentally buy one!**



**HORNBY ELITE:** To be honest – Elite it is NOT! It looks and feels too much like a low cost version of a Fisher Price toy for me... Its initial release was greeted with positive anticipation but in its first few software versions, it had several significant problems.

Giving credit where credit is due, the final versions are NMRA Compliant, and most of the quirks have been taken care of, however the basic design operating structure makes it a really difficult control system to access and use functions on, so it is to be honest simply hopeless with sound equipped locomotives. **It's been deleted at last - A good thing!**



### HORNBY E-Link and Rail-Master software:

The price looked OK and initial reviews were, as usual from the mags, made with an eye to the ad spend, through rosy glasses, so we bought 3 (from Hattons) so we could test. We knew many would leap in and we'd be asked questions.

**Boxes included a power supply, the E-link box & some software... Simple, so surely nothing can go wrong?**

**Unfortunately it could:** One did not work and another had a bad CD in the box, so not a great start. We persisted and eventually had one working, however it was not until we found some you-tube videos that we had an easy reference for all of the little "Gotcha's" that are not covered in manuals

**Our conclusion:** An OK introduction to "My first toe-in-the-water" for screen based control, but limited and NOT very clever. Being browser based too, graphics are clumsy and there are FAR better out there if computer links and on screen control is wanted.



**Sorry, we really, really hoped it'd be good and we wanted to like it – but NO!**

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### LENZ:

**I really like the fact that Lenz have been a core part of the establishment of DCC standards, and so respect their products greatly.** They offered an open approach to new development to ensure that Lenz will remain a "flexibly applicable" product with a wide variety of compatible "after-market" or "other brand" accessories to use with it. Whilst they have steadily lost the lead over recent years and have dramatically slowed any new development recently due to distractions within their business, Lenz remains a solid well-made brand. Lenz also makes product for several European hobby brands, as well as Atlas in the USA.

**I Really DISLIKE:** The Lenz Compact and the Atlas Commander! I feel that for most they are very limited in potential, the "scrolling" needed for selection plus a very limited digital display means that the manual is needed all the time and "instinctive" use is difficult.

The same comment applies to the set 90 - the spec reads OK but while the actual use of the hand controller knob is fine for driving loco's, as a controller it is really clumsy for function access and all programming operations.

Experience shows that Lenz set 90 buyers almost always end up buying a set 100's LH100 handset to make operations easier and both the commander and compact are inevitably destined to be replaced quickly by many purchasers!



### **I LIKE: The Lenz set 100 with V3.6 software:**

Mid-priced with excellent feature levels, and a really usable handset that does it all, and few downsides other than lack of a "knob" on the LH100 handset.

Having said that, you may think differently now but based on experience, after a few minutes using the up-down speed keys you will forget a knob was ever an issue in the first place.

**I DISLIKE:** Lenz manuals... These are to be nice, terribly hard to understand.

Tech talk is already hard, and when German technical language is translated to English it takes several re-readings and clever interpretation to "get to the point".

This really isn't just opinion - I receive far more "please help" calls from Lenz owners than most other brands. (with Digitrax a close second!)



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### MRC "Prodigy advance" system & its variants: (Also branded for **Gaugemaster** in UK)

MRC originally made DC controllers and got into DCC some time ago. Early releases were less than impressive but the latest software release for this unit has made it quite a reasonable performer. (Advance squared)

MRC decoders are another thing altogether – less than great shall we say!

**I LIKE:** The fact that it has followed a similar route design wise and interface wise to the NCE system. The controller is fairly easy to use and it is reasonably

instinctive too (however while it IS a copy of the NCE style wise, it is unfortunately not an equivalent product in any way.

(when we analysed it, it had a somewhat messy wave-form that is far from ideal, with spikes when reverse & some functions were activated)

**I LIKE:** The fact that it does almost everything as it comes, no need for added devices at all—even the power supply is in the box, unusual for a DCC system above "starter" level....

**I DISLIKE:** The fact that while they almost copied the shape of the NCE controller they misread its ergonomics, so it is a 2 handed controller.



With just a little more thought, this could have been a **MUCH** better product. A real shame.

### NCE Power-House Pro and PowerCab systems:

**I think that NCE remains the benchmark for "Usable sophistication", User friendly control & most importantly relaxed DCC operation.**

Whilst it looks like it has as many buttons as an average TV or Audio-visual system remote control, the control layout is actually very cleverly arranged so that it can be used with only one hand and ALL commonly used buttons and knobs are within reach of one finger whether you are right or left handed.

Additionally, the NCE ProCab (used for both PowerCab and PowerHouse Pro systems) has ability to control the maximum possible 28 separate decoder functions and it also has really readable super clear display, plain English approach and logical layout making it a snap to operate with, and even those new to DCC can operate it comfortably within just a few minutes.

[Click the picture to review NCE systems on DCCconcepts website](#)

The NCE "PowerCab" - a popular DCC "starter controller".

It may look complex, but it really is easy and comfortable to use whether you are 7 or 70!

PowerCab has an excellent feature set And it can Be expanded From its initial 1.5 To 5 amps and more easily. This makes it one of The best start Set choices

These buttons are Used to drive and control & they are directly under your thumb, whether you're right or left handed!

The other buttons are used to select locos, address, tune or to adjust them as well as to set up / operate DCC Accessories etc.

A photograph of the NCE PowerCab handheld DCC controller, showing its screen and various buttons.

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**I REALLY LOVE:** The POWERCAB starter set: The NCE "POWERCAB" is without doubt the best DCC start set ever made - all the functions of a full Powerhouse Pro system and for only half the price! It is upgradeable to a full system easily too!

**I LIKE:** The easy to read manual. There are still a few areas where interpreting "tech-speak" is hard, but in general a basic, logical approach and the constant help from the "plain English" programming and screen information makes NCE a pleasure to use and learn, whether the user is 7 or 70+.

**I LIKE:** The fact that for all basic programming, you can forget CV's and simply make "yes-no" decisions... DO YOU want to enable DC operation – enter for no, press one for yes? Is forward normal or reversed for this loco - enter for normal, press one for reversed... etc..... dead easy, no interpretation needed!

**I LIKE:** The full "2 way radio" option, that means total wireless for all operations and programming. It works just like it is plugged in with no delay, has excellent range and can do everything without "plugging it in" to the layout.

NO other brand offers such competent wireless performance.

**I LIKE:** The "Owner upgradeable" main processor, NCE regularly releases updates (about every 18 months or so) and that means an NCE owner can always have the "Latest" product and functions by simply replacing the "main Brain" of the unit.

**I DISLIKE:** Nothing much at all about the NCE system... but it'd be nice if they look at perhaps adding a little Y2K+ to the visual display... it is time for more modern graphics!

**SPECIAL ADDITION:** NCE have now released their very clever "Mini-panel" which simply plugs in as if it were another handset, and has the ability to add lots of layout automation through very simple "on screen programming" with an NCE handset from either PowerCab or PowerHouse Pro.

This low cost item will let you add loco by loco specific automation and in concert with simple detection, makes easy shuttle control and similar desirable automation accessible easily in DCC for the first time!

If you need more than a single Mini-panel can do, you can just as easily add yet more Mini-panels!

**For the ability to add and use this new item alone, you really should include NCE in your short list!**



[Click the picture to review NCE systems on DCCconcepts website](#)



[Click the picture to see Mini-Panel on DCCconcepts website](#)

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### ROCO LokMaus:

It is a "train-set brand" but it is about the best of them, and in reality has matured to become a nice control system. I've included them because they're widely distributed and have kept a sensible cross-compatibility with standards. Because of this we now also stock Roco in its original form and as the newer "Z21" screen based system.

(It is now also sold under Fleischmann by the way... same thing but in Blue). Roco pricing is generally good, making Roco a popular choice among modellers as a "Starter pack" or "second hand-set" controller for Lenz. Be careful though - there are several versions and the basic "Maus" very commonly seen on E-bay at tempting prices is not always what you think!

**I LIKE:** the "MAUS" –It has some nice features and in its new incarnation it no longer looks like the "computer mouse" it once was – but in its new incarnation as a fully-fledged DCC controller it is nice to hold and use. Overall a very much more useful device than its predecessors!

**I LIKE:** The new radio option – slick and very well priced, it is a very nice option that is unaffordable in many brands for the average modeller!

**I LIKE:** Some of the newer generation Roco DCC products, but for the life of me cannot understand why they didn't make it possible to read back information from the decoder with them at all levels instead of requiring the add-ons / amplifiers to do so.... It sounds a small thing but not being able to read back makes programming much harder especially for the novice.

(Reading back a decoder CV's current settings before you change them can be quite important!)

**I QUITE LIKE the Roco ACTION ITEMS:** such as the coach with opening doors and sound, the excellent ROCO DCC controlled crane and similar – these add excitement and demonstrate potential directly, stimulating the future of DCC.

### ROCO Z21:

**We do LIKE the Z21:** In the box is a power supply, base station and a D-link router, ready to connect to your computer system wirelessly.

It has some nice features and nicely developed very "current level" screen graphics. It has some nice features too, as well as a nice "on-screen skin" that makes touch-screen use easy. It also interfaces very well with standard Roco control systems.

**It DOES have some issues:** The Accessory control timings are not strictly DCC standard and the feature list is still being developed, but these things ARE developing steadily. **We DO like it well enough to offer it for sale – and not all products achieve that success!**



[Click to see ROCO DCC on DCCconcepts website](#)



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### ZIMO:

A definite Rolls Royce price and feature wise.

It is extremely well made and does everything it claims to do very well - which is a quite lot as it is a very sophisticated DCC system.

If I was to change from my own favourite at any time, this would make my shortlist!

**I LIKE:** Most things about the architecture and software approach of this system. It is really well designed in every way.

**I LIKE:** Zimo's positive approach to evolving new things and in approaching things in different ways, whilst all the time remaining 100% NMRA compatible.

**I DISLIKE:** The price. Whilst it is clearly a quality product I can't help feeling it is more expensive than it needs to be.

To be fair, its development costs are high compared to most as ZIMO keeps evolving new things and those costs need paying for.... But money is money to most modelers and it IS expensive!



### ZTC:

Originally a really nice, somewhat special system designed in UK, with a nice design, look and feel.

Sadly, this brand slips further and further behind reality in the DCC world and is now technically far behind the pack, less than great in performance and well and truly overpriced.

*(Since this was originally written ZTC closed for business, passed on its stock to a third party who attempted to keep the brand going, failed again and now once more, it is in a new set of hands who so far as can be seen, are trying very hard to resurrect it. We wish them well.)*

However, having had to help many ZTC owners through many, many problems that should never have happened over the years.... I have to say that while I admire their courage and I wish the new owners of the brand name every success, I am sorry, a simple "NOT AT ANY PRICE" still remains my opinion here.



ZTC should at the moment, occupy the same place on your short list as Z does in the Alphabet...

**NEW software is apparently in preparation: When that happens I will re-evaluate!**

## Our DCC Controller “Brand-by-Brand” opinion

### SO: How to evaluate a controller for YOUR Needs?

In the end it is YOUR choice, and any decision needs to be based on YOUR needs. Here’s my idea for a logical and sensible bit of research before you open up your wallet.

**FIRST:** Read the next few pages in this section of the website, and bed firmly in your mind that it is NOT the feature list that is important...

What really matters is whether your choice will do the FEW VERY IMPORTANT THINGS that YOU want it to do...

...and, that it fits with YOUR expectations and feels RIGHT in your hand!

(Most competent systems will control more locomotives and do more things than you can shake a stick at anyway)

**THEN:** Above all - Keep it fun, whatever you do – I’ve seen so much agonizing about the DCC decision process that I’m sure some will never be happy because they are forever second guessing or juggling feature lists!

It’s what it can DO for YOU, not how long the list is that’s important – unnecessary features are only useless clutter.

**REMEMBER:** When asking others what is best, they will ALWAYS recommend their own choice above all - that doesn’t make it right of course, nor does it make them wrong - it is just human nature.

**RELAX & ENJOY:** First and foremost, don’t worry as you go through this one step at a time - take it slowly and don’t be afraid to ask questions. This is an important step but do keep in mind – There is no reason not to enjoy the process of thinking and talking it through... and choosing your system!

You will soon forget that, unless you keep in your mind that it’s not a life threatening issue...

Do remember you are choosing how to IMPROVE YOUR MODEL RAILWAY OPERATIONS – not planning a trip to the tax office, dentist or proctologist. The decision process can be a pleasant journey of discovery if you follow the few simple guidelines in the next couple of website pages... and ask if you need advice or help!

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**Need more information? There is LOTS more information on our website at**  
**[www.dccconcepts.com](http://www.dccconcepts.com)**

**OR**

**Just call us on 08 9437 2470 or email us at [questions@dccconcepts.com](mailto:questions@dccconcepts.com)**  
**for a quick, honest, simple answer!**