### **Overhead Line Equipment**



### **OHLE PRODUCT GUIDE - OO Gauge**

**SET E1 - Mono-Boom Anchor Portal SERIES 1** 

**SET E2 - SERIES 1 Twin Track Cantilever** 

**SET E3 - SERIES 1 Single Insulated Cantilever** 

**SET E4 - SERIES 2 Two Track Cantilever** 

**SET E5 - OHLE Accessories** 

**SET E6 - 1500v DC I-Beam Type Structures** 

**SET E7 - 1500v DC Lattice Framework Structures** 

**SET E8 - 1500v DC A-Frame Type Structures** 

**SET E13 - Southern Region 750v DC Overhead** 









# **Overhead Line Equipment**

OHLE Structure (Incl. Bases)



#### **Choose Registration Arms**



#### Add extra Detail



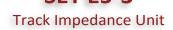
**SERIES 1** Mono-Boom Anchor Portal (Adjustable Span up to 4 tracks) with Magnetic Bases



**SET E1-3 / E1-4** Registration Arms (Left/Right) (for use without wires)

or

**SET E5-3** 





**SET E1-8 Additional Magnetic** Base Kit





**SET E5-4 Red Bonds** 



**SET E5-8** Insulators





**SET E1-2** Structure Extension Kit (if you want to span more than 4 tracks)



**SET E1-5 / E1-6 Magnetic Registration** Arms (Left/Right) (for use with Peco Wires)



**SET E5-9 LWR Expansion Joints** 

SET E1





**SET E5-5** Pantograph Inspection Equipment

### **Overhead Line Equipment**

### Select Mast (incl. Base)



**SET E2-1** 

Series 1 OHLE Mast 95mm Arm with Magnetic Base



**SET E2-2** 

Series 1 OHLE Mast 115mm Arm with Magnetic Base



with Magnetic Base

#### **Choose Registration Arms**



### SET E2-9 / E2-10 / E2-11

Registration Arms (Left/Right/Combined\*) (for use without wires)

or



### SET E2-12 / E2-13 / E2-14

Magnetic Registration
Arms (Left/Right/Combined\*)
(for use with Peco Wires)

\* Combined Registration Arms - Coming Soon

### +

#### Add extra Detail



SET E2-6

Additional Magnetic Base Kit



**SET E5-3**Track Impedance Unit





**SET E5-7** 

APC Magnets



**SET E5-4** 

**Red Bonds** 



Insulators



Wire Tensioners & Conductor Wire Mount



SET E5-5

Pantograph Inspection Equipment

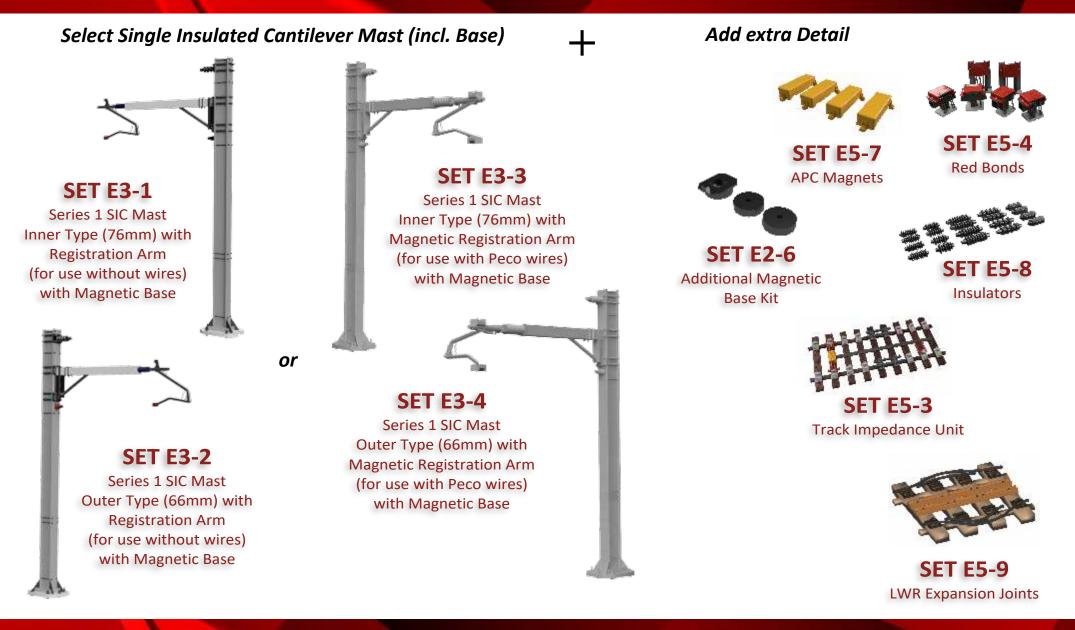
Release
SET E2-8
Transformer

**Future** 

PLEASE REFER TO THE WEBSITE FOR FULL PRODUCT DETAILS

www.westhillwagonworks.co.uk

# **Overhead Line Equipment**



# **Overhead Line Equipment**

Select Mast (incl. Base)



Series 2 OHLE Mast 100mm Arm with Magnetic Base





with Magnetic Base

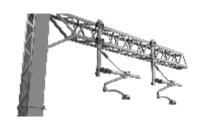
**Choose Registration Arms** 



SET E4-4 / E4-5
Registration Arms (Left/Right)

(for use without wires)

or



SET E4-6 / E4-7

Magnetic Registration

Arms (Left/Right)

(for use with Peco Wires)



Add extra Detail



Additional Magnetic
Base Kit



SET E5-7
APC Magnets



SET E5-4
Red Bonds



**SET E5-3**Track Impedance Unit







**SET E5-9**LWR Expansion Joints



Future Release

**SET E5-6**Mast with Transformer

SET E5-5
Pantograph Inspection
Equipment

**SERIES 2** Two Track Cantilever

SET E4

PLEASE REFER TO THE WEBSITE FOR FULL PRODUCT DETAILS

www.westhillwagonworks.co.uk

### **Overhead Line Equipment**

#### Select Mast kit (incl. Bases)

### **SET E6-1**

**I-Beam Masts** for 2-Track 170mm Span with Magnetic Bases

#### **SET E6-2**

**I-Beam Tall Masts** for 2 Track 130mm Span

with Magnetic Bases 📥

#### **SET E6-3**

**I-Beam Platform** Masts for 2- Track 170mm Span with Magnetic Bases

### **SET E6-4**

DC I-Beam Viaduct Masts with Magnetic Bases

#### **SET E6-5**

**I-Beam Top Braced Masts** for 4-Track 230mm Span

with Magnetic Bases

# **Future** Release

#### **SET E6-6**

I-Beam Supported Masts (3) for 2+2 Track 170mm Spans with Magnetic Bases

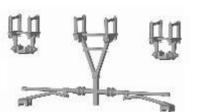
#### **Registration Arms**



#### **SET E6-11**

Single Magnetic Registration Arms (2) & 2 Catenary Wire Supports (for use with Peco wires)

#### or



30 & 60mm Span Beams Extension piece (Use with E6 SETS)

#### **SET E6-12**

**Double Magnetic Registration Arm** & 2 Catenary Wire Supports (for use with Peco wires)

# **SET E5-8**

Insulators

#### **Additional Parts**



#### **SET E4-9**

**Additional Magnetic** Base Kit

#### **SET E6-13**

Additional Viaduct Mast Magnetic Base Kit (Spares for E6-4)

### **SET E6-10**



**Alternative Span Beams** for 145mm Viaducts (use with SET E6-4)

#### **SET E6-17**

Single Track Alternative Span Beams

(Use with SETS E6-1, E6-2, E6-3 & E6-5)

PLEASE REFER TO THE WEBSITE FOR FULL PRODUCT DETAILS

www.westhillwagonworks.co.uk

### **Overhead Line Equipment**

#### Select Cantilever Mast kit (Incl. Bases)









#### NOTE

Sets E6-7 and E6-8 are each supplied with a Magnetic type **Registration Arm** 







#### **SET E6-15**

**I-Beam Wire Mounted Registration** Arms & Tall Catenary Wire Support Set Magnetic Type - for kit E6-9 (for use with Peco Wires)

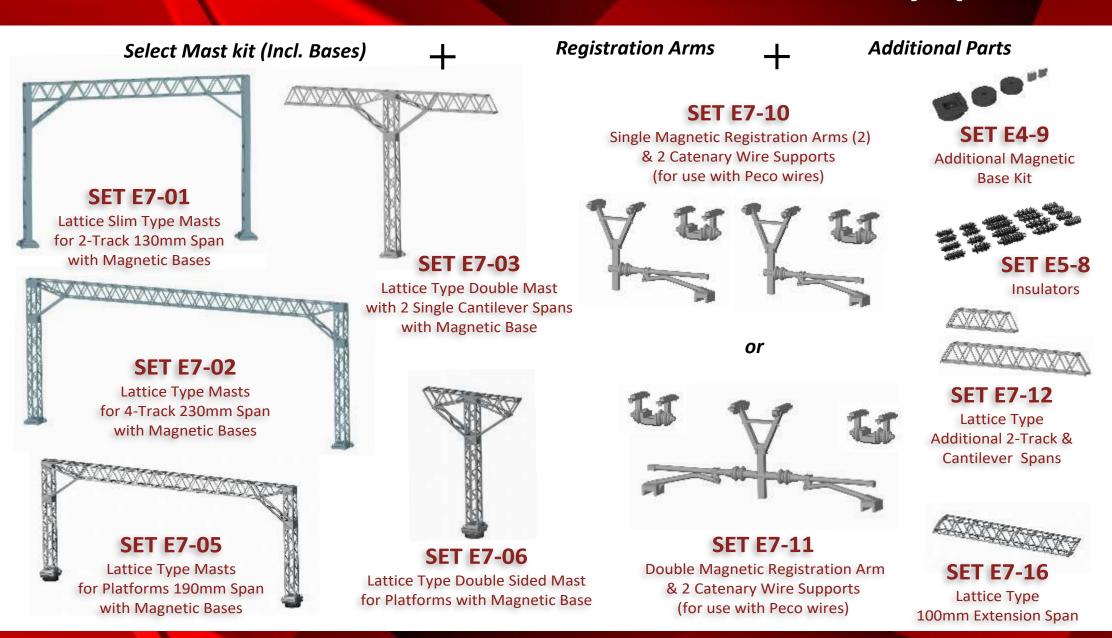




I-Beam Masts - 2-Track for Wire Mounted Registration Arms, with Magnetic Bases



### **Overhead Line Equipment**



1500v DC OHLE (Lattice Type)

SET E7

PLEASE REFER TO THE WEBSITE FOR FULL PRODUCT DETAILS

www.westhillwagonworks.co.uk

# **Overhead Line Equipment**

Select Mast kit (Incl. Bases)



**Registration Arms** 



#### **Additional Parts**



**Additional Magnetic** Base Kit



**Lattice Type Masts** 2-Track 130mm Span for Wire Supported Registration Arms with Magnetic Bases



**SET E7-17** 

Single Magnetic Wire Supported Registration Arms (2) & 2 Catenary Wire Supports for fitting to kit E7-4 (for use with Peco wires)



**SET E7-12** 

Lattice Type Additional 2-Track & Cantilever Spans



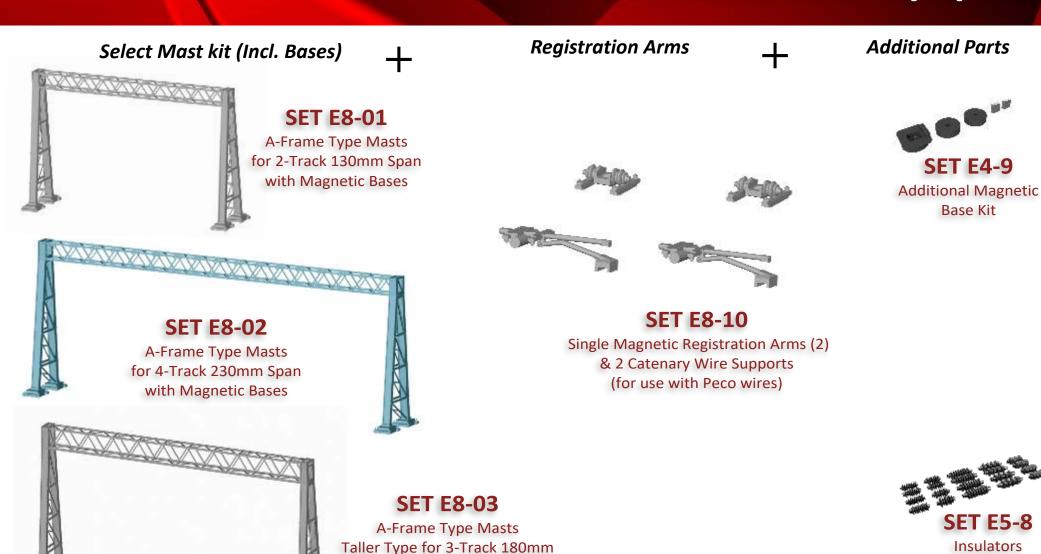


**Lattice Type** 100mm Extension Span



**SET E7-18 Lattice Type** 45mm Extension Spans

### **Overhead Line Equipment**





Span with Magnetic Bases

### **Overhead Line Equipment**

#### Select Mast kit (Incl. Bases)





#### **Additional Parts**





**SET E13-01** 

Southern Region 750 DC Type Masts 3 x Cantilever Structures with Magnetic Bases

### **Overhead Line Equipment**

Regarding the spacing of OHLE masts along your track; the real railway mast spacing can be vary between about 20metres and 70metres which equates to 260 to 920mm in OO Gauge.

In general mast spacing is likely to be closer together at junctions and on sharper curves.

The Peco wires are available in the following lengths 200mm, 260mm, 340mm, 380mm and 500mm, so if you are fitting wires then it makes sense to space your masts to suit the Peco wire lengths.

Mast Spacer Tools are available



**SET E5-10** 

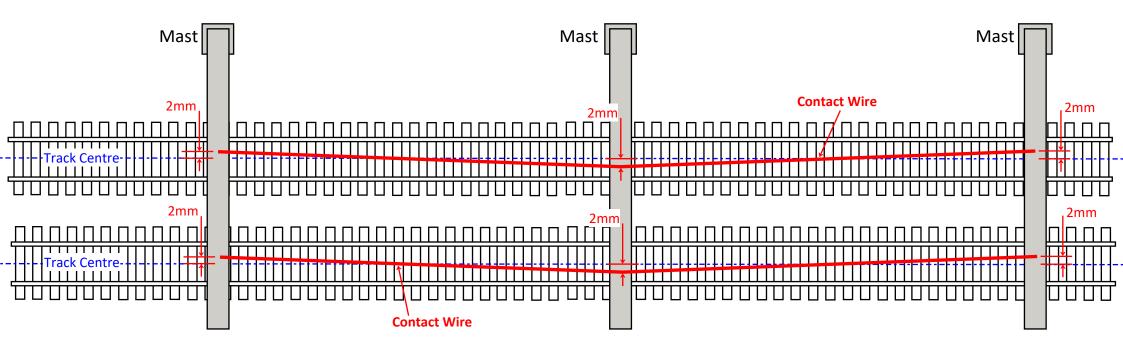
Mast Spacer Tool Set

(Includes 200, 260, 300 and 360mm Spacers)

### **Overhead Line Equipment**

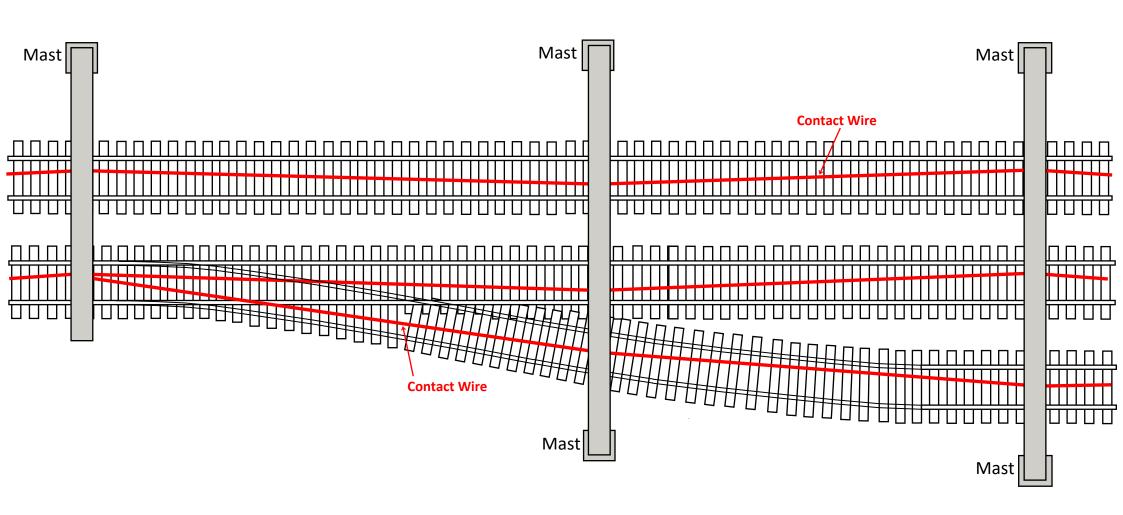
### **OHLE Wire Stagger**

On the real railway the contact wire is staggered so that the current collection pantograph on the train wears evenly. When installing the registration arms they should be positioned such that the contact wire has a stagger of 2mm either side of the track centre line when looking from above.



### **Overhead Line Equipment**

### **OHLE at Junctions**



# **Overhead Line Equipment**

### Fitting the Magnets to the Masts and Mast Bases



1 Mast, 2 Magnets, 1 Base 2 Spacers



Apply a little glue into the hole in the bottom of the Mast



Glue one magnet into the Mast



The Base can be attached on to your layout using glue, a screw or a track pin.
Add spacers to raise base height if desired



Attach the base to the desired location on top of the board beside the track. Ensure there is enough clearance for trains to pass



Apply glue to the hole in the base; only in the hole not on the top face of the base



Put the second magnet onto the first one that you glued into the Mast



Stand the Mast in position on the base and allow the glue to dry



Check the two magnets are securely glued in place by carefully lifting the Mast

### **Overhead Line Equipment**

### Fitting the Magnets to the Registration Arms



Magnetic Registration Arm & Catenary Wire Support Kits are supplied with Magnets + a couple of spares Magnets



Use fine pointed metal tweezers to hold the magnet. Use a cocktail stick to apply a very small spot of glue into the cup in the Registration Arm or Catenary Wire Support





Carefully align the magnet with the cup and gently squeeze into place until the magnet is fully home



Attach the registration Arms and Catenary Wire Supports to the Mast Structures as shown in the respective section of this guide

Magnetic Registration Arms and Catenary Wire Support kits are intended for use with Peco type OHLE wires

### **Overhead Line Equipment**

Assembly of SET E1 - Mono-Boom Anchor Portal Masts

Fit the span sections together as shown, secure with a little glue.

Ensure the span sections are aligned and straight.

Span extension sections are fitted in the same manner

Fit the magnets to
Magnetic Type
Registration Arms /
Catenary Wire Supports
as per the respective
section of this guide

Fit the support to each Mast.

The round bases may be fitted onto your layout to sit under the support ends Fit the Masts into the outer span sections as shown, secure with a little glue.

Ensure the Masts are vertical

Once the structure is positioned on the layout, slide the Registration Arms / Catenary Wire Supports onto the Structure. A small spot of glue may be required to hold them in place



Fit the magnets to

Masts as per the

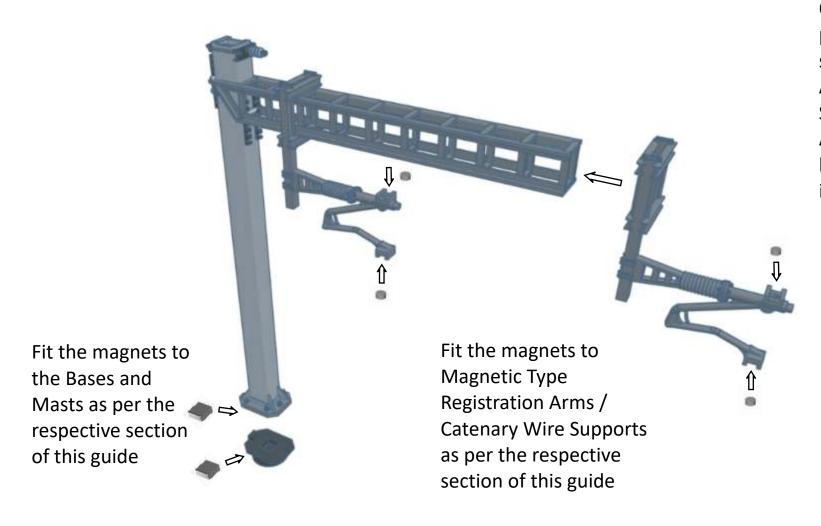
respective section

the Bases and

of this guide

### **Overhead Line Equipment**

### Assembly of SET E2 - Series 1 Cantilever Masts



Once the structure is positioned on the layout, slide the Registration Arms / Catenary Wire Supports onto the Mast. A small spot of glue may be required to hold them in place

### **Overhead Line Equipment**

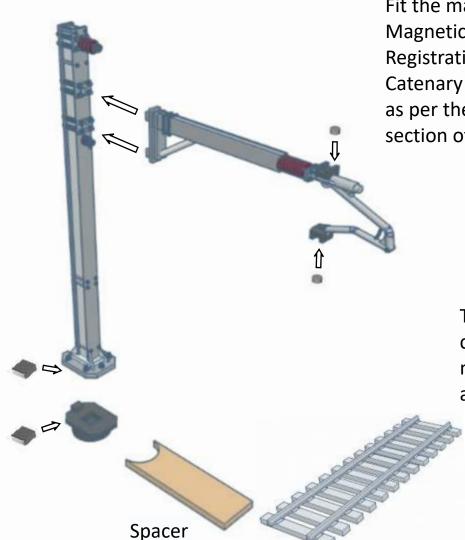
Assembly of SET E3 - Series 1 SIC Masts

Fit the Cantilever part to the Mast as shown; this is a push-fit.

A very small spot glue can be used if desired.

Ensure the Cantilever is aligned with the Mast

Fit the magnets to the Bases and Masts as per the respective section of this guide

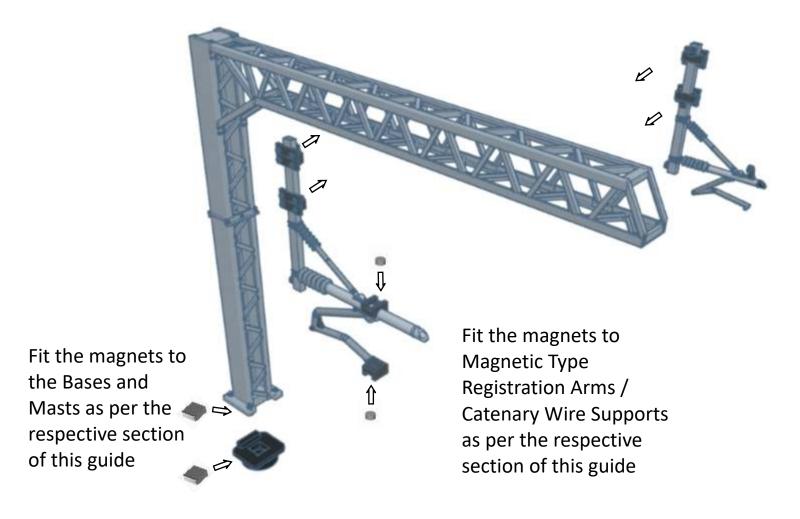


Fit the magnets to
Magnetic Type
Registration Arms /
Catenary Wire Supports
as per the respective
section of this guide

The spacer tool provided can be used to ensure the mast is the correct distance away from the track

### **Overhead Line Equipment**

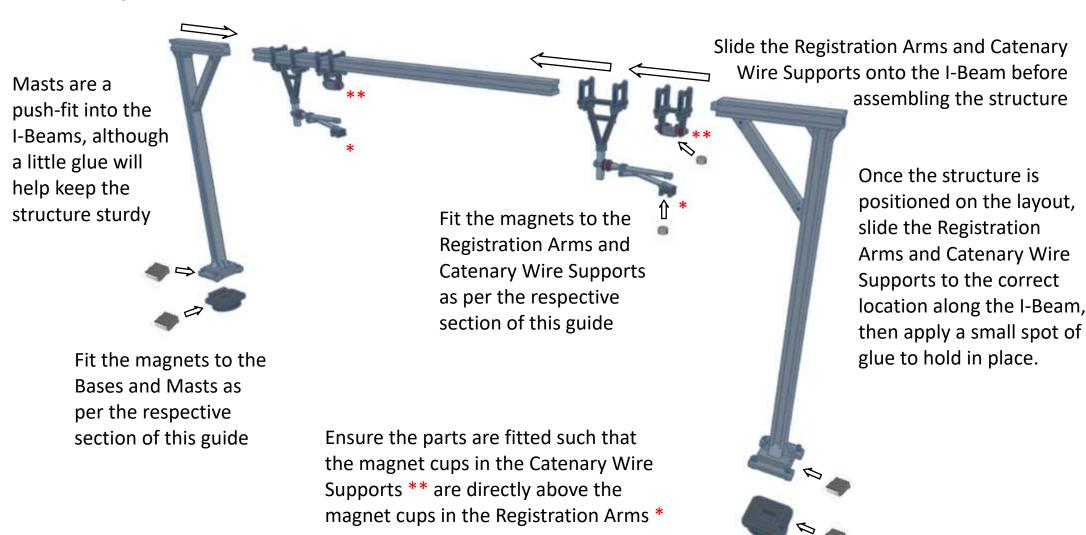
### Assembly of SET E4 - Series 2 Cantilever Masts



Once the structure is positioned on the layout, clip the Registration Arms / Catenary Wire Supports onto the side of the Mast. A small spot of glue may be required to hold them in place.

### **Overhead Line Equipment**

Assembly of SET E6 - 1500vDC I-Beam Masts (E6-1, E6-2, E6-3, E6-5 & E6-6)



# **Overhead Line Equipment**

### Assembly of SET E6-4 - 1500vDC I-Beam Viaduct Masts E6-4)

Masts are a push-fit into the I-Beam, although a little glue will help keep the structure sturdy

Fit the magnets to the Bases and Masts as per the respective section of this guide

Note, for the Viaduct E6-4 Masts and Bases the Magnets sit vertical as shown (not flat)

Fit the magnets to the Registration Arms and **Catenary Wire Supports** as per the respective section of this guide Once the magnets to the

Bases, these can be glued

to the side of your Viaduct

Slide the Registration Arms and Catenary
Wire Supports onto the I-Beam before

assembling the structure

Once the structure is positioned on the layout, slide the Registration Arms and Catenary Wire Supports to the correct location along the I-Beam, then apply a small spot of glue to hold in place.

Ensure the parts are fitted such that the magnet cups in the Catenary Wire Supports \*\* are directly above the magnet cups in the Registration Arms \*

### **Overhead Line Equipment**

### Assembly of SET E6-7 / E6-8 - 1500vDC I-Beam Single Track Cantilever Masts

40mm (approx) x 0.5mm wire rod

For added detail a straight piece of 0.5mm solid wire cut to 40mm long may be fitted through the hole in the free end of the Mast (#) and into the hole in the Registration Arm (##)

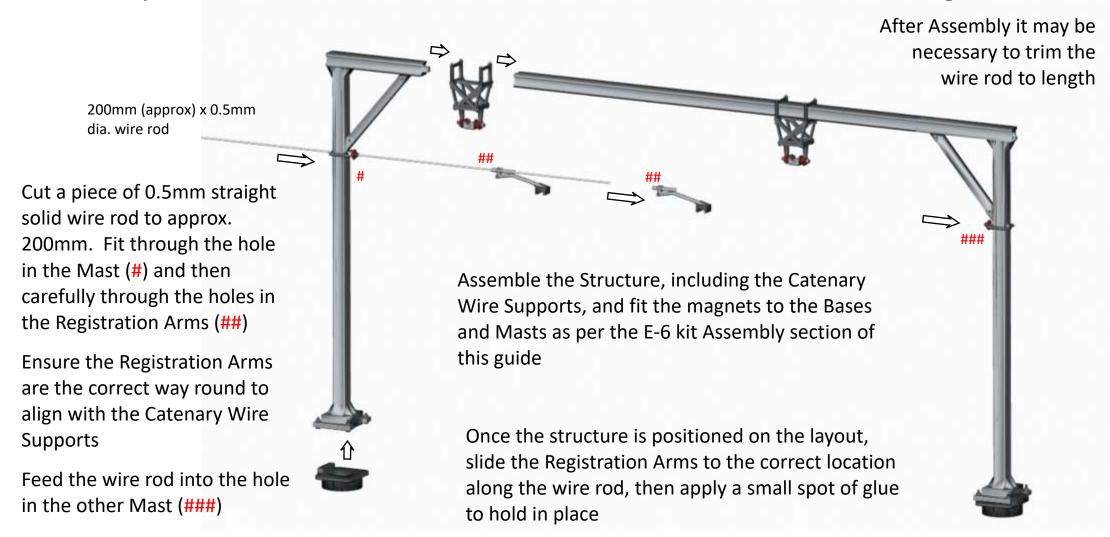
Fit the magnets to the Registration Arms and Catenary Wire Supports as per the respective section of this guide

Once the magnet is fitted to the Registration Arm glue the Registration Arm to the Mast as shown, ensure the Registration Arm is the correct way up with the magnet pointing downwards

Fit the magnet to the Base and Mast as per the respective section of this guide

### **Overhead Line Equipment**

### Assembly of SET E6-9 - 1500vDC I-Beam Mast kit for Wire Mounted Reg. Arms



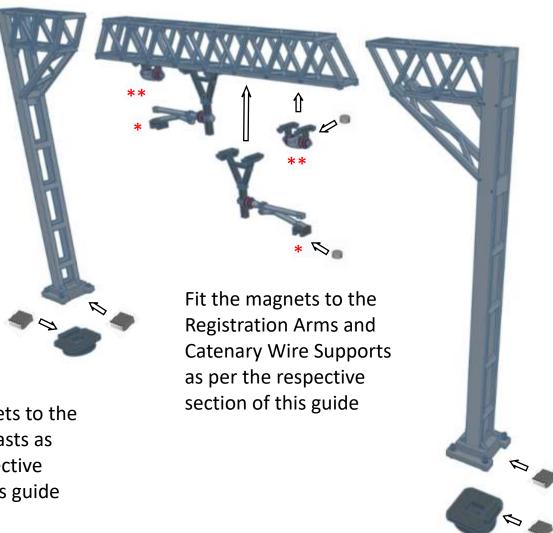
### **Overhead Line Equipment**

### Assembly of SET E7 - 1500vDC Lattice Type Masts (E7-1, E7-2 & E7-3)

The Span has small lugs that slot into each Mast, a little glue is required to keep the structure sturdy.

Ensure the Masts are vertical and the top of the Span aligns with the top of the Masts before the glue sets

Fit the magnets to the Bases and Masts as per the respective section of this guide

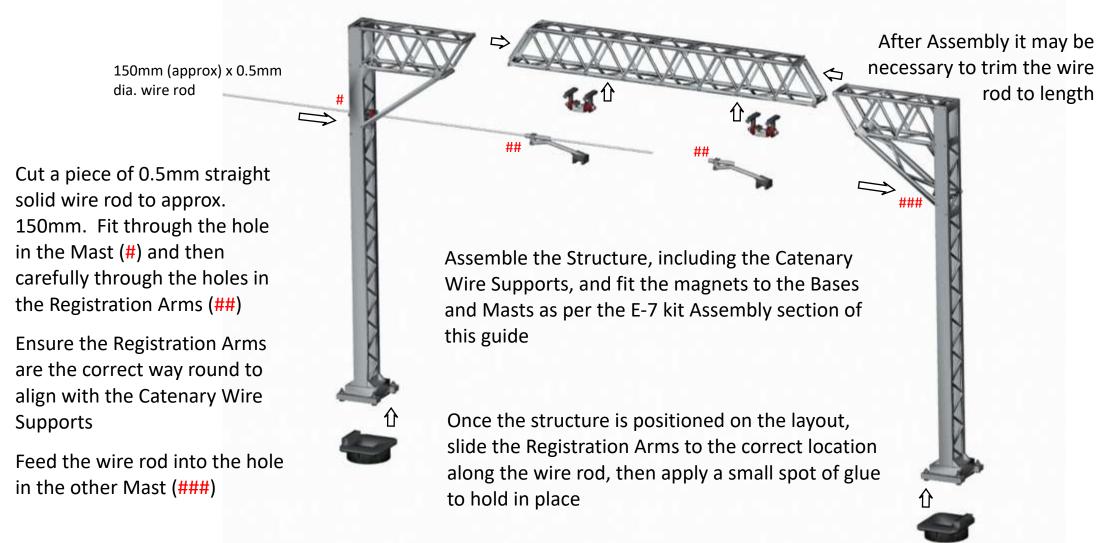


Once the structure is positioned on the layout, attach the Registration Arms and the Catenary Wire Supports to the underside of the Span at the correct location along the Span with a small spot of glue to hold them in place

Ensure the parts are fitted such that the magnet cups in the Catenary Wire Supports \*\* are directly above the magnet cups in the Registration Arms \*

### **Overhead Line Equipment**

### Assembly of SET E7-4 - 1500vDC Lattice Type Masts for Wire Mounted Reg. Arms



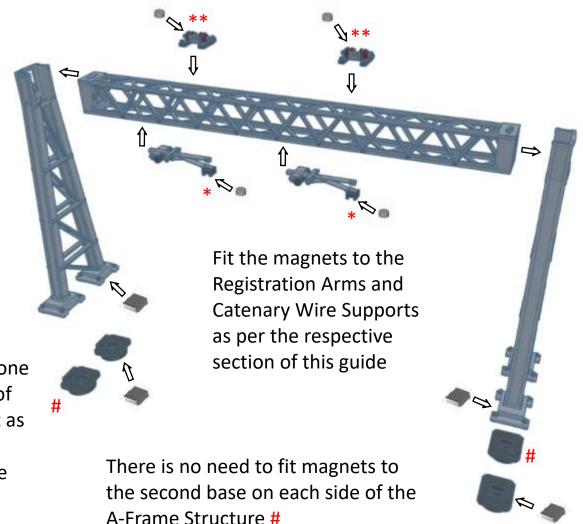
### **Overhead Line Equipment**

### Assembly of SET E8 - 1500vDC A-Frame Masts

The Span slots into each Mast, a little glue is required to keep the structure sturdy.

Ensure the Masts are vertical before the glue sets

Fit the magnets to one Base and one side of each A-Frame Mast as per the respective section of this guide



Once the structure is positioned on the layout, attach the Registration Arms below the Span, and the Catenary Wire Supports above the Span at the correct location along the Span with a small spot of glue to hold them in place

Ensure the parts are fitted such that the magnet cups in the Catenary Wire Supports \*\* are directly above the magnet cups in the Registration Arms \*

### **Overhead Line Equipment**

### Assembly of SET E13 - Southern Region 750v DC Single Cantilever Masts

Assemble the three parts of the mast and arm as shown. Ensure the bottom of the mast is at right angles to the arm.

Secure parts together with a very small spot of glue.

Cut a piece of 0.5mm straight solid wire rod to exactly 57mm.

Fit one end into the hole in the Mast (#) and then carefully clip the other end into the hole in the top/end of the Registration Arm (##)

Ensure the Mast and Arm are at right angles and secure the wire rod with a very small spot of glue at each end.

Fit the magnet to the Base and Mast as per the respective section of this guide

