

Quick start Guide (Encoder version)

Welcome to your *Patented* DC Co-Pilot!

VERY quick start – connect the 2 RAIL wires to the track and plug in the power supply and the handheld.

After the flashing and 2 beeps, (about 8 secs), drive your loco up and down to get the feel of the movement.

Press A to record, wait for the 2 beeps and drive up and down back to where you started.

Press C (Manual mode) Press B and watch your recording playback. Long beep = finished.

This is all very well but you need checkpoints and magnets to make the playback accurate.

1)

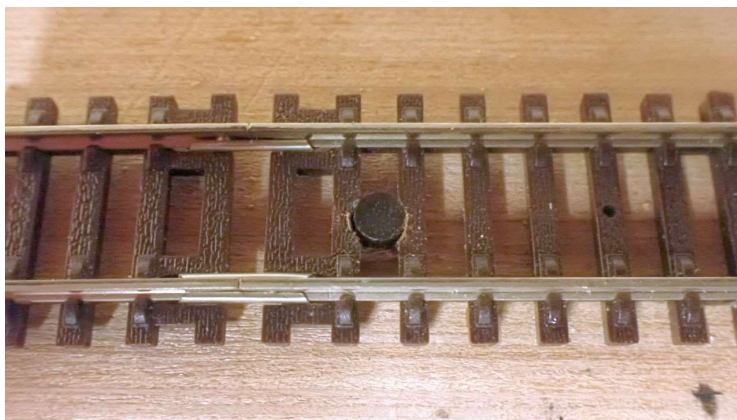
Fit a magnet to the underside of a non DCC loco so that the magnet passes less than 4mm above the sleepers.

The best place is between the front bogeys if possible.



2)

Decide where the datum checkpoint is to go, a good place is 150mm beyond the main platform of a mainline station. To start with just fit one checkpoint. In the photo a sleeper is cut and a 4.5mm hole drilled. Poke the checkpoint up from underneath so that the top of the checkpoint is level with the top of the sleepers. Fix with glue.



Note, We use Rising-Clamp connectors you need to fully turn the screws anticlockwise to open the jaws before inserting the wires.

3) The checkpoints, all in parallel, connect to the CKP terminals – either way round.

- 4) Connect the rail to the RAIL connections. Leave the 12v out terminals disconnected at this stage, the points and signals are covered in the downloadable main manual.
- 5) Plug in the Handheld unit.
- 6) Place the loco on the track in the mainline station facing the checkpoint.
- 7) Plug in the power supply to switch on. The lights on the handheld should flash Red/Green for about 8 seconds and then 2 beeps. Green LED on.
- 8) Press C there should be a beep. (C = Manual mode)
- 9) Slowly turn up the speed control. If your loco goes backwards stop the loco, unplug and swap over the two wires that connect to the rails.
- 10) The encoder allows very slow speed control, then the acceleration rate increases with speed. Turn the control anticlockwise to slow down and reverse.
- 11) Pressing the encoder in = Emergency stop. Press again to cancel Estop.
- 12) Have a go at driving back and forth a few times to get a feel for driving the loco. Notice the slow speed performance.
- 13) Return the loco to the mainline station facing the Checkpoint. Now is the time to do a simple recording.
- 14) Press A – Record (beep) and **WAIT** until you hear the 2 beeps. LED will be Red. This period gives the points a chance to reset when they get connected. Drive the loco over the checkpoint and you will hear a beep when the checkpoint is activated by the magnet, drive on a bit then stop.
- 15) Reverse back into the station. As the magnet passes over the checkpoint again you will hear another beep. Stop in the station.
- 16) Press C (Manual) to finish the recording. Remember, always finish a recording so that the loco is in the same zone between checkpoints that it was when you started the recording. The first checkpoint encountered on Record is DATUM and that must be the same checkpoint encountered on Playback.
- 17) Press B and stand back and admire your effort! Your recording will playback automatically. At the end of playback you will hear a long bleep that indicates the end of the routine. Press 125 and your routine will automatically play over and over until you press C.
- 18) Press C to return to manual operation. Get into the habit of Pressing C as often as you like!

Now consider adding more checkpoints they all go in parallel, the more checkpoints the better the stopping accuracy. 1 to 2 metres is good and just outside stations makes sense. For a fiddle yard on checkpoint at the focal point will cover all the sidings.

For fitting and using points and signals see the main manual.

If you hear 3 beeps it means the speed control is turned up but there is no loco present.

If you hear a continuous beep it means the loco is fitted with a DCC ready dummy pcb and C2 needs to be removed from it. - See main manual.

List of Handheld commands

When entering a value type the 3 figures then – beep – then the new value

- | | |
|---|--|
| A | Record |
| B | Playback |
| C | Manual |
| D | Toggle between Points and Signals control. Long beep = Points, Short = signals |
| * | Not used |
| # | Not used |
-
- | | |
|-----|---|
| 121 | Sets the point or signals addresses. First, push and hold the button on the points or sigs board to light its LED. In points mode (D=long beep) Set Points board address eg 121 beep 6, = set the lit points board as Nbr 6
In signals mode (D=short beep) Start Sigs board address eg 121 beep 1 = set the lit sigs board as 1. LED now flashes once per second. Then 122 and set the number of flashing signals associated with that board to 0,1 or 2. If you choose 1 the flashing signals will be Ch-1 |
| 125 | Repeat ON. The recorded routine repeats until you press C |
| 127 | Master Reset. Same as switching on from cold. The last routine is retained |
| 128 | Wipe the signals memory. Press 128 and wait for the long beep. |
| 129 | wipe a single signal memory. 129 beep 2 wipes the setting of signal number 2 |
| 130 | Record Signals. The routine will play and you embed signals data. |
| 131 | Set acceleration and deceleration rate. Values 1 to 20 default = 10 |
| 133 | write the maximum number of points in your system to memory. This speeds up the reset procedure. |
| 135 | Protect recording. Pressing 'A' with protect enabled will sound the beeper. |
| 136 | Un-protect recording |
| 200 | sets the feedback from 1 to 20 (default 12) see main manual |

Use only the 12 volt power supply supplied with this product

Use the power supply in open space and do not cover it

Switch off at the mains when not in use. The last recording will be retained.

Not intended for persons under the 16 years. Take care not to swallow the magnets.

If any part of this product become damaged do not use and contact us for a replacement

Safety of your models

Digital systems like these can occasionally do the unexpected. Always provide buffers at the end of lines to prevent trains running off the end of the track.

Ensure your tracks are not too close to the edge where if the train comes off the rail it could fall and become damaged.

