The Definition Install iw60 EFX is a multi purpose in wall surround / effects speaker designed around the unique Tannoy Dual Concentric™ drive unit. The speaker is conveniently configurable between two modes of operation: ‘Cinema Mode’, where the two optimally aligned 100mm (4.00”) Dual Concentric™ drivers generate a wide and even flow of acoustic energy over a large area for a diffuse room filling ambience and the direct radiating ‘Music Mode’, where the 165mm (6.50”) constant directivity Dual Concentric™ driver produces a more localised and focused sound, highlighting the distinct separation afforded by modern programme material. In Music mode the direct radiating pattern is auto switched using a 12V trigger.

Claims are made that having more drivers is better. While multiple drivers are needed to cover the full frequency spectrum it is a fact that a discrete woofer and tweeter array will produce a large null at the crossover frequency when you move through the vertical plane. In a product concept such as the iw60 EFX, using three sets of discrete drivers would cause this negative acoustic effect to occur three times in a single cabinet; something no amount of DSP could compensate for. The point source Dual Concentric™ units in the Tannoy iw60 EFX ensure that no such acoustical anomalies occur.

The Dual Concentric™ is effectively two drivers properly merged into one where, unlike ordinary drive units, the high frequency unit is positioned on the back of the low frequency driver. As a result they are on same axis, so ensuring that sound energy is effectively propagated from the same point and delivered through the centre of the low frequency cone as true point source. Such integration optimises reproduction quality by providing a constant time delay over the frequency spectrum, exceptional transient performance, wide dispersion and superior harmonic alignment; all of which delivers to the listening position a natural, clean and integrated sound with greatly enhanced intelligibility, sound staging and dynamics.

Characteristic of the Dual Concentric™ design is a very wide ‘sweet spot’ with an exceptionally even response throughout the listening area, as well as an extraordinary transient response; reasons enough for this phase accurate Tannoy designed drive unit to have been the choice of professional studio engineers all over the world for many years.

The heavily braced and comprehensively damped MDF cabinet is supplied with a paintable, flush mounting grille designed to blend seamlessly into any architectural space. A unique isolation mounting system optimises low frequency performance by controlling unwanted resonances within the install structure. A mounting frame is available as an optional pre-installation accessory to fit into standard construction 2” x 4” stud walls.

The exceptionally versatile, high power handling iw60 EFX is able to extract the full potential of contemporary multi-channel soundtracks; an in wall surround / effects speaker designed to reproduce the same bandwidth and sound pressure levels as the main speakers.
Definition Install iw60 EFX

TECHNICAL SPECIFICATIONS

System

<table>
<thead>
<tr>
<th>Frequency Response (1)(4)</th>
<th>110Hz - 23kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>74Hz - 27kHz</td>
</tr>
<tr>
<td>System Sensitivity (1W @1m)</td>
<td>90dB (1W = 2.83V for 8 Ohms)</td>
</tr>
<tr>
<td>Nominal Coverage Angle</td>
<td>90 degrees conical in music mode</td>
</tr>
<tr>
<td>Coverage Angle (1kHz to 6kHz)</td>
<td>120 degrees horizontal x 90 degrees in cinema mode</td>
</tr>
<tr>
<td>Directivity Factor (Q)</td>
<td>3.50 averaged 1kHz to 6kHz</td>
</tr>
<tr>
<td>Directivity Index (DI)</td>
<td>5.50 averaged 1kHz to 6kHz</td>
</tr>
<tr>
<td>Rated Maximum SPL (3)</td>
<td>Average 110dB</td>
</tr>
<tr>
<td></td>
<td>Peak 116dB</td>
</tr>
<tr>
<td>Power Handling (3)</td>
<td>Average 100W</td>
</tr>
<tr>
<td></td>
<td>Programme 200W</td>
</tr>
<tr>
<td></td>
<td>Peak 400W</td>
</tr>
<tr>
<td>Recommended Amplifier Power</td>
<td>200W @ 8 Ohms</td>
</tr>
</tbody>
</table>

Nominal Impedance

| 8 Ohms in music mode | 4 Ohms in cinema mode |

Distortion

<table>
<thead>
<tr>
<th>10% Full Power (8.94V)</th>
<th>2nd Harmonic</th>
<th>3rd Harmonic</th>
</tr>
</thead>
<tbody>
<tr>
<td>250Hz</td>
<td>1.84%</td>
<td>0.30%</td>
</tr>
<tr>
<td>1kHz</td>
<td>0.34%</td>
<td>0.61%</td>
</tr>
<tr>
<td>10kHz</td>
<td>0.91%</td>
<td>0.17%</td>
</tr>
<tr>
<td>1% Full Power (2.83V)</td>
<td>2nd Harmonic</td>
<td>3rd Harmonic</td>
</tr>
<tr>
<td>250Hz</td>
<td>0.19%</td>
<td>0.35%</td>
</tr>
<tr>
<td>1kHz</td>
<td>0.40%</td>
<td>0.32%</td>
</tr>
<tr>
<td>10kHz</td>
<td>0.46%</td>
<td>0.89%</td>
</tr>
</tbody>
</table>

Crossover

| 1.6kHz |

Notes:

(1) Average over stated Bandwidth. Measured in an IEC baffle in an Anechoic Chamber
(2) Unweighted Pink noise input, measured at 1m on axis
(3) Long term power handling capacity as defined in EIA - 426B test
(4) Cinema mode. For music mode refer to iW63 data
(5) Full range of measurements, performance data, CLF and Ease™ Data can be downloaded from www.tannoy.com

Tannoy operates a policy of continuous research and development. The introduction of new materials or manufacturing methods will always equal or exceed the published specifications, which Tannoy reserves the right to alter without prior notice. Please verify the latest specifications when dealing with critical applications.

Ordering Information

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>MODEL NAME</th>
<th>COLOUR</th>
<th>PACKED QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>8000 5270</td>
<td>Definition Install iw63 EFX</td>
<td>Black</td>
<td>1</td>
</tr>
</tbody>
</table>

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Tannoy France          T: 00 33 (0) 1 7036 7473 | E: ventes@tannoy.com
Definition Install iw60 EFX

PERFORMANCE MEASUREMENTS

ANECHOIC FREQUENCY RESPONSE

IMPEDANCE

OFF AXIS RESPONSE
PERFORMANCE MEASUREMENTS

**BEAMWIDTH**

![Beamwidth vs Frequency Graph]

**DIRECTIVITY INDEX**

![Directivity Index vs Frequency Graph]
PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)

- 10 Hz
- 125 Hz
- 1 kHz
- 1.25 kHz
- 1.6 kHz
- 2 kHz
- 2.5 kHz
- 3.15 kHz
- 630 Hz
- 800 Hz
- 1 kHz
- 1.25 kHz
- 4 kHz
- 5 kHz
- 6.3 kHz
- 8 kHz
- 10 kHz
- 12.5 kHz
- 16 kHz
- 20 kHz
- 250 Hz
- 315 Hz
- 400 Hz
- 500 Hz
- 1.0 kHz
- 1.6 kHz
- 2.0 kHz
- 2.5 kHz
- 3.15 kHz
- 630 Hz
- 800 Hz
- 1.0 kHz
- 1.25 kHz
PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)

[Graphs showing polar plots for different frequencies]

PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)

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PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)

[Graphs showing polar plots for different frequencies]
**Definition Install iw60 EFX**

**DIMENSIONAL SKETCHES**

![Dimensional Sketches](image)

**OPTIONAL ACCESSORY PRE-INSTALLATION**

![Optional Accessory Sketches](image)

**Ordering Information**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>MODEL NAME</th>
<th>COLOUR</th>
<th>PACKED QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>8000 5640</td>
<td>Pre-Install Frame - Definition Install</td>
<td>Unpainted metal</td>
<td>1</td>
</tr>
</tbody>
</table>

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Definition Install iw60 EFX data file // issue 1 // 17.08.07
The loudspeaker shall consist of one 165mm (6.50") full range, point source Dual Concentric™ for Music Mode and two further 100mm (4.00") full range, point source Dual Concentric™ transducers in dipole configuration for Cinema Mode. The low and high frequency elements of the Dual Concentric™ shall be combined by an internal passive crossover network operating at 1.6kHz, with dynamic HF protection.

Performance of the loudspeaker, without any electronic control, shall meet or exceed the following criteria: Frequency range measured at 1 metre on axis with swept sine wave shall be 74Hz to 27kHz. Sensitivity shall be at least 90dB (anechoic) for 2.83 Volts @ 1 metre and shall be capable of producing a peak output level of 116dB (anechoic) on axis at 1 metre. The nominal coverage angles of the loudspeaker shall be 90 degrees conical in music mode and 120 degrees horizontal by 90 degrees in cinema mode. The system shall have a nominal impedance of 8 Ohms in music mode and 4 ohms in cinema mode. The maximum power handling shall be 200 Watts (programme).

The enclosure shall be an optimally tuned 11.50 litre closed MDF construction finished in textured black paint and supplied with a white powder coated perforated steel grille. Connectors shall be gold plated spring terminals. Controls shall be a mode selection input activated by a 12V DC relay via a Dinkle connector and a polarity switch.

The enclosure shall not exceed the following dimensions: 590 x 345 x 94mm (23.23 x 13.58 x 3.70") (H x W x D).

The in wall loudspeaker shall be the Tannoy... Definition Install iw60 EFX.