



telent's Plug and Play Traffic Signal System Significantly Reduces Installation Time

As part of Transport for London's innovation programme telent's state-of-the-art Plug and Play traffic signal installation system delivers upgraded traffic signals and pedestrian crossings in significantly reduced timescales therefore minimising the disruption to London's road users and benefitting residents, local authorities and taxpayers.

Installation

The Plug and Play pre-built poles and heads, pre-wired and commissioned controllers, and low level access points allow for a four pole pedestrian crossing to be installed on site in less than four hours and a four pole junction installation time reduced to one day from four to five days.

Pole access

All poles are pre-built with low level access points to reduce the need to work at height and for ease of maintenance.

Controller Pre-Wiring and Base

The controller has been re-wired and the controller base modified to accept IP68 rated plugs and sockets positioned to keep them protected from any water leaking into the ducting system.

Once the controller is in position, the street cabling is plugged into the controller which completes the installation.

The controller cabinet sockets are terminated in the workshop and a pre-commissioning is carried out to test the operation of the system, prior to installation.

Cable

The configuration of the system has been developed to work with 25 core SY cable. This allows the unit to be built with a single cable to each pole. The flexibility of the cable adds to the ease of installation on site where an existing duct system is used.

The cable runs are pre-measured on site so the cables can be premade to the site specific lengths. This removes the requirement to have large cable drums on site during the installation process.

Example Installation Timeline

With the prefabrication and testing carried out beforehand this can allow the site to potentially be installed within the following timeframe:

- 08:30 Install cables
- 10:00 Poles delivered to site
- 10:30 Install controller to base
- 11:00 Site on ready to commission
- 12:00 Successful handover to local authority

TfL Quote

Commenting on the success of the project, Brendan M Sleight, Chief Engineer at Transport for London said: "This innovative approach from telent results in our improvement works being completed quicker. The impact on local residents and road users of traffic signal installation works has decreased from days to hours allowing the streets to be back up and running sooner."

Summary

Through effective measurement, commissioning of equipment built ahead of installation, and pre-installation testing, time on site can be drastically reduced, minimising the time required for lane rental and traffic management.

Benefits

- Reduced disruption to the general public
- Reduced lane rental charges
- Re-wired controller accepting IP68 rated plugs and sockets positioned to prevent water damage reducing failure times
- All equipment tested and pre-commissioned prior to installation.

