

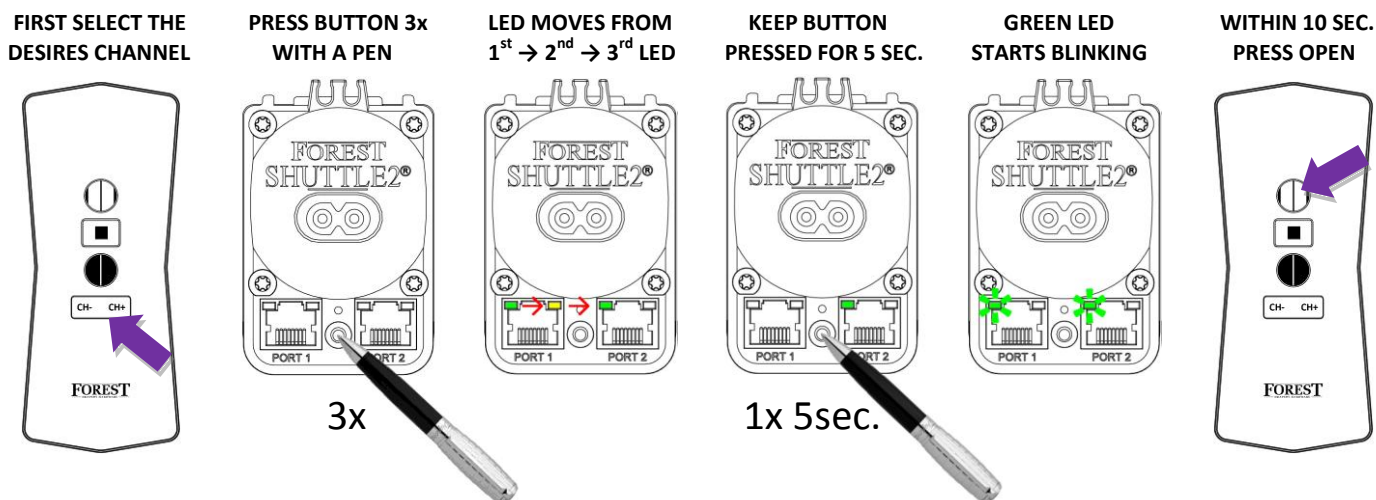


Installing the
FOREST SHUTTLE® HD (M) / L / ECO (S)

QUICK INSTALLATION OF ASSEMBLED TRACKS :

Programming Shuttle® ECO (S)/ L / HD (M) Receiver to a channel

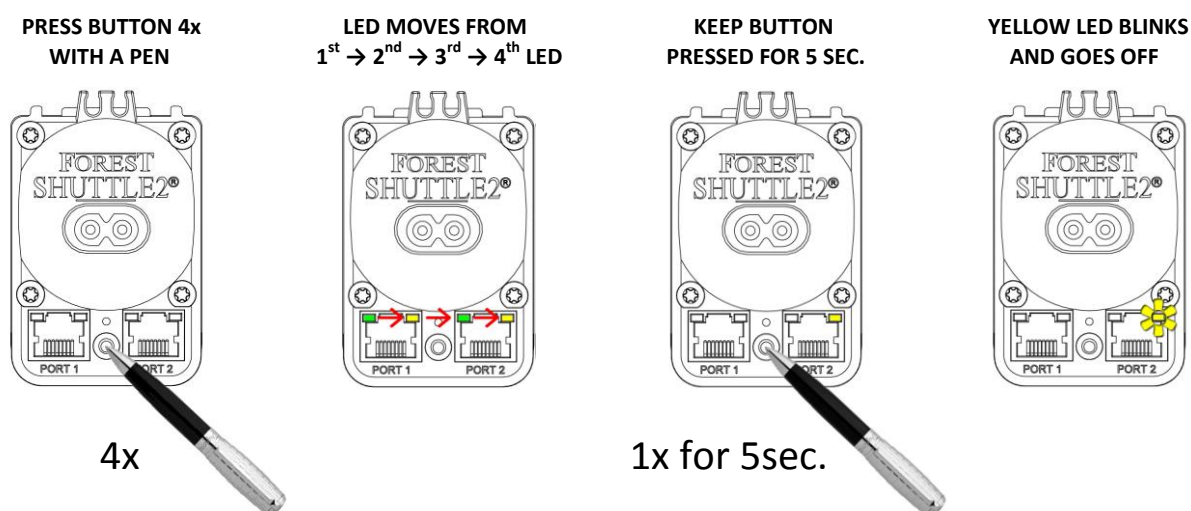
One pre-assembled motorized curtain track systems is standard programmed to channel 1 of the remote control. When several motorized systems are pre-assembled, the systems are only programmed to a channel when this is mentioned on the order form. So it is possible that you have to program the systems to the remote control. It is not necessary to fix the Shuttle® L motor to the track for programming a channel to a Shuttle® L motor. Take next steps:



Re-adjusting the open and close end position

The OPEN and CLOSE end positions are a ready set to the drapery track. Adding extra carriers is taken into account. When the end positions need to be changed, take next steps:

→ MOVE THE DRAPERY TO THE OPEN POSITION

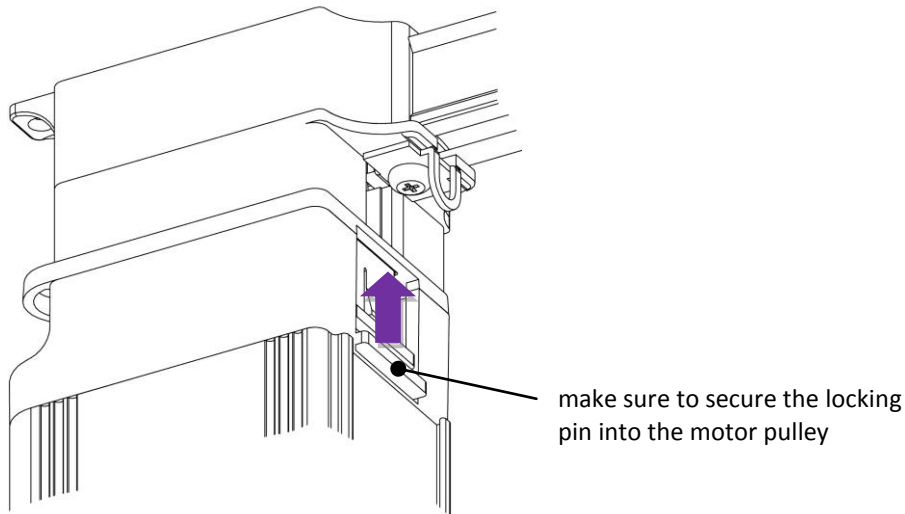


Now the end positions are reset and have to be set again:

- PRESS THE DRAPERY TOWARDS CLOSE POSITION, DRAPERY WILL CLOSE AUTOMATIC.
- PRESS THE DRAPERY TOWARDS OPEN POSITION, DRAPERY WILL OPEN AUTOMATIC.
- DIRECTLY AFTER STOPPING OF THE MOTOR (AT OPEN POSITION) THE YELLOW LED WILL LIGHT UP. NOW YOU CAN ADJUST THE OPEN POSITION TO DESIRED POSITION.
- WAIT UNTIL THE YELLOW LED GOES OFF, THE END POSITIONS ARE NOW STORED INTO MEMORY.

Installing the **FOREST SHUTTLE® ECO (S) / L / HD (M) Receiver**

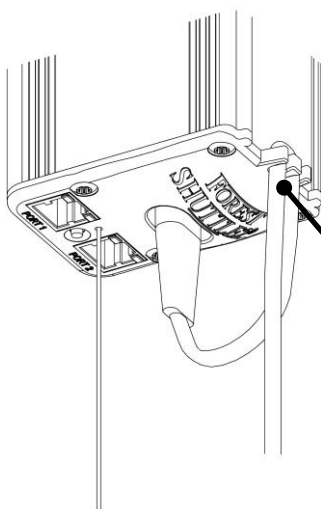
- ① Assemble the track
- ② Install the brackets and fix the track onto the brackets
- ③ Do not attach the drapery yet. Attach the drapery only after the end positions have been set.
→ position the master carrier(s) into half open position
- ④ Attach the motor to the track



⑤

Shuttle® L:

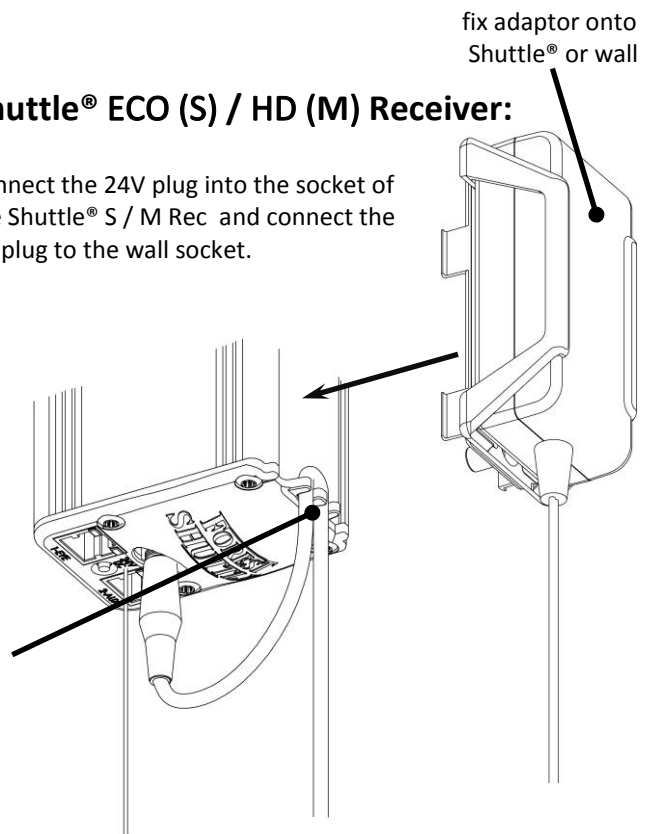
Connect the AC plug (100-240V~) to the power socket of Shuttle® L



loop the cord through the strain relief

Shuttle® ECO (S) / HD (M) Receiver:

Connect the 24V plug into the socket of the Shuttle® S / M Rec and connect the AC plug to the wall socket.



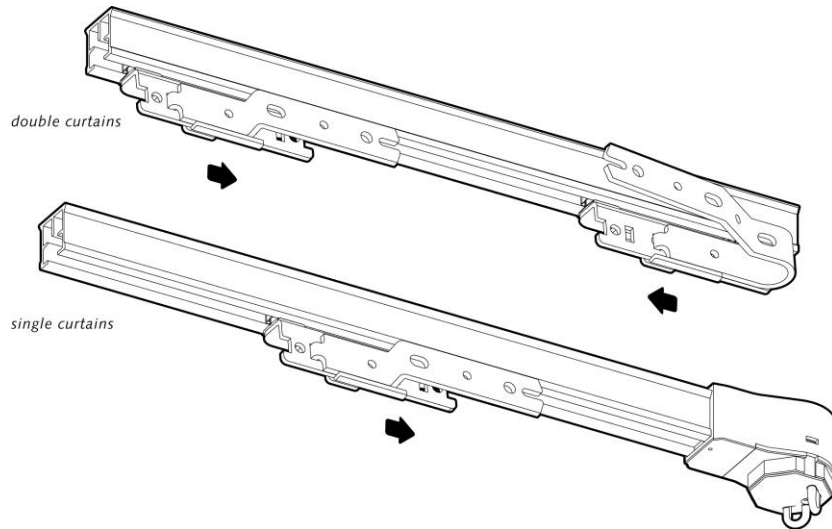
⑥ Setting the end limits of the **FOREST SHUTTLE® ECO (S) / L / HD (M) Receiver**



Before setting the end limits, the RF remote or IR remote channel can be programmed. The stack back (adjusted open limit) can be set by remote or switch. For programming see page 5.

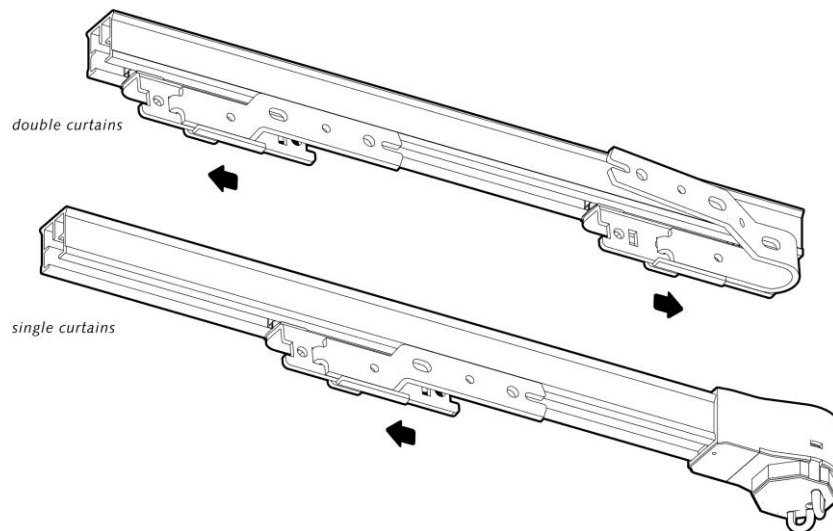
SETTING MOTOR DIRECTION AND CLOSE LIMIT:

The Shuttle® detects automatically the motor direction. By pulling the master carrier(s) towards closed position first, the Shuttle® will automatically learn that motor direction. The master carrier will travel automatically towards the closed position.



SETTING OPEN LIMIT:

When the closed position is reached, that end limit is set. Pull the master carrier(s) to the open position. The master carrier(s) will travel automatically towards the open position.

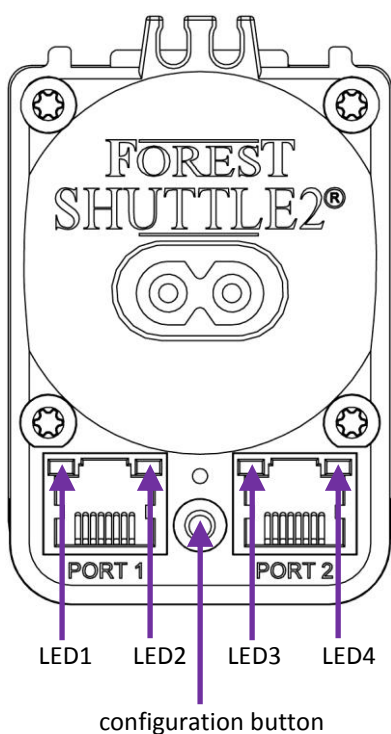


Stack back: When the master carrier reaches the fully open position it will stop (yellow LED4 is on). Now the open limit setting can be adjusted by hand, by remote or dry contact input. When the master carrier is not moved for 10 seconds, the yellow LED4 will go off and the open limit is set. The minimal automatic adjustment is 3 cm (1.2").

If you are not satisfied with the programmed end limits, then re-set the end limits as shown in the configuration table on page 5 and proceed from step ⑥

Configure the FOREST SHUTTLE® ECO (S) / L / HD (M) Receiver

Bottom view of the Shuttle®



Use a pin to change settings in the configuration menu.
Choose the setting you want to change (table below) and press the button that many times (corresponding with setting).

presses	LEDs	function	factory default
	1 2 3 4 □ □ □ □		
1	■ □ □ □	speed low	•
2	□ ■ □ □	speed high	
3	□ □ ■ □	RF (433)	
4	□ □ □ ■	reset endlimits	
5	■ □ □ □	dry-contact pulse	•
6	□ ■ □ □	dry-contact continuous	
7	□ □ ■ □	dry-contact single switch	
8	□ □ □ ■	touch impulse sensitivity high	•
9	■ □ □ □	touch impulse sensitivity low	
10	□ ■ □ □	touch impulse off	
11	□ □ ■ □	IR channel 1	•
12	□ □ □ ■	IR channel 2	
13	■ □ □ □	IR channel 3	
14	□ ■ □ □	IR channel 4	
15	□ □ ■ □	IR channel 5	
16	□ □ □ ■	factory default	

Confirm the desired setting by pressing the button for 4 seconds until the led blinks 3 times and goes OFF. These settings can also be done when finishing the installation.

Speed (1 & 2):

Standard speed is 14cm/s. For faster speed, 17cm/s, press 2x button. To confirm, press and hold once more for 4 seconds until the led blinks 3 times and goes OFF.

Programming RF remote channel (3):

To programming a RF remote to a Shuttle®, press configuration button 3 times. LED3 is ON. Press and hold once more for 4 seconds, LED will start blinking for 10 seconds. In these 10 seconds press OPEN button on remote to program the channel to the Shuttle®. Same procedure, but press CLOSE instead of OPEN, will erase the programmed channel.

Reset end limits (4):

For resetting only the end limits: press button 4x. To confirm, press and hold once more for 4 seconds until the led blinks 3 times and goes OFF.

Dry contact inputs (5, 6 & 7):

Standard input is pulse contact. To set to continuous or single switch, press button 6 or 7 times respectively. To confirm, press and hold once more for 4 seconds until the led blinks 3 times and goes OFF. Please see page 6 for detailed explanation. Make sure the contact is free of potential.

Touch Impulse (8, 9 & 10):

The Shuttle® recognizes when the curtain is pulled by hand to open or close. The Shuttle® will then open or close the curtain all the way. Default setting is high sensitive. Touch Impulse can be set to less sensitive or off, with 9 or 10 presses respectively. To confirm, press and hold once more for 4 seconds until the led blinks 3 times and goes OFF.

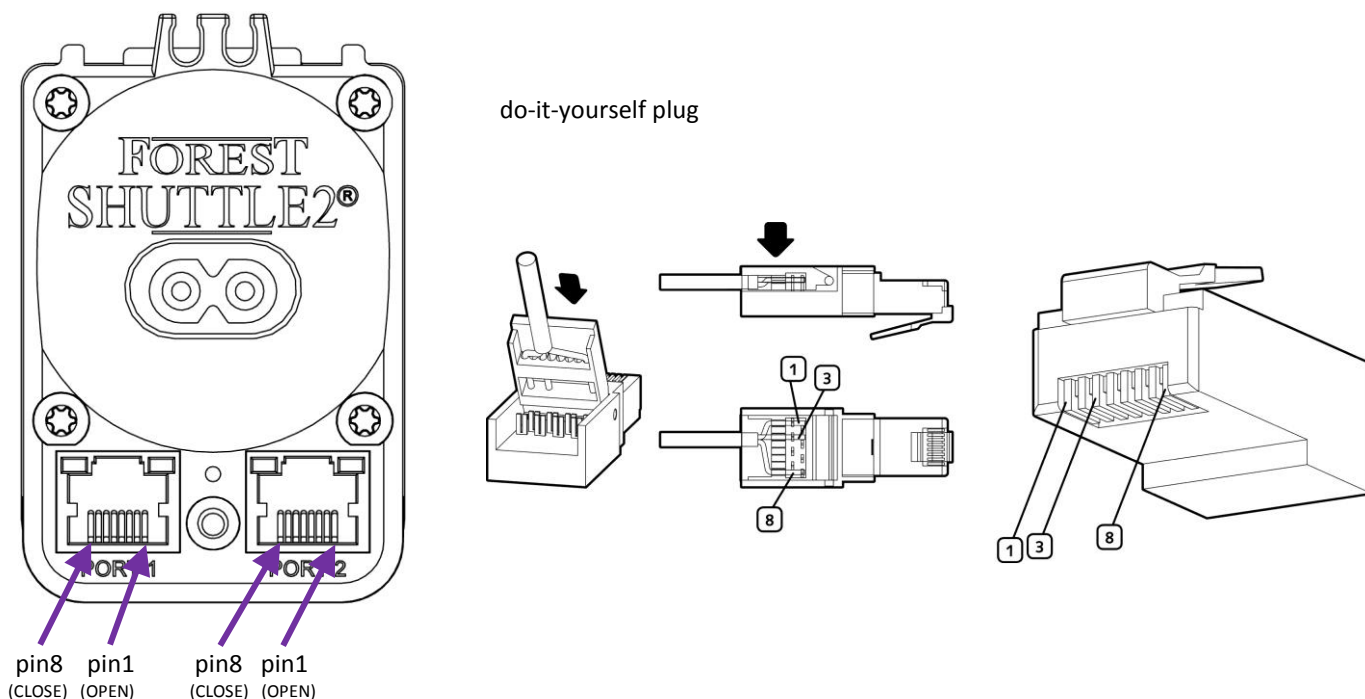
IR channel setting (11, 12, 13, 14 & 15):

For Infra Red control an IR remote and an IR receiver is required, connected to port 1. Place the eye of the receiver cord in view of the IR remote. Standard the Shuttle® is set to channel 1 and 'ALL'. To change to channel 2, 3 4 or 5, press resp. 12x, 13x, 14x or 15x button. Press and hold once more for 4 seconds until the led blinks 3 times and goes OFF.

Factory default (16)

To reset all settings, press button 16x. To confirm, press and hold once more for 4 seconds until the led blinks 3 times and goes OFF.

Connecting to port 1 or port 2 of the FOREST SHUTTLE® HD (M)/ L /ECO (S) Receiver



MANUAL SWITCH CONNECTED TO DRY CONTACT INPUTS

A manual switch or a relay output of a Home Automation System can easily be connected to the Shuttle®. Be sure the switch/relay is potential free. Use pins 1, 3 and 8 of PORT1 or PORT2.

OPEN: when pin 1 is connected to pin 3 (COMMON) the Shuttle® will open the curtain.

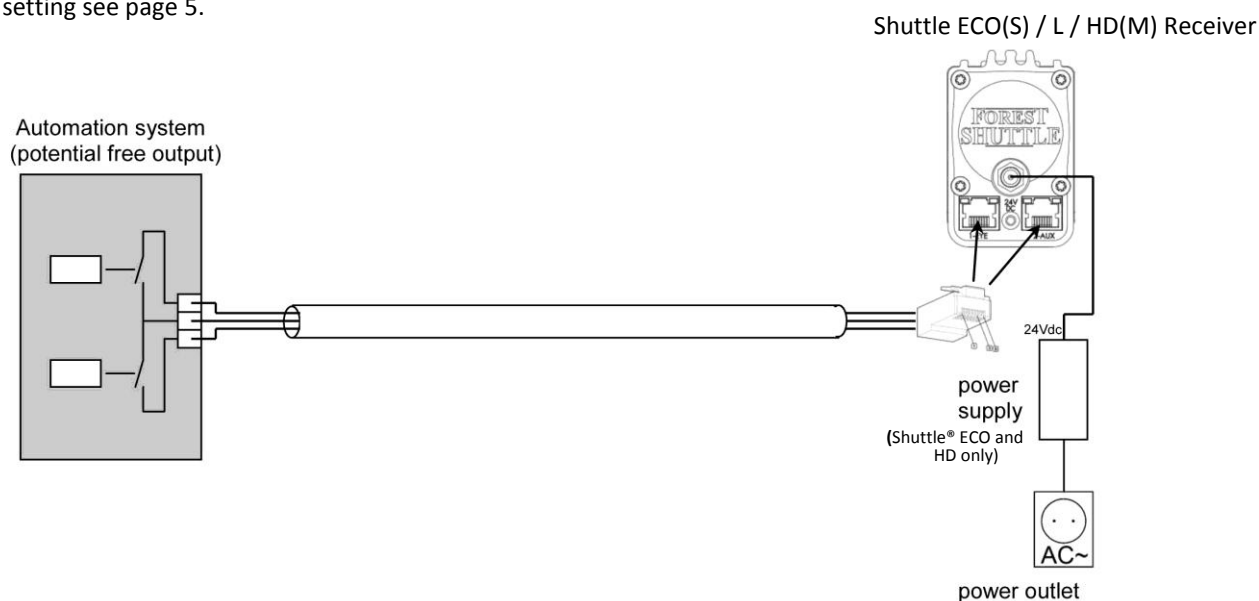
CLOSE: when pin 8 is connected to pin 3 (COMMON) the Shuttle® will close the curtain.

STOP: when pin 1 and 8 are connected to pin 3 (COMMON) the Shuttle® will stop moving the curtain.

Different modes can be set:

- Pulse: when short contact is made the curtain will open or close fully (default setting)
- Continuous: the curtain will move as long as the contact is made (mostly used for Home Automation Systems)
- Single button switch (door bell principle): either one of the four inputs will act as following: open → stop → close → stop → open → stop → close → stop etc.

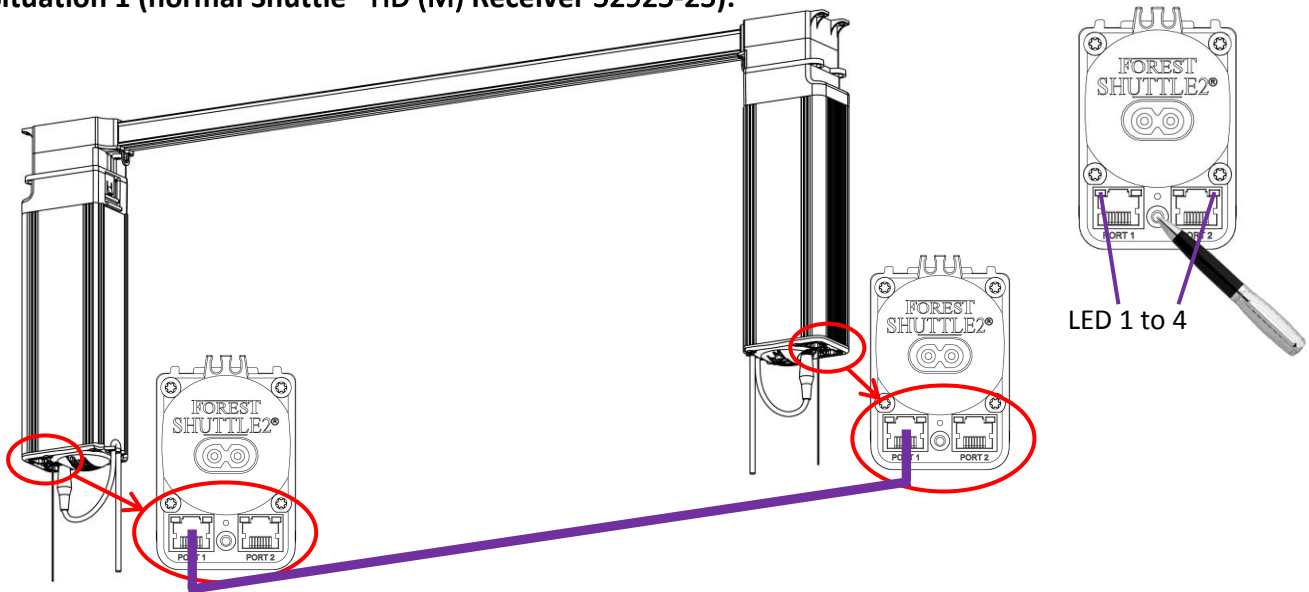
To change this setting see page 5.



Programming Master – Slave function to the FOREST SHUTTLE® HD (M) Receiver

The Forest Shuttle® HD (M) Receiver can be programmed as MASTER and SLAVE motor. Two motors are needed, connected together by a cable from Port 1 to Port 1. Configuration can be done by means of pressing the configuration button on the Shuttle® motors:

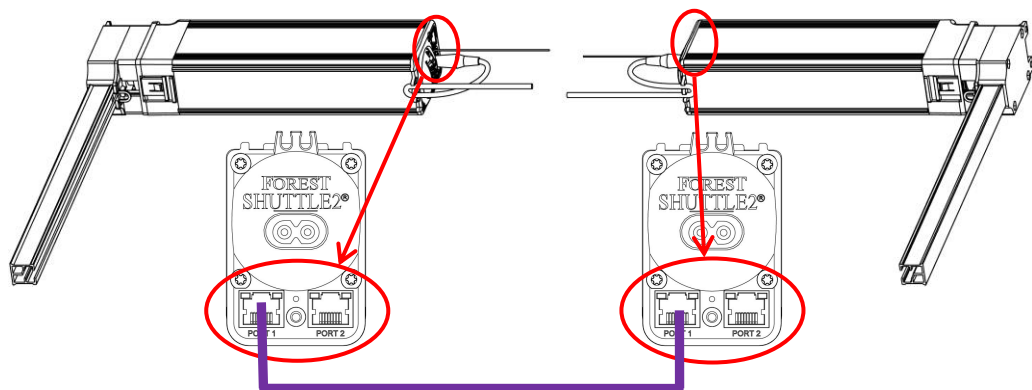
Situation 1 (normal Shuttle® HD (M) Receiver 52925-25):



Two Shuttle® motors on one track (direction of rotation is the same). Installation steps:

- install the track, motors and power plug
- connect motor A, port 1 to motor B, port 1 by means of a 8 wire flat cable, UTP or FTP (straight) cable.
- program the MASTER motor: Press the configuration button 17 times shortly, LEDs 1 to 4 will move with every press. After 17 presses, once more press the button and hold for 4 seconds. LED 1 will blink three times and go off.
- program the SLAVE motor: Press the configuration button 18 times shortly, LEDs 1 to 4 will move with every press. After 18 presses, once more press the button and hold for 4 seconds. LED 2 will blink three times and go off.
- Now the SLAVE motor will follow the movement of the MASTER motor. Only the MASTER motor can be controlled.
- End limits can be set now and remotes can be programmed.

Situation 2 (FSS Shuttle® HD (M) Receiver 52925-25):



Two Shuttle® motors drive a Forest Skylight System FSS (direction of rotation is opposite). Installation steps:

- install the track, motors and power plug
- connect motor A, port 1 to motor B, port 1 by means of a 8 wire flat cable, UTP or FTP (straight) cable.
- program the MASTER motor: Press the configuration button 17 times shortly, LEDs 1 to 4 will move with every press. After 17 presses, once more press the button and hold for 4 seconds. LED 1 will blink three times and go off.
- program the SLAVE motor: Press the configuration button 19 times shortly, LEDs 1 to 4 will move with every press. After 19 presses, once more press the button and hold for 4 seconds. LED 3 will blink three times and go off.
- For both motors: press configuration button 26 times, after that press 4 time for 4 sec. to confirm
- Now the SLAVE motor will follow the movement of the MASTER motor. Only the MASTER motor can be controlled.
- End limits can be set now and remotes can be programmed now. It will be hard to move the curtain by hand, because of the solid coupling inside the FSS motor. This is normal.

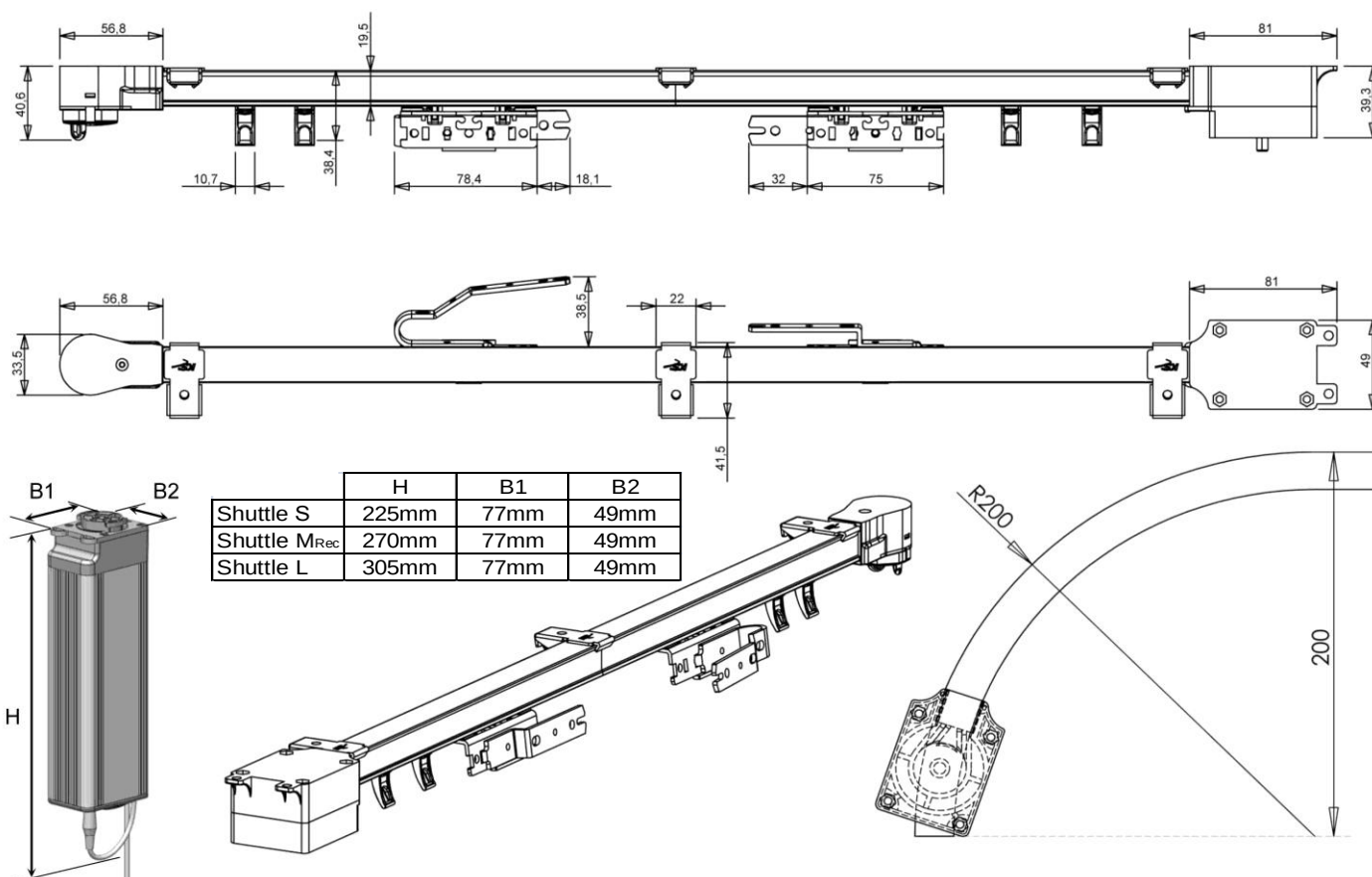
Technical specification of the **FOREST SHUTTLE® ECO (S) / L / HD (M) Receiver**

	Shuttle® ECO (S)	Shuttle® HD (M)	Shuttle® L
Part #	5232000000	5232000003 24Vdc	5232000001
Voltage Shuttle®:	24Vdc	72W	100 - 240V~ 50 - 60Hz 0.8A
Max. power:	40W	1.5Nm	40W
Torque:	1Nm	14cm/s	1Nm
Speed 1:	14 cm/s	17cm/s	14 cm/s
Speed 2:	17 cm/s	70kg (no curves)	17 cm/s
Max. curtain weight:	40kg (no curves)	25 (10")	40kg (no curves)
Length:	20cm (7.9")	980gr.	28cm (11")
Net. weight motor:	700 gr.	IP20	930 gr.
Protection degree:	IP20		IP20
Max. running time (in one direction):	240 sec.	240 sec.	240 sec.
Sound level:	< 40dB	<40dB	< 40dB
Ambient temperature:	0 - 40°C (32 - 104°F)	0 - 40°C (32 - 104°F)	0 - 40°C (32 - 104°F)
Relative humidity:	10 - 80%	10 - 80%	10 - 80%
Maximum useable altitude above sea level:	2000m (6561ft.)	2000m (6561ft.) CE	2000m (6561ft.)
Certification & Marking:	CE		CE

TECHNICAL SPECIFICATION POWER SUPPLY:

	Shuttle® ECO (S):	Shuttle® HD (M) Receiver:
Model:	ZDA240150	ZF120A-2403000
Voltage input:	100 - 240V~ 50 - 60Hz 0.8A	100 - 240V~ 50 - 60Hz 1.2A
Voltage output:	24Vdc	24Vdc
Insulation class:	II	II
Certification & Marking:	CE, cULus, FCC, CCC	CE, cULus, FCC, CCC

If another power supply is used or a central power supply, each Shuttle® ECO (S) must be protected with a 2.5A slow fuse. Each Shuttle® HD (M) Receiver must be protected with a 4A slow fuse.





Forest Shuttle® S / L / M Receiver is not suitable for humid spaces, like bathrooms or outdoors. It is important for the safety of persons to follow these instructions. Save these instructions. Do not use the product for any other purpose than intended. In order for the Forest Shuttle® ECO (S) / L / HD (M) Receiver to function correct and safe, the complete curtain system must be assembled with original parts and devices of Forest Drapery Hardware. This includes all components of the curtain track and power supply adaptor. Forest does not assume liability for resulting damages to property or personal injury, defects, labor on location, service calls, reinstallation or expenses involved shipping, packing or returning goods, if the product has been abused/modified in any way or damaged by improper use or failure to observe these operating instructions. The warranty/guarantee will then expire.

Do not allow children to play with the system or controls. Keep remote controls away from children. Frequently examine the installation for imbalance and signs of wear or damage. Do not use if repair or adjustment is necessary.

