

# TANDBERG

## TR2030/TR2045

### Technical data

It is Tandberg's policy to improve products as new techniques and components become available. Tandbergs Radiofabrikk A/S therefore reserves the right to change specifications at any time.



**\* POWER OUTPUT:** Average continuous sinewave power is 30 watts minimum RMS per channel, both channels driven into 8 ohms load, from 20 Hz to 20 kHz with no more than 0.09% total harmonic distortion from 1/4 watt to 30 watts as specified herein.

**Power output DIN 45500:** 2 x 42 watts

**Power output:** 2 x 38 watts  
continuous, both channels driven into 4 ohms load at 1 kHz, 0.15% distortion.

**Power output:** 2 x 32 watts  
continuous both channels driven into 8 ohms load at 1 kHz, 0.09% distortion.

**Load impedance:** 4–16 ohms

**\* TOTAL HARMONIC DISTORTION:** Maximum 0.09% at any power from 1/4 watt up to rated power in 8 ohms load.

**Intermodulation, IHF and DIN 45500:** Less than 0.09%

**Damping factor at 20–20,000 Hz:** 55 at 8 ohms

**Frequency response:** 8–50,000 Hz  
Overall linear input at –1.5 dB

**Bass control range:** ± 15 dB at 50 Hz

**Bass loudness:** + 9 dB 50 Hz

**Treble control range:** ± 15 dB at 10,000 Hz

**Treble loudness:** + 3 dB at 10,000 Hz

**LOW filter:** – 3 dB at 70 Hz  
(– 12 dB/octave)

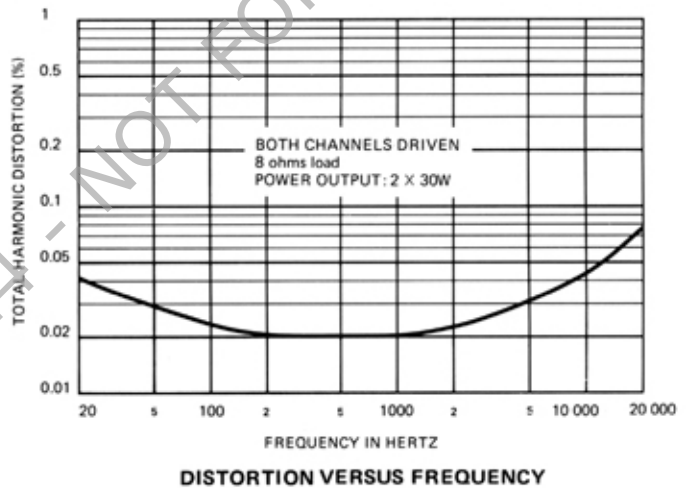
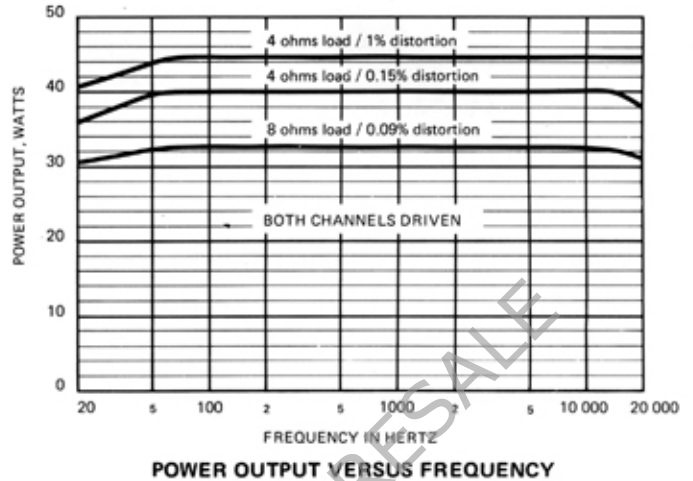
**HIGH filter:** – 3 dB at 8,000 Hz  
(– 12 dB/octave)

**Channel separation:** Tape: 60 dB  
at 1 kHz Phono: 60 dB

**Signal/hum and noise ratio, IHF:** reference, max. output, into 8 ohms load, shorted input, no filter network used.  
Tape 1: 82 dB (input signal 180 mV)  
Tape 2: 82 dB (input signal 180 mV)  
Phono: 66 dB (input signal 2.5 mV)  
Phono: 76 dB (input signal 10 mV)  
Volume at minimum: 86 dB

**Signal/hum and noise ratio, IHF:** reference, max. output, into 8 ohms load, shorted input, A-network used.  
Tape 1: 94 dB (input signal 180 mV)  
Tape 2: 94 dB (input signal 180 mV)  
Phono: 75 dB (input signal 2.5 mV)  
Phono: 86 dB (input signal 10 mV)  
Volume at minimum: 95 dB

\* Measured according to FTC rules.



**Signal/hum and noise ratio, DIN 45500:** Tape 1: 61 dB (input signal 180 mV)  
reference 50 mW, 8 ohms  
Tape 2: 61 dB (input signal 180 mV)  
Phono: 60 dB (input signal 2.5 mV)  
Phono: 62 dB (input signal 10 mV)

**Sensitivity:** at maximum power output, in 8 ohms load  
Tape 1: 180 mV (input imp. 15–27 k ohms)  
Tape 2: 180 mV (input imp. 15–27 k ohms)  
Phono: 2.5 mV (input imp. 47 k ohms)

**Maximum input signals:** 0.15% distortion at 1 kHz  
Tape 1: 35 V  
Tape 2: 35 V  
Phono: 90 mV

**Output of TAPE socket:** unloaded  
250 mV (output imp. 33 k ohms)

**US Models:** 500 mV (output imp. 4 k ohm)

**Output from PHONES:** unloaded  
Max. 16 V (output imp. 150 ohms)

**\* POWER OUTPUT:** Average continuous sinewave power is 45 watts minimum RMS per channel, both channels driven into 8 ohms load, from 20 Hz to 20 kHz with no more than 0.09% total harmonic distortion from 1/4 watt to 45 watts as specified herein.

**Power output DIN 45500:** 2 x 72 watts

**Power output:** 2 x 65 watts  
continuous, both channels driven into 4 ohms load at 1 kHz, 0.15% distortion.

**Power output:** 2 x 50 watts  
continuous, both channels driven into 8 ohms load at 1 kHz, 0.09% distortion.

**Load impedance:** 4–16 ohms

**\* TOTAL HARMONIC DISTORTION:** Maximum 0.09% at any power from 1/4 watt up to rated power in 8 ohms load.

**Intermodulation, IHF and DIN 45500:** Less than 0.09%

**Damping factor at 20–20,000 Hz:** 55 at 8 ohms

**Frequency response:** 8–50,000 Hz  
Overall linear input at –1.5 dB

**Bass control range:** ± 15 dB at 50 Hz

**Bass loudness:** + 9 dB 50 Hz

**Treble control range:** ± 15 dB at 10,000 Hz

**Treble loudness:** + 3 dB at 10,000 Hz

**LOW filter:** 3 dB at 70 Hz  
(– 12 dB/octave)

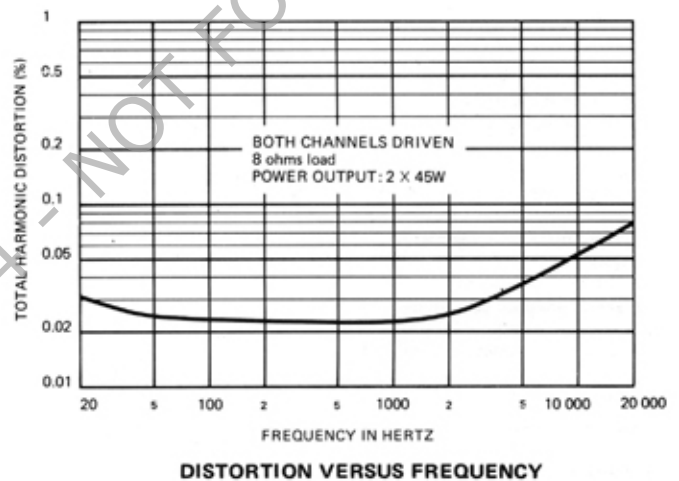
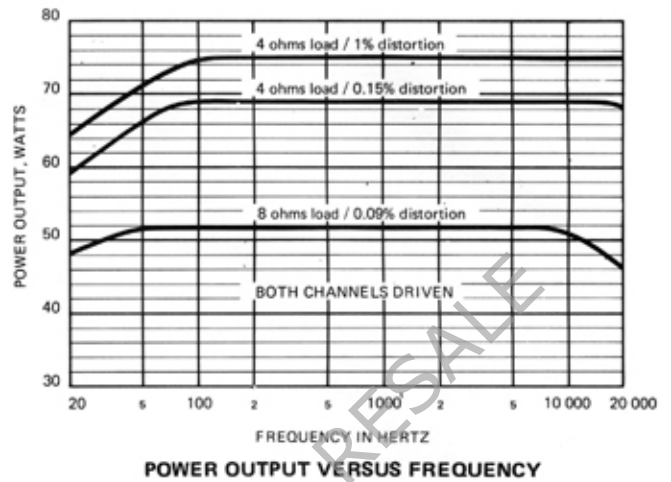
**HIGH filter:** – 3 dB at 8,000 Hz  
(– 12 dB/octave)

**Channel separation:** at 1 kHz  
Tape: 60 dB  
Phono: 60 dB

**Signal/hum and noise ratio, IHF:** reference, max. output, into 8 ohms load, shorted input, no filter network used.  
Tape 1: 82 dB (input signal 210 mV)  
Tape 2: 82 dB (input signal 210 mV)  
Phono: 66 dB (input signal 3.0 mV)  
Phono: 76 dB (input signal 10 mV)  
Volume at minimum: 86 dB

**Signal/hum and noise ratio, IHF:** reference, max. output, into 8 ohms load, shorted input, A-network used.  
Tape 1: 94 dB (input signal 210 mV)  
Tape 2: 94 dB (input signal 210 mV)  
Phono: 75 dB (input signal 3.0 mV)  
Phono: 86 dB (input signal 10 mV)  
Volume at minimum: 95 dB

\* Measured according to FTC rules.



**Signal/hum and noise ratio, DIN 45500:** Tape 1: 61 dB (input signal 210 mV)  
reference 50 mW, 8 ohms  
Tape 2: 61 dB (input signal 210 mV)  
Phono: 60 dB (input signal 3.0 mV)  
Phono: 62 dB (input signal 10 mV)

**Sensitivity:** at maximum power output, in 8 ohms load  
Tape 1: 210 mV (input imp. 15–27 k ohms)  
Tape 2: 210 mV (input imp. 15–27 k ohms)  
Phono: 3.0 mV (input imp. 47 k ohms)

**Maximum input signals:** 0.15% distortion at 1 kHz  
Tape 1: 35 V  
Tape 2: 35 V  
Phono: 90 mV

**Output of TAPE socket:** unloaded  
250 mV (output imp. 33 k ohms)

**US Models:** 500 mV (output imp. 4 k ohms)

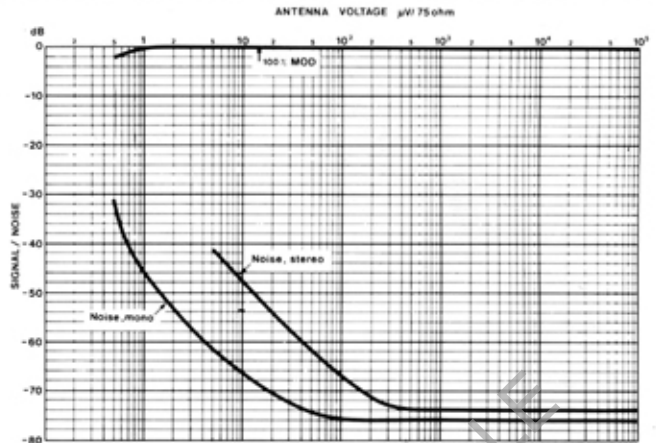
**Output from PHONES:** unloaded  
Max 20 V (output imp. 150 ohms)

Specifications according to IHF-T-200, 1975 (IEEE std. 185, 1975)

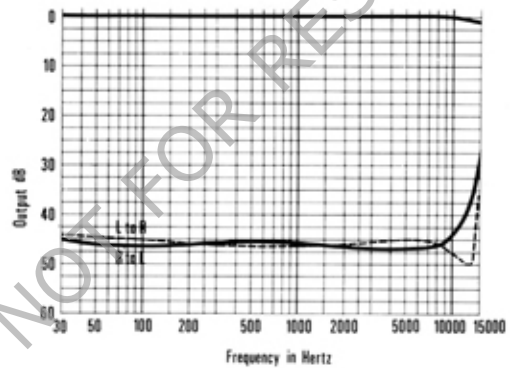
<b>Tuning range:</b>	87.5–108 MHz
<b>Usable sensitivity:</b>	MONO: 1.9 $\mu$ V/300 ohms (10.8 dBf)
<b>50 dB quieting sensitivity:</b>	MONO: 3.5 $\mu$ V/300 ohms (16.2 dBf) STEREO: 40 $\mu$ V/300 ohms (37.3 dBf)
<b>Signal-to-noise ratio at 65 dBf (1 mV/300 ohms):</b>	MONO: 76 dB STEREO: 74 dB
<b>Muting threshold:</b> Muting hysteresis, 6 dB	MONO: 6 $\mu$ V/300 ohms (20.8 dBf)
<b>Stereo threshold:</b> Stereo hysteresis, 8 dB	15 $\mu$ V/300 ohms (28.8 dBf)
<b>Frequency response:</b> 30 Hz–15 kHz	MONO: +1, -2 dB STEREO: +1, -2 dB
<b>Distortion at 50 dB quieting:</b>	MONO: 0.6% STEREO: 0.9%
<b>Distortion at 65 dBf:</b> (1 mV/300 ohms)	MONO: 0.4% STEREO: 0.5%
<b>Capture ratio:</b> Selectively measured.	1.5 dB
<b>Adjacent channel selectivity:</b> Dynamic	10 dB at $\pm$ 200 kHz
<b>Alternate channel selectivity:</b> Dynamic	80 dB at $\pm$ 400 kHz
<b>Spurious response ratio:</b>	Greater than 100 dB
<b>Image response ratio:</b>	Greater than 100 dB
<b>IF response ratio (balanced):</b>	Greater than 100 dB
<b>AM suppression ratio:</b>	Greater than 70 dB
<b>Stereo separation:</b> at 100 Hz–10 kHz (selectively measured).	Greater than 40 dB
<b>Subcarrier product ratio:</b>	60 dB
19 kHz suppression:	62 dB
38 kHz suppression:	62 dB

Specification according to DIN 45301 and DIN 45500

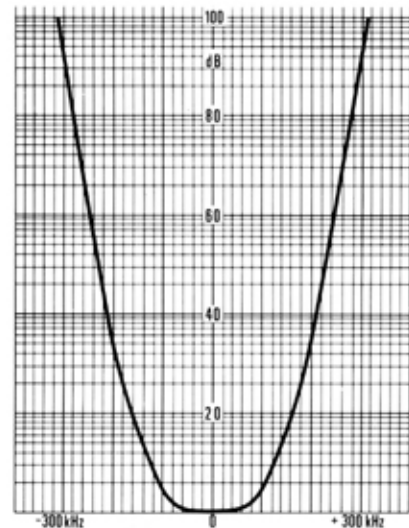
<b>Sensitivity mono, DIN 45301:</b> at 26 dB signal/noise, RMS, dev. $\pm$ 22.5 kHz.	1.6 $\mu$ V/300 ohms
<b>Sensitivity stereo, DIN 45500:</b> at 46 dB signal/noise, RMS, dev. $\pm$ 40 kHz.	40 $\mu$ V/300 ohms
<b>Signal/noise, Weighted, DIN 45500:</b> quasi-peak, dev. $\pm$ 40 kHz.	MONO: 64 dB STEREO: 62 dB
<b>Signal/noise, Unweighted, DIN 45500:</b> RMS, dev. $\pm$ 40 kHz.	MONO: 65 dB STEREO: 65 dB
<b>Selectivity: carrier down</b>	80 dB at $\pm$ 300 kHz
<b>Total harmonic distortion:</b> dev. $\pm$ 40 kHz.	MONO: 0.2% STEREO: 0.3%



FM SENSITIVITY CURVES FOR MONO AND STEREO



FREQUENCY RESPONSE AND SEPARATION VERSUS FREQUENCY



FM SELECTIVITY

GENERAL TR 2030

TR 2045

<b>AC Power Requirement:</b>	120/220/240 V, 50/60 Hz	120/220/240 V, 50/60 Hz
<b>AC Power consumption:</b>	190 W (full power) 45 W (no signal)	270 W (full power) 45 W (no signal)
<b>Dimensions:</b>	Width: 20 1/8" (51 cm) Height: 5 5/8" (14.5 cm) Depth: 12 5/8" + knobs 13/16" (32 cm + 2.1 cm)	Width: 20 1/8" (51 cm) Height: 5 5/8" (14.5 cm) Depth: 12 5/8" + knobs 13/16" (32 cm + 2.1 cm)
<b>Weight:</b>	18 lbs (8.3 kg)	21 lbs (9.6 kg)