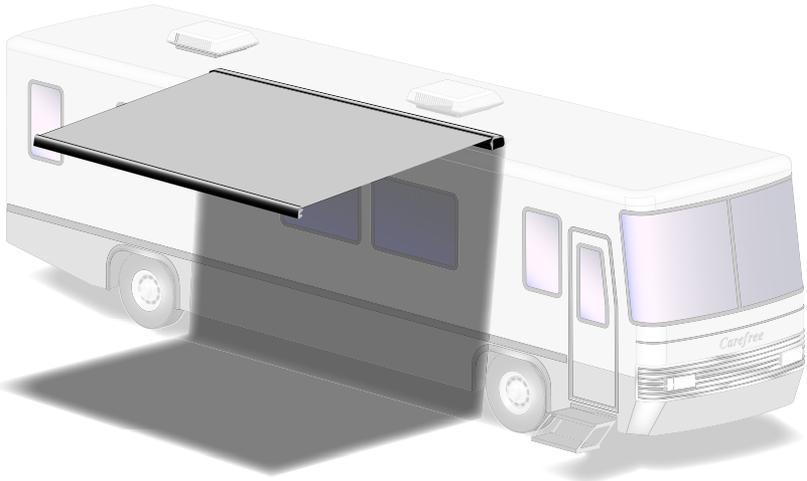




*OWNER'S MANUAL*  
**APEX**

**WITH DIRECT RESPONSE ELECTRONICS**




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## INTRODUCTION

From its beginning in the early 70's, Carefree of Colorado has emerged as the premier manufacturer of quality awnings and accessories for Recreational Vehicles (RVs). Our full line of products can provide the accessories that match your life style; no matter what type of RV you own. Check with your dealer to discover the products that can make your life more Carefree.

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The Apex Patio Awning offers the coach owner an awning system that provides as much or as little shade as required. The versatile awning system is available as a single awning or as a 2 or 4 awning combination with all awnings controlled at a single master control pad.

Each unit is equipped with Apex lateral support arms that are the strongest available on the market. No vertical arms interfere with coach sidewalls or equipment that may be mounted on the roof. These arms can also be adjusted to vary the canopy pitch up to 2 feet (it is strongly recommended that service and adjustments be performed by trained technicians).

The canopy is made from Sunbrella® acrylic fabric. The canopies are housed in an aluminum case that easily blends in with the coach roof.

The unique and innovative 110V electronic control system provides Carefree's *Direct Response* system with interior pushbutton controls for standard extend/retract functions. At the master control panel the auto-retract system can be engaged to automatically retract the awning in windy conditions. Sensitivity can be set to respond to a variety of wind speed conditions. An RF remote is included with the *Direct Response* system.

## OPERATION

The *Direct Response* system provides a wide range of awning controls with control panel operation in one convenient location. The standard operation is straight-forward with the buttons clearly labeled. The control panel is designed to allow the user to control each awning individually or together. Each function is described below. These buttons operate the same with or without the auto-retract system turned on.

### **Operational Notes:**

#### Ignition Lockout Sensors:

If the optional Carefree EL ignition lockout is installed the system will disable the extend function while the vehicle ignition key is in the ON position.

Special order RTL ignition lockouts will fully retract the awning and disable the extend function when the vehicle ignition key is in the ON position.

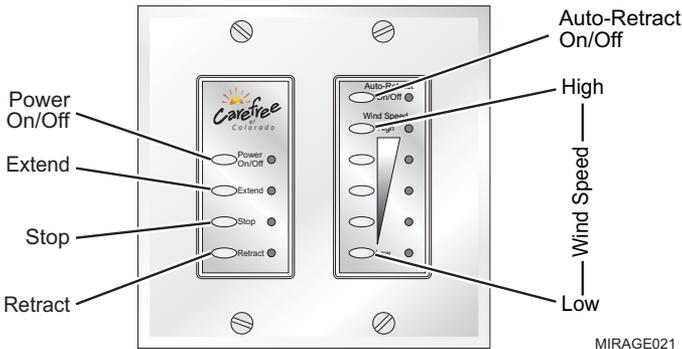
Functions will return to normal operation when the ignition key is turned OFF.

Coach manufacturers may install their own lockout design. Refer to the coach literature for AC power for accessories.

#### Awning Motor

The awning motor is equipped with a thermal protection circuit to protect the motor from overheating. Operating the awning repeatedly over a short time period may cause the circuit to sense a overheat condition and shut off the motor. If this occurs, wait approximately 15 minutes to allow the motor to cool then operate the awning in normal fashion.

## SINGLE AWNING CONTROL PANEL



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**Power ON/OFF**... The power switch must be on before any awning functions can be used. When the power is ON, the LED will illuminate.

**⚠ CAUTION** It is strongly recommended that the power switch be set to OFF whenever the awning is not being operated and during transport. This acts as a safety to prevent the awning from being accidentally opened.

**Extend**..... Press and release. The awning will extend out to the full extension and stop automatically. When the button is pushed, the LED will illuminate and stay on until another function is activated.

During normal operation, the awning will extend out completely then roll back slightly to provide tension to the fabric.

**NOTE:** If the optional ignition lockout safety is installed, the system disables the extend function while the vehicle ignition is in the ON position.

**Stop**..... Press and release. During extend and retract functions, the operator may stop the awning by pressing this button. When the button is pushed, the LED will illuminate and stay on until another function is activated.

**Retract**..... Press and release. The awning will retract and stop automatically when the awning is fully retracted. When the button is pushed, the LED will illuminate and stay on until another function is activated.

The function LEDs (extend, retract and stop) perform a dual function. When the button is pressed, the LED illuminates. The LED stays illuminated during the selected operation and after the awning has fully extended or retracted. This provides an indicator of the awning position. When the stop button is pressed, the LED will illuminate and stay on until a function is pressed. If on, it indicates that the awning is partially extended/retracted.

**NOTE:** When 110VAC power is removed from the system, the controller does not retain previous positioning information. When power is restored, positioning information is updated when the first function is initiated.

**⚠ CAUTION** At startup (110VAC applied) DO NOT press the retract button to update the positioning information. This can cause the motor to run in an over current mode. If this occurs, the motor's thermal protection device may shut off the motor and the operator must wait approximately 15 minutes, for the motor to cool off, before operating the awning. To properly set the positioning, push the extend button, allow to run for 1 second then press the stop or retract button.

## THE AUTO-RETRACT SYSTEM

The auto-retract system may be selected as active or off. The system is off when the power is shut off. To turn on the system, press the power button ON then press the Auto-Retract button ON. The LED indicator will be on when the system is active.

The *Direct Response* system detects awning motion caused by windy conditions. The motion sensor is located in the lead rail. Sensitivity is set on the control panel. You may have to experiment to find the best setting for your preferences.

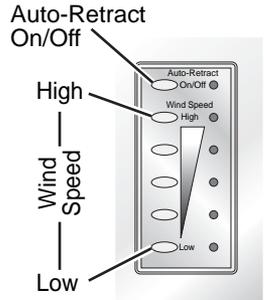
The system operates by gauging the vertical motion of the awning's leading edge. When persistent motion exceeds the factory preset threshold value for 2 seconds or longer, the system will automatically retract the awning. The control panel provides 5 factory preset sensitivity values (threshold values).

Gust detection is incorporated into the software. When the motion value is suddenly and sharply increased above a safe maximum value, then the 2 second persistence measure is overridden and the awning closes immediately.

**NOTE: If the Auto-Retract LEDs flash when pressed on, this indicates that the motion sensor has been disengaged or otherwise disabled; the affected awning is not protected by the auto-retract function. The awning must be retracted using the command buttons. Immediately contact a Carefree service center for service.**

### CAUTION

**THE CAREFREE DIRECT RESPONSE SYSTEM IS A PREMIERE ELECTRONIC AUTO-RETRACT SYSTEM THAT PROVIDES PROTECTION AGAINST ADVERSE ELEMENTS; BUT NO AUTO-RETRACT SYSTEM IS A GUARANTEE AGAINST SEVERE OR DESTRUCTIVE WEATHER; THE EFFECTS OF WIND AND RAIN ON AN AWNING ARE UNPREDICTABLE AND MAY CAUSE SEVERE DAMAGE TO THE AWNING AND/OR VEHICLE. IF WIND OR EXTENDED PERIODS OF RAIN ARE EXPECTED, RETRACT THE AWNING.**



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## USING THE REMOTE CONTROL

A remote control is provided with the *Direct Response* system. In simple terms, the remote is a wireless key pad that functions in the same manner that the stationary control panel. The remote provides the advantage of allowing you to operate the awning from any convenient location.

The remote has a maximum operating range of 50 feet. Actual distance may vary depending on the specific installation and location of the receiver in the vehicle.

To use: turn system power ON at the control panel.

**NOTE: The Auto-Retract system can only operated at the control panel.**

### SINGLE AWNING KEY FOB

A remote control Key FOB is furnished with the single awning installation. To use: turn system power ON.

**Extend**..... Press and release. The awning will extend out to the full extension and stop automatically.

**Retract**..... Press and release. The awning will retract and stop automatically when the awning is fully retracted.

**Stop**..... Press and release. During extend and retract functions, the awning may be stopped by pressing this button.



### Key FOB Battery

The Gray Button remote uses a flat 3V Lithium Battery (p/n CR2032) that should provide a long period of service. To access: carefully pry off the back of the case. Lift the circuit board out then slide the old battery out of the battery holder and slide a new battery in. The + should face away from the circuit board.

The Key FOB remote w/ antenna uses a battery (Radio Shack p/n 23-279 or equivalent) that should provide a long period of service. To access: Remove the small screw from the back of the case and carefully snap off the back. Lift the old battery out and insert the new battery.

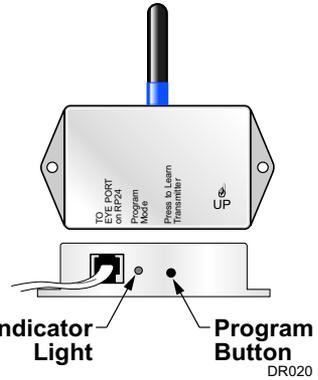
Batteries are available through your local battery outlets.

Battery life is dependent on frequency of use, environmental conditions and condition of remote.

PROGRAMMING THE RECEIVER FOR THE REMOTE

Early transmitters & receivers operate on a frequency of 418MHz. Models for 2007 & on operate on 433MHz. The transmitter and receiver frequencies must match. Identifying the transmitter frequency is described under the operational notes below.

1. Power to the control box must be on.
2. Press and release the "Press to Learn Transmitter" button on the bottom of the receiver box. The receiver is in program mode when the red light comes on.
3. For Gray Button Key FOBs: Press and release the ANY button on the remote. It is recommended to use the STOP button. The red light will go out after the receiver learns the remote signal.
4. For Key FOBs w/ Antenna: Press and release the STOP button on the remote. The red light will go out after the receiver learns the remote signal.



**NOTE:** Pressing the stop button will cause the blue up arrow button to default as the close (retract) function.

If a function button is pressed to train the receiver, it will be programmed as the open (extend) button. Example: Pressing the bottom button will program the bottom button for extend and the top button as retract.

**CAUTION**

**IF A FUNCTION BUTTON IS PRESSED DURING THE LEARNING PHASE, THE BUTTON THAT IS PRESSED WILL BECOME THE EXTEND FUNCTION. THE AWNING WILL THEN PERFORM THE FUNCTION (EXTEND) WHEN THE RECEIVER LEARNS THE TRANSMITTER SIGNAL. USE CARE TO AVOID UNEXPECTED AWNING MOVEMENT.**

5. Repeat for each additional remote.

OPERATIONAL NOTES:

- Transmitter and receiver must match in frequency (418 MHz or 433 MHz).

The gray button Key FOBs are marked with a label for 418MHz or 433MHz frequency. Key FOBs w/ antenna are 433MHz.

418 MHz receivers are marked "RR24". 433 MHz receivers are marked "RR"

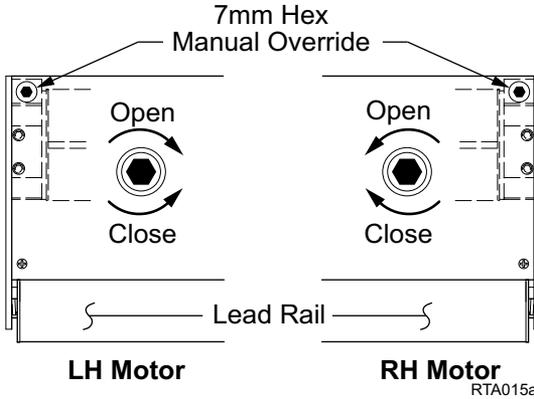
- i. The receiver exits the program mode after ten seconds.

- If the light does not come on above, the memory is full and must be cleared.
- If the light does not go out in above, the receiver already knows the transmitter's signal or the battery in the remote needs to be replaced.
- To clear the memory: PRESS AND HOLD the transmitter learn button. While holding the button, the indicator light should be OFF for the full 5 seconds then come on.
- The system may be programmed for up to 5 remotes.



*MANUAL OVERRIDE*

If 110V power is not available to the coach, the Apex awning can still be safely retracted using the manual override.



1. The bypass is located inside the case, near the end cap. To access, remove the large rubber plug on top of the awning located toward the rear of the case on the motor side.
2. Chuck the supplied 7mm hex key into a 3/8" battery powered drill.
3. Insert the hex key into the manual override on the awning.
4. Operate the drill in the direction shown in the diagram to close the awning. Reverse the drill to open the awning.
5. When done, reinsert the rubber plug.

## AWNING CARE

Maintaining a Carefree Awning is easy. Just follow these basic steps:

- Always operate the awning according to the instructions.
- Periodically check that the fasteners are tight. Tighten if necessary.
- Keep the awning fabric and arms clean.

### *FABRIC CARE*

#### **CAUTION**

**DO NOT USE OIL BASED CLEANERS OR ANY CAUSTIC, GRANULATED, OR ABRASIVE TYPE CLEANERS ON YOUR CAREFREE PRODUCT.**

1. One of the best ways to keep the fabric looking good and to delay the need for deep or vigorous cleanings is to hose fabrics off on a monthly basis with clear water. This practice will help prevent dirt from becoming deeply imbedded in the fabric. In most environments, a thorough cleaning will be needed every two to three years.
2. When it's time for a thorough cleaning, the fabric can be cleaned while still on the awning frame.
  - For Acrylic Fabric – Use a stiff brush and warm water with soap.
3. When cleaning the fabric, it is important to observe the following:
  - Always use a natural soap, never detergent.
  - Water should be cold to lukewarm, never more than 100°F.
  - Air-dry only. Never apply heat to the fabric.
  - Always allow the fabric to dry thoroughly before rolling up the awning.

### *MILDEW*

Mildew is a fungus growth that looks like dirt. Under ordinary conditions, mildew will not appear. However, in areas where high temperature and humidity are common, mildew can be a problem and required the material to be washed more frequently. Thoroughly rinse the fabric with clean water and allow to air dry completely before rolling up the awning.

### *POOLING*

When water collects on the top of the fabric, this is known as "pooling". This can occur during inclement weather or if a running air conditioner discharges over the awning. The water is dumped when the awning is retracted. It is recommended that if water accumulates on the top; retract the awning in steps (8"-12") to dump the water. This will help prevent the fabric from stretching or distorting.

### *ARM CARE*

The best method of keeping the arms and braces operating smoothly is to clean them.

Periodically wash the spring arms with running water (i.e. a hose) to keep them clean. Lightly spray the arm joints with a dry silicone lubricant, after the arms have been cleaned and dried thoroughly.





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## CAREFREE MAJOR PRODUCT LIMITED WARRANTY

Carefree of Colorado (hereafter referred to as Carefree) warrants to the first retail Purchaser that the Carefree Product is free of defects in material and workmanship within the terms and conditions as set forth in the warranty statement available online at [www.carefreeofcolorado.com](http://www.carefreeofcolorado.com). Carefree's obligation under this warranty is limited to the repair or replacement, at Carefree's option, of any defective component with new or factory refurbished components.

OWNER MUST RETAIN THE ORIGINAL PROOF OF PURCHASE AND/OR HAVE THE PRODUCT WARRANTY REGISTRATION ON FILE AT CAREFREE FOR WARRANTY CLAIMS.

THIS WARRANTY IS NOT TRANSFERABLE.

**For**

- **Warranty Duration;**
- **Warranty Coverage and Exclusions;**
- **Warranty Terms of Coverage; and,**
- **Warranty Claim Procedures**

Refer to publication  
052580-111 "Carefree Major Product Limited Warranty"  
available online at  
[www.carefreeofcolorado.com](http://www.carefreeofcolorado.com)

*Register your Carefree products on-line at [www.carefreeofcolorado.com](http://www.carefreeofcolorado.com)*

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

**052522-002 Apex Installation Manual**

**052522-201 Apex Owner's Manual, Single Awning**

**052522-301 Apex Service Manual**

**IMPORTANT NOTICE:** It is strongly recommended that adjustments and repairs not described in this book be performed by trained technicians at your Authorized Carefree Dealer. Work performed by non-authorized persons or businesses may void warranty.

