



How does our Cobalt Tester work and why do we do it?

Words are easy, so we wanted to share our really extreme reliability testing with you.

We've made it look pretty but it's a very sophisticated test rig. LEDs in the track show you the position of the motor, and the display, set up to look like a billboard, counts the changes.

This device is computer-controlled to reproduce real-life activity in a way that NO "regular change" could do, because after all, you never change your own turnouts in a regular fashion, do you?

The test unit therefore changes a Cobalt Turnout motor with random timings between 30 seconds and several minutes, a very "Real world" approach.



What are we testing for?



This continuous process is done with every batch we make to ensure extreme reliability.

It actually tests two things at once – The motor drive and the internal switch reliability.

The Cobalt motors action is tested, monitored and verified as it reliably changes the turnout. We use Cobalt's own internal switches for this, because the ONLY way the switch can actually change is if the motor actually does its job.

We are tough on it too. We know that you need both the turnout motor and its switches to be reliable, so we allow almost zero error.

As a result, if any two changes are ever missed, the tester stops automatically... remembers the count so there is no doubt... and the motor is regarded as "failed".

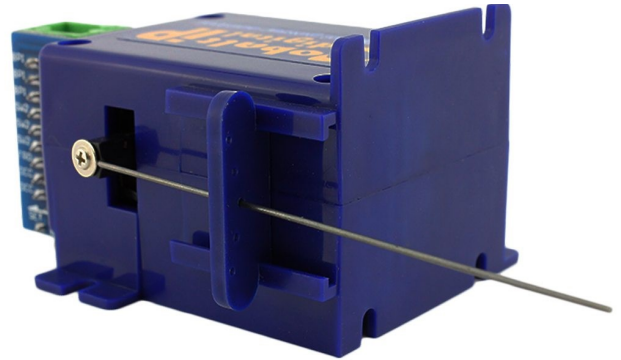




How long does it take?

After a few minutes watching, you will see that this is most definitely not a fast process!

- Perhaps 65 days for a full life test (tested until eventual failure, usually at around 200,000)
- About 45 days for an “Acceptable life” test, which we have set at 120,000 changes.



So why is 120,000 regarded as acceptable? There are two answers to this.

#1 - Comparisons prove its more than enough.

We insist on Cobalt being the best-of-the-best... So, of course, our competitors are tested too.

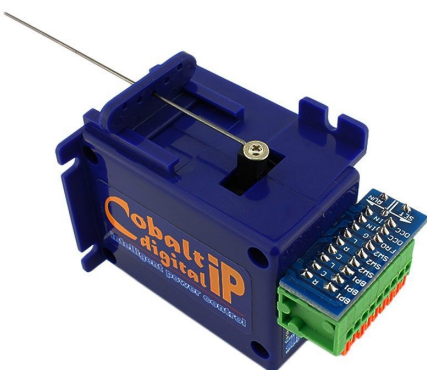
The average failure for “motor drive” units is less than 30,000, the best of them gets to about 85,000... IF we only test the motor drive. If we use their internal switching to count however, these numbers drop by a considerable amount.

If we test solenoids... they never make even 10,000, and they also destroy the turnout itself because solenoid action thumps across so violently and turnouts just can't take it. Not a great result!

#2 - Real world practicality and full verification of warranty term:

Rather than us telling you about this part, let's have some fun and let you do the maths.

- Imagine the busiest layout you can think of... home, club or exhibition, it doesn't matter.
- Imagine the turnout that is at the busiest part of that layout so it will also be the most frequently changed among all the turnouts.
- How many days a week will you operate it?
- How many hours per session will you operate it?
- How many times per session will you need change it?





OK, work that out, and do one more step in the math to create a number that is “Changes per year”, because then there is just one important “imagination step”.

How many years will you live?

We’ve played this maths game among ourselves many times. We know with absolute confidence that 120.000 changes is far, far beyond the limits of even the youngest purchaser’s possible lifetime.... So, you can be sure that a “Lifetime warranty” is exactly that... effectively forever.

Observations

As you can imagine, constant changing tests something else very effectively... and that is the reliability of the turnouts that we use in the testing. (We tend to use Peco Code 75 16.5mm gauge turnouts because so many of our customers use them, keeping the testing very “real world”).



Results of note:

- If we are testing Cobalt turnout motors of any type, they suffer almost ZERO wear in practical terms, lasting close to 1 million changes. This is both a testament to the gentleness of Cobalt Motors and the remarkable durability of the turnout.*
- If we test other “motor drive” brands, the turnout generally survives far fewer changes, because few other brands can come close to the control Cobalt has over the throw pressure.*

- If we test using solenoids, the turnout is effectively doomed, rarely surviving even 10,000 changes. Another clear demonstration of Cobalt’s advantages, as nobody loves having to change a turnout on a completed layout.*





➤ So, that's the tester and the Cobalt Lifetime Warranty story in one.

Our Cobalt Lifetime warranty is a very real benefit based on a real world understanding of product reliability that is constantly checked and re-verified.

So, drop in and take a look from time to time. Keep your purchase receipts because you may very well outlast the retailer that sold you your motors. Lubricate your motors between layouts please, and also keep them in a clean dry place between installations.

Thanks for being a Cobalt motor user. Enjoy the products and relax because they are going to be the last turnout motors you'll ever need to buy.

And of course..... We'll always be here if or when you need us. We care about what we create.

➤ DCCconcepts Dealer Network

You can buy Cobalt direct from us on www.dccconcepts.com - or you can order from any of our dealers. Our dealer network is always growing - find out if there is a dealer near you by clicking the globe below!





If you want to know more - just contact us. We are here 6 days a week and will be happy to take your calls any day between 10am and 5pm. You can also find us on Facebook, YouTube and via email to salesuk@dccconcepts.com - so wherever you are, we are only a few moments away!

Best wishes from all of us here at DCCconcepts

A handwritten signature in blue ink, appearing to read 'Richard Johnson', is positioned below the text.

Richard Johnson

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Don't be shy: We invite you to email us and discuss any changes you might like to see and welcome ideas for any "style" changes or additions we could consider to make more interesting reading.

Of course, if you have a specific subject that you would like us to cover, we will listen. Please email us at web@dccconcepts.com and we will see what we can do.

Until then, thank you for sharing your valuable hobby time with us.