

# ROCKSTARTER

## Multifunction Outlet Starter Firmware Update User Manual

Version: 2, August/2020

Designed and manufactured in Australia by Ampcontrol Pty Ltd



**WARNING!**



The **warning** symbol highlights a potential risk of **injury or death**.

Please share these warnings with other operators.

**CAUTION!**



The **caution** symbol highlights a potential risk of **damage to equipment**.

Please share these cautions with other operators.

**NOTE**



The **note** symbol highlights **key information**.

Please share these notes with other operators.

**ENVIRO**



The **enviro** (environmental) symbol highlights areas which may have an impact on the surrounding **fauna and/or flora**.

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## Before You Begin

This document outlines how to use the Rockstarter update software tool to upgrade the device firmware.

The following items are required for this process:

- Rockstarter
  - Optional programming power cable (P/N: 196400) if the unit is not powered via the main incoming feed.
- A laptop running Windows 10, 64-bit hardware and Ethernet port or adaptor.
- Ethernet cable.
- Update tool software available from Ampcontrol for the desired new firmware version.

### WARNING!



In the interests of **safety and correct equipment operation**, please take the time to read and understand the content in this manual and other associated documentation.

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# 1 ROCKSTARTER FIRMWARE UPDATE

## 1.1 Overview

The following list provides an outline of the steps involved in the Rockstarter firmware update procedure. Select any item below to navigate to that step within this document.

1. [Power on the Rockstarter](#)
2. [Identify Rockstarter network settings](#)
3. [Identify Rockstarter serial number](#)
4. [Set laptop on same subnet as Rockstarter](#)
5. [Update Rockstarter firmware](#)
6. [Check the Rockstarter version](#)

## 1.2 Update Procedure

### 1. Power on the Rockstarter

This can be achieved via two different methods:

- i. Apply system voltage to the Rockstarter as designed through the incoming power feed.

OR if Rockstarter cannot be powered via the incoming power feed:

- ii. Apply programming power through the I/O connector using the specified programming cable.

#### NOTE



When using this I/O connector method:

1. This cable needs to be supplied by regulated 48VDC 1A.
2. Polarity is not important.

#### CAUTION!



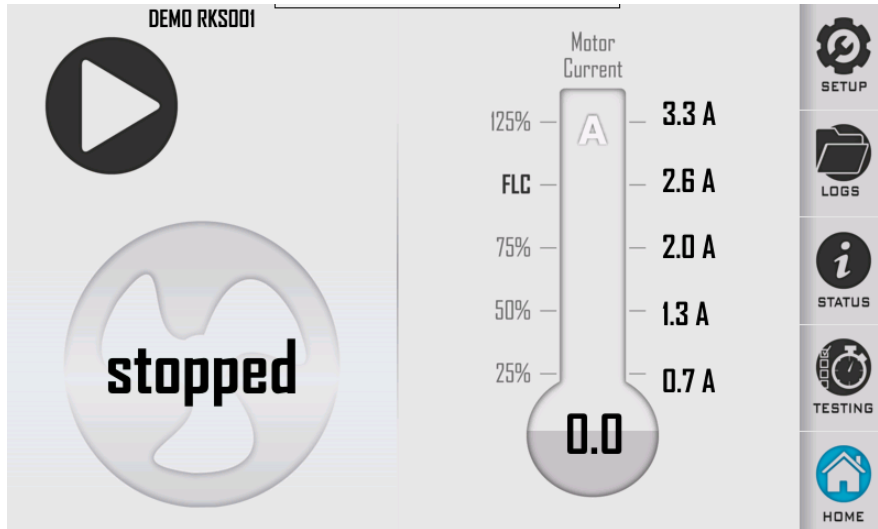
When using this I/O connector method:

1. Do not attempt to close the contactor or shunt trip breaker as power draw will exceed the available supply and cause a false trip or potentially damage the Rockstarter's internal wiring harness.
2. Do not apply system power to the Rockstarter while powered through the I/O connector.
3. The power supply through I/O connector should only be used for firmware upgrades in the field.

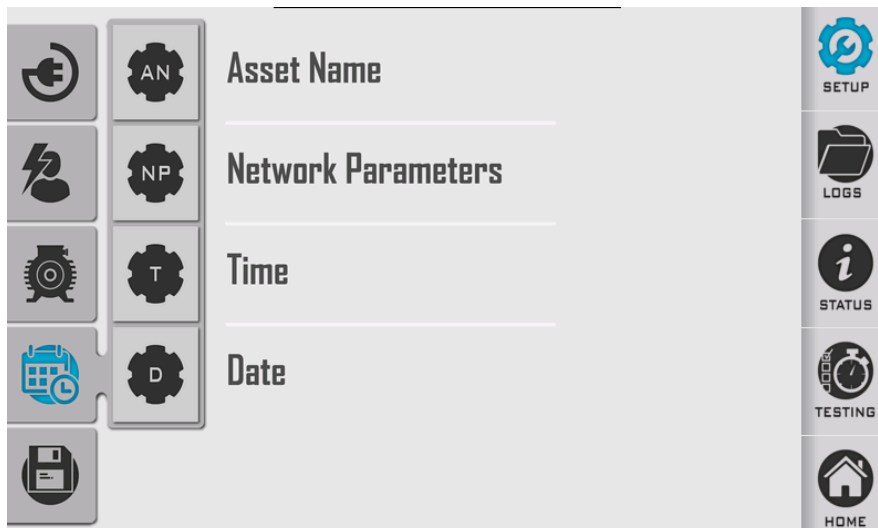
## 2. Identify Rockstarter network settings

This step involves finding the Rockstarter’s network settings, which will then be used in the following steps with the laptop.

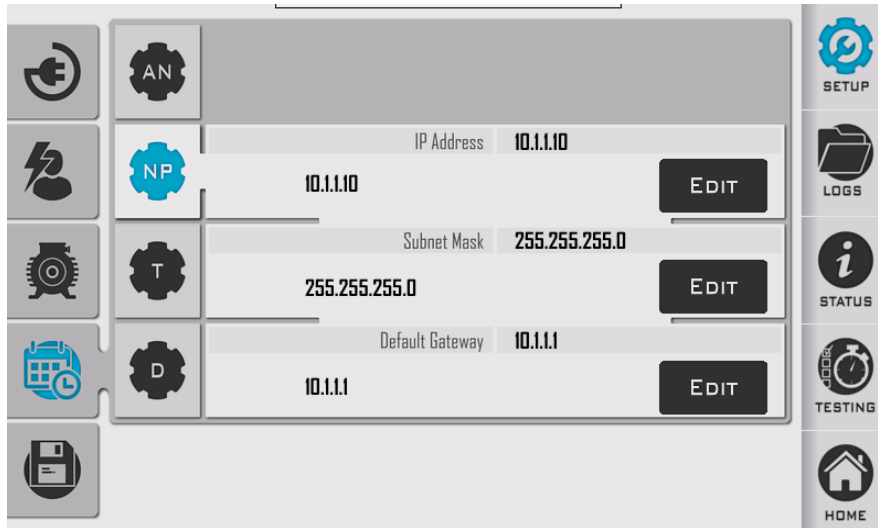
- i. On the Rockstarter’s HMI, select “Setup” from the “Home” screen.



- ii. Select “General”.



- iii. Select “Network Parameters”. Make a note of the IP address, Subnet Mask and Default Gateway settings for use later in this process.



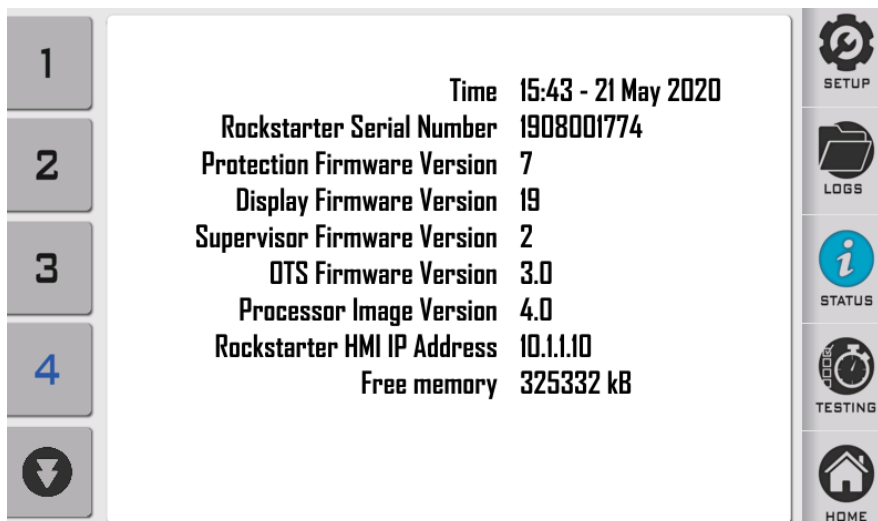
**3. Identify the Rockstarter’s serial number**

- i. On the Rockstarter’s HMI, navigate to page 4 of the status menu, record the serial number and software version.

**NOTE**



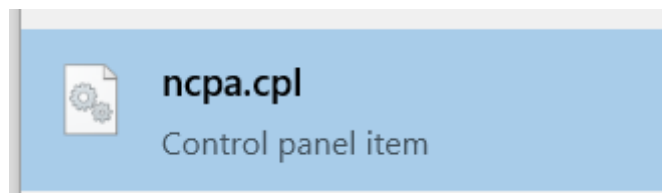
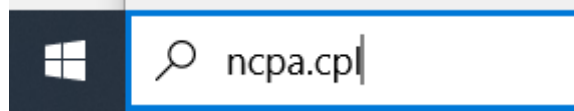
Also check that the serial number in the HMI matches the sticker on the terminal compartment cover. If this does not match then resolve this mismatch by finding the correct terminal compartment cover, as this can cause confusion and issues around OTS interfacing and asset management.



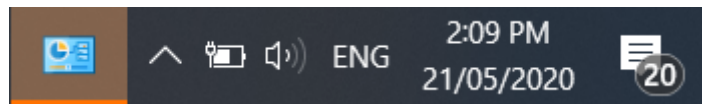
**4. Set laptop on same subnet as Rockstarter**

This step is required to allow the laptop to be on the same network as the Rockstarter, to allow both devices to communicate via an Ethernet cable.

- i. Check the Windows start menu icon and then type “ncpa.cpl” in the search box. Press enter or left click the ncpa.cpl program link that appears.



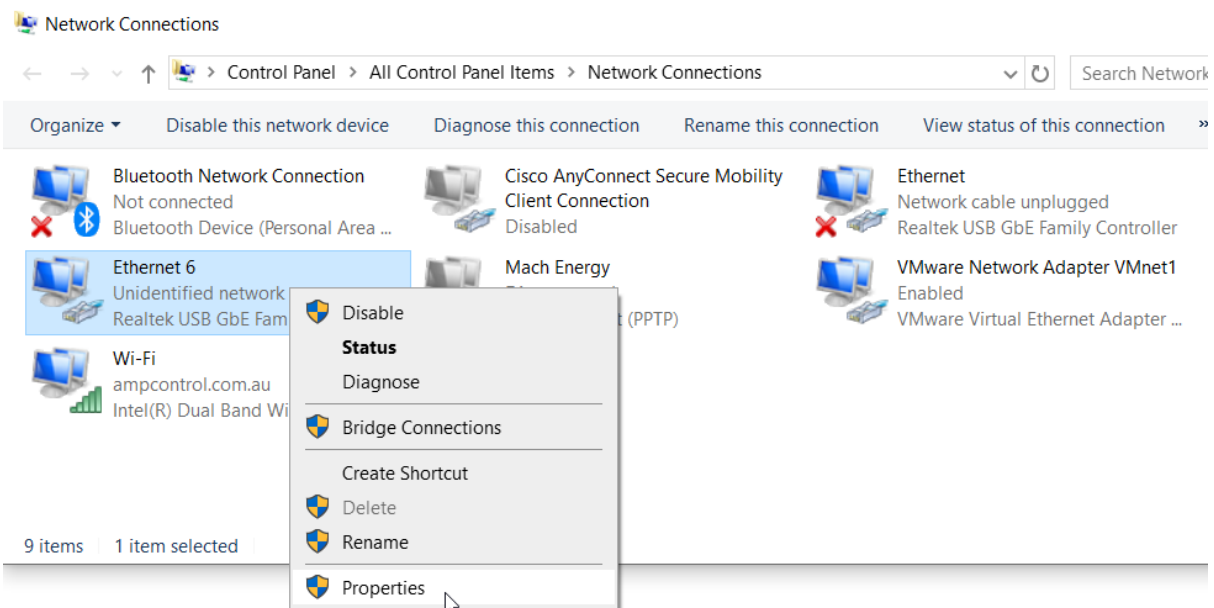
- ii. If the window opens behind other screens, bring it to the front by selecting the program on the taskbar.



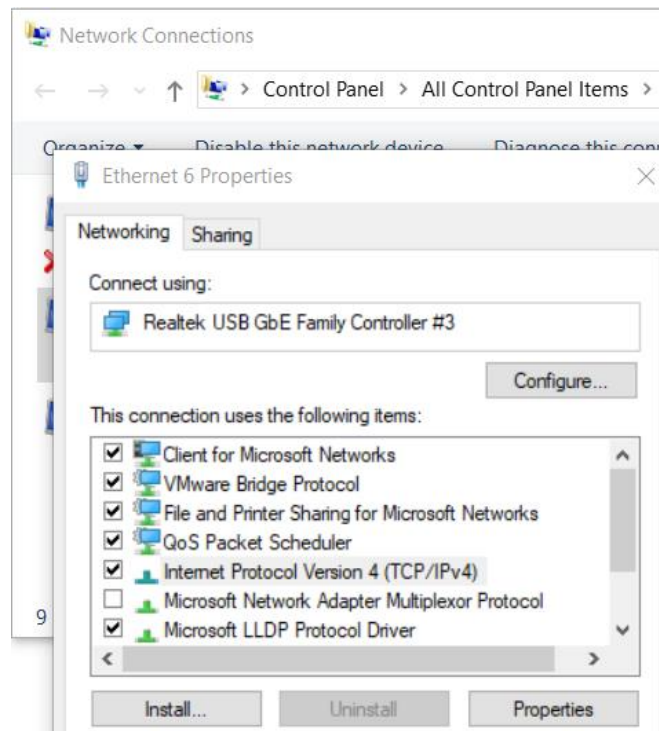
- iii. Plug an Ethernet cable into both the laptop and the Rockstarter. Link lights should appear on the Ethernet ports. If the Ethernet port lights do not illuminate, check the cable is connected correctly and not damaged. Continue once link lights are illuminated.
- iv. Identify the Ethernet adaptor which you are using on the laptop to connect to the Rockstarter.

If the adaptor is not known then simply disconnect and reconnect the Ethernet cable. You should see the adaptor appear upon reconnection.

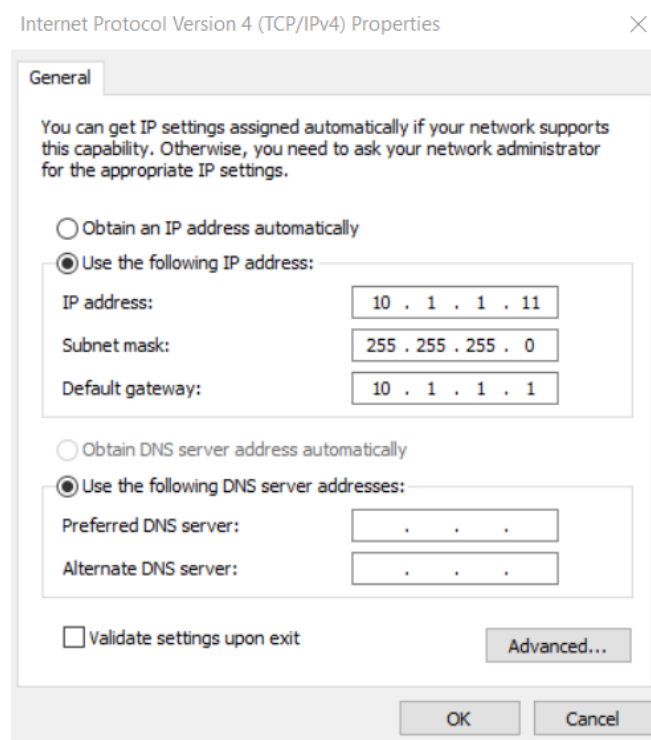
Right click properties on the Ethernet adaptor which is connected to the Rockstarter and select properties.



- v. Select “Internet Protocol Version 4 (TCP/IPv4), and click the properties button.

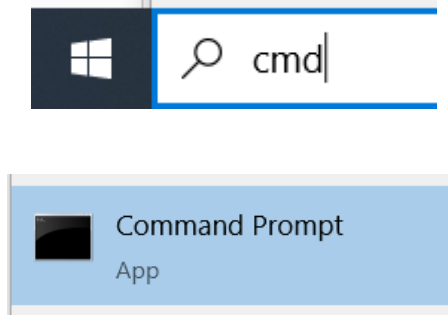


- vi. Select “Use the following IP address” and enter an IP address in the same subnet as the Rockstarter. If you are not sure then set the Rockstarter and the laptop to the same IP details as this in the image below.





- vii. Verify you are connected to a Rockstarter with a ping command.
- a) Type “cmd” into the Windows Start Menu and press enter or click on “command prompt”



- b) In the window that opens, type “Ping “ and the IP address of the Rockstarter which was identified above, then press enter.

```
C:\WINDOWS\system32>ping 10.1.1.10

Pinging 10.1.1.10 with 32 bytes of data:
Reply from 10.1.1.10: bytes=32 time=26ms TTL=64
Reply from 10.1.1.10: bytes=32 time=1ms TTL=64
Reply from 10.1.1.10: bytes=32 time=1ms TTL=64
Reply from 10.1.1.10: bytes=32 time=1ms TTL=64

Ping statistics for 10.1.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 26ms, Average = 7ms

C:\WINDOWS\system32>
```

- c) If you get “Request timed out:” check the steps above before proceeding further. You need a reply from the Rockstarter’s IP address to continue.

```
C:\WINDOWS\system32>ping 10.1.1.10

Pinging 10.1.1.10 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 10.1.1.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\WINDOWS\system32>
```

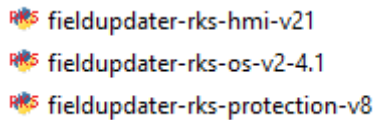
## 5. Update Rockstarter firmware

There are 3x firmware updates to be run when updating the firmware on a single Rockstarter.

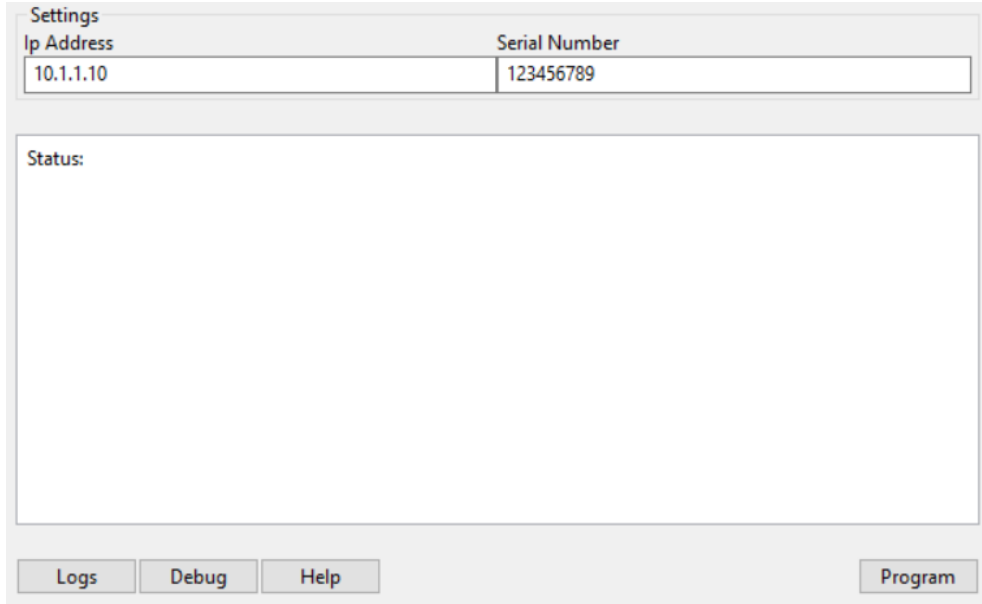
- 1- OS Firmware, “fieldupdater-rks-os-v2-4.1”
- 2- Protection Firmware, “fieldupdater-rks-protection-v8”
- 3- HMI Firmware, “fieldupdater-rks-hmi-v21”

The order for installing updates should be as presented above, 1-2-3. No damage to the Rockstarter will occur if this order is not followed, rather it may be an inconvenience. The reason being that the update will force the HMI to turn off when performing its update. This will require a power cycle to reboot the HMI which may not be easy to achieve when performed on a Rockstarter installed on full volts. Alternatively if left the HMI will reboot in around ~10minutes.

- i. On the laptop, open the desired firmware executable file supplied by Ampcontrol.



- ii. In the window that opens, type in the IP Address of the Rockstarter and the serial number which was noted down in an earlier step.



- iii. Click the ‘Program’ button to apply the update. This may take a few minutes.

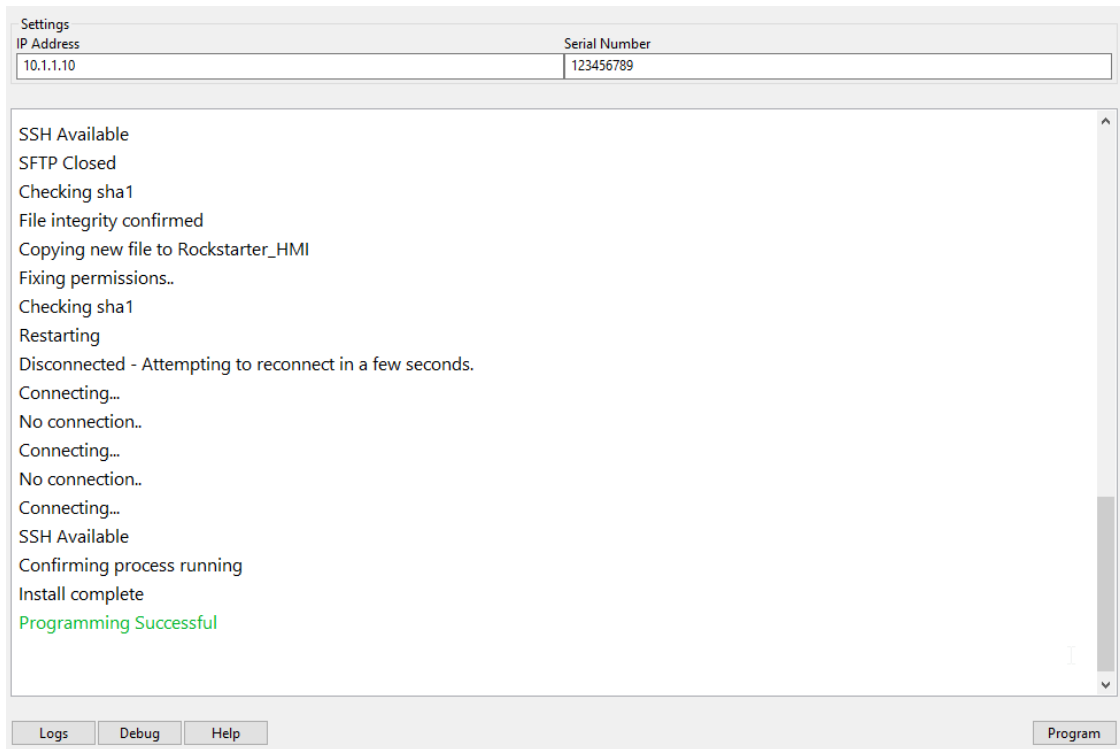
### NOTE



While the new firmware version is programmed to the Rockstarter, do not power off the Rockstarter or laptop and do not disconnect the Ethernet cable during this process. If the power or Ethernet cable is disconnected, reinstall the power and/or Ethernet cable and restart this process.

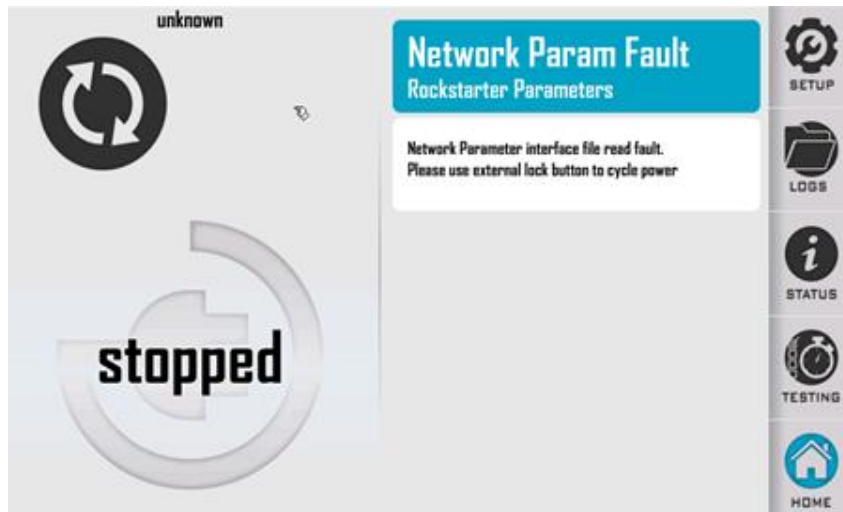
- iv. While the update takes place, a number of messages will be displayed on the screen. Once completed, “Programming successful” should be displayed to confirm a successful update.

If any other message is displayed, check the previous steps and try again. If unable to gain a successful update after checking all steps, contact Ampcontrol support. Note the “Logs” and “Debug” buttons at the bottom of the screen, which can be used to troubleshoot a failed update.



- v. The stored location of the network settings utilised by the Rockstarter has been moved in V20. This means that you may get a “Network Param Fault” when performing the firmware update. If this happens, the remedy is not to cycle power, but to re-save network settings from the setup menu and reset trip.

The below is a screenshot of what is expected to be displayed when the network parameter fault occurs during the upgrade from V19 (or earlier) to V21. It should be noted that the fault may or may not occur when upgrading from V20.



**6. Check the Rockstarter version**

This step is simply a check to ensure the update was applied as expected.

- i. Check the firmware version on page 4 of the Status menu.

