



# upgrade serial output

```
Starting CCS811 flasher
setup: library      version: 12
setup: hardware     version: 12
setup: bootloader   version: 1000
setup: application  version: 1100
setup: comment-out this code line if you want to flash
loop: ended ...
loop: ended ...
loop: ended ...
loop: ended ...
loop: ended ...
loop: ended ...
loop: ended ...
loop: ended ...

ccs811: ping ok
ccs811: reset ok
ccs811: status (reset1) 10 ok
ccs811: app-erase ok
ccs811: status (app-erase) 40 ok
ccs811: writing 5120 ..... 4608
ccs811: writing 4608 ..... 4096
ccs811: writing 4096 ..... 3584
ccs811: writing 3584 ..... 3072
ccs811: writing 3072 ..... 2560
ccs811: writing 2560 ..... 2048
ccs811: writing 2048 ..... 1536
ccs811: writing 1536 ..... 1024
ccs811: writing 1024 ..... 512
ccs811: writing 512 ..... 0
ccs811: app-verify ok
ccs811: status (app-verify) 30 ok
ccs811: reset2 ok
ccs811: status (reset2) 10 ok

setup: Starting CCS811 basic demo
setup: ccs811 lib  version: 12
setup: hardware     version: 12
setup: bootloader   version: 1000
setup: application  version: 2000
CCS811: waiting for (new) data
CCS811: waiting for (new) data
CCS811: waiting for (new) data
CCS811: waiting for (new) data
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=409 ppm  etvoc=1 ppb
CCS811: eco2=414 ppm  etvoc=2 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=407 ppm  etvoc=1 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=408 ppm  etvoc=1 ppb
CCS811: eco2=414 ppm  etvoc=2 ppb
CCS811: eco2=417 ppm  etvoc=2 ppb
CCS811: eco2=414 ppm  etvoc=2 ppb
CCS811: eco2=408 ppm  etvoc=1 ppb
CCS811: eco2=408 ppm  etvoc=1 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
CCS811: eco2=400 ppm  etvoc=0 ppb
```

```
CCS811: eco2=400 ppm etvoc=0 ppb
CCS811: eco2=406 ppm etvoc=0 ppb
CCS811: eco2=400 ppm etvoc=0 ppb
```

Since my sensor is new, I used firmware 2.0.0 to allow initial burn-in compensation.

## temperature compensation

[https://github.com/sparkfun/SparkFun\\_CCS811\\_Arduino\\_Library/blob/master/examples/Example2\\_BME280](https://github.com/sparkfun/SparkFun_CCS811_Arduino_Library/blob/master/examples/Example2_BME280)

## esphome

```
esphome:
  name: ccs811
  friendly_name: ccs811

esp8266:
  board: nodemcu2

# Enable logging
logger:

# Enable Home Assistant API
api:
  encryption:
    key: "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX="

ota:
  password: "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"

wifi:
  ssid: !secret wifi_ssid
  password: !secret wifi_password

# Enable fallback hotspot (captive portal) in case wifi connection fails
ap:
  ssid: "Ccs811 Fallback Hotspot"
  password: "XXXXXXXXXXXX"

captive_portal:

# Example configuration entry
i2c:
  sda: D2
  scl: D1

sensor:
  - platform: ccs811
    eco2:
      name: "CCS811 eCO2 Value"
    tvoc:
      name: "CCS811 Total Volatile Organic Compound"
      address: 0x5A
      update_interval: 15s

  - platform: bme280
    temperature:
      name: "BME280 Temperature"
      id: bme280_temperature
```

```
pressure:
  name: "BME280 Pressure"
  id: bme280_pressure
humidity:
  name: "BME280 Relative Humidity"
  id: bme280_humidity
address: 0x76
update_interval: 15s
```