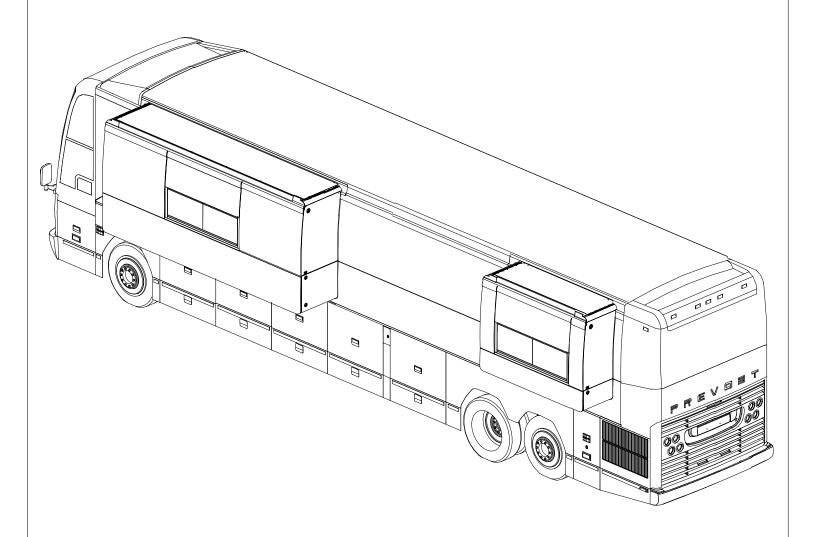
# V.I.P. SLIDE-OUT OPERATION MANUAL RELEASE 1

# THE "ULTIMATE" CLASS CONVERSION BUS SHELLS



PREVOST SLIDE-OUT TECHNOLOGY

PREVOST

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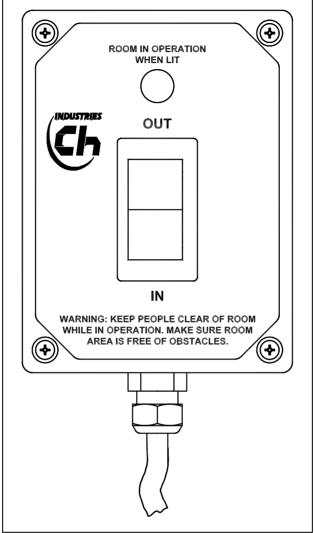


FIGURE 1: SLIDE-OUT CONTROL SWITCH

# 1. SAFETY PRECAUTIONS

Before operating both slide-out units, be sure to follow the check-list:

- Make sure that the area <u>outside</u> of the slide-out is clear and that there are no persons or objects within 3 feet of the slide-out outside wall. <u>Serious injury may occur</u>.
- □ Make sure that the area <u>inside</u> the motor home where the room retracts (30" for the front and 24" for the rear slide-out) is free of people or obstacles. <u>Serious injury may occur</u>.

- In temperatures below freezing point, make sure that the entire sliding surface outside the slide-out is free of snow, ice or sleet. <u>Failure to clear all ice or snow</u> may seriously damage the inflatable seal.
- □ The parking brake must be applied.
- □ The transmission shifter must be in the "Neutral" position.
- Make sure that the locking pin receptacles are free of foreign objects.
- Open a window to avoid slide-out movement restriction.

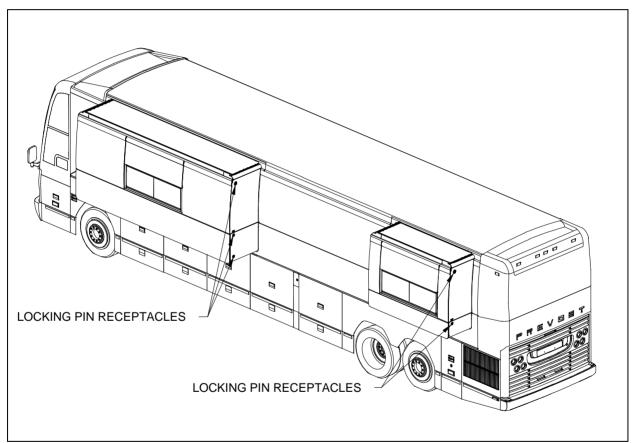


FIGURE 2: SLIDE-OUT LOCKING PIN RECEPTACLE POSITIONS

# 2. FRONT SLIDE-OUT OPERATION

# 2.1 Preliminary condition for the front slide-out operation

Before extending or retracting the front slide-out, please make sure all the following conditions are met:

1. Set the vehicle level selector switch to the "OFF" position (figure 3).

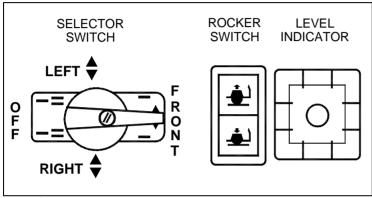


FIGURE 3: VEHICLE LEVEL SELECTOR SWITCH

2. Make sure the air pressure is 110 PSI minimum on the auxiliary air pressure gauge (figure 4).

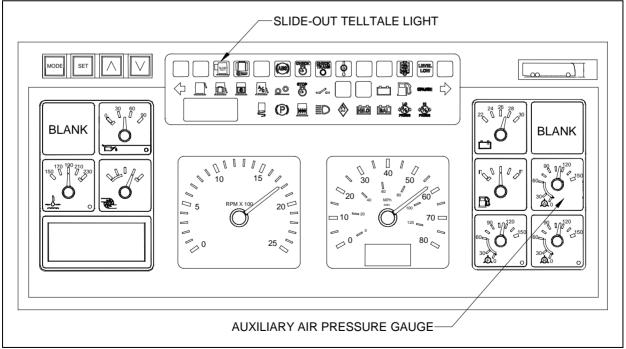


FIGURE 4: VEHICLE DRIVER CONSOLE

- 3. Make sure the parking brake is applied
- 4. Turn the ignition key to the "ON" position, start the engine and set the RPM at fast idle (figure 5).

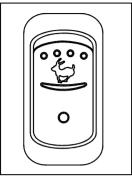


FIGURE 5 : FAST IDLE BUTTON

# 2.2 Front slide-out extending operation

With the ignition switch to the "ON" position and the engine started, press and hold the switch control button to the "OUT" position. The switch green "ROOM IN OPERATION" light will come on to indicate that the slide-out operation cycle is activated. The following actions will be done in sequence:

- ⇒ Deflation of the inflatable seal
- ⇒ Unload the tag axle (20 seconds)
- ⇒ Retraction of the locking pins
- ⇒ Movement of the slide-out to its full "OUT" position (15 seconds)
- ⇒ Re-inflation of the seal
- ⇒ Reloading of the tag axle

When the cycle is completed (about 40 seconds), the green light goes out and the switch button can be released. **The switch button must be held depressed until the cycle is completed**. Note that for safety reasons, releasing the switch button will stop the slide-out instantly. At any time, releasing the switch button from the "OUT" position and pressing it on the "IN" position will reverse the operation.

#### Control switch green light flashing

A green light flashing indicates an error condition or missing operation condition. Hold the control switch button depressed, then count and record the number of times the green light flashes. Release the switch button and refer to the troubleshooting list at the end of this chapter.

# 2.3 Front slide-out retracting operation

With the ignition switch to the "ON" position and the engine started, press and hold the switch button to the "IN" position to retract the slide-out. Note that the control switch green "ROOM IN OPERATION" light will come on and remain lit until the cycle is completed. When the operation is completed the green light goes out and the switch button can be released. At any time during this operation, releasing the switch button will stop the operation.

Please note that while the room retracts, there is a hissing sound. This is normal, as air is being blown in the gear racks on top of the slide-out to clear out leaves, water or other foreign matter.

## Control switch green light flashing

A green light flashing indicates an error condition or missing operation condition. Hold the control switch button depressed, then count and record the number of times the green light flashes. Release the switch button and refer to the troubleshooting list at the end of this chapter.

# 3. REAR SLIDE-OUT OPERATION

# 3.1 Preliminary condition for the rear slide-out operation

Before extending or retracting the rear slide-out, please respect all the following conditions:

- 1. Make sure the air pressure is 110 PSI minimum on the auxiliary air pressure gauge (refer to figure 4).
- 2. Make sure the parking brake is applied.
- 3. Turn the ignition key to the "ON" position, start the engine and set the RPM at fast idle. (refer to figure 5)

Note: For the rear slide-out, it is not necessary to have the level switch set in the travelling mode. It also operates with the level control in leveling mode anytime when the vehicle is parked.

# 3.2 Rear slide-out extending operation

With the ignition switch to the "ON" position and the engine started, press and hold the switch button to the "OUT" position. The switch green "ROOM IN OPERATION" light will come on to indicate that the slide-out operation cycle is activated. The following actions will be done in sequence:

- ⇒ Deflation of the inflatable seal
- ⇒ Retraction of the locking pins
- ⇒ Movement of the slide-out to its full "out" position
- ⇒ Re-inflation of the seal.

When the cycle is completed (about 20 seconds), the switch green light goes out and the button can be released. **The switch button must be held depressed until the cycle is completed.** Note that for safety reasons, releasing the switch button will stop the slide-out instantly. At any time, releasing the "OUT" switch button and pressing the "IN" switch button will reverse the operation.

## Control switch green light flashing

A green light flashing indicates an error condition or missing operation condition. Hold the control switch button depressed, then count and record the number of times the green light flashes. Release the switch button and refer to the troubleshooting list at the end of this chapter.

# 3.3 Rear slide-out retracting operation

With the ignition switch to the "ON" position and the engine started, press and hold the switch button to the "IN" position to retract the slide-out. Note that the switch green "ROOM IN OPERATION" light will come on and remain lit until the cycle is completed. When the operation is completed, the green light goes out and the switch button can be released. **The switch button must be held depressed until the cycle is completed.** At any time during this operation, releasing the switch button will stop the operation.

Please note that while the slide-out retracts, there is a hissing sound. This is normal, as air is being blown in the gear racks on top of the room to clear out leaves, water or other foreign matter.

# Control switch green light flashing

A green light flashing indicates an error condition or missing operation condition. Hold the control switch button depressed, then count and record the number of times the green light flashes. Release the switch button and refer to the troubleshooting list at the end of this chapter.

# 4. SLIDE-OUT MANUAL OVERRIDE PROCEDURE

In case of power retracting system failure to function, it is possible to use the manual override procedure to retract or extend the sliding slide-out. However, it is very important to follow all the instructions very carefully to insure that the inflatable seal or the retraction mechanisms are not damaged.

# 4.1 Preliminary conditions for manual override procedure

Before using the slide-out manual override procedure, make sure that all the breakers are set (figure 8) and that the ignition fuse is OK. The breakers are located in the slide-out control compartment (figure 10 and figure 11) and in the main power compartment (figure 7). The fuse is located in the front service compartment (figure 9). If an abnormal situation is detected and corrected, retry the normal operation, otherwise proceed with the manual override procedure.

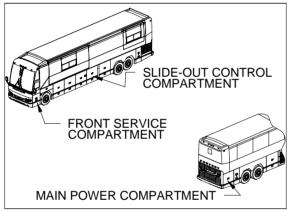


FIGURE 6 : COMPARTMENT LOCATIONS

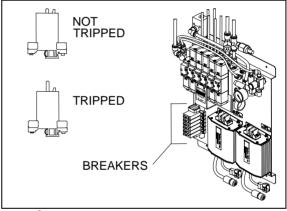


FIGURE 8: BREAKERS IN SLIDE-OUT CONTROL COMPARTMENT

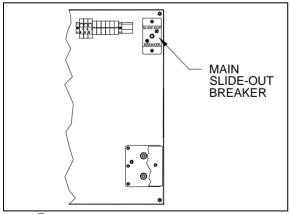


FIGURE 7: MAIN BREAKER IN MAIN POWER COMPARTMENT

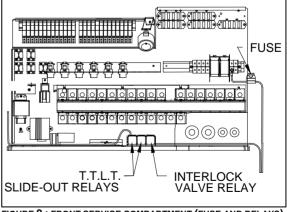
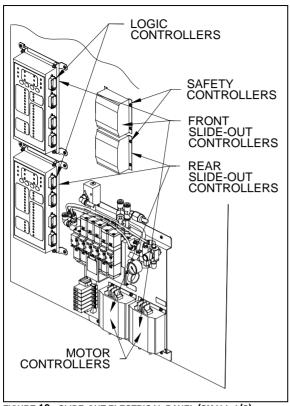
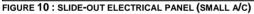


FIGURE 9: FRONT SERVICE COMPARTMENT (FUSE AND RELAYS)





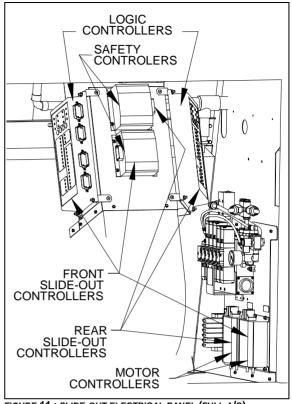


FIGURE 11: SLIDE-OUT ELECTRICAL PANEL (FULL A/C)

# 4.2 Manual retracting procedure

1. For the **front** slide-out only, the tag axle must be unloaded by the manual switch located on the left-hand control panel with the ignition key to the "ON" position (figure 12).

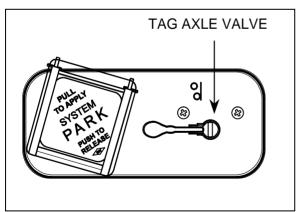
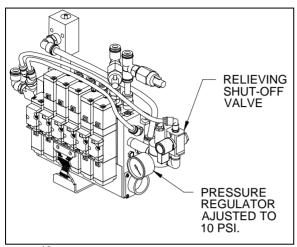


FIGURE 12: TAG AXLE VALVE ON THE LEFT-HAND CONTROL PANEL

2. Turn the ignition switch to the "OFF" position, and remove the ignition key for added safety.

3. Deflate the inflatable seal by using the relieving shut-off valve located in the slide-out control compartment (figure 10, 11 and 12). Turn the handle clockwise to deflate the seal. Make sure the pressure indicator reading is "0 PSI" (figure 20).

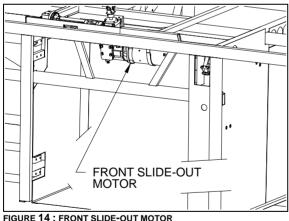


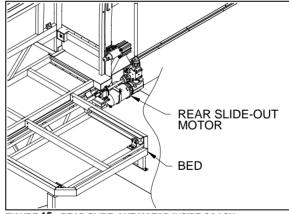
**Warning:** The pressure in the inflatable seal must be completely removed to prevent any damage to the seal.

FIGURE 13: INFLATABLE SEAL PRESSURE REGULATOR

**Caution:** Before moving the slide-out manually, ensure that all locking pins are unlocked. Refer to the slide-out manual extending procedure (section 4.3 step 4).

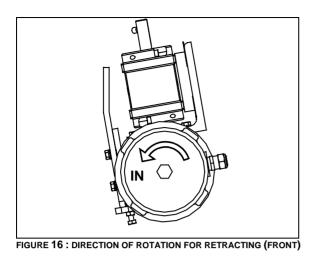
4. To move the slide-out use a ½" hexagonal socket on the back of the slide-out motor.





URE 14: FRONT SLIDE-OUT MOTOR FIGURE 15: REAR SLIDE-OUT MOTOR INSIDE COACH

5. Rotate the slide-out motor with a manual ratchet or any power drill until the slide-out comes to its closed position (refer to figure 16 for the front slide-out and to figure 17 for the rear slide-out). Slow down on the closing speed as the slide-out approaches its closed position, in order not to overshoot it, which may damage the mechanism.



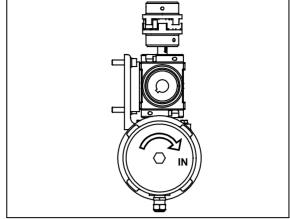
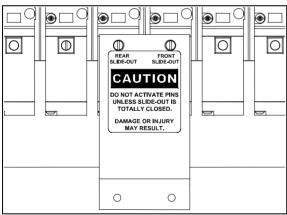


FIGURE 17: DIRECTION OF ROTATION FOR RETRACTING (REAR)

- 6. Once the slide-out room is lined up to its closed position, remove the tool from the slide-out motor.
- 7. To close the locking pins, use the following method:
  - A) Identify the proper pneumatic valve controlling the locking pins of the problem slide-out in the control compartment (refer to figure 18 and figure 19).





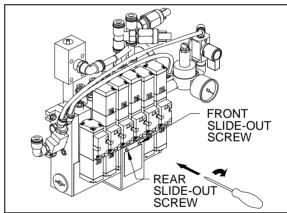


FIGURE 19: LOCKING PIN VALVE LOCATION

**Warning:** Actuating the locking pins on the slide-out not completely closed or with locking pins misaligned with their receptacle may result in glass breakage and cause serious injury.

B) When the proper valve has been identified, insert a small screwdriver in the protection plate hole to access the "pin valve manual override screw" (figure 19). Turn the override screw clockwise to actuate the locking pins. During the process, you should hear a hissing sound, as the air flows to the pin cylinders.

- C) When the locking pins have been locked, re-insert a screwdriver in the protection plate hole (figure 19). Turn the override screw counterclockwise and keep it on this position to cancel the manual override actuation.
- 8. Finally, the inflatable seal can be re-inflated by turning the shut-off valve handle counterclockwise. Check the pressure gage on the inflatable seal regulator if the pressure is increasing to 10 PSI (figure 13 and figure 20).

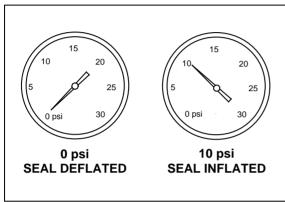


FIGURE 20: INFLATABLE SEAL PRESSURE GAGE

9. When the retraction procedure is completed, if the parking brake cannot be released to move the vehicle, verify that at least one pin is locked on each slide-out. To do so, check the lights (12) on the "PIN STATE INDICATOR" zone of the logic controller interface display (refer to figure 21). A light next to all padlocks is used to identify the state locked or unlocked of the pins. For the rear slide-out, take note that only 4 pins are used in the upper section of the pin state indicator zone. With the ignition key to the "ON" position, verify if at least one pin locked light is "ON". Otherwise, go back to step 7 of this section to manually lock all the pins until all pin locked lights go "ON".

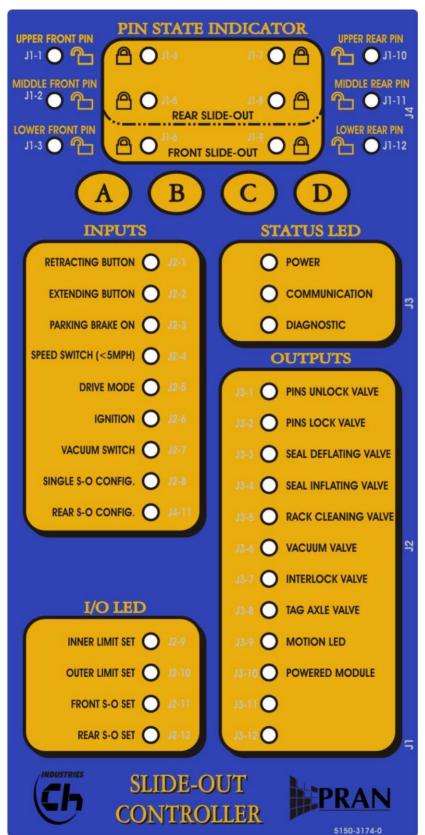


FIGURE 21: SLIDE-OUT LOGIC CONTROLLER INTERFACE DISPLAY

# 4.3 Manual extending procedure

- 1. For the <u>front</u> slide-out only, the tag axle must be unloaded by the manual switch located on the left-hand control panel with the ignition key to the "ON" position (see figure 12).
- 2. Switch the ignition to the "OFF" position, and remove the ignition key for added security.
- 3. Deflate the inflatable seal by using the relieving shut-off valve located in the slide-out control compartment (figure 10, 11 and 12). Turn the handle clockwise to deflate the seal. Make sure the pressure indicator reading is "0 PSI" (figure 20).

**Warning:** The pressure in the inflatable seal must be completely removed to prevent any damage to the seal.

- 4. To unlock the pins, use the following method:
  - A) Identify the proper pneumatic valve controlling the unlocking pins of the problem slide-out (figure 22).

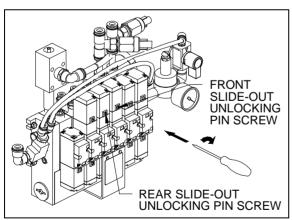
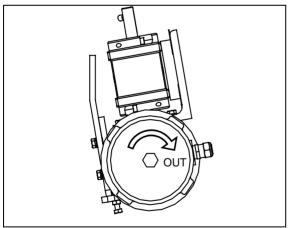


FIGURE 22: UNLOCKING PIN VALVE LOCATION

B) Ensure the ignition key is in the "OFF" position. When the proper valve has been identified (right side for front slide-out and left side for rear slide-out), turn clockwise the "pin valve manual override screw" to actuate the unlocking pins (figure 22). Keep the override screw in this position. During the process, you should hear a hissing sound, as the air flows to the pin cylinders.

- C) Verify if all the pins are unlocked with the ignition to the "ON" position. To do so, check the lights on the "PIN STATE INDICATOR" zone of the logic controller interface display (refer to figure 21). A light next to all unlocked padlocks is used to identify the state unlocked of the pins. For the rear slide-out, take note that only 4 pins are used in the upper section of the pin state indicator zone. If at least one light is off, that means all the pins are not unlocked and it will not be possible to manually move the slide-out. In this case, restart the engine and make sure the air pressure is 110 PSI minimum on the auxiliary air pressure gauge (figure 4)
- D) Switch the ignition to the "OFF" position, and remove the ignition key for added security.
- E) When the locking pins have been unlocked, turn the manual override screw counterclockwise and keep it in this position to cancel the manual override actuation.
- 5. To move the slide-out, use a ½" hexagonal socket on the back of the slide-out motor (refer to figure 14 and figure 15 for the motor locations).
- 6. Rotate the motor with a manual ratchet or any power drill until the slide-out comes to its full opened position (refer to figure 23 for the front slide-out and to figure 24 for the rear slide-out). Slow down on the opening speed as the slide-out approaches its opened position, in order not to overshoot it, which may damage the mechanism.





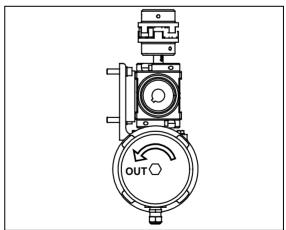


FIGURE 24: DIRECTION OF ROTATION FOR EXTENDING (REAR)

- 7. Once the slide-out is lined up to its opened position, remove the tool from the motor.
- 8. Finally, the inflatable seal can be re-inflated by turning the shut-off valve handle counterclockwise. Check the pressure gage on the inflatable seal regulator if the pressure is increasing to 10 PSI.

# 5. TROUBLESHOOTING LIST

The green light on the slide-out switch control identifies an error code when it flashes while holding the button depressed. Hold the switch button depressed, then count and record the number of times the green light flashes.

# 5.1 Description of the error codes

# One short flash every two seconds

#### Possible causes:

At least one of the following conditions is missing:

- The ignition switch is not to the "ON" position
- The level low selector is not to the "OFF" position (front slide-out)
- The parking brake is not applied
- The vehicle is moving
- Electrical problem

#### Corrective actions:

- Make sure all the above conditions are met and try again.
- If all the above conditions are met, verify if all the breakers are set and the fuse is good (refer to section 4.1).
- Release the switch button and try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

## One long flash every two seconds

#### Cause:

 Overload of the slide-out drive motor due to excessive weight or an obstruction to its movement.

#### Corrective actions:

- Reduce the weight or remove any obstacle which may obstruct the movement of the slide-out.
- Open a window to avoid slide-out movement restriction.
- Release the switch button and try to operate the slide-out at least 3 times. If the overload is detected in the extending operation, you have to retract the slide-out. Reverse the operation if the overload is detected in the retracting operation.

 If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

# Two short flashes every three seconds

#### Cause:

• The slide-out seal has not completely deflated within the 35 seconds delay.

#### Corrective actions:

- Make sure the system air pressure is at least 110 PSI.
- Release the switch button and try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

## Three short flashes every three seconds

#### Cause:

• At least one locking pin has not properly locked within the 15 seconds delay.

#### Corrective actions:

- Make sure that the system air pressure is at least 110 PSI.
- Make sure that the locking pin receptacles are free of foreign objects.
- Check the control breakers in the slide-out compartment (refer to section 4.1).
- Release the switch button and try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

# Four short flashes every three seconds

#### Cause:

 At least one locking pin has not properly unlocked within the 15 seconds delay.

#### Corrective actions:

- Make sure that the system air pressure is at least 110 PSI.
- Check the control breakers in the slide-out compartment (refer to section 4.1).
- Release the switch button and try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

## Seven short flashes every three seconds

#### Cause:

Abnormal slide-out operation.

#### Corrective action:

- Release the slide-out switch button and turn "OFF" the ignition. Restart the engine and try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

## Rapid continuous flashes (uncountable)

#### Cause:

Abnormal slide-out operation.

#### Corrective action:

- Release the slide-out switch button and turn "OFF" the ignition. Restart the engine and try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

# 5.2 Possible problems without flashing green light

# The slide-out telltale light blinks

#### Possible cause:

 One of the structural slide-out locking pins is not locked. The structural locking pins are the four lower pins on the front slide-out and the two lower pins on the rear slide-out.

#### Corrective actions:

- Check the control breakers in the slide-out compartment (refer to section 4.1).
- Try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

## The slide-out telltale light on dashboard is illuminated without flashing

#### Possible causes:

• A slide-out logic controller is turned off or defective. Telltale relays defective or bad electrical connection from the slide-out logic controller.

#### Corrective actions:

- Check the control breakers in the slide-out compartment (refer to section 4.1).
- Try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

## □ The parking brake cannot be released to move the vehicle

#### Possible cause:

A slide-out has no locking pin properly locked when it is in the closed position.

#### Corrective action:

- Refer to step 7 of the section 4.2 (manual retracting procedure) and to the logic controller interface display (figure 21).
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.

# □ The slide-out does not move when you press and hold the control button

#### Possible cause:

• Bad electrical connection of the switch control unit, or the control module is faulty.

#### Corrective actions:

- Check the control breakers in the slide-out compartment, and the main slide-out breaker in the main power compartment (refer to section 4.1).
- Release the switch button and try to operate the slide-out at least 3 times.
- If the situation persists, use the manual override procedure to extend or retract the slide-out until you can have the system checked by qualified personnel.