

Product Specification

TMU Mk2

Vehicle Counter

The Traffic Management Unit (TMU) Mk2 is part of the proven Clearview Intelligence, Intelligent Transport Systems (ITS) range and is the latest model of TMU approved for deployment on the Highways England network.

At its core the TMU Mk2 operates as per the original Mk1 model but utilises the latest loop counter hardware providing improved reliability and easier maintenance. Full support for the Highways England Traffic Data protocol ensures that the TMU Mk2 is easily deployed to deliver data to NTIS (National Traffic Information Service).

Like all our products, the TMU Mk2 is the result of our 30 years of experience with roadside systems operating in harsh conditions.

Our systems last for many years due to their rugged construction and the use of plastic and stainless steel throughout. Over 20,000 Clearview Intelligence traffic recorders are located around the world, operating to extremely high levels in all traffic conditions. Installation and maintenance is simple with readily accessible batteries, military grade connectors and SIM cards.

Because the loop detectors are integrated and under the control of a single processor, advanced algorithms are available to spot straddling vehicles and minimise data inaccuracy due to congested conditions. In the past, 'N+1' configurations have been necessary to attain similar levels of performance, but this type of configuration is not required with the TMU Mk2.

Each TMU Mk2 can be configured with up to a maximum of 8 lanes per unit across four sites. The assignment of loops to lanes, along with the identification of the upstream loop in each lane, is part of the configuration data.

The TMU will maintain seven days' worth of data and a rolling fault log containing event records for diagnostic purposes. Extensive fault and status reports are generated, including loop, power, and firmware versions. The unit will periodically check the validity of the configuration data to ensure a consistent mode of operation.

Configuration is achieved via a Windows based graphical front-end application providing a simple but informative interface to ease setup and maintenance. The new design of the TMU Mk2 benefits from improved access to the data SIM and battery without the need to remove the outer casing. This enables routine maintenance to be performed whilst the unit is in-situ, reducing costs and ensuring maximum operational time.

The TMU Mk2 includes an integrated low-power GSM/GPRS modem providing reliable and sustainable communications for both mains and solar powered installations.

Where the site is to be operated from solar panels, the internal battery can be supplemented by connecting an external 6V/36Ah battery pack in parallel. Both internal battery and external battery pack are then charged from the solar panel via a dedicated solar battery charger.



Key Benefits

- Superior vehicle data capture accuracy
- Rugged and reliable, flexible device that can be deployed in the harshest of environments
- Reduced installation and life time costs through the use of solar power
- Cost effective management through remote access and data collection
- Compatible and authorised for use with the HE's NTIS system enabling quick and easy deployment

Key Features

- Latest generation inductive loop based TMU
- A comprehensive range of configuration, connectivity and additional interface options
- Extremely low power consumption
- User friendly configuration and management application
- GPRS communication for remote data collection
- Can be battery, mains or solar powered

PART NUMBERS

NTIS PART NUMBER	DESCRIPTION	CI PART NUMBER
NTIS-0201-2-000	RM1089 Lot15 Clearview - HE -TMU 16ch Processor (006697-000)	GR6832-0002-09T
NTIS-0202-2-000	RM1089 Lot15 Clearview - HE -TMU Solar Charger (007256-001)	007256-001
NTIS-0203-2-000	RM1089 Lot15 Clearview - HE -TMU Solar Panel including Case (011143-030)	011143-030
NTIS-0204-5-000	RM1089 Lot15 Clearview - HE -TMU Battery Pack (007250-000)	007250-001
NTIS-0205-2-000	RM1089 Lot15 Clearview - HE -TMU Loop Leads (006660-002)	006660-002
NTIS-0206-2-000	RM1089 Lot15 Clearview - HE -TMU Power Leads (006641-000)	006641-000
NTIS-0207-1-000	RM1089 Lot15 Clearview - HE -Cabinet and Road-side Housing (007200-000)	007200-002
NTIS-0208-4-000	RM1089 Lot15 Clearview - HE -TMU Antenna 5m	260270-000
NTIS-0209-1-000	RM1089 Lot15 Clearview - HE -TMU Pole - Long	480629-000
NTIS-0210-1-000	RM1089 Lot15 Clearview - HE -TMU Pole - Short	480632-000
NTIS-0211-4-000	RM1089 Lot15 Clearview - HE -TMU Battery Charger	006830-000
NTIS-0212-5-000	RM1089 Lot15 Clearview - HE -TMU Cabinet Keys (Pair)	NONE
NTIS-0213-5-000	RM1089 Lot15 Clearview - HE -TMU Cabinet Lock and Key	NONE
NTIS-0214-1-000	RM1089 Lot15 Clearview - HE -TMU Cabinet Door	480649-000
NTIS-0215-5-000	RM1089 Lot15 Clearview - HE -TMU Security Bolt	NONE
NTIS-0216-5-000	RM1089 Lot15 Clearview - HE -TMU Solar Panel	220051-000

Specifications

DIMENSIONS

315mm x 220mm x 140mm

WEIGHT

4400g

OPERATING TEMPERATURE RANGE

-15 to +70°C (5°F to +158°F)

ENVIRONMENTAL PROTECTION

IP67 (not including battery compartment)

ELECTROMAGNETIC COMPATIBILITY

Tested to - EN50293

BATTERY OPERATION

Depending upon application, over 30 days without additional battery support is possible

POWER

Solar, mains and/or battery

INPUTS

16 loop sensors

SENSOR CONFIGURATIONS

Loop - Loop

DATA OUTPUTS

Average speed, 4 flow bins (length bins), average headway and occupancy (per site/per lane)

DATA PROTOCOL

Traffic Data

MACHINE INTERFACE

RS232 up to 115,200 baud

SOFTWARE

Remotely upgradeable and reconfigurable