LOUD SPEAKING TELEPHONE

for
SOUND SYSTEMS
and
RADIO BROADCAST MONITORING

THE WESTERN ELECTRIC

753A Loud Speaking Telephone is designed for public address and music reproduction systems and for radio broadcast monitoring applications where the highest quality reproduction is required. Due to its wide frequency range, this speaker is suitable for reproducing both AM and FM broadcasts.

The 753A Loud Speaking Telephone is a three-band loud speaker system consisting of a KS-12004 Loud Speaker, 722A Receiver, 32A Horn, 752A Loud Speaking Telephone, D-173048 and D-173049 Networks, mounted in a walnut-finished cabinet measuring approximately 20 inches wide by 30 inches high by 13 ½ inches deep. Where desirable, the overall height of the cabinet may be reduced 1 ½ inches by removing the detachable base.

PERFORMANCE

Frequency Range
60 to 15,000 cycles.

Impedance
16 ohms.

Efficiency
With full speech power of a 25-watt amplifier, the 753A Loud Speaking Telephone will produce an intensity level of 75 dB above $10^{-16}$ watt per square centimeter at a distance of 100 feet on the axis of the loud speaker.

Coverage Angle
Substantially uniform with respect to both frequency and intensity over an angle of 90° horizontally and 60° vertically.

Power Capacity
Capable of handling speech or music with peak powers of 25 watts.

Western Electric
ARCHITECTS’ AND ENGINEERS’ SPECIFICATIONS

Supply ___ (quantity) ___ Western Electric 753A Permanent Magnet Loud Speaking Telephone(s) or approved equivalent(s) which must possess the following characteristics:

The Loud Speaking Telephone shall comprise a three-band Loud Speaker System with a low frequency component consisting of a Western Electric KS-12004 Loud Speaker which shall cover a frequency range of 60 to 700 cycles; a mid-frequency component consisting of a Western Electric 722A Receiver and Western Electric 32A Horn which shall cover a frequency range of 500 to 6,500 cycles; a high frequency component consisting of a Western Electric 752A Loud Speaking Telephone which shall cover a frequency range of 4000 to 15,000 cycles. These units shall be coupled through a Western Electric D-173048 Network which shall divide the energy at 700 cycles and a Western Electric D-173049 Network which shall divide the energy at 4000 cycles. These units shall be mounted in a Walnut finished cabinet measuring approximately 20 inches wide by 30 inches high by 13½ inches deep.

The Loud Speaking Telephone shall be capable of highest quality reproduction over an angle of 90° horizontally and 60° vertically.

The efficiency of the Loud Speaking Telephone shall be such that when the full speech power of a 25-watt amplifier is imposed, it will produce an intensity level of 73 db above 10⁻¹⁶ watt per square centimeter at a distance of 100 feet on the axis.

The speaker shall be capable of handling speech or music reproduction with maximum peak powers of 25 watts.