

ThermIQ2 installation for Raspberry Pi, version 1.50

Installation prerequisites:

1. An out-of-the-box Raspberry Pi3, Pi2 or Raspberry Pi model B or B
2. A micro-USB power adaptor
3. An Ethernet cable
4. A formatted SD-card of 8GB or more
5. A ThermIQ card
6. An USB cable (A to mini-b)
7. telnet/ssh client, in windows: i.e telnet.exe or Putty. Mac: terminal
8. Optional: USB Keyboard and HDMI Cable
9. Optional: A [Tellstick DUO](#) for RF-temperature sensors and lamp control

Configuration (expect about 30 min-1h installation time)

Help and instructions in black

Things to write down in green. You might use the table at last page

Actual commands/actions in blue

1. Start on your PC by downloading and installing **Raspbian "Stretch" Lite** from:

<http://www.raspberrypi.org/downloads>

Raspbian "Jessie" is still supported but for new installations Raspbian "Stretch" is recommended.

There are good guides on the raspberry.org site on how to format and write the image to a SD-Card i.e by using Win32DiskImager.

2. Connect the Raspberry to the network, to a monitor and keyboard, insert the SD-card and power it on. Once started it will prompt you for an user and password

- or -

Connect the Raspberry to the network, insert the SD-card, power it on and telnet to it (You have to find out the ip-address given to it by dhcp). Once connected it will prompt you for an user and password.

3. Log in with

user: pi

password: raspberry

At the prompt type:

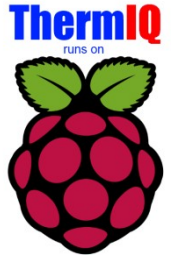
[sudo touch /boot/ssh](#)

[sudo raspi-config](#)

In Raspi-config do (Meny layout differs slightly between releases):

1. Change user password -> Type a new password
2. Internationalisation Options
 - a. Change timezone
 - b. Adjust keyboard to match your setup
3. Advanced Options
 - a. Expand filesystem
4. Boot options (Boot to Console only, Do not enable auto-login)
 - a. -> D esktop /CLI -> Console

Write down password!



Then **Finish** and reboot

4. If you want your Raspberry to have a static ip-address, which is recommended:
(from <https://www.raspberrypi.org/forums/viewtopic.php?t=204392>)

Type:

```
cd /etc/  
sudo nano dhcpd.conf
```

Find the following lines and uncomment and add your information where red:

```
# Example static IP configuration:  
interface eth0  
static ip_address=<your-fixed-ip>  
static routers=<your-router-ip>  
static domain_name_servers=<your-dns-ip>
```

Write down ip-address!

Save (Ctrl-o), Enter and Exit (Ctrl-x)

You should also take a look at the file /etc/resolv.conf and check it has a nameserver entry (probably pointing at your default gateway).

Something like this:

```
nameserver 192.168.0.1  
cat /etc/resolv.conf
```

if not type:

```
sudo nano /etc/resolv.conf
```

and add your nameserver

Reboot to get the new ip-address:

```
sudo reboot
```

5. Now it's time to install the ThermIQ sw package

Connect and login to the Raspberry with Telnet.

Type:

```
cd /tmp
```

```
sudo rm setup_script
```

```
sudo wget http://www.thermiq.net/getThermIQ2.php?setup=raspberry -O setup_script
```

```
sudo chmod a+x setup_script
```

```
sudo ./setup_script 2>&1 | sudo tee /var/thermiq_install.log
```

This will take 10-30 minutes.

When finished you should connect the ThermIQ interface to the USB port of the Raspberry and type

```
sudo reboot
```

That's all setup needed on the Raspberry!

6. Open link: <http://<your-ip-address>/install/install.php> in a web-browser with the IP address from bullet 4. A page like this will open:

ThermIQ Installation

1 Initial config 2 Download ThermIQ 3 User database 4 Main database 5 Dropbox 6 Secure installation

Configuration file

c:/xampp/opt/etc/Thermiq_Windows.ini

Select database type

Database type sqlite

STEP 1

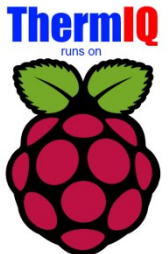
Instructions

Check that the configuration file is found and then select which database type you want to use. Make sure all fields are green. Sqlite should be used by default. Mysql requires an already running and configured mysql-server.

Install messages >

Follow the steps 1-4 shown in the browser to complete the installation until all items are green, write down your data in the table below. Use “sqlite” as database type unless you already have a MySQL database setup and know how to administrate it.

For MySQL you need to create to new databases, ‘thermiq’ and ‘thermiq_userdb’



Each step will be enabled as the previous step is completed but a manual “reload” of the page is sometimes needed. Here you can also setup a Dropbox backup account and secure the installation page with a password.

Bullet	Step	Key	Value
3	-.	Raspberry username	pi
3	-	Raspberry password	
4	-	Raspberry IP-address	
6	2	Order email	
6	2	License key	
6	3	Administrator login name	
6	3	Administrator login password	
6	6	Installation username	
6	6	Installation password	

7. Connect the ThermIQ board to the heatpump, place the Raspberry inside the heatpump and power the Raspberry with the USB-charger. More instructions at:

www.thermiq.net/installation2.pdf

8. Open link: <http://<your-ip-address>/> in a web-browser with the IP address from step 4

Login with:

- a. User: as given during Bullet 6, Step 3
- b. Password: as given during Bullet 6, Step 3
- c. Check the different settings in the right corner drop down menu
- d. Select "Poller settings" and configure what devices to collect data from
- e. Select "Widget settings" and enable the widgets you want to see on the home page

Done ☺

Note, if you want to access your ThermIQ remotely, you can open your router/firewall using “port forwarding” for the ip-address and port above. But please be aware of the potential security risks this enables.

Now is a good time to check out the RaspberryPI home page at <http://www.raspberrypi.org> where there's a lot of information available especially in the forum i.e :

- How to secure your Raspberry from intruders.
- How to connect the Raspberry to a wireless network using a WLAN adapter.
- How to setup a free dynamic ip service if you want your pi to be easily accessible from the internet

and don't forget to check out the ThermIQ forum at www.ThermIQ.net