Tannoy has a policy of continuous improvement and this specification sheet provides the latest information at the time of printing. All specifications may be subject to further change. Please contact the Tannoy website for the latest information.
1. INTRODUCTION

Thank you for purchasing this Tannoy Ceiling loudspeaker. This product range is suited for high-level music and speech reinforcement applications requiring exceptional sonic quality with uncompromised reliability.

2. UNPACKING

Every Tannoy product and accessory is carefully inspected before packing. After unpacking, please inspect your product to make sure no damage has occurred in transit. In the unlikely event of any damage, would you please notify your dealer immediately and retain your shipping carton, as your dealer may ask you to return the faulty unit to him for inspection.

Each CVS loudspeaker is packed in pairs and provided with the following accessories as standard; C Ring, tile-bridge kit, grille, cut-out template, and paint mask. A plaster (mud) ring is also available as an optional extra.

3. SAFETY NOTICES

Some regional construction codes require the use of a secondary method of securing loudspeakers in ceiling to provide security of a back up support. A secondary support line should be attached from the safety loop on the rear of the product to a source point on the ceiling. Please consult the relevant construction codes in your region.

When using a power driver to install the product it is essential to use the correct torque level settings to avoid over tightening and damage to the ceiling material or clamps.

Recommended torque setting: 1.5Nm

Tannoy will not be held responsible for any damages caused by the improper installation of these loudspeakers.

Electrical Safety Notice: to comply with the standard UL1480, metal-clad flexible conduit (BX) is required for connection to the terminal block for proper earth grounding.

SAFETY NOTE:
In order to comply with relevant fire safety regulations (i.e. BS 5839:1998), it is required that in the event of fire, that failure of the circuit to which the loudspeaker is connected does not occur before evacuation of the building is complete. Suitable measures include:

a) use of terminal blocks (for connection to primary) with a melting point of not less than 650°C, for example constructed from ceramic materials;

b) use of terminal blocks of a lower melting point but protected with thermal insulation;

c) use of terminal blocks such that, on melting, an open-circuit or a short-circuit does not occur.
4. PRODUCT FEATURE IDENTIFICATION:

CVS 4

5. ACCESSORIES:

Standard Accessories

- C-Ring
- Tile bridge kit
  Note: A tile bridge kit must always be used when installing into suspended ceiling tiles
- Grille
- Cut-out template
- Paint Mask

Optional Accessories

- Plaster (Mud) Ring
- Mounting Wings
- Screws for mounting wings
- Rotary Switch
- Tuning Ports
- Conduit/Cable Clamp
- Safety Tab
- Mounting Wings
6.1 MECHANICAL INSTALLATION GUIDE FOR SUSPENDED CEILINGS

1 | Remove the ceiling tile from its frame and place it on a flat surface. Mark the cut-out area on the ceiling tile by tracing around the template provided.

2 | Cut out the hole in the ceiling tile using a circular saw or pad saw.

3 | Place the C-ring and tile-bridge on top of the ceiling panel, aligning the C-ring over the hole, and screw the C-ring to the tile bridge using the fixings provided.

4 | Slide the speaker assembly through the hole and turn the screws on the front of the speaker to extend the mounting wings. Tighten the screws until a firm grip is achieved. If using a power driver, Tannoy recommends a torque setting of 1.5Nm.

**DO NOT OVERTIGHTEN!**

5 | Slide the tile panel back into the suspended ceiling. The tile bridge ends will catch over the railings, supporting the weight of the speaker.

6 | Connect a Secondary Support Line to safety tab. Some construction codes require use of this secondary support point, which should connect to a separate secure support point using a suitable support line. Consult construction codes in your region.

Go to section 7 for instructions on wiring and set-up instructions.

6.2 MECHANICAL INSTALLATION GUIDE FOR SHEET-ROCK (PLASTER BOARD) CEILINGS

1 | Mark the cut-out area on the ceiling by tracing around the template provided.

2 | Cut out the hole in the ceiling using a circular saw or pad saw, then slide the C-ring into the ceiling, aligning it over the cut-out hole.

3 | Go to section 7 for wiring and set-up instructions then return to point 4 below.

4 | Slide the speaker assembly through the hole and turn the screws to extend the mounting wings. Tighten the screws until a firm grip is achieved.

If using a power driver, Tannoy recommends a torque setting of 1.5Nm.

**DO NOT OVERTIGHTEN!**

5 | Connect a Secondary Support Line to safety tab. Some construction codes require use of this secondary support point, which should connect to a separate secure support point using a suitable support line. Consult construction codes in your region.

6 | Insert grille by pushing it onto the speaker.
6.3 MECHANICAL INSTALLATION INSTRUCTIONS FOR OPTIONAL PLASTER RING:

An optional plaster (mud) ring bracket is available from Tannoy. This bracket is designed to be pre-installed into newly constructed, non-suspended ceilings.

1. Nail or screw the plaster ring to the joists.

2. Lay the speaker wiring to where the speaker will be fitted and complete the plastering work on the ceiling.

3. Cut out the hole in the ceiling using a circular saw or pad saw.

4. Go to section 7 for instructions on wiring then return to point 5 below.

5. Slide the speaker assembly through the hole and turn the screws to extend the mounting wings. Tighten the screws until a firm grip is achieved.

   **DO NOT OVERTIGHTEN!**

6. Connect a Secondary Support Line to safety tab. Some construction codes require use of this secondary support point, which should connect to a separate secure support point using a suitable support line. Consult construction codes in your region.

7. Insert grille by pushing it onto the speaker.

7. WIRING AND SETTING UP:

1. Open the wiring cover at the back of the speaker can to access the Euro type connector plug and socket.

2. For connection to an amplifier, use pins 1 and 2:
   - Pin 1 is positive
   - Pin 2 is negative

   For connection to additional speakers in a distributed line, pins 3 and 4 are in parallel where:
   - Pin 3 is negative
   - Pin 4 is positive

3. Close the wiring cover and tighten both screws on the cable clamp. Use the rotary switch located on the front of the unit to select whether you wish to use the speaker in a low-impedance or distributed-line application.

   **THE SPEAKER IS SUPPLIED IN LOW IMPEDANCE MODE. NEVER CONNECT THE SPEAKER TO A 70/100 VOLT AMPLIFIER WHILE IT IS SET FOR LOW IMPEDANCE.**

4. The CVS 6 is fitted with a 60W transformer. When used in distributed-line systems, the transformer can be tapped at 60W, 30W and 15W, with an additional 7.5W tapping for 70.7V line systems.

5. The CVS 4 is fitted with a 30W transformer. When used in distributed-line systems, the transformer can be tapped at 30W, 15W and 7.5W, with an additional 3.75W tapping for 70.7V line systems.

   Connect a Secondary Support Line to safety tab. Some construction codes require use of this secondary support point, which should connect to a separate secure support point using a suitable support line. Consult construction codes in your region.
8.1 CVS 4 DIMENSIONS:
CVS 4 TEMPLATE CUTOUT SIZE: 180mm

8.2 CVS 6 DIMENSIONS:
CVS 6 TEMPLATE CUTOUT SIZE: 250mm
TECHNICAL SPECIFICATIONS

CVS4

System
CVS4
Frequency Response (-3dB) 2
85Hz - 19kHz
Frequency Range (-10dB) 2
77Hz - 22kHz
System Sensitivity (1W @1m) 2
87dB (1W = 2.45V for 8Ω)
Nominal Coverage Angle 90 degrees conical
Coverage Angle (1kHz to 8kHz) 102 degrees
Directivity Factor (Q) 5.6 averaged 1kHz to 8kHz
Directivity Index (DI) 7.1 averaged 1kHz to 8kHz
Rated Maximum SPL 103dB (average) 105dB (peak)

Power Handling 1/2
Average 40W
Programme 80W
Peak 160W
Recommended Amplifier Power 80W @ 6Ω

Nominal Impedance 6Ω
Transformer Taps (via front rotary switch) 70V
30W / 15W / 7.5W / 3.75W / OFF & low impedance operation
100V
30W / 15W / 7.5W / OFF & low impedance operation

Distortion
1% Full Power 2nd Harmonic 3rd Harmonic 1kHz 10kHz
250Hz 0.231% 0.112% 0.229% 0.253%
1kHz 0.163% 0.205%
10kHz 0.163% 0.205%
10% Full Power 2nd Harmonic 3rd Harmonic 1kHz 10kHz
250Hz 0.59% 0.333% 0.616% 0.444%
1kHz 0.444% 0.277%
10kHz 0.444% 0.277%
Crossover Point 2.7kHz

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.

Low Frequency Transducers

Low Frequency
100mm (4.00") Mineral Loaded

High Frequency
19mm (0.75")

Back Can Options

Back Can Options

Cable Entry Options
Cable clamp & squeeze connector for conduit up to 22mm

Connectors
Removable locking connector with screws to terminals with "loop through" facility

Safety Agency Ratings
UL-1480, UL-2043, CE

Hole Cutout Diameter
180mm

Dimensions
Bezel diameter 213.9mm (8.39")
Front of cabling to back of can 202.9mm (7.97")
Front of cabling to top of safety loop 214.9mm (8.46")

Net Weight (ea)
2.65kg

Included Accessories
C Ring, tile bridge, paint mask, cutout template, grille

Optional Accessories
Plaster (mortar) ring

Notes
(4) Average over stated bandwidth. Measured in an IEC baffle in an anechoic chamber.
(5) Unweighted Pink noise input, measured at 1m on axis.
(6) Long term power handling capacity as defined in EIA-426B test.

Distortion
1% Full Power 2nd Harmonic 3rd Harmonic 1kHz 10kHz
250Hz 0.439% 0.140% 0.396% 0.456%
1kHz 0.335% 0.223%
10kHz 0.223%
10% Full Power 2nd Harmonic 3rd Harmonic 1kHz 10kHz
250Hz 1.15% 0.214% 1.14% 0.688%
1kHz 1.014% 0.688%
10kHz 0.688%
Crossover Point 2.5kHz

Notes
(7) Average over stated bandwidth. Measured in an IEC baffle in an anechoic chamber.
(8) Unweighted Pink noise input, measured at 1m on axis.
(9) Long term power handling capacity as defined in EIA-426B test.
10. PAINTING

If desired, the grille and baffle panel may be painted to match the surrounding décor.

Painting the baffle:

1. Carefully mask off the driver assembly using the paint-mask provided to ensure that the paint does not come into contact with the cone and roll surround.
2. Apply several thin coats of paint – this will provide a better finish than one overly thick coat.

Painting the grille:

1. Carefully remove the acoustically transparent foam from the reverse side of the grille.
2. Paint the grille and then replace the foam - several thin coats of paint will provide a better finish than one overly thick coat.
3. Re-bond the foam to the grille over the entire area using a light spray-adhesive to avoid audible resonances.

11. WARRANTY

No maintenance of the CVS loudspeaker is necessary.

All Tannoy professional loudspeaker products are covered by a 5 year warranty from the date of manufacture subject to the absence of misuse, overload or accidental damage. Claims will not be considered if the serial number has been altered or removed. Work under warranty should only be carried out by a Tannoy Professional dealer or service agent. This warranty in no way affects your statutory rights. For further information please contact your dealer or distributor in your country. If you cannot locate your distributor please contact Customer Services, Tannoy Ltd at the address given below.

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DO NOT SHIP ANY PRODUCT TO TANNOY WITHOUT PREVIOUS AUTHORISATION

Our policy commits us to incorporating improvements to our products through continuous research and development. Please confirm current specifications for critical applications with your supplier.

12. DECLARATION OF CONFORMITY:

The following apparatus is/are manufactured in China for Tannoy Ltd of Rosehall Industrial estate, Coatbridge, Scotland, ML5 4TF and conform(s) to the protection requirements of the European Electromagnetic Compatibility Standards and Directives relevant to Domestic Electrical Equipment. The apparatus is designed and constructed such that electromagnetic disturbances generated do not exceed levels allowing radio and telecommunications equipment and other apparatus to operate as intended, and, the apparatus has an adequate level of intrinsic immunity to electromagnetic disturbance to enable operation as specified and intended. This equipment conforms to the requirements of the EMC Directive 89/336/EEC, amended by 92/31/EEC and the requirements of the Low Voltage Directive 73/23/EEC, amended by 93/68/EEC.

Details of the Apparatus:

Tannoy Contractor Loudspeaker

Model Numbers:
CVS 4
CVS 6

Applicable Standards:
EN55103-1 1996 Emission
EN55103-2 1996 Immunity

Electrical Safety EN 60065: 1993

Signed:

Position: Commercial Engineering Director

Tannoy Professional

Date: 15/05/2006

For Tannoy Ltd