2 WAYS 15” LOUDSPEAKER SYSTEM
KEY FEATURES

> An effective, high performance and easy to build, two way loudspeaker system for high performance in a relatively compact and portable enclosure.

> An “already optimized” passive crossover network greatly simplifies the system setup.

> The 15W700 woofer has been combined with the ND1460 Neodymium Compression Driver, mounted on a XT1464 horn in order to obtain a smooth frequency response, precision directivity control and high power handling.

> Unique 18 Sound Elliptical-Spheroidal waveguide technology assures constant coverage at mid and high frequency with precision and stability, and good array-ability if used in multiple units.

> A crossover frequency set in the 1.5kHz range, yields very good power handling and operation reliability while not sacrificing directivity control and mid-range sound quality.

> The 15ND830 woofer is the perfect option if equivalent sonic performances are required while greatly reducing system weight as well.

**15" 2 WAYS KIT**

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- The 15ND830 woofer is the perfect option if equivalent sonic performances are required while greatly reducing system weight as well.

**15W700**

- **Nominal Diameter**: 380 mm (15 in)
- **Rated Impedance**: 8 Ohm
- **Continuous Pink Noise**: 450W
- **Sensitivity**: 99 dB
- **Frequency Range**: 38 to 5000 Hz
- **Max Recom. Frequency**: 2000 Hz
- **Recomm. Enclosure Volume**: 80 - 140 l (2.82 - 4.85 cuft)
- **Voice Coil Diameter**: 75 mm (3 in)
- **Net Weight**: 8.6 kg (18.98 lb)

**ND1460**

- **Throat Diameter**: 35.5 mm (1.4 in)
- **Rated Impedance**: 8 Ohm
- **DC Resistance**: 6.2 Ohm
- **Minimum Impedance**: 8 Ohm at 3500 Hz
- **IE at 1 kHz**: 124 µH
- **Aes Power**: 100W above 1.2 kHz
- **Program Power**: 200W above 1.2 kHz
- **Sensitivity (1W/1m)**: 109 dB

**XT1464**

- **Throat Diameter**: 25.4 mm (1 in)
- **Horizontal Coverage [6dB]**: 80° (1 + 8) average range (1 kHz - 12.5 kHz)
- **Vertical Coverage [6dB]**: 60° (18 + 7) average range (1 kHz - 12.5 kHz)
- **Directivity Index**: 10 dB (1 + 3 + 0.4) average range (1 kHz - 12.5 kHz)
- **Usable Frequency Range**: above 800 Hz
- **Recomm. Cross Frequency**: 1200 Hz or more
- **Sensitivity (On Axis)**: 110 dB
- **Frequency Range**: 1200 Hz or more

**GENERAL SPECIFICATIONS**

- **FREQUENCY RANGE**: 38 Hz to 20 kHz
- **RECOMM. XOVER FREQUENCY**: above 800 Hz (12dB/oct)
- **DIAPHRAGM MATERIAL**: Titanium
- **VOICE COIL DIAMETER**: 75 mm (3 in)
- **VOICE COIL WINDING MATERIAL**: Edge-wound aluminum
- **MAGNET MATERIAL**: Neodymium
- **FLUX DENSITY**: 1.9 T
- **BL FACTOR**: 13.5 N/A

**MOUNTING INFORMATION**

- **OVERALL DIMENSIONS**
- **MOUTH MOUNTING DIMENSIONS**
  - 4 Ø6 holes on ø 57mm - 4 M6 holes on ø 76mm (3 in)
  - 4 Ø6 holes on ø 60mm x ø 60mm (3 in)
- **DRIVER MOUNTING DIMENSIONS**
  - 3 Ø6 holes on ø 76mm (3 in)
  - 4 Ø6 holes on ø 76mm x ø 76mm (3 in)
- **NET WEIGHT**: 1 Kg (2.20 lb)

**THIELE SMALL PARAMETERS**

- **Fs**: 38 Hz
- **Re**: 5.7 Ohm
- **Sd**: 0.0085sq.m (131.75sq.in.)
- **Qms**: 3.8
- **Qes**: 0.33
- **Ods**: 0.3
- **Qts**: 217 (7.67 cuft)
- **Mms**: 80 gr. (0.18 lb)
- **BL**: 18.4 T
- **Linear mathematical Xmax**: ± 6.5 mm (± 0.26 in)
- **La (1kHz)**: 1.57 mH
- **Ref. Efficiency**: 1W@1m (half space) 97.8 dB

**GENERAL SPECIFICATIONS**

- **Nominal Diameter**: 380 mm (15 in)
- **Rated Impedance**: 8 Ohm
- **Continuous Pink Noise**: 450W
- **Sensitivity**: 99 dB
- **Frequency Range**: 38 to 5000 Hz
- **Max Recom. Frequency**: 2000 Hz
- **Recomm. Enclosure Volume**: 80 - 140 l (2.82 - 4.85 cuft)
- **Voice Coil Diameter**: 75 mm (3 in)
- **Net Weight**: 8.6 kg (18.98 lb)

**MOUNTING INFORMATION**

- **OVERALL DIMENSIONS**
- **MOUTH MOUNTING DIMENSIONS**
  - 4 Ø6 holes on the edge of rectangle with 214mm x 169mm (8.43x6.65 in) sides
- **DRIVER MOUNTING DIMENSIONS**
  - 3 Ø6 holes on ø 76mm (3 in)
  - 4 Ø6 holes on ø 76mm x ø 76mm (3 in)
- **NET WEIGHT**: 1 Kg (2.20 lb)
**KEY FEATURES**

> The enclosure should be made out of Baltic birch plywood (15mm thick).

> The vents can be made with standard PVC plumbing pipe connections with internal diameter of 96mm, as described at page 13.

> All the used bolts should be the M5 type (5mm diameter), 35mm deep. "8.8" steel type or better is strongly suggested.

> M5 T-Nuts are recommended to be used in conjunction with M5 bolts.
KEY FEATURES

> It’s strictly necessary to provide for proper cabinet internal acoustical damping with absorptive material.

> High density damping material, such as Dacron or other synthetic fibers, is required for best performance.

> The following example image shows the proper damping material disposition.
MEASUREMENTS: 15W700 + ND1460/XT1464

FREQUENCY RESPONSE

IMPEDANCE CURVE

BEAMWIDTH

DIRECTIVITY INDEX

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VERTICAL POLAR RESPONSE

15" 2 WAYS KIT

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CROSSOVER SCHEMATICS

COMPONENTS LIST

<table>
<thead>
<tr>
<th>TYPE</th>
<th>VALUE</th>
<th>NOTE</th>
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<tbody>
<tr>
<td>Resistor</td>
<td>27 Ohm</td>
<td>&gt;20W</td>
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<tr>
<td>Capacitor</td>
<td>1.5 µF</td>
<td>5% - &gt;250V</td>
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<tr>
<td>Capacitor</td>
<td>8.2 µF</td>
<td>5% - &gt;250V</td>
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<tr>
<td>Inductor</td>
<td>0.47 mH</td>
<td>&lt;0.4 Ohm</td>
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<tr>
<td>Capacitor</td>
<td>1.8 mH</td>
<td>&lt;1.4 Ohm</td>
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<tr>
<td>Capacitor</td>
<td>22 µF</td>
<td>5% - &gt;250V</td>
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<tr>
<td>Inductor</td>
<td>0.56 mH</td>
<td>&lt;0.6 Ohm</td>
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<tr>
<td>PTC</td>
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FRONT PANEL: BOLTS HOLES
TOP VIEW SECTION: WOOFER HEIGHT SECTION