VISIONTRACK

VT5500

INSTALLATION GUIDE

THE UK'S MOST AWARD-WINNING CAMERA TELEMATICS COMPANY

www.visiontrack.com

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Important Information:

- Failure to comply with the following Warnings, Approval and Safety information may invalidate warranty, certification or type approval of this product.
- Before you begin installing and commissioning the system please ensure that you have read this manual thoroughly referring to any supplementary information provided for the unit as required.
- Unauthorised modification to this equipment or associated accessories is forbidden without the expressed permission and agreement from the product manufacturer.
- This equipment should not be operated in hazardous environments i.e. areas that contain explosive materials or flammable vapours.
- This equipment should not be operated within aircrafts or in close proximity to medical equipment.
- This equipment may only be located in a position where it cannot interfere with the normal operation of the vehicle or present a hazard to the driver or passengers.
- Care must be taken in the routing of all cables so that the insulation does not become worn or damaged.
- All installation and service work must be carried out in accordance with FCS1362, FCS1372, RQAS, 95/54/EC, ISO 21609 and / or any other statutory guidelines or Directives currently in force. Therefore it is strongly recommended that the unit is installed and commissioned by suitably trained and qualified installation personnel with accreditation.
- Unauthorised changes or alterations to the equipment or the installation will invalidate certification issued by the Approved Accreditation Bodies and may also affect the vehicle manufacturers warranty.
- Under no circumstances may any part of the product be installed inside the engine compartment area.

Important Information:

List of do's and don't's when installing a VisionTrack MDVR.

1. **Power:** All VisionTrack devices **MUST** be wired to their own power supply and not connected/shared to an existing power pickup point. We recommend that the vehicle power pickup points should be located using the vehicle manufactures instructions. ***THIS MEANS YOU CANNOT USE ANOTHER TELEMATICS PROVIDERS POWER SUPPLY OR PICK UP POINTS TO POWER A VISIONTRACK DEVICE.**

   To avoid interference, the VisionTrack power supply **MUST** be installed as far away from other Telematics devices and power supplies already installed within the vehicle as possible. Ideally on the opposite side of the vehicle.

2. **GPS/3G and 4G Antennas:** To avoid interference the VisionTrack device antennas **MUST** be installed as far away from each other as well as other Telematics devices already installed within the vehicle as possible. Ideally in the opposite side A-pillar.

3. **Securing:** The MDVR has an internal accelerometer to measure harsh driving events so you **MUST** ensure that it is firmly secured in the vehicle.

   You **MUST** also ensure the device is calibrated as part of the commission process.

VT5500

5-CHANNEL FULL HD 1080P MOBILE DVR

The VT5500 is a full HD 1080p ruggedised, 5-channel mobile digital video recorder (MDVR) designed for vehicle surveillance and monitoring, with built-in 4G connectivity, advanced video compression, GPS positioning technology for live tracking. The MDVR fully integrates with VisionTrack's Platform and has as a built-in three-axis G-shock sensor as standard, offering full driver behaviour reporting.

1. Forward-Facing Camera

3. Side-View Camera

5. Left Turn Alert and/or Proximity Sensors

2. In-Vehicle Monitor

4. Mobile DVR

6. Reverse and/or Load Camera

Engineering Tools:


Plastic Scraper


Screw Driver


Cable Ties


Drill


Torch


Plastic Cutter


Wire Cutter


Wire Stripper

Solder Wire


Crimping Connectors


Soldering Iron


Crimping Tool


Electrical Tape

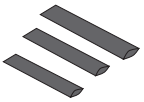

Multimeter


Amalgamating Tape


Round File


Plastic Lever


Heat Gun (Gas)


Heatshrink


Reinforced Tape

What's in the box:

1 VT5500 Mobile DVR

2 VT5500 Mounting Arms and Screws

3 S-VT5500 3G Antenna

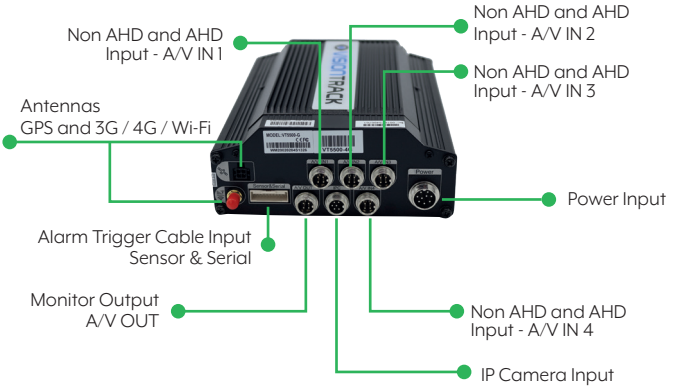
4 S-VT5500 GPS Antenna

5 S-VT5500 Power Input

6 VT5500 Key

7 VT5500 Fuses

VT5500 Details:



Pre-Installation Checks: ⚠

Please follow these checks before installation is started.

1. Validate that the vehicle presented matches the vehicle details on the VisionTrack Service Portal.
2. Take note of and document any damage to where the camera(s) will be fitted, e.g. windscreen and around the number plate.
3. Follow the pre-installation checks as outlined in the VisionTrack Service Portal.
4. All vehicle defects must be highlighted to the policy holder and documented in the Portal.
5. Write down the following (needed for commissioning and job debrief):
   - The 10 character DRID number (marked S/N on a white label)
   - The 15 character Serial Number (on the white label with the bar code)
   - The registration of the vehicle
6. Make sure the vehicle is parked on flat and level ground.

VT5500 Wiring:

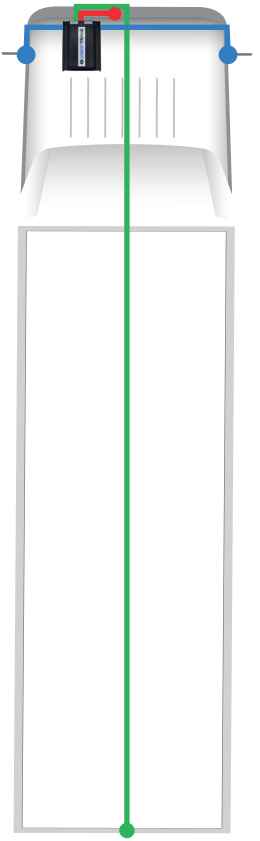
Connect the cameras to the VT5500G as follows:

Camera	Position	Port
VT-C20-IPC	Front	IPC
VT408-AHD	Left Side	A/V IN 1
VT408-AHD	Right Side	A/V IN 2
VT646-AHD	Rear	A/V IN 3

Side-facing Cameras
(VT408-AHD Image)

Rear-facing Camera
(VT646-AHD Image)

Forward-facing Camera
(VT-C20-IPC Image)



Power Supply:

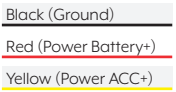
The power connection for the VT5500 is simple, it consists of three wires and connections:

- Permanent Power (12/24V)
- Ignition ACC
- Ground

NOTE: Always test the wires with multimeter prior to making the connections.

NOTE: Turn off the ignition and remove the key prior to making any connections.

- Connect the black wire to a suitable ground
- Connect the red wire to permanent 12 or 24V power
- Connect the yellow wire to a 12 or 24V ignition feed



NOTE: You need to ensure that the 7.5A fuse is in the fuseholder for the permanent power.

NOTE: All solder joints must be insulated with both electrical tape and heatshrink / amalgamating tape to comply with Masternaut Standards. Please press here for details.

NOTE: The fuse for the ignition connection is built into the DVR unit itself.

Antennas:

The VT5500 comes with two stand-alone antennas. One GPS and one 3G/4G GSM. These need to be installed covertly, i.e. behind panels, in the vehicle and connected to the DVR.

GPS

The GPS antenna must be installed with the adhesive pad facing down. The other side must also have a clear line of sight to the sky i.e. not be obstructed by any metal. Fasten it in place with the adhesive pad and cover it with reinforced tape on top to secure it.

Connect the 4-pin plug from the GPS antenna to the DVR unit. Line up the clip on the plug with the notch on the connector.

NOTE: To avoid interference the camera GPS must be installed as far away from the GPS/Tracking Devices as possible. Ideally in the opposite side a-pillar.

GSM

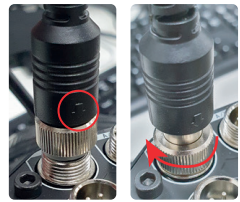
To reduce interference it is recommended to install the GSM antenna away from electrical equipment and other antennas. VisionTrack recommends 1 metre, if that is not possible position it as far away as possible. Fasten it in place with the adhesive pad and cover it with reinforced tape on top to secure it. Connect the GSM plug to the DVR by pushing it in and secure it by tightening the nut.

Camera Connections:

There are two different types of camera connections on the DVR. One is for the AHD cameras, such as the VT408-AHD, and it is a 4-pin connector.

The other is for the IPC cameras, such as the VT-C20-IPC, and that one is a 6-pin connector.

Line up the plug with the connector and push down slightly. Following this tighten the nut to secure it. Connecting the extension cables work the same way.
Line up the arrows, push in slightly and tighten the nut to secure.



NOTE: Ensure that you line up the arrow on the plug with the half-circle notch on the connector. NOTE: When connecting the camera fly lead to the extension lead you must make the connection waterproof. The rubber sheaths alone are not enough to make the connection waterproof. Amalgamating tape should also be used. This is particularly important for connections that are made outside the vehicle.

Positioning and Mounting:

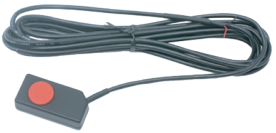
First you must attach the two mounting brackets to either side of the DVR. Line up the brackets to the holes on either side of the DVR with the wings facing out and secure them with the included screws.

Due to the size of the DVR the best position for it is underneath the passenger seat or on the bulk head behind the seats. Put the mounting bracket wings flat against the surface and use screws or nuts and bolts to secure it in place.

NOTE: The DVR has an internal accelerometer to measure harsh driving events so you must ensure that it is firmly secured in the vehicle.

Panic Button:

In the event of an incident, the VT-PANIC button allows drivers to send alerts directly to the VisionTrack software platform.
Install the button in a place where it's reachable and does not interfere with operation of the vehicle, e.g. blank button slots on the dash.



The VT-PANIC button is connected to the VT5500 via the Alarm In/Out Cable as shown below. It should be enabled by default but must be checked during the commissioning call.

NOTE: Ensure the vehicle ignition is off.

Alarm In Sensor 4 DVR ← VT-PANIC Button Black

Alarm sensor out + 5v DVR → VT-PANIC Button RED

Cable Routing:

When routing the VT5500G and camera cables you must ensure that you do the following:

- Secure the cables with cable ties at regular intervals
- Avoid blocking or interfering with airbags or moving parts
- Follow existing wiring where possible
- Use conduit for cables routed on the outside of the vehicle

NOTE: More information on how and where to route camera cables can be found in the specific camera guides.

Alarm In/Out Cable - Wiring Diagram:

Green (Sensor In 1)
Grey (Sensor In 2)
Light Green (Sensor In 3)
Light Blue (Sensor In 4)
Grey (Sensor In 5)
Orange (Sensor In 6)
Blue/Black (Sensor In 5)
Blue/White (Sensor In 6)

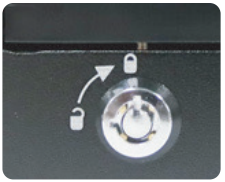
Blue (Speed In)
Red/White (Sensor Out 1)
Red/Yellow (Sensor Out 2)
Black (Ground)
Red (+5V)
VT-CP4 / RS232-RS485 Convertor
MIC (Voip and dial in accessory)

NOTE: All Sensor In wires are voltage on/off (5-12V).

Commissioning:

NOTE: It is important that you ensure that the vehicle is parked on a flat and level surface during the commissioning process.

NOTE: When the DVR is ready to commission you must ensure that the hard drive is locked in place. Otherwise it will not boot up.



Start the engine and wait for 5 minutes and call the VisionTrack technical support team on **01246 225 858** to commission the device.

Please follow the checklist below during the commissioning call with VisionTrack:

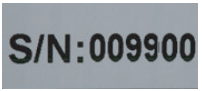
Information to provide

- ✓ Org ID / Customer Name
- ✓ Unit DRID
- ✓ Unit Serial Number?
- ✓ Vehicle Registration

Functions to test

- ✓ G-Sensor (Unit Calibration)
- ✓ IPC Activation (VT-C20-IPC)
- ✓ Panic Button
- ✓ Camera Angles

NOTE: The DRID for this unit type starts with 00600 or 009900 and is 10 characters long and can be found on a white label on the DVR unit.



Example DRID Number

The VisionTrack technical support team is available:

01246 225 858

(Monday – Friday 8.00am – 6.00pm)

(Saturday – 9.00am – 5.00pm)

NOTE: You will be given a Commissioning number by VisionTrack.

Notes:

VisionTrack National Engineering Manager

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www.visiontrack.com

VT5500 INSTALLATION GUIDE

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VisionTrack Official Website