

FLS DigiSync Operation Manual

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READ ALL OPERATING INSTRUCTIONS FIRST BEFORE USING YOUR ROOM SLIDE.



This coach is equipped with a FLS DigiSync Room Slide Mechanism from Kwikee Products. DigiSync utilizes a digital encoder to synchronize the movement of the two arms that support the room to insure good room slide seals and smooth, even room slide operation. Additionally, DigiSync has a number of operational and trouble-shooting features that make it easy to use.

The room slide out system is made up of two drive arms each consisting of an inner and outer tube, which slide within one another. The load of the room is carried primarily by a front wear block that is attached to the inside of the outer tube and a rear roller attached to the inner tube.



Each drive arm is moved by a single start acme screw and driven by a two stage parallel gearbox and 12 VDC motor. The two arms are synchronized using DigiSync's patented encoder programming. A single start acme screw is used to prevent the room from moving during travel, and as a precautionary measure, the motor is dynamically parked providing additional security.



Operating Your Room Slide



Prior to extending the room, take a moment to insure the following:

- 1. Follow the coach manufacturer instructions regarding the leveling of the coach and room slide out operation.
- 2. If your coach is equipped with a luggage compartment beneath the room that extends, make sure that the luggage compartment doors are closed so that they will not interfere with slide out operation.
- 3. Check both inside and outside of the vehicle to make sure that there are no people who could be harmed or obstacles that could cause damage due to room extension or retraction.
- 4. Check to ensure that all safety travel straps / bars have been removed and that no obstructions exist between the inside wall flange and the inside wall of the coach.
- 5. Park brake must be set.

If the slide out room is equipped with a couch or other furniture, make sure that the room is clear of people and pets during extension. Once the room has reached its maximum extension the room may be occupied again.

Prior to retracting the room, take a moment to insure the following:

- 1. Follow the coach manufacturer instructions regarding the leveling of the coach and room slide out operation.
- 2. Check both inside and outside of the vehicle to make sure that there are no people who could be harmed or obstacles that could cause damage due to room extension or retraction.
- 3. If the slide out room is equipped with a couch or other furniture, make sure that the room is clear of people and pets during retraction. Once the room has completely retracted, it may be occupied again.
- 4. Park Brake must be set.

To ensure ample voltage to the room slideout motors, operate your slideout room while the coach is running and the parking brake is set

Extending Your Slide Out Room

See Operating Safety Precautions Above Before Proceeding.

To extend the room slide, simply press and hold the "OUT" button. To stop the room during operation, release the button. Once the room has reached its full extension it will stop automatically. The extend button will not function again until the retract button has been pressed.

Retracting Your Slide Out Room

See Operating Safety Precautions Above Before Proceeding.

To retract the room simply press and hold the "IN" button. To stop the room during operation, release the button. Once the room has completely retracted it will stop automatically. The retract button will not function again until the extend button has been pressed.

Note:

Manual Mode and corresponding Actuator 1 & 2 locations:

Rear Actuator: Retract / In Button

Front Actuator: Extend / Out

Troubleshooting

Extending Your Slide Out Room

If the red Park Brake LED is flashing while attempting to extend the room, set the vehicles's parking brake.

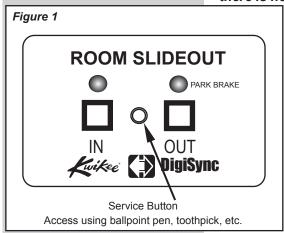
In the event there is a system failure while extending the room, you must use the Crank Mode described below.

Retracting Your Slide Out Room

In the event there is an error detected on you DigiSync Room slide System, the left LED light on the control panel will flash an error code (See On Board diagnostics for Details). To retract the room after an error is detected you can override the synchronization programming and operate the room in the Manual Mode.

Manual Mode

Manual mode permits the operator to individually move the two room arms by pressing the IN and OUT buttons on the control pad. *This mode can be used only if there is not a motor failure.*



To override the encoder and enter the Manual Mode, press and hold the Service Button *(see figure 1)* until the two LEDs begin to flash.

While in Manual Mode each of the two room slide arms are activated by pressing and holding the IN and OUT buttons. One button will retract the front arm. The other will retract the back arm. Both IN and OUT buttons may be held down at the same time to simultaneously activate both arms to retract the room. If one side of the room gets ahead of the other, release that button until the other arm catches up. The current limiting feature of the control still functions in the Manual Mode so each side can be fully retracted until it stops.

Once the room has been retracted the control will return to the automatic mode after 60 seconds. You can manually return to automatic mode by pressing the service button.

Crank Mode

In the event of total system failure, 2 crank handles may be used to retract room.

To use the crank handles, either open the luggage compartment doors, or remove the cover on units without StoreMore, exposing the front of each room slide mechanism. Insert the crank handle into the tube and align the drive pin at the rear of the tube with the notches in the crank handle. It may be necessary to move the handle slightly from side to side. The crank handle will only move the tube that it is inserted into. Consequently you will need to alternate between each crank handle on each side to move the room in. If help is available, a second person cranking on the other handle simultaneously will greatly speed up the process.

NOTICE

Improper use of the crank handle can result in damage to your slideout system. Crank mode should only be used to retract your slideout in the event of a system failure.

Error Codes

DigiSync is equipped with onboard diagnostic capabilities. In the event of a system failure, the left LED light on the control panel will flash to display several possible error codes. An error code will not be displayed unless one of the control panel buttons has been pressed. For example, the control panel will not display an error code for low voltage unless you try to extend or retract the room when low voltage is present.

When an error code is detected the left LED will begin to flash. The error code can be determined by counting the number of flashes in between each pause. See the Diagnostic Keys in the charts below. The error code may be cleared at any time by pressing the SERVICE button (see figure 1), or by allowing the system to time out after 60 seconds. Once cleared, the operation can be tried again, see Manual Mode and/or Crank Mode.



FLS DigiSync Error Codes

- 1. Unit timed out (ran for 90 seconds without reaching end of stroke.
- 3. Front Actuator Battery Voltage less then 10 volts (detected when move requested)
- 4. Front Actuator Battery Voltage less than 8 volts (detected during move).
- 5. Front Actuator Battery Voltage greater than 18 volts (detected when move requested)
- 6. Stall on Rear Actuator only
- 7. Stall on Front Actuator only
- 8. Short Detect on Rear Motor
- 9. Short Detect on Front Motor
- 10.No Current Detect on Rear Motor

- 11. No Current Detect on Front Motor12. No Encoder Signal detected on Rear Actuator
- 13.No Encoder Signal detected on Front Actuator
- 14.Rear Actuator did not resync with Front Actuator within 5 seconds
- 15. Front Actuator did not resync with Rear Actuator within 5 seconds
- 16.Rear Actuator Battery Voltage less than 10 volts (detected when move requested)
- 17. Rear Actuator Battery Voltage less than 8 volts (detected during move)
- 18.Rear Actuator Battery Voltage greater than 18 volts (detected when move requested)