



8k Auto System Owner's Manual



QUADRA

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AUTO / MANUAL PANEL OPERATION



FIVE EASY STEPS:

1. Turn panel/system on and let system run through its diagnostic mode. Lights will flash clockwise around the green foot.
2. When the lights stop flashing, it's time to choose your function (MANUAL or AUTOMATIC). If choosing MANUAL, push button and hold until light comes on. For AUTOMATIC, push once and release.
3. When in the MANUAL mode, each leveler may be operated individually. FRONT operates right front. RIGHT operates right rear. REAR operates left rear. LEFT operates left front. When using this feature it is important to level the coach by using two levelers at a time or together. For example, right front and right rear.
4. When using the AUTOMATIC feature, simply push the AUTO button and then let the system operate itself. It is important at this time that there is NO MOVEMENT IN THE COACH.
5. Retracting levelers: When in the MANUAL mode, push the RETRACT button and hold until desired levelers are retracted. When in the AUTO mode, simply push the RETRACT button one time.

HOW TO PROGRAM "AUTO" SYSTEMS

- Turn panel/system on and let system run through its diagnostic mode. Lights will flash clockwise around the green foot.
- When the lights stop flashing, push the button labeled "FRONT" 5 times. Then press the button labeled "REAR" 5 times. Once you have done this all lights on panel will begin to flash. This means you have reached in the system what is called zero mode.
- At this time you can operate each corner or pair of levelers individually. For example:
 - Front indicator operates the right front.
 - Right operates the right rear.
 - Rear operates the left rear.
 - Left operates the left front.

IMPORTANT: IT IS RECOMMENDED TO LOWER 2 LEVELERS AT A TIME. FOR EXAMPLE, LOWER LEFT FRONT AND RIGHT FRONT TOGETHER OR RIGHT FRONT AND RIGHT REAR. DOING SO WILL AVOID RAISING ONE PARTICULAR CORNER AT A TIME.

- Once you have the coach level, you can now STORE a new program into the system. To do so, push the retract button 3 times. If you wish to store the AIR DUMP MODE press the same button again 3 times.

NOTE: STORING THE AIR DUMP MODE IS ONLY NECESSARY ON UNITS THAT ARE AIR RIDE EQUIPPED. IF YOU ARE NOT STORING THIS FEATURE, SIMPLY WAIT TO ALLOW THE AIR DUMP LIGHT TO STOP FLASHING.

- If you do not want to store a new program, simply use the MANUAL RETRACT feature to avoid changing the original program.

FULLY-AUTOMATIC CONTROL PANEL WITH SENSOR

STEP 1: TURN THE SYSTEM POWER ON

- On initial start-up, turn the panel on and leave it on for five minutes. The panel will go through a *self-diagnostic mode*. The LED's of the level indicator will cycle and the center logo will flash. This process will last for 30 seconds during which time you will not be able to operate the panel. The panel will then enter *zero mode* and all LED's except the "all up" LED will be flashing.

THE PANEL WILL ENTER A SELF-DIAGNOSTIC MODE EVERY TIME THE POWER IS TURNED ON REGARDLESS OF WHAT MODE THE PANEL IS IN. IT WILL LAST 30 SECONDS.

ZERO MODE: THE CONTROL PANELS ARE SHIPPED IN WHAT IS REFERRED TO AS ZERO MODE. THIS ALLOWS THE INSTALLER TO PROGRAM THE SENSOR AT THE DESIRED LEVEL REFERENCE.

BLEEDING AIR FROM LINES

UPON COMPLETION OF SYSTEM INSTALLATION, BUT BEFORE PROGRAMMING THE SENSOR, THE AIR MUST BE PURGED OUT OF THE LINES AND CYLINDERS FOR PROPER OPERATION OF THE SYSTEM.

- Raise the vehicle off of the ground far enough to fully extend the cylinders without touching the ground (use a hydraulic hoist or drive onto ramps).
- Fully extend each cylinder until you hear the pump motor strain. Achieve full extension without feet touching the ground. **(LEAVE FULLY EXTENDED FOR 15 MINUTES)**
- Fully retract cylinders and check fluid level, using the manual retractor feature. If necessary, fill reservoir to measure $\frac{3}{4}$ " from the top.
- Repeat process as necessary.

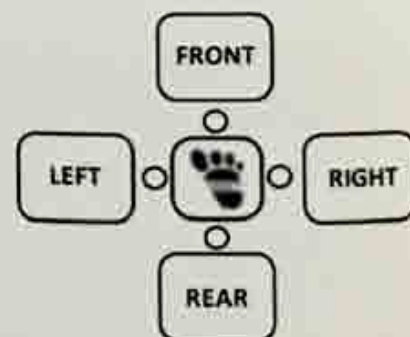
STEP 2: PLACE TEMPORARY LEVELS

- Place two temporary levels in the vehicle. (Suggested location for placement of levels is on the kitchen counter next to the stove or in the bottom of the refrigerator.) One should be placed to indicate "level" front to rear and the other to indicate "level" from side to side.

STEP 3: ESTABLISH GROUND CONTACT

- Extend each leveler individually until they touch the ground. You are still in zero mode. This is the only time the panel will allow you to extend the levelers individually.
- The four touch pads of the level indicator will serve to operate each leveler individually. Consult the following diagram to determine which touch pad controls which leveler.

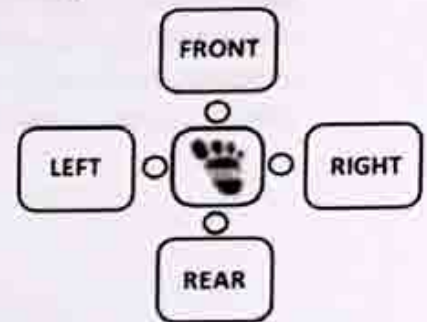
FRONT – RIGHT FRONT LEVELER
LEFT – LEFT FRONT LEVELER
RIGHT – RIGHT REAR LEVELER
REAR – LEFT REAR LEVELER



STEP 4: LEVEL THE UNIT

- After you have established ground contact with each individual leveler, operate the levelers in pairs by pressing two touch pads at a time to level the unit. Repeat as necessary until temporary reference levels read level in both front to rear and right to left. Consult the following diagram to determine which touch pads will control which pairs.

FRONT & LEFT – FRONT PAIR
FRONT & RIGHT – RIGHT SIDE PAIR
REAR & RIGHT – REAR PAIR
REAR & LEFT – LEFT SIDE PAIR



NOTE: READ STEP 6 BEFORE READING STEP 5.

STEP 5: PROGRAM SENSOR

- Wait 30 seconds after getting the unit level and then press the RETRACT touch pad on the control panel three times. The unit is now programmed with its level reference.

STEP 6: AIR DUMP OPTION

- After the RETRACT touch pad has been pressed three times and the unit is programmed with its level point the air dump LED will begin to flash. It will flash for twenty seconds.
- If the unit has air dumps you must press the retract touch pad an additional three times to program that option before the LED has stopped flashing.
- If the unit does not have air dumps then wait twenty seconds for the LED to stop flashing, also at this time the green level light should be flashing.

STEP 7: PRESS THE RETRACT TOUCH PAD

- In automatic mode you only need to push the touch pad once to retract.
- Proceed to the operating instructions.

RE-PROGRAMMING THE PANEL AND SENSOR

- To return to zero mode.... Turn panel off, wait 5 seconds.
- Turn panel on, wait 30 seconds for the self-diagnostics to complete.
- Then press the FRONT touch pad five times and then the REAR touch pad five times (within 10 seconds).
- All the LED lights, except the all up LED, will flash indicating a zero mode.
- Refer to step 3 to finish re-programming sensor.

Troubleshooting

This is a guideline to help figure out what is wrong with the system, and what you can do to fix or prevent problems from occurring.



Call: (269) 483-9633 or 1(800) 752-9815

What Hydraulic Fluid do I use?

Automatic Transmission Fluid (ATF): Dexron II, Dexron III, ATF+4, Mercon, Mercon V

Panel won't turn on, system won't run, clicking noise...

Battery low, panel won't turn on = coach battery, the rest of system relies on house battery. The battery needs to be 100% charged for the system to work, it doesn't make a difference if the coach is new, that doesn't mean the battery is fully charged or even good. Battery's don't charge instantaneously, so one can't just expect to hook it up to a charger and the system will work immediately, they can un-plug/re-plug their battery gauges to show the true charge. If the battery does for sure sound good, then the unit might have a ground issue. SEE DO IT YOURSELF SECTION

Cylinders won't retract...

Broken/crushed limit switches, bent or broken clevis pins (especially rear jacks on fifth wheel)
Limit Switch barrels mounted too low, 1" is bad, 1 1/4" is good (Manufacturing defect).
Need new Limit Switches, Clevis pins & Limit Switch Washers (one of each per cylinder). SEE DO IT YOURSELF SECTION

Medium Tank Assembly (Plastic Reservoir)

Plastic Foaming of fluid or overflow in reservoir....

- Check fluid level of reservoir with legs retracted (should be 3/4"-1" below top).
 - Rear jacks on fifth wheel?... Does it have red caps?... Send Blue Caps
 - The blue cap might be down too far into the hole of the reservoir... This blocks the air ventilation and causes the fluid to foam or overflow... Most of the cap should be sticking above the hole; it just needs to be "snug".
-

Cylinders *(Prior to 2008, cylinders only have 5 year warranty)*

Cylinders "creep" down when not in use... Check fluid level, OR Bleed System (there is air in the system)

Cylinders make loud "squeaking" noise while operating... Spray rams with Teflon spray (or dry lubricant).

Hydraulic Fluid on footpad or on ground around cylinder... Loose fitting or broken hydraulic line.

Cylinders "creep" down or don't hold pressure when lifting/holding coach...

- Check fluid level
- Check for leaks in hydraulic lines/fittings... if lines damaged, have them measure and send replacements
- Possibly plumbed backwards... (Bottom port on cylinder tube connects to right port on pump, etc.)
- Relief Valves have failed on pump motor... replace motor/return it to Quadra
- Hydraulic seal failure, check for oil around bottom of cylinder... replace/return cylinder OR seal kit

Control Panel

Panel won't turn on... Coach battery is low OR Check vehicle fuse panel (check all fuses).

No "All Up" light... Loose footpad or Limit Switch has failed (either bad switch / broken pin / mounted too low)

Panel is on, but...

Clicking sound under coach... House battery low OR circuit breaker has tripped, Pre-2001 then there is a manual switch on the breaker to reset, After 2001 then it is automatic and just wait a moment and it will reset by itself.

No diagnostic cycle (when lights flash clockwise around Bigfoot logo)... If it won't work then the Ignition switch is on, if just the "All Up" light is on then it could be bad sensor.

Front & Rear lights flashing... House battery low (at least when system is operating), charge battery & unplug interface cable (harness from sensor to panel) at the sensor for 5 seconds, plug back in.

Left & Right lights flashing... Sensor timed out (make sure there is no movement while leveling) OR the cylinders have "stroked out", (front could be too high on 5th wheel) Turn system off/on. OR check fuses

All lights are flashing... Panel needs to be re-programmed, see manual for instructions OR sensor bracket isn't tightened down or fastened correctly, check/re-tighten.

Won't go into Manual Mode... Press/hold Manual button for 4 seconds, if still won't work new panel (auto/man)

Only "Emergency Retract" light flashes... try unplugging sensor for 30 mins, if still won't work replace panel/sensor

Panel Buzzer sounds with engine running... Loose footpad or Bad Limit Switch; Do a visual check to verify all levelers are all the way up before moving coach, OR unplug/re-plug 14-pin harness from sensor. "All Up" light must be on for system to work in automatic mode.

AIR DUMP & ALL UP lights flash... Communication error... Replace interface cable/sensor/panel.

Do It Yourself

Limit Switches

- ▶ Installation: Apply Dielectric Grease to the limit switch ball & surrounding area & the clevis pin itself.
- ▶ Maintenance: Spray clevis pin with Teflon Spray or apply grease again. You should **annually** detach the limit switch assembly and re-grease the ball.

Tank Assembly

- ▶ Installation: Apply a separate ground (4/6 gauge wire) directly to frame (unpainted area) to get the best ground possible.
- ▶ Fluid: Check fluid levels (3/4" to 1" below top) ATF (See Troubleshooting)

MECHANICAL / HYDRAULIC TROUBLE SHOOTING

Possible Cause	Low fluid level.	Air in hydraulic system: bleed system.	Loose or broken hydraulic line or fittings, tank	Hydraulic lines and control wires reversed : extend to	Spray rams with dry type silicone spray.	Leveler may be in a bind due to full extension, relieve pressure by placing wood block under opposite leveler
Pump runs, but leveler won't retract or extend.	X					X
One or more levelers are fully extended and will not retract.	X	X				X
Levelers creep down while driving or parked.	X	X				
Levelers creep up when leveled.		X				
Fluid on footpad or ground around leveler.			X			
Leveler touches down, but will not lift coach.		X		X		
Leveler makes screeching or groaning sound while extending and retracting.					X	

MECHANICAL / HYDRAULIC TROUBLE SHOOTING

Possible Cause	No "All Up" light. Visually check levelers are completely retracted before moving.	Air dump not programmed into sensor. See Panel programming section.	Push and hold manual button for 5 seconds.	Zero mode, sensor needs programming see panel programming section.	Sensor timed out, parking spot more than 5" out of level	Sensor timed out. Make sure no one is moving about while leveling.	Check vehicle fuse panel & check for loose under dash wiring.	Loose footpad or bad limit switch.	System battery cable connected to negative battery terminal.	Ignition switch on or acc.	House battery low.	Circuit breaker tripped. Breaker will be close to battery.
Panel won't turn on.							X				X	
Panel is on, clicking sound under coach.									X		X	X
No "All Up" light.								X				
Panel on, no diagnostic cycle (auto									X			
Panel on, front and rear lights flashing.											X	
Panel on, left and right light flashing.							X					
Panel on, all lights flashing.												X
Panel wont go into manual mode (auto panel												X
No air dump (Air ride coaches and tour buses with auto panel).												X
Panel buzzer goes off with engine running.								X				X

Warranty Guide

4pt Auto Systems: Limited 2 years on parts and labor.

Should the product be defective due to workmanship and/or material flaws, we will repair or replace the defective material.

Quadra is NOT responsible for:

- › Freight on warranty parts.
- › Replacing footpads, bolts, or fluids lost as a result of failure to maintain the system (Loose footpads should be tightened at owner's expense).
- › Damages caused by abuse, misuse, negligence, misapplication, error of operation, accidental or purposeful damage or faulty installation. Including but limited to hoses, fittings & wiring components.
- › Liability for loss to the vehicle, or apparatus or property, loss of time, manufacturing costs, labor, material, loss of profits, consequential damages (direct or indirect).
- › For transportation to and from a service center, onsite service calls to or from the customer, damage from road hazard, loss of salaries, commissions, lodging, towing charges, bus fares, car rentals, fuel expense, telephone charges, inconvenience compensation while repairing or replacing a defective part or material.

This warranty voids all previous issues. Effective date: 9/1/11

OWNERSHIP MUST BE REGISTERED WITHIN 30 DAYS FROM THE DATE OF PURCHASE TO ACTIVATE WARRANTY.

Prior to any work being done an **authorization number must be obtained** by calling 269-483-9633 for Warranty Parts or Service Labor. For full warranty transcript just contact us!

Service labor based on a flat rate schedule determined by Quadra for **authorized** work performed will be reimbursed. This will eliminate much diagnostic time and avoid **refusal of unauthorized claims**. Many problems may be resolved by contacting a Quadra service representative.

Credit card payment arrangements at time of order will be nullified upon our receipt of your defective parts. **All returned parts need to have the repair authorization number** and be received within 30 days of original order to avoid charges.

Provide the system serial number here _____.

Emergency Service

For after hours emergency service please call our normal office number

269-483-9633 and follow the instructions.