

WALTURDAW SOUND EQUIPMENT.

The Walturdaw Cinema Equipment consists of the following items:-

- (a) One head amplifier equipment.
- (b) One power amplifier equipment.
- (c) Four heavy duty cinema type moving coil loudspeakers on baffles.
- (d) One pilot, steel clad, loudspeaker with volume control.
- (e) One double turn table equipment with metal supporting cabinets.

The equipment is designed to work as a whole and includes the two lengths of flexible high-frequency cable connecting with the sound heads on the two projectors.

Head Amplifier Equipment.

This comprises a steel cabinet measuring 29 $\frac{3}{4}$ " high x 10 $\frac{5}{4}$ " wide x 6" deep, and houses the following equipment :-

Two three stage head amplifiers for amplifying the sound from the sound head to an output of approximately 1 volt. Each of the two amplifiers derives its heater and high tension current from the power amplifiers (referred to later). Each amplifier is self contained and very easily detachable from the front cover plate, which is hinged. The withdrawal of two plugs and the removal of four nuts enables the complete chassis to be taken away for replacement or service. The second amplifier in this equipment is intended as a stand by or an alternative.

In the same cabinet is a simple control panel comprising two pilot lights (showing which of the two amplifiers is in use; a change over switch (amplifier A to amplifier B operating in conjunction with the pilot light); a film/gram switch, and a stud type fader control engraved 0 to 20 with a 3 dB control between studs. The volume control is of a very heavy duty stud type and is screened from dust and dirt by means of an inner detachable cover.

The whole unit is fixed to the wall between the two projectors and the two high frequency leads, (part of the equipment), are used to connection to the two sound heads.

Power Amplifiers.

The power amplifier equipment consists of a tall angle rack with sheet steel sides, top, and back, and can be housed anywhere within 200ft. of the head amplifier. The rack houses two high quality amplifiers A.C. driven, having an undistorted output of 30 watts.

Each amplifier is fitted with a meter and a meter switch whereby the anode feeds of each valve can be read without disturbing the programme. Also provided on the front panel are the mains switch and pilot light. Three other adjustable controls volume, bass and brilliance, are on the back of the amplifier and are pre-set.

Connection from the permanent wiring of the equipment to each amplifier is by means of a non-reversible plug.

To remove an amplifier for service entails merely the removal of this plug and four screws on the front panel.

The control panel merely carries two indicator bulbs (indicating whether amplifier A or amplifier B is in use) with a change over switch which changes over inputs, outputs and power supplies simultaneously.

A substantial mains switch fuse is fitted at the bottom of the rack and acts as a master switch for the whole system. The back of the rack is reasonably detachable for servicing.

Loudspeaker Equipment.

The loudspeakers behind the screen comprise four cinema type baffle loudspeakers, each capable of carrying an output of 15 watts. They are actually carrying $7\frac{1}{2}$ watts and are, therefore, working under easy conditions. The four loudspeakers are wired in series, but the centre point should be taken back to the mid point of the amplifying equipment so to provide the necessary safety factor should a loudspeaker become open circuited. This is extremely unlikely in actual practise.

Two loudspeakers behind the screen should feed the stalls and a further two suitably tilted to feed the circle.

Pilot Loudspeaker.

The pilot loudspeaker is encased in steel. It is circular and measures $11\frac{1}{2}$ " in diameter. It is equipped with a suitable volume control underneath and a multi ratio transformer inside provides the necessary tappings for various volume levels.

Playing Desk.

This equipment comprises a steel cabinet measuring $35\frac{3}{4}$ " long x 15" deep x $32\frac{1}{2}$ " high over all, carrying two turn tables with heavy duty motors, individual faders, motor switches and pick-ups. The pick-up is of the very light weight pattern giving negligible record wear and providing extremely good reproduction. The playing desk is supported by means of two steel storage cabinets which are detachable for transport.

General.

The whole of the equipment is designed to run on any stated A.C. mains, 50 cycle, from 200 to 250 volts. The total consumption will not exceed 600 watts. The equipment is tropically finished throughout and is suitable for installation in all Countries in the world, always provided of course that reasonable ventilation is afforded. Finish of the equipment is in shrivel grey, stove enamelled, is very robust, smart in appearance, and easily kept clean.

The valves used in the equipment are as follows:-

Each head amplifier :- 1-H63 Valve, 1-KTZ63 Valve, 1-L63 valve
Each power amplifier :- 1-KTZ 63 Valve, 1-L63 Valve,
2-KT63 Valves, and 1-U52 valve













