# INSTALLATION MANUAL
## TIS ROLLER MOTOR
### Model: TIS-TM120

**TIS** — CONTROL EVERYTHING

## ℹ PRODUCT INFORMATION

This product is a tubular roller motor with RF antenna designed to set and control room's shades or blinds, electric projector screens, motorized awnings, etc.

| PRODUCT SPECIFICATIONS | | |
|---|---|---|
| **Input** | Input voltage | AC 230V 50 HZ |
| | Current rating | <0.5A |
| | Rated power | 120W |
| **Motor** | Rated torque | 6 N.m |
| | Rated speed | 22 rpm |
| | Motor noise | <35db(A) |
| | Security payload | 20KG |
| **TIS Bus** | Number of devices on 1 line | Max. 64 |
| **Protection** | Bus connection | Reverse polarity protection |
| **Reaction time** | | approx. 20ms |
| **Mounting** | | Inside the roller tube |
| **Connection terminal** | Data / Bus | 3 bin bus terminal |
| **Operation** | Programming button/LED | For programming /resetting remote |
| | By TIS bus | TIS Protocol messages and commands |
| **Functions** | Memory | Programmable Open / Close / Stop positions |
| **Weight** | Without packaging | 1.0Kg |
| **Dimensions** | Width × length × height | 480mm × 50mm × 50mm |
| **Housing** | Materials | Aluminum |
| | Casing color | Black |
| | IP Rating | IP 44 |

## Read Instructions

We recommend that you read this Instruction Manual before installation.

## Data Cable

Use screened stranded RS485 data cable with 3 twisted pairs. Configure devices in a "Daisy Chain."
**Do not cut or terminate live data cables.**

## Safety instructions

Electrical equipment should only be installed and fitted by electrically skilled persons.
Failure to follow the instructions may cause damage to the device and other hazards.
These instructions are an integral part of the product and must remain with the end customer.

## Electrical Wires

The recommended wire size for light channels is 1.5mm for Power Connection.

## Warranty

There is a one-year warranty provided by law.

## Programming

This device can be tested and programmed manually Using Motor RF remote. Advanced programming requires knowledge of the TIS Device Search software and instruction in the TIS advanced training courses.
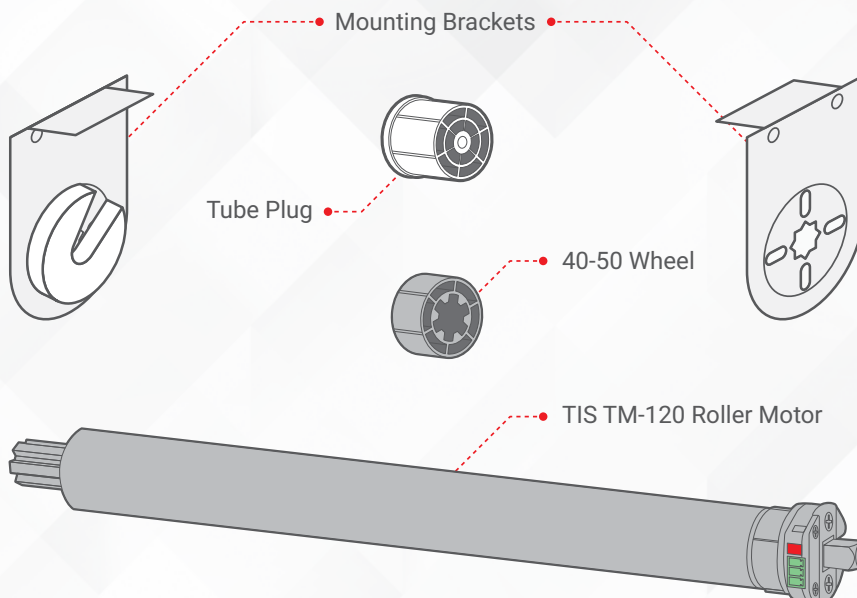
## Mounting Location

Install in a dry, indoor area with a suitable temperature and humidity range.

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# ⚙ DEVICE ACCESSORIES



Mounting Brackets

Tube Plug

40-50 Wheel

TIS TM-120 Roller Motor

## » OTHER ACCESSORIES (not included in the box)

| PART NAME | | LENGTH |
|---|---|---|
| 40-50 Tube |  | 400mm |
| 12 × 0.5 PVC Fabric Plate | 0.5mm / 12mm | 450mm |
| Fabric |  | 450mm(W) × 2000mm(H) |
| 3.5 plastic stick | 3.5mm | 450mm |
| 40 × 12 down rail | 12mm / 40mm | 610mm |

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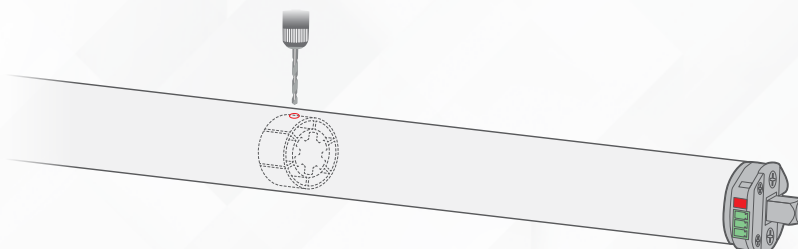Wanchai, Hong Kong
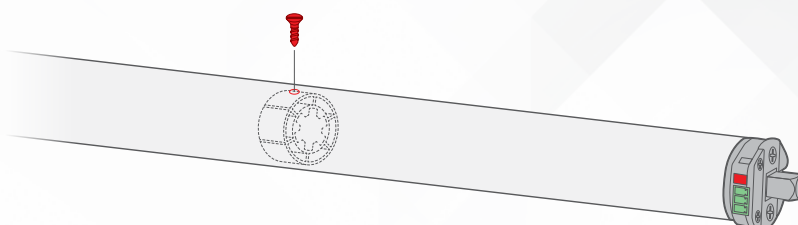
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## ⚙ LIFTING PART ASSEMBLY

**1 ❱❱** Conjoin the motor and the wheels, then place it inside the 40-50 tube.
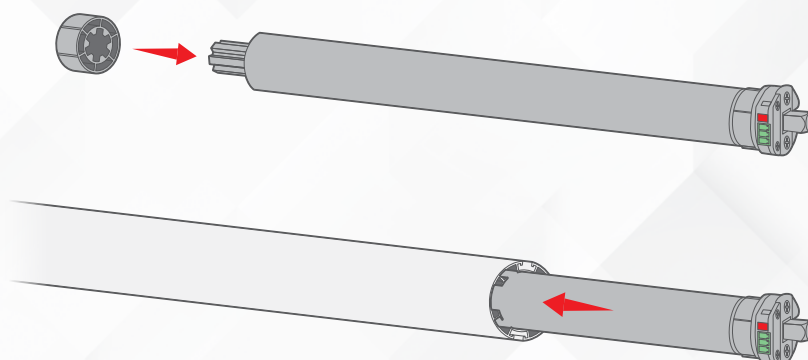


**2 ❱❱** Drill a screw hole on the tube, where the wheel is placed.



**3 ❱❱** Put a BGB.846-ST3P5*16 screw into the hole and fix the motor.



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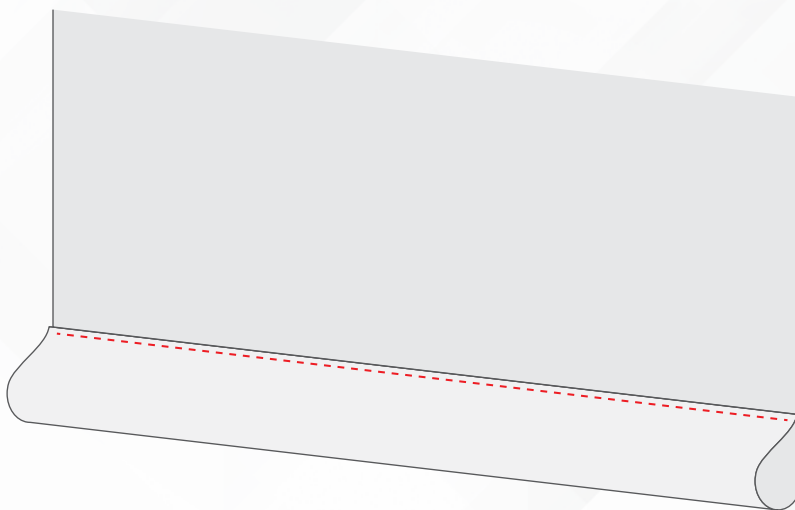Wanchai, Hong Kong

## ⚙ FABRIC SOLDERING

**1 »** Solder the 12×0.5 PVC plate to the upper end of the fabric.

**2 »** Use a welding machine to minimize the edgefold, then solder the edgefold to the lower end of the fabric.

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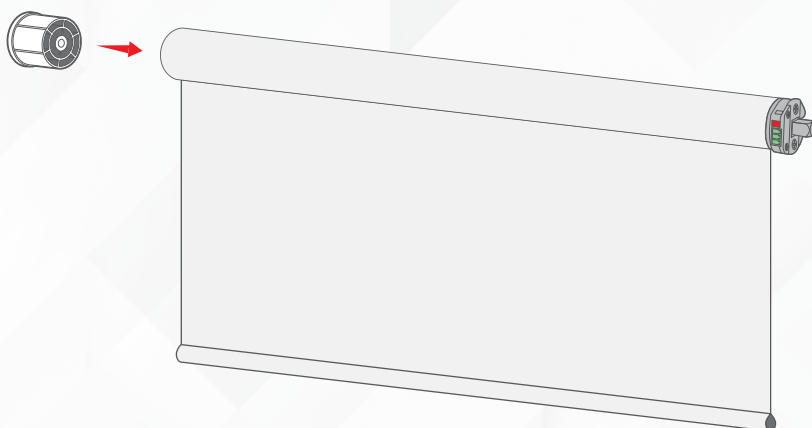www.tiscontrol.com

## ⚙ INSTALLATION STEPS

**1 »** Put the fabric with plate into the roller tube.
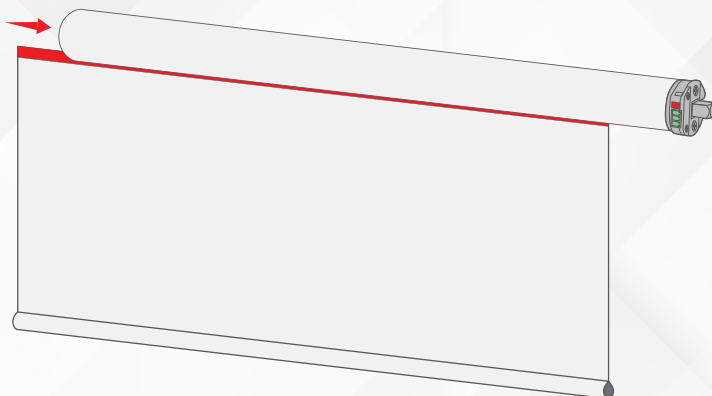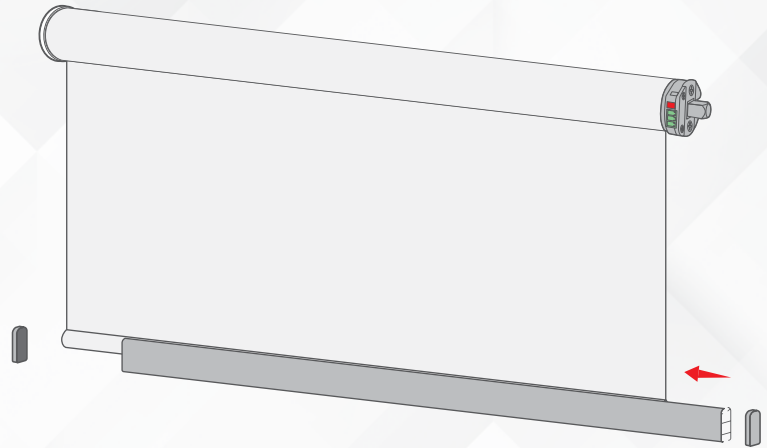


**2 »** Place the plug at the end of the tube.



**3 »** Put the plastic stick into the fabric pocket you made in Step 2 of Fabric Soldering.
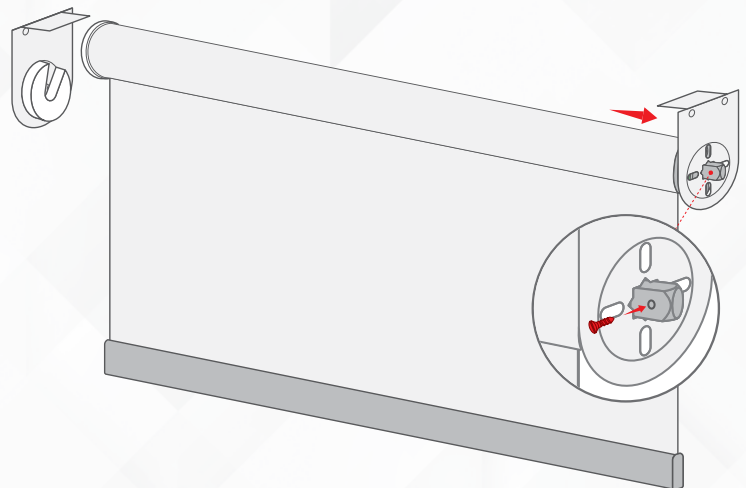


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## ⚙ INSTALLATION STEPS

**4 »** Place the down rail onto the fabric and then attach the plugs to both ends of it.



**5 »** Put the motor into the mounting bracket from one side and then, use a GB.845_ST3P5*12 screw to fix the motor in the mounting kit.



**6 »** Place the other end of the tube into the mounting kit and press down until you hear a click and they are completely fixed.



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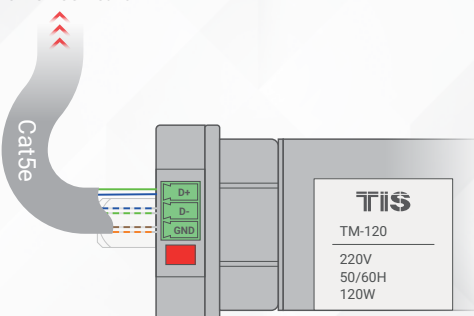**TIS CONTROL LIMITED**
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## INSTALLATION STEPS

**7** Connect to the TIS-BUS Network using the D-, D+, and the GND terminals as shown in the diagram.

to the TIS BUS Network

Cat5e

D+
D-
GND

TIS

TM-120

220V
50/60H
120W

Cat5e connection
- GND (white-orange)&(white-brown)
- D- (white-green)&(white-blue)
- D+ (blue-green)

**8** Connect the 230V Power to the L/N terminals.

Connect To L
Connect To N

MCB

O-OFF
I-ON
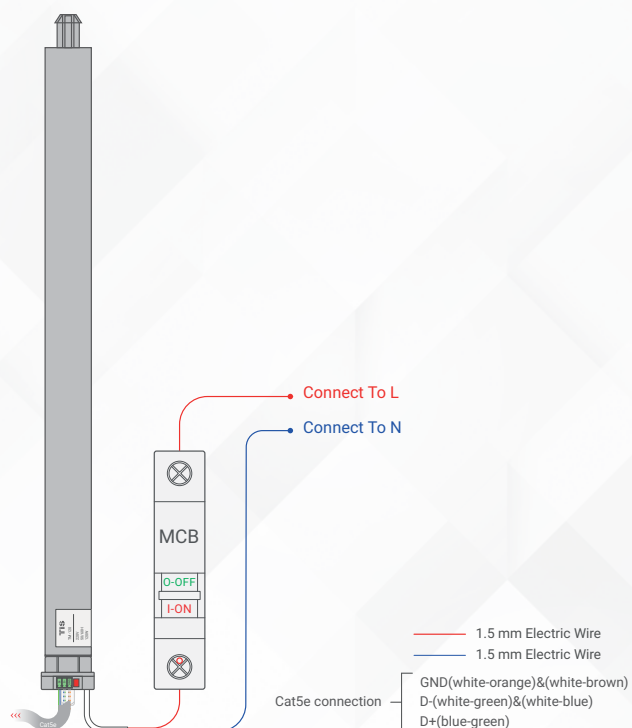
1.5 mm Electric Wire
1.5 mm Electric Wire

Cat5e connection
- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)

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# CONFIGURATION STEPS

## PROGRAMMING WITH REMOTE CONTROL

The TM-120 roller motor's Open & Close limit points are not part of the default settings and they must be programmed using the motor's remote control. After the configuration, you can test the motor using the BUS network.

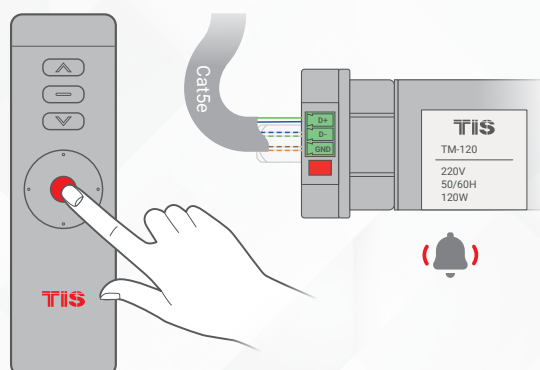To use the TM-120 motor with the RF remote control, you need to do as follows:

### 1 ❯ ENTER CODE-LEARNING MODE

Long press on the motor's [code learning] red button for 3 seconds. The motor's buzzer will start beeping continuously.
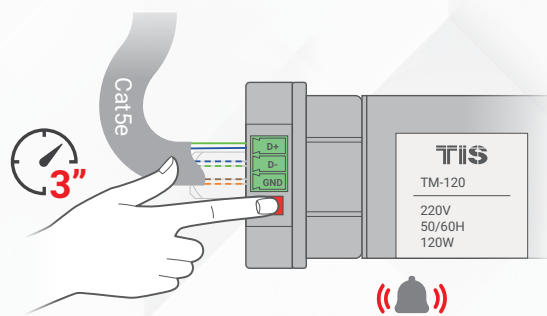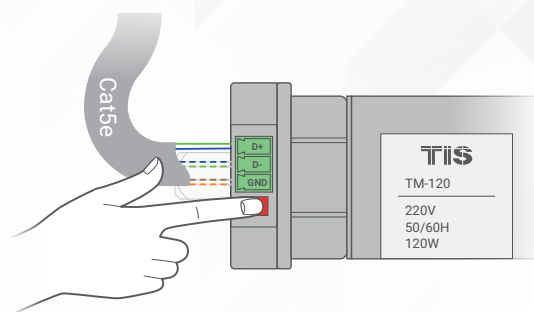
### 2 ❯ CHANNEL SETTING

Press the remote's **Center** (select) button. The motor's buzzer will beep intermittently.

### 3 ❯ CONFIRMATION

Shortly press the motor's [code learning] red button. If the code learning is successful, the buzzer will stop beeping and quit code-learning status.
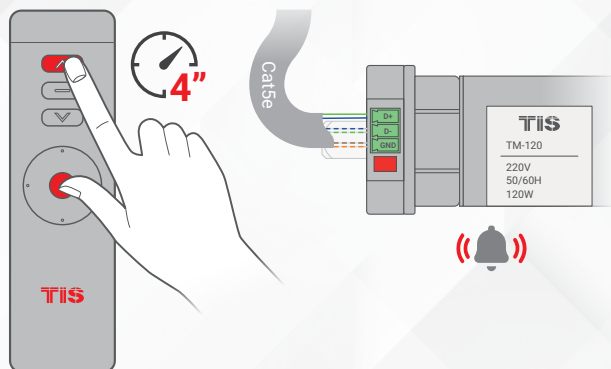
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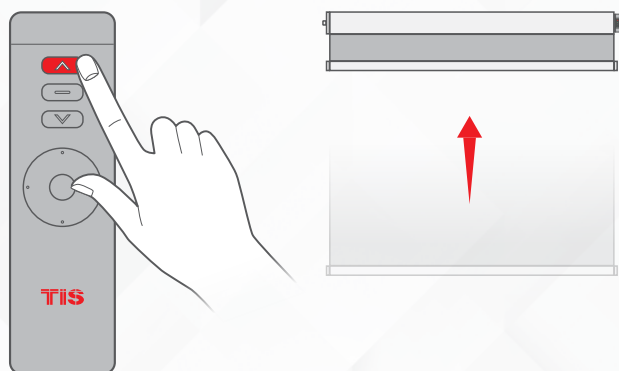
## ⚙ CONFIGURATION STEPS

**4 »  ENTER OPEN-LIMIT PROGRAMMING MODE**

Long-press the remote's **Center** & **Up** buttons simultaneously for 4 seconds until the buzzer sounds a long beep.



4"

Cat5e

TM-120
220V
50/60H
120W

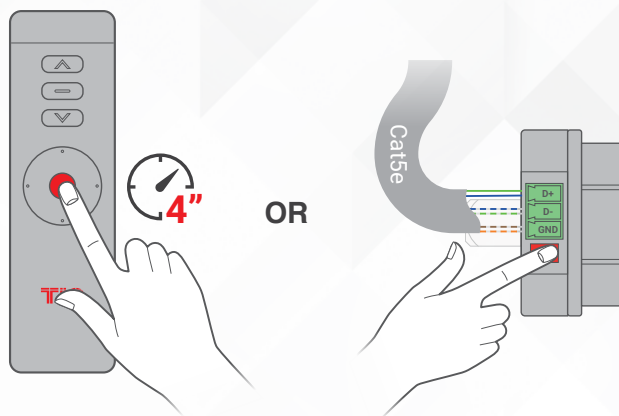**5 »  SET THE OPENING LIMIT POINT**

open the curtain to the point where the customer requested (normally fully open) and hold it at that point by pressing the **Up** button on the remote.

You can adjust the curtain's position Using the **Up**, **Stop**, and **Down** buttons.



**6 »  CONFIRM THE OPEN LIMIT**

Press the remote's **Center** button for 4 seconds or select the motor's **Code-learning** button. If the motor's buzzer stops beeping subsequently, the opening limit point is programmed successfully.



4"    OR

Cat5e

10

## ⚙ CONFIGURATION STEPS

**7 »  ENTER THE CLOSE-LIMIT PROGRAMMING MODE**

Long-press the remote's **Center** & **Down** buttons simultaneously for 4 seconds. The motor's buzzer will start long beeping.
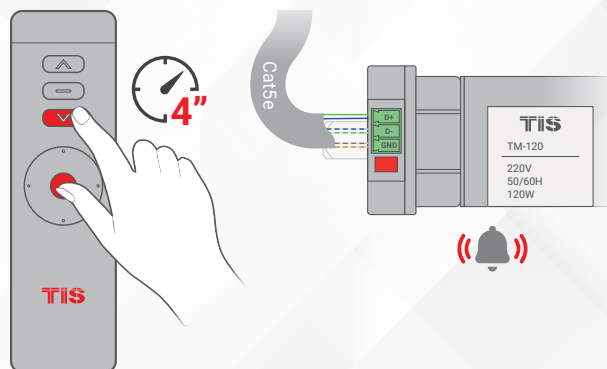


**8 »  SET THE CLOSING LIMIT POINT**

Close the curtain to the point where the customer requested (normally fully closed) and hold it at that point by pressing the **Down** button on the remote.

You can adjust the curtain's position Using the **Up**, **Stop**, and **Down** buttons.



**9 »  CONFIRM THE CLOSE LIMIT**

Press the remote's **Center** button for 4 seconds or select the **motor's code-learning** button. If the motor's buzzer stops beeping subsequently, the opening limit point is programmed successfully.
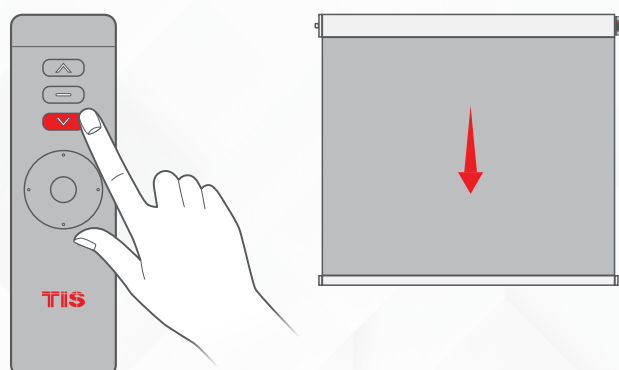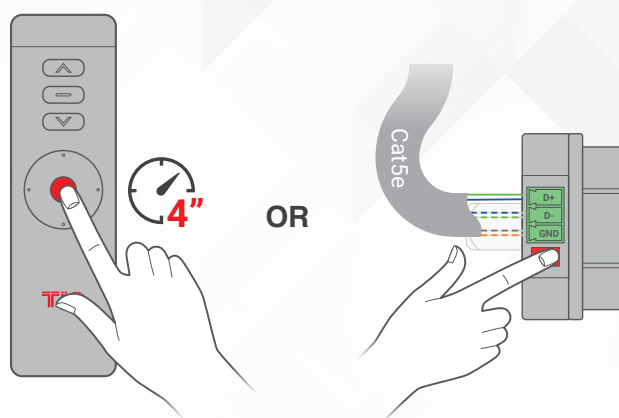


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## CONFIGURATION STEPS

**10** **TEST THE PROGRAMMING**

Use the remote's **Up**, **Stop**, and **Down** buttons to see if everything is configured properly. If the motor reacts to each command accordingly, it's all set, and you are good to go.

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