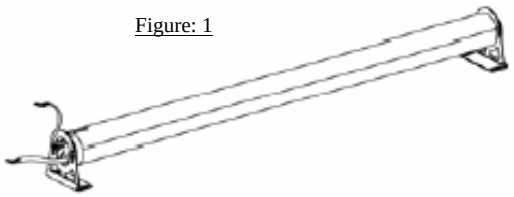
ETM Technical Instructions

ROLLER BLIND SYSTEM ASSEMBLY

Assembly of the ELEGINE motorized roller blind involves three processes, A) preparation and assembly of the hardware (Figure:1), B) preparation of the fabric and C) the final hanging and testing of the complete blind system.

Figure: 1



Part A – Preparation and Assembly of Hardware

Preparation of the roller tube

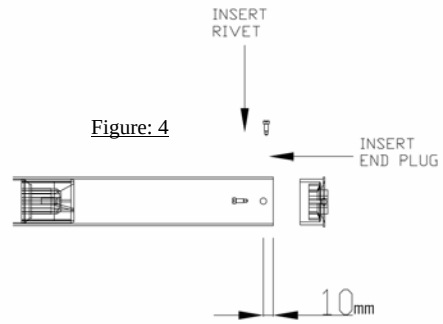
1. Cut the selected aluminum tube to the required length using pipe cutter or cut-off saw.
   NOTE: Opening width – 40 mm (1 5/8") = tube length

Figure: 2

Figure: 3

2. Clean and square both ends of the tube with a fine file.
3. If there is no 'V groove line' on the tube, draw a line the length of the tube. Use a metal straight edge or angle iron to ensure that a clean, straight line is made. This is the alignment reference line.
4. Cut slot in motor end that is 5mm (3/16") wide and 25mm (1") long as shown in Figure 2 for the motor drive sleeve key.
5. Measure and mark a point 575mm (for 110V model measure 23 ¾") from the slotted end of the tube (Figure 3). Drill 2 holes diametrically opposed with a 3.2mm (1/8") drill bit at this marked distance.
6. Countersink those holes to ensure the rivet heads will be flush with tube surface.
7. Measure and mark a point 10mm (3/8") from the non-slotted end of the tube. Score or mark a line around the tube at this distance.
8. Drill 3 holes (spaced at 120° apart) on the marked line with a 3.2 mm (1/8") drill bit.
9. Countersink those holes to ensure the rivet heads will be flush with tube surface.
10. Fully insert an end plug into the non-slotted end of the tube (Figure 4.) align the end plug set screw with the tube reference line. Using the 3 holes drilled in the tube as a guide template, drill 3 holes 3.2 mm (1/8") through the end plug.
11. Insert rivets in the holes, tighten and file rivet heads flush with tube surface.

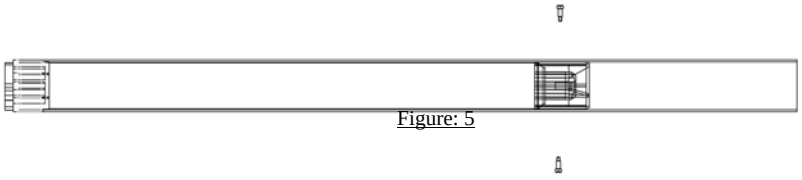
Figure: 4



Positioning and securing the Motor Drive Wheel

12. Place the drive wheel onto the output drive shaft of the motor and ensure a drive sleeve is in place.
13. Carefully insert the motor into the tube ensuring the drive wheel remains attached. As the motor slides into the tube, align the drive sleeve key with the 5mm wide slot in the tube wall.
14. Ensure the key is fully engaged in the slot. Using the two holes drilled previously as guide templates, drill two 3.2mm (1/8") holes into the drive wheel.
15. Insert the rivets (Figure 5.) pull to tighten, and file head to flush with tube surface. The drive wheel is now secured at the proper location within the tube.
16. You can now remove the motor from the tube if required.

Figure: 5



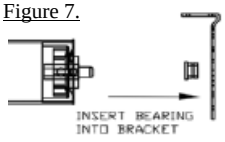
Assembly of Middle and End Tubes (for a linked system installation).

For a linked system there will always be the primary drive tube assembled as outlined above and the final tube in the system referred to as the 'last' tube. Any intermediate tube(s) are referred to as 'middle'.

17. Cut the tube or tubes to the required length
    (For a 'middle' tube length = Overall width less 24mm (15/16"). For 'last' tube lengths = Overall less 28mm (1 1/8"))
18. If there is no 'V groove line' on the tube, draw a line the length of the tube. Use a metal straight edge or angle iron to ensure that a clean, straight line is made. This is the alignment reference line.
19. Measure and mark a point 10mm in from each end of the tube. Score or mark a line around the tube at this distance.
20. Drill 3 evenly spaced (120º apart) holes on the marked line with a 3.2mm (1/8") drill bit.
21. Countersink those holes to ensure the rivet heads will be flush with the tube surface.
22. Insert end plug into end of the tube and align the set screw hole with the reference line.
23. Using the 3 holes drilled in the tube as a guide template, drill 3 holes 3.2 mm (1/8") through the end plug as seen in figure 4.
24. Insert rivets in the holes, tighten and file rivet heads flush with tube surface.
25. Repeat steps 19 through 24 to install an end plug in the remaining end of the tube and both ends of any additional tubes.
26. When all tubes are installed in linked configuration, the reference lines should be aligned.

Figure 6.

Figure 7.



Preparing Brackets

27. Motor end mounting uses bracket (Part # ERBW-1) shown in Figure 6.
28. For the end 'plug end', use the same end mounting bracket fitted with the roller blind bearing (Part # ERBBG-1) shown in Figure 7.

Positioning and Securing Turning Shaft

29. At the end plug of the last tube in a linked system or the end plug of a single blind system, insert the straight tail shaft (Part # ERBCS-3) in the end plug leaving approximately 15 mm (5/8") protruding from the end plug (See Figure 7). Tighten the locking screw snugly (DO NOT OVERTIGHTEN).
30. For intermediate brackets in a 'linked' system use the intermediate bracket (Part # ERBBW) and associated roller bearings as seen in Figure 8.
31. For linked systems, the connecting shaft or flexible connecting shaft should be installed and locking screw secured as each tube section is installed.

Figure 8.

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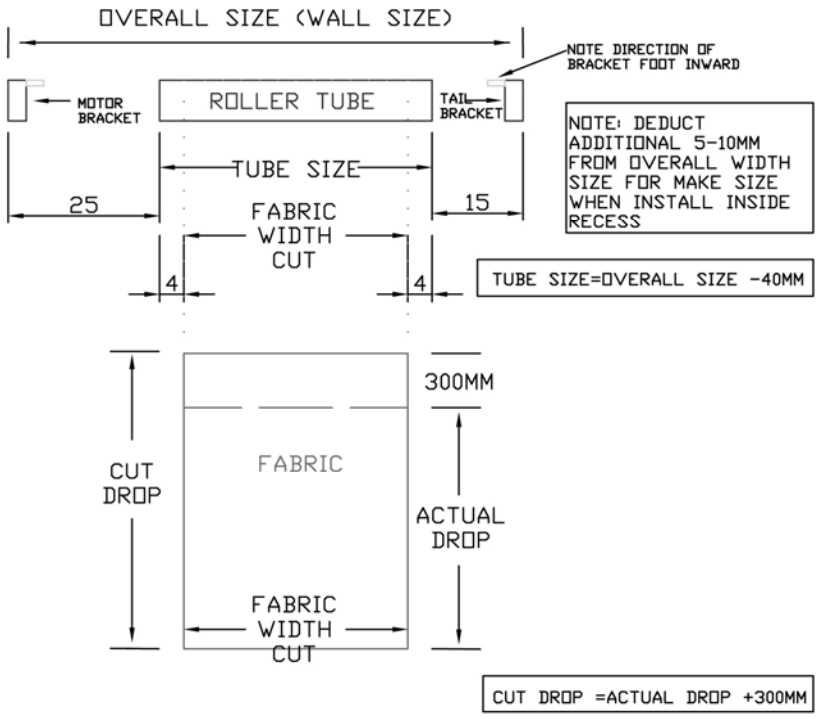
Part B – Preparation of the Blind Fabric

Measuring, cutting, and preparation of curtain fabric are specialized skills beyond the scope of these instructions. It is assumed suitably qualified persons will be engaged to undertake this work. Persons with experience in measuring and cutting shade fabrics can use the diagram below to assist in preparation of the fabric for installation on a 'motor tube'.

DIMENSIONS

Opening width – 40 mm (1 5/8") = Tube Length

Opening width – 48 mm (1 7/8") = Fabric Width



Part C – Installing and Testing of the System

Mounting System

Notes:

1. Ensure brackets are secured to a suitable backing material (window header or wall studs) that will transfer the window covering load to the building structure.
2. Ensure that the brackets are mounted horizontally. Any deviation from horizontal mounting will cause the blind to hang at an angle.
3. For a linked system, install the last blind tail end first and work back to the motor drive blind tube, using the straight connecting shaft or a universal connecting shaft.
4. Set channel on motor (refer to programming instructions), install motor tube and secure to the motor mounting bracket with supplied screws.

ELEGINE motor connections

Low voltage (RJ11) connections are as follows, see Figure 9.

1.	Black	0 V
2.	Red	+ 5 V
3.	Green	direction 1
4.	Yellow	direction 2

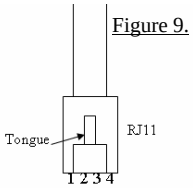


Figure 9.

Line voltage connections are as follows, see Figure 10.

1.	Green/Yellow	Ground or Earth
2.	Blue	Neutral
3.	Red	Supply 1 (110/230V)
4.	White	Supply 2 (110/230V)

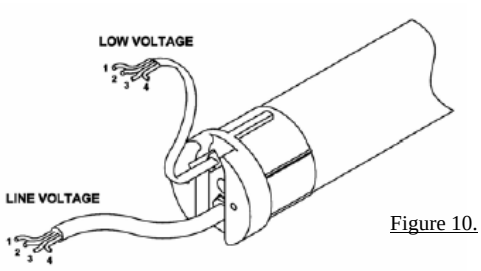


Figure 10.

Control options are (after programming)

Refer to detailed wiring instructions for further details.

Option 1 (RTS remote or Extra Low Voltage BAS control)
Connect both line voltage Red and White conductors together into 110/230V supply. Connect Neutral and Earth.
This will activate the RF receiver and the RJ11 low voltage control circuit permitting both low voltage BUS line and RF control at the same time.

Option 2 (line voltage BAS or switch control) **Switch power models ONLY.**
Connect the Red and White to 110/230V supply through interlocking relays or, independent switch. Connect Neutral and Earth.
This will deliver a line supply switched motor that operates only from the switched supply (no RF or RJ11 extra low voltage control is possible).
To program the motors, please refer to the relevant programming guide for instructions.