SLIDEOUT ROOM

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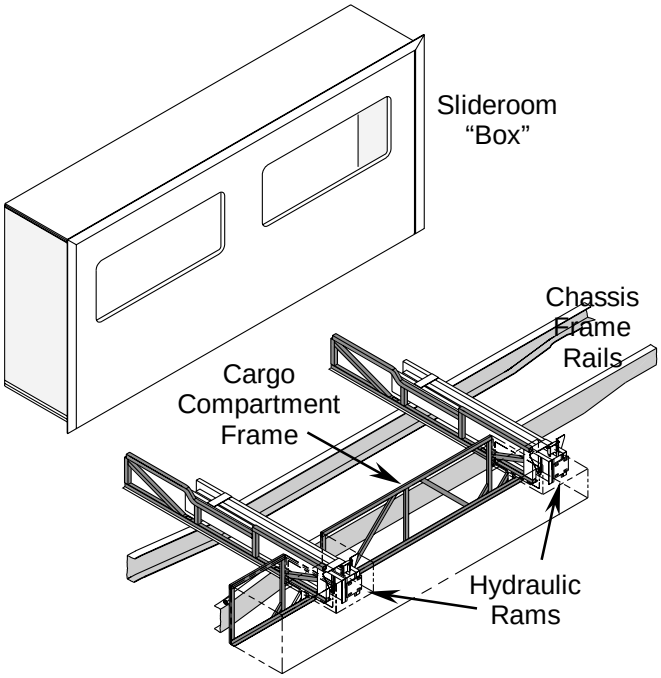
STOREMORE™

Two-Cylinder Slideout Rooms



GENERAL INFORMATION

The STOREMORE™ slideout room uses two ram assemblies bolted directly to the basement steel framework. Each ram operates independently of the other, yet they extend and retract together by way of a hydraulic synchronizing cylinder mounted to the chassis frame rail.

There are two types of StoreMore slideout room systems.

Standard – has fixed, two-piece, telescoping tube ram assemblies that extend straight outward.

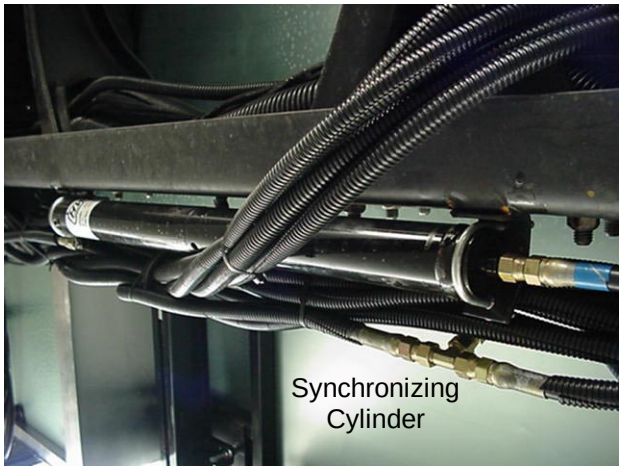
Flat-Floor – has three-piece telescoping ram assemblies with inclining mechanisms that lower the slideout floor to coach floor level when extended and raise it back up during retraction.

Synchronizing Cylinder

The "sync" cylinder has three fluid chambers. There are two fixed-volume chambers, each one connected to a ram assembly. A separate actuating chamber is connected directly to the hydraulic pump. As the pump is operated, the sync cylinder pushes an *equal* amount of fluid from these fixed volume chambers through hydraulic hoses of *equal* length & diameter to each hydraulic cylinder, similar to the master cylinder pushing fluid to the wheel cylinders in a hydraulic brake system. Since fluids can't be compressed, the synchronizing cylinder can precisely control the speed and timing of the rams.

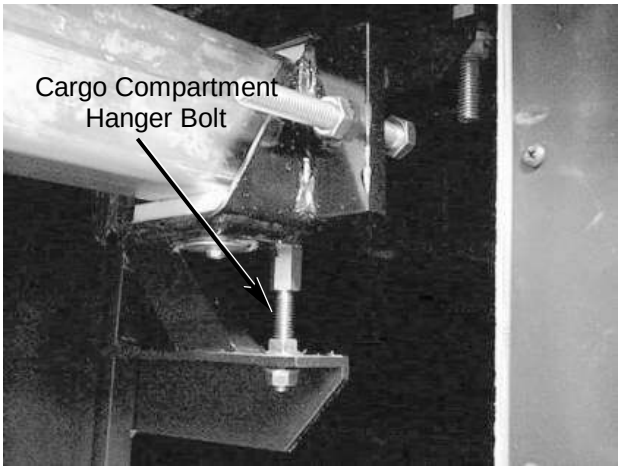
In the STOREMORE™ design, the storage compartment extends and retracts along with the slideroom, acting as a single unit. The door side of the compartment is fastened directly to the slideroom floor framework, while the back end of the compartment is suspended from a unique hanger assembly mounted to the bottom of the ram. This installation allows easy access to the cargo compartment with the room extended or retracted, without having to duck under an extended slideout room.

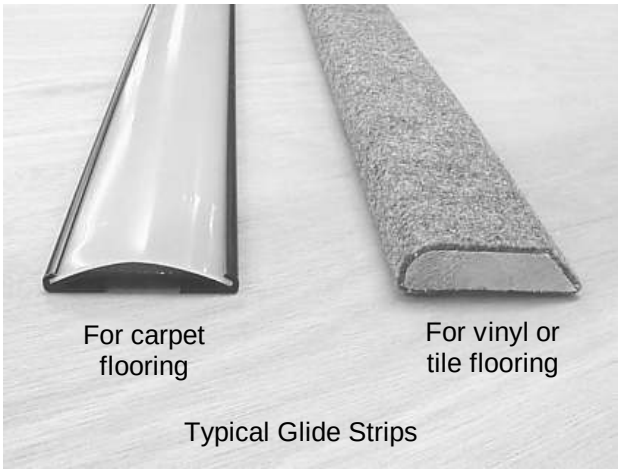

Cargo compartments extend with STOREMORE room


Synchronizing Cylinder

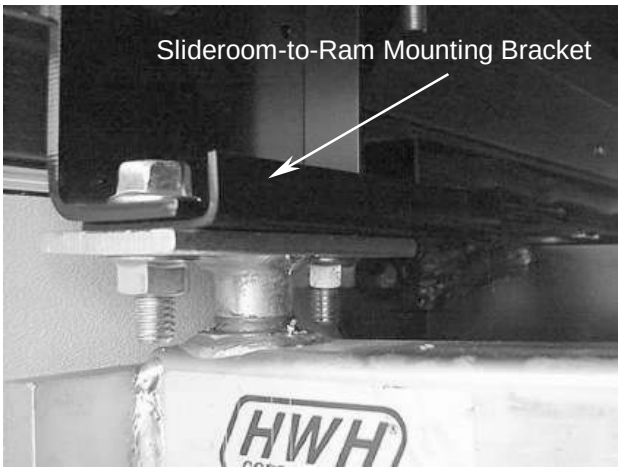
BASIC INSTALLATION

Standard: In this installation, the slideroom "box" sits directly on the interior floor of the coach. The weight of the room is distributed between the coach





Typical Glide Strips



floor and the basement steel structure by way of the hydraulic ram assemblies.

Flat Floor: In the Flat Floor slideout installation, the weight of the entire slideroom box and the storage compartment is carried by a combination of the slideroom glide strips and the hydraulic rams. The support ratio changes, depending if the room is retracted or extended, because of the unique design and function of the flat floor ram assembly.

GLIDE STRIPS

Glide strips fastened to the bottom of the slideroom near the aisle-side edge of the floor distribute the weight of the room across the room's entire width. The glide strip construction depends on the type of floor covering the room must travel over.

In carpeted areas of the coach floor the glide strip consists of an aluminum rail with a curved insert of polyethylene plastic.

Glide strips used over vinyl and tile flooring have changed design several times since initial slideroom production started. Early versions used a combination of the same aluminum rail and plastic strip wrapped in a thin carpet. A double layer of lauan plywood was added as a shim to compensate for the flooring height difference between the carpeted and smooth surfaces. Beginning in January 2000 the design changed from the shimmed and wrapped aluminum strip to a beveled ¾ inch x 3 inch wooden strip wrapped with a heavy felt-like material.

RAM ASSEMBLIES

The balance of the room weight that is not carried by the glide strips is shared by the two telescoping hydraulic rams. The slideroom bolts directly to the ram pivot/flange assembly at the slideroom outer frame.

Flat Floor: The flat floor ram assembly is a three-piece telescoping unit consisting of the base unit with the two extending tubes and the hydraulic cylinder. The extending tubes in the ram assembly are staged – the 1st stage and 2nd stage extend sequentially using an interlocking mechanism (commonly referred to as "the flippers") to couple or interlock the tubes at a specific location in the tube's travel. This unique feature allows the slideroom floor to lower to the same level as the coach floor. This is accomplished using an inclined surface inside the ram assembly and a cross-member or support tube which is mounted to the 2nd stage extension tubes of each ram.

In a retracted position the weight of the slideroom is distributed between the coach floor and the basement steel structure by way of the hydraulic rams. As the slideroom is extended, the weight of the slideroom that has been carried over the coach floor on the glide-

strips will transfer from the coach floor to the support tube.

WEATHER SEALS

The weather is held out by a combination of rubber wiper seals, bulb seals and design features in the construction of the room. The room endwalls are cut with a 7mm taper, so the top is slightly narrower than the bottom. When the room is extended or retracted, the top seal will contact the coach sidewall first, making the top seal tighter to provide a better seal against leaks.

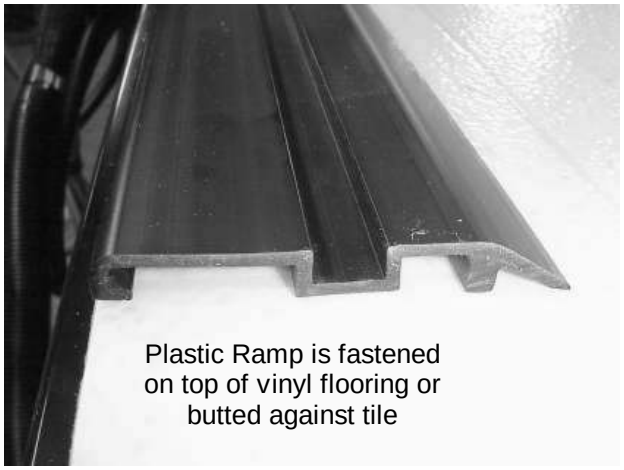
> ***IMPORTANT:*** *Some adjustments made to the slideroom can change the amount of pressure against the top bulb-seal. Compressing the seal too tightly may damage the seal, and not tightly enough can allow leakage. Normally, bulb seal compression near the bottom of the room isn't affected unless a hydraulic cylinder has been replaced or the travel limits adjusted.*

Wiper Seal

A simple ramp is another mechanical method used to improve sealing of this slideroom. The ramps currently in use are shown in the photos.

- extruded ABS plastic ramp
- bevel-edged plywood ramp

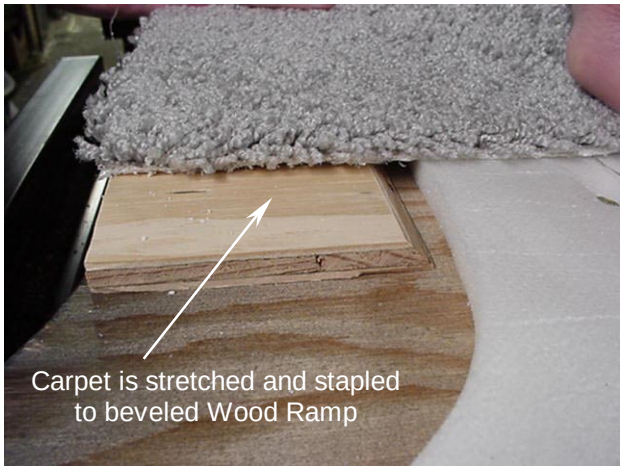
They are fastened to the outer edge of the coach floor in the sidewall opening for the slideroom. The beveled edge of the ramp points inward. The lifting action of the slideroom occurs when the glide-strip on the bottom of the slideout room makes contact and climbs onto the top of the ramp-strip. Although only a small amount of lifting occurs, this effectively forces the slideroom roof skin tighter against the top wiper seal creating a water-tight seal at the point where it's needed most.



Plastic Ramp is fastened on top of vinyl flooring or butted against tile

There have been several ramp designs used since production of the first slideouts. Coaches built from 1997 through December 1999 used a square-shouldered wooden strip with the floor carpet stapled over the top, resembling a wide carpet tack strip. As slideout rooms were made larger they became heavier and the wooden ramp design was changed to a beveled shoulder. This modification made extension of the room more smooth.

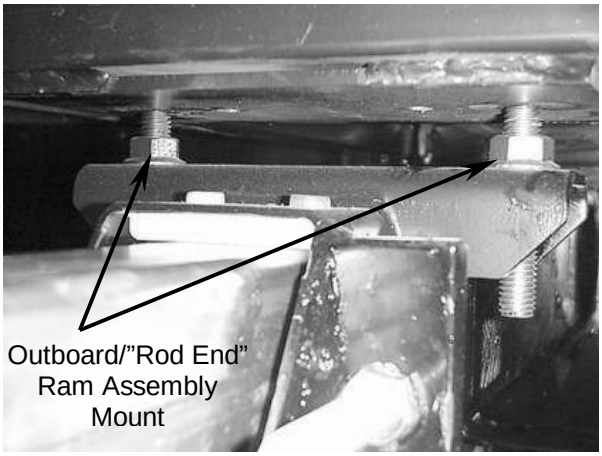
The additional weight of galley slideout rooms brought yet another design change. The wooden ramp was replaced by an ABS plastic ramp in areas with vinyl flooring surfaces beginning in January 2000.



Carpet is stretched and stapled to beveled Wood Ramp

SLIDEOUT ROOM ADJUSTMENTS
STOREMORE™ – Standard

Vertical Adjustment Bolt
IMPORTANT: May cause misaligned paint or graphics.


Outboard/"Rod End" Ram Assembly Mount

STOREMORE™ – Standard

The STOREMORE™ – Standard slideout room has 4 adjustments:

- Vertical Position (Upward/Downward/Leveling)
- In/Out Travel Limits
- Lateral Position (Forward/Rearward)
- "Tipped In/Tipped Out" at the Top of the Room (Bulb Seal Contact)

VERTICAL ADJUSTMENT & LEVELING

Vertical centering of the slideroom in the sidewall opening can be done at two different locations.

Barring a non-parallel ram assembly situation, an un-level slideroom condition should only be noticeable when the room is retracted. Adjustments for leveling and vertical position are both done at the room mount bracket.

Adjustments to one side may be all that's required, but sometimes a combination of adjustments to both sides is needed. Addressing both ends allows finding a "happy medium" or compromise between both ends and since the total vertical travel is reduced, any misalignment of paint schemes and graphics is less noticeable.

Due to the inherent design of this installation, an unleveled room condition in the extended position can only occur if a problem exists between the slideroom glide-strip and the ramp-strip mounted to the coach floor. There are no mechanical settings that can go out of adjustment.

Ram Elevation Adjustment

The preferred method of adjusting the vertical position of the room is by raising or lowering the ram assemblies. Each ram assembly is suspended from the basement steel framework by four mounting bolts. Using the ram assembly outer mounting bracket (driver side) as a fulcrum point, the inboard (passenger side) end of the ram assembly is raised or lowered on its threaded mounting bolts by turning the

adjusting and jamming nuts. This design allows easy access and precise leveling of each ram assembly.

> ***IMPORTANT:*** *To allow the slideroom to move smoothly and without binding against the coach floor, the travel of the hydraulic ram assemblies must be parallel to the coach floor.*

If the room requires significant raising or lowering adjustments, inspect both ram assemblies to verify similar clearance between the basement frame brackets and ram mount bracket.

Room Mount Adjustment

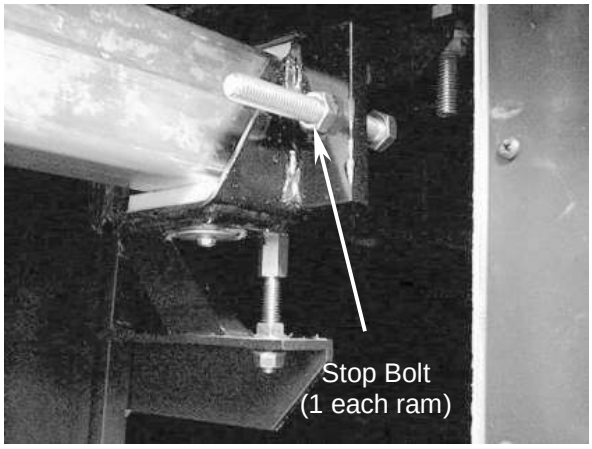
A secondary adjustment can be done using the bolt located at the underside of the outer end of the ram extension tube. Turning the bolt raises or lowers the room. The primary purpose of this adjustment is to compensate for installation variances between the ram assemblies (i.e. for non-parallel ram assemblies).

> ***IMPORTANT****: Use caution when making adjustments at this location. The paint lines and decals may become misaligned by overadjustment. Alignment of the feature-strip molding at the floorline may also be affected.*

IN/OUT TRAVEL (EXTEND/RETRACT)

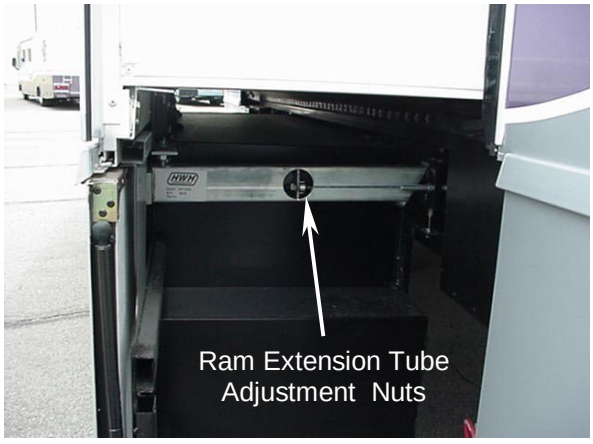
The fully extended and retracted travel adjustments are performed on the ram assembly. The ram is a 2-piece telescoping tube containing a hydraulic cylinder that moves one tube in and out of the other. Total travel, or stroke, of the hydraulic cylinders is regulated by mechanical stops inside the cylinder. The rams also have mechanical adjustments to fine tune the slideroom travel limits.

> **CAUTION:** *Proper compression of the bulb seal is important, but excessive pressure may cause damage to the slideroom flange (seal carrier) or the coach sidewall.*



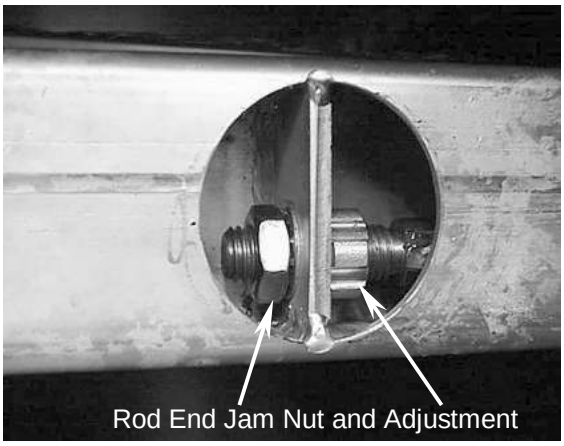
Retract Adjustment

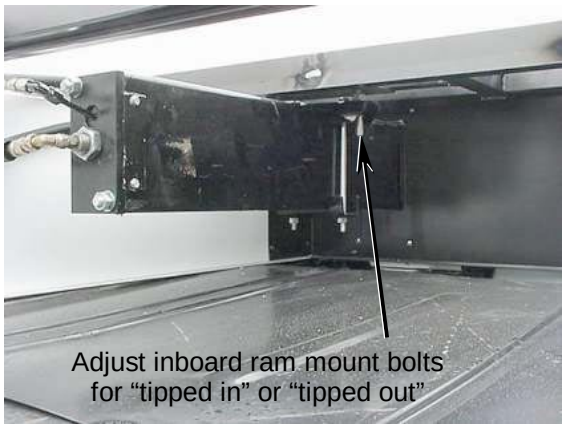
The slideroom retracted position is adjusted at the threaded stop bolts located on the rod-end of the ram housing. The stop bolt is adjusted by turning the bolt in or out until the outside wall of the slideroom seals against the coach sidewall. When properly adjusted, the bulb seal on the back side of the slideroom flange (seal carrier) should be slightly compressed between the flange and the motorhome exterior sidewall.



Extend Adjustment

The slideroom extended position is adjusted at an access port in the side of the ram assembly extention tube. The threaded hydraulic cylinder rod attaches to





the extending portion of the ram with an adjustment nut and a jam nut. Adjustment is done by turning the nuts until the slideroom interior trim seals against the sidewall of the coach. When properly adjusted, the bulb-seal on the back side of the slideroom flange (seal carrier) should be slightly compressed between the flange and the motorhome interior sidewall.

LATERAL ADJUSTMENT (FORWARD/REARWARD)

Centering of the slideroom in the sidewall opening is done at the ram assembly/slideroom mount brackets. These brackets have slotted holes which permit side-to-side movement of the slideroom. It’s important to measure the clearance between the opening and the slideroom walls at the floorline and at the top of the room. It may be necessary to shift the slideroom position slightly to optimize the contact of the wiper seal at both the upper and lower sides of the room.

BULB SEAL ADJUSTMENT (TIP IN–TIP OUT)

If the exterior top seal is being compressed excessively or the slideroom flange gaps the coach sidewall near the bottom, the slideroom is referred to as being ‘tipped in.’ If the top seal isn’t being compressed sufficiently or the slideroom flange gaps the coach sidewall at the top, the slideroom is referred to as being ‘tipped out.’ As explained in the “Weather Seal” information, the tapered cut of the slideroom endwalls should allow the top bulb seal to contact the sidewall first. If a gap exists, the floor of the slideroom isn’t parallel to the coach floor.

Gapping or insufficient seal compression can occur in either the extended or retracted position, but not in both.

INTERIOR TOP GAP – Extended Room: Raising the inboard mounting point of the ram assembly will lower the outside edge of the slideroom and effectively reduce the gap between the interior flange of the slideroom and the sidewall of the coach.

EXTERIOR TOP GAP – Retracted Room: Lowering the inboard mounting point of the ram assembly will raise the outside edge of the slideroom and effectively reduce the gap between the exterior flange of the slideroom and the sidewall of the coach.

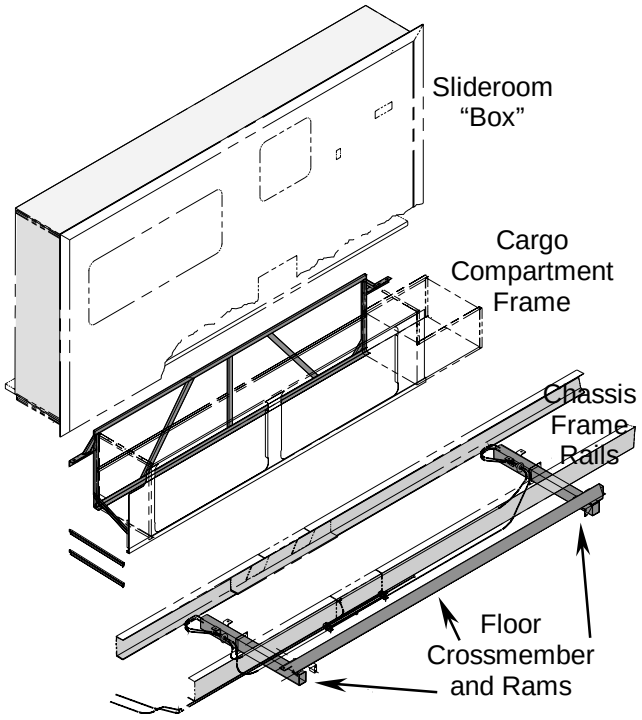
> ***CAUTION:*** *DO NOT adjust outer ram mounts or slideroom mounting bolts. This will only raise or lower the slideroom position in the coach sidewall opening.*

SLIDEOUT ROOM ADJUSTMENTS
STOREMORE™ Flat Floor

STOREMORE™ – Flat Floor

The STOREMORE™ Flat Floor slideout room has 5 adjustments:

- Vertical Position (Upward/Downward/Leveling)
- In/Out Travel Limits
- Lateral Position (Forward/Rearward)
- "Tipped In/Tipped Out" at the Top of the Room (Bulb Seal Contact)
- Room "Drop" (Distance to Achieve Flat Floor)



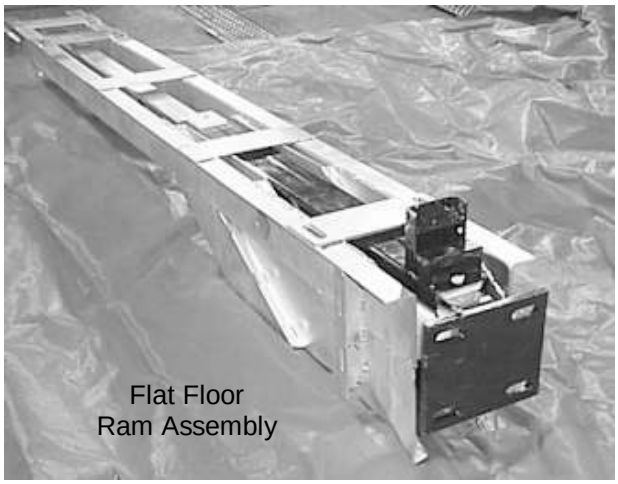
VERTICAL ADJUSTMENT & LEVELING

Vertical centering of the slideroom in the sidewall opening can be done at two different locations.

Barring a non-parallel ram assembly situation, an un-level slideroom condition should only be noticeable when the room is retracted. Adjustments for leveling and vertical position are both done at the room mount bracket.

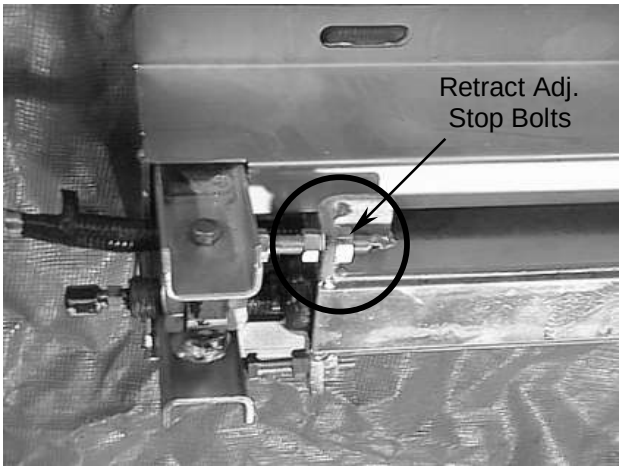
Adjustments to one side may be all that's required, but sometimes a combination of adjustments to both sides is needed. Addressing both ends allows finding a "happy medium" or compromise between both ends and since the total vertical travel is reduced, any misalignment of paint schemes and graphics is less noticeable.

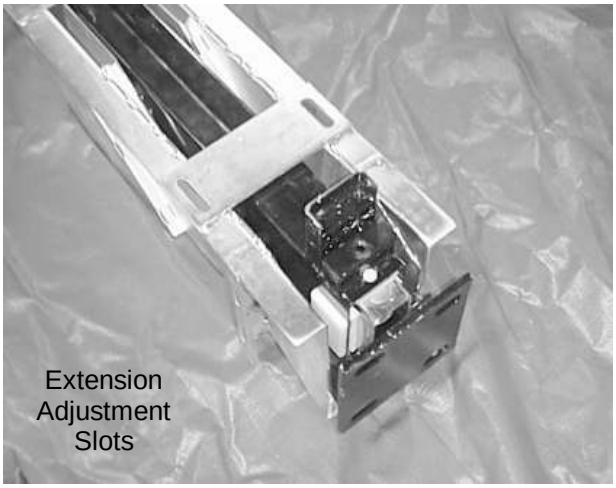
Due to the inherent design of this installation, an unleveled room condition in the extended position can only occur if a problem exists between the slideroom glide-strip and the ramp-strip mounted to the coach floor. There are no mechanical settings that can go out of adjustment.

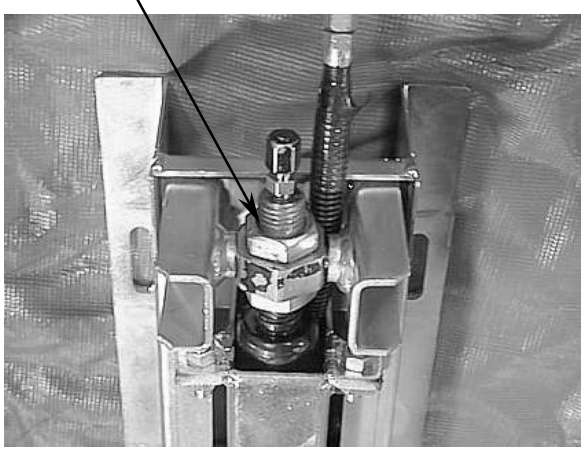


IN/OUT TRAVEL (EXTEND/RETRACT)

The fully extended and retracted travel adjustments of the Flat Floor slideout room are performed on the ram assembly. The hydraulic cylinders total stroke or travel is determined by mechanical stops inside the cylinder. The ram assembly does not use the hydraulic cylinder's total travel, so the ram assembly needs its own mechanical adjustments to customize the slideroom travel limits. The hydraulic cylinder is mounted in the ram assembly with the cylinder rod end, or piston end, fastened to the stage one or outer







extension tube, and the cap end of the cylinder is fastened into a movable saddle or trunnion. The trunnion mount allows adjustment of the hydraulic cylinder's position inside the ram assembly, for reasons that will be discussed further in "Room Drop Adjustment.'

Retract Adjustment

The slideroom retracted length position is adjusted at the threaded stop bolts located toward the bottom of the ram assembly fixed housing. Access to this adjustment is from the passenger side of the coach. The stop bolt is adjusted by turning the bolt in or out until the outside wall of the slideroom seals against the coach sidewall. When properly adjusted, the bulb seal on the back side of the slideroom flange (seal carrier) should be slightly compressed between the flange and the motorhome exterior sidewall.

> **CAUTION:** *Proper compression of the bulb seal is important, but excessive pressure may cause damage to the slideroom flange (seal carrier) or the coach sidewall.*

Extend Adjustment

The slideroom extended length position is adjusted at slotted holes in the ram assembly's mounting brackets. Repositioning of the complete ram assembly is necessary if the slideroom doesn't extend sufficiently to seal against the coach sidewall. When properly adjusted, the bulb-seal that's mounted to the back side of the slideroom flange (seal carrier) should be slightly compressed in-between the flange and the interior sidewall of the motorhome.

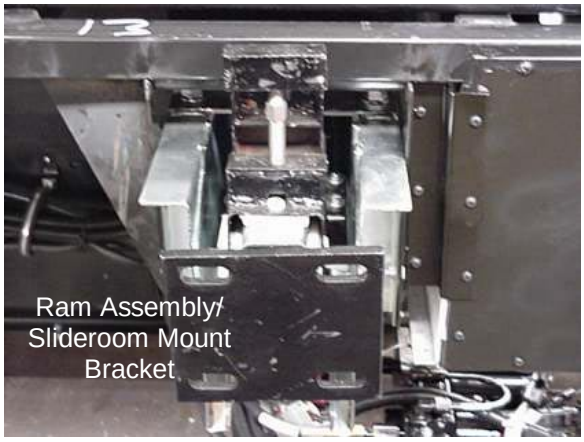
> **CAUTION:** *Proper compression of the bulb seal is important, but excessive pressure may cause damage to the slideroom flange (seal carrier) or the coach sidewall.*

ROOM DROP ADJUSTMENT

The drop adjustment is performed by relocating the hydraulic cylinder's position inside the ram assembly. The floor drop adjustment is accomplished by altering the fixed position of the hydraulic cylinder's cap end. The cap end of the cylinder is fastened to a threaded bracket assembly with adjustment and jamming nuts and becomes an integral part of the ram assembly and identified as a trunnion mount bracket. Proper adjustment is reached by advancing the adjustment nuts at the trunnion bracket until the room is level to the coach floor surface.

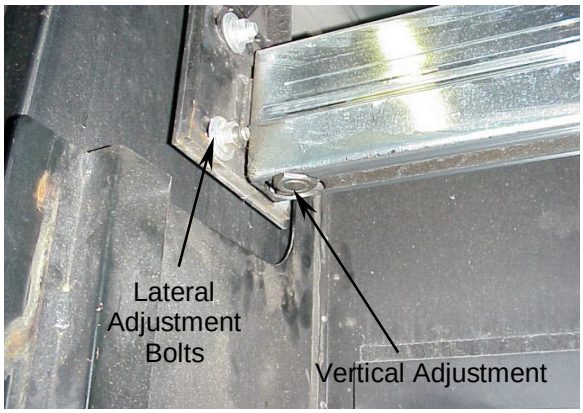
Unlike the standard slideout rams, the flat floor hydraulic rams do reach their fully extended, or stroked out, position. This is why the complete ram

assembly must be moved to adjust the room's extend position.



LATERAL ADJUSTMENT (FORWARD/REARWARD)

Centering of the slideroom inside the coach sidewall opening is performed at the ram assembly/slideroom mount brackets. These brackets have horizontally slotted bolt holes which permit side-to-side movement of the slideroom. It's important to measure the clearance between the coach wall and the slideroom forward and rear walls at the floor line and at the top of the room. It may be necessary to "cheat" the slideroom position somewhat to optimize the wiper seal's contact at both the top of the room and the bottom.



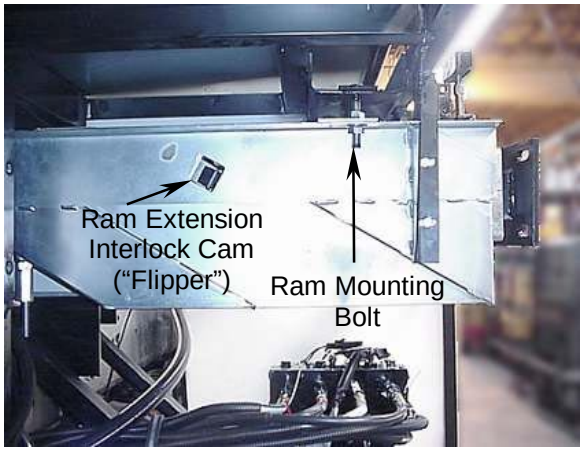
HORIZONTAL ADJUSTMENT (LEVELING)

Barring a non-parallel ram assembly situation, an un-level slideroom condition should only be noticeable when the room is retracted. Adjustments for leveling the slideroom are made using the same mechanical adjustments available for the vertical adjustment procedure.

Measure to insure that the ram assemblies are operating parallel to each other. Use a bubble-type level or a digital inclinometer to verify inclination, or a tape measure can be used to verify the ride height of each ram assembly.

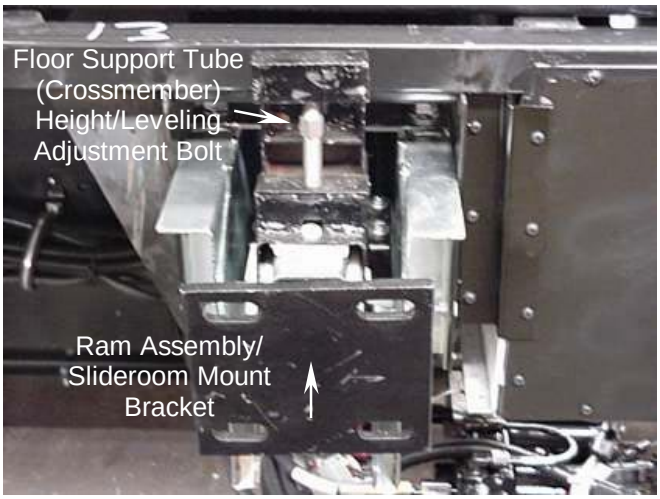
To allow the slideroom to move smoothly and without binding against the coach floor, the travel of the hydraulic ram assemblies must parallel the coach floor.

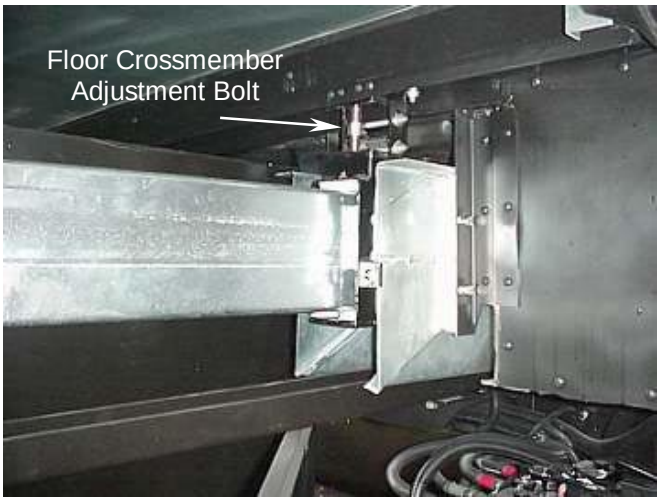
Adjustments to one side may be all that's required, but a combination of adjustments to both sides is sometimes needed. Addressing both ends allows finding a happy medium or compromise between both ends and since the total vertical travel is lessened, paint schemes and graphics alignment issues are less noticeable.



BULB SEAL ADJUSTMENT

If the exterior top seal is being compressed excessively or the slideroom flange gaps the coach sidewall near the bottom, the slideroom is referred to as being 'tipped in.' If the top seal isn't being compressed sufficiently or the slideroom flange gaps the coach sidewall at the top, the slideroom is referred to as being 'tipped out.' As explained in the "Weather Seals" information, the tapered cut of the slideroom endwalls should allow the top bulb seal to contact the sidewall first. If a gap exists, the floor of the slideroom isn't parallel to the coach floor.





Gaps and poor bulb seal compression conditions with the flat floor slideroom installation can be caused by ram assembly's installation (not parallel to the floor), the ram assembly's vertical adjustment, or the ram's support tube ride height adjustment. Determining which adjustment is necessary requires a technician to know what is supporting the room in the respective extended or retracted position.

Remember, when the room is retracted, the weight of the slideroom is split between the coach floor, via the glide-strips, and the ram assemblies. When the room is extended, the entire weight of the slideroom is supported by the ram assemblies.

INTERIOR TOP GAP – Extended Room: As discussed previously, for the top bulb-seal to seal properly in both the extended or retracted positions, the slideroom floor needs to be parallel to the coach floor. It is important to verify that the slideroom floor stays parallel as it lowers to the flat floor position. In the flat configuration, the edges of the coach floor and slideout room floor must align with each other– both surfaces in the same horizontal plane. Use of a 4-ft. straight edge is recommended. If the straight edge indicates the coach floor is not in alignment with the slideroom floor, use a bubble-type carpenter's level to verify any level differences between the coach floor and slideroom floor. It is possible that a ram drop misadjustment may be keeping the slideroom from traveling far enough down the ram assembly ramps . Please review the "Room Drop Adjustment" procedure.

Remember, as the slideroom is extended, the slideroom weight that was supported by the coach floor is transferred to a support tube or cross-member, which attaches to the 2nd stage extension tube on each ram assembly. The balance of the room weight is divided between the room attachment brackets located on the ram assembly's 1st stage extension tubes. The slideroom is now being carried at four adjustable mounting points, each with specific functions.

The support tube's primary purpose is: to smoothly and efficiently transfer the slideroom weight off of the coach floor and onto the ram assembly, or back onto the coach floor. The screw-type elevation adjustment on each ram assembly allows fine-tuning. When extending the room, it is considered normal to have some "hop" as the floor drops to the support tube.

EXTERIOR TOP GAP – Retracted Room: Because the glide-strip ride-height is fixed, adjustments are limited to changes at the ram assembly inboard mounting bracket. Using the ram assembly's outer mounting bracket (drivers side) as a fulcrum point, the

inboard (passenger side) end of the ram assembly is raised or lowered on its threaded mounting bolts by advancing the adjusting and jam nuts. Lowering the inboard mounting point of the ram assembly will raise the slideroom outside edge and effectively lessen the gap between the slideroom outside flange and the coach's outside sidewall.

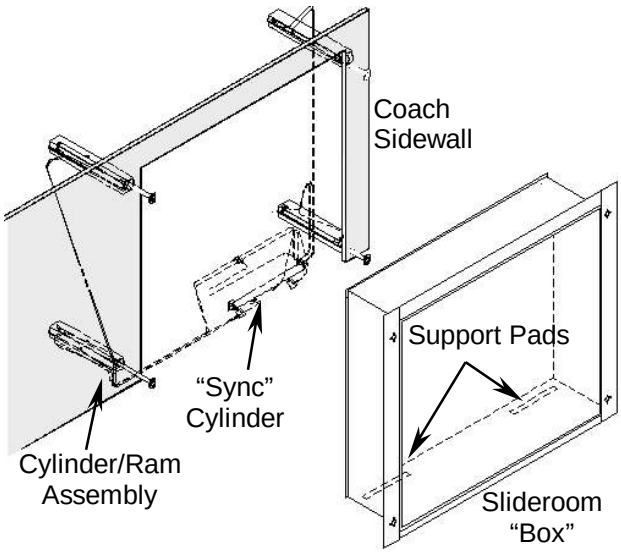
> ***CAUTION:*** *Do NOT make adjustments to the ram assembly outboard mount points or to the vertical adjustment bolts on the ram-to-slideroom mounting bracket. This will merely raise or lower the slideroom position in the coach sidewall opening. It will not effectively tilt the slideroom at the top flange.*

Four-Cylinder Slideout (Rear Wardrobe)

BASIC INSTALLATION

This room features four 9/16" diameter, double-acting hydraulic cylinders mounted to each corner of a steel framework around the opening in the coach sidewall. The rod end of each cylinder extends through the frame and attaches to the perimeter flange of the slideroom. The cylinders simply push and pull the slideout room in and out of the frame and are equalized by a synchronizing cylinder. The bottom cylinders do most of the work, pushing and pulling, while the top cylinders provide stability for smooth operation.

The frame assembly has two support pads on the bottom section located approximately 17" in from each end of the slideroom box. (In November 2000, a third pad was added to the center of the room for improved support and stability.) These adjustable pads carry the majority of the weight of the slideout assembly when retracted, but a significant amount transfers to the four cylinders as the room is extended.

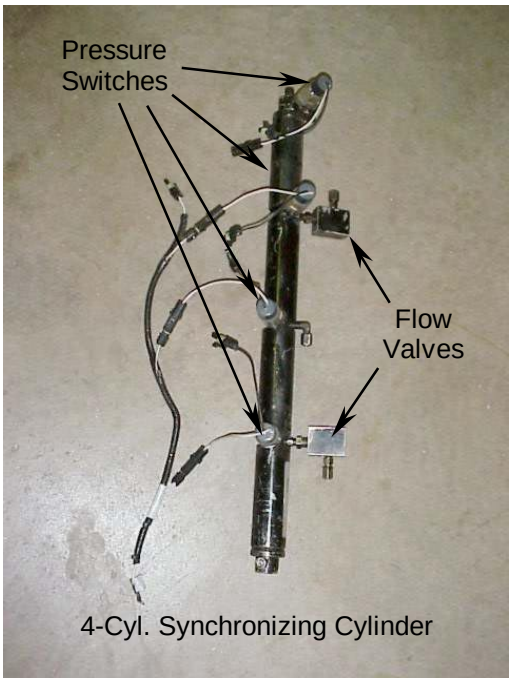


Synchronizing Cylinder

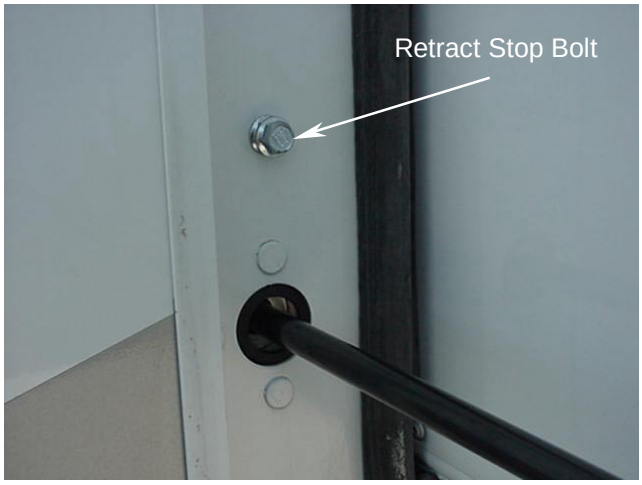
The "sync" cylinder has five fluid chambers. There are four fixed-volume chambers, each one connected to one of the four ram cylinders. A separate actuating chamber is connected directly to the hydraulic pump. As the pump is operated, the sync cylinder pushes an *equal* amount of fluid from these fixed volume chambers through hydraulic hoses of *equal* length and diameter to each hydraulic cylinder, similar to the master cylinder pushing fluid to the wheel cylinders in a hydraulic brake system. Since fluids can't be compressed, the synchronizing cylinder can precisely control the speed and timing of the rams.

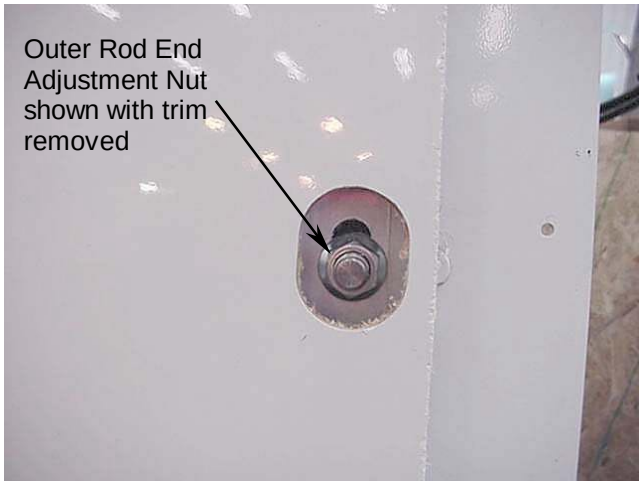
The pressure switches monitor the fluid pressure in each chamber of the sync cylinder. These switches will shut down the pump to protect the system from overload in the event of pressure multiplication – a condition that can occur in a five-chambered synchronizing cylinder system. (To avoid pressure lock-up, always extend the room completely before retracting.)

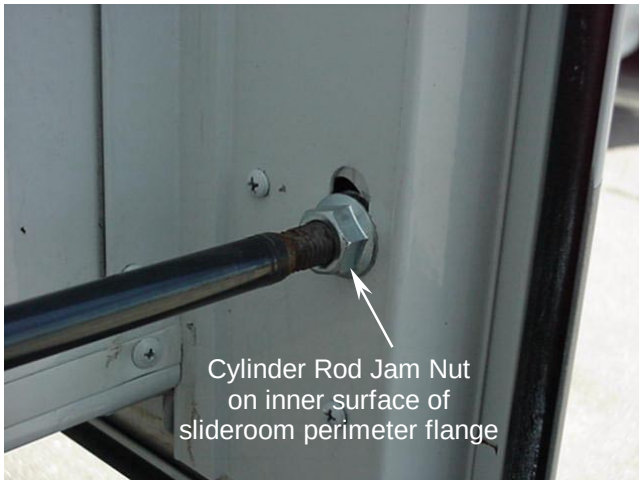
Flow valves control the fluid delivery to the top cylinders for smoother operation.



4-CYLINDER SLIDEOUT ADJUSTMENTS







The Four-Cylinder slideout room has 3 adjustments:

- In/Out Travel Limits
- Lateral Position (Forward/Rearward)
- Vertical Position (Upward/Downward/Leveling)

IN/OUT TRAVEL (EXTEND/RETRACT)

The rod end of the cylinders are threaded and are attached to the slideroom perimeter flange by a nut on the exterior side and a jam nut at the interior side of the flange.

Retract Adjustment:

The slideroom retract position is adjusted using the threaded stop bolts located on the perimeter frame in the coach sidewall opening. Adjust by turning the bolt until the outside wall of the slideroom seals against the coach sidewall. When properly adjusted, the bulb-seal on the back side of the slideroom flange should be slightly compressed against the motorhome exterior sidewall. All four bolts should be adjusted equally.

Extend Adjustment: The slideroom extension limit is adjusted at the threaded end of the cylinder rod. The outer trim strip must be removed from the perimeter flange of the room to access the outer nut as shown at left. The inner (jam) nut is shown in the photo below left.

When properly adjusted, the bulb-seal on the back side of the interior perimeter flange should be slightly compressed against the motorhome interior sidewall.

> **CAUTION:** *Proper compression of the bulb seal is important, but excessive pressure may cause damage to the slideroom flange (seal carrier) or the coach sidewall.*

LATERAL ADJUSTMENT (FORWARD/REARWARD)

Moving the slideroom forward or rearward in the sidewall opening is possible due to slots in the slideroom flange. The jam nuts on each of the 4 hydraulic cylinders rod-to-flange mount need to be loosened, so the room must be extended several inches allowing access to the nuts. With the nuts loosened, the room can be centered in the coach sidewall opening. When the room has been centered, it is important to relieve any binding between the four cylinders resulting from the room adjustment process.

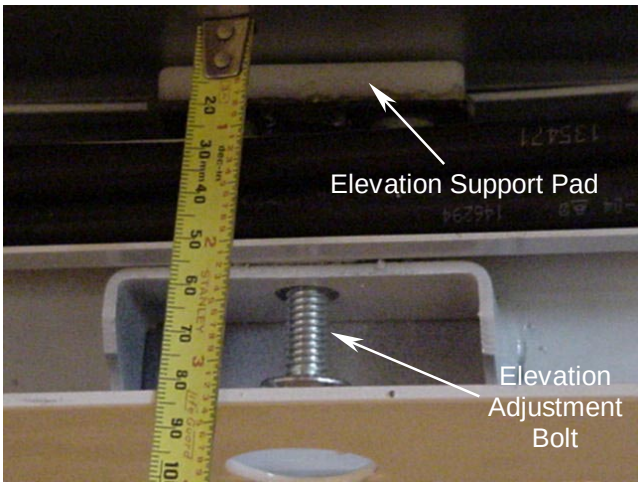
This is done by having an assistant 'bump' the room out (press the slideout button for about ½ -1 second), and then back in. This process serves to center the hydraulic cylinder rod in the slideroom flange, and allows all four hydraulic cylinders to align themselves parallel to each other. Be careful when tightening the jam nuts so they do not move and change the new alignment.

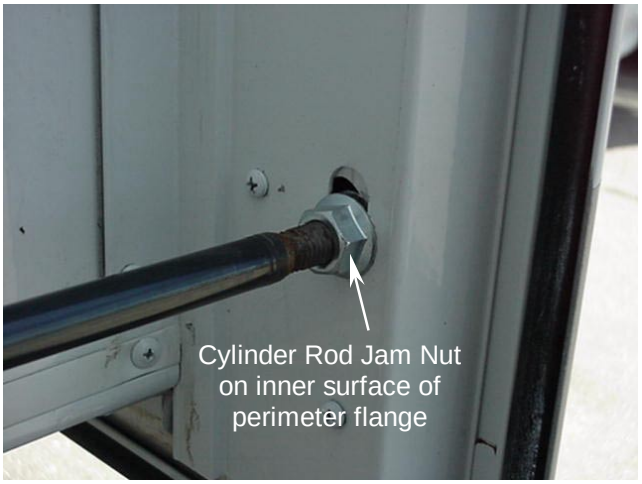
VERTICAL ADJUSTMENT AND LEVELING

If the room does not effectively contact the top wiper seal, the room can be raised at the elevation support pads located beneath the slideroom.

- The room must be extended to access the adjustment bolts.
- From inside the bedroom, pull the floor carpet from beneath the inside edge of the slideroom. (This carpet is not fastened and can be pulled back to allow access to the adjustment bolts.)
- The elevation mechanism is a bolt through a self-locking nut welded to a bracket on the frame. Turning the bolt will raise or lower the plastic support pad which rides directly against the slideroom floor.
- When the room has been adjusted for correct height, it is important to allow the four cylinder rods to seek a neutral position. Raising the room has created a binding action between the support pads and the cylinders which must be relieved.
- Retract the room to within several inches of being completely closed to allow access to the hydraulic cylinder rod-to-room jamb nuts.
- Loosen the jam nut on each cylinder and have an assistant 'bump' the room out (press the slideout button for about ½ -1 second), then 'bump' the room back in. This action allows each of the four cylinder rods to realign to the slideroom attachment flange.
- To level the room it may be necessary to adjust only one stabilizer pad.

Note: It is important to remember that the cylinders must be parallel to efficiently carry the slideroom weight without binding.

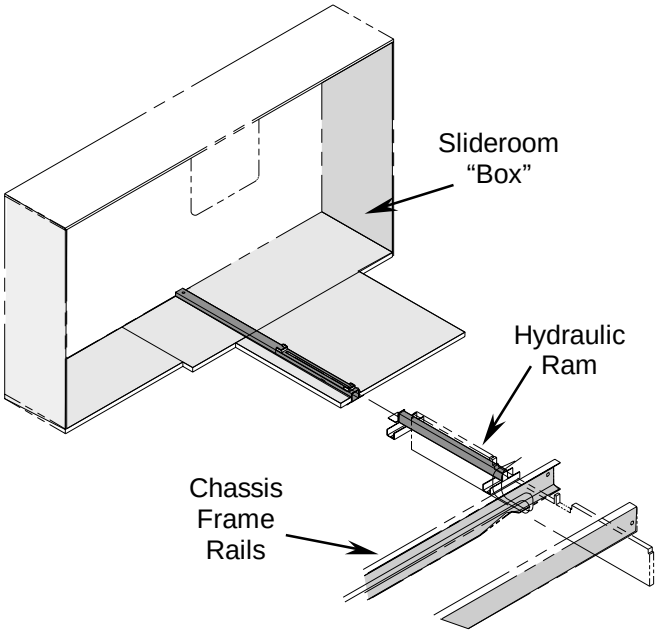


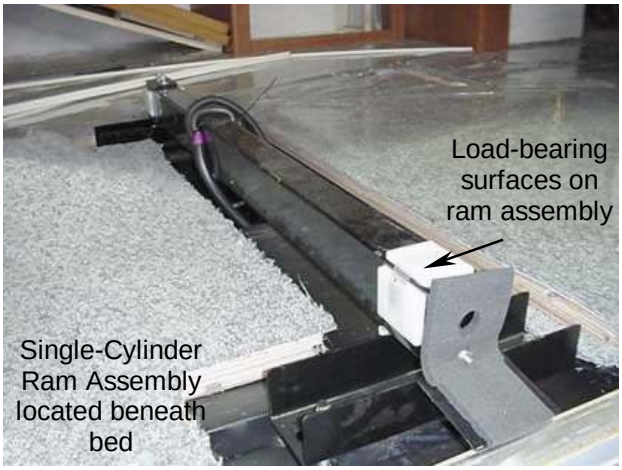


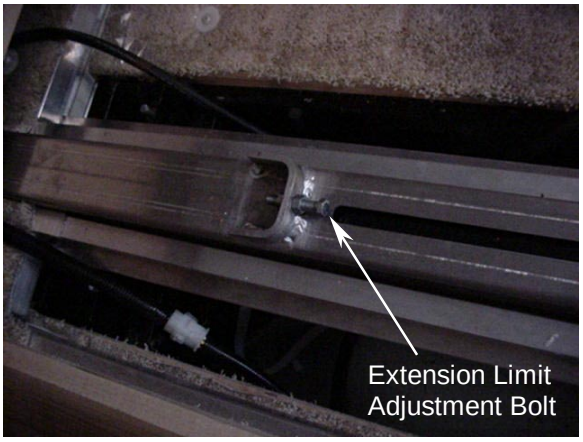
Single Cylinder (Bedroom) Slideout

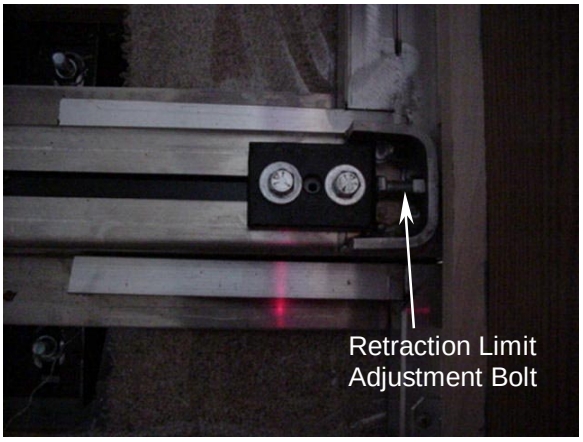
BASIC INSTALLATION

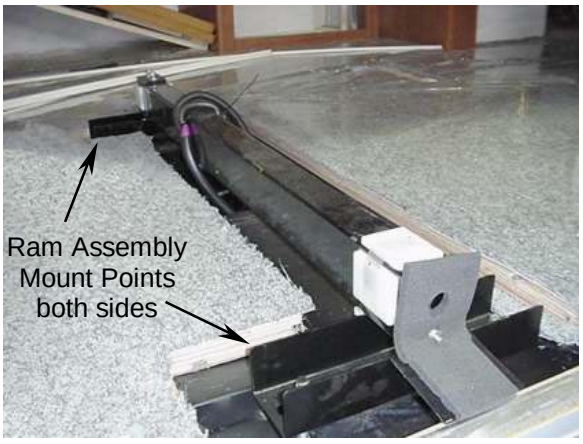
This room features a single hydraulic ram assembly mounted on the top side of the coach floor beneath the rear bed. The weight of the slideroom is shared between the ram assembly and the coach floor. Glide strips are fastened to the bottom of the slideroom. (*See photos in StoreMore section*.) These glide strips ride directly on the carpeted coach floor, allowing the room to slide easily while spreading the weight across its entire width. As the room is extended, weight transfers gradually to the outer pad on the ram assembly and the elevation support pads mounted into the coach sub-floor.

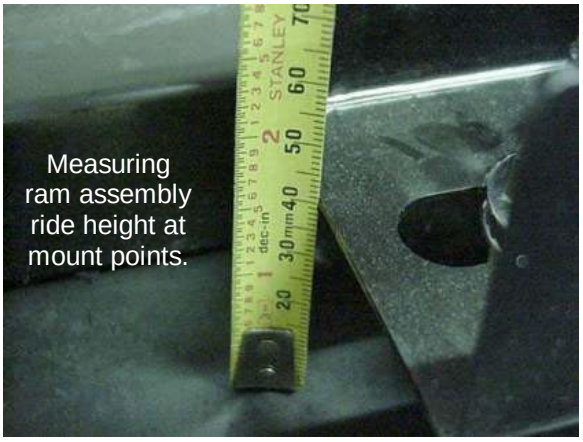












ADJUSTMENTS

The Single-Cylinder slideout room has 3 adjustments:

- In/Out Travel Limits
- Lateral Position (Forward/Rearward)
- Vertical Position (Upward/Downward/Leveling)

IN/OUT TRAVEL (EXTEND/RETRACT)

The hydraulic cylinder travel is limited by mechanical stops mounted on the top-side of the ram assembly. When the ram is adjusted properly, the D-seal mounted to the flange (or seal carrier) on the slideroom, should be slightly compressed against the sidewall of the coach.

> **CAUTION:** *Proper compression of the bulb seal is important, but excessive pressure may cause damage to the slideroom flange (seal carrier) or the coach sidewall.*

LATERAL ADJUSTMENT (FORWARD/REARWARD)

The ram assembly mounting brackets have slotted holes to allow a limited side-to-side adjustment.

VERTICAL ADJUSTMENT AND LEVELING

The ram assembly mount points are sandwiched between hex nuts mounted on four threaded rods in the floor. Ride height above the floor is determined by position of the bottom nuts, with the top nuts locking it in place.

The ram assembly mounting height should be 40mm from the underlying sheet steel to the ram mount bracket as shown in the bottom photo.

The support pads near the front and rear of the sidewall opening should be extended to contact the bottom of the slide room. Adjustment is made from directly below the pad assembly. Access to the rear stabilizer pad adjustment bolt requires opening the compartment door or valance panel. On current production coaches this is the central A/C compartment door.

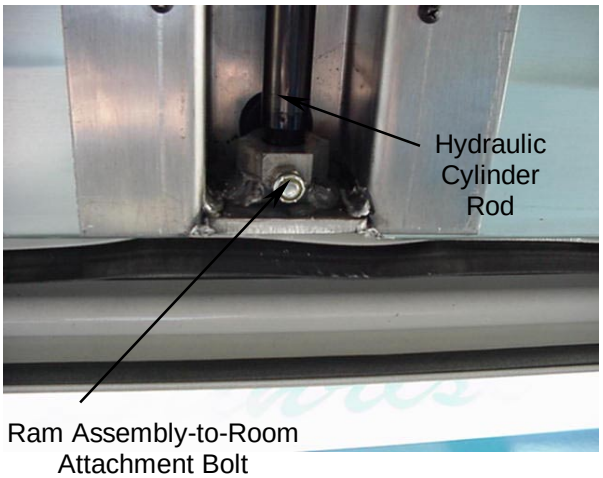
The forward stabilizing shoe is usually accessible through the storage compartment directly below or to the rear of the pad assembly.

Leveling

Leveling the room to align with exterior body moldings is done using the forward and rear support pads once the ram assembly ride height has been verified.

It is recommended to lower the 'high side' pad, then elevate the 'low side' pad to the desired height. Then adjust the former high side pad to support the new position.

IMPORTANT: Do not 'pre-load' the support pads against the coach floor. A pre-load condition can cause accelerated wear to the plastic surfaces on the support pads and potentially damage the room's metal underside. Pre-load or binding can also induce jerky operation, shuddering or vibration of the room as it is extended or retracted.



Ram Assembly-to-Room Attachment Bolt