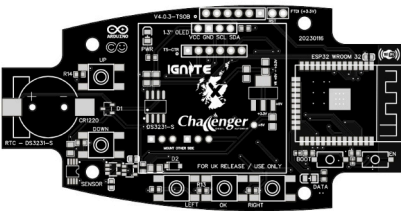




Advanced thermostatic / timer controller

## Installation Instructions

please retain for future use



For connection to compatible digitally controlled Diesel air heaters



Affix code here



IGNITE built in WIFI  
SSID and password



DO NOT ATTEMPT TO LOAD 3RD PARTY  
SOFTWARE TO THIS CONTROLLER, IT WILL  
NOT FUNCTION



Full instruction / user  
manual Download



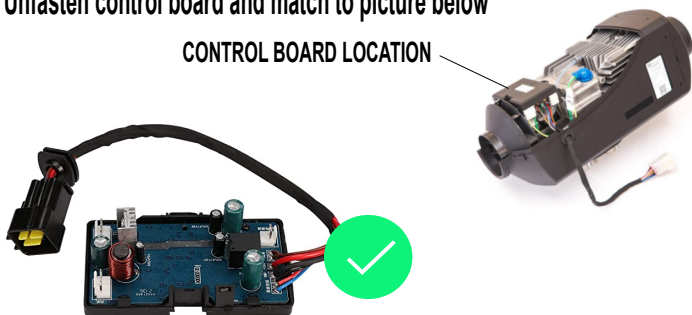
SCAN ME

## PRE INSTALLATION CHECKLIST

Ignite only works with compatible digitally controlled Chinese diesel heaters. Not all heaters are digitally controlled. The best discriminator is to inspect the control board housed within the heater unit. If it looks like the picture below with green tick, then your heater is compatible and will work with this controller.

Unfasten control board and match to picture below

CONTROL BOARD LOCATION



### E07 error

If during installation you see an **E07** error on the LCD display of the ignite controller, this means that your existing heater CPU is NOT compatible. For the Ignite controller to function, this will need to be changed to a compatible digital heater CPU. These can be purchased on eBay / Amazon. There is a link on our Ignite controllers detail page on our website. (We do not supply these CPU's)

### Heater fuel pump

If your existing controller cannot provide your pump fuel settings you will need to locate the pump and check what size it is for fuel delivery. It will be expressed in .ML

Normally it will be either .22ML or .18ML. If .22ML you can use the provided chart to obtain a working set of fuel / fan rates. If you have .18ML or any other size, you will need to contact the heater manufacturer to obtain the required fuel rate settings.

We accept **NO liability** for fuel pump rate / settings, these are provided to assist, but should be checked as being adequate for your installed heater.

### Optional additional temperature sensor

If connected the additional temperature sensor should be fitted internal to the living space being heated. Ideal location is at head height if possible.

Additional sensor is best advice to provide frost protection

Prior to commencing installation, please ensure that you take a note of your existing controllers fuel settings, Pump Min, Pump Max, Fan Min and Fan Max If you cannot access this detail. Use data provided below as a guide.

## Existing heater fuel settings:

PMin  PMax  Fan Min  Fan Max

## 5 KW Heater (75mm ducting)

1.5 hz	1680 rpm	low	to 2500ft
4.8 hz	4500 rpm	high	

## 2 KW Heater (65mm ducting)

1.0 hz	1500 rpm	low	To 2500ft
3.3 hz	4500 rpm	high	

Pump calculations above assume a .22ml pump fitted. If other size is fitted you will need to obtain correct settings. Pump size should be located on your actual fuel pump body.

## Okay now that's out the way, lets get your Ignite controller installed.



Remove the inline fuse for the heater and unplug the large connector block at the heater.  
**DO NOT POWER YOUR HEATER ON AGAIN** until instructed to do so.

## Initial steps

Locate the cable from the existing controller to the heater. Normally within 300mm of the existing controller there will be a cable triangular 3 pin connector.

1. Remove this connection. You should now have the cable from your heater with a triangular connector.
2. Once new controller has been fitted, connect the cable loom from it to the existing connector on the heater wiring loom.
3. Reconnect large connector block on the heater and replace inline fuse to fuse holder.
4. New WiFi controller should now power up. Your heater may start and immediately shut down when power is applied. This is normal. Wait for it to finish shutdown. **If you see error E07 your CPU is incompatible or not connected correctly, check the 3 wire connector.**
5. Now follow the correct connection type. Ignore all other warnings at this stage if presented.



## Connection type

The Challenger WiFi controller is a fully capable communications device. It can operate as an independent WiFi server. It creates its own local WiFi network with no internet access. Or as an access point to your chosen internet connected WiFi router.

### Direct WiFi Connection (No internet) To mobile device (phone / tablet)

LOCAL



On your mobile device connect to the IGNITE wifi network. Password is located on rear of the controller and on cover of these instructions.

(ON YOUR MOBILE DEVICE go to -SETTINGS, WIFI CONNECTIONS, select Ignite network. If prompted allow yes, if prompted, yes to continue using wifi.)

Once connected to the IGNITE WiFi network, open your browser and go to **192.168.4.1**

If asked "keep using WiFi, say yes. Save this page to your desktop. You are now connected. \*\*\* IF CONTROLLER SUPPLY ONLY NOW JUMP TO NEXT PAGE IF YOU ARE NOT CONNECTING TO AN EXISTING WIFI ROUTER.

### Connecting to your existing internet Router or WiFi router



On the Ignite controller press the right arrow 3 times.

Press up arrow to move to System Settings.

Press right arrow to WiFi settings screen.

Now press the up arrow to change the mode to CFG AP from AP.

Press the on / off button and save. Ignite controller will now reboot.

Connect to Ignite network entering WiFi password.

WiFi config screen should now appear on your phone/ tablet screen.

Press configure wifi button, Select your WiFi network and add your password. Now save. Controller will reboot again

From the controller again press the right arrow to navigate back to the Wifi Settings, note the STA IP address in the box as shown



**Add your displayed STA IP address here:**

On your mobile device input the noted STA IP address address in your browser, you will then be presented with the Ignite WiFi main screen.

Book mark this address or save to your desktop for easy repeat access.

**CONTINUE TO NEXT PAGE IF NOT INSTALLED BY US.**

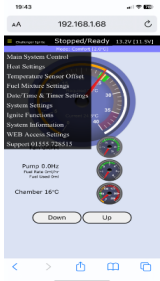
# If controller was supply only, once connected to either WiFi method, proceed with setup below

From the menu at the top left of your phone / tablet device screen, select System Settings.

Now press the enable button.

You will need to input the password **4682**.

Now again from the menu, select Fuel Mixture Settings. These need to be changed to the defaults for the size of your heater.



**\*\* FAILURE TO ADD CORRECT FUEL SETTINGS CAN CAUSE DAMAGE TO YOUR HEATER. \*\***

From the menu, now select Date /Time. Once displayed, press Update Time Button to set your new controller to the correct time from your connected device. If unit does not keep time when pwr is disconnected, replace backup battery.

## Temperature sensor:

Your new Ignite controller can have multiple temperature sensors, the default on board temperature sensor will need to be offset to give a more accurate in vehicle temperature reading. We recommend that the new Ignite controller is placed in the vehicle for approx 15 minutes to allow it to acclimatise.

From an independent temperature gauge, take a reading and then offset the onboard temperature sensor to match your independent gauge. Under normal circumstances the offset should be around -7.2 (minus) to allow for heat within the actual Ignite casing. This only needs to be completed once on first installation.

From the menu, now select Home. The main screen will now be displayed. To start your heater, press the centre of the temperature dial.

Allow heater to start, monitoring both the controller and your device and follow user manual.

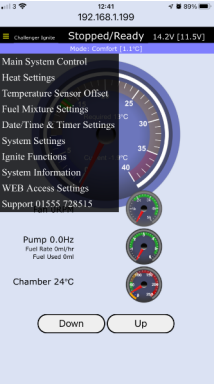
## Important information:

Your IGNITE controller is an active communications device. With WiFi enabled it can drain a poorly maintained battery. WiFi mode can be switched off to reduce battery drain. Consider the controller as a mobile phone / device on charge, it is NOT a parasitic draw.

The controller needs to be active to allow both local and remote access if required, just as an example your phone needs to be on to receive a call. If you have solar, you should have no issue. Stop start and Cyclic mode should be used with caution with regards to potential excess battery drain. See user manual for full details

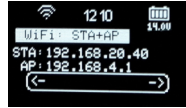
# MQTT REMOTE CONNECTION SETUP

**1** Prior to starting you **NEED** to ensure that you have the STA IP address of the controller and that your device / router has access to the internet **BY FOLLOWING WIFI SECTION 2**

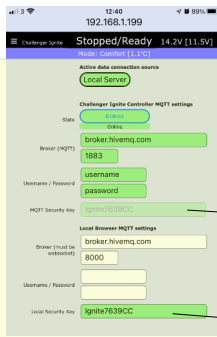


Connect to your controller via your **STA** ip address and the home screen will load. From the menu button select **WEB** access settings.

Actual controller screen as seen in system settings on controller, if STA is not there you need to follow steps overleaf.



**2**



**MAKE THE SAME**



Ensure your screen replicates what is shown here (*Your security key will be different to that shown*).

Ensure local browser settings are as shown and that **YOUR** local security key is the same as **YOUR MQTT** security key. You will need to add it

**3**

Now browse to [www.aclsretail.com](http://www.aclsretail.com) and find the link to Ignite WiFi Controller portal as shown (or use the Scan Me link). Once open, from menu select MQTT settings.

**Challenger Ignite Advance Controller Remote Portal**



**Control your Challenger Ignite Advance controller remotely**

by clicking the picture and entering your unique ID

**SCAN ME**

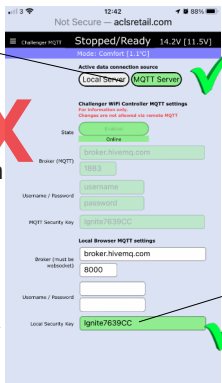


**4**

**Ensure source is set to MQTT**

Do not try to change anything in this section, it will self populate on connection

Check broker and port number is as above in stage 2 picture. Username & password not required. Enter your Local security key here **FROM 2 ABOVE** and press enter.



On pressing enter, you should remotely connect to your controller, if not, ensure that you have correctly entered the information as shown. Once connected It is advised to save this page to your device home screen, thus next time you simply need to select the saved icon to connect