SC3 - Signal Controller for controlling one or two Dapol Motorised Semaphore Signals

CAUTION - ALWAYS SWITCH OFF POWER TO YOUR LAYOUT BEFORE CONNECTING THIS CONTROLLER

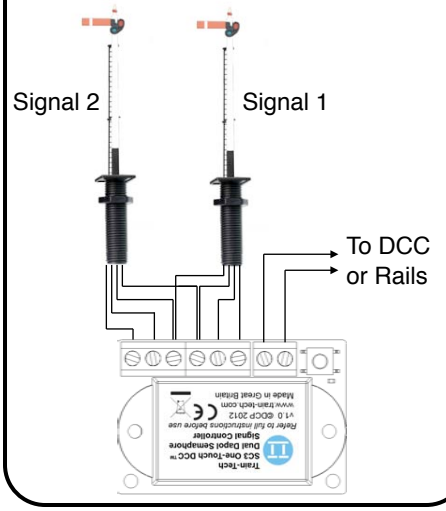
This Signal Controller incorporates a DCC decoder to enable it to be wired directly to the track and be operated by any controller or computer DCC system which is able to control DCC accessories. Please read these instructions before connecting or fitting your controller.

1 CONNECTIONS

The SC3 Signal Controller is specifically designed to control one or two unmodified Dapol Motorised Semaphore signals.
Switch off all power before connecting!

Connecting signals to the SC3
Dapol Semaphore signals come fitted with red, black & 2 yellow wires and these are connected directly to the SC3 terminals as labelled on the back of the unit. If using 2 signals, join pairs of red wires & pairs of black wires together.
Wires can be extended and joined if necessary but we suggest a maximum length of 1 metre.

Connecting DCC to the SC3
Connect the terminals marked DCC to nearby rails or the DCC controller output - any polarity.



2 SETTING SIGNAL ADDRESSES

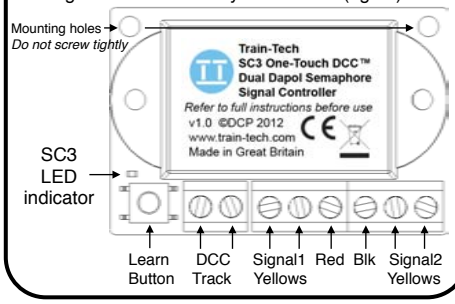
As the SC3 can control 1 or 2 signals you need to assign a DCC address to each one.
In our example we will use address 60 for signal 1 and 65 for signal 2.

• Set up your controller to control DCC *accessories* (refer to controllers instructions), then set your controller to the DCC accessory address you choose for Signal 1 (eg 60).

• Switch DCC power on - the SC3 LED will light

• To setup Signal 1 press the 'Learn button' *once* - the SC3 LED will start single flashing. Noting the signals current semaphore position, choose either a ◀ or ▶ 'direction' command from your controller to set the command for this semaphore position. LED will stop flashing and Signal 1 is set to the address you chose (eg 60)

To setup Signal 2, set your controller to the address you want to give signal 2 (eg 65), press the Learn button *twice* and the SC3 LED will start double flashing. Note semaphore position and choose either the ◀ or ▶ command from your controller to set the command for this position. The SC3 LED will stop flashing & Signal 2 is now set to your address (eg 65).



3 CONTROLLING THE SIGNALS

Control the signals by setting your controller to the DCC *accessory* address of the signal and sending a ◀ or ▶ 'direction' command from your controller to change the signal position (actual terms used for accessory control vary between controllers so refer to its instructions)

In our example
Address (60) ◀ or ▶ = Signal 1 Up or Down
Address (65) ◀ or ▶ = Signal 2 Up or Down
The SC3 LED flickers as you send a command

Each signal can be controlled independently with its own unique address or can be easily synchronised to other DCC signals or points etc by giving them the same address as each other.

For example you could program a Home Signal with the same address as a Distant signal, then the Distant will automatically follow the same position of the adjoining Home signal.
Or you could set a signal to automatically show Stop when a point is set against a train going towards it! Again all that you need to do is set the Signal to the same DCC accessory address as the point controller address.
Synchronising addresses is especially easy to do with Train-Tech One Touch DCC™ Point and Signal controllers because all you need to do is press the Learn buttons of all of the Signal and Point Controllers you want to sync and then send the address command - all will then be linked and respond together on that address.
Tip
Remember that whichever ◀ or ▶ command you use when you set the signal address dictates the command which will always set the signal to the position it is in when you set it up and it will remember this position. If you want to change it just repeat the process in step (2).

Troubleshooting

• Step 2 above is the 'One Touch' DCC stage which programs your chosen signal address into the controller so if things are not working as they should check the following:

• Check that the SC3 Indicator LED is lit - if not and DCC locos etc run correctly check all the connections between your DCC Controller and the SC3.

• If the SC3 LED is lit but does not flicker when you send a command, check that your DCC controller is in *Accessory* addressing mode - note that these are completely different to Locomotive addresses and should be explained in your controller instructions. If not check carefully that your controller will control DCC accessories - most do but some of the low cost starter controllers such as the Bachmann E-Z command and Prodigy Express models do not.

• If the signal does not operate and the lights behind the semaphore are not lit check that you have connected the black and red wires into the terminal blocks correctly - they are quite fine wires.

• Note that the SC3 allows sufficient time for the semaphore signal to move through its full distance before allowing it to change again, so if you notice a delay between rapid signal changes this is intentional to ensure reliability and quite normal.

If these checks fail please contact your supplier or DCP for advice and Technical support.

Location board labels

Dapol Semaphore signals come with a small location board fitted. However we suggest you could change the number to the DCC address you have programmed into your signal controller which will make the signal much easier to identify and operate.

The legends printed below can be cut out and fitted to your signal.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
AD	CA	DA	ES	EN	GE	GY	MY	PN	NW
ABCDEFGHIJKLMNOPQRSTUVWXYZ									
ABCDEFGHIJKLMNOPQRSTUVWXYZ									

DCC control

DCC is a system which transmits both power and digital commands down 2 wires or rails to control and power locomotives and accessories. At Train-Tech we believe that DCC technology should make life easier to build, program and use model railways, so we have designed a range of DCC Signals, Controllers and accessories which all connect using 2 wires and are all programmed using just one touch.
The SC3 can connect directly to the nearest DCC track to minimise wires - it takes both its commands and power from the rails.

Other useful tips and information

If you intend to fit lots of different DCC accessories and lights etc around your layout you may find it is better to install a 'bus-bar' system instead of using the track to carry the load for everything.

A bus-bar can made simply of 2 thick wires which you distribute around the underside of your baseboard - thick solid copper wires stripped from some surplus heavy mains cable can be ideal.

One-Touch DCC™ Digital Signals

DCC · WIRE FREE · 00 · HO

Track not included

- Signal with DCC decoder built into base
- Can just plug direct into track – no wires!
- Easy to fit and use – no CV programming!
- Can sync to other signals & points

DS1 Home: Red Ⓡ and Green Ⓖ
DS2 Distant: Yellow Ⓨ and Green Ⓖ
DS3 Home Distant: Ⓡ Ⓨ Ⓖ
DS4 Distant: Ⓨ Ⓖ Ⓨ
DS5 Outer Distant: Ⓡ Ⓨ Ⓖ Ⓨ
DS5HS Outer Dist: Ⓡ Ⓨ Ⓖ Ⓨ (High Speed mainline)
DS6 Dual Head Home: Ⓡ Ⓖ
DS7 Dual Head Distant: Ⓨ Ⓖ
DS8 Stop-Caution: Red Ⓡ and Yellow Ⓨ

One-Touch DCC™ Point Controllers

DCC · 00 · HO · N · Z

- Control points and uncouplers using DCC
- Easy to use – No CV programming!
- Work with most solenoid point motors
- Just connect 2 wires to nearby DCC rails
- Easy screw terminals – no soldering
- Built in CDU for efficient operation
- Can sync to other points and signals

One-Touch DCC™ Point controllers
PC1 DCC Single Point Controller
PC2 DCC Quad Points Controller
Point motor and track not included

Buffer Lights

DC · DCC · WIRE FREE · N · 00 · HO

Track and buffer stop not included

- Add realistic stop light to any siding
- Simply clips onto track – No wires!
- Fits next to most buffer stops & kits
- Or at platform end or free standing
- Low cost, easy to fit and use
- On DCC both lights are on constantly
- On DC one light is on & varies with speed
- Helps bring your layout to life!

BL1 00/HO gauge Buffer Light
BL2 N gauge Buffer Light

Automatic Tail, Firebox, Loco & Coach Lights

Auto · WIRE FREE · ANY GAUGE

Rolling stock not included

- No switch - senses motion & turns on!
- Turns off automatically 4 minutes after stop
- No pickup, wires or soldering - LED plugs in
- Fit in brake vans, coaches, loco, wagons etc
- Runs for ages on small button battery

Single output modules:
AL1 Flashing Tail light
AL2 Flame Tail / Firebox
AL3 Constant lighting

Dual output modules:
AL21 Flashing + constant
AL22 Flame + constant
AL23 Sparkarc + constant
AL24 Doors open + constant

LEDs & battery included

LFX Lighting Effect Controllers

DC · DCC · ANY GAUGE

LFX1 shown with supplied LEDs fitted to a Peco barrier kit - not included

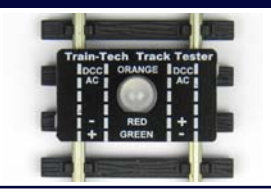
LFX1 Level Crossing Barrier
Controls Amber and Red LED's as seen at level crossings. Can power up to 4 sets of steady amber and flashing red LEDs

- Add lighting effects to your layout
- LEDs screw in – no resistors or soldering
- Powered by either 12-16V DC or DCC:
- On DC the effect is on when powered
- On DCC the effect can be controlled

LFX2 Home & Shop Lighting
Randomly controls lights in houses, shops, stations, pubs
LFX3 Traffic Lights
Controls one pair of timed traffic lights (Tip: You can adapt one of our Signal kits to make traffic lights)
LFX4 Log or Camp Fires
Controls amber, yellow, red LEDs for a realistic fire effect
LFX5 Welding effects
Realistic electric arc welding effects with bright LEDs
LFX6 Quad LED Lighting Controller
Controls 4 sets of LEDs on and off using separate DCC addresses. Directly powers 4 LEDs per output (DCC only)

Track Tester

DC · DCC · N · 00 · HO



- Quickly tests track for power faults
- Low cost and easy to use
- Works on N, TT, 00 or HO Track
- Indicates the DC polarity, or DCC, or a fault
- Small enough to check point frogs

TT1 Track Tester

0313

One-Touch DCC™ Signal Controllers

DCC · ANY GAUGE

- Control LED & Semaphore signals by DCC
- Easy to set up & use –No CV programming!
- Easy screw terminals – no soldering
- Can sync to other points & signals

SC1 Dual 2 aspect colour light signals controller
Controls one or two 2 aspect colour light signals. Compatible with Train-Tech SK2, SK3, SK7, SK8 and most other manufacturer's LED signals

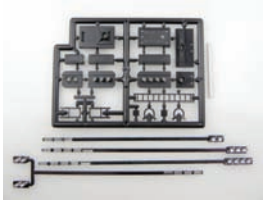
SC2 3 or 4 aspect or 2 aspect+route signal control
Controls one 3 aspect or one 4 aspect or one 2 aspect + route signal. Compatible with Train-Tech SK4, SK5, SK6 and most other manufacturer's LED signals

SC3 Dual Dapol OO/N Sempahore signal controller
Controls one or two standard OO or N Dapol motorised semaphore signals by DCC. Signals connect direct to the SC3 - no modifications or power supply needed.

Dapol Signals for photo - not included

Self Assembly Colour Light Signal Kits

DC · DCC · 00 · HO



The LEDs are pre-fitted onto a long narrow PCB stick to pass through your baseboard. Just attach your signal control wires to PCB

- Every kit includes the head, post and base plus detailing kit inc ladder, handrails, etc
- Aluminium 'post' included with each kit
- Low cost – adapt to your own design
- Control by switches or a signal controller

General purpose signal kit:
SK1 Basic kit 2/3/4 aspect & dual heads - no LEDs

Signal kits with LEDs and resistors
SK2 Home 2 aspect kit with Red Ⓡ Green Ⓖ LEDs
SK3 Distant 2 aspect kit with Ⓨ Ⓖ LEDs
SK4 Home Distant 3 aspect kit with Ⓡ Ⓨ Ⓖ LEDs
SK5 Distant 3 aspect kit with Ⓨ Ⓖ Ⓨ LEDs
SK6 Outer Distant 4 aspect with Ⓡ Ⓨ Ⓖ Ⓨ LEDs
SK7 Dual head Home 2 aspect with Ⓡ Ⓖ LEDs
SK8 Dual head Distant 2 aspect with Ⓨ Ⓖ LEDs

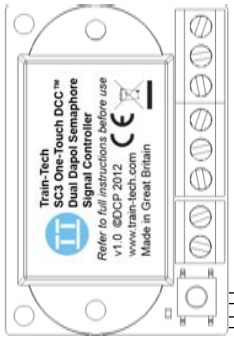
SEE WWW.TRAIN-TECH.COM OR CONTACT DCP FOR FREE COLOUR BROCHURE

+

Train-Tech
Model Technology Made Easy

SC3 DCC Dual Signal Controller for 2 Dapol Semaphore signals

- Control Dapol motorised Semaphores by DCC!
- Use standard Dapol signals - NO modifications
- Just 2 wires to nearest track - reduces wiring
- Easy One-Touch DCC™ - no CV programming!
- No extra power supply - regulator built-in



Dapol signals wire direct to this module for DCC control

www.Train-Tech.com

See our website, your local model shop or contact us for a free colour brochure
DCP Microdevelopments, Bryon Court, Bow Street, Great Ellingham, NR17 1JB, UK
Telephone 01953 457800 • email sales@dcpmicro.com • www.dcpexpress.com