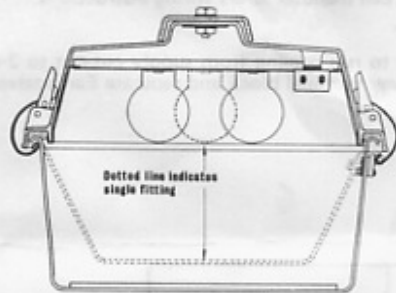


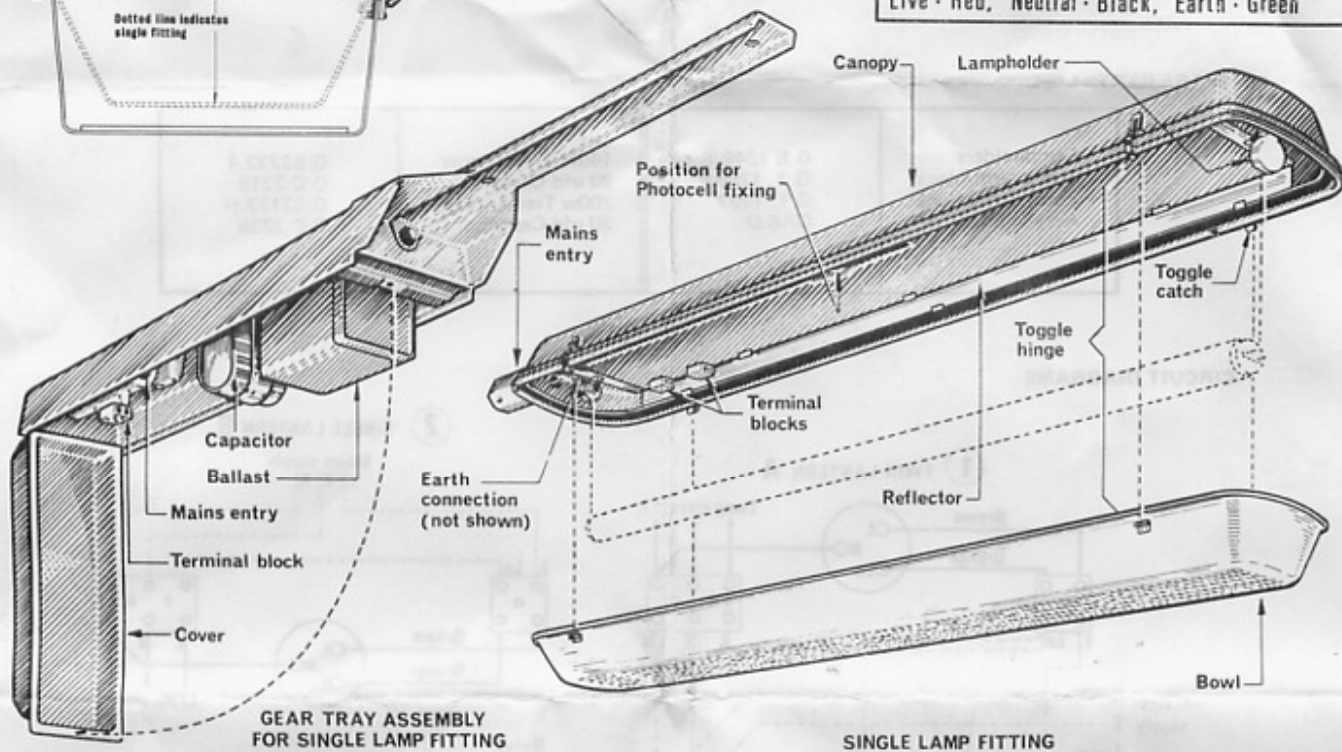
Installation and Wiring Instructions for

ALPHA SIX LANTERNS QA6 SERIES

THORN

**IMPORTANT**

By International agreement wiring colours are to be:
 Live - Brown, Neutral - Blue, Earth - Green and Yellow
 During interim period they may be:
 Live - Red, Neutral - Black, Earth - Green

**LANTERNS WITH CONTROL GEAR MOUNTED IN COLUMNS**

1. Release bowl catches and hinge down bowl for access to canopy.
2. Pass supply cables through spigot-entry and connect to terminal block(s) using cable clamp(s) provided to secure cables.
3. Threading or drawing cables through column and bracket, locate spigot entry of lantern onto bracket spigot barrel 5" (127mm) x 1¹¹/₁₆" (41mm) OD (1¹/₄" (43mm) BSP tube).
4. Tighten the locking grub-screws. Lantern alignment in the plane parallel to the road surface, can be achieved by using a spirit-level on the leading edge (roadside edge) of the canopy.
5. Fix 140w or 200w SLI/H lamp into the spring loaded lampholders and close the bowl to canopy.
6. Fix control gear onto wooden backboard in base compartment of columns, using brass or plated woodscrews.
7. Connect as per transformer circuit label, and terminate into supply cut-out in base-compartment of column.
8. Test for earth continuity and insulation.
9. Insert fuse.

LANTERNS WITH CONTROL GEAR MOUNTED IN END SUPPORTS

1. Release and hinge down, gear compartment cover plate, for access to cable terminations.
2. Pass supply cables through spigot entry and connect to terminal block(s) using cable clamp(s) provided to secure cables. The earth lead should be connected to separate terminal on carcass of lantern.
3. Threading or drawing cables through column and bracket, locate spigot entry of lantern on to bracket spigot barrel, 5" (127mm) x 1" (25mm) OD (1¹/₄" (43mm) BSP tube).
4. Tighten the three locking grub-screws on top of spigot entry bore. Lantern alignment in the plane, parallel to road surface, can be achieved by using a spirit-level on the leading edge (roadside end) of canopy.
5. Release and hinge down bowl for access to canopy and fix 140w or 200w SLI/H lamp into the springloaded lampholders. Close the bowl to canopy.
6. Connect cables from lantern to supply cut-out in base compartment of column.
7. Test for earth continuity and insulation.
8. Insert fuse.

PHOTO-ELECTRIC CONTROL UNITS

Each Alpha Six lantern is provided with the facility for fitting P.E. cell control. The basic facility is an aperture in the canopy, made weatherproof by a gasketed cover-plate of Aluminium Alloy.

For the N.E.M.A., twist and lock plug type unit, proceed as follows:-

1. Remove aluminium alloy cover-plate and insert N.E.M.A. socket, securing to canopy by means of the 2BA screws and nuts and gasket removed with the cover-plate.

Note:- Locate the NORTH aiming arrow on socket rim towards the Northern hemisphere.

2. Using high-temperature PVC cable, connect to 3-way terminal block provided in lantern, using P.E. cell manufacturers wiring instructions.

3. Plug in and lock P.E. cell unit.

For control with relay unit mounted in base compartment of column:-

1. Remove the knock-out provided in aperture cover-plate and insert P.E. cell housing.

2. Connect the flying-leads from P.E. cell to 3-way terminal block provided in lantern, using P.E. cell manufacturers wiring instructions.

3. Connect cables from 3-way terminal block to relay unit in column base compartment.

For motor way P.E. control units see circuit diagrams 1 to 4.

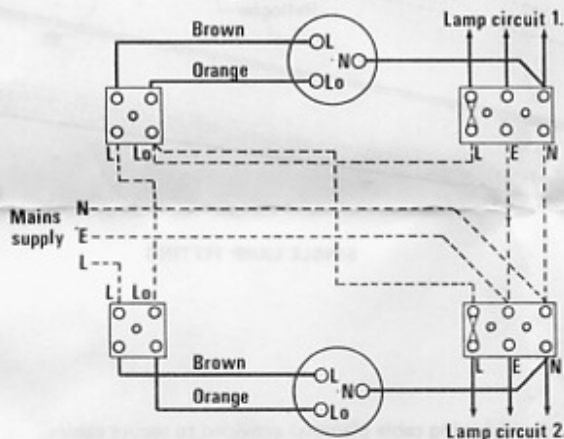
NOTE:- Where lamp control gear is mounted in the column base compartment, it is necessary to run cabling from supply cut-out to 3-way terminal block for operation of P.E. cell unit and cabling from control gear to the standard 2-way terminal block and separate Earth terminal for lamp operation.

SPARE PARTS LIST

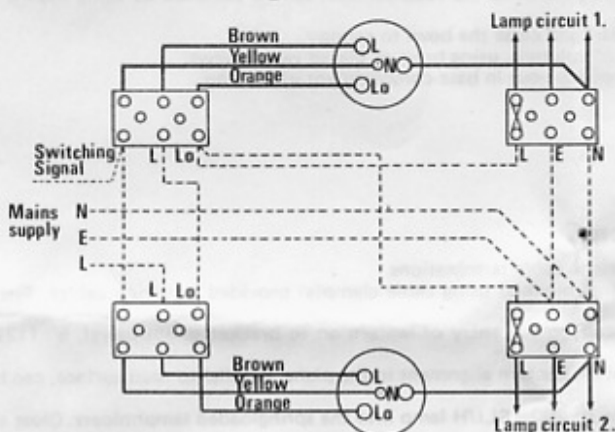
Lampholders 3-way term/block 2-way term/block Acrylic Bowl	G B 1548/B G T. 1286 G T. 1297 QA6.D	140w Transformer 20 ufd Capacitor 200w Transformer 30 ufd Capacitor	G 53232.4 G C 2218 G 53172.H G C 2235
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CIRCUIT DIAGRAMS

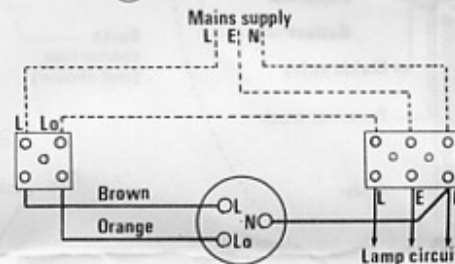
① TWIN LANTERN A



③ TWIN LANTERN A



② SINGLE LANTERN B



Notes:

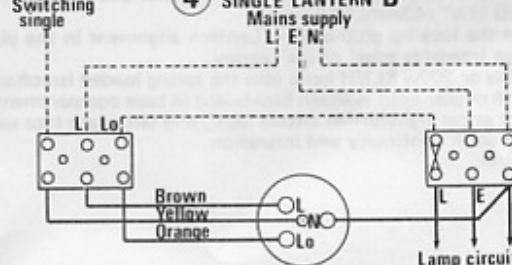
Key ——— Factory wiring
----- Customers wiring

Customers wiring diagrams for:

A Twin lanterns controlled by one P.E. cell unit with shorting plug in other identical lantern.

B Single lanterns controlled by one P.E. cell unit.

④ SINGLE LANTERN B



Notes:

Key ——— Factory wiring
----- Customers wiring

Customers wiring diagrams for:

A Twin lanterns controlled by one P.E. cell unit with shorting plug in other identical lantern.

B Single lanterns controlled by one P.E. cell unit.

Provision in both cases for input of a Switching signal