

HWH works with FRONT low or REAR low without twisting the coach.

Prior to Leveling

- Chassis battery voltage must be at least 12 Volts DC.
- Select a level site if possible or park the motorhome with the front facing downhill.
- Apply the parking brake. Place the transmission in Neutral.
- With the ignition on, push and hold the Air Dump switch to lower the suspension. This reduces the amount the jack will need to extend before making contact with the surface.

CAUTION:

Survey the area around and under the motorhome for obstructions that can damage the motorhome or undercarriage components before lowering the air suspension. Damage to the mud flap may occur if it is located over a raised area.

CAUTION:

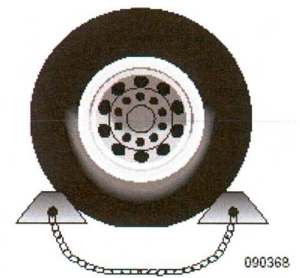
Ensure potential jack contact points are clear of obstructions or depressions before operation. Keep all people clear of the motorhome during the leveling system operations. Never expose hands or other parts of the body near hydraulic leaks. Hydraulic lines are under high pressure. Oil leaks may cut and penetrate the skin causing serious injury.

CAUTION:

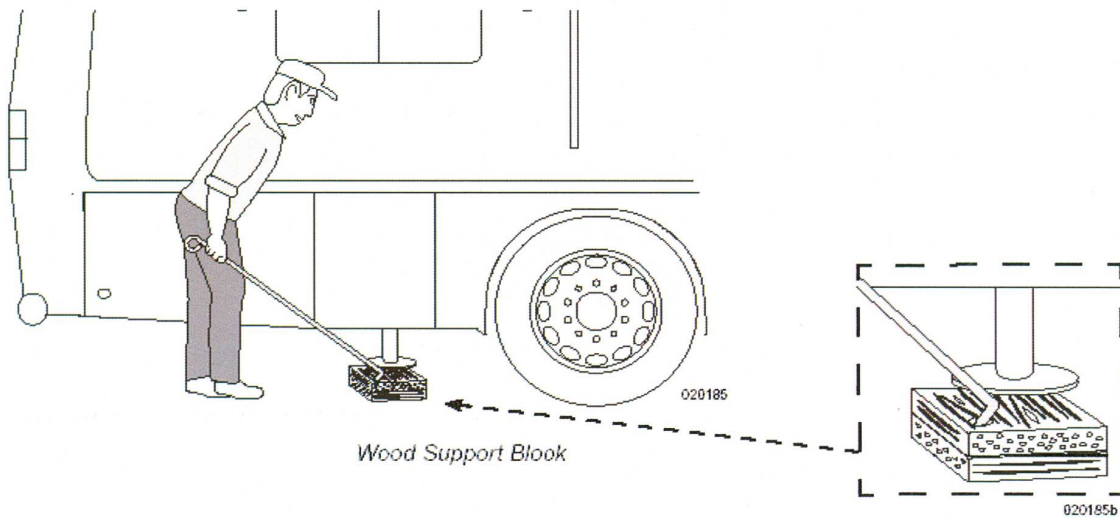
Hot asphalt, gravel or dirt may not support the weight that is placed on the hydraulic jack pads. Place thick plywood under the jack pads to help disperse the weight. If blocking up a rear jack pad to gain added clearance when the motorhome is on a slope, place a wheel chock at the opposite set of rear wheels to prevent the motorhome from rolling.

NOTE:

If additional height or surface support is needed, construct a 1' x 1' wooden block made from two pieces of $\frac{3}{4}$ " plywood for a total thickness of $1\frac{1}{2}$ ". Drill hole in corner and use awning wand to slide wooden block under jack pad.



Properly chock the wheels to prevent the motorhome from rolling.



Wood Support Block

Manual Leveling

The manual leveling mode can be used for leveling or stabilization preference. An indicator lamp adjacent to an extend switch indicates that jack position(s) is low.

Manual Leveling Operation:

- Follow the instructions in *Prior to Leveling*.
- Turn the ignition switch to On or ACC position.
- Press the ON/OFF button to turn the system on.
- Press and hold the MAN (manual) button for five seconds. Once the indicator lamp below the MAN button illuminates, the system is ready.

CAUTION:

Prior to leveling the motorhome it is important that all jacks be in contact with the ground to stabilize and support the frame. No single jack should be solely used to level the motorhome. Applying an improper leveling process can cause excess torsion stress and/or twisting of the chassis, frame and body, resulting in damage to the windshield or an entry door malfunction.

HWH BI-AXIS leveling makes this requirement unnecessary.

- Extend the front jack(s) until contact with the surface is made. Extend an additional $\frac{1}{2}$ ". This allows the front jack(s) to act as a pivot point.
- Extend the jack position according to the indicator lamp. Example: If the indicator lamp is lit under Jack Extend Switch - Rear, the rear of the motorhome is low. Press and hold the Rear button. Both rear jacks will extend. Once level, the system will automatically stop. The Power Gear Level Light will illuminate. Release the switch. Pressing Right or Left will extend a single rear jack accordingly.
- Turn off the remote panel.
- Turn off the Ignition switch.

HWH leveling systems are designed to level on un-level sites.

Automatic Leveling

The automatic function of the leveling system should only be engaged when the site is relatively level and solid to prevent excessive twist/stress to the frame. It is essential that there is no movement in the motorhome prior to and during the automatic leveling process.

Automatic Leveling Operation:

- Follow the instructions in *Prior to Leveling*.
- Turn the ignition switch to On or ACC position.
- Press the ON/OFF button to turn the system on.
- Press the Auto switch. The pump motor will activate and the appropriate jacks will automatically extend and level the motorhome.

NOTE:

A Jacks Down warning light will illuminate when the jacks are extended. The alarm will sound if the jacks are down and the park brake is released or transmission placed in gear.

Maintenance:

At weekly intervals, use silicone spray on the jack rod. This will help prevent moisture damage to surface of the jack rod. If parked near coastal areas, apply more frequently. Occasional oil or grease on the extended jack rod is normal.

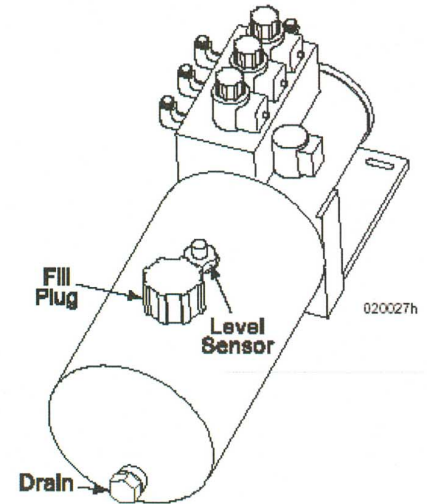
Pitting and rusting are not a problem on HWH jacks, therefore silicone spray or grease are not necessary.

- Remove dirt and road debris from the jacks as needed.
- Check the fluid level every month. The fluid level should be within ¼" of fill port lip and checked with all jacks retracted.
- Inspect and clean all hydraulic pump electrical connections every 12 months.
- For jacks equipped with a grease fitting at the bottom of the cylinder, two pumps of grease should be sufficient for 20 to 30 uses. DO NOT over grease. Damage to the rod seal will occur.
- Fluid change interval is 36 months.

Adding Fluid:

If the leveling system makes unusual noise or the alarm sounds when driving around corners or over bumpy roads, this indicates a low fluid level.

1. Chock a wheel fore and aft for safety.
2. Ensure all jacks are retracted.
3. Unscrew the reservoir cap from the top of the pump. Slowly fill the reservoir with *Dexron III*® automatic transmission fluid until ¼" from the fill plug.
4. Replace the reservoir cap. The reservoir is now at the proper level.



Tech Tip 196: 07/14/06 - Slide Rooms

Slide room controls are generally located on the hallway monitor panel or a cabinet face. To operate a slide room the battery cut out switch must be set to power the batteries on, and the house batteries must be charged. If the system fails to operate with adequate battery supply, check the slide room fuse. Fuse panels are located in an overhead cabinet at the bedroom or the overhead cabinet in the bathroom.

Examine available space outside the motor home before you extend the slide room. Slide rooms extend outwards at different dimensions. One room may extend 18-inches and another 34-inches on the same vehicle. You may need to reposition the vehicle to allow clearance for all slide room extensions away from trees, shrubs or shore power pedestals. Never allow a slide room to extend into the path of traffic, even when parked in a campground area.

Once you have confirmed adequate leeway outside, turn off the ignition and move the driver's seat forward. Some recent model motor homes are designed to automatically reposition the cab seat when the slide room button is engaged. If the slide room comes equipped with travel locks it will be necessary to remove the locks prior to room extension.

HWH untwists motor homes to enable slide-outs to operate freely.

→ The rule of thumb for motor homes and travel trailers is to first extend the slide room and then level the RV.

While the slide room is out examine the exterior seals for cracks or tears. Wipe away dust and debris build up from the seals. Some slide rooms are constructed with awnings to promote water run off away from the top seal. Awnings are also available as an after market addition.

If the coach is parked on a very unlevel site, retracting the jacks could twist the coach to a point that the rooms would be bound and unable to retract.

Prior to retracting the slide room use a broom or brush to remove debris from the top of the slide room awning. Clear the floor inside the vehicle of obstacles that may impede room movement and dirt that could damage the floor. Make sure the driver's seat is positioned to provide ample space for the room to move in.

→ The slide room is an independent assembly. Therefore, a motor home must be squarely set on suspension prior to bringing in the slide room. Retract hydraulic jacks, or if equipped with air leveling, return the motor home to ride height before pulling in slides in.

When the room exterior is wet, retract the slide in small increments to allow time for water run off. In the event the room fails to operate, consult your vehicle owner's manual or contact Technical Support for directions in how to manually operate the slide room. Install slide room travel locks that may be provided prior to driving.