



Congratulations on your purchase of TracPlus™ with a Satamatics 201 Inmarsat D+/D2 terminal.

For warranty details and Terms & Conditions, please refer to the TracPlus™ website at <http://www.tracplus.com> and the enclosed Satamatics™ 201 User Manual

SAFETY WARNINGS



IMPORTANT: Before applying power to the equipment, the user must read all instructions in the Satamatics 201 User Manual. Guidance notes for the installation and use of the SAT-201 must be strictly followed.

COMPLIANCE AND SUITABILITY TO PURPOSE

Responsibility for the compliance of the equipment and installation with local rules and regulations rests with the installer.

The Satamatics 201 is not certified for use in aircraft, and neither Satamatics nor Daestra New Zealand make any statement of suitability for aeronautical use.

INSTALLATION



IMPORTANT: Installation and service should only be carried out by suitably qualified service personnel. Local working practices and regulations for wiring and installations must be adhered to at all times.

FAILURE TO FOLLOW ALL INSTALLATION INSTRUCTIONS IS LIKELY TO RESULT IN PHYSICAL DAMAGE TO THE TERMINAL AND VOID HARDWARE WARRANTIES. FAILURE TO FOLLOW ALL INSTALLATION INSTRUCTIONS MAY ALSO SIGNIFICANTLY AND ADVERSELY AFFECT TRACKING RELIABILITY THEREBY VOIDING SERVICE WARRANTIES.

Power Requirements

The equipment is powered from an external DC supply of between 9.6V and 32V. The DC supply must be capable of providing a maximum VA power of 9.6W, for example 1A @ 9.6V or 0.3A @ 32V. External power is connected via the provided 12-way connector. See below for connector details and pin connections.

When installing the SAT-201, adequate circuit protection must be provided as required by local regulations.



IMPORTANT: If connecting to an external battery, the SAT-201 requires an external fast acting 1 Amp fuse (24 AWG minimum wire gauge) connected in series with the positive supply at the battery end of the cable.

Cabling



IMPORTANT: Use only the cable that is provided with the terminal. Failure to do so may compromise the operation or weatherproof rating of the terminal.

- Be sure to plan and test cable routing before committing to a permanent installation.
- When routing the cable avoid sharp edges and pinches.
- Be aware of the minimum static bend radius of the cable.
- Mechanical pressure on the cable may cause loss of functionality or even a short circuit and subsequent damage to the terminal.

Location

- The SAT-201 should be mounted on a flat horizontal surface with an unobstructed, clear view of the sky.
- Consider the position of the satellites. The Inmarsat satellites are in geostationary orbits above the equator. (i.e., in the Northern hemisphere the satellites are located to the South; in the Southern hemisphere the satellites are located to the North.) The further away from the Equator the SAT-201 is, the lower the degree of elevation will be above the horizon.
- If you plan to install the SAT-201 in a partially enclosed environment, test operation before committing to a permanent installation.
- On vehicles, the SAT-201 should be located on the highest point possible, free from obstructions and safe from damage during normal operation of the host vehicle.
- For installations exposed to shock and/or vibration, use a mounting scheme that isolates the unit from the excessive shock and/or vibration.
- Choose a location that is not near radar installations, other satellite communication equipment, and/or microwave dishes to prevent RF jamming.
- Avoid mounting the SAT-201 on hot surfaces.

Mounting

- If possible, try the installation before drilling any holes or fixing cable.
- The SAT-201 may be mounted using either the three outer M4 mounting holes (refer to Figure 2 in the SAT-201 User Manual) or the M25 thread on the base (refer Figure 3).
- If using the three outer mounting holes (recommended for installations exposed to shock and/or high vibration):
 - Drill a central 40mm hole to pass the connector and base mounting thread through.
 - Position the SAT-201 and mark the location of the three mounting holes.
 - Drill three 4.5mm mounting holes.
 - Secure the SAT-201 in place using M4 (No.8) screws and nuts – **DO NOT OVER TIGHTEN.**
 - Alternatively, secure using screws appropriate to the mounting surface - **DO NOT OVER TIGHTEN.**
- If using the M25 base mounting thread (not recommended for installations exposed to shock and/or high vibration):
 - Drill a 26mm hole to pass the connector and mounting thread through.
 - Secure using M25 nut - **DO NOT OVER TIGHTEN.**



IMPORTANT: Over tightening will result in cracking of the terminal housing and mount points, compromising the reliability of the terminal and safety of the installation. Overtightening will void your warranty.

Wiring



IMPORTANT: Use only the cable that is provided with the terminal. Failure to do so may compromise the operation or weatherproof rating of the terminal.

For a full interface connector pinout specification, refer to the Satamatics 201 User Manual.

Connect Pin 1 (cable screen), Pin 3 (Orange) and Pin 10 (Black) to GND (0v) on the DC supply.

Connect Pin 2 (Red) to Positive on the DC supply.

Unused wires should be insulated against shorting, and should **NOT** be connected to other wires or either GND (0v) or Positive on the DC supply.

Distress Switch (Optional)

Connect a two-position switch between Pin 7 (Purple) and GND. Do **NOT** use a momentary switch. An external switch debouncing circuit is not required. We recommend use of a gated switch to minimise the risk of inadvertent activation. This switch activates Distress Mode, and is confirmed by the Distress Mode Active LED.

If the Distress Switch is not installed, Distress Mode **CANNOT** be activated.

Distress Mode Active LED (Optional)

Connect a resistor and LED in series between Pin 5 (Green) and the positive DC supply, Pin 2 (Red). The correct specification of the LED and resistor is dependent upon the voltage of the power supply used.

If the Distress Mode Active LED is not installed, there will be **NO** visual confirmation that Distress Mode is activated.

Point of Interest or Ops Normal Button (Optional)

Connect a momentary push button between Pin 6 (Blue) and GND. Do **NOT** use a multiple position switch. An external switch debouncing circuit is not required. This button can be configured by software as either a Point of Interest button OR an Operations Normal button. This button is used in conjunction with the Message Pending LED.

If the Point of Interest/Ops Normal Button is not installed, Point of Interest/Ops Normal functionality will **NOT** be available.

Message Pending LED (Optional)

Connect a resistor and LED in series between Pin 4 (Yellow) and the positive DC supply, Pin 2 (Red). The correct specification of the LED and resistor depends on the voltage of the power supply used.

If the Message Pending LED is not installed, there will be **NO** visual confirmation that Point of Interest or Ops Normal messages have been queued for transmission.

Software Installation

Insert the TracPlus™ DVD into your Microsoft Windows™ XP or Vista™ computer and follow the onscreen instructions.

Other Information

Be sure to check for any updated installation information at <http://www.tracplus.co.nz>