



## ThermIQ2 installation for Debian 9 “Stretch”, version 0.7

This installation description is valid for ThermIQ and ThermIQ-MQTT using Debian Stretch.

Installation prerequisites:

1. A running Debian Stretch Installation
  - a. This guide does not cover how to get Debian Stretch up and running and targets user with a thorough Linux experience.
2. A micro-USB power adaptor
3. A ThermIQ **or** ThermIQ-MQTT card
4. telnet/ssh client, in windows: i.e telnet.exe or Putty. Mac: terminal

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. Make sure you are running “**Debian Stretch**”



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

Connect and login to the host computer, open a terminal window.  
Type: (This should be done as root)

```
cd /tmp
su root
    Enter the root password
rm setup_script
wget http://www.thermiq.net/getThermIQ2.php?setup=debian -O setup_script
chmod a+x setup_script
./setup_script --thermiq_mqtt --mosquitto 2>&1 | sudo tee /var/thermiq_install.log cd
/etc/mosquitto
mosquitto_passwd -c /etc/mosquitto/passwd thermiq
and enter your mqtt password
```

Write down mqtt pw

This will take 10-30 minutes. Then **restart the machine** to make sure all settings are re-applied.

That's all setup needed on the host!

3. Open link: [http://<your-ip-address>/install/check\\_install.php](http://<your-ip-address>/install/check_install.php) in a web-browser with the IP address from bullet 4. A quick analysis of the installation will be done. If all looks ok proceed to next step

Open link: <http://<your-ip-address>/install/install.php> in a web-browser

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	
5		Mqtt user	thermiq
		Mqtt password	
5		MQTT Public cert	/etc/mosquito/ca.crt
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	

#### 4. Hardware Installation:

**ThermIQ-MQTT:** Configure and connect your ThermIQ-MQTT card according to these instructions: [www.thermiq.net/installation\\_mqtt.pdf](http://www.thermiq.net/installation_mqtt.pdf)

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

Login with:

- User: as given during Bullet 6, Step 3
- Password: as given during Bullet 6, Step 3
- Check the different settings in the right corner drop down menu
- Select "Poller settings" and configure what devices to collect data from.
  - Select one of ThermIQ or ThermIQ\_MQTT depending on your hardware.
- Select "Widget settings" and enable the widgets you want to see on the home page

Done ☺

Now is a good time to check out the ThermIQ forum at [www.ThermIQ.net](http://www.ThermIQ.net)

Note 1. Apache and Mosquitto will be installed by default. Please make sure that you also install a firewall and that you secure your installation from attacks.

Note 2: The MQTT server installed is from mosquitto.org, it is configured to enable both open and encrypted connections using self-signed certificates in /etc/mosquitto/certs/  
These certificates can be regenerated by logging in with ssh as pi and typing

```
cd
cd certs
generate-CA.sh
cp -f *.cert `hostname`.key /etc/mosquitto/certs/
systemctl restart mosquitto.service
```

ThermIQ\_MQTT will only be able to use encrypted “MQTTS” connection if the raspberry has a public IP-address or port forward from one. Edit /usr/sbin/generate-CA.sh to add the IP-address in ‘IPLIST’ and hostname in ‘HOSTLIST’ before regenerating certificates then copy ca.crt to all mqtt clients.