

Fratch Multipath-IP STU

Installation Guide: GPRS

This is an Installation guide for installing and connecting a Multipath-IP STU (referred to as a STU in this document) to the Multipath-IP network via a GPRS (General Packet Radio Service) connection.



Prior to installation

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On Site Installation



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Note

The pre-installation steps should be completed *before visiting the client site*. After installation, standard site commissioning tests should be completed.

Detailed Instructions: Pre-Install



Submit the Plan Activation Form

1. Ensure the **Plan Activation Form** (included in the box) has been submitted to the Central Monitoring Station **AT LEAST 24 HOURS PRIOR** to the installation.

Detailed Instructions: On Site



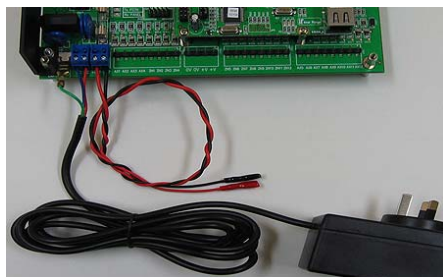
Connect the Antenna to the STU

1. Connect the antenna to the GSM modem.
2. Ensure the antenna is “finger tight” only. DO NOT OVERTIGHTEN.
3. DO NOT cut, or otherwise modify the cable
4. Ensure the cable is free of any kinks or sharp bends.



Connect the Plug Pack and Battery Leads

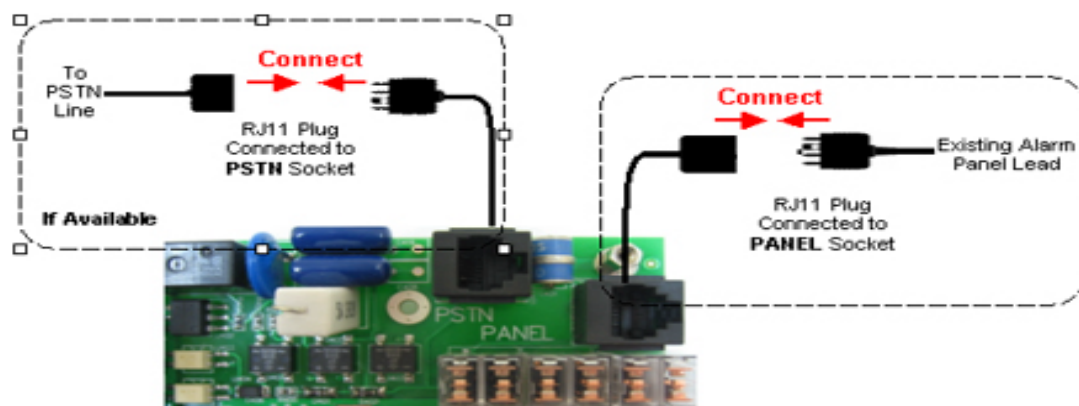
1. Attach the Spade socket to the green earth lead of the plug pack.
 2. Attach the 2 way terminal block to the red and blue leads of the plug pack.
 3. Connect terminal block and spade socket now attached to the plug pack, to the connectors marked AC and Earth on the STU..
 4. Attach the two way terminal block to the red and black battery leads.
 5. Connect the terminal block with the battery leads to connectors on the STU marked +BAT, -BAT.
- **DO NOT CONNECT THE PLUG PACK TO MAINS POWER YET.**



Connect the Panel and PSTN Line

1. Connect the RJ11 connector of the phone cable to the RJ11 socket of the STU labelled "Panel".
2. Connect the 604 socket of the phone cable to the alarm panel
(Steps 3 and 4 are recommended but not essential)
3. Connect the RJ11 connector of the phone cable to the RJ11 socket of the STU labelled "PSTN".
4. Connect the 601 plug of the phone cable to the PSTN network.

It is highly recommended that a PSTN (Phone line) be connected to Multipath-IP installations as the PSTN line provides an additional backup path for alarm communications and allows remote dialling into the alarm panel for programming changes.



2

Change the Phone Number in the Alarm Panel to a Single Digit

(This step is recommended but not essential)

1. Change the programming in the alarm panel so that the reporting telephone number (of the Central Monitoring Station receiver) is a single digit. Any single digit is OK, for example change '0398091836' to '1'.

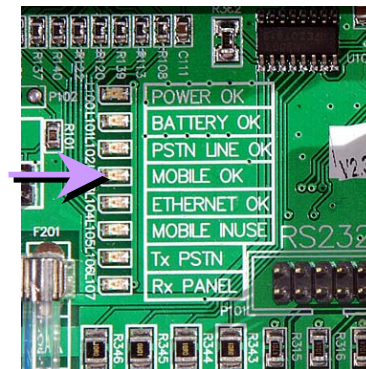
It is highly recommended that a single digit be programmed into the alarm panel as this speeds up the communications between the alarm panel and the STU and hence the overall reporting time to the Central Monitoring Station.

3

Power up the STU and check for connection to the GSM Network

1. Connect the plug pack to the 240VAC power source.
2. Attach the battery clips to the terminals of a 12V, 7AH backup battery. (The battery is not supplied with the Multipath-IP STU)
3. *Check for connection to the GSM network.* The "MOBILE OK" LED will initially flash fast. When the STU has successfully connected to the GSM network, the "MOBILE OK" LED will then illuminate for approximately 5 seconds and then flash slow. (This 5 second illumination and flash sequence, will repeat every 10 seconds)

After 1 minute, if the "MOBILE OK" LED does not enter the 5 second illumination cycle, then relocate the antenna to a position with greater GSM signal strength & ensure SIM is inserted correctly.



4. Check for adequate GSM signal strength. Once the "MOBILE OK" LED has entered the 5 second illumination cycle, then the number of flashes represents the GSM signal strength.
 - 1 or 2 flashes represents low or unacceptable GSM signal strength
 - 3 flashes represents adequate GSM signal strength
 - 4 or 5 flashes represents good GSM signal strength

Note

If the "Mobile OK" LED shows low GSM signal strength (i.e. 1 or 2 flashes), then relocate the antenna to a position with greater GSM signal strength.

Note

The signal level on a mobile phone can also be used to check the signal strength at different positions around a site. When relocating the GSM antenna, please allow 30 seconds for the new signal strength to be displayed.

5. In order to check the signal strength of the Backup SIM card (if it is available) the following steps can be used:
 - a. Connect a shorting link across the "OK" pins of the Multipath-IP STU.
 - b. Immediately the "PWR OK" and "BATTERY OK" lamps will begin flashing alternately and all other lamps will turn off.
 - c. In order to use the Backup SIM card the modem must first reset. Normally the modem takes about 1 minute to reset and display the signal strength of the Backup SIM card.
 - d. The "MOBILE OK" lamp now represents the status of the Backup SIM card in the same way as described above.
 - e. Repeat the steps above in order to maximise the signal strength for the Backup SIM card by moving the antenna location.
 - f. When this test has been completed, remove the shorting link from the "OK" pins. The "PWR OK" and "BATTERY OK" lamps will immediately stop flashing and all of the other lamps will again represent their labelled status.
 - g. Again the modem will take approximately 1 minute to reset and use the Primary SIM card.
 - h. The swapping and checking of SIM cards can be repeated as many times as necessary.

4

Contact the Central Monitoring Station and Enrol the Multipath-IP STU

1. Contact the Central Monitoring Station and request that the STU be enrolled (The Central Monitoring Station should already have the mobile phone number of the STU. This is required for enrolment. This number is on the plan activation form.)
2. Receive confirmation from the Central Monitoring Station that the STU has been successfully enrolled.
3. Whilst enrolling, the "MOBILE IN USE" LED should flash, and when communication is established the "MOBILE IN USE" LED should be on.

5

Minimum suggested site commissioning tests for a Multipath-IP STU using GPRS

1. Verify polling on the primary IP path (GPRS1)
 - a. The STU should be communicating to the Multipath-IP server via GPRS1. To verify this, ask the Central Monitoring Station to check the Multipath-IP server STU message log, this will show the path that is being used.
 - b. Verify 3 successful polls (no retries) have been received by Multipath-IP server.
2. Verify polling on the redundant secondary IP path (GPRS2)
 - a. Remove GSM antenna and wait for "MOBILE OK" lamp to turn off. Replace GSM antenna. After approximately 1 minute the STU should be communicating to the Multipath-IP server via GPRS2.
 - b. To verify this, ask the Central Monitoring Station to check the Multipath-IP server STU message log, this will show the path that is being used. Verify 3 successful polls (no retries) have been received by Multipath-IP server.
3. Verify recovery from power failure
 - a. Remove power from the STU for approximately 10 seconds then apply power again. After approximately 1 minute the STU should be communicating to the Multipath-IP server via the primary IP path (GPRS1). To verify this, ask the Central Monitoring Station to check the Multipath-IP server STU message log, this will show the path that is being used.
 - b. Verify 3 successful polls (no retries) have been received by Multipath-IP server.

Disclaimer:

While every effort has been made to ensure the accuracy of this manual, the manufacturer assumes no responsibility or liability for any errors or omissions. Due to ongoing development, this manual is subject to change without notice.