

# Upgrading firmware on 2114 Tester

## Changelog:

10 June 2024

Firmware v1.1 – fixes issue with 21C14 RAM failing to read data at address 0x3FF

Download v1.1 firmware from

[https://myretrostore.co.uk/wp-content/uploads/2024/06/2114\\_tester\\_fw1.1.hex](https://myretrostore.co.uk/wp-content/uploads/2024/06/2114_tester_fw1.1.hex)

The below instructions are for Linux. Check the USB port your Arduino appears on and change the command line accordingly.

Avrdude can be installed from <https://github.com/avrdudes/avrdude>

For Windows you will also need to install the drivers from

<https://support.arduino.cc/hc/en-us/articles/4411305694610-Install-or-update-FTDI-drivers>

## Backup previous firmware:

```
avrdude -patmega168 -P/dev/ttyUSB0 -b19200 -D -Uflash:r:2114_tester_fw1.0.hex -carduino
```

```
avrdude: AVR device initialized and ready to accept instructions
avrdude: device signature = 0x1e9406 (probably m168)
avrdude: reading flash memory ...

Reading | ##### | 100% 9.92 s

avrdude: writing output file 2114_tester_fw1.0.hex

avrdude done. Thank you.
```

## Install new firmware:

```
avrdude -patmega168 -P/dev/ttyUSB0 -b19200 -D -Uflash:w:2114_tester_fw1.1.hex -carduino
```

```
avrdude: AVR device initialized and ready to accept instructions
avrdude: device signature = 0x1e9406 (probably m168)
avrdude: reading input file 2114_tester_fw1.1.hex for flash
        with 3498 bytes in 1 section within [0, 0xda9]
        using 28 pages and 86 pad bytes
avrdude: writing 3498 bytes flash ...

Writing | ##### | 100% 2.49 s

avrdude: 3498 bytes of flash written
avrdude: verifying flash memory against 2114_tester_fw1.1.hex

Reading | ##### | 100% 2.17 s

avrdude: 3498 bytes of flash verified

avrdude done. Thank you.
```