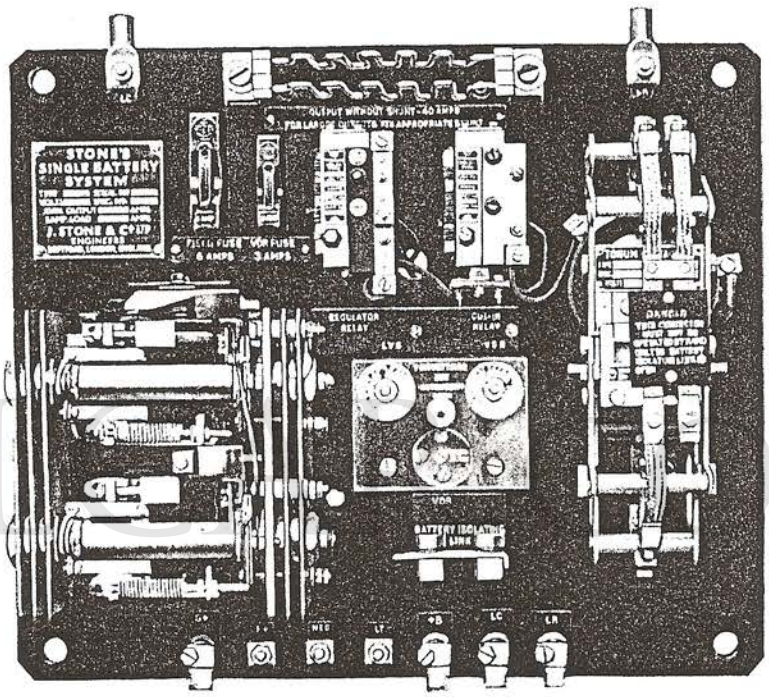
Train Lighting Equipment featuring Dual Regulation

THE J. Stone Group · J. STONE & CO (DEPTFORD) LTD · DEPTFORD LONDON ENGLAND

"TONUM" GENERATOR CONTROL PANEL Type S.80/T2 and S.300/T2



THE PRINCIPAL COMPONENTS MOUNTED ON THE TYPE S.80/T2 and S.300/T2 PANELS ARE :—

- **Liliput Dual Regulator, Type L/T2.**
- **Regulator Relay, Type UM.**
- **Set of Adjusters to enable the same panel to be used with various combinations of :—**
  Generator Output — Battery Charging Voltage — Lamp Voltage
- **Automatic Cut-in Relay, Type UR.**
- **Cut-in Contactor, Type U.80 or U.300.**
- **Fuses for Generator Field and Volts Dividing Resistance.**
- **Battery Isolating Link.**
- **Special terminals of the Admiralty pattern are provided for the external circuit connections.**

CONSTRUCTION FEATURES

The panel is designed to ensure the dual operation and battery charging sequence described in the Stone's Single Battery Train Lighting System Leaflet. (*See Index*).

All components are mounted on a non-hygroscopic, heat-resisting panel which is bolted to a metal frame drilled to receive four securing bolts. The components are arranged to facilitate ready adjustment and easy maintenance.

Inter-connections between components are made at the back of the panel, the only wiring required on site being from the main terminals to the external circuit.

continued overleaf

GENERATOR CONTROL PANEL

Instructions to be observed at time of Installation

The generator control panel illustrated on leaflet P.1006 is installed in a totally enclosed box, which is mounted on the underframe of the coach.

Alternatively, the "open-type" generator control panel illustrated on leaflet E.1016 may be supplied, and this is normally installed in a ventilated cupboard inside the coach.

Interconnections between panel components are made at the back of the panel, the only wiring required on site being from the main terminals to the external circuits.

These panels are despatched from the Maker's Works after a comprehensive series of tests in which adjustments and calibrations have been made to suit conditions that have been specified. If the panels are not installed immediately, they should be stored in dustproof packings.

It will be observed that the contactor contacts are lightly smeared with vaseline to prevent tarnishing; this should be wiped off and renewed before putting the panel into service, as the original vaseline may have collected dust during transit.

The voltage selecting resistance (VSR), the lamp voltage selector (LVS) and the voltage dividing resistance (VDR) should also be checked to ensure that they are set to their correct positions, as specified on the Equipment Data Sheets.

After soldering the external cables into the cable sockets provided, it is recommended that on totally enclosed panels the outer diameter of the cables is built up by applying insulating tape. The tape should be applied evenly until the cables fit snugly into the glands. Having connected the external cables to the appropriate panel terminals, tape the cables firmly to the cable glands in such a manner as to prevent the ingress of water or dust into the box.

MAINTENANCE IN SERVICE

It is most important, before making any panel adjustments, to ensure that the battery isolating link (or safety link) on the generator control panel is in the open position, as by this means only, is it certain that no harm or damage to the equipment is likely to occur.

The need for skilled attention has been reduced to a minimum and maintenance is largely confined to superficial examination for mechanical defects. With the battery isolating link open, it is recommended that the various panel components are periodically examined and the following observations made :-

(1) Examine all contacts of the types UR and UM Relays and clean these with a clean rag soaked in petrol. Check gap settings of relay contacts with feelers and re-adjust if necessary, as described in Section 3b.

(2) Examine and clean, (as described in (1) above) the contacts of the type U300 (or type U80) contactor, after which the contacts should be lightly smeared with vaseline. Examine flexible braids, ensuring that these are not burnt and are suitable for a further period of service, and see that all braid securing screws are securely tightened. Check to see that the armature pivot pin (located in front of the coil) is not unduly worn; the pin should be lightly coated with vaseline.

(3) Check the type L/12 Regulator setting, i.e. see whether the two white scribe marks are in alignment. If necessary, re-align as described in Section 3a.

(4) Examine the field fuse and the VDR fuse, ensuring that the fuse wire in each is in satisfactory condition for a further period of service. If necessary, rewire with the gauge of fuse wire specified on Equipment Data Sheets, included at the end of this Publication.

(5) Finally, do not forget to replace the battery isolating link.

NOTE:- Should it be necessary to repair or overhaul any of the panel components, reference should be made to the respective Sections 3a, 3b or 3c.