



2010 43QGP Allegro Bus

2/3/2016

135 - FYI – REPLACING THE AQUA-HOT CONTROL BOARD.

Before getting into the replacement of the board I'll take a short tour through history. During January each year we make a trip to Tampa, Florida to attend a couple of days at the Tampa RV Super Show, usually arriving on Sunday before the Super show. This year started as previous years, we finally got into a site large enough for our coach at Lazydays everything connected the Aqua-Hot electric water heating element switch was turned ON.

Time to go shopping that is its time for me to chauffeur Ms. Cathey around to various stores for her to shop. Later after returning to the coach it was time to take our showers. After what happened on this trip I will be taking my shower FIRST on future trips. About the time Cathey had soaped herself up good the HOT water turned to COLD water, that loud scream everyone heard on January 10, 2016 in Tampa was Cathey's reaction to instant chill. Guess who got to take a cold shower later.

As a regular part of setting up the coach during parking, the water heater's electric element switch is turned ON. When the switch is turned ON the switch is backlit displaying the switch in RED, as in past times the switches interior light showed the element as being operational.

At this point it is getting late, after first checking the AC current draw on the electrical panel and not seeing a change in the current draw when the switch was turned OFF then back ON it was time to check the Aqua-Hot control board for lights. It did not take long for me to check and see NO lights illuminated on the panel. Using a meter to check for DC power to the control board showed no power getting to the board. Time to check the circuit breaker located in the passenger side rear compartment, those DC circuit breakers on our coach are ALL MANUAL reset circuit breakers. The circuit breaker controlling power to the Aqua-Hot on our coach is buried behind wiring near the top of the compartment. The circuit breaker would not reset, the circuit breaker tripped when my finger was removed from the reset button.

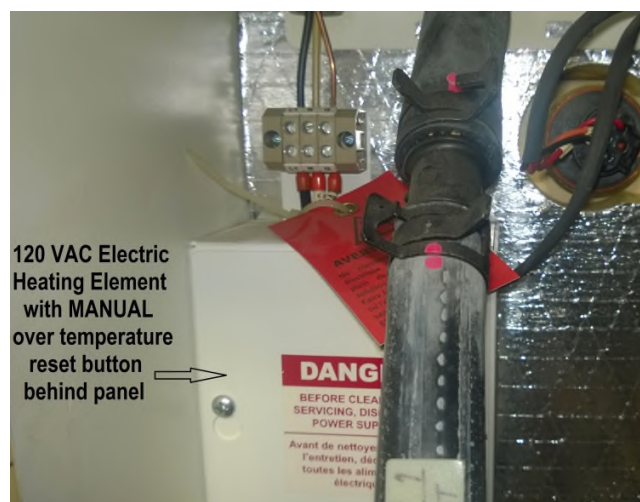
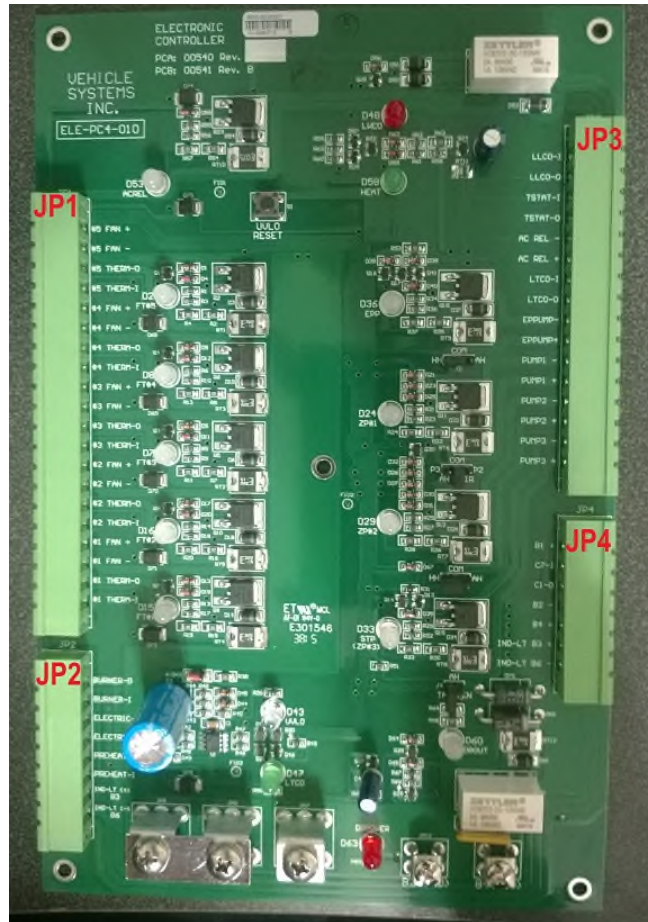
At this point I decided the problem was not going to be resolved before the next day, Monday.

Monday came, after disconnecting the four terminal strips (J1 – J4) along both sides of the control board along with the 12 volt + and – connections,

the next step was to check the resistance between the control board's positive and negative connections, that check confirmed the control board was toast as the meter showed a SHORT in the board.

Thinking I might get away with a work around for a couple of days, I disconnected the 120 volt electric power to the electric element in the Aqua-Hot bypassing the Aqua-Hot control board and wired the heating element direct to 120 VAC. After making the electrical connection **bypassing** the Aqua-Hot the coach 50 Amp PCI electric panel was checked making sure the electric heating element was pulling current. The panel showed the heating element was pulling amperage, based on that, I assumed we would have hot water for our showers tonight.

I felt pretty good about my electric element work around hoping to further delay replacing the Aqua-Hot control board until after we returned home. Cathey did not even get into the shower before I heard her tell me there was NO hot water. Two days in a row I was in the dog house, not really we had fun dipping a wash cloth in a pot of hot water to bathe brings back really old camping memories. It was late so we just decided to forget about the Aqua-Hot until the next day, Tuesday.



In my haste to get power to the electric element I forgot about the Aqua Hot's stir pump for the hot water, the electric element worked well until the water got hot enough to trip the safety feature on the electric element. When the water got TOO hot in the small cavity (no stir pump operation) the over temperature feature tripped the MANUAL reset high temperature feature on the electric element.

So now it is Tuesday, the Tampa Super Show begins tomorrow, after searching all of our local options (Lazy Days, Camping World) for an Aqua-Hot control board, I contacted Roger Berke (Aqua-Hot tech) about our problem. After a few back and forth e-mails Roger confirmed the electrical board was BAD, the only option was to replace the control board. After posting our problem on the TRVN forum I got a quick response from Griff stating he had a bad board and Tiffin charged him around \$ 340.00 for a new board. Rather than deal with Tiffin and their shipping department I ordered a new board from Roger paying \$ 400.00 thru PayPal with free shipping.

The following two nights we resorted to the old and tried method called PTA, cleaning the most needy body parts to a wash cloth bath.

After attending two full days of the Super Show and having seen everything we came to see it was decided at 3:00 PM on Thursday to head home forfeiting Thursday night's stay at Lazydays for the comforts of home base only three hours away.

