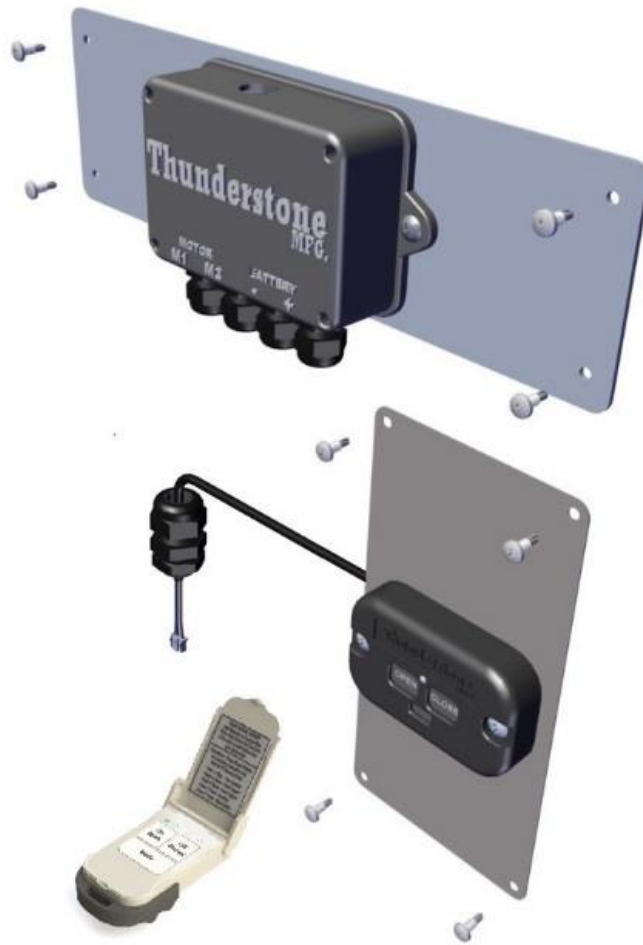




6000^{XR} SERIES
THUNDER
POWER TARP



ONE-TOUCH CONVERSION KIT INSTRUCTIONS

Part # 102010
REMOVAL and INSTALLATION



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PURPOSE:

Used to upgrade a Shur-Co 3500 electric tarp system to Thunderstone one-touch controls. This system will replace the old style control box with a keypad and control box mounted in the nose of the trailer. Kit is only intended to be used with systems with a Roll-Rite 10200 or newer XR Thunderstone tarp motors.

Tools Needed:

- 1/4" Drill Bit
- Drill
- Phillips Screwdriver
- 7/16" Socket
- Socket Wrench
- Heavy Gauge Wire Cutters
- Wire Crimpers for 6ga Wire
- 1/4" Wrench
- 1" Wrench
- 3/8" Torx Driver

Control System Conversion Kit – Part #102010

| Part Number | Description |
|--------------------|--------------------------------|
| 032-47918 | Nut 1/4"-20 Hex UNC |
| 032-48961 | Screw 1/4"-20 x 1 1/2" SS |
| 032-51281 | Washer 1/4" Split Lock Med |
| 035-51333 | Decal Warning Electric Tarp |
| 102175 | Keypad w/ Integrated Plug |
| 101995 | Control box w/ relay |
| 102282 | Remote Transmitter |
| 085-58360 | Stainless Steel Mounting Plate |
| 101007 | Screw 10 x 3/4" Phillips |

REMOVE THE OLD SYSTEM

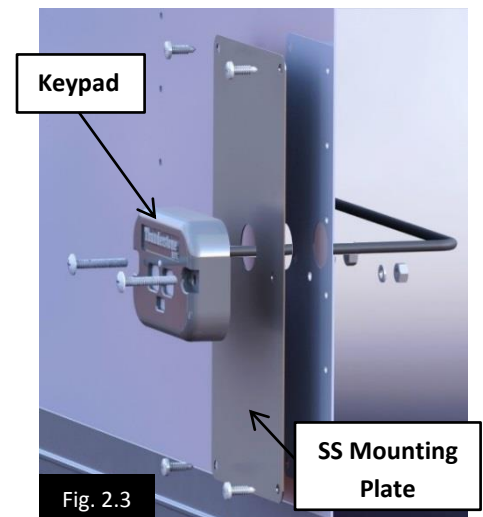
- **DISCONNECT ALL POWER FROM THE TRAILER!**
1. Remove the Shur-Co control box from the nose of the trailer by loosening the four 1/4"-20 bolts.
 2. Remove the decal right above the control box if applicable.
 3. Label the motor positive wire. (Red stripe on black wire)
 4. Label the motor ground wire. (Black Wire)
 5. Label the ground wire. (Black wire)
 6. Label the positive wire. (red stripe on black wire)
 7. Detach the wires from the Shur-Co control box.

**PREPARE EXISTING WIRING FOR NEW SYSTEM**

1. Remove all protective boots from cables.
2. Pull all the wires back through the nose of the trailer.
3. Remove the ring terminals from the ends of the wires.
4. The wires will be re-used in the new installation.

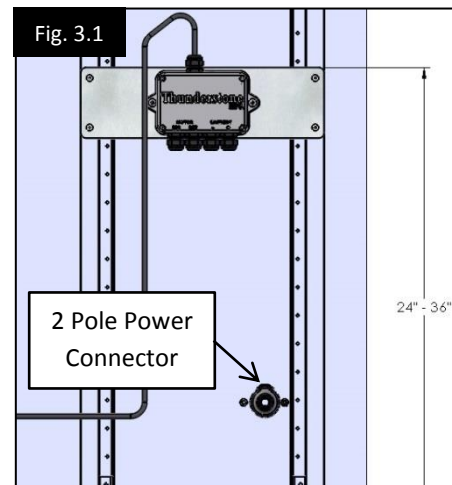
**MOUNT THE TARP CONTROL KEYPAD**

1. Place the control box SS mounting plate on the nose of the trailer making sure to cover all of the existing holes left after removing the old control box.
2. Use four #10 x 3/4" self-drilling screws to attach the plate to the nose of the trailer.
3. Drill a 1-1/4" hole in the existing hole on the trailer nose using the stainless steel plate as a template.
4. Drill two 17/64" holes in the nose of the trailer using the stainless steel plate as a template.
5. Place the key pad up to the plate on the trailer and install the two 1/4"-20 x 1 1/2" Phillips pan head screws, the 1/4" lock washers, and 1/4"-20 nuts to hold the key pad to the nose of the trailer.



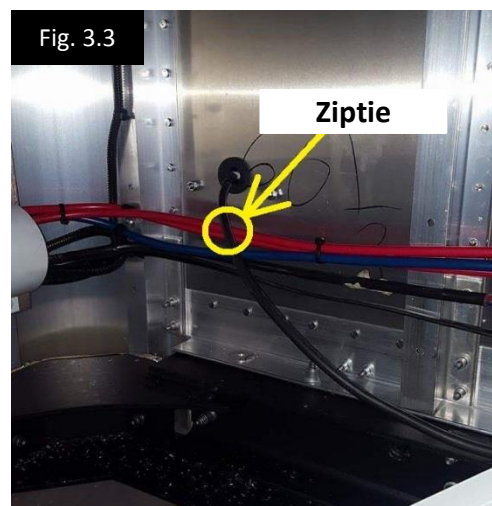
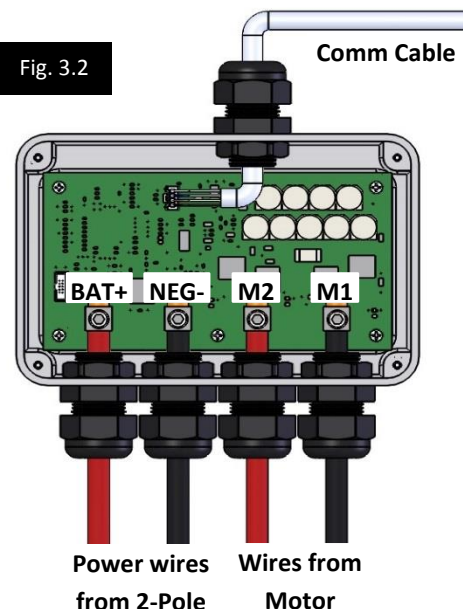
MOUNTING THE CONTROL BOX

1. Chose a location inside the nose of the trailer between two Z-posts above the power receptacle so that all wires can reach the junction box. (See figure 3.1)
2. Attach the control box to the mounting plate using two ¼"-20 x 1 ½" Phillips pan head screws, the ¼" lock washers, and ¼"-20 nuts.
3. Make sure that all fasteners are tightened.
4. Clean the Z-Posts with a wire brush to remove debris that could interfere with the installation
5. Clamp the plate to the Z-posts using vice grip pliers or C-clamps to hold in place.
6. Use four #10 x ¾" self-tapping screws to attach the mounting plate to the Z-posts using the predrilled hole in the plate as a guide.



WIRING THE CONTROL BOX

1. Cut off the proper length of motor & power wires to be used with the new control box location.
2. Strip back ½" of insulation off the motor & power wires.
3. Insert the power and motor wires through the appropriate compression fittings on the bottom of the control box. (See figure 3.2)
4. Push the stripped wires into the appropriate wire lugs and secure them with a 5/32" hex wrench.
5. Tighten each compression fitting with a 1" end wrench to hold the wires in place and to keep out dirt and moisture.
6. Plug the communications cable from keypad into the control board connector.
7. Tighten the compression fitting nut into the control box with a 1" end wrench to keep out dirt and moisture.
8. Remove any existing wire guarding and use zipties to fasten the communications cable to the airline (or equivalent) below the keypad in the nose of the trailer. (See figure 3.3)
9. Re-install the wire guarding with the communications cable routed behind for protection.
10. Reconnect the power cord to the 2-pole trailer connector.
11. Power up and operate the system in both directions to make sure the motor wires are connected correctly.
12. If the system runs backwards, disconnect the power cord from the 2-pole trailer connector, switch the M1 and M2 wires and try operating again.
13. If the system runs backwards, disconnect the power cord from the 2-pole trailer connector, switch the M1 and M2 wires and try operating again.
14. When everything is operating correctly, attach the control box lid to the base using the supplied #4 x 3/8" Torx head screws.
15. Place warning decal above keypad on the nose of the trailer. See (Fig 3.4)



PROGRAMING REMOTE TO THE KEYPAD

1. Four remotes can be programmed to the keypad. Have all of the remote units that are to be programmed ready.
2. To program a remote, open the flip style lid and make sure the remote is set to mode one (first light flashing). See figure 4.2
3. Turn the trailer keypad on by pressing and holding the two large buttons “**Open**” and “**Close**” for approximately 3 seconds or until the status LED and the two large buttons illuminate. See figure 4.1
4. Press and hold the program button (small button) and the “**Open**” button simultaneously until the status LED turns solid green then release both buttons. The LED will then flash orange rapidly which indicates it is ready to receive remote programming. See figure 4.1
5. On the first remote, press and hold the “**On/Open**” button until the LED on the trailer keypad blinks green rapidly for 2 seconds then turns solid white. Release the button and the keypad should then start blinking orange again to accept additional remotes.
6. Repeat step 5 until the desired amount of remotes (no more than 4) are programmed. The LED will blink red two times once programming has been completed or will go back to regular operating mode after 10 seconds of inactivity. Pressing the programming button will also exit programming mode.

The control box resets the list of remotes it remembers every time you enter the programming mode to program a remote. Remotes that were previously programmed are removed from the control box memory and will no longer be able to control the system. This is why all remotes need to be programmed at the same time.

OPERATING THE TARP SYSTEM

Powering up or down the system - To turn the system on or off, locate the “**Open**” and “**Close**” buttons on the keypad on the front of the trailer. Press and hold both buttons simultaneously for approximately 3 seconds. The LED status light and the two large buttons will illuminate on the keypad when the power is on and ready for operation. You can also press and hold the “**On/Open**” and “**Off/Closed**” buttons on the remote for 3 – 5 seconds to power the system on or off.

One Touch Operation - *The one touch function is fully automated. The system will stop when fully opened or closed.* To open or close the tarp using the one touch operation feature, press and hold the desired directional button on the keypad or remote for 1 – 1 ½ seconds until the keypad status light turns solid green. Release the button and the keypad status light will start flashing green indicating one touch operation. The tarp will travel in that direction automatically and stop when it is fully open or closed.

Incremental Operation - To inch the tarp in either direction, press then release the desired directional button on the keypad or remote for less than 1 – 1 ½ seconds intermittently to move the tarp in that direction.

Press and Hold operation - To open or close the tarp using the press and hold feature, press and hold the desired directional button on the keypad or remote for more than 2 ½ seconds or until the keypad status light turns from solid green to solid white. The tarp will travel in that direction until you release the button.

Never travel with the tarp in a partially covered position. The trailer should always be covered when traveling.

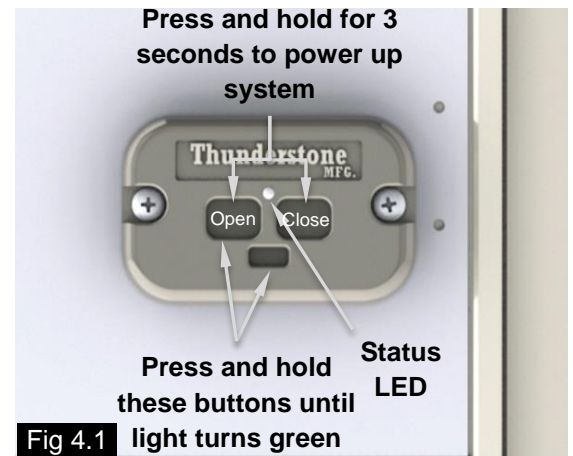


Fig 4.1

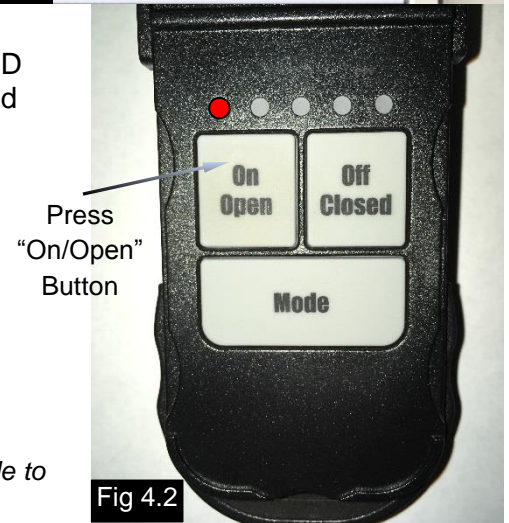


Fig 4.2