

Quick start.

Welcome to your DC Co-Pilot!

1)

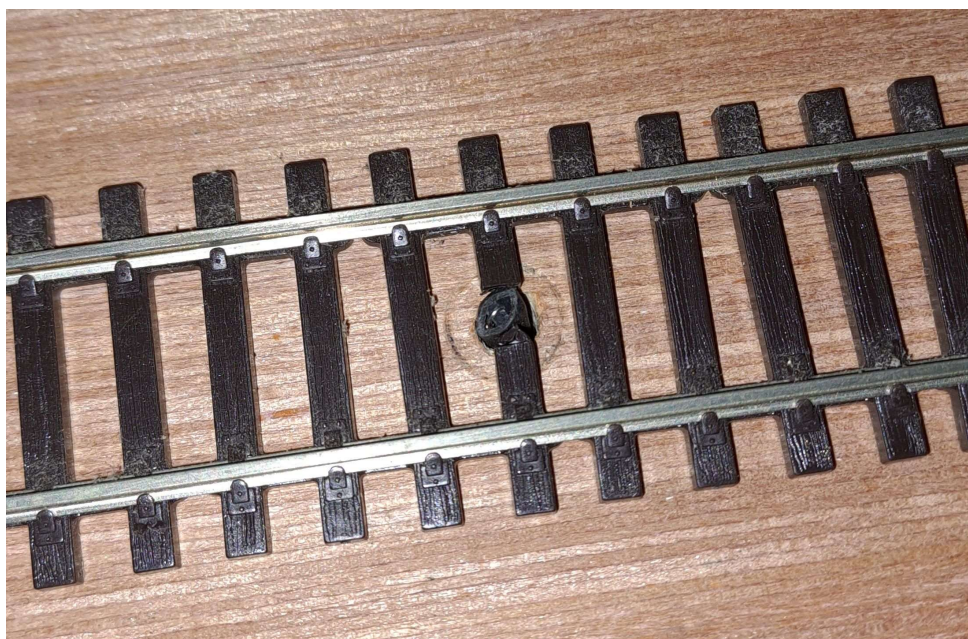
Fit a magnet to the underside of a loco so that the magnet passes less than 5mm above the sleepers.

The best place is between the front bogeys if possible.

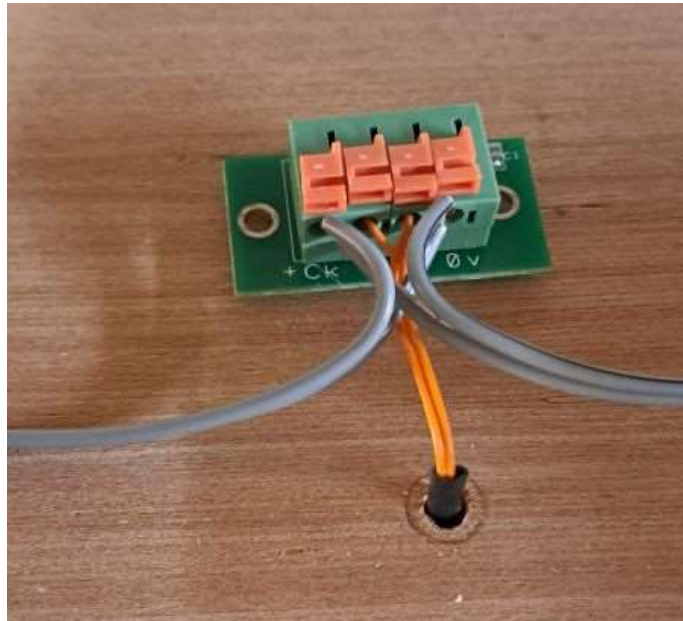


2)

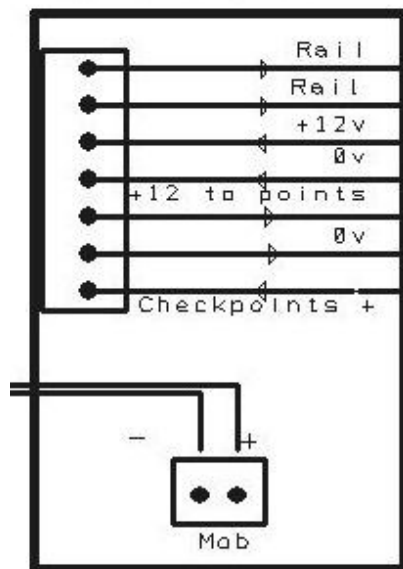
Decide where the datum checkpoint is to go, a good place is 150mm beyond the main platform of a mainline station. To start with just fit one checkpoint. In the photo a sleeper is cut and a 6mm hole drilled. Poke the checkpoint up from underneath so that the top of the checkpoint is level with the top of the sleepers. Fix with glue.



3) The sensor connects to the middle 2 terminals – either way round. The outer connections are CK+ and 0v.



4) The controller is the Main box with the 7 or 8 way connector. The 2 way connector goes to the mobile or handheld unit.



5) Connect the mainline rail to the top 2 connections. Connect the 15v 2A power supply to positions 3 and 4 observe the polarity.

Dont worry about the points and signals board at this stage

6) Connect the checkpoint + to position 7 and the Checkpoint 0v to either of the 0v.

7) Plug in the Mobile or Handheld unit.

8) Place the loco on the track in the mainline station facing the checkpoint.

9) Turn the speed control to 0 – fully anticlockwise. Plug in the power supply to switch on. The lights on the handheld should flash left – right left – right for about 8 seconds and then stop with the right hand (FORWARD) lit flashing Green Red Green Red.

10) Press C there should be a beep. (C = Manual operation)

11) 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.

12) Notice the speed of the loco is subject to the acceleration and deceleration rates we have built in. This is to make it all look realistic. They are adjustable.

13) stop the loco down the track and press * this toggles between forward and reverse. If the loco is stopped and the system is in reverse you will hear beep beep beep this tells you that you are in reverse and if you turn up the speed control you will go backwards. As soon as the loco starts moving this beeping stops thank goodness! The LED to the right of the speed control = Forward, and to the Left = Reverse.

14) have a go at driving back and forth a few times to get a feel for driving the loco. Notice the slow speed performance.

15) Return the loco to the mainline station facing the Checkpoint. Now is the time to do a simple recording.

16) With the speed control at zero, Press A. The loco will automatically advance to the checkpoint. As the magnet passes over it you will hear a beep and the loco will stop. Turn up the speed a little and drive down the mainline and stop.

17) Press * (reverse) turn up the speed control and reverse back into the station. As the magnet passes over the checkpoint again you will hear another beep. Stop in the station and press * again to set the system into Forward mode.

18) Press C 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.

19) 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.

20 Press C to return to manual operation. Get into the habit of Pressing C.

Now consider adding more checkpoints they all go in parallel, the more checkpoints the better the stopping accuracy. 1 every metre is good and just outside stations makes sense. Also just after points as you go into sidings is a good place.

For points and signals see the main manual.

List of Handheld commands

- A Record
 - B Playback
 - C Manual
 - D Toggle between Points and Signals
 - * Toggle between Forward and Reverse
 - # Emergency Stop (# to cancel)
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- 121 Start Points number eg 121 beep 1, = start and points number 1
 - 122 Start Sigs number veg 122 beep 1 = start at signals number 1
 - 123 Number of points in this points/sigs board. Eg 123 beep 2 = I have 2 sets of points
 - 124 Number of flashing signals eg 124 beep 1 = I have one set of flashing signals
 - 125 repeat ON, routines repeat until you press C
 - 126 Fault mode. 126 beep 1 = fault modes ON. 126 beep 2 = Fault modes OFF
 - 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. Sigs will have been wiped.
 - 129 wipe a single signal memory. 129 beep 2 wipes the setting of signal number 2
 - 130 Record Signals
 - 131 Set acceleration and deceleration rate. Values 1 to 20 default = 10
 - 132 Set the record start-up speed. In Manual mode set the speed you like after acceleration has finished and press 132 to write that speed to memory
 - 133 write the maximum number of points in your system to memory. This speeds up the reset procedure.

200 to 204 - see Advanced Train Settings in the manual