



Product User guide

V1.1

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Getting Started

Welcome

Thank you for purchasing a RetroElectro LED lighting system. We hope you enjoy it and get many years enjoyment out of your new product.

Unpacking & initial testing

Please unpack the item carefully and check that it is complete and unbroken. Your item will be provided with a power supply, please only use the supplied power supply to power the item. Using any other power supply may damage the item or your power supply, and, will invalidate your product warranty.

Plug in the mains adaptor to a Main 240v 13A socket and then plug the wire into the black power socket on the back or underneath of your product.



For products that do not have an on/off switch – your item should fire into life and start displaying colourful patterns!

For products that do have an on/off switch – please switch the item on and it should now fire into life and start displaying colourful patterns. Some products have more than one switch, one will be the on/off switch, the second switch may control the brightness, or it may do nothing. Note: on some older items with switches – these may be deactivated and have no effect at all. (This is because the switches were too old to refurbish back to reliable operational use).

If all works as described, you are ready to move onto the next section and configure your display.

If the system doesn't light up as described above, please check the obvious, is the mains wall plug switched on, is the power lead plugged into the device properly, etc.

Please contact us: info@retro-electro-designs.co.uk if you still cannot get it to work.

Wi-Fi Connection

Wi-fi introduction

The system uses Wi-fi to allow you to gain access to the control panel where you can setup the different lighting display patterns and colours.

When the system is initially switched on it creates it's own Wi-fi Access Point – this Access Point is initially called “RetroElectroNNN” (where NNN is a number 001-999) and you can use this Wi-fi access point to connect to the system and then configure the system further.

Once you have initially connected, you can optionally link the system onto your normal home Wi-fi system. This then allows the system to be accessed from devices that are also connected to your home Wi-fi system – such as other mobile phones, laptops, pc's and tablets etc.

Note: You do not have to connect the system to your wi-fi network – you can just connect directly to it using its own “RetroElectroNNN” Wi-fi Access Point, but we would recommend you **DO** connect to your Wi-fi, because it is easier to access the system that way. In addition, for devices that have a Clock/time function – by being connected to your home Wi-fi system and therefore the internet, the clock system can periodically get the correct time from the internet. Also, the system supports software updates, that we will provide from time to time, and these are easier applied via a Wi-fi connection.

Connecting to the “RetroElectroNNN” Wi-fi Access Point

Switch the system on, and ensure it is working.

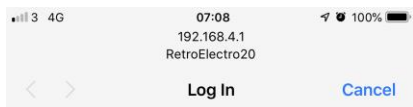
Open your smart phone and go into settings, Wi-fi – the list of available wi-fi access points is displayed, look for one called “RetroElectroNNN”, where NNN is a number 001 to 999. This is a screen shot from my iphone:



Select “RetroElectroNNN” (in my example above “RetroElectro20”)– you will be prompted for a password, type in the word “password” (lowercase)

You should then be taken to a page that looks like this:

For systems with a clock:



Hello welcome to RetroElectro Fire

Go to [Fire Patterns page](#) to change values.

Go to [Time Settings page](#) to change values.

Go to [WiFi configure page](#) to change the Wifi Settings.

MAC Address of Device=3C:71:BF:59:12:80

IP Address of Device=0.0.0.0

RetroElectro Fire s/w version 3.29

For systems without a clock:



Hello welcome to RetroElectro Fire

Go to [Fire Patterns page](#) to change values.

Go to [WiFi configure page](#) to change the Wifi Settings.

MAC Address of Device=24:0A:C4:32:41:48

IP Address of Device=0.0.0.0

RetroElectro Fire s/w version 3.32

If this page doesn't automatically open – then open your phones web browser – chrome, Safari, etc. and go to 192.168.4.1 (that is the web address of the page above, which should now be displayed)

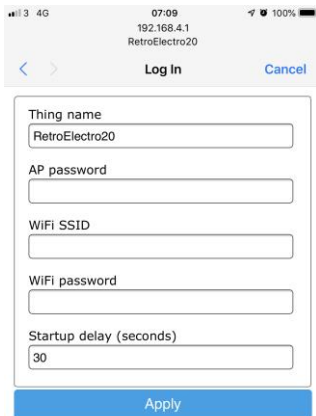
There are two or possibly three options, which we will cover in the sections below.

The “Wi-Fi Configure Page” is covered next.

Wi-Fi Configure Page

Choose this option from the Main Welcome Page. (If you are prompted for a user id and password – they are “admin” for the user id and the default password is initially set to “password”)

You will see a screen like this:



[Firmware update](#)
Firmware config version '10.0'

Thing Name: Defaults to “RetroElectroNNN” – If you wish you can change the default device name. Choose a name without any spaces.

Ignore the “AP Password” field – leave this blank.

Next, enter the Wifi SSID name and WiFi Password of your home Wi-fi System. You should know these already!

Finally, you can change the start-up delay – default is 30 seconds. This controls the time that the system initially stays in Wi-fi Access Point mode before attempting to connect to the Wi-fi using the name and password you have specified above. We recommend leaving the default of 30 seconds, this allows time to reconnect to the device, if you have incorrectly entered the wifi details, for example.

Click Apply and your settings will be saved.

In order for the system to attempt to connect to your Wi-fi, you must close the page you are currently on. The system will then attempt to connect to your wi-fi system.

If it doesn't connect, try powering off and on, wait at least 30 seconds and see if it joins now. If it still doesn't connect, then connect to the device again within the first 30 seconds of power on, and then go into the wi-fi configuration page and re-enter the wi-fi SSID and wi-fi password again. (Note the passwords are never displayed, but are there).



Once you have the system connected to Wi-fi you can now attempt to connect via wi-fi from your phone, laptop, tablet, pc etc.

Connecting to the device via Wi-fi

Ensure the device is powered on and wait approx. 30 seconds for it to connect to your wi-fi network. (Note if you change the Startup Delay setting as described above, you may need to wait a shorter or longer time).

From a web browser on your device enter the following url <http://thingname.local/> (note the "/" at the end of "local" and also the . "dot" before "local" – i.e. thingname "dot" local "forward slash").

Thingname should be replaced with the "Thing Name" you chose in the wi-fi configure page. The default is "RetroElectroNNN" where NNN is a number 001-999.

In my example above with a thing name of "RetroElectro20", you would enter the url :
<http://RetroElectro20.local/>

This should take you to the Main welcome page.

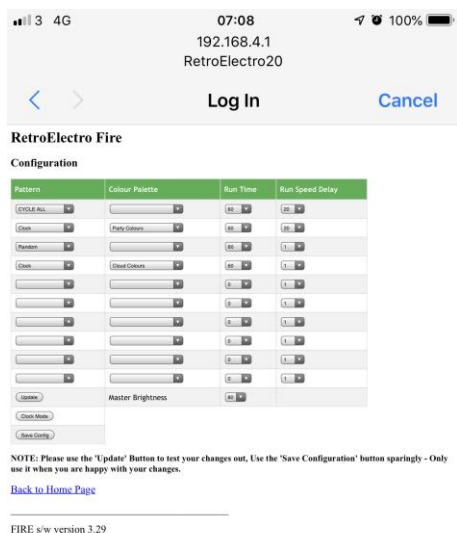
Congratulations, you can now access your system from your wi-fi network!

Configuring the LED display Settings

LED Pattern Page

Choose the “LED Pattern Page” option from the Pin Led Welcome Page.

You will get a screen like this:



Here you can configure what patterns are displayed. You can have up to 10 different patterns that are displayed in sequence. Each field on the screen is described below:

Pattern

Choose the pattern from the drop down list. There are two special patterns

Pattern	Description
CYCLE ALL	This pattern is very useful, it cycles through all the other patterns in order, and it also cycles through all of the available colour patterns. Try adding this pattern in amongst some of the other patterns, it adds a bit of variety to your light show
Random	This selects a random pattern

It is best to experiment with each of the patterns.

Colour Palette

You can optionally set a particular colour palette. If this is left blank, then the existing palette is used. In CYCLE ALL and RANDOM mode, the palette is changed automatically. If the run time is over 10 seconds, the palette will change every 10 seconds. Palette changes are gradual from one palette to the next, this gives some interesting colour patterns.

Run Time

The time in seconds this pattern will run for. Note a quick way to 'switch off' a pattern row is to just set the time to 0 seconds, the system then skips it. This is quite handy as you can leave all the other settings as they are, but very quickly switch patterns on and off. If the run time is more than 10 seconds and no colour palette is specified (see above) then the colour palette is changed at random every 10 seconds.

Run Speed Delay

1 is the fastest run speed, the larger the value selected, the slower the pattern will run and change.

Global Settings

At the bottom of the page there is a "Master Brightness" Setting. The higher the value, the brighter the display will be.

Update and Save Config

There are two buttons at the bottoms of the screen

Update

This is used to update the system with the current set of settings you have selected on the web page. You must press update to send the setting to the controller. It will then pick these up and begin to use them.

Save Config

Once you have a set of patterns that you like, you can save these into permanent memory, they will be retained if the power is switched off. Please use this option sparingly as the system has a limited life in terms of how many saves it can handle. This is hardware related, it is several 1000's, so no real need to worry about it, but I mention it for completeness. (I have yet to hit the limit, even on my development system that has had many 1000s of saves done).

Clock Mode

If your device has a clock feature included, there is an additional button that allows you to toggle between clock mode and the patterns mode. The button changes name depending on which mode you are in.

How to trial patterns

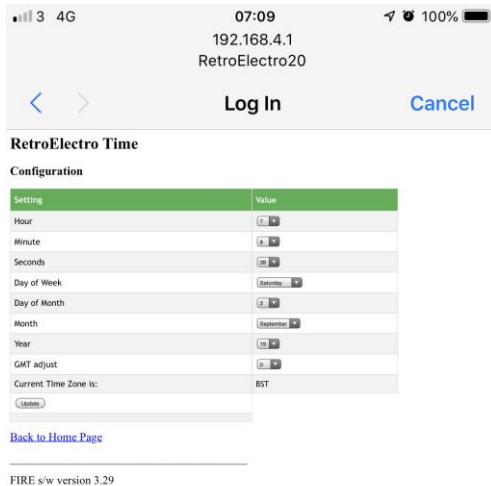
One good idea is to go through each pattern one at a time, select the same pattern on each row, each with say a 10 second run time, and then set the other parameters to different values. This is a good way to see what effect each parameter has on each pattern.

Configuring the TIME Settings

Time Settings Page

Choose the “Time Settings Page” option from the Main Welcome Page. Note – this option is only available on devices that contain the clock feature.

A page like this will be shown:



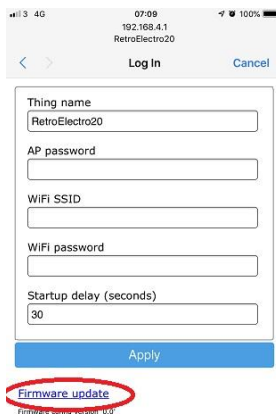
Here you can adjust the time settings from the real time clock, and also choose how many hours to advance or delay between GMT and our Summertime settings. (In the UK this would be “1” hour).

If your device is connected to your Wi-fi network, it will automatically pick up the current time from the internet and will also automatically adjust between BST and GMT time zones, at the correct times of year.

Software Updates

The system has the ability to be updated with new software releases. We will make these available in the future for bug fixed, new features and new patterns.

If you receive a software update from us, you can use the “Firmware Update” option at the bottom of the Wi-fi Config page:



Selecting this takes you to a page :



Here you use the “Choose File” button to locate the new software file I will have emailed to you, which you need to download to your computer.

Once a file is selected, click on “update” button to transfer the file up to the system.

WARNING: Do not upload any file other than a file that we have provided to you. Uploading any other type of file will render your RetroElectro system unusable. It will then have to be returned to us for repair.