GPS Hard-Wired Pro Installation Guide

The GPS Hard-Wired Pro is supplied with a 10-wire harness and contains pins for various I/Os. For many installs, where we simply are looking for 'standard' vehicle tracking, we only need to connect 3-wires.

- The GPS Hard-Wired Pro comes with a 10 wire, 1m long harness
- 15mm is pre-stripped on the input (RED), ground (BLACK), and the ignition (WHITE) wires.
- 24 AWG

Wire Harness Definition

PIN	COLOUR	FUNCTION
1		VIN
2		GROUND
3		IGNITION
4		DIGITAL INPUT 1
5		DIGITAL INPUT 2
6		DRIVER ID 1 (iButton Data / Wiegand D1 / TTL TX)
7		DRIVER ID 2 (Digital Input 3 / Wiegand D0 / TTL RX)
8		SWITCHED GROUND
9		ANALOGUE INPUT
10		GROUND

Wiring Description:

- Connect RED on the GPS Hard-Wired Pro harness to the vehicle battery (8-36V).

- Connect BLACK to chassis ground

- Connect WHITE to an ignition source

Notes:

- The WHITE ignition input will register as 'on' when > 2.2V is applied to this line.

- Ensure the RED wire is connected to a constant source. Sometimes it may be wired to a point which only provides power when the ignition is on.

Standard 3 Wire Install Wiring Diagram

Power 8-36V
G70 GND
Chassis GND
Ignition Input

Once the device is connected, please check your ANYTRACK GPS Tracking Access to ensure you have External Power (12 or 24V) & Battery Level (around 4V) showing up on the asset.

Status: Parked at 1D Sydney Steel Road,
Battery Voltage: 4.1 V
External Voltage: 24.9 V
Cellular Signal Strength: Good
Ignition: Off

For any questions or issues, please contact ANYTRACK GPS on info@anytrack.com.au

Remote Immobilisation Installation

Notes

- The GPS Hard-Wired has a switched ground output. This is the GREEN wire.

- The SW GND can be wired to a relay, to control the relay

- The relay is also wired to cut/close the starter motor circuit for a vehicle, meaning that whether a vehicle is able to start or not can be controlled by the GPS Hard-Wired Pro

- Immobilisation can be turned on/off by the GPS Hard-Wired Pro based on Driver ID Tag scans, or remotely through ANYTRACK LIVE Web Dashboard or App

Wiring Configurations

There are different ways to wire in a relay and configure the device settings to achieve a similar result. However, the aim is to try to avoid having the relay coil energized for an extended period of time - so as to not drain the vehicle battery if it is not driven for some time.

Automotive relays will have 2 contacts:

- **Normally Open**

  o The 'default' state, when the relay is not energised is **open** (break in circuit)

- **Normally Closed**

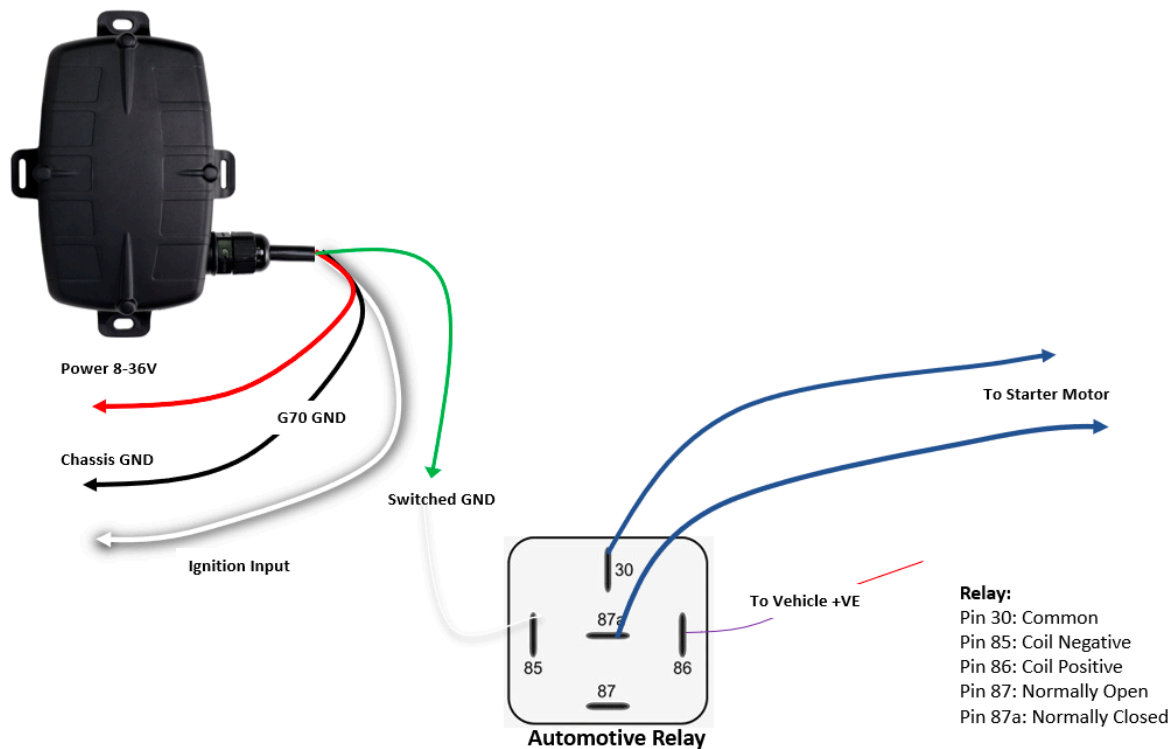 o The 'default' state, when the really is not energized is **closed** (closed loop)

There are 2 common use cases **(this guide covers case 2)**

1. The vehicle cannot be started until the right driver ID tag is scanned.

   a. In this case when the relay is not energized we want there to be a break in the start motor circuit. So we wire to the Normally Open contact.

   b. With this config, we can still additionally send a command from the server to immobilize the asset and prevent anyone from starting it, even if they have a valid ID. If one form of immobilization (ANYTRACK LIVE or Driver ID) **OR** the other is active, the asset can't start.

2. **Default state is that the vehicle can always be started - unless via ANYTRACK LIVE or another software platform an 'immobilize' command is sent.**

   a. **In this case we want the relay when not energized to be closed, allowing the vehicle to start. So, we wired to the Normally Closed contact. Sending the command will energize the relay.**

Wiring and Installation

- Connect pin 86 (relay positive) to the Vehicle Positive

- Pins 30 and 87A (normally closed) are wired to form the break in the start motor

- Connect the switched ground (GREEN) to the relay negative, pin 85.

Your asset can be started as per normal until the immobilize command is sent from ANYTRACK.

Power 8-36V

G70 GND

Chassis GND

Switched GND

Ignition Input

To Starter Motor

30

87a

85   86

87

To Vehicle +VE

Relay:
Pin 30: Common
Pin 85: Coil Negative
Pin 86: Coil Positive
Pin 87: Normally Open
Pin 87a: Normally Closed

Automotive Relay

Once connected – ANYTRACK Support will need to configure Digital Output 1 for the Function to be Immobiliser to Active High = YES for this device

Please contact ANYTRACK GPS on info@anytrack.com.au for activation of this setting providing SERIAL number of the device.