Welcome

Thank you for purchasing our GPS module! Follow these step-by-step instructions to set up your module quickly and ensure it operates correctly.

Table of Contents

What's Included

- 1x Trace GPS Module for AJAX
- 1x Cellular Antenna
- 1x GPS Antenna
- 1x 3000mAh Rechargeable LiPo Backup Battery (installed)
- 1x Quick Start Guide

Before You Begin

Check Package Contents:

Verify all items from the "What's Included" section are present and undamaged. Report any missing or damaged items to support immediately..

System Requirements:

- **Power**: 12V DC power supply (included) or backup battery
- **Network**: Ethernet connection for initial setup, cellular for operation
- **Ajax Hub**: Must be powered and operational
- **Internet Browser**: Chrome, Firefox, Safari, or Edge for web portal access
- **Mobile Signal**: 4G LTE coverage in installation area

Safety Precautions:

⚠ WARNING: Handle device with care to prevent static damage

⚠ CAUTION: Keep device away from moisture, extreme temperatures, and direct sunlight

Hardware Installation

Step 1: Choose Installation Location

Select a location that provides:

- Clear GPS satellite visibility (avoid a lot of metal structures overhead)

- Protection from weather and tampering

- Access to 12V power supply

- Stable mounting surface

Step 2: Mount the Device (where Required)

1. Remove the x4 screws holding the device together and secure the back case to your mounting surface (ensure to pre-drill holes)

2. Ensure ventilation around the device for heat dissipation

3. Position for easy access to LED indicators and reset button

Step 3: Connect Antennas

-GPS Antenna Connection:
Attach the GPS antenna securely to the GPS port on the module.
For optimal signal reception Position the antenna where it has a clear view of the sky.

-Cellular Antenna Connection:
Attach the cellular antenna securely to the GSM port on the module.

Step 4: Network Connection

Please Note: if your SIM requires any login or APN details then an Ethernet Connection will be required for initial setup. SIM details are entered into our portal at setup. (most off the shelf sims do not require this, please check with your SIM provider if unsure)

Ethernet Connection:

1. Connect Ethernet cable to device Ethernet port

2. Connect other end to your network router/switch

3. Ensure network has internet access for initial configuration

Cellular Connection (SIM):

1. Install SIM in designated slot following the depiction on the device for correct installation, in some instances you may need to use a flat screwdriver to push the SIM in completely or until it clicks into place

If SIM is generic (over the counter, pre paid etc) this should work for initial setup depending on the provider, please ensure no APN or Login details are required for your SIM prior to moving forward.

Step 5: Power Connection

1. Connect 12V power supply to device's 12V IN terminals following the polarity depiction on the device. Note failure to do so will result in voided warranty and possible injury / harm.

2. Wait 1 Minute for device boot sequence

Device Registration & Configuration

Step 1: Access Trace Portal

1. Open web browser and navigate to: **https://www.traceportal.net/**

2. Setup as an Installer (if already done, Login)

3. Navigate to the **Company** section

4. Create a company and once created then Navigate to the **Register Device** Tab

Step 2: Register Your Device

1. Locate device serial number (printed on device label)

2. Enter device serial number in the Device Serial Number Field

3. Click **"Verify Device"**- system will confirm device connectivity

4. Add device nickname (optional but recommended)

Step 3: Configure AJAX Integration

1. Enter the target AJAX USER account (login) credentials:

   •**Username/Email**: The Target AJAX USER account login
   •**Password**: The Target AJAX account password

2. Click **"Verify Credentials"**

3. Select the Target AJAX Hub you want to monitor for panic events

4. Click **"Apply Configuration"**

Step 4: Configure Cellular Settings (if required)

Most devices work with default settings, but you may need to configure:

> •**APN**: Contact your cellular provider (e.g., "telstra.internet")
>
> •**Username**: Usually not required
>
> •**Password**: Usually not required

Step 5: Complete Registration

> 1. Click **"Register & Program Device"**
>
> 2. Wait for configuration to be sent to device (30-60 seconds)
>
> 3. You will receive a Success message identifying successful configuration

Testing The Module

Ethernet Operation:

The device requires Ethernet connection for initial configuration:

> 1. Ensure Ethernet cable is connected and LED is orange
>
> 2. Device will automatically connect to internet
>
> 3. Configuration will be downloaded from cloud servers
>
> 4. Device will maintain an open connection to our portal from now on. You can now ping, live track, view errors and device logs under "**Manage Devices**"

Any panic events from AJAX (space controller, App, keypad or button) will now display on our portal and also be sent back to the AJAX app with the GPS device's location data.

Cellular Operation

After initial configuration, unplug the Ethernet cable, after 10 seconds of no Ethernet connection the device will switch to Cellular Operation

1. **Disconnect** the Ethernet cable

2. Using a pin, press the **RESET** button once

3. Wait 60 seconds for cellular connection

4. **STAT** LED will illuminate Green when cellular mode is active

5. **NET** LED will flash Blue when connected to cellular network

6. Device will maintain an open connection to our portal from now on. You can now ping, live track, view errors and device logs under "**Manage Devices**"

Any panic events from AJAX (space controller, App, keypad or button) will now display on our portal and also be sent back to the AJAX app with the GPS device's location data.

Battery Replacement & Management

⚠ CRITICAL: Verify correct polarity before connection

• **Red wire** connects to **positive (+)** terminal

• **Black wire** connects to **negative (-)** terminal

• **Yellow Wire** connects to the centre **Temperature Sensor** terminal

Check PCB markings for confirmation & always ensure to use Trace approved battery's

Troubleshooting

Device Not Detected During Registration

Symptoms:
Serial number not found during verification
Solutions:

1. Verify device is powered on

2. Check Ethernet connection – **ETH** LED should be orange

3. Ensure device serial number entered correctly

4. Wait 2 minutes after power-on before attempting registration

5. Press RESET button and wait 60 seconds, then retry

No GPS Lock

Symptoms:
GPS LED continues flashing, no location data
Solutions:

1. Verify GPS antenna securely connected

2. Try to ensure a clear sky view - move away from overhead obstructions

3. Check for interference from other electronic devices

4. Allow up to 10 minutes for initial lock upon start up

5. Try repositioning antenna for better satellite visibility

Cellular Connection Failed

Symptoms:
STAT LED off, NET LED not flashing after Ethernet disconnect
Solutions:

1. Verify cellular antenna connected properly

2. Check SIM card inserted correctly

3. Confirm cellular coverage in area (use mobile phone test)

4. Verify APN settings if using custom cellular provider

5. Press RESET button and wait 2 minutes for connection attempt

Delayed or Missing Panic Notifications

Symptoms:
Panic events not received or significant delays
Solutions:

1. Check internet connection speed (both Ethernet and cellular)

2. Verify Ajax credentials entered correctly during configuration

3. Confirm selected Ajax hub is online and operational

4. Test with different panic trigger methods

5. Check Trace Portal for device status and error logs

Configuration Errors

Symptoms:
Device not responding
Solutions:

1. Verify Ajax credentials are correct

2. Ensure Ajax hub is online and accessible

3. Check network connectivity during configuration

4. Try re-configuring through Trace Portal

5. Reset device if necessary (contact support)

LED Light Indicators

1. **STAT = GREEN –** Indicates that <u>Cellular</u> mode is activated

2. **NET = FLASHING BLUE –** Indicates that <u>Cellular</u> is connected and operational

3. **CHR SOLID RED –** Indicates that the <u>Battery Is Charging</u>

4. **CHR FLASHING RED –** Indicates <u>Battery Low</u> or <u>Not Connected</u>

5. **CHR OFF –** Indicates the <u>Battery Is Connected</u> and <u>Fully Charged</u>

Technical Support

Before Contacting Support
Please gather the following information:

• Device serial number

• LED status at time of issue

• Network connection type (Ethernet/Cellular)

• Ajax hub model and firmware version

• Detailed description of problem

Support Channels

Web Portal Support:

1. Log into Trace Portal

2. Navigate to Support section

3. Submit support ticket with device details

Limited Warranty Terms – Trace GPS Device

1. Warranty Coverage
Trace by Tested Pty Ltd ("Trace") warrants that your GPS tracking device ("Product") will be free from defects in materials and workmanship under normal use for a period of **12 months** from the original date of installation ("Warranty Period").

2. What is Covered
During the Warranty Period, if a defect arises in the Product and you follow the warranty process outlined below, Trace will, at its option:

- Repair the Product at no charge, using new or refurbished replacement parts; or

- Replace the Product with a new or refurbished unit; or

- Refund the original purchase price of the Product (if repair or replacement is not commercially feasible).

3. What is Not Covered
This Limited Warranty does **not** cover:

- Normal wear and tear.

- Damage caused by misuse, accident, neglect, water ingress, power surges, or unauthorised modifications.

- Damage resulting from use not in accordance with the Product documentation or applicable local standards.

- Software, third-party services, or consumable parts (e.g., SIM cards or batteries not supplied by Trace).

- Any device where the serial number has been removed or defaced.

4. How to Obtain Warranty Service
To obtain warranty service, you must:

1. Contact Trace Support via [support email or website].

2. Provide proof of purchase, including date and place of purchase and device serial number.

3. Return the device, if instructed, in its original or equivalent protective packaging.

5. Limitation of Liability
To the extent permitted by law, Trace shall not be liable for any indirect, incidental, or consequential damages arising from the use or inability to use the product. Trace's liability is limited to the repair, replacement, or refund described above.

6. Consumer Law Notice (Australia)
Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a **major failure** and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if they fail to be of acceptable quality and the failure does not amount to a major failure.

7. Warranty Transfer
This warranty is valid only for the original purchaser and is not transferable unless agreed in writing by Trace.

Frequently Asked Questions

Q: How often should I test the panic system?

A: Monthly testing recommended. Wait at least 60 seconds between test activation's.

Q: What happens if my internet connection goes down?

A: Device automatically switches to cellular backup if SIM installed. Panic monitoring continues uninterrupted. If operating on SIM only, we recommend you monitor your data usage with your provider.

Q: Can I use my own SIM card?

A: Yes, but configuration may be required. Contact Provider for APN settings.

Q: How accurate is the GPS location?

A: Typically 1-5 meters under optimal conditions, up to 10 meters in challenging environments.

Q: What is the battery life during 12v power outage?

A: 12-24 hours depending on panic frequency and cellular signal strength.

Q: Can I monitor multiple Ajax hubs with one device?

A: No, each device monitors one Ajax hub. Multiple devices needed for multiple hubs.

Q: Can I have multiple devices with one Ajax hub?

A: Yes. There is no limit for how many devices you can connect to each hub, however each device will not display a nickname within the Ajax app. We recommend using our portal to distinguish devices.

Q: What is the maximum distance between your device and an Ajax hub?

A: None. Our module will operate with Ajax hubs from different sides of the globe.

Q: Will the device still work with Ajax if the hub goes OFFLINE?

A: Yes. Our modules are designed to operate even if the Ajax hub is offline / disconnected. This safety feature operates with a panic press within the Ajax app only (not button etc)

Q: How much data do the modules use monthly?

A: we estimate basic monthly usage between 30-50mb per month with sleep mode usage between 10-30mb per month and heavy usage of live tracking around 500mb per month

Additional Resources

•**Online User Portal**: Access device status, history, and configuration

•**Mobile App**: Real-time monitoring and notifications (coming soon)

•**Video Tutorials**: Step-by-step setup guides available online

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