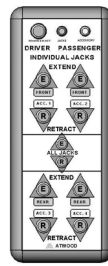
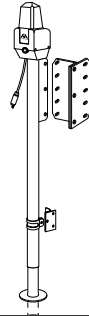




**LIPPERT
COMPONENTS®**

Formerly  **Atwood Mobile Products**



LITERATURE NUMBER MPD 87974

WIRELESS REMOTE CONTROL

ENGLISH

•Installation •Operation •Maintenance

Effective 6/30/09

SAFETY ALERT SYMBOLS

Safety Symbols alerting you to potential personal safety hazards. Obey all safety messages following these symbols.



WARNING

avoid possible
injury or death



CAUTION

avoid possible
injury and/or property damage

Refer to MPD 87903 and 71125 for complete installation, operation and maintenance instructions for camper jacks and landing gear respectively.

FOR YOUR SAFETY

READ ALL INSTRUCTIONS BEFORE OPERATING

Installer: Provide these instructions to the consumer.

Consumer: Keep documents for future reference.

Our remote control is designed for use only with Electric Ball Screw Truck Camper Jacks (EBSTCJ) equipped for remote control capability and Atwood Landing Gears. Atwood makes two types of EBSTCJ; one with remote capability and one without; **they are not interchangeable.**



WARNING

PERSONAL INJURY & PRODUCT DAMAGE

- To deactivate the wireless system when you are finished hold down the power-select on the remote until the LED turns off.
- Only operate jack system when camper or trailer is unoccupied.
- Store remote in a secure place, away from access by children.
- Remove the battery from the handheld remote before storing to prevent accidental jack activation or continuous remote transmission. If the remote is continuously activated by a jammed or shorted button, operation of other remote devices such as vehicle keyless entry systems and/or garage door openers may be interfered with or prevented.

SPECIFICATIONS:

DESCRIPTION	SPECIFICATIONS
Channels:	1
Frequency:	315 MHz
Operating Temperature Range:	-20°C to 120°C
Power Source:	9-volt alkaline battery
Weight:	4.0 ounces

FCC Compliance Statement - Remote Control P/N 80430

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

You do not need an FCC license to operate the wireless remote. However, any changes or modifications to the device will void the user's authority to operate the equipment.



WARNING

EXPLOSION

- To avoid possible interference with blasting operations, do not use your remote near ELECTRICAL BLASTING CAPS or in a BLASTING AREA or in areas posted: **TURN OFF TWO-WAY RADIO.** Obey all signs and instructions.
- Do not use the remote near explosive atmospheres.

Explosive atmospheres are often, but not always, clearly marked. They include fueling areas, fuel or chemical transfer or storage facilities: areas where the air contains chemicals or particles, such as grain, dust, or metal powders, and any other area where you would normally

be advised to turn off your vehicle engine.

INSTALLATION



CAUTION PRODUCT DAMAGE

- Disconnect power to the power relay module prior to HiPot testing of the camper or the microprocessor will be damaged.

NOTE: FIG 4 is overhead view of a pickup camper with power relay module shown flat for clarity. FIG 5 is overhead view of 5th wheel trailer.

1. Install the power relay module in a clean, dry interior area protected from moisture. Use the four (4) 1/4" diameter holes for mounting the module relay (K). Position the base on the mounting surface and secure it using appropriate hardware for the wall material. Orient antennae straight away from base. Permanently secure antenna to mounting surface with appropriate hardware. Mount the base RF receiver unit (K) in the selected target location. Take care to ensure that the antenna on the board is not located next to other electrical wiring which could interfere with operation. Take care to ensure that the target location has good RF reception (avoid "faraday cage" scenarios, i.e. metal box).



CAUTION PRODUCT DAMAGE

- Failure to orient antennae properly will result in intermittent operation of the wireless remote system.

NOTE: Correct polarity must be observed as noted on the circuit board next to 5 & 4-H. The unit will not function if the input power is installed in reverse polarity. See FIG 5 & 4.

- | | |
|------------------------------------|--------------------------------|
| A - Driver Front Jack or Leg | H - Input Power Terminal Block |
| B - Passenger Front Jack or Leg | I - Output Jack |
| C - Driver Rear Jack or Leveleg | J - Flat Cable |
| D - Passenger Rear Jack or Leveleg | K - Relay Module (RF receiver) |
| E - *40 AMP Circuit Breaker | L - Antenna |
| *For all camper jacks | M - Male Connector |
| or 60 AMP resetable | N - Female Connector |
| circuit breaker for | O - 30 AMP Fuses |
| 8AWG battery wire. | P - Remote |
| F - Red (-) Motor Gear Box Lead | Q - Activation Switch |
| G - Yellow (+) Motor Gear Box Lead | R - Audio Cable |
| | S - Flat Cable Outlet |

2. **SUPPLY POWER TO UNIT:** The unit operates from a +12 VDC battery and must be supplied through a 40 AMP circuit breaker (FIG 4E & 5-E). Route the #8 AWG, +12 VDC from the circuit breaker and the ground wiring, to the terminal block (FIG 4H & 5-H). Terminate the wires in the labeled positions.
3. Route the two #10 AWG wires from each jack to the terminal block 4-I & 5-I. Refer to the labels next to each terminal position for driver front, passenger front, driver rear, and passenger rear jacks. Connect the wires for each jack.
4. Install the Activation Switch near the floor just inside the door of the pickup camper or in an outside compartment of the fifth wheel. Plug the flat cable (FIG J) into the left side of the power relay module (FIG 4 & 5-S) and route to the location of the activation switch (FIG 4 & 5-Q). Plug other end of the cable into the back side of the activation switch. Connect the optional accessory harnesses (controlling up to two additional motor outputs) to their associated connector on the base receiver. Any use of the accessory ports needs to be approved in advance by the manufacture of the accessory. Connect the power harness to the base receiver. Take

care not to apply power to the motor/accessory connectors, as they utilize the same connector. Doing so will void the unit's warranty.

SET UP OF WIRELESS REMOTE

WARNING **PERSONAL INJURY & PRODUCT DAMAGE**

- Do not replace or charge batteries in a potentially explosive atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.
- All batteries can cause property damage and/or bodily injury such as burns if a conductive material such as jewelry, keys or beaded chains touches exposed terminals. The material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse or other container with metal objects.

REMOTE BATTERY INSTALLATION:

1. Firmly slide battery cover (remote back) down to remove.
NOTE: The audio cable can optionally be used to power the transmitter directly from the switch assembly.
 2. Insert one 9V battery.
 3. Replace the battery cover and slide up until secure.
- The battery type is 9V alkaline battery which will provide approximately 45 minutes of continuous use.

OPERATION

WARNING **CAMPER CAN TIP OVER**

- Sandy/soft/spongy ground may cause jacks to sink; camper may tip over. Jack must be on firm solid ground prior to operation.
- Insure area below and around jack is clear of obstructions.
- Do not place blocks under the jack for additional ground clearance.
- Always keep the front of camper higher than or equal to the rear of the camper. Never allow either side or end of camper to be more than 4" out of level (FIG 2 and 3).

1. Remove the hand held remote control from its secure compartment.
2. Reinstall battery.
3. Unit is in a low power sleep mode when not in use. To activate the unit, press the "WAKE" button on the switch assembly. The unit will awaken and the red ACTIVE LED will illuminate. The unit will automatically deactivate and enter sleep mode 10 minutes after the last operation of the system.
4. When finished, the LED on the activation switch must not be lit.
5. Activate the RF transmitter by pressing the POWER+SELECT button. The transmitter will power up and indicate the green LED.
6. The transmitter can be used to control either JACKS or ACCESSORIES. When the green LED is active, the transmitter is controlling JACKS. When the yellow LED is active, the system is controlling the accessory motors.
7. When controlling jacks, the following operations are possible.
 - Extension or retraction of an individual jack.
 - Extension or retraction of all 4 jacks.
 - Paired operation - adjacent jacks can be operated simultaneously by holding down two jack buttons.
8. When controlling accessories, only one accessory may be powered at a time. Multiple accessory button presses are ignored.

OPERATION:

Associate the transmitter with the base receiver:

- Power the system by pressing the WAKE button on the activation switch (Q). The red ACTIVE LED should blink 2 flashes with a pause. This indicates that the system is in the default shipment state, and has no RF transmitter associated with it.
- Power the RF transmitter by pressing the POWER+SELECT button. The green LED on the transmitter will illuminate. The transmitter will remain powered for 1 minute.
- Hold down the WAKE button on the activation switch (Q) for 10 seconds. The system will enter LEARN TRANSMITTER mode which is indicated by the red ACTIVE LED flashing quickly. In this mode, the base receiver will associate itself with the next transmitter that is received.
- Press any jack button on the transmitter. The base unit will see the transmitter and associate itself with it. At this point, the red LED should be on solid, and the blue LED will indicate detection of transmitter RF signal.

CAUTION **PRODUCT DAMAGE**

- Do not over-extend or over-retract jacks. The electric jack has an internal slip clutch to help prevent damage; when clicking sound is heard, release switch. Continuing to hold the switch will wear out the slip clutch or cause damage to the motor.

TO LIFT

EXTEND FRONT JACKS FIRST



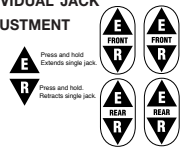
Extend front jacks so camper is 4" higher in front than in the rear. (FIG 2).

EXTEND ALL JACKS



Once the camper front is higher than the rear, press and hold the ALL JACKS BUTTON, extend (A). Release when the camper is at the proper height.

INDIVIDUAL JACK ADJUSTMENT



Use the individual jacks buttons to adjust an individual jack. NOTE: A maximum of two individual jacks can be operated at any time. Press and hold the extend or release buttons for the individual jacks as needed to keep the front of the camper 4" higher than the rear, to prevent tipping over the camper. Keep all corners within 4" of level with each other.

CAUTION **PERSONAL INJURY & PRODUCT DAMAGE**

- Do not enter camper after it is removed from truck until it is lowered to its lowest position. This will minimize sway which could cause structural damage to the camper, jacks or injury to persons.

TO LOWER

RETRACT REAR JACKS FIRST



Retract rear jacks so camper is 4" lower in rear than in the front. (FIG 3).

RETRACT ALL JACKS



Once the camper has the rear lower than the front, press and hold the ALL JACKS BUTTON, retract (A). Release when the camper is at the proper height.

INDIVIDUAL JACK ADJUSTMENT



Use the individual jacks buttons to adjust an individual jack. NOTE: A maximum of two individual jacks can be operated at one time. Keep all corners within 4" of level with each other.

REMOVING CAMPER FROM TRUCK

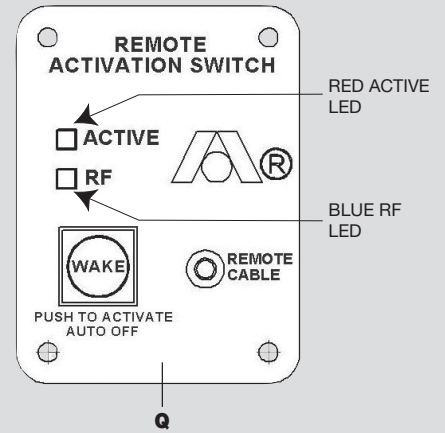
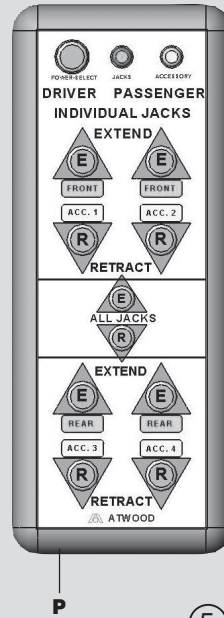
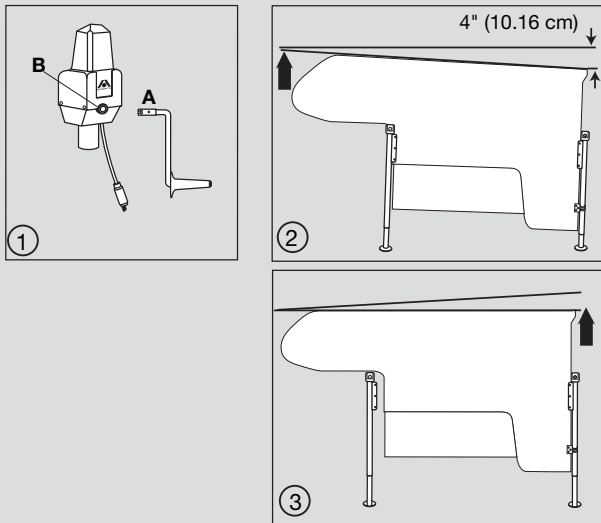
Disconnect electrical connection between camper and truck (refer to your camper operation instructions or contact the camper manufacturer for more information). Follow the instructions from the "TO LIFT" or "TO LOWER TRUCK CAMPER" sections and FIG 2 and 3. Raise camper until bottom of camper clears truck bed. Slowly drive truck from underneath camper. Lower camper to lowest possible position without any part of camper touching the ground.

LOADING CAMPER ON TRUCK

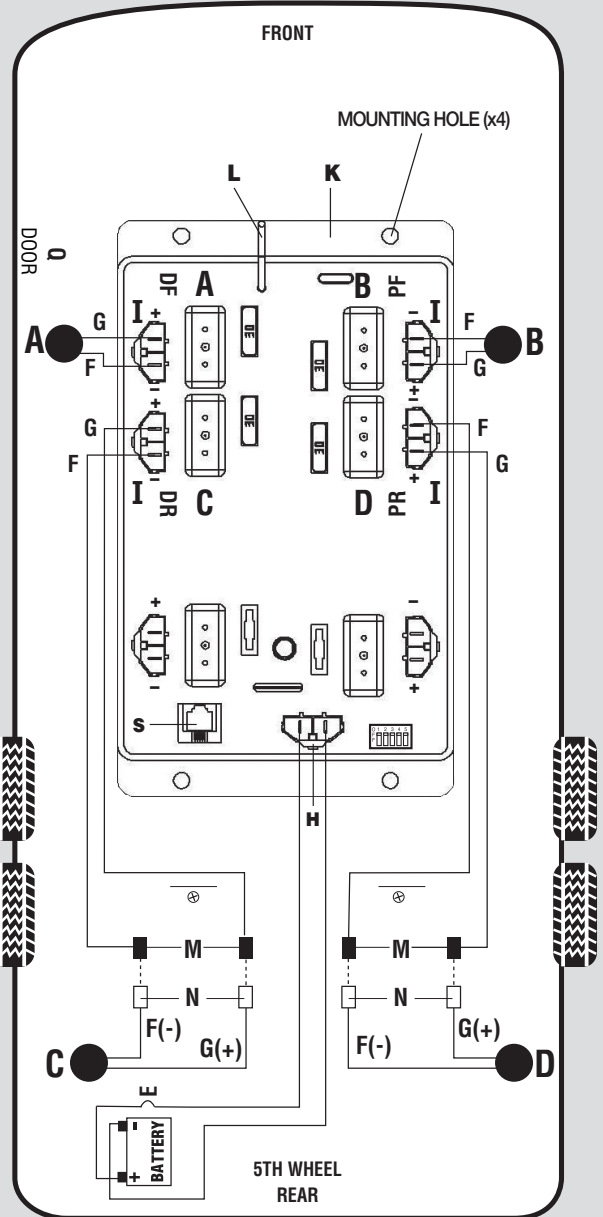
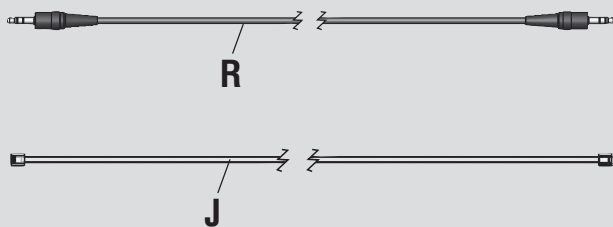
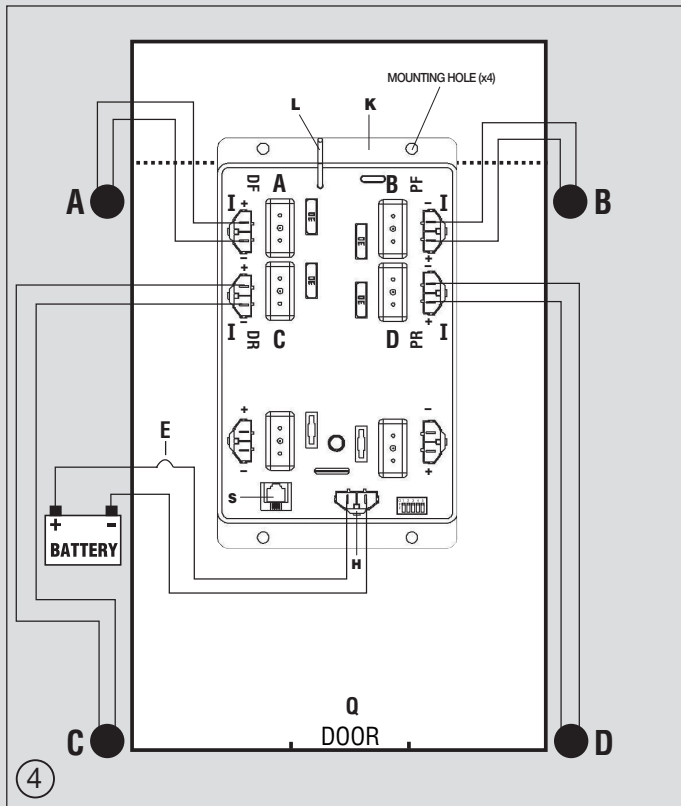
Following the instructions "TO LIFT" or "TO LOWER" truck camper sections and FIG 2 and 3, raise camper high enough to clear truck bed. Carefully back truck under camper making sure not to damage any portion of the camper or jacks. Camper should be centered in truck bed with front of camper as far forward in truck bed as possible. Attach electrical connections between truck and camper, (refer to your camper operating instructions or contact the camper manufacturer for further information). Lower camper into truck bed, then fully retract all jacks.

Manual Override Operation: To manually extend or retract jack, unplug jack from camper to disable the jack motor's dynamic brake. Place manual override handle (FIG 1-A) into alignment tube (FIG 1-B) and engage drive pin. Rotate handle counter-clockwise to raise or clockwise to lower camper. Plug the jack back into camper to activate the jack motor's dynamic brake.

PICKUP CAMPERS



5th WHEEL TRAILERS



TROUBLESHOOTING

If all or any of the jacks or landing legs fail to operate:

1. Check whether the 12VDC battery is fully charged. You may need to recharge it.
2. Check that the camper jack cords are securely plugged into the exterior sockets. You may need to pull a plug out and replug it.
3. If the motor will not extend/retract the jack and the motor is making a ratcheting sound (clutch slipping), do not use the manual override. Immediately contact an Atwood Service Center and have jack replaced. Do not use the jack until replaced.
4. Assure the activation switch is turned on. The LED on the switch pad should be lit.
5. Check that you are within 20 feet of the camper.
6. Replace the 9V battery or plug the audio cable (R) into the side of the remote (P) and the opposite end into the front of the activation switch (Q).
7. Check that the battery terminals are clean and have no corrosion.
8. Look to see if other radio frequency devices such as an automobile key fob, cellular phone, TV remote control, are operating within range of your remote. These devices will make the jacks pause. Lift your finger from the button on the remote and re-press the button. Also the audio cable can carry the signal, plug the audio cable (R) into the side of the remote (P) and the opposite end into the front of the activation switch.

If the jacks keep running, hold down the power-select on the remote until the LED turns off. This will shut the power off to the jacks. If not, unplug the jack(s) from its (their) exterior socket(s).

REMOTE ACTIVATION SWITCH

- Red ACTIVE LED
 - SOLID - system is active and ready for operation
 - OFF - system is in sleep mode
 - Fast continuous blinking - system is in LEARN TRANSMITTER mode
 - 1x blink with pause - low voltage detected - no operation allowed
 - 2x blink with pause - no transmitter is associated with the base unit (shipment mode). A transmitter must be associated with the base unit before operation is allowed. See installation section.
- Blue RF LED
 - SOLID - indicates presence of clean RF signal from associated transmitter
 - Blinking - indicates RF interference from another transmitter (more than 1 transmitter is operating nearby)
 - OFF - no RF signal detected

MAINTENANCE

1. To clean the remote, wipe with a soft cloth dampened with water. Don't use cleaners or solvents on the remote, they can harm the body and leak inside, causing permanent damage. Battery contacts may be wiped with a dry, lint-free cloth.
2. If the remote gets wet, remove batteries immediately. Dry battery compartment with a soft cloth to minimize potential water damage. Leave cover off the battery compartment overnight or until completely dry. Do not use the remote until completely dry.
3. If power relay module gets wet, turn off circuit breaker to the unit. Allow unit to fully dry before attempting to use it.
4. If it is not possible to get jack to operate freely, replace jack.



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Follow proper safety practices. If in doubt, consult a professional RV technician.