

# Features & Benefits of “HWH® Slide-Out Systems”

HWH® has been manufacturing products (mainly hydraulic leveling systems) for the RV industry since 1967. We entered the hydraulic slide-out market in 1993 and have enjoyed designing and manufacturing an extensive line of SpaceMaker® Slide-Out Mechanisms for RV Convertors, RV Manufacturers and Bus Manufacturers. Customers choose HWH® because of their innovative engineering, quality construction and solid reputation.

## FEATURES

## BENEFITS

Wide Range of Models Available	<ul style="list-style-type: none"><li>● Models accommodate small, medium and large slide-out room lengths.</li><li>● Models accommodate varying slide-out room widths (cylinder strokes).</li><li>● Models available with flush floor, while the room is both in and out.</li><li>● Models available with above-floor, below-floor, in-floor &amp; in-ceiling mountings.</li></ul>
Synchronizing Cylinder (Patented)	<ul style="list-style-type: none"><li>● Allows for smooth, even extension and retraction of the room by synchronizing the extension and retraction of cylinders in multi-cylinder systems.</li></ul>
TRI-AXIS Locking Pin Option (Patented)	<ul style="list-style-type: none"><li>● Enables RVs with slide-outs to be stronger than RVs without slide-outs.</li></ul>
Pneumatic Air Seal Option	<ul style="list-style-type: none"><li>● Eliminates outside flange (air seal enables room to be flush on the exterior).</li><li>● Decreases wind noise (air seal allows for a tight seal).</li></ul>
Polymer Slide Bearings	<ul style="list-style-type: none"><li>● Maintenance free.</li><li>● Self lubricating. (No greasing necessary.)</li><li>● Ensures clean, quiet, smooth operation.</li></ul>
Polymer Glide Strips	<ul style="list-style-type: none"><li>● Eliminate the need for bulky, costly rollers.</li><li>● Provides smooth room operation.</li><li>● Reduces “step up” into the room.</li><li>● Avoids pivoting over a roller.</li></ul>
Hydraulic Power	<ul style="list-style-type: none"><li>● Allows for positive sealing of rooms.</li><li>● Enables extension of very heavy rooms (see individual room extension for spec’s)</li><li>● Proven to be reliable and durable.</li></ul>
Excellent Cold-Climate Performance	<ul style="list-style-type: none"><li>● HWH® Specialty Hydraulic Oil improves system operation at colder temperatures. (Pour-point rated at -50 degrees Fahrenheit.)</li></ul>
Light Weight Mechanisms	<ul style="list-style-type: none"><li>● Minimizes added weight to the RV, contributing to increased fuel economy.</li><li>● Maximizes strength-to-weight ratios.</li><li>● Strength is not compromised.</li></ul>
Adjustable Cylinder Strokes	<ul style="list-style-type: none"><li>● Ensures a positive seal between the room and the RV side wall while room is both extended and retracted.</li></ul>
Alternate Room Retracting Mechanism	<ul style="list-style-type: none"><li>● Prevents you from being stranded with your room out, in the event of a hydraulic or electrical power failure. (Simply turn two valves on the pump and manually retract the room.)</li></ul>
Corrosion Resistant Materials	<ul style="list-style-type: none"><li>● Rods are constructed of a corrosion resistant material.</li><li>● Mechanisms are designed to withstand the environment and hold up over time.</li></ul>



**More Features & Benefits**



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**STRONG, RELIABLE, HYDRAULIC POWER**

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## FEATURES

## BENEFITS

Superior Electrical Construction	● Weather tight electrical connections, custom engineered seals and plug-in harness connections ensure a reliable system.
Aluminum Construction Option	● Optional on some models, aluminum construction minimizes added weight to the RV while maximizing strength-to-weight ratios.
Momentary Switch-Control	● Rooms are easily extended and retracted by pressing a momentary switch.
Component Sharing	● HWH® room extension and leveling systems share their pump and oil reservoir, minimizing added weight (and cost) to the RV. ● Weight savings contributes to increased fuel efficiency.

## HWH®'s 2008 SpaceMaker® Line-Up

### "Room" Extension Mechanisms

Above-Floor	Single-Cylinder "Guided" Room Extension
Above-Floor	Dual-Cylinder "Lateral Arm" Room Extension (with Torsional Tube)
Above-Floor	Dual-Cylinder "Vertical Arm" Room Extension (with HWH® Synchronizing Cylinder)
Above-Floor	Dual-Cylinder "Vertical Arm - Level Out Floor" Room Extension (with HWH® Synchronizing Cylinder)
Above-Floor	Dual-Cylinder "X-Slide" Room Extension (with HWH® Synchronizing Cylinder)
Above-Floor	Dual-Cylinder "Universal" SO (Straight-Out) Room Extension (with HWH® Synchronizing Cylinder)
Above-Floor	Dual-Cylinder "Universal" LO (Level-Out) Room Extension (with Lifters and HWH® Synchronizing Cylinders)
Above-Floor	Dual-Cylinder "Universal" LI/LO (Level In / Level Out) Room Extension (with HWH® Synchronizing Cylinder)
Above Floor	Dual-Cylinder "Recky" Room Extension (with HWH® Synchronizing Cylinder)
Above-Floor	Four-Cylinder Hydraulic Room Extension Mechanism (with HWH® Synchronizing Cylinder)
Above-Floor	Four-Cylinder "Train Drive" Room Extension (with HWH® Synchronizing Cylinder)
Below-Floor	Single-Cylinder Room Extension
Below-Floor	Dual-Cylinder (or Single-Cylinder) "Slimline" Room Extension (Low-Profile Mechanism)
Below-Floor	Dual-Cylinder "Level Out" Room Extension (with HWH® Synchronizing Cylinder)
Below-Floor	Dual-Cylinder "Level Out Floor" Room Extension (With Guided Tracks and HWH® Synchronizing Cylinder)
Below-Floor	Dual-Cylinder "Pivotal Level Out Floor" Room Extension (with Pivot Brackets and HWH® Synchronizing Cylinder)
Below-Floor	Dual-Cylinder "Level In / Level Out Floor" Room Extension
Below-Floor	Dual-Cylinder "Rail" Room Extension (with HWH® Synchronizing Cylinder)
Full-Wall	Dual-Cylinder "Universal Level-Out" Room Extension
Full-Wall	Four-Cylinder "In-Ceiling" Hydraulic Room Extension
In-Floor	Single-Cylinder "In-Floor" Room Extension
In-Floor	Single-Cylinder "In Coach Floor" Room Extension

### "Generator/TV/Storage Compartment/Stairwell Cover/Pocket-Door, Bay Door" Extension Mechanisms

HWH® Single Cylinder Hydraulic "Generator" Extension
HWH® TV Extension
HWH® Dual-Direction Hydraulic Storage Slide
HWH® Stairwell Cover
HWH® Pocket Door and Step Cover Hydraulic Power Systems
HWH® Door Lift
HWH® Bay Door Lift

### Slide-Out Accessories

HWH® Travel Clamps (Patented) Automatic Room Retention System
HWH® Sweepeze" "Sweeps Water & Debris from Roof of Slide-Out
HWH® Pneumatic Air Seal for Slide-Out Rooms
HWH® Hydraulic Tri-Axis Room Locking Mechanisms
HWH® Polymer Glide Strips & Shims for Slide-Out Rooms
HWH® Alternate Room Retracting Mechanisms

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