

WEBS

Wheelchair Elevator Button System

USER'S MANUAL



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About our Device

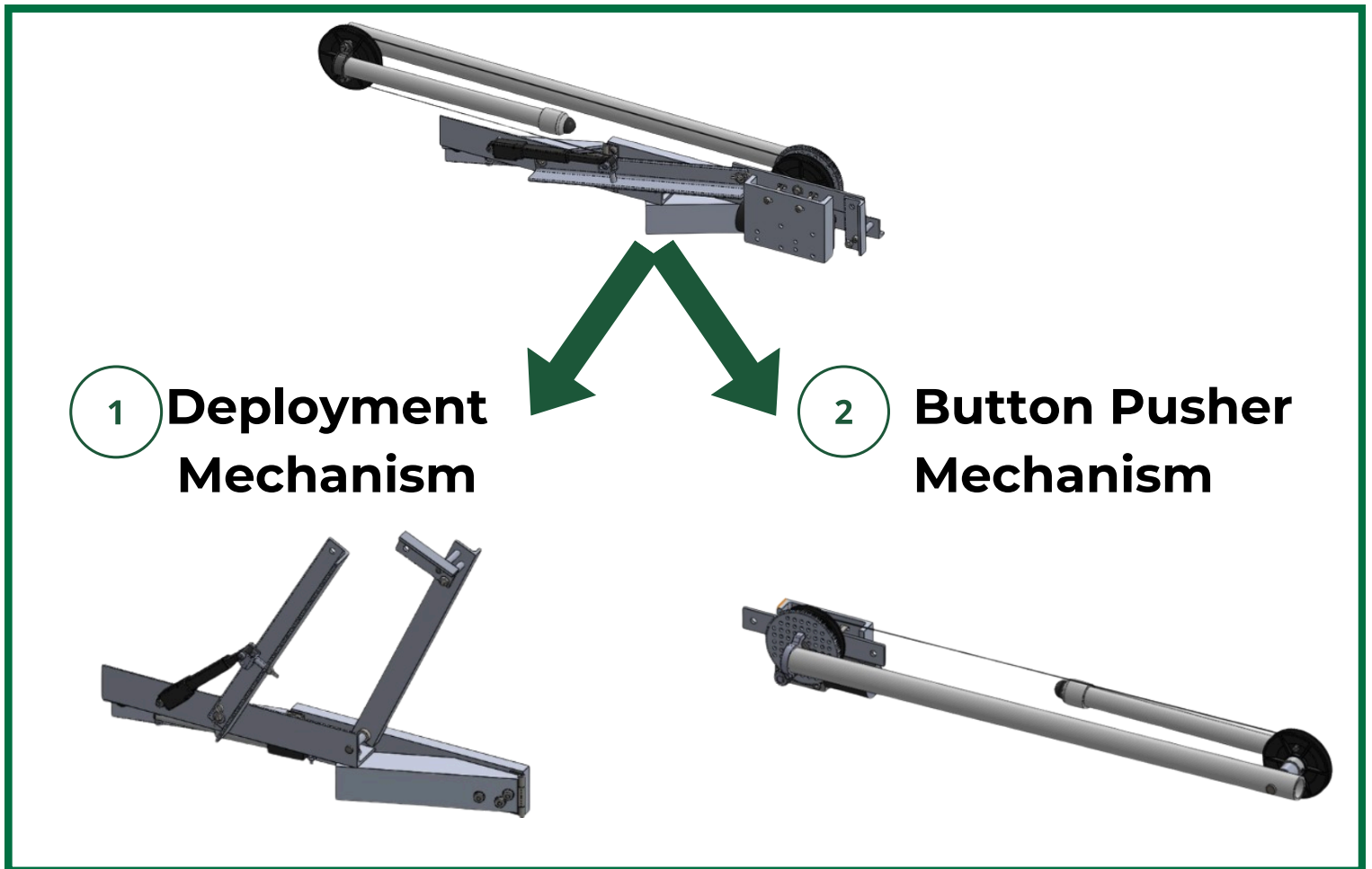
WEBS is an innovative accessory designed to augment power wheelchairs, specifically catering to individuals affected by Muscular Dystrophy. This technology facilitates enhanced mobility and accessibility for users by extending their reach beyond the confines of their wheelchair's footprint. By integrating seamlessly with existing power wheelchair systems, WEBS serves as a valuable tool in empowering individuals with Muscular Dystrophy to engage more effectively with their surroundings, thereby promoting independence and improving their overall quality of life.

Product Specifications

- Device Length: 27 in
- Device Width: 4.13 in
- Feet Clearance: 1 ft
- Max Height reached: 48 in
- Min Height reached: 35 in

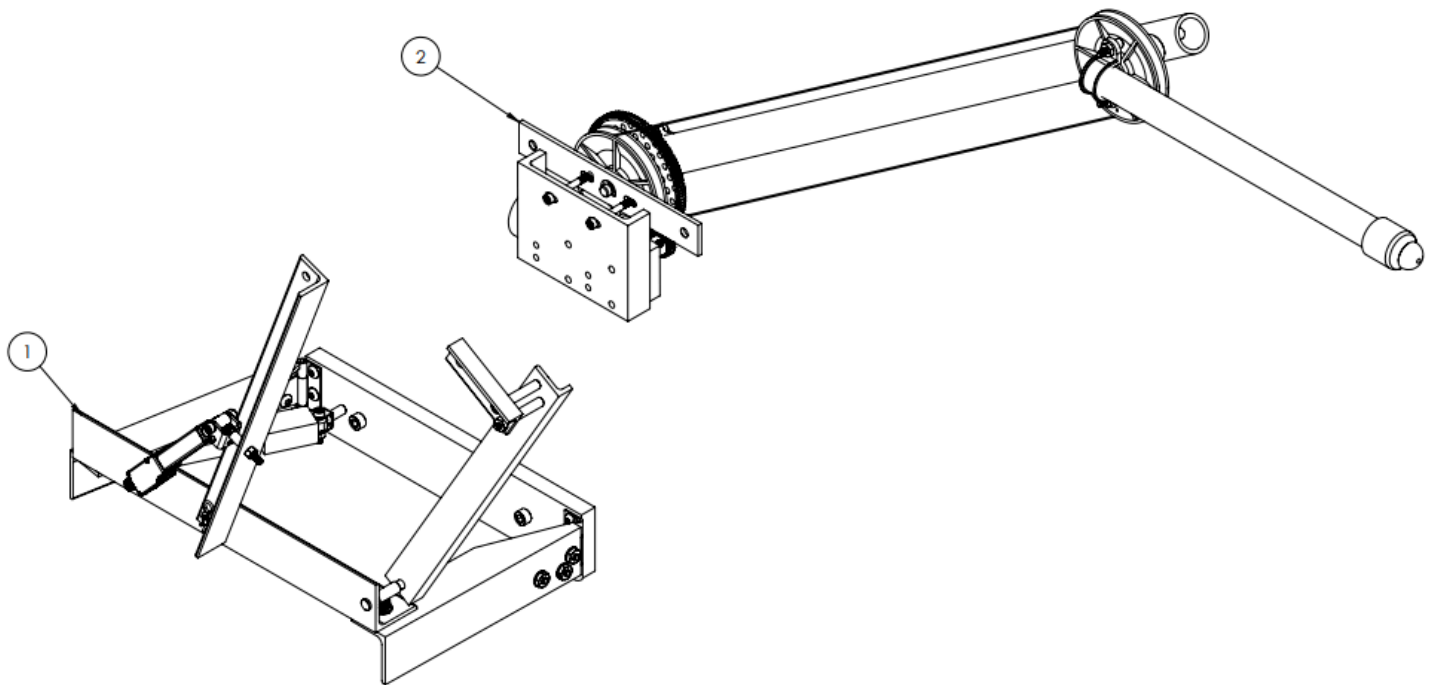


Our Design



Our device is composed of two main mechanisms. The first one is the deployment mechanism that will release the device out of its tucked position so it doesn't interfere with the armrest when deployed. Next, is the button pusher mechanism that will perform the task of pushing elevator buttons at different levels.

Exploded Diagrams



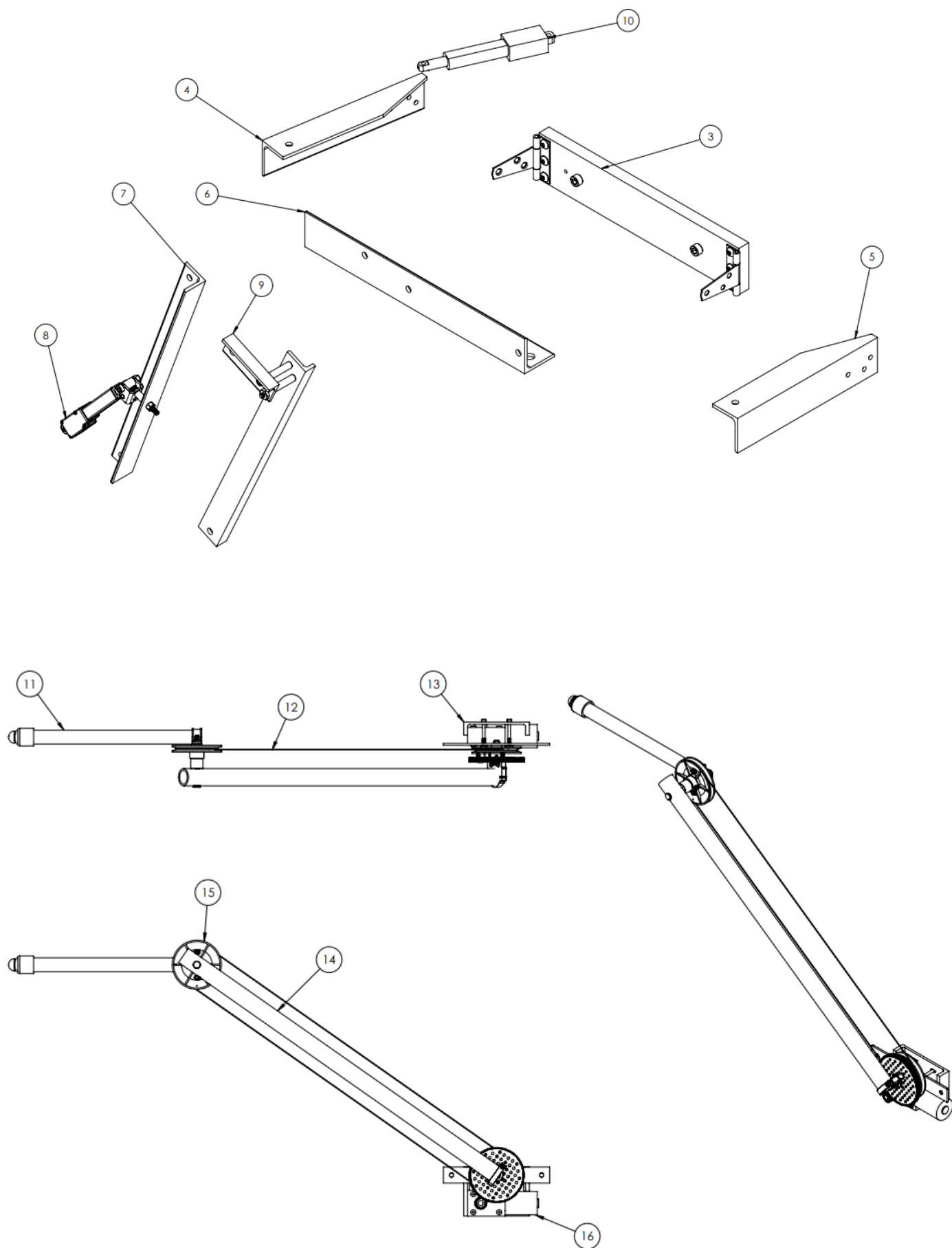


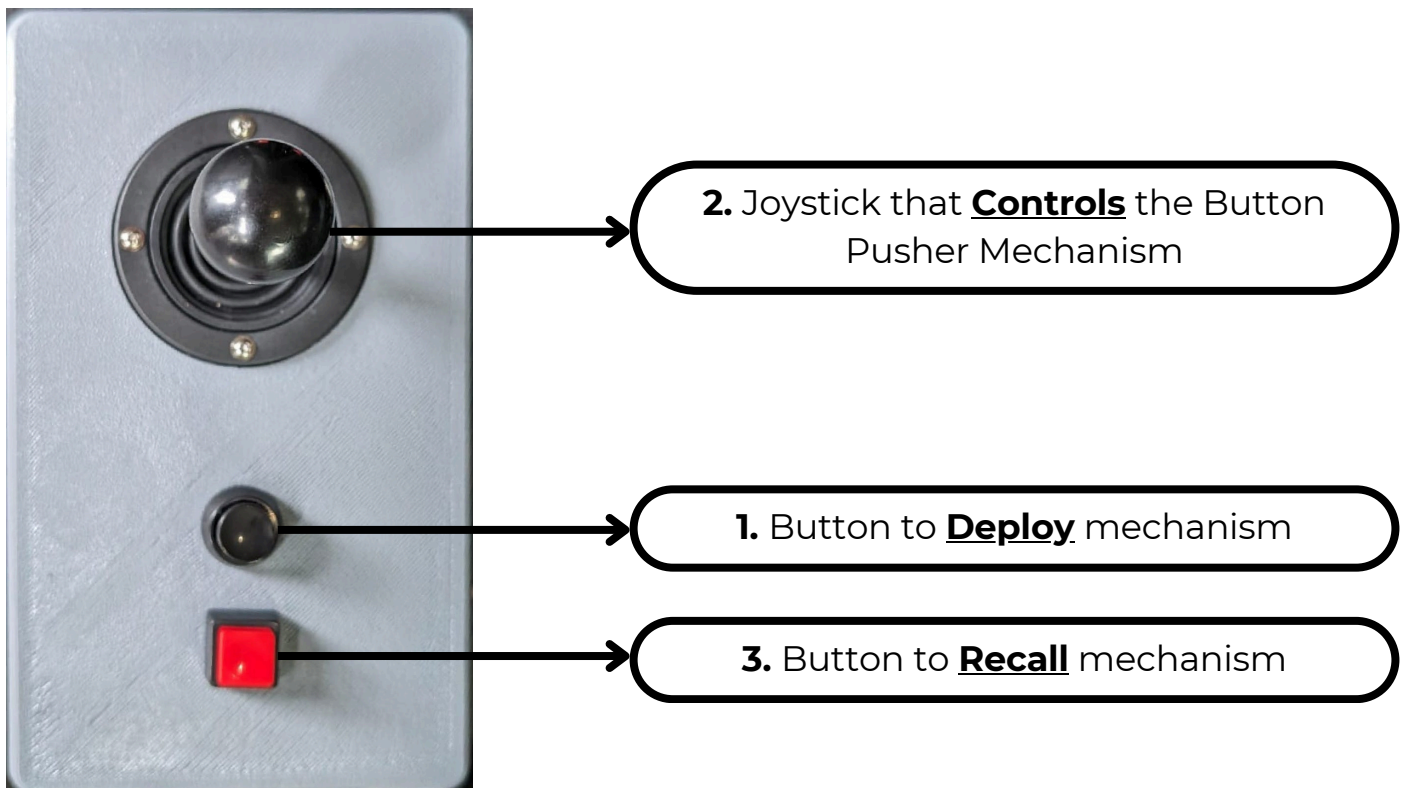
Table of Parts

ITEM NO.	PART DESCRIPTION	QTY
1	DEPLOYMENT MECHANISM	1
2	BUTTON PUSHER MECHANISM	1
3	BASE	1
4	REAR HORIZONTAL LINK	1
5	FRONT HORIZONTAL LINK	1
6	COUPLER LINK	1
7	REAR VERTICAL LINK	1
8	VERTICAL ACTUATOR	1
9	FRONT VERTICAL LINK	1
10	HORIZONTAL ACTUATOR	1
11	END EFFECTOR	1
12	CABLE	1
13	MOTOR MOUNT	1
14	MAIN LINK	1
15	PULLEY	2
16	BUTTON PUSHER MECHANISM MOTOR	1

Operation

Proper use instructions:

1. Verify that there is nobody around who can help you press the elevator button first!
2. Press the circular black button **(1)** on the control box to deploy the mechanism.
3. Use the joystick **(2)** on the control box to aim the pusher for the elevator button.
4. Use your wheelchair to line up the mechanism further with the button.
5. Once everything seems lined up, push your wheelchair forward to press the button.
6. **RETRACT THE PUSHER MECHANISM ALL THE WAY BACK!**
7. Press the square red button **(3)** on the control box to recall the mechanism.



Warning: Before use make sure that you are aware of your surroundings and that people are not too close to your wheelchair during operation.


Video Demonstration: <https://youtu.be/VvEDtYuNRyY>

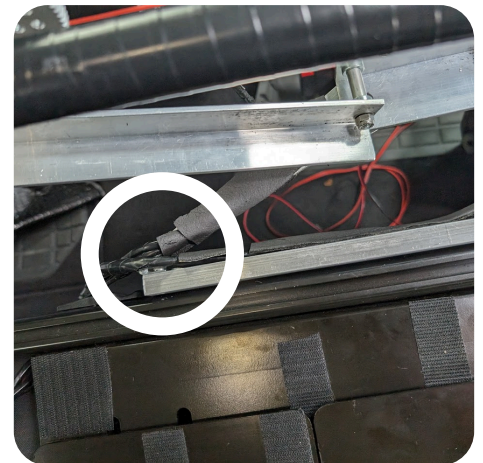
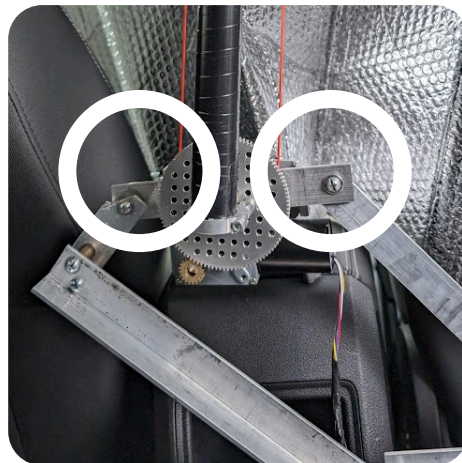
Safety



Warning:

- Never manually interfere with the mechanical components of the device whilst in motion.
- Never alter the electrical connections to the battery.
- If you see unusual shaking or vibrations do not operate the mechanism.

- This device is generally safe when used as intended, it is not a toy. The user assumes full responsibility when using this device.
- For a safe and reliable use of the device, the user must ensure an environment free from obstructions, and allow for the full motions to be completed before turning with the wheelchair.
- The device includes an override function, in the case that the system has activated and it cannot be fully deployed or it was a mistake, by pressing the red button the system will close immediately.
- During operations, the user must maintain hands and arms outside the range of motion of the mechanism and always avoid the three pinch points highlighted below or marked with this sign .



Maintenance

- General maintenance for the device should be provided along with the general maintenance for the wheelchair itself.
- It is recommendable to do routine inspections for all connections, ensuring no cables are worn and no copper cable is exposed.
- It is recommendable to do routine inspections of all joints, making sure that all the nuts are in their screws and not overtightened. If this is the case, it might prevent smooth motion.
- If exposed to high temperatures, do not operate the device.

Troubleshooting

Issue	Cause	Solution
Black actuator on the horizontal mechanism not working	<ul style="list-style-type: none">• Low Battery Power• Burned actuator	<ul style="list-style-type: none">• Charge the wheelchair battery• Contact seller for replacement
Actuator on the vertical mechanism out of its support	<ul style="list-style-type: none">• Overstrained mechanism	<ul style="list-style-type: none">• Remove broken support and install included replacement
Loss of tension in pulley cable	<ul style="list-style-type: none">• Pushing mechanism over its designed limit• Broken cable	<ul style="list-style-type: none">• Remove one end of the cable, and while holding the button pusher horizontal, wrap the cable around the pulleys with a double loop on the one connected to the gear• Contact seller for replacement

GET IN TOUCH

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