

Whole Latte Love

Brewtus I & II to PID Conversion Kit and Instructions (1-15-11)

The following are basic instructions that will show how to install the Gicar PID control system into a Brewtus I and Brewtus II.

This is not a step by step guide but it will show you what has to be done. The job will require some basic mechanical and electrical skills. If you don't feel comfortable we recommend that you send the machine in and we can do the job for you.

Before you do anything please familiarize your self with the project and the wiring instructions.

Note: Not included with this kit is a small amount of Teflon Tape.

First:

Unplug the machine, let it cool down and then remove the back panel by removing 5 philips head screws, two on the left, two on the right and one in back. Then remove the reservoir holder by removing two allen screws on the bottom left side and two Phillips head screws on top.

Second:

Look on the back of the AKO Digital Controller and notice how the terminals are wired. I recommend that you take some tape and label the wires with those numbers (6,7,8 and 9). Do not remove the tape with the numbers until the installation is complete and has been tested. On the wiring diagram below you will see how these wires connect to the new Gicar PID controller. The two wires that lead to the boiler temperature sensor will be discarded; a new sensor will be installed.

Third:

You can now proceed with the installation. Remove the wires from AKO controller and remove the AKO controller from the housing; you will see two clips on the sides that hold it in place. Slide the new Gicar PID into the opening where the AKO controller was. Install the Solid State Relay with heat transfer compound under it with the nuts and bolts provided. (See image below)

Fourth:

Run the wires as shown in the diagram. We have supplied two crimp style wire connectors and some heat shrink to cover them. The wires are pre cut to size to assist. Run the wires that are installed into the Gicar PID through the opening on the back of the control box. Some of the wires in the images below are blue but we have supplied only white wires. After the wires are fastened, install the back of the Gicar PID (two screws).

Fifth:

You will have to remove the existing temperature sensor and the well that it fits into and install the new one. You will need a 17mm wrench and some Teflon tape. Be careful not to put on too much of the Teflon tape. Then slide the wire connector on the boiler temperature sensor wire into the receptacle on the Gicar PID.

Sixth:

Review the installation you just completed and make sure it all looks good. Put the machine back together and turn it on. The PID is all programmed; you should not have to do anything other than set the temperature to where you want it.

Operating the PID control:

Adjusting the Temperature

Press the “v” key. When the display shows “PrG”, press “^” key. When the display shows the set point temperature, use the keys “^” and “v” to change set point temperature. After 3 seconds from the last press of the key, the data is memorized and the display shows the temperature.

To Turn off the Brew Boil (the only reason to do this is if you want to just steam milk or dispense hot water)

Press Key “^” for 2 seconds and the display will show OFF. To turn the brew boiler back on push and hold the “^” key for three seconds.

Note: You will see a small red light flashing on the PID controller. When this light is on the PID controller is attempting to send power to the heating element. It is normal for it to flash in what I would call a unpredictable pattern.

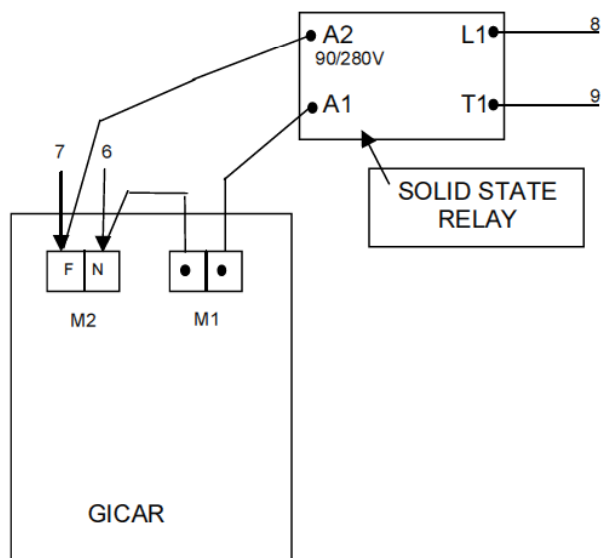
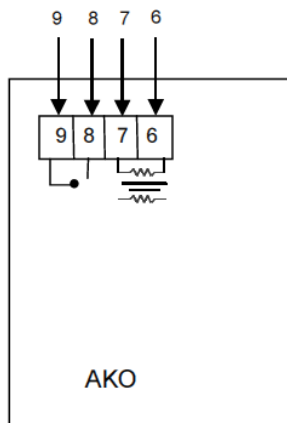
These are the parts that will come with the PID Conversion Kit.

QTY	SKU	DESCRIPTION
1	60100076	Boiler Temperature Probe
1	60800100	Static Relay
1	10200120	Gicar PID Display
1	60800103	RELAY PROTECTION BOX
3	45001150	16 " Heavy Gauge White Wire
1	45001150	8" Heavy Gauge White Wire
1	45001150	3" Heavy gauge White Wire
2	25091220	ALLEN SCREW 5X12 DIN-912
2	25093410	HEXAGONAL NUT M-5 DIN-034
2	MC-7864K32	2" HEAT SHRINK
2	MISC	WIRE CONNECTORS
1	MISC	1 OZ HEAT TRANSFER COMPOUND

CHANGE OF THE "AKO" CONTROLLER TO "GICAR

(DIAGRAM)

OFFICE LEVA 2B 110V/220V



Note: Some wires shown here are blue but we have supplied only white wires.

Temperature sensor

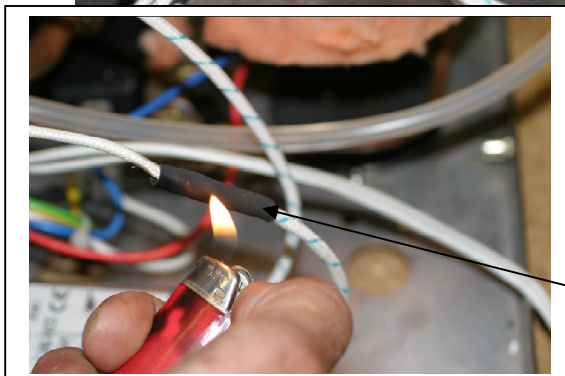
3" White Wire

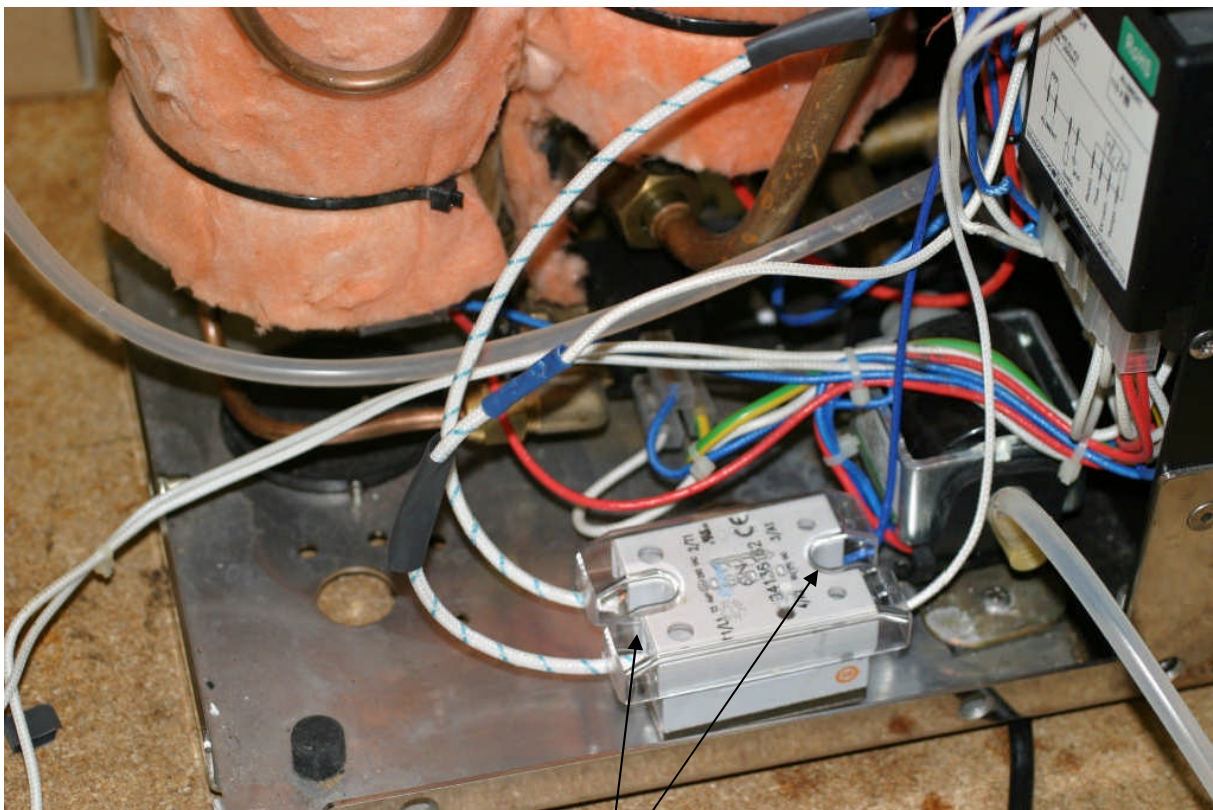
Two crimp style wire connectors and heat shrink

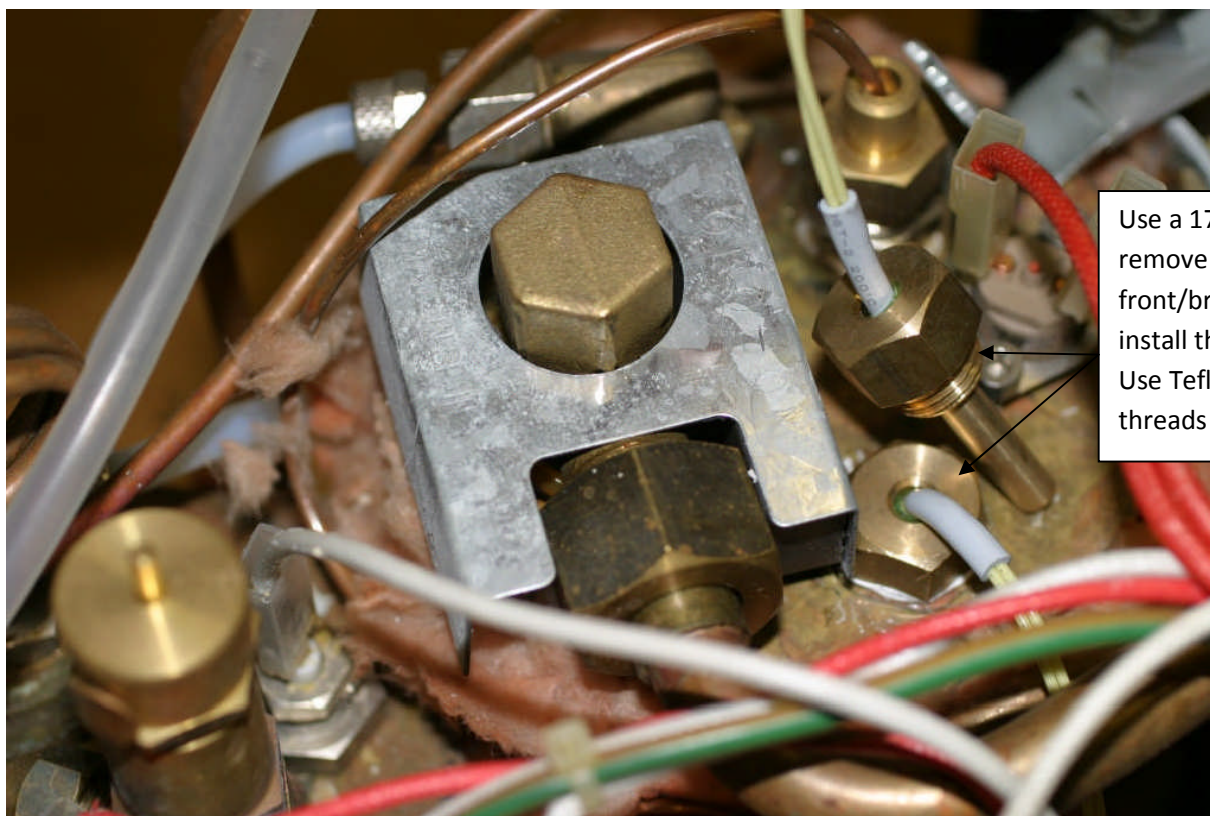
Three 16" White wires

8" White Wire

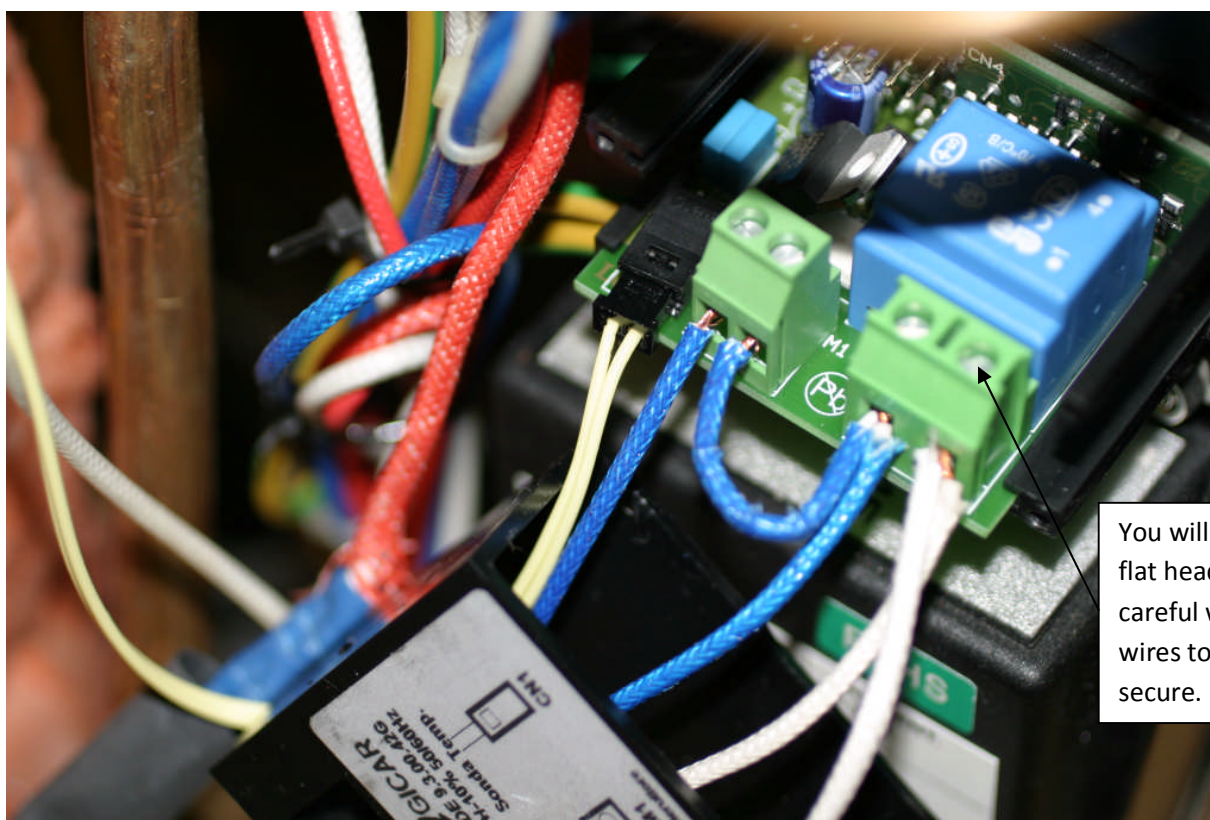
Use lighter to carefully shrink the "heat shrink" cover over the crimp style wire connectors







Use a 17mm wrench to remove old sensor on the front/brew boiler and install the new sensor. Use Teflon tape on the threads (not included)



You will need a very small flat headed screw driver. Be careful when you install the wires to make sure they are secure.