

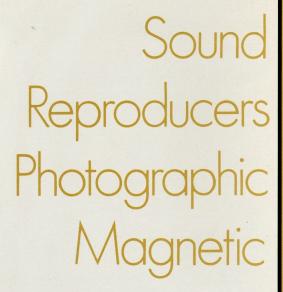


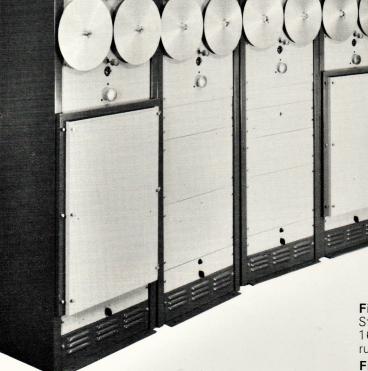


Westrex
Sound
Reproducers
Photographic
Magnetic









General Information

These machines provide for the highest possible performance in the reproduction of both photographic and magnetic sound. At the same time, because of the simplicity and ruggedness of the design, the servicing required to maintain this standard is reduced to a minimum. The method of mechanical construction is similar to that employed on Westrex magnetic reproducers and the standard range of electronic units is incorporated. All the electronic equipment is transistor operated.

Film Take-up

Direct torque motor drive is used for the film pay-off and take-up. This provides for take-up of the film in either direction, thus facilitating reverse running of the machine at normal speed with the film threaded through the mechanism. Fast re-wind of the film with automatic stop is also possible when the film is unthreaded from the mechanism.

Motor Drive

A drive motor of any preferred type can be supplied at the customer's request. The standard machine is fitted with a composite synchronous/interlock motor system, that provides local interlock with other machines similarly equipped. This motor can be run independently when required or in lock with a master distributor unit: It will also work with a Synchrostart or Rotosyn system. Forward and reverse running for post sync and rock and roll dubbing is available and can be switched locally on individual machines or remotely in lock with other machines similarly equipped.

Film Gauges

Standard machines are available for 35 mm and 16 mm films. The 35 mm machine can be adapted to run 17 · 5 mm film if required.

Film Speed

The drive between motor and scanning mechanism can be arranged to provide a film speed equivalent to 24 or 25 frames per second, as specified by the customer. If required a manually operated speed change device can be incorporated. For 17 · 5 mm film a speed of 45 ft per minute can be provided in addition to the standard 90 ft per minute.

Hand Inching

To facilitate hand inching an electro-mechanical declutching device associated with the film sprocket is incorporated.

Post Synchronisation

To cater for post sync operation on the 1200 ft machines a loop tank can be provided which will take loops up to 100 ft in length.

Magnetic Heads

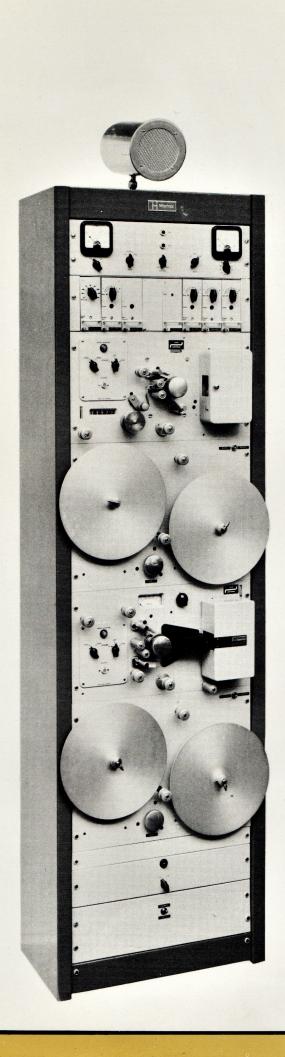
All magnetic heads are pre-aligned on special plug-in mounting assemblies providing adjustment for accurate setting of azimuth. These assemblies are immediately interchangeable with others providing alternative track arrangements without disturbing the azimuth setting.

Photographic Reproduction

For photographic reproduction a high efficiency fine resolution optical system, together with a photovoltaic, cell achieves an exceptionally good signal/noise ratio.

Film Scanning Mechanism

A single film scanning mechanism serves for running either photographic or magnetic film. To change from photographic to magnetic reproduction, or vice versa, it is only necessary to use a slightly different film lacing path and to operate one switch.



Standard Models Available From The Westrex Range

Single Reproducers PMT16–12

For use with 16 mm film (either photographic or magnetic) in lengths up to a maximum of 1200 ft. The standard machine is fitted with a 220V 50 Hz 3-phase synchronous/interlock drive motor. The magnetic head is located to reproduce a ·200 in (5 mm) centre track. An additional interchangeable magnetic head assembly for an alternative track position (·085 in (2·16 mm) or ·200 in (5 mm) wide edge) can be supplied on request.

PMT35-12

For use with 35 mm film (either photographic or magnetic) in lengths up to a maximum of 1200 ft. As standard the machine is fitted with a 220V 50 Hz 3-phase synchronous/interlock drive motor. The magnetic head is located to reproduce a ·200 in (5 mm) wide track in the No. 1 ASA track position on 35 mm film.

Dual Reproducers

As in the case of the magnetic only reproducers, a special series of machines is available in this range which incorporates two mechanisms on one rack, one of which can be for photographic and magnetic reproduction, but the other for magnetic reproduction only. The motor drives and magnetic head arrangements are as for the standard machines.

PMT16/MT16-12

For reproduction from two 16 mm films each of which can be in lengths up to 1200 ft. It will reproduce from two magnetic tracks simultaneously or one photographic and one magnetic. Each mechanism is driven by a separate motor and the motor types would be the same as for the standard in PMT16–12 machines.

PMT16/MT35-12

For reproduction from one 16 mm film which may be either photographic or magnetic, and one 35 mm magnetic film, both of which may be in lengths up to a maximum of 1200 ft. Each mechanism is driven by a separate motor and the motor types would be the same as for the standard PMT16–12 machines.

PMT35/MT16-12

For reproduction from one 35 mm film which may be either photographic or magnetic and one 16 mm magnetic film, both of which may be in lengths up to 1200 ft. Each mechanism is driven by a separate motor and the motor types would be the same as for the standard PMT16–12 machines.

PMT35/MT35-12

For reproduction from one 35 mm film which may be either photographic or magnetic and one 35 mm magnetic film, both of which may be in lengths up to a maximum of 1200 ft. Each mechanism is driven by a separate motor and the motor types would be the same as for the standard PMT16–12 machines.

Performance Specification

PHOTOGRAPHIC REPRODUCTION

Photographic Reproduction

Frequency Response 35 mm film: 40 Hz—8 kHz±1 db

(Linear within the range of the SMPTE test film ASFA)

16 mm film: $50 \text{ Hz} - 6 \text{ kHz} \pm 1 \text{ db}$ 40 Hz-7 kHz ± 2 db

(Linear within the range of the SMPTE test film

PH22.44)

Signal/Noise Ratio

The unweighted signal/noise ratio obtainable from a 100% modulated variable area track is:

For 35 mm film—60 db or better when compared with the noise level with the exciter lamp on and with no

For 16 mm film—55 db or better when compared with the noise level with the exciter lamp on and with no

MAGNETIC REPRODUCTION

Magnetic Reproduction Frequency Response

35mm film : $\pm 1\cdot 5$ db at 50 Hz $-+1-3\cdot 5$ db at 15 kHz 16mm film : $\pm 1\cdot 5$ db at 50 Hz $-+1-2\cdot 5$ db at 10 kHz

Unweighted Signal/Noise Ratio

35 mm: 60 db or better 16 mm: 55 db or better

FACTORS COMMON TO PHOTOGRAPHIC AND MAGNETIC REPRODUCTION

Flutter (above 20 Hz)

Better than ·1% (in practice nearer ·06%)

Wow (below 20 Hz)

Better than ·1% (in practice nearer ·06%)

Peak to Peak (below 3 Hz)

Better than $\cdot 1\%$ (in practice nearer $\pm \cdot 08\%$)

Stabilisation

Within 6 seconds from switching on.

35mm: 0 dbm 16 mm: $+12 \, dbm \, \int$

(on request +20 or +30 dbm)

Impedance: 600 ohms balanced

Distortion: less than 1% at maximum output.

Power Supplies

230V 50 Hz single phase for electronics 220V 50 Hz three phase for motor system.

Dimensions

Height Width Depth 76% in 22 in 16 in ·406 m 1.95 m ·558 m

Weight

Approx. 230 lb 104 kg



Rank Audio Visual Limited, P.O. Box 70, Great West Road, Brentford,

Middlesex, England.

Telephone: 01-568 9222 Telex: 24408

