

## Track Tester DC & DCC O & G Gauge OO HO N Gauge



- Quickly checks track for power faults
- Small & Larger Versions - for N gauge to G gauge!
- Multicolour LED Indicates the DC polarity, or DCC, or a fault

## Buffer Lights WIRE FREE DC & DCC O Gauge OO HO N Gauge



- Realistic stop light for any siding - fits most buffer stops
- Simply clips onto track - No wires!
- On DCC both lights are on constantly
- On DC one light is on & varies with speed

## DCC Fitted Digital Signals DCC WIRE FREE OO HO



- Signal with DCC decoder built in - No CV programming
- Easy to fit and use - can just plug direct into track - no wires!
- Wide range available - also available with Feathers and Theatres

## One-Touch DCC™ Point Controllers DCC ANY GAUGE



- Control points and uncouplers using DCC
- Work with most solenoid point motors - Built in CDU
- Just connect 2 wires to DCC rails - No CV Programming!
- Easy screw terminals - no soldering

## LFX Lighting Effect Controllers DC & DCC ANY GAUGE



- Easy way to add lighting effects to your layout
- Wires screw in - no resistors or soldering - LEDs included
- Powered by 9v battery, 8-16V DC or DCC
- On DC the effect is on when powered - On DCC it can be controlled

## Level Crossing - Ready Assembled DC & DCC OO HO N Gauge



- Power from 9-16v DC, DCC or a 9v battery - available in single & pairs
- Light and sound - all connections easy push fit
- Includes 2 x Peco static level crossing barriers
- Can be turned on automatically using a Track Sensor

## Traffic Lights - Ready Assembled DC & DCC OO HO



- Power from 9-16v DC, DCC or 9v battery - 2 Wire connection
- Realistic standard UK sequence and timing varies randomly
- Fully assembled - drill hole in baseboard & connect to power

## Track Sensor DC & DCC OO HO N Gauge



- Trigger level crossings and change semaphore signals
- Power from 12-16v smooth DC or DCC
- Can be used to trigger Sound Track, Smart Screen, Relays
- Four outputs for direct connection to LEDs for occupancy, FX

## Mimic Switches & Lights DC & DCC ANY GAUGE

- Make a mimic panel to control Layout Link items - Single wire to control
- Link to Track Sensors or Sensor Signals and LEDs show occupancy & signal status
- Link to Sensor Signals to manually override and switch route indicators on/off

## Smart Lights - Easy to fit Lighting Effects DC & DCC ANY GAUGE



- Small - Just 1cm x 1cm x 0.3cm with 2 wires
- Power by 9-16v DC, 9v battery, or direct to DCC which can control some effects
- Just connect and go - no setting up required
- Disco / Emergency / Real Fire / TV / Welding / Random / Programmable

## Automatic Tail, Firebox & Loco Lights DC & DCC AUTO WIRE FREE ANY GAUGE



- No switch - senses motion & turns on!
- Turns off automatically 4 minutes after stopping
- No pickups, wires or soldering - LED just plugs in
- Fit in brake vans, coaches, loco, wagons etc
- Runs for ages on 2032 button battery - LEDs & battery included

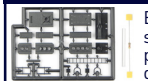
## Sound for your layout DC & DCC AUTO WIRE FREE ANY GAUGE

- SFX Sound**
- Sound capsule with no wires - runs from a battery - built in speaker
  - No connections to track so work with both DC & DCC
  - Motion activated - switches on when train moves! Real Sounds!
  - Tiny - 25mm x 20mm x 12mm - N gauge fitting guide available

- Sound Track**
- Record your own sounds and play them back on your layout!
  - Record 4 tracks upto 35 seconds each - Lock to protect favourites
  - Portable - use with 9v battery to take out & record sounds
  - Power from DC or DCC - Use Track Sensors or DCC to trigger sounds

- Scenic Sounds**
- Background sounds for your layout - built in speaker & volume
  - Power from DC or DCC - on DCC sounds can be triggered
  - Lineside • Station Steam • Station Modern • Urban • Rural

## Signal Kits DC & DCC OO HO



- Every kit includes the signal head, aluminium post & base plus detailing kit

- Low cost - adapt to your own design
- Control by switches or signal controller
- LEDs are prefitted to a narrow PCB
- Ground signals - modern & original
- Feather & Theatre kits available
- Signal Head only for gantries etc

### SK1 - Signal Kit



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## Signal Controllers DC & DCC AUTO ANY GAUGE

- **DCC Signal Controllers** - Wire in any LED signals to control from DCC accessory address
- **Automatic Signal Controllers** - Make any LED signal kit into an Automatic Signal!
- **Dapol Semaphore Controllers** - Control Dapol Semaphores by DCC or automatically

## Automatic Sensor Signals WIRE FREE DC & DCC OO HO



- Detects train and changes signal automatically to red
- Used own & signal changes back to green after train short time
- Or link to other Sensor Signals for fully automatic block signalling
- Can be used on both DC & DCC - Feather & Theatre versions

## Automatic Coach Lighting DC & DCC AUTO WIRE FREE OO HO N Gauge



- Easy to fit - no wiring or switch - senses motion & turns on!
- Turns off automatically - fits most coaches - may be cut down
- No pickups or wires so works on regular DC & DCC
- Traditional warm white or modern cool white
- Also with tail light, sparking, door beeps and door light effects

## Servo Controller DC & DCC ANY GAUGE

- Controls standard radio control servo from DCC, Track Sensor or Mimic switch
- Ideal for animating Level Crossing barriers / gates, Slow points or signals, Coal hopper
- Easy to wire and set up - connects directly to DCC or 8-16 volts smooth DC supply

## Relay Controller DC & DCC ANY GAUGE

- Two channel Relay unit which can be controlled by Track Sensor, Sensor Signal or DCC
- Enables remote control of motors, solenoids, lamps etc
- Incorporates two heavy duty relays with changeover contacts rated at 8-24 volts at 3 A

## Automatic Train Control DC & DCC ANY GAUGE

- Link Sensor Signals to Relay Controller for automatic trains which stop at red lights!
- Can be used on DC or DCC Layouts
- Easy wiring: Sensor Signal link with one wire and Isolated braking section two wires.
- Also supports ABC fitted DCC Loco's for gradual slow down and speed up with sound

## Tools, LEDs & Accessories ANY GAUGE

- We offer a range of LED packs, battery holders, wire, switches & terminals
- Also handy modelling tools including precision cutters, drill bits & spare batteries

## Smart Screen DC & DCC OO HO



- Real working animated screen - customise with your messages
- Use DCC to program - then can be run on DC or DCC
- Trigger messages with DCC, switches, track sensors or just cycle
- Message can change with direction of train on both DC & DCC
- Display upto 10 different messages - can also show real time clock
- Range of enclosure available - Programming service available
- Small - w 31mm x h 9.5mm x d 4.5mm
- Stationary top line - bottom line automatically scrolls

SEE [WWW.TRAIN-TECH.COM](http://WWW.TRAIN-TECH.COM) OR ASK FOR FREE COLOUR BROCHURE



**Train-Tech**  
Model Technology Made Easy

## SK1 Self assembly signal kit

[www.Train-Tech.com](http://www.Train-Tech.com)

See our website, your local model shop or contact us for a free colour brochure  
Train-Tech, Gagemaster House, Gagemaster Way, Ford Road, Arundel, BN18 0BN  
Telephone 01903 884321 • email [train-tech@gagemaster.co.uk](mailto:train-tech@gagemaster.co.uk)

# SK1 - Basic signal self assembly kit

## CAUTION - ALWAYS SWITCH OFF POWER TO YOUR LAYOUT BEFORE CONNECTING OR DISCONNECTING ANY ACCESSORIES

This Self assembly signal kit contains a plastic kit and aluminium post to make a single or dual head model colour light signal designed for use on OO/HO gauge model railways - please read these instructions before and during assembly.

### Introduction

#### Contents

- 1 Plastic Signal kit
- 1 Aluminium signal post
- 1 Instruction leaflet

#### Recommended tools (not included)

- Sharp craft knife or cutters
- Small needle file, tweezers or small pliers
- Adhesives to suit plastic/metal (see below)
- Magnifier
- Cutting mat

Thank you for purchasing one of our self assembly signal kits. This kit is an all new design based on an actual colour light signal near our base in Norfolk and is fairly typical of British outline colour light signals and designed to scale with the red light in line with the train drivers eye, just like the real thing.

This kit can be assembled as a single head 2, 3 or 4 aspect signal or as a dual head 2+3, 2+4 or 3+4 aspect signal and you can mix and match parts with other Train-Tech signals to make different combinations to suit your layout.

This basic kit is not supplied with any bulbs or LEDs for the signal lights, so you can either assemble and use it as a non-functioning signal or fit lights of your choice.

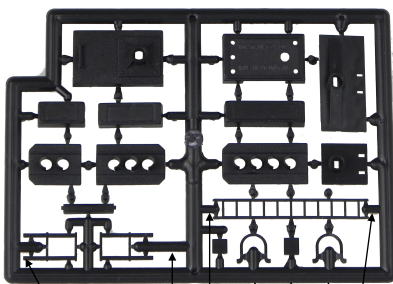
A set of suitable subminiature red, amber and green LEDs are also available as a low cost pack LED10 from Train-Tech direct at [www.gaugemaster.com/train-tech](http://www.gaugemaster.com/train-tech) and model shops.

**! Take extra care when using tools and adhesives.**

### Construction advice

The plastic part of this kit is made of a blend of mostly ABS which is slightly more forgiving and less brittle than the polystyrene often used for plastic kits. However it can still be glued together using most general model kit adhesives such as Humbrol or Revell Liquid Poly or 'super glue' - be sure to follow instructions for application and safety supplied with the adhesive. Note that if fixing accessories to the aluminium post, such as the phone or sign, you will need to use a glue which is suitable for bonding plastic to metal.

To remove parts from the sprue we suggest using either precision wire/model cutters (available from Train-Tech and model shops) or a sharp knife working on a scrap of wood or cutting mat. Some fragile parts, such as the ladder, may be more easily prepared by first removing the part with its larger plastic moulding supports attached, then carefully removing the part from the supports. If you wish to paint any parts most model enamel paints should work fine but if unsure check on a small piece of scrap plastic first. Please note that we cannot help customers assemble kits, but if you have difficulties making kits we suggest you try contacting your local model club for assistance.



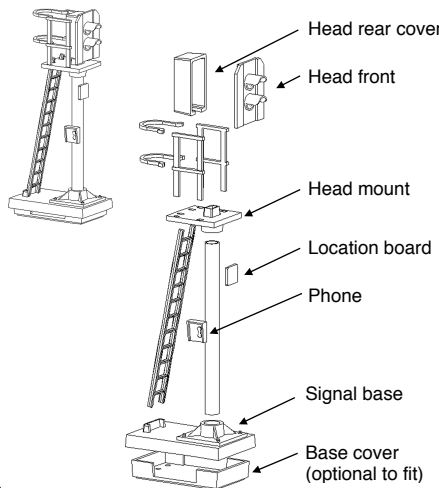
To remove the small parts we recommend first cutting thick supports to release main parts then trim off the small parts using a craft knife or cutters

### Assembly as a single head signal

The exploded diagram below shows all the various components which go to make up a complete single head 2, 3 or 4 aspect signal although you can fit as few or as many of the detailing parts as you wish. We recommend you read the construction advice below on how to remove parts, adhesives etc.

#### Suggested order of assembly:

- Slide LED PCB through slot in head mount
- Push fit or glue head mount onto the metal post
- Push fit post into signal base and align
- Dry fit or glue ladder between head mount & base
- Glue base cover under base if desired
- Glue handrails, phone, location board if desired
- If using lights fit them into the head & fit rear cover
- Pass wires through post and glue head in position

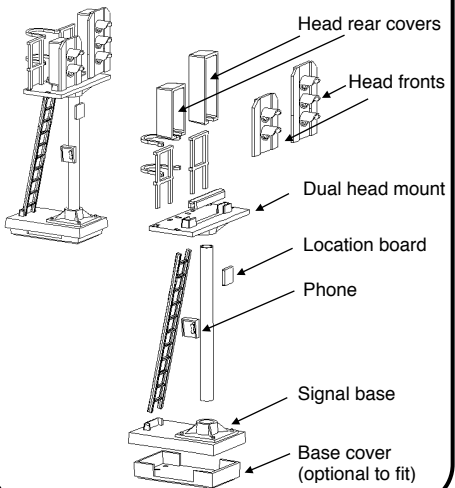


### Assembly as a dual head signal

The exploded diagram below shows all the various components which go to make up a complete dual head signal, although you can fit as few or as many of the detailing parts as you wish for your model. We recommend you read the construction advice below on how to remove parts, adhesives etc.

#### Suggested order of assembly:

- Slide LED PCB through slot in head mount
- Push fit or glue dual head mount onto metal post
- Push fit post into signal base and align
- Dry fit or glue ladder between head mount & base
- Glue base cover under base if desired
- Glue handrails, phone, location board if desired
- If using lights fit them into heads & fit rear cover
- Pass wires through post & glue heads in position



### Using Signals with Train-Tech DCC controllers

Train Tech manufactures various LED controllers including the SC1 and SC2 DCC signal controllers which allow signals with LEDs to quickly and easily connect to DCC layouts for control by Digital controller or computer. Like all of our One Touch™ DCC products they are quick to connect needing no resistors or soldering and set up in seconds with no programming of CV codes. Assembled Digital Signals with DCC decoders built into the base are also available which just clip into the track with no wires or you can connect to the nearest piece of track using 2 wires.

As well as DCC signals and controllers, Train-Tech also makes a range of LFX LED lighting controllers which work on both DC and DCC and offer effects to simulate level crossings, welding, traffic lights etc - again resistors are built into all of the LFX units and so LEDs connect directly to them.

Train-Tech offers packs of various LEDs for modellers and these come with both instructions and suitable resistors for using them on a standard DC supply or non Train-Tech DCC controllers.

See [www.train-tech.com](http://www.train-tech.com) for full details of our range.

#### Location board labels

These legends can be cut out and glued to the model Location board on the plastic sprue. If using DCC we suggest you use the address you have programmed into your signal decoder which will make the signal easier to identify and operate.

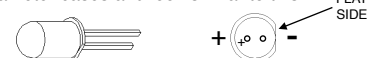
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
AD	CA	DA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

### Using LEDs with model railways

You can use various types of lights for your signal, but we recommend LEDs as the best choice for models. LEDs are really useful lights which, unlike their conventional filament predecessors, are robust, low power and if used correctly run cool and can effectively last forever. But there are some important considerations when using LEDs. Firstly LED stands for Light Emitting Diode and a diode is an electronic component which only works in when power is applied in one specific direction, so they always need to be fitted the correct way round to work correctly. Also most standard miniature LEDs a modeller will use only need a very small amount of power, so the current flowing through the LED must be limited and this is usually done by a resistor. On the usual 12-16 volts DC supply a railway modeller uses a 1kΩ (one thousand ohms) will limit the current to around 10-14mA (mA is thousandths of an amp) which is ideal for most LED's. Note you should only ever use LEDs on a DC (direct current) supply and never an AC (alternating current) supply because although the LED may appear to work properly constant reversal of voltage using AC will eventually damage or shorten its life.

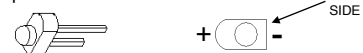
#### Connecting LEDs

As explained previously LEDs have a polarity and must be connected the correct way round to light. The most popular LEDs come in 3mm and 5mm diameter cases and look similar to this:



The best indication of polarity on this type of LED is to find the flat side on the round base. This side usually indicates the negative (Cathode) connection and the other wire the positive (Anode) connection to power.

Another really small LED we supply for some Train-Tech products looks like this:



There are many LEDs available and it is good to experiment, but check data for specific connection information as there are no real standards.