



## Power supply units

A RANGE of power supply units has been developed for television applications to meet fully both mobile and studio requirements. These include a recent design using transducers as well as the more conventional types employing series regulator valves.

### Transductor type

This new form of regulated stabilized power unit gives better efficiency and reliability than its conventional equivalent and is much smaller and lighter also.

Regulation is applied in two stages. A transductor deals with the major variations of mains input voltage and load changes of frequency below about 20 c/s. This is followed by a fast-acting shunt regulator which extends the regulation to the region of 10 kc/s. The combination of these techniques and the use of metal rectifiers result in the heat dissipation in a 1 amp. power unit being reduced to 150 watts, approximately one third of a conventional unit.

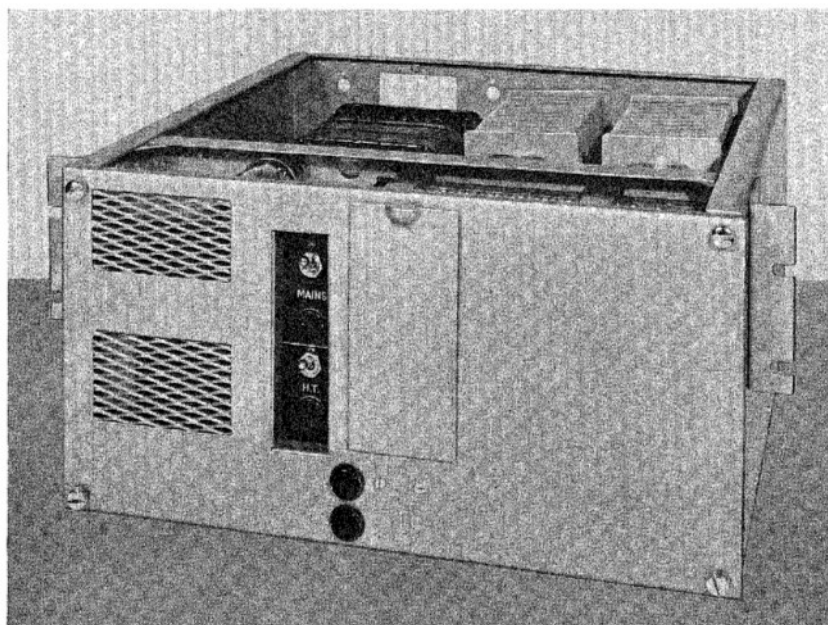
The unit, Type BD 893, is assembled on a chassis suitable for rack mounting, the control circuits being carried on plug-in printed-wiring boards. These sub-units are interchangeable with others used in Type BD 863 and BD 864 cameras where this system of regulation has been successfully employed.

#### DATA SUMMARY

**Power supplies:** 100–125 V or 200–250 V, 50 or 60 c/s, single-phase AC (5 V steps).  
**Power consumption:** 600 W.  
**Output volts:** 250–255 V regulated DC, 85 V negative supply, 6 V (max.) centring supply.  
**Output current:** 0.9 A at 71°C, 1.1 A at 50°C.  
**Regulation:**  $\geq 0.5\%$ .  
**Residual ripple:**  $\geq 4$  mV p-p.  
**Dimensions:** Height 8½ in. (22 cm)  
 Width 1 ft 7 in. (48 cm)  
 Depth 1 ft 4 in. (41 cm)  
 Weight 80 lb (36 kg)

### Conventional type

The conventional regulated power unit Type BD 654 has been in service in television applications for some years. It has shown itself to be capable of long and strenuous operation in many parts of the world.



8331

Type BD 893 Transductor Power Supply Unit.

#### DATA SUMMARY

**Power supplies:** 100–125 or 200–250 V 50–60 c/s, single-phase AC (5 V steps).  
**Power consumption:** 0.35 kVA.  
**Output volts:** 230–270 V regulated DC or 330 V unregulated DC 10 V centring supply.  
**Output current:** 0.4 A max. 0.06A min.\*  
**Regulation:**  $\geq 1\%$ .  
**Residual ripple:** Regulated  $\geq 5$  mV p-p.  
 Unregulated  $\geq 2$  V p-p.  
**Dimensions:** Height 10½ in. (27 cm)  
 Width 19 in. (48 cm)  
 Depth 9½ in. (24 cm)  
 Weight 49 lb (22 kg)

\* Unregulated.

### Relay and Transistor Power Supply Type BD 940

The BD 940 Power Supply has been designed as a source of power for the

Marconi range of mixers and master switching equipment.

The unit is fitted with a solder-type tag strip at the rear from which separate feeds can be taken to supply relays and transistor amplifiers associated with the mixing equipment.

An on/off switch is located on the front panel and the unit is arranged to mount in a 19-inch chassis.

#### DATA SUMMARY

**Mains supply:** 100–125 V or 200–250 V, in 5 V steps, 50 or 60 c/s.  
**DC output:** 24 V ( $\pm 2$  V), 5A, for relays. 24 V DC, 1A, well regulated for use with transistor amplifiers.  
**Finish:** Oyster grey hammer.

#### Marconi

Marconi's Wireless Telegraph Company Limited  
 Marconi House, Chelmsford, Essex  
 Telephone: Chelmsford 3221 • Telex: 1953  
 Telegrams: Expanse Chelmsford Telex