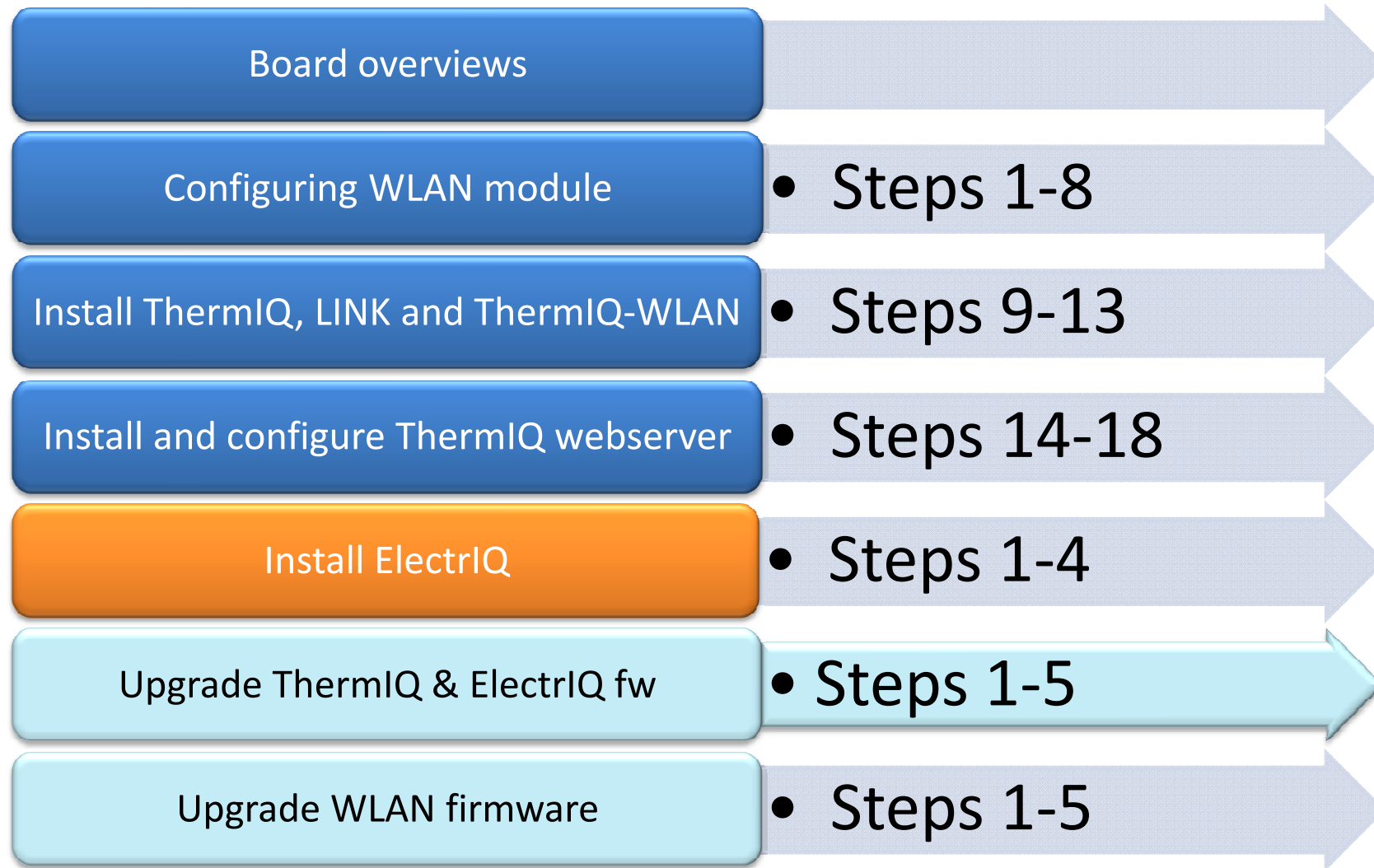


ThermIQ

ThermIQ ThermIQ-LINK
ThermIQ-WLAN ElectrIQ

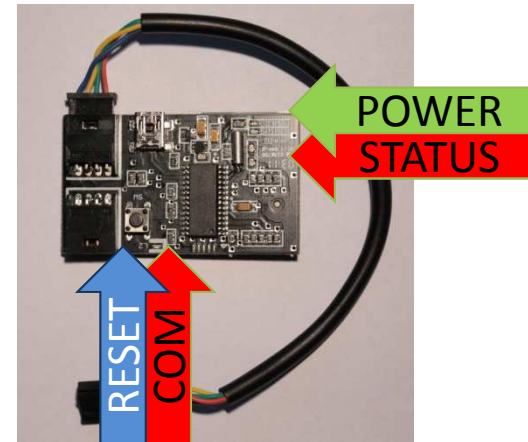
Instructions are downloadable from
<http://www.thermiq.net/installation.pdf>



ThermIQ, ThermIQ-LINK and ThermIQ-WLAN

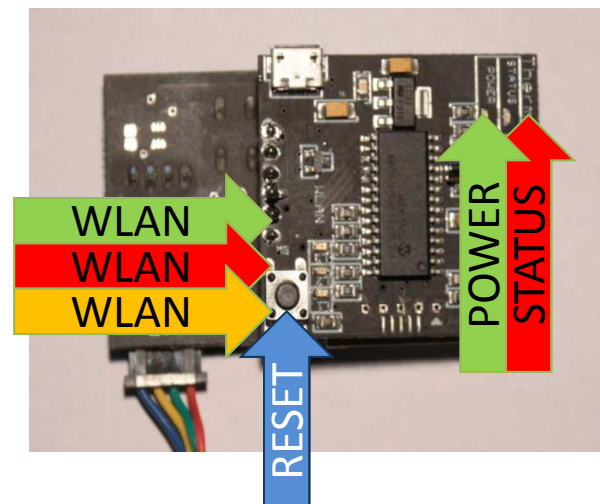
- ThermIQ, ThermIQ-LINK

- Reset button
 - Push >10sec to reset board into bootloader
- Power (GREEN)
- Status (RED)
 - 1 blink Power on check
 - 2 blink Bootloader mode, ready to upgrade firmware
 - 3 blink Stand-alone logging, and safe to remove and insert SD-card
 - 4 blink Stand alone logging, the SD-card is in use and should not be removed
 - 5 blink USB is connected, serial port and SD-card are active
- Communication active
 - Heatpump is connected and communication is working



- ThermIQ-WLAN adds the following

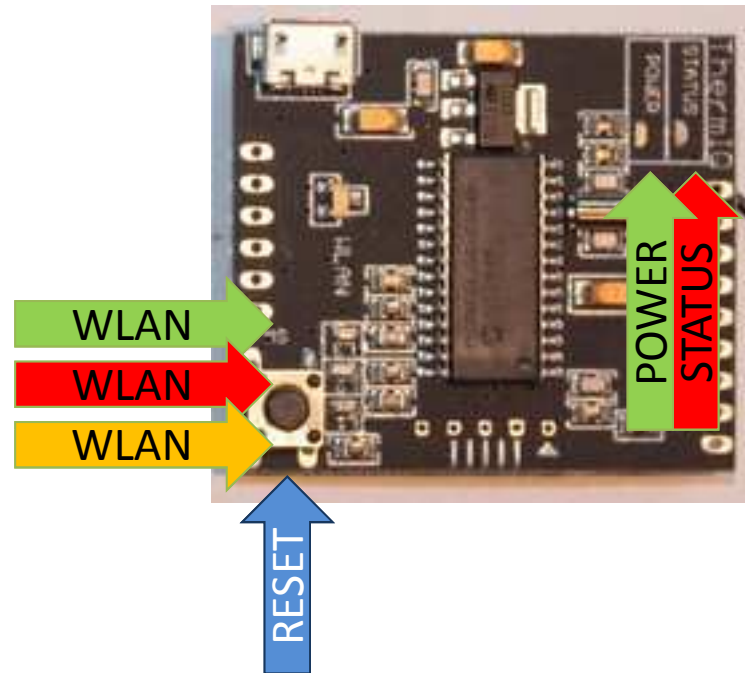
- WLAN Reset button
 - Push >10sec to reset WLAN settings and enter Config mode
- Power (GREEN)
- Status (RED)
 - 1 blink Power on check
 - 2 blink Normal mode
- WLAN-Green
- WLAN-Red
- WLAN-Orange
- Built-in WLAN Antenna



ElectriQ

- **ElectriQ-WLAN**

- WLAN Reset button
 - Push >10sec to reset WLAN settings and enter Config mode
- Power (GREEN)
- Status (RED)
 - 1 blink Power on check
 - 2 blink Normal mode
- WLAN-Green
- WLAN-Red
- WLAN-Orange
- Built-in WLAN Antenna



Entering Config mode (ThermIQ-WLAN, ElectrIQ)

START

- ThermIQ-WLAN or ElectrIQ

1

- Connect USB-power and wait for STATUS to blink
2

2

- Push WLAN-Reset and wait for WLAN-GREEN to blink
- Remove and re-insert USB-power

3

- Use a mobile/laptop to search and connect to WLAN with ssid: hdconfig-xx-xx-xx

4

- Open mobile/laptop browser and goto <http://192.168.1.1>

Configure WLAN settings to match your network

5

- Select STA
Enter your Wlan-SSID
Enter your WLAN security info

5

6

- Unselect DHCP Client
Enter an unique ip-address in your network
Netmask (normally 255.255.255.0)
Unselect DHCP Server

6

7

- Submit and wait ~30 sec.

8

- WLAN-Green and WLAN-Orange should come back with steady light indicating successful access to your network.
If not restart at 1

<http://192.168.1.1>

H&D Wireless Serial to WLAN Device Configuration

Device Status
Serial Proxy Link State: Disconnected
Rx Bytes: 0 Tx Bytes: 0

Wi-Fi Configuration
Operation Mode: Station (STA) Access Point (AP)
SSID of new network:
Security Type: None WEP WPA/WPA2/RSN
Security Key:
Channel: 1
Enable Power Save:
Enable PS Poll:
PS Traffic Timeout (ms): 10
PS Start Delay (ms): 5000
PS Receive All DTIM:
PS Listen Interval (beacons): 20
The Security Key is not necessary if Security Type is "None". Channel is only used if operation mode is AP.

IP Configuration
Enable DHCP client:
The three following fields only has to be filled in if DHCP is not used.
IP address: 192.168.1.1
Netmask: 255.255.255.0
Gateway: 192.168.1.1
DNS Server: 192.168.1.1
Enable DHCP server:

Serial Port Configuration
Baud rate: 300 1200 2400 4800 9600
 19200 38400 57600 115200 230400
Parity: none even odd mark space
Data bits: 5 6 7 8
Stop bits: 1 2
RS-232 or RS-485 mode: rs232 rs485
Enable RTS-CTS flow control:
Duplex mode: half full
The RTS-CTS setting is only used in RS-232 mode.
The duplex setting is only used in RS-485 mode.

Serial Proxy Configuration
Mode: tcp-client tcp-server
note host IP address
IP port: 2000
Security Configuration
Username:
Password:
HTTP authentication mode: basic digest

Firmware Upgrade (Current Version 4088)

Serial parameters:
115200 8N1
RS232
Disable RTS/CTS

tcp-server
port 2000

Install ThermIQ, ThermIQ-LINK and ThermIQ-WLAN in heatpump

9

- Turn of heatpump and remove front cover

10

- Find the EXT connector on the main control-board and connect the ThermIQ board.
- Attach ThermIQ-board with velcro

11

- Connect other peripherals, i.e Link or extension board(s) to the ThermIQ-board

12

- Connect USB power to ThermIQ-WLAN or
- Connect USB Cable between ThermIQ and server

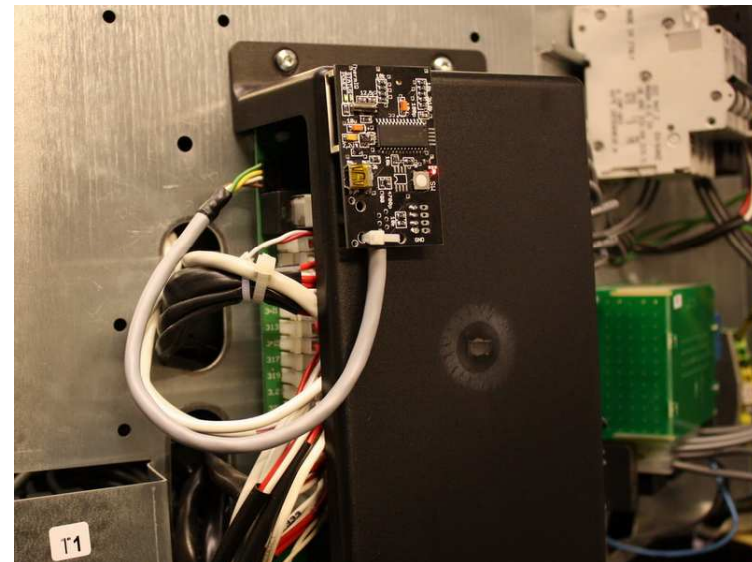
13

- Replace front cover and turn on heatpump

(14)

Changing settings on Thermias older than 2008-03-01 (with green display)

- 1. Push both left and right arrow for 5 sec until display says "Service"
- 2. Push down-arrow until "Installation" then push right-arrow.
- 3. Push down-arrow until "Node". Change the value to 2 or more, if the value already is 2 then keep it like that.
- 4. Turn off the heatpump and start it again.
- 5. Your ThermIQ-interface is ready to use.



ThermIQ-WLAN must use the supplied power adaptor!

Download and Install ThermlQ Webserver

15

- Follow instructions for Raspberry, Windows, NAS or Linux from our homepage www.ThermlQ.net

- Directly supported servers are:
 - Raspberry PI (preferred)
 - Windows XP, Vista, 7 and 8
- Manual setup possible for:
 - DLINK DNS320, DNS323 and DNS325
 - Linux
 - QNAP, TS219 and similar.
 - ReadyNAS

Configure ThermIQ Webserver

16

- Check a correct installation by opening: http://Your_Server_ip/check_install.php
- Continue to next step when all is checked Ok

16

17

- Open: http://Your_Server_ip/
user: admin pw: manager
and click Administration

17

18

- Change settings to reflect your setup
 - Basic settings
 - Pollers
 - Alarms and Emails
 - Widgets
 - Update

18

19

- Pollers
 - Select either com-port or
 - Network settings from step 6

19

The image displays four screenshots of the ThermIQ webserver interface, connected by arrows indicating the sequence of steps:

- Step 16:** A terminal window titled "ThermIQ installation checks" showing the output of a script. It reports that the webserver can serve files, supports the correct Java version, and that the installation is successful. It also lists the paths for the configuration and language files.
- Step 17:** The main dashboard of the ThermIQ webserver. It shows a home page with a weather widget, a temperature gauge, and a schematic diagram of a heating system. The "Administration" button is highlighted.
- Step 18:** The "Settings" page, which includes tabs for "Basic settings", "Pollers", "Alarms & Email", "Dashboards", "External log files", "Widgets", and "Updates".
- Step 19:** The "Poller configuration" page, showing fields for "ThermIQ poller" and "Electricity poller". It includes options to use the com-port or network settings and fields for IP address, port, username, and password.

Replace Your_Server_ip with the actual ip-address of your Webserver

Install ElectrIQ

1

- Connect ElectrIQ with the supplied poweradapter

2

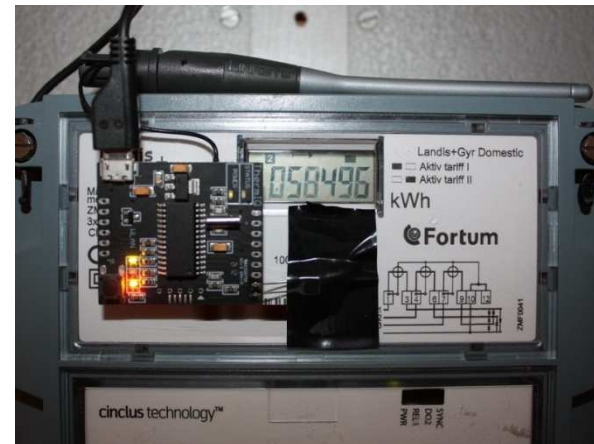
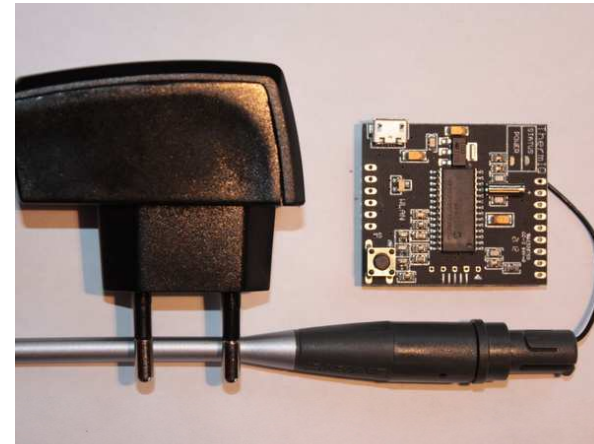
- Attach ElectrIQ to the powermeter so that the sensor covers the ir-indicator LED on the powermeter
- Cover the sensor with a strip of black electric tape.

3

- Change settings in webserver to reflect your setup in Settings->Pollers
 - Enter ElectrIQ ip-address and enable polling
 - Create a new temporary database

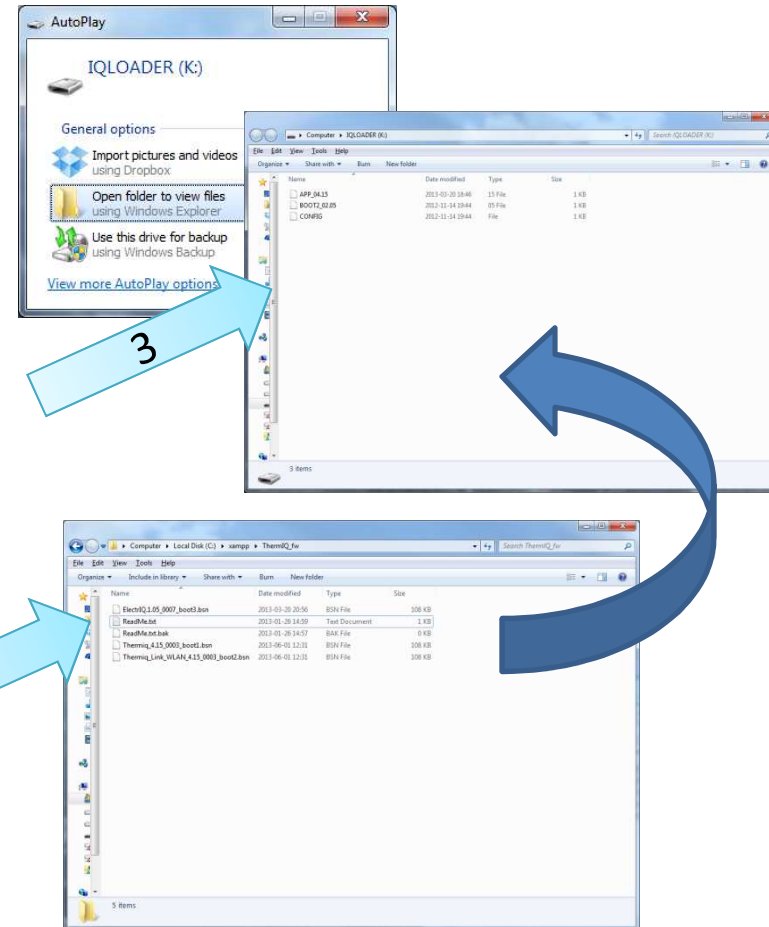
4

- Select power gadget
- Check that graphs presents powervalues



Upgrade ThermIQ, ThermIQ-LINK, ThermIQ-WLAN and ElectrIQ firmware

- 1**
 - Download the appropriate fw from http://www.thermiq.net/?page_id=116
 - Note that there's different fw for ThermIQ, ThermIQ-LINK/WLAN and ElectrIQ.
- 2**
 - Connect the board to a computer using the mini-USB connector (all ThermIQ boards) or the micro-USB connector (ElectrIQ boards) while holding the RESET switch down.
- 3**
 - The board will now appear as an USB disk
- 4**
 - Drag the fw-file to the USB disk and wait until the copy is complete. The board will secure that the fw is appropriate for upgrade
- 5**
 - Power reset board and check that it starts correctly
 - Done



Upgrade WLAN firmware (ThermIQ-WLAN and ElectrIQ)

- 1
 - Connect the board to a computer using the usb connector
 - ThermIQ: use the mini-USB connector on the bigger board
 - ElectrIQ: use the micro-USB
 - Download fw from http://www.thermiq.net/?page_id=6194
- 2
 - Start a terminal program like ttermpro or similar and open the COM-port associated with the board
- 3
 - Type "ati" to get board-fw version.
 - Type "ats" and wait for dots
 - Press return.
 - You are now in WLAN communication mode
- 4
 - Type "help"
 - Type "upgrade"
 - Select "Transfer->X-modem->Send and select wlan fw-file
 - Wait for transfer to complete and WLAN to reboot.
- 5
 - Wait for 4 dots.
 - Wait 3 sec then type "+++"
 - Type "ati"

The image shows a sequence of terminal screenshots and a file selection dialog. The top terminal window shows the initial state: 'ati' returns 'ElectrIQ V 1.01 0138', and 'ats' enters 'DIRECT SERIAL, EXIT WITH +++'. The help menu is displayed, listing options like 'reset device', 'print this information', 'Read/write database', 'fw upgrade xmodem', and 'nvsec diag'. A 'Tera Term: ZMODEM Send' dialog is open, showing the file 'serial_to_wifi-spb800-r4172.hfl' selected in the 'Wlanmodul' directory. The bottom terminal window shows the result of the upgrade: '++++ NO', followed by 'ati' returning 'ElectrIQ V 1.01 0138'. Then 'ats' returns 'DIRECT SERIAL, EXIT WITH +++'. The 'u' command is entered, resulting in 'CReceived 723584 bytes - rebooting'. Finally, 'ati' returns 'ElectrIQ V 1.01 0138'.