

SUPERSEDED

**Specification (Measurement)**

**Transport and Main Roads Specifications  
MRS95 Provision of Switchboards**

**October 2014**

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## 1 Introduction

This Specification applies to the supply and installation of switchboards for the supply of electrical power to electrical installations including traffic signal installations and Rates-2 and 3 road lighting installations.

This Specification shall be read in conjunction with MRS01 *Introduction to Specifications*, MRTS95 *Provision of Switchboards* and other Specifications as appropriate.

This Specification forms part of the Transport and Main Roads Specifications Manual.

The title of MRS95 had been changed from "Switchboards and Cables" to "Switchboards".  
All references to electrical cables had been moved to new specification MRTS256 and MRS256.

## 2 Measurement of works

### 2.1 Standard Work Items

In accordance with the provisions of Clause 2 of MRS01 *Introduction to Specifications*, the standard work items covered by this Specification are listed in Table 2.1.

**Table 2.1 – Standard Work Items**

| Standard Item No. | Description   | Unit of Measurement |
|-------------------|---|---------------------|
|                   | <b>Switchboards</b>   |                     |
| 6802              | Supply of pole mounted switchboard and ancillary components [ <i>type</i> ].  | each                |
| 6804              | Installation of pole mounted switchboard and ancillary components [ <i>type</i> ].  | each                |
| 6637              | Supply and installation of joint use traffic signal and road lighting pole, [ <i>length</i> ] metres long.  | each                |
|                   | <b>Mains Connection</b>   |                     |
| 6831              | Supply of mains connection equipment including the supply of mains connection cable, [ <i>length</i> ], [ <i>usage</i> ], [ <i>conductor size</i> ], [ <i>number of cores</i> ] cores, [ <i>core insulation</i> ], [ <i>sheath insulation</i> ], [ <i>conductor material</i> ]. | each                |
| 6832              | Installation of mains connection including mains connection cable.  | each                |

### 2.2 Work Operations

#### Item 6802 Supply of pole mounted switchboard and ancillary components [*type*]

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of pole mounted switchboard enclosure
- c) supply of electrical components including din rail, mains isolation switch, circuit breakers, change over switch and contactors
- d) supply of photoelectric control switch and socket
- e) supply of earth stake and cabling, and
- f) supply of Type 4 electrical pit and 50 mm PVC conduit to switchboard.

**Item 6804 Installation of pole mounted switchboard and ancillary components [type]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) installation of switchboard on pole
- c) installation of pit and conduit
- d) installation and mounting of switchboard electrical components
- e) installation of photoelectric control switch and cabling to switchboard
- f) installation and cabling of earth stake
- g) connection of mains connection cabling and road lighting cabling to switchboard
- h) testing of installation, and
- i) installation of switchboard cover.

**Item 6637 Supply and installation of joint use traffic signal and road lighting pole, [length] metres long**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply, fabrication and installation of pole
- c) mortar grouting of base plate
- d) supply and installation of traffic signal terminal panel and road lighting terminal panel
- e) supply and installation of road lighting cable from pit to luminaire and supply and installation of road lighting junction box in pit
- f) supply of all fixing bolts, nuts and washers, and
- g) testing of road lighting installation.

**Item 6831 Supply of mains connection equipment including the supply of mains connection cable, [length], [usage], [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of mains connection equipment
- c) supply of mains connection cable from pole to switchboard (for Rate 3) or road lighting pole/cable joint (for Rate 2), and
- d) supply of UV stabilised 50 mm PVC conduit and fittings.

**Item 6832 Installation of mains connection including mains connection cable**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) installation of mains connection equipment on pole
- c) installation of conduit on pole and to pit
- d) installation of conduit from pit to switchboard (for Rate 3) or road lighting pole/cable joint (for Rate 2)
- e) installation of cable from pit to switchboard (for Rate 3) or road lighting pole/cable joint (for Rate 2), and
- f) testing of installation.

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