

QUEENSLAND TRANSPORT AND  
MAIN ROADS TYPE APPROVED

# OVERCURRENT PROTECTION UNIT (O.P.U)

FOR TRAFFIC SIGNAL PORTABLE GENERATORS



Refer to technical note 152 for full operations and connection instructions.

The following generator models have been tested and trialed to work correctly under short circuit fault conditions.

- Yamaha EF2800i (2.5 KVA normal running load)
- Yamaha ES2000iS (1.6 KVA normal running load)
- Ryobi 2Kva RYi2000T (1.6 KVA normal running load)

The O.P.U is to be used alongside portable generators to provide independent overcurrent protection for LED traffic signal intersections. The O.P.U is a protection device that has been designed to safely disconnect a load within 400 ms in the event of a short circuit fault.

The O.P.U unit has been designed to ensure the electrical safety of traffic signal intersections when operating with smaller portable generators.

The overcurrent protection unit has been designed to provide fault protection under the following conditions:

1. The nominal load of a Traffic Signal Intersection shall not exceed 6A
2. The O.P.U shall only be used on intersections with LED lanterns
3. Incandescent and quartz-halogen traffic lanterns shall not be used with the O.P.U
4. EFLI shall be in accordance with the TRUM Volume 4, Part 3 Electrical Design for Roadside Devices
5. The Generator must be an inverter generator type
6. The minimum rated power of the generator shall be capable of sustaining a 1600VA normal running load
7. Intersection between 5 AMPS – 6 AMPS (nominal load) shall use generators capable of sustaining a 2000VA normal running load
8. Traffic signal intersections shall have a power generation facility switch installed before the O.P.U is connected
9. Portable generators must be maintained installed and operated as per manufacturer instructions to ensure reliable operation

## CONTACT US

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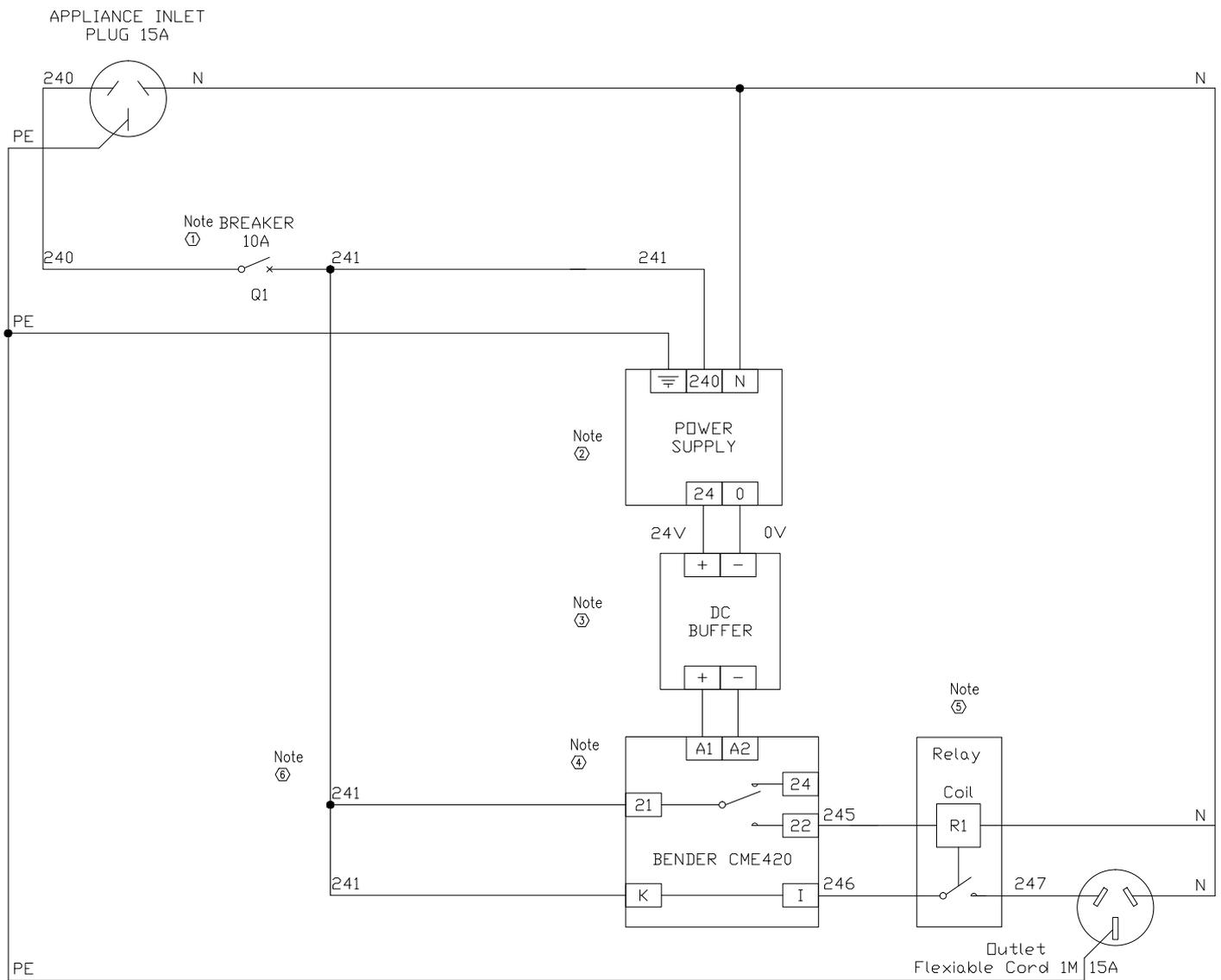
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**LOGIX**  
ENGINEERING

# WIRING DIAGRAM



## CONDUCTOR COLOUR AND SIZE

ACTIVE: BROWN 1.5mm<sup>2</sup>  
 NEUTRAL: BLUE 1.5mm<sup>2</sup>  
 PE: GREEN / YELLOW  
 24V: RED 0.75<sup>2</sup>mm  
 0V: BLACK 0.75mm<sup>2</sup>