Flow Gateway v3 installers manual - Waifer Cable

> ℹ️ This guide is applicable to Simonelli and Sanremo espresso machines.

Introduction

Flow integrates with a range of commercial espresso machines, providing cloud-based and real-time visibility of espresso production parameters.

It achieves this via an Internet of Things (IoT) device installed near the espresso machine which collects the signal from the espresso machine's built-in flow meters then transmits this data to the cloud for processing and analysis.

Quick Start installation procedure

Flow Gateway installer

1. Connect the flow meter cable(s) to the espresso machine flow meters (mark the end of the cable connected to group 1/2 so you know which cable is which when you plug them into the Flow Gateway)

2. Mount the Flow Gateway

3. Route the flow meter cable(s) to the Flow Gateway and secure the cable

4. Connect the Flow Gateway power

5. Setup the Internet connection

6. Confirm the Flow Gateway operation

7. Installation complete!

Prerequisite site requirements

- Please ensure that your site meets all the Flow Gateway V3 Networking Requirements
- Corporate Wi-Fi network which is accessible from the location of the espresso machine
- A suitable mounting location for the Flow Gateway near the espresso machine (usually under the counter)
  Nb. The supplied flow meter cable is 3 meters long, so depending on the routing of the cable within the espresso machine, this allows for installing the Flow Gateway approximately 1.5-2 meters away from the espresso machine
- AC power outlets near the location of the espresso machine (usually under the counter):
  Nb. The Flow Gateway power supply cable is 1.5 meters long

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Safety instructions

- The Flow Gateway must be installed by a technician with the appropriate levels of certification to perform work inside of a commercial espresso machine.
- The maximum ambient temperature that the Flow Gateway is designed to operate in is 40°C (104°F). Ensure it is installed in a location where the ambient temperature does not exceed this.
- Do not open the Flow Gateway, there are no serviceable parts inside. For all hardware faults return the Flow Gateway to a Flow Coffee authorised distributor.

Mounting requirements

- Locate the Flow Gateway in a location that will not be affected by excessive heat, and where it will not come into direct contact with water or steam.
- If the Flow Gateway is located where it may be disturbed, or if it is installed on the wall or underside of a counter, secure the Flow Gateway using the supplied dinrail and black mounting bracket that screws to the back of the Flow unit. Fix the dinrail to the desired mounting location using high strength double-sided foam tape (eg. 3M VHB Double Sided Foam Adhesive). Then clip the unit(now fitted with the black mounting clip) to the dinrail.
- The Flow Gateway is not suitable for mounting on the underside of overhead kitchen cabinets (where it may be exposed to steam or excessive heat from equipment on the countertop below it).

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Equipment required (per espresso machine)

1x Flow Gateway

1x Flow Gateway power supply

1x or 2x Two grouphead flow meter cable

The cable which connects the Flow Gateway to the espresso machine's flow meters. the below image is the standard cable to suit the standard 3-pin Gicar flow meter found on many machines. Here are the cable variations to suit different flow meters from various manufacturers.

One cable is required for a 1-2 grouphead machine, two cables for a 3-4 grouphead machine.

Tools and consumables

- Cable ties
- High strength double-sided foam tape - eg. 3M VHB Double Sided Foam Adhesive
- Tools for removing the appropriate covers from the espresso machine to access the flow meters
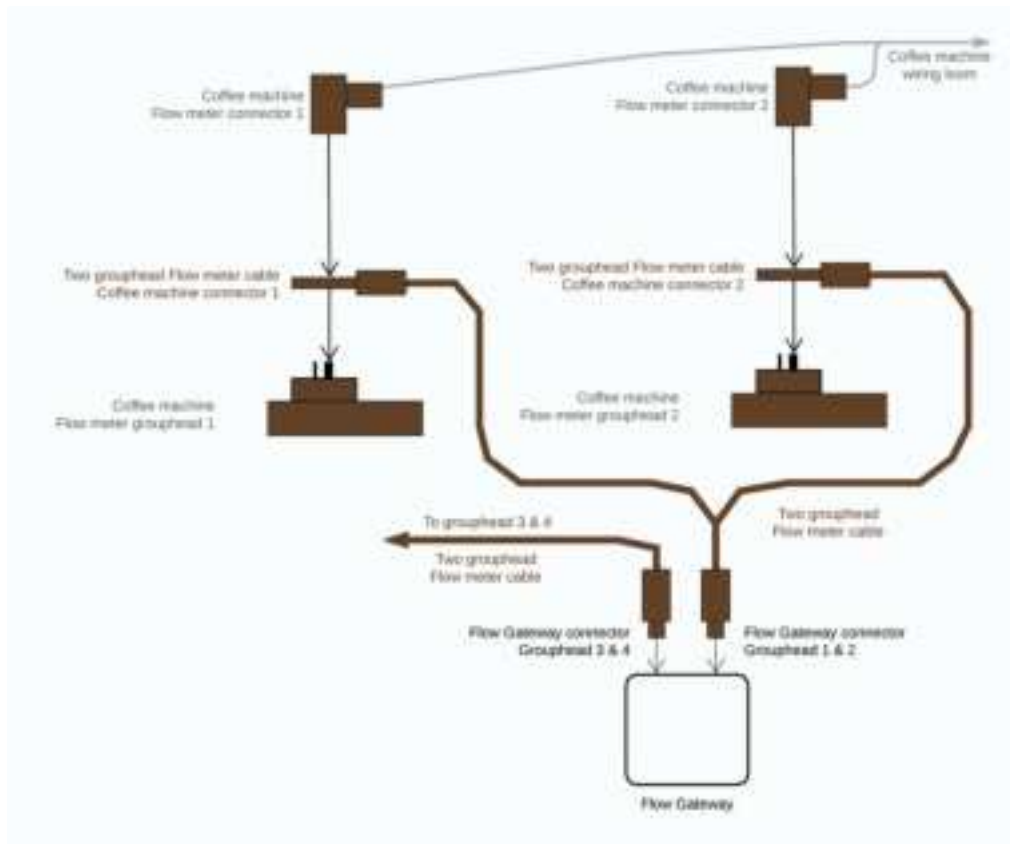
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Installation procedure

1. Connect the flow meter cable(s) to the espresso machine flowmeters

The espresso machine has a flow meter per group head. The flow meter cable has a female and male plug per group head to allow it to connect in parallel with the espresso machine's connection.

For each flow meter

1. Disconnect the espresso machine's plug connector from the flow meter terminals.
2. Connect the flow gateway cable to the flow meter terminals.
3. Reconnect the espresso machine's plug connector on top of the new gateway cable as per the image below.

Unused connection

If there is a spare connector on the flow meter cable after all groupheads have been connected (ie. when two cables are used for a 3 group head espresso machine), leave the plastic sleeve on the cable connector and secure the cable out of the way.

2. Mount the Flow Gateway

1. Locate the Flow Gateway near the espresso machine in a location that will not be affected by excessive heat, and where it will not come into direct contact with water or steam (usually under the counter is the most appropriate location). Ensure the chosen location is in reach of the flow meter cable and AC power outlets.

2. If the Flow Gateway is located where it may be disturbed, or if it is installed on the wall or underside of a counter, secure the Flow Gateway using the supplied dinrail and black mounting bracket that screws to the back of the Flow unit. Fix the dinrail to the desired mounting location using high strength double-sided foam tape (eg. 3M VHB Double Sided Foam Adhesive). Then clip the unit(now fitted with the black mounting clip) to the dinrail.

3. Route the flow meter cable(s) to the Flow Gateway and secure the cable

1. Route the cable(s) through the service hole in the bottom of the espresso machine then to where the Flow Gateway will be located.
2. Secure the cable(s) inside the espresso machine so that cannot touch any hot components like water piping or the boiler, and so that it cannot be dislodged if it is pulled from outside of the espresso machine.
3. Plug the flow meter cable(s) into the Flow Gateway (take note of which cable is connected to groupheads 1/2 and which cable is connected to groupheads 3/4. Plug into the corresponding ports on the Flow Gateway).

4. Connect the Flow Gateway power

1. Install the Flow Gateway power supply, secure the cable, press the power button. NB: not to be confused with the reset button.
2. The screen will illuminate when the power has been turned on.

5. Setup the Internet connection

1. Install the 'ESP BLE Provisioning' app on your mobile phone.

Google Play Store: ESP BLE Provisioning - Apps on Google Play

Apple App Store: ESP BLE Provisioning

2. Turn on the Flow gateway device.
3. The screen is a touch screen. Slide your finger across the screen from right to left, until the screen shows 'begin device provisioning'.

4. Click on 'Begin Device Provisioning'. A QR Code will appear on the screen.
5. Open the ESP Provisioning App, click on Provision Device, and scan the QR Code on the Flow Gateway. Available connections will appear on the screen, and you need to click on the appropriate network you want to connect to.
6. At this point, you will be asked for the password for the wifi network. Enter the password and click 'provision'.
7. you will see that the gateway is connected to the WiFi network when the device rolls back to the home screen and displays 'Flow Cloud Online' as per below.

6. Confirm the Flow Gateway operation

Run each grouphead on the espresso machine, ensuring that the correct grouphead indicator number on the screen of the Flow Gateway illuminates green while the grouphead is running.

IT IS EXTREMELY IMPORTANT TO MAKE SURE YOU HAVE THE POWER PACK PLUGGED INTO THE FLOW DEVICE. The flow device has a battery back up which allows you to power up the device and configure it without plugging the power cord into the device. Obviously, if you do not plug the power pack into the device, the battery will drain within a couple of hours and then power down. It is essential to check this before the completion of the installation.

7. Installation complete!

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Appendix:

Network connectivity troubleshooting

Qr Code scan fails.

- The QR code can be light sensitive. If the App is having trouble scanning the QR code, hold the unit in a slightly darker environment e.g under the bench.