

HWH® MANUALS

SERVICE MANUALS - ALL SYSTEMS

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Printable File

[Click here to identify which SYSTEM you have. \(ML17785_01_NOM_PR.HTML\)](#)

- ? Hydraulic Systems with Hand Pump-Control
- ? Leveling Systems (with NO HWH® Slide-Outs)
- ? Slide-Out Systems (with HWH® Leveling System)
- ? Slide-Out Systems (with NO HWH® Leveling System)
- ? Travel Clamps for Slide-Outs

ABBREVIATIONS:

KD = Kick-Down | SA = Straight-Acting

Hand-Pump Hydraulic Systems

| HWH® SERVICE MANUAL DESCRIPTION | Leveling Method (Air or Jacks) | HWH Slide-Out Status | Air Dump Feature | Service Manual (Click to Open) |
|---|-----------------------------------|----------------------|------------------|-----------------------------------|
| HWH® Hand Pump Hydraulic Systems (All Models) Priming the Hand Pump Power-Retract and Spring-Retract Jacks. | JACKS | | | MP44.0009 |

Leveling Systems (with NO HWH® Slide-Outs)

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| HWH® SERVICE MANUAL DESCRIPTION | Leveling Method (Air or Jacks) | HWH Slide-Out Status | Air Dump Feature | Service Manual (Click to Open) |
|--|-----------------------------------|----------------------|------------------|-----------------------------------|
| "PILOT OPERATED" AIR DUMP SYSTEMS | | | | |
| <p>Winnebago® MOTORIZED VEHICLES HWH® 200 Series, Joystick-Control Hydraulic Leveling HWH® 310 Series, Touch Panel-Control Hydraulic Leveling HWH® 610 Series, Computer-Control Hydraulic Leveling Pilot Operated Air Dump NO HWH® SLIDE-OUTS</p> | JACKS | | AIR DUMP | ML24343 |
| 2XX SERIES | | | | |
| <p>_____ VEHICLES HWH® 200/210/225 Series, Joystick-Control Hydraulic Leveling Kick-Down or Straight-Acting Jacks With or Without HWH® Air Dump (No Pilot Air Dump Information) NO HWH® SLIDE-OUTS</p> | KD or SA JACKS | | AIR DUMP | ML23934 |
| 3XX SERIES | | | | |
| <p>_____ VEHICLES HWH® 310 Series, Touch Panel-Control Hydraulic Leveling Kick-Down or Straight-Acting Jacks Central Grounding With or Without HWH® Air Dump (No Pilot Air Dump Information) NO HWH® SLIDE-OUTS</p> | KD or SA JACKS | | AIR DUMP | ML13514 |
| <p>_____ VEHICLES HWH® 305/325 Series Touch Panel-Control Hydraulic Leveling Central Grounding Straight-Acting Jacks With or Without HWH® or Pilot Air Dump The Touch Panel DOES NOT HAVE a "Not in Park/Brake" Light Short PC Board in Control Box NO HWH® SLIDE-OUTS</p> | SA JACKS | | AIR DUMP | ML33832 |
| <p>_____ VEHICLES HWH® 325 Series, Touch Panel-Control Hydraulic Leveling With or Without HWH® or Pilot Air Dump The Touch Panel HAS a "Not in Park/Brake" Light Full Size PC Board In Control Box. NO HWH® SLIDE-OUTS</p> | JACKS | | AIR DUMP | ML37640 |
| 4XX SERIES | | | | |
| <p>_____ VEHICLES HWH® 400 Series, Computer-Control Hydraulic Leveling (with NON-BIAXIS(R) Paddle Switch Control) Individual Jack Control Kick-Down or Straight-Acting Jacks With or Without HWH® Air Dump NO HWH® SLIDE-OUTS</p> | KD or SA JACKS | | AIR DUMP | ML7879 |
| 5XX SERIES | | | | |
| <p>_____ VEHICLES HWH® 500 Series, Computer-Control AIR Leveling (Touch Panel Control) Wide Ribbon Touch Panel Cable Automotive Type Fuses NO HWH® SLIDE-OUTS</p> | AIR | | AIR DUMP | ML22362 |
| <p>_____ VEHICLES HWH® 510 Series, Computer-Control Hydraulic Leveling (Touch Panel Control) Kick-Down Jacks NO HWH® SLIDE-OUTS</p> | KD JACKS | | | ML7820 |
| 6XX SERIES | | | | |

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| Foretravel® MOTORIZED VEHICLES HWH® 600 Series, Computer-Control AIR Leveling (Touch Panel Control) Narrow, Modular Touch Panel Cable NO HWH® SLIDE-OUTS | AIR | | AIR DUMP | ML11148 |
| _____ VEHICLES HWH® 600 Series, Computer-Control AIR Leveling (Touch Panel Control) Narrow, Modular Touch Panel Cable. NO HWH® SLIDE-OUTS | AIR | | AIR DUMP | ML19048 |
| _____ VEHICLES HWH® 610 Series, Computer-Control Hydraulic Leveling (Touch Panel Control) NOT Central Grounded Single Hose Single Plug Warning/Pressure Switch Harness Three-Wire Jack Warning Switches with Two Packard® Connectors Kick-Down Jacks With Pressure Switches Optional HWH® Air Dump NO HWH® SLIDE-OUTS | KD JACKS | | Optional AIR DUMP | ML9138 |
| _____ VEHICLES HWH® 610 Series, Computer-Control Hydraulic Leveling Single Hose Central Grounding Central Grounded Warning/Pressure Switch Harness With Two Packard® Connectors Two-Wire Warning Switches With One Two Pin Packard® Connector Kick-Down Jacks With Pressure Switches Optional HWH® Air Dump NO HWH® SLIDE-OUTS | KD JACKS | | Optional AIR DUMP | ML1679 |
| HWH® 610 Series, Computer-Control Hydraulic Leveling (Touch Panel Control) Single Hose Central Grounding Central Grounded Warning/Pressure Switch Harness With Two Packard® Connectors Two-Wire Warning Switch With One Two Pin Packard® Connector Straight-Acting Jacks With Pressure Switches With or Without HWH® Air Dump NO HWH® SLIDE-OUTS | SA JACKS | | AIR DUMP | ML1681 |
| _____ VEHICLES HWH® 625 Series, Computer-Control Hydraulic Leveling (Touch Panel Control) Control Box With Plexiglass Cover Straight-Acting Jacks With Pressure Switches With or Without HWH® or Pilot Air Dump NO HWH® SLIDE-OUTS | SA JACKS | | AIR DUMP | ML35963 |
| _____ VEHICLES HWH® 625S Series, Leveleze® Single-Step Computer-Control Hydraulic Leveling (Touch Panel Control) With Remote Rocker Switches Control Box With Plexiglass Cover Straight-Acting Jacks With Pressure Switches With or Without HWH® or Pilot Air Dump NO HWH® SLIDE-OUTS | SA JACKS | | AIR DUMP | ML41240 |
| 7XX SERIES | | | | |
| _____ VEHICLES HWH® 725 Series, Leveleze® Single Step Computer-Control Hydraulic Leveling (Touch Panel Control) I/O Module On Pump Assembly Straight Acting Jacks With Pressure Switches With or Without HWH® or Pilot Air Dump NO HWH® SLIDE-OUTS BLACK 32 PIN MIOM STRIKE CONNECTOR WITH RED LATCH | SA JACKS | | AIR DUMP | ML48380 |

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| <p>_____ VEHICLES HWH® 725 Series, Levelze® Single Step Computer-Control Hydraulic Leveling (Touch Panel Control) I/O Module On Pump Assembly Straight Acting Jacks With Pressure Switches With or Without HWH® or Pilot Air Dump NO HWH® SLIDE-OUTS GRAY 35 PIN MIOM AMPSEAL CONNECTOR</p> | SA JACKS | | AIR DUMP | ML59932 |
| <p>_____ VEHICLES HWH® 700 Series Levelze Single-Step Computer-Controlled Air Leveling System (with BI_AXIS Touch Panel Control) NO HWH® Spacemaker Slide-Out System(s)</p> | AIR | | AIR DUMP | ML59101 |
| 2000 SERIES | | | | |
| <p>_____ VEHICLES HWH® 2000 Series, Computer-Control AIR Leveling (Touch Panel Control) Single Two-Ring CAN Box With or Without Tag Axle NO HWH® SLIDE-OUTS</p> | AIR | | AIR DUMP | ML31043 |

Slide-Out Systems (with HWH® Leveling System)

[Click here to identify which SYSTEM you have. \(ML17785_01_NOM_PR.HTML\)](#)

| HWH® SERVICE MANUAL DESCRIPTION | Leveling Method (Air or Jacks) | HWH Slide-Out Status | Air Dump Feature | Service Manual (Click to Open) |
|--|-----------------------------------|----------------------|------------------|-----------------------------------|
| <p>MOTORIZED VEHICLES HWH® "Rail" Slide-Out (with Rack Sensing Valve) HWH® "Single Cylinder" Slide-Out</p> <p>HWH® 200 Series, Joystick-Control Hydraulic Leveling</p> | JACKS | 1 or 2 SLIDE-OUTS | | ML13633 |
| <p>Winnebago® MOTORIZED VEHICLES HWH® "Rail" Slide-Out (with Rack Sensing Valve)</p> <p>HWH® 200 Series, Joystick-Control Hydraulic Leveling</p> | JACKS | SLIDE-OUT | | ML11570 |
| <p>MOTORIZED VEHICLES HWH® "Rail" Slide-Out (with Rack Sensing Valve) HWH® "Single Cylinder" Slide-Out</p> <p>HWH® 310 Series, Touch Panel-Control Hydraulic Leveling</p> | JACKS | 1 or 2 SLIDE-OUTS | | ML12771 |
| <p>VEHICLES HWH® "Rail" Slide-Out (with Rack Sensing Valve) HWH® "Single Cylinder" Slide-Out</p> <p>HWH® 610 Series, Computer-Control Hydraulic Leveling</p> | JACKS | 1 or 2 SLIDE-OUTS | | ML12726 |
| <p>Winnebago® MOTORIZED VEHICLES HWH® "Rail" Slide-Out (with Rack Sensing Valve)</p> <p>HWH® 610 Series, Computer-Control Hydraulic Leveling</p> | JACKS | SLIDE-OUT | | ML11759 |
| <p>MOTORIZED VEHICLES HWH® "Rail" Slide-Out (with Sync Cylinder) HWH® "Vertical Arm" Slide-Out (with Sync Cylinder)</p> <p>HWH® 200/210 Series, Joystick-Control Hydraulic Leveling</p> | JACKS | SLIDE-OUTS | | ML21958 |
| <p>MOTORIZED VEHICLES HWH® "Rail" Slide-Out (With Sync Cylinder) HWH® "Vertical Arm" Slide-Out (With Sync Cylinder)</p> <p>HWH® 310 Series, Touch Panel-Controlled Hydraulic Leveling</p> | JACKS | SLIDE-OUTS | | ML21956 |
| <p>Winnebago® MOTORIZED VEHICLES HWH® "Guided" Slide-Out HWH® "Dual Cylinder" Slide-Out (With Sync Cylinder) HWH® "Level Out" Slide-Out (with Sync Cylinder)</p> <p>HWH® 310 Series, Touch Panel-Control Hydraulic Leveling HWH® 610 Series, Computer-Control Hydraulic Leveling</p> | JACKS | SLIDE-OUTS | | ML23521 |
| <p>Winnebago® MOTORIZED VEHICLES One HWH® "Dual Cylinder" Slide-Out (with Sync Cylinder) (OR) One HWH® "Level Out (aka "Flat Floor")" Slide-Out (with Sync Cylinder) (AND) One HWH® "Four Cylinder" Slide-Out (with Sync Cylinder)</p> <p>HWH® 310 Series, Touch Panel-Control Hydraulic Leveling HWH® 610 Series, Computer-Control Hydraulic Leveling</p> | JACKS | SLIDE-OUTS | | ML23522 |

Slide-Out Systems (with **NO** HWH® Leveling System)

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| HWH® SERVICE MANUAL DESCRIPTION | Leveling Method (Air or Jacks) | HWH Slide-Out Status | Air Dump Feature | Service Manual (Click to Open) |
|---|-----------------------------------|----------------------|------------------|-----------------------------------|
| National RV® NON-MOTORIZED VEHICLES HWH® "Rail" Slide-Out (with Rack Sensing Valve) HWH® "Single Cylinder" Slide-Out NO HWH® LEVELING SYSTEM | | SLIDE-OUTS | | ML10709 |
| MOTORIZED & NON-MOTORIZED VEHICLES HWH® "Rail" Slide-Out (with Rack Sensing Valve) HWH® "Single Cylinder" Slide-Out NO HWH® LEVELING SYSTEM | | SLIDE-OUTS | | ML11573 |

Travel Clamps for Slide-Outs

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| HWH® SERVICE MANUAL DESCRIPTION | Leveling Method (Air or Jacks) | HWH Slide-Out Status | Air Dump Feature | Service Manual (Click to Open) |
|--|-----------------------------------|----------------------|------------------|-----------------------------------|
| Manual Control | | | | |
| <p>_____ VEHICLES</p> <p>HWH® Travel Clamps Automatic Slide-Out Retention System (Two-Button Operation - One for Slide-Out/One for Clamp) Dual-Rocker-Switch Control Panel</p> <p>HWH® SLIDE-OUT SYSTEM</p> <p>HWH® 225 Series, Joystick-Control Hydraulic Leveling</p> | JACKS | HWH® SLIDE-OUTS | | ML41035 |
| <p>_____ VEHICLES</p> <p>HWH® Travel Clamps Automatic Slide-Out Retention System (Two-Button Operation - One for Slide-Out/One for Clamp) Dual-Rocker-Switch Control Panel</p> <p>HWH® SLIDE-OUT SYSTEM NO HWH® LEVELING SYSTEM (OR)</p> <p>HWH® 325 Series, Touch Panel-Control Hydraulic Leveling (OR)</p> <p>HWH® 625 Series, Computer-Control Hydraulic Leveling</p> | | HWH® SLIDE-OUTS | | ML41213 |
| <p>Fleetwood® _____ VEHICLES</p> <p>HWH® Travel Clamps Automatic Slide-Out Retention System (Two-Button Operation - One for Slide-Out/One for Clamp) Dual-Rocker-Switch Control Panel Single Clamp</p> <p>NO HWH® SLIDE-OUT SYSTEM NO HWH® LEVELING SYSTEM</p> | | | | ML41205 |
| Automatic Control | | | | |
| <p>Fleetwood® _____ VEHICLES</p> <p>HWH® Travel Clamps Automatic Slide-Out Retention System (One-Button Operation for Slide-Out and Clamp) (Key Switch & Single-Rocker-Switch Control Panel)</p> <p>NO HWH® SLIDE-OUT SYSTEM NO HWH® LEVELING SYSTEM</p> | | | | ML35976 |
| <p>_____ VEHICLES</p> <p>HWH® Travel Clamps Automatic Slide-Out Retention System (One-Button Operation for Slide-Out and Clamp) (Key Switch & Single-Rocker-Switch Control Panel) Travel Clamp Control Box Number AP29038 - All Serial #s</p> <p>HWH® SLIDE-OUT SYSTEM NO HWH® LEVELING SYSTEM (OR)</p> <p>HWH® 325 Series, Touch Panel-Control Hydraulic Leveling (OR)</p> <p>HWH® 625 Series, Computer-Control Hydraulic Leveling</p> | | HWH® SLIDE-OUT | | ML39511 |

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| <p>_____ VEHICLES HWH® Travel Clamps Automatic Slide-Out Retention System (One-Button Operation for Slide-Out and Clamp) (Key Switch & Single-Rocker-Switch Control Panel) Travel Clamp Control Box Number AP40484 - All Serial #'s</p> <p>HWH® SLIDE-OUT SYSTEM NO HWH® LEVELING SYSTEM (OR) HWH® 325 Series, Touch Panel-Control Hydraulic Leveling (OR) HWH® 625 Series, Computer-Control Hydraulic Leveling</p> | | <p>HWH® SLIDE-OUT</p> | | <p><u>ML41218</u></p> |
| <p>Fleetwood® _____ VEHICLES HWH® Travel Clamps Automatic Slide-Out Retention System (One-Button Operation for Slide-Out and Clamp) (Key Switch & Single-Rocker-Switch Control Panel) Travel Clamp Control Box Number AP34567 - Serial # 9,999 or Smaller</p> <p>NO HWH® SLIDE-OUT SYSTEM NO HWH® LEVELING SYSTEM</p> | | | | <p><u>ML41167</u></p> |
| <p>_____ VEHICLES HWH® Travel Clamps Automatic Slide-Out Retention System (One-Button Operation for Slide-Out and Clamp) (Key Switch & Single-Rocker-Switch Control Panel) Travel Clamp Control Box Number AP40185 - All Serial #'s Travel Clamp Control Box Number AP34567 - Serial # 10,000 or Greater</p> <p>NO HWH® SLIDE-OUT SYSTEM NO HWH® LEVELING SYSTEM</p> | | | | <p><u>ML41142</u></p> |