



# CAREFREE TRAVEL'R *DIRECT RESPONSE*

AUTO-RETRACT SYSTEM



**Read this manual before installing or using this product. Failure to follow the instructions and safety precautions in this manual can result in personal injury and/or cause the product to not operate properly.**

The Travel'r Direct Response Auto-Retract System may be installed as part of the original Travel'r awning installation or as an upgrade to an existing awning installation.



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## PROPRIETARY STATEMENT

The Travel'r Direct Response is a product of Carefree of Colorado, located in Broomfield, Colorado, USA. The information contained in or disclosed in this document is considered proprietary to Carefree of Colorado. Every effort has been made to ensure that the information presented in the document is accurate and complete. However, Carefree of Colorado assumes no liability for errors or for any damages that result from the use of this document.

The information contained in this manual pertains to the current configuration of the models listed on the title page. Earlier model configurations may differ from the information given. Carefree of Colorado reserves the right to cancel, change, alter or add any parts and assemblies, described in this manual, without prior notice.

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## SAFETY INFORMATION



This is the safety alert symbol. It is used to alert individuals to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible personal injury or death.



Indicates a hazardous situation, which if not avoided, could result in death or serious bodily injury.



Indicates a hazardous situation, which if not avoided, may result in minor or moderate bodily injury.



Indicates a situation that may result in equipment-related damage.

### General Safety:



Shock Hazard. Always disconnect battery or power source before working on or around the electrical system.



Always wear appropriate safety equipment (i.e. goggles).



Always use appropriate lifting devices and/or helpers when lifting or holding heavy objects.



When using fasteners, do not over tighten. Soft materials such as fiberglass and aluminum can be "stripped out" and lose the ability to grip and hold.

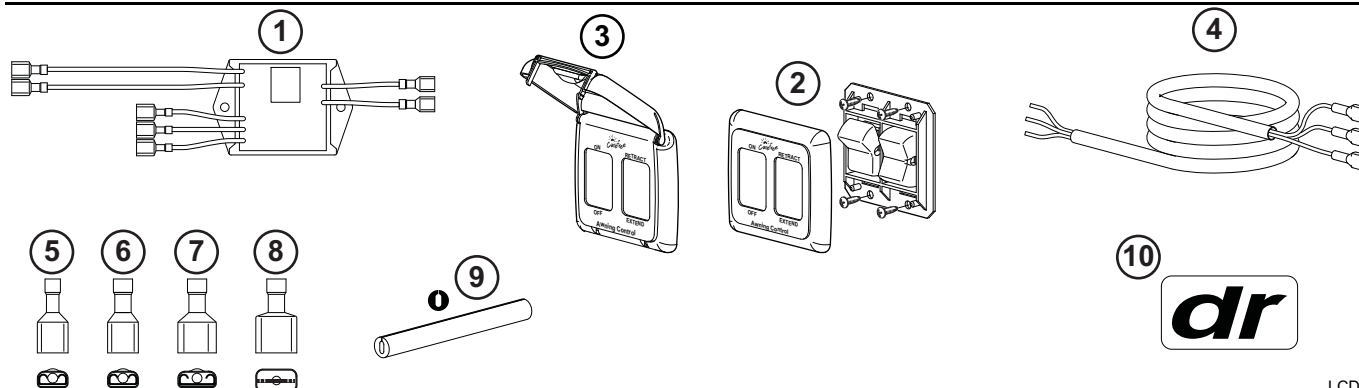
### CALIFORNIA PROPOSITION 65



This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm. California's Proposition 65 requires this warning to be given to customers in the state of California.

Reference Publications available on-line at [www.carefreeofcolorado.com](http://www.carefreeofcolorado.com):

- 052540-002 Fixed Pitch Travel'r Installation Manual
- 052540-021 Adjustable Travel'r Installation Manual
- 052540-221 Travel'r Owner's Manual
- 052540-301 Travel'r Service Manual



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| <input checked="" type="checkbox"/> | ITEM | DESCRIPTION             | QTY       | NOTE |
|-------------------------------------|------|-------------------------|-----------|------|
| <input type="checkbox"/>            | 1    | Sensor Module           | 1         |      |
| <input type="checkbox"/>            | 2    | Switch Kit              | 1         |      |
| <input type="checkbox"/>            | 3    | Covered Bezel, 2 Switch | 1         | 1    |
| <input type="checkbox"/>            | 4    | Cable                   | 205"      | 1    |
| <input type="checkbox"/>            | 5    | Terminal, Female, .187  | 18-22 awg | 3    |
| <input type="checkbox"/>            | 6    | Terminal, Female, .187  | 14-16 awg | 2    |
| <input type="checkbox"/>            | 7    | Terminal, Female, .25   | 14-16 awg | 3    |
| <input type="checkbox"/>            | 8    | Terminal, Male, .25     | 14-16 awg | 3    |
| <input type="checkbox"/>            | 9    | Cord Retainer           |           | 1    |
| <input type="checkbox"/>            | 10   | Label, Direct Response  |           | 1    |

Note: 1. The covered bezel (item 3) is optional and ordered separately. Refer to page 7 for information about NFPA 1192 RV Standard, Section 6.4.9 (Switch Installation Requirements).

## PRIOR TO INSTALLING THE KIT

*For New Installations* – These instructions assume that the awning and arms have been mounted and that the motor cable from the arm has been routed through the exterior wall as described in the awning installation instructions. These instructions replace the switch and wiring directions included with the awning.

*For Existing Installations* – The installer must locate and remove any existing switches. Access to the motor cable and the 12VDC/Ground wires is required.

1. Determine the location of the switches:
  - 1.1 Do not mount the switches near heat producing elements such as LP appliances or engine exhaust components.
  - 1.2 The dimensions for the switch plate are shown on page 7.

**⚠ WARNING** TO AVOID SHOCK HAZARD AND/OR ACCIDENTAL SYSTEM SHORTING, ALWAYS DISCONNECT THE VEHICLE BATTERY AND ELECTRICAL SOURCES BEFORE WORKING WITH ELECTRICAL WIRING AND COMPONENTS.

When the *Direct Response* installation is complete return to the original awning instructions for any final assembly required.

## INSTALLING THE SENSOR

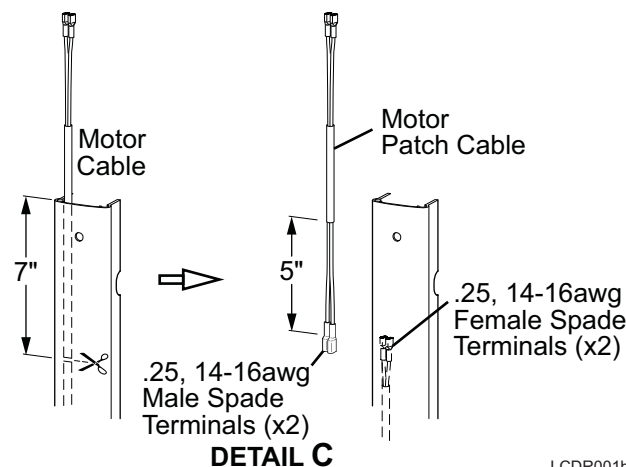
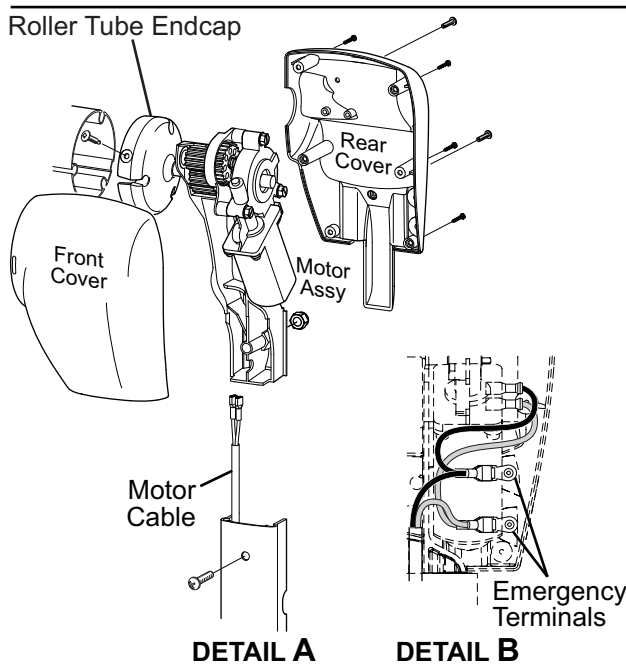
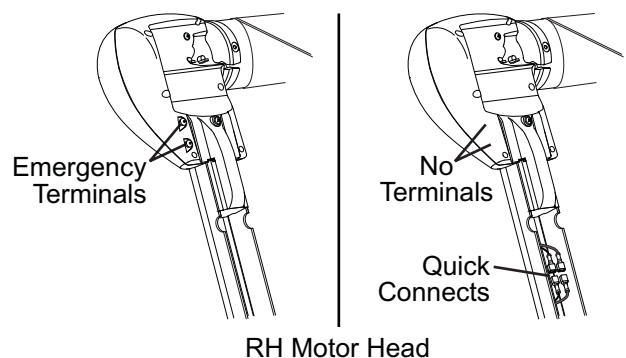
This section is for fitting the motion sensor and wiring into the motor arm and head.

1. Open the awning completely.
2. Disconnect power to the awning.
3. (Detail A) Remove the front cover. There are six (6) small screws through the back cover. Set parts aside.
4. Examine the rear cover.
  - 4.1. For rear covers with emergency terminals: Disconnect the wires from the emergency terminals (Detail B). Do not remove the wires from the motor at this time.
  - 4.2. For rear covers without emergency terminals: Separate the quick connect terminals in the arm.
  - 4.3. Remove the rear cover. Set parts aside.
  - 4.4. For rear covers with emergency terminals: Remove the emergency terminals from the rear cover and discard. Use care to not damage the rear cover.
5. Remove the two (2) screws holding the roller tube in the endcap. Pull the roller tube out of the end cap while holding the arm. Support the roller tube

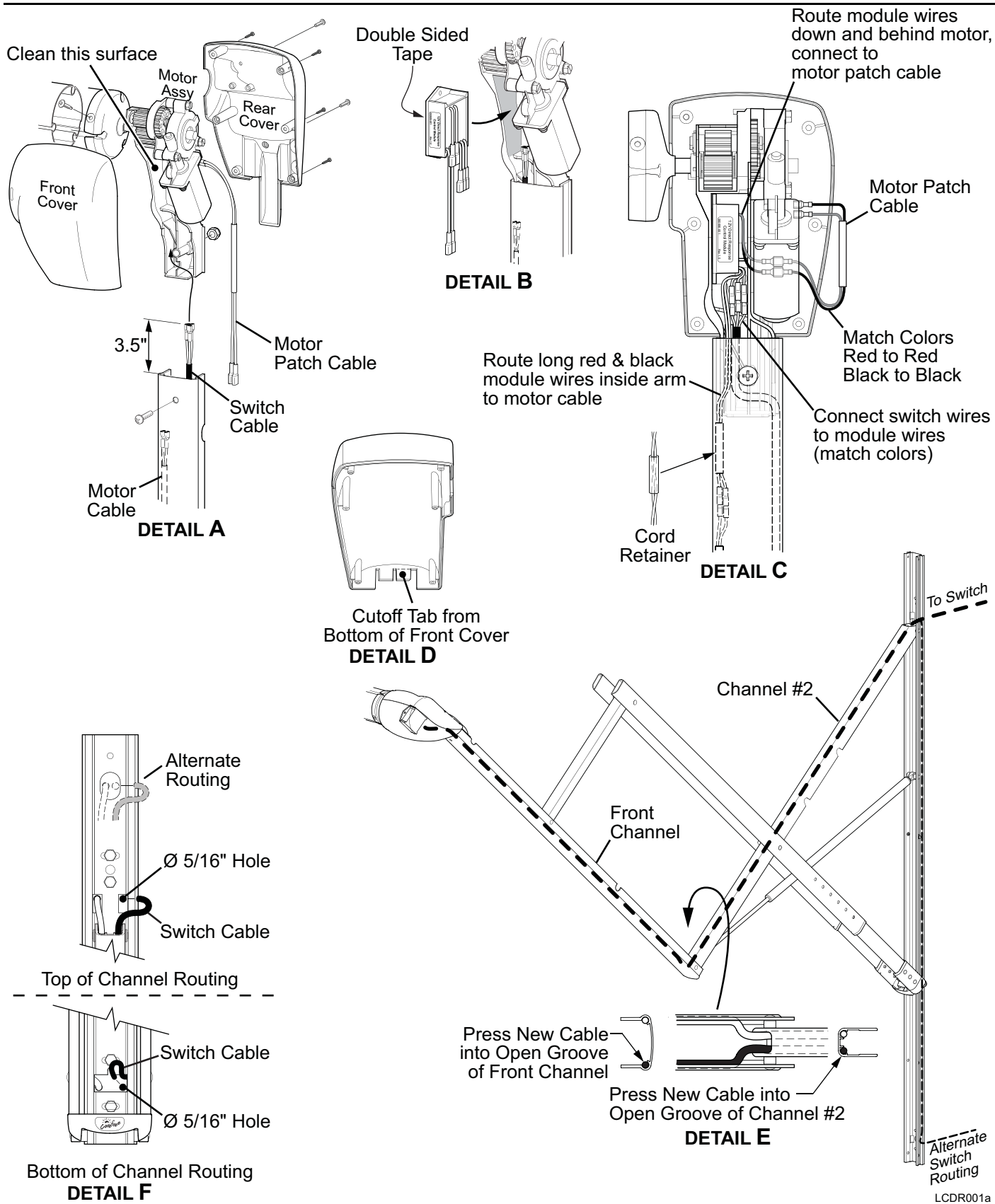
**NOTICE** Do not allow the roller tube to drop toward the ground. The twisting motion can cause serious damage to the idler arm.

**NOTE:** The arm will extend out slightly when the roller tube is detached.

6. Detach the motor assembly from the arm.
7. For units that had the emergency terminals on the rear cover (refer to Detail C):  
(for units without the emergency terminals go to step 8)
  - 7.1. Partially pull the motor cable from the rear of the arm (approximately 9"-10")
  - 7.2. Cut the cable approximately 7" from the top of the channel. Remove but DO NOT discard the cable that was cut.
  - 7.3. On the cable remaining in the arm: Strip approximately 2" of the outer insulation to expose the wires.
  - 7.4. Strip and terminate the two wires in the cable with .24, 14-16awg insulated female spade connectors.
  - 7.5. Press the cable back into the channel groove leaving the connectors exposed.
  - 7.6. For the cable that was removed: From the cut end, strip approximately 5" of the outer insulation to expose the wires.
  - 7.7. Strip and terminate the two wires in the cable with .24, 14-16awg insulated male spade connectors.
  - 7.8. On the motor, replace the red and black wires with the newly made motor patch cable. Match the wire colors (replace the red wire with the cable's red wire and the black wire with the cable's black wire).



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8. *(Detail B)* Clean the inner face of the motor frame.
9. Remove the release paper from the double-sided tape on the module. Position the module with the label out and the two wires at the top and the 5 wires at the bottom. Firmly press the module against the inside face of the motor frame. Ensure that the sensor does not touch the gears and that it is far enough inside to allow the front cover to be installed.
10. Route the short red and black wires from the top of the module behind the motor and attach to the motor patch cable.
11. Hold the motor assembly at the top of the arm channel.
12. *(Details A & C)* From inside the front channel, route the new module cable into the motor frame. The cable must extend above the front channel 3.5".
13. Route the long red and black wires from the bottom of the channel down around the motor frame and inside the front channel.
14. Attach the motor assembly to the front channel.
15. Lift and align the roller assembly with the end cap on the motor assembly. Rotate the end cap until the slot in the cap aligns with the empty slot in the roller assembly, and then press the roller tube fully into the cap. The end cap must seat squarely over the end of the roller tube when complete.
16. *(Detail C)* Connect the 5 colored short wires of the module to the wires from the cables. Match the colors of the wires. The wiring diagram is on page 7.
17. In the front channel, attach the red and black wires from the module to the motor cable inside the channel.
18. Secure the red and black wires into the groove of the front channel using a 2" piece of cord retainer.
19. Attach the rear cover.
20. *(Detail D)* Cut or break off the tab on the bottom of the front cover. Attach the front cover.
21. *(Detail E)* Route the new cable down the front channel pressing the cable into the open groove.
22. *(Detail E)* At the pivot joint, slip the cable into channel #2 under the shock mount.
23. Route the cable up channel #2 pressing the cable into the open groove.
24. Slip the cable through the open hole in the knuckle at the top of channel #2.
25. *(Detail F)* Route the new harness through the vehicle wall:
26. For top routing (cables enter the vehicle at the top of the arm): In the area shown, drill a 5/16" hole into the vehicle. Route the cable to the switch location.
27. For bottom routing (cables enter the vehicle at the bottom of the arm):
  - 27.1. Remove the fascia.
  - 27.2. Loosen the attaching screws for the arm. If moly rivets have been used, it will be necessary to drill off the head of the rivet use care to not enlarge the hole.
  - 27.3. Slip the cable through the access hole at the top of the mounting channel and pull down. Lightly pull the cable out of the bottom access hole and align cable with the rear channel groove.
  - 27.4. Tighten the attaching screws for the arm. Replace any moly rivets that were removed.
  - 27.5. Drill a 5/16" hole in area shown. Route the cable to the switch position.
  - 27.6. Seal the hole and cable with a quality silicone sealant.
  - 27.7. Reinstall the fascia.

## SWITCH INSTALLATION

**WARNING** To AVOID SHOCK HAZARD AND/OR ACCIDENTAL SYSTEM SHORTING, ALWAYS DISCONNECT THE VEHICLE BATTERY AND ELECTRICAL SOURCES BEFORE WORKING WITH ELECTRICAL WIRING AND COMPONENTS.

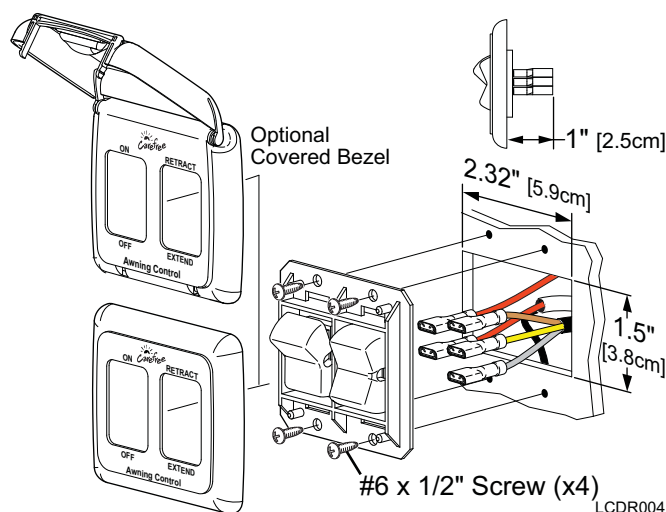
**NOTICE** To comply with 2018 NFPA 1192 RV Standard, Section 6.4.7, switches must be mounted as follows:

For travel trailers and 5<sup>th</sup> wheels:

1. Installed in a dedicated switch cabinet with a latching door; or,
2. Installed with the optional covered bezel available from Carefree; or,
3. Installed in a cabinet with a latching door where the switch is protected and CANNOT be activated by any items or cargo that may move or shift during transit; or,
4. Installed with an interrupt circuit that disables awning extension when the vehicle is in motion (i.e. a relay tied into the parking brake or ignition that disconnects the BROWN extend wire).

For motorized coaches (Class A, Class B or Class C):

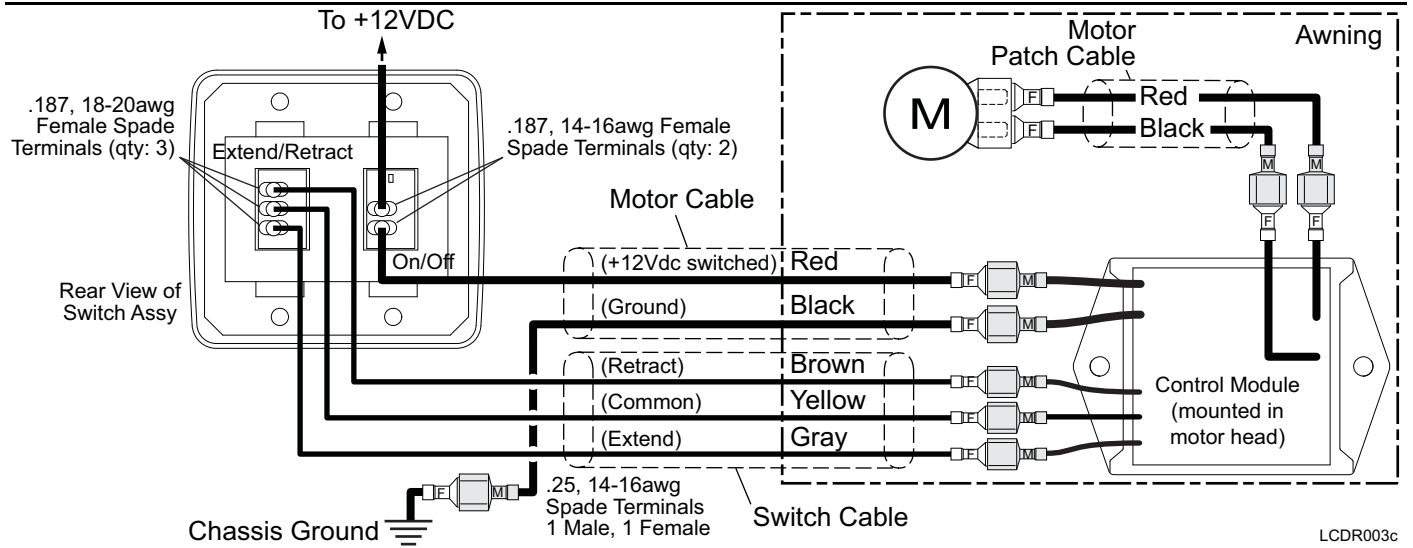
5. Installed with an interrupt circuit that disables awning extension when the vehicle is in motion (i.e. a relay tied into the parking brake or ignition that disconnects the BROWN extend wire or removes power from the awning controls).
6. At the switch location cut a 2 5/16" [5.9cm] x 1 1/2" [3.8cm] hole.
7. Route the cables from the arm through the hole.
8. Terminate the three (3) 20awg wires (Brown, Yellow, Gray) with .187, 18-20 awg female terminals. Attach to the EXTEND/RETRACT switch as shown in the wiring diagram.
9. Terminate the RED wire from the motor cable with a .187, 14-16 awg female terminal. Attach to one terminal of the ON/OFF switch.
10. Terminate the BLACK wire from the motor cable with a .25, 14-16 awg male terminal.
11. Run a minimum 14 awg wire to chassis ground. Suitable ground would be the vehicle chassis or conductive structure connected to the chassis. Terminate the wire with .25, 14-16 awg female terminal and connect to the black wire from the cable.
12. Run a minimum 14 awg wire from the power distribution panel (auxiliary battery circuit) or equivalent. The circuit should be protected by a 15-amp fuse. Terminate the wire with a .187, 14-16 awg female terminal. Attach to one terminal of the ON/OFF switch.



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**NOTE:** If the wire run is 30 feet or longer, use 12awg wire to prevent voltage drop. Use the appropriate wire terminals for the wire size.

13. Push the wires and switches into the hole then attach the switch frame using four (4) #6 x 1/2" screws.
14. Snap the switch bezel over the switch frame.

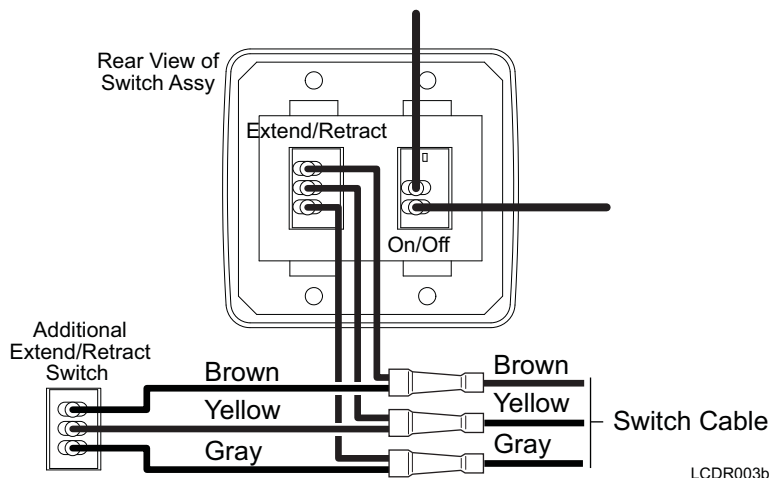


## WIRING AN ADDITIONAL EXTEND/RETRACT SWITCH

This section is for wiring an additional EXTEND/RETRACT switch.

The switch must be momentary on, single pole, double throw, center OFF (Momentary ON – OFF – Momentary ON).

1. Route wires for the second switch to the main switch location. Wires should be a minimum 18awg.
2. Splice the wires in parallel with the EXTEND/RETRACT switch wires from the switch cable. Pin 1 of the additional switch should go to pin 1 of the main patio switch etc.



## ATTACH THE LABEL

After completing and testing the system, attach the Direct Response identification label to the bottom of the motor arm.

1. Thoroughly clean and dry the area at the bottom of the RH (motor) arm.
2. Remove the release paper and attach the "DR" label in the area shown between the Carefree logo and the top of the plate.

