



Photo Courtesy of Millennium Luxury Coach Co.

Century Lateral Arm Awning

INSTALLATION INSTRUCTIONS

Revised March 2009

Contents

- 1. Pre-Install check
- 2. Installation Steps
- 3. Testing
- 4. Troubleshooting See Adjustments and Repairs Manual
- 5. Operation See Owners Manual

Component Identification:

Control components



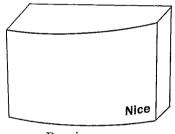
Anemometer (1 every 2 awnings: 1 minimum)



Wall Switch (1 per awning)



Multiple Awning Transmitter (1 per order)



Receiver (1 per awning)

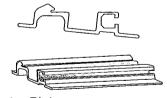


Wall Switch Cord (1 per wall switch)



Cord Restraints (1 set per receiver)

Mounting components



Adapter Plate (1 per awning arm)



T connector (2 per awning arm)





Manual override wheel (1 per order)

Adjustment Components



Motor Adjusting rod (1 per order)

Pre Installation Preparation

Read these Instructions before Installation

Installation must be performed in accordance with these instructions for any warranty to be effective. Identify awning components provided and determine the location of each. You will have to provide some additional materials for mounting, depending on vehicle design.

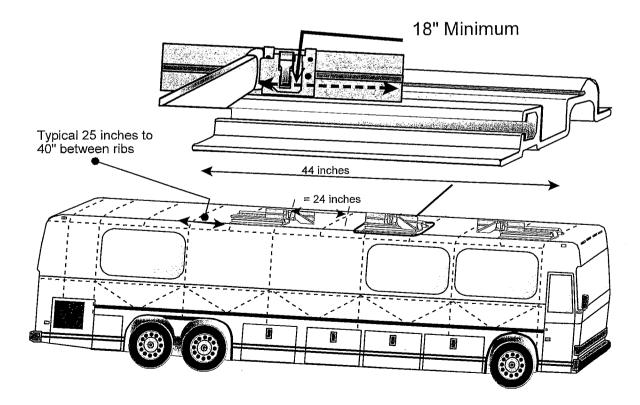
Supporting Structure

The mounting plates must be positioned on the roof of the vehicle to span two or more ribs no more than 40 inches apart. Check the vehicle structure at those points. Use appropriate mounting fasteners and material that fits the structure to which the awning is being attached.

Adapter Plate

One 44" Adapter Plate for each arm is provided. Typically, a 5' extension awning has two arms; a 9' 6" extension awning has two or three arms depending on awning length. An Adapter Plate must be installed under each arm. Arm centerlines are identified by arrow decals on the back side of each awning and on the "Arm Centerline" exhibit (see last page attached)

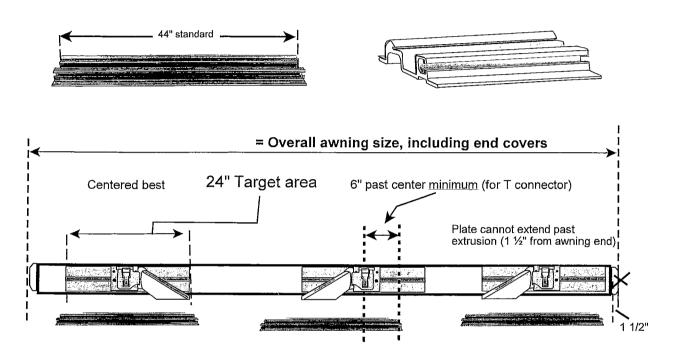
The Adapter mounting plate must be positioned on any pair of ribs so that the arm centerline is over any portion of the Plate, up to the edge, as shown below.



Adapter Plate Position

Any of the following examples of plate position (all in relation of arm location) is acceptable. The object is to place at least 18" of plate under each "Target" area, which is the centerline of each arm =/- 12". The 6" area past center provides a place for a T connector to attach.

Adapter Mounting Plate Placement - determined by arm location



Roof Overhang and Plate Position

The awning arms normally require a pitch of 10 - 20 degrees for proper water drainage. So that the lead bar or arms do not strike the roof of the vehicle, a portion of the awning box must extend over the edge of the roof as shown in Fig. 2.2. Also, be aware of possible welds in structure. Normally, any 2 of 3 bolt positions (A, B or C) are sufficient for security.

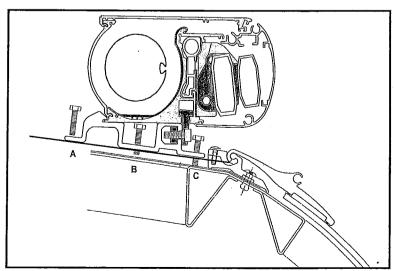


Fig. 2.2 - Prevost XLII example

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Installation Sequence

1. Secure Plates to ribs of vehicle. Use vibration proof fasteners appropriate for vehicle structure. Seal mounting holes and around perimeter of Plate.

Suggestion: Force some sealer into drilled mounting holes before inserting fastener and on fastener threads. Fill side openings of Plate with expanding foam to limit water entry. Seal perimeter of Plate.

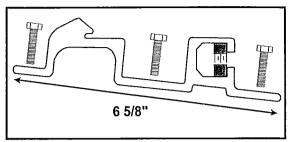


Fig. 2.3 A - Secure onto ribs

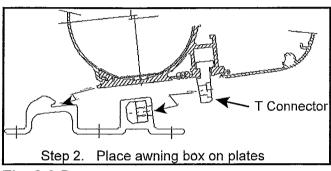
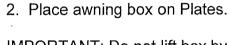


Fig. 2.3 B

3. Slide Insert into position on either side of arm brackets. Inserts should be no further than 12" from arm centerline. Slide "T" connectors into position to match. Secure with #8 - 1.25 mm x 25 mm socket head screws provided.



IMPORTANT: <u>Do not</u> lift box by any attachment to ends. Use slings around box or forks under box.

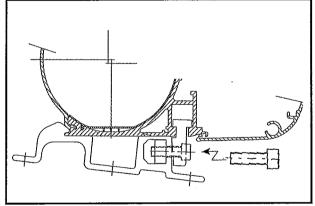


Fig. 2.3 C Secure box to Plate via threaded inserts and "T" connectors.

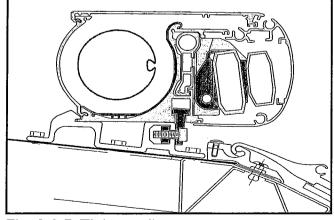


Fig. 2.3 D Tighten all screws

4. Finished mount should look like fig.2.3 D (Prevost XLII example).

ELECTRICAL CONNECTIONS

Determine appropriate locations for the components of the motor control system.

Control Box

Motor controls (radio receiver with wind sensor and wall switch terminals) are packaged in a weatherproof enclosure and includes watertight strain-relief fittings for wires entering the box. The box should be mounted as close to the motor as possible, in accordance with any electrical codes applicable to your installation. If exposed to weather, ensure that the connections are facing down to avoid moisture seepage. Keep in mind that you will need to run wires from the awning motor, the anemometer and the wall switch. You will also need to bring 120 V power to the box. This location should also be accessible for future adjustments.

Anemometer

Determine where you will install the anemometer. It should be positioned so that it
will sense the same relative wind conditions that the awning is experiencing. Avoid
areas that are sheltered from the wind, i.e. next to roof vents, storage pods,
satellite dishes etc.

Wall Switch

Choose a location to mount the wall switch. It is best located in a position that has
a clear line of sight to the awning and is convenient for normal operation. Note:
The low voltage switch is not weather proof and must be mounted inside of the
coach.

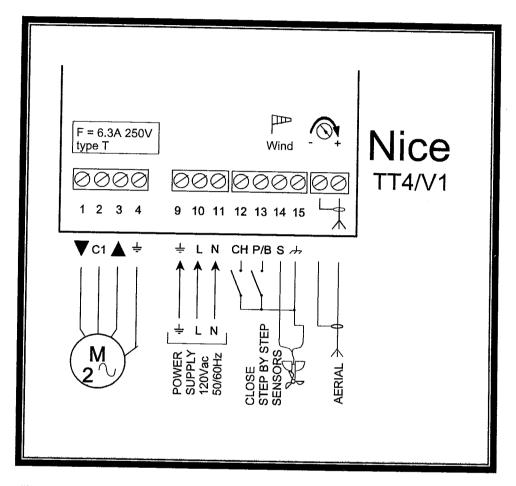
IGNITION SAFETY CUTOFF

To safeguard against accidental opening while the vehicle is in motion, a relay is provided to cut off power to the awning when the ignition is on.

INSTALLATION PROCEDURES (It is recommended that the low voltage wiring is done first, for easier access to the terminals.)

- 1. Remove the front cover of the control box and set aside. Install the strain relief fittings in the four holes in the bottom of the control box. Securely mount the box, in the pre-determined location, using appropriate fasteners in the two corner mounting holes. Make sure that the front is accessible for wiring and future adjustment.
- 2. Install the anemometer on the roof of the vehicle, in the pre-determined location. Run the low voltage cord into the control box area. Insert the cord through "C" strain relief fitting (see diagram pg. 8). Attach the two wires to the black terminals marked by the 3 Symbol. (See wiring diagram).

Use the following diagram for wiring the control box:



^{*} Motor "Left" and "Right" refers to end of awning box as viewed from outside facing vehicle.

PLEASE NOTE:

A jumper wire is needed between ports #12 and #13.

The wires from the switch connect to ports #13 and #15.

Programming:

Each radio control unit is recognised by the receiver incorporated in control unit by means of a unequivocal "code". A "storing" phase must therefore be performed in order to allow the control unit to recognise each single radio control unit.

A ATTENTION: All the storing sequences are timed, that is, they must be completed within the programmed time limits.

- For radio control units with more than one "unit", choose the unit to associate the control unit with before proceeding with the storing phase.
- Programming via radio may be done on all the control units within the range of the transmitter; only the one involved in the operation should be kept switched on, therefore.

When the memory contains no codes the first radio control unit can be entered as follows:

| Table "A1" | Memorising the first transmitter (fig. 4) As soon as the control unit is powered, 2 long beeps will sound | Example | | |
|------------|---|---------|--|--|
| 1. | | | | |
| 2. | Within 5 seconds press and hold down button ■ of the transmitter to memorise (for approx. 3 seconds) | *** 3s | | |
| 3. | Release button ■ when you hear the first of the 3 beeps confirming memorisation | | | |

N.B.: If the control unit already contains codes, 2 short beeps will be heard when it is switched on. This means that the above procedure is not valid and another memorisation procedure must be used.

When one or more transmitters have already been memorised, others may be enabled as follows:

| Table "A2" · | Memorising other transmitters (fig. 5) | Example |
|--------------|--|----------|
| 1. | Press and hold down button ■ of the new transmitter until you hear a beep | <u> </u> |
| | (after about 5 seconds) | 5s |
| 2. | Press button ■ of a previously enabled transmitter slowly 3 times (old) | X3 |
| 3. | Press button ■ of the new transmitter again. | • |
| 4. | At the end, 3 beeps will indicate that the new transmitter has been memorised correctly. | 7 7 1 |

N.B.: If the memory is full (14 codes), 6 beeps will indicate that the transmitter can no longer be memorised.

When the direction of movement with respect to the radio control unit buttons must be inverted, proceed as follows

| Table "A3" | Inverting the direction of the motor with respect to the controls (fig. 6) | Example |
|------------|--|---------------|
| 1. | Press and hold down button ■ of a previously memorised transmitter until you hear a beep (after about 5 seconds) | ♣ → 5s |
| 2. | Then hold down both the ▲ and the ▼ button (approx. 4 seconds) until you hear the first of the 3 beeps confirming that the direction has been inverted | 古台入入入4s |
| 3. | Test the new direction of the manoeuvre, ▲ should correspond to "up" while ▼ should correspond to "down". | = 1 = 1 |

♠ if the anemometer triggers, this will cause the motor to carry out a manoeuvre equivalent to the ▲ button

If a wind sensor is connected to the "sensors" input it is possible to select the cut-in level from 3 possible levels: 1= 15 km/h, 2= 30 km/h and 3= 45 km/h (the level was originally n° 2). When the level is exceeded for over 3 seconds, a command equivalent to the \blacktriangle button is activated and all other movements are blocked until the wind returns to under the programmed level. To modify the programmed level:

| Table "A4" | Changing the "wind" protection cut-in level (fig. 7) | Ex | ample |
|------------|---|----------|---|
| 1. | Press button ■ of a previously memorised transmitter until you hear a beep (after about 5 seconds) | |) _{5s} |
| 2. | Slowly press the ▲ button a number of times (1, 2 or 3) equal to the required level | † | X1= 15 km/h X2= 30 km/h X3= 45 km/h |
| 3. | After a few moments you will hear a number of beeps equal to the required level | ١. | X1= 15 km/h X2= 30 km/h X3= 45 km/h |
| 4. | Press button to confirm, otherwise wait for at least 5 seconds without confirming in order to abort the procedure without changing the previous level | (| } |

Deleting the memory of the control unit:

If you need to delete all the data contained in the memory of the control unit, carry out the following procedure. The memory can be deleted:

- with a non-memorised transmitter starting from point A.
- with a previously memorised transmitter starting the procedure from point N° 1

The following can be deleted:

- only the transmitter codes, finishing at point N° 4
- all data (transmitter codes, directions, wind levels, TTBUS addresses, etc.), completing the procedure.

| Table "A5" | Memory deletion (fig. 8) | Example |
|------------------|--|--|
| → A | Switch the motor off, activate the Step-by-Step input and keep it active until the end of the procedure | PP |
| В | Power the motor and wait for the 2 initial beeps | >= \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| ⇒ 1 | Press and hold down button ■ of a transmitter until you hear a beep (after about 5 seconds) | ♣ → 5s |
| 2 | Hold down the ▲ button of the transmitter until you hear 3 beeps; release the ▲ button exactly during the third beep | \$111 to |
| 3 | Hold down the ■ button of the transmitter until you hear 3 beeps; release the ■ button exactly during the third beep | むしては |
| 4 4 | Hold down the ▼ button of the transmitter until you hear 3 beeps; release the ▼ button exactly during the third beep | \$ 111 b |
| 5 | If you wish to delete all the data, press the ▲ and ▼ buttons together within 2 seconds and then release them. | within 2 s |
| After a few seco | nds 5 beeps signal that all the memorised codes have been deleted. | |

Operating:

Single channel transmitter:

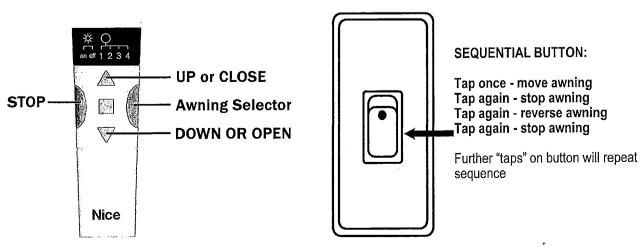
Press the UP: DOWN or STOP button.

Four channels transmitter:

Select the channel of the motor module you wish to control, by pressing the channel selector button, until the corresponding LED blinks for 3 seconds

(The channel will remain active for 30 seconds and then the transmitter returns to default channel 1). Press the UP; DOWN or STOP button.

Open the awning by using either the low voltage switch or the transmitter (Fig. 10). The awning should extend and automatically stop at the fully open position. If there is no response, see the troubleshooting guide.



The arms should also be fully extended and the fabric taut. If not, refer to the troubleshooting guide. The pitch of the fabric (the slope from the box to the front cover) should be the same at each end. If not, see the troubleshooting guide.

Close the awning by pushing the appropriate button on the same control used in Step 2. The motor should stop when the front cover is completely closed. There should be no gaps along the edge of the cover where it meets the box. Note: unless the environment is very quiet, it may be necessary to be close to the end of the box where the motor is located to hear that it has shut off simultaneously with the cover sealing. To test, push the "Stop" button. There will be an audible *click* if the motor was running. Otherwise, see Troubleshooting Guide.

Open the awning again and press the Stop button when the awning is partially open. Close the awning and repeat Steps 2 and 3 with the other control.

When the awning is open and the wind speed is greater than 22 mph for more than 2 seconds, the awning will close. As long as the wind speed remains high, all other commands will be ignored.

When the wind speed drops below the set value, the controls will return to normal operation following a very brief delay.

Note: Awning motors are designed for short-term operation of not more than 4-5 minutes per hour. Repeated rolling out and rolling in of the awning may lead to overheating of the motor, which then will be shut off by the integrated overload protection. The motor can be operated again only after it has cooled off sufficiently, which may requires 30 to 60 minutes, depending on outside temperature.