



# Operation and Service Guide: Showers

P.O. Box 309 • Menomonee Falls, WI 53052-0309  
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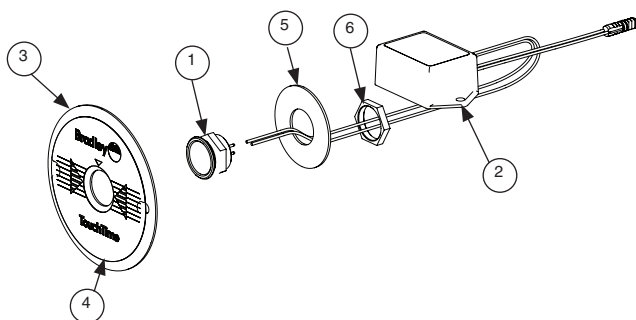
## TouchTime® - DC (Models: HN200, HN200-T24, HN250, HN250-T24, HN250-BF)

**⚠ WARNING** The TouchTime activation must be connected with a 12V DC plug-in adapter. Connections to 110V AC can cause personal injury and will result in damage to the electronics.



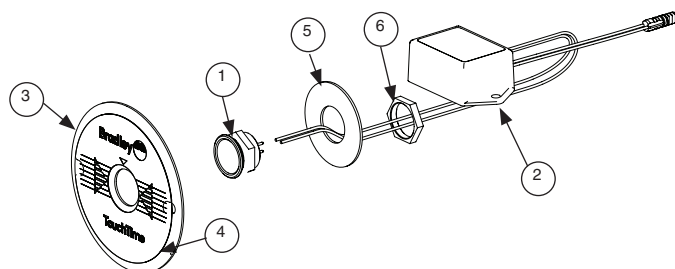
Activation of the pushbutton takes place only when it is released, thereby preventing "hold open" activation.

### Mechanical Pushbutton



| Item | Part No.  | Description                   |
|------|-----------|-------------------------------|
| 1    | S83-368   | Mechanical Pushbutton         |
| 2    | S83-360   | TouchTime Module              |
| 3    | 159-400   | Escutcheon - Flat             |
| 4    | 204-465   | Decal (on face of escutcheon) |
| 5    | 142-002CB | Flat Washer                   |
| 6    | 110-258   | Nut, Hex SS                   |

### Piezo Switch



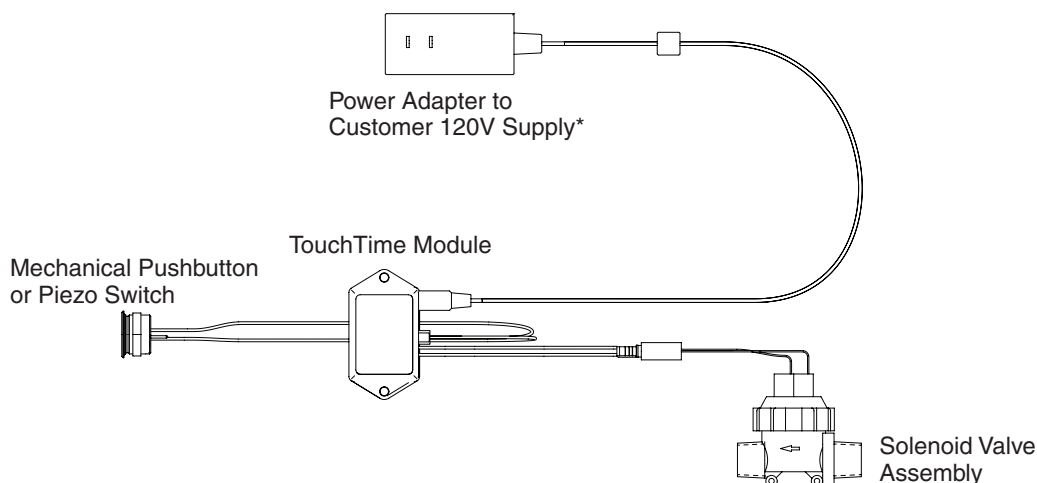
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| 1    | S83-369   | Piezo Switch                  |
| 2    | S83-360   | TouchTime Module              |
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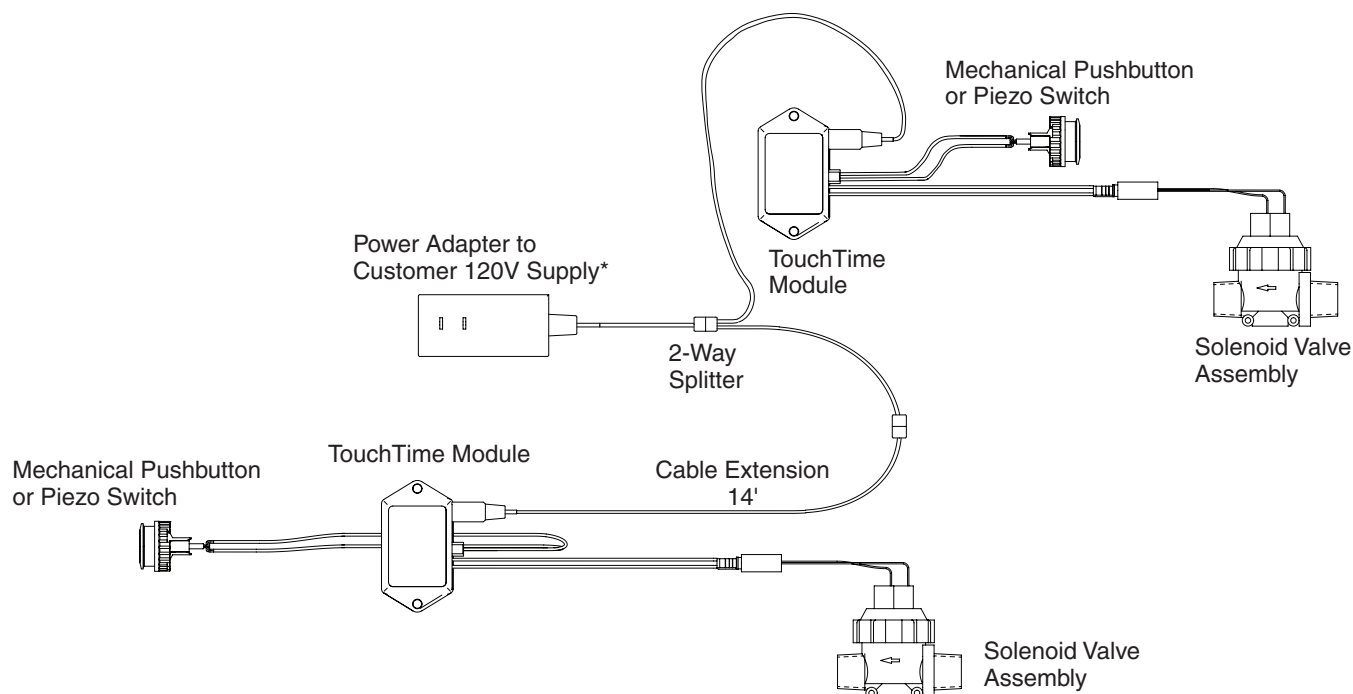
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## Wiring Diagram - Standard Example



## Wiring Diagram with Splitter Kit and Cable Extension - Example



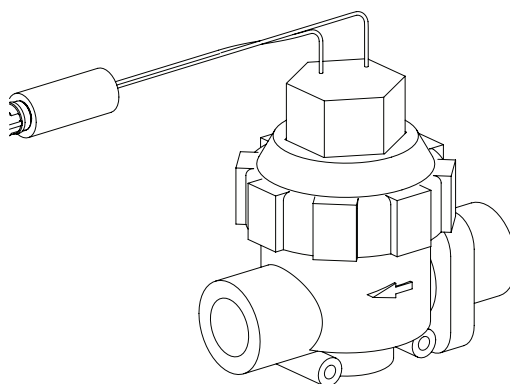
\*261-147A Power Adapter—operates up to 5 buttons  
261-147 Power Adapter 2A—operates up to 10 buttons  
251-026 Cable Extension 14'  
251-027 4-Way Splitter  
251-027A 2-Way Splitter  
251-027B 3-Way Splitter



## Troubleshooting – Solenoid Valve: Part nos. S07-095



*Turn off water supplies to the unit before troubleshooting.*



| Problem  | Cause  | Solution  |
|--|--|---|
| An individual operating station fails to shut off and drips. | Internal cartridge failure.  | Replace S27-352B cartridge.   |
| An individual operating station fails to turn on.            | A failed cartridge for the valve or loose electrical connection to the terminal. | <p>Test the station to determine the cause.</p> <ol style="list-style-type: none"><li>1. Disconnect the wires from the cartridge of an adjacent valve. Disconnect the wires from the problem valve and reconnect to the adjacent valve.</li><li>2. Turn on electrical and water supplies to the unit. Activate the pushbutton/piezo switch on the problem station, and the adjacent station should turn on.</li></ol> <p>If the adjacent station turns on and cycles normally, replace the cartridge on the problem valve.</p> <p>If the adjacent valve fails to turn on, inspect the wires from the pushbutton/piezo switch assembly and do the following:</p> <ul style="list-style-type: none"><li>• make sure there are no breaks and that the fully insulated disconnect terminals are firmly crimped in place;</li><li>• turn off the electrical and water supplies;</li><li>• reconnect to the adjacent valve and turn on the water supplies to the unit;</li><li>• activate the pushbutton/piezo switch. If the station still fails to turn on, replace the pushbutton/piezo switch assembly.</li></ul> |



## Troubleshooting – TouchTime

| Problem   | Cause            | Solution  |
|---|------------------|---|
| Water fails to flow when pushbutton is pressed. | Plug-In Adapter  | Test by plugging adapter into adjacent TouchTime module. If adapter will not power an adjacent module, then replace the plug-in adapter.<br><br>Using a multimeter, check the volts for the adapter. It should be 12V $\pm$ 10%. If the reading does not fall within that 10%, replace the adapter. |
|   | TouchTime Module | Move the selector switch on the module to position 1. The green LED should cycle on for 1 second and off for 1 second continuously. If not, replace the TouchTime module.   |
|   | Solenoid Valve   | The solenoid valve should open and close at the same rate. If this is not happening, see "Troubleshooting the Solenoid" and/or replace the solenoid cartridge.  |
|   | Pushbutton       | With the pushbutton plugged into either connector on the TouchTime module, move the selector switch on the module to position 4. The green LED should illuminate for 4 seconds with the pushbutton is pressed and released.   |

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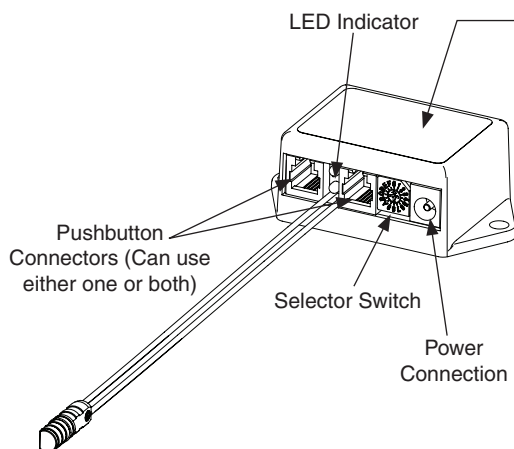
## Adjusting the TouchTime Module



The TouchTime module is pre-set at the factory, but the module is adjustable. To adjust the TouchTime module to a different time out period, turn the selector switch to the desired time out setting (4 through 9 for no flush, A through F for a 24-hour flush) as indicated on the module label.



The 24-hour flush function will activate water flow for a period of 60 seconds any time there has been no activation within the past 24 hours. This function is used to help clear stagnant water from the plumbing system and can provide some measure of prevention against the formation of bacteria in supply pipes.



| S83-360 Timer                    |                     |
|----------------------------------|---------------------|
| Indicators                       |                     |
| Red = Disabled                   |                     |
| Green = In Use/Activation Length |                     |
| Diagnostic - See Instructions    |                     |
| 0: Test Timer Module I/O         |                     |
| 1: Solenoid Open                 |                     |
| Custom - See Instructions        |                     |
| 2: Push Button Light On/Off      |                     |
| 3: Timeout Period                |                     |
| Timeout Setting                  |                     |
| 4: 4s, no flush                  | A: 4s, 24hr flush   |
| 5: 11s, no flush                 | B: 11s, 24hr flush  |
| 6: 15s, no flush                 | C: 15s, 24hr flush  |
| 7: 30s, no flush                 | D: 30s, 24hr flush  |
| 8: 60s, no flush                 | E: 60s, 24hr flush  |
| 9: 180s, no flush                | F: 180s, 24hr flush |
| 12V DC                           |                     |
| 114-325 Rev B                    |                     |



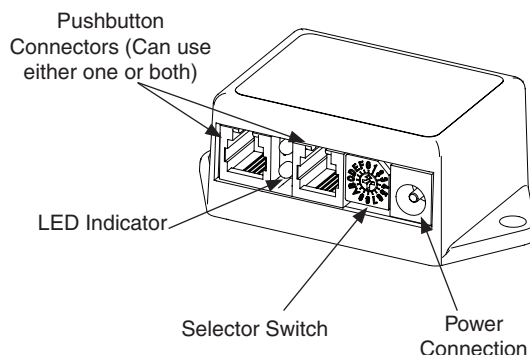
## How to Test the TouchTime Module (S83-360)

### Supplies Needed

- Small flat blade screwdriver - to set the selector switch
- Switch or Pushbutton - either piezo electric or mechanical
- 12V DC plug-in adapter
- Solenoid



*Use a pushbutton/piezo switch, plug-in adapter, and solenoid from an adjacent functioning assembly.*



1. Discharge and reset the TouchTime module.
  - a. Connect solenoid, plug-in adapter, and pushbutton/piezo switch.
  - b. Set selector switch on TouchTime module to position 1.
  - c. Activate the solenoid. The solenoid should cycle open and close each second.
  - d. Remove power from TouchTime module. The green LED will stop flashing in 1 to 2 seconds.
  - e. Wait at least 5 seconds. This allows the TouchTime module to completely discharge and reset.
2. Test the TouchTime module.
  - a. Set the selector switch on TouchTime module to position 0 (diagnostic position for testing TouchTime module).
  - b. Connect power to TouchTime module and verify green and red LEDs remain on after 2 seconds.
  - c. Move selector switch to position 1. The green and red LEDs should flash quickly for 2 seconds (LEDs flash about 10 times).
  - d. Verify the solenoid cycles open and close each second.
  - e. Verify the green LED turns on and off with each solenoid click.
  - f. Move selector switch to position 4 (timeout setting = 4 seconds).
  - g. Press and release the pushbutton to initiate the timing cycle. Verify the green LED lights up for 4 seconds. The solenoid clicks will match the LED.
3. Test is complete. Set the selector switch on the TouchTime module to the desired setting (4-F).