HTS 100<sub>11</sub> & HTS 200<sub>11</sub>

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.

The Tannoy HTS100 and HTS200 speaker systems and the Tannoy HTS100/200 subwoofer are all designed by Tannoy Ltd and manufactured for Tannoy Ltd to rigid specifications in accordance with CE, CCC, CB and CSA international regulations.

Register your product online at www.tannoy.com

# HTS 100, & HTS 200,

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# HTS 100, & HTS 200,

## S E T U P G U I D E



#### **IMPORTANT SAFETY INSTRUCTIONS**

- 1. Read these instructions
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with manaufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, wall sockets, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 14. WARNING: To reduce the risk of fire or electrical shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.
- 15. To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the wall socket.
- 16. The mains plug on the power supply cord shall remain readily accessible.
- 17. Due to the powerful drive unit magnet, do not place within (3 feet) 1 metre of a television or computer monitor.



The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

#### **ELECTRICAL REQUIREMENTS**

Check that the voltage rating displayed on the rear panel is correct for your area before connecting. If it is incorrect, set with the voltage selection switch, ensuring protective cover is replaced and the appropriate fuse used (see specification).

#### **EUROPEAN MODELS**

A mains cable is supplied with an IEC moulded socket at one end and a moulded mains plug at the other end. Where the moulded plug is fitted with a mains fuse, always replace with the same 5A rated fuse. If the fitted plug is unsuitable for your type of outlet sockets, it should be cut off and disposed of safely, in case it is inserted into a live socket elsewhere. The wires in the mains cable are coloured in accordance with the following code:

GREEN AND YELLOW- EARTH

BLUE- NEUTRAL

**BROWN-LIVE** 

AS THE COLOURS OF THE WIRES IN THE MAINS CABLE MAY NOT CORRESPOND WITH THE COLOURED MARKINGS IDENTIFYING THE TERMINALS IN YOUR PLUG, PROCEED AS FOLLOWS:

- The wire which is coloured GREEN AND YELLOW must be connected to the terminal in the plug which is marked either by the letter E, the earth safety symbol, or coloured GREEN or GREEN and YELLOW.
- The wire which is coloured BLUE must be connected to the terminal in the plug which is marked by the letter N or coloured BLACK.
- The wire which is coloured BROWN must be connected to the terminal in the plug which is marked by the letter L or coloured RED.
- · Ensure that the terminals are tightened securely, and no loose strands of wire are present.
- Ensure cord grip is clamped over outer sheath of cable, rather than over the wires.

#### **FUSE PROTECTION**

An additional mains fuse is provided in the IEC power inlet on the back of the subwoofer, which can only be removed with the power cord unplugged. This must be replaced by a fuse of the same type and rating (see Specifications or refer to rear panel).

#### WARRANTY

Please complete and return the enclosed warranty registration document - this does not limit your legal rights. This equipment has been produced and tested with care and precision. It is built to give first class service and carries a 2 year warranty for the passive speakers and 1 year warranty for the active subwoofer. If the equipment proves to be defective within this period for any reason other than accident, misuse, unauthorised modification or fair wear and tear, Tannoy will repair any such defect or, at our option, replace it without charge for parts, labour or return carriage. This warranty is given in addition to the customer's statutory rights.

If you suspect that there is a problem with your HTS subwoofer or the loudspeakers included with this system then please contact your local Tannoy dealer who will be able to advise on appropriate action. Please register your HTS system on-line at www.tannoy.com.



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#### HTS SET UP GUIDE

This high performance Tannoy HTS 5.1 home cinema system has been built and tested with care and precision to provide first class performance and reliable operation. To ensure maximum benefit from ownership and for reasons of safety, please read through all the information in this owner's manual before operating and using this system for the first time.

Tannoy HTS systems are primarily designed for use with the following equipment:-

- An AV or Home Cinema Receiver with integral 5.1 decoder,
   5 power amplifiers and a dedicated LFE or subwoofer line level output.
- An integrated DVD player with 5.1 decoder, 5 power amplifiers and a dedicated LFE or subwoofer line level output.
- A 5.1 decoder (with LFE or subwoofer output) feeding 5 separate power amplifiers.

A 5.1 decoder separates digital audio signals from DVD, CD or Digital Broadcast sources into five separate audio channels which feed the five separate speakers in the HTS system and a sixth channel which feeds the HTS subwoofer.

Each speaker provides a separate function. The functions are:

- Centre Speaker which carries most of the dialogue or solo performances.
- Front Left and Front Right Speakers which carry special effects and left/right stereo information.
- Left Rear and Right Rear Speakers which carry special effects information.

In addition, HTS systems have a subwoofer which provides very low frequency sounds and special effects. The subwoofer supports low frequencies for all 5 audio channels. It is a specially designed high power unit with its own built-in amplification capable of reproducing very low frequencies at realistic levels to enhance music and movie experiences.

5.1 decoders provide a special subwoofer output signal which you connect directly into the HTS subwoofer using a suitable cable. The subwoofer output socket on your equipment is usually labelled 'LFE' (Low Frequency Effects) or 'SUB' or 'SUBWOOFER' output.

#### **WHAT'S IN THE BOX?**

#### HTS 100:

 One carton containing 4 x satellite speakers, 1 x centre speaker, 1 x subwoofer, cable, wall brackets and accessories.

#### HTS 200:

- One carton containing 2 x satellite speakers, 1 x centre speaker, 1 x subwoofer, cable, wall brackets and accessories.
- One carton containing 2 x tower speakers, 2 x base platforms, spikes, wood floor protectors and associated screws.

#### HTS Stand

One carton containing 2 x stand bases, 2 x stand poles, 2 x stand brackets and associated screws

#### **ASSEMBLING THE TOWER SPEAKERS (HTS 200)**

- Fit each black base to each tower speaker using 3 screws located in the accessory bag.
- Fit all 3 screws loosely by locating them in the threaded inserts before tightening them all securely.
- Screw 4 chrome spikes into the threaded inserts on each tower base.
- Note that the cable may be passed neatly from underneath the base, through a hole in the base behind the speaker to the adjacent terminals.

## ASSEMBLING THE CENTRE & SATELLITE WALL BRACKETS

Fit the wall brackets to the smaller satellite speakers if you wish to wall mount them as follows:

- Locate the appropriate screws and lock washers in the accessory pack - 2 screws for each wall bracket; 12 screws in total for the HTS100 system and 8 screws in total for HTS200 system.
- Locate the Allen key tool which which you will use to tighten the hex socket head screws.

Each wall mounting bracket has two halves and a long screw/pin which holds the two halves together to act as the hinge. One half is mounted on the speaker using 2 screws and the other half is mounted on the wall using suitable screws and wall plugs. It is your responsibility to ensure that the wall and the screw fixing method are both strong enough to support the weight of the satellite speakers. See the specification page for weights.

• Separate each bracket into two halves by removing the long hinge screw.



 Fit one half of the bracket with the large holes to the speakers using the screws and lockwashers provided.
 The threaded hinge pin hole in the bracket should face the terminals on the back of the speaker.



 Fit 2 halves of 2 brackets to the centre speaker with the threaded hinge pin hole in the bracket facing the terminals on the back of the satellite. This orientation will allow the hinge pins to be fitted from either side of the cabinet when mounting to the wall.



 Fit the other half of the bracket(s) to the wall using a suitable fixing method for the type of wall material - seek professional advice if unsure.





Composite







• Position the satellite or centre speaker (with half the wall bracket(s) fitted) against the other half of the wall bracket already fitted to the wall. Line up the brackets so that the long screw.pin can be inserted vertically from below the satellite or horizontally from the sides of the centre speaker and screwed up lightly. The speakers will now swing in the horizontal plane (vertical plane for the centre) for best aural and visual effect. Tighten the long screw/pin to finish.



 To remove the speakers from the wall to access the wiring terminals, remove the long screw/pin whilst carefully supporting the weight of the speaker.

#### **ASSEMBLING THE STANDS**

• Pass the metal pole through the base so that the flange locates in the round pocket in the underside of the base.



- Locate the slot in the top end of the pole and assemble so that the slot points to the rear when the base points towards you.
- Line up the 3 holes in the flange with the 3 threaded inserts in the base and fit 3 screws finger tight.



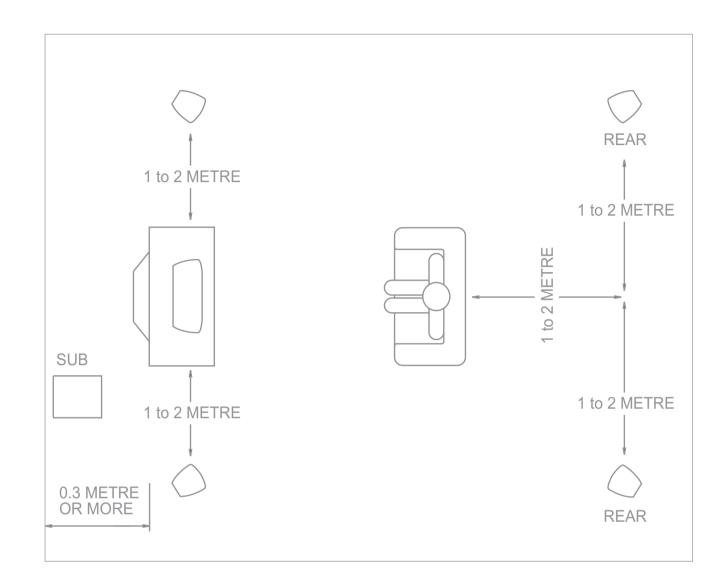
- Check the alignment of the slot in the top of the tube (pointing backwards) and tighten the screws.
- Place the satellite and stand bracket onto the top of the pole taking care to align the slot in the pole with the corresponding rib in the stand bracket.
- Pass the cable up through the centre of the tube and connect to the terminals on the satellite. Take care to preserve correct polarity, the conductor with the grey stripe connects to the black terminal.



- Fit the 2 screws to the satelite speaker finger tight, check the alignment of the bracket and tighten the screws.
   DO NOT OVERTIGHTEN.
- Pull the cable gently from underneath the stand base to take up any slack.



• Fit the stand bracket to the satellite covering the terminals and lining up the fixing holes.



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#### **PLACING THE CENTRE SPEAKER**

Locate the special Centre Speaker performance platform within the packaging materials.

Place the Centre Speaker onto the platform and rotate to a suitable angle.

#### **POSITIONING THE HTS SPEAKERS**

Place the speakers in positions relative to the viewing screen in your room as follows:

- Centre speaker close to, and either above or below the screen.
- Front Left speaker 1 to 2 metres to the left of the screen.
- Front Right speaker 1 to 2 metres to the right of the screen

Try to get all 3 front speakers to be in the same plane - the same distance from the viewing position and at least 300mm (12 inches) away from any back wall which may be present behind the screen. Continue positioning the rear speakers as follows:

- Left Rear speaker 1 to 2 metres behind the viewing position and to the left.
- Right Rear speaker 1 to 2 metres behind the viewing position and to the right.

Viewed from above, Front Left, Front Right, Left Rear and Right Rear speakers should form a rectangle with the viewing position in the centre of the rectangle.

- Place the subwoofer on the floor alongside the wall nearest to the screen. The exact position isn't critical and can be adjusted once the system is up and running.
- DO NOT PLACE THE SUBWOOFER CLOSER THAN 1
   METRE FROM A VIEWING SCREEN USING A CATHODE
   RAY TUBE. This warning does not apply to Plasma and
   LCD screens.

This is an ideal positioning set-up, in practice there will be inevitable compromises depending on your room layout and the furniture within it. Refer to your decoder or AV Home Cinema receiver instructions for further advice in compensating for non-ideal situations.

# CONNECTING THE HTS SPEAKERS TO YOUR A/V RECEIVER OR AMPLIFER

Connect the speakers to the AV Home Cinema receiver or separate amplifier terminals as follows:

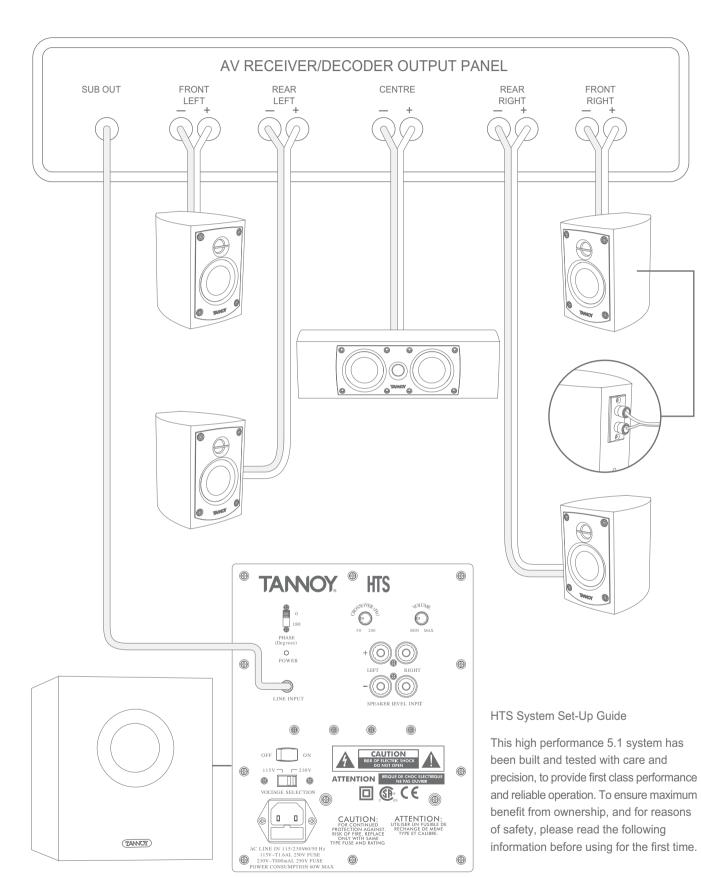
- Measure out suitable lengths of cable from the roll of cable supplied, to reach between the speakers and your AV or Home Cinema receiver speaker output terminals.
- Note that the cable is polarised, that is the cable has a grey stripe along one of the two conductors. Use this as a guide to connect black terminals on the speakers to black terminals on your equipment.
- Wire up the system connecting each speaker to the appropriate terminals on the receiver or amplifier making quite sure that cables connect red to red terminals (+ to +) and black to black terminals, (- to -). Take care to distinguish between left and right channels, and the front and rear channels, as seen from the viewing position.

This is a very important stage in setting up. Getting things wrong at this stage is the most likely reason for disappointing results when troubleshooting the system.

# CONNECTING THE HTS SUBWOOFER TO YOUR SYSTEM

The HTS subwoofer should be connected directly to your 5.1 decoder, AV home cinema receiver or integrated DVD/ decoder/ amplifier as follows:.

- Locate the RCA or Phono socket on your equipment labelled 'LFE OUT', 'SUB OUT' or 'SUBWOOFER OUTPUT'.
- Using a single RCA to RCA (also known as phono to phono) good quality interconnect cable of suitable length, connect from the 'LFE/SUB/SUBWOOFER OUTPUT' on your equipment to the 'LINE INPUT' on the HTS100/ 200 subwoofer.
- Locate and connect the mains lead supplied to the HTS subwoofer.
- DO NOT CONNECT THE MAINS LEAD (POWER CORD) TO THE MAINS POWER SUPPLY JUST YET.





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## ALTERNATIVE METHODS OF SUBWOOFER CONNECTION

If you are using the HTS system with equipment which does not have a special subwoofer output, or, for simple 2 channel stereo with additional subwoofer (2.1 operation) you can connect the subwoofer using your amplifier's speaker output terminals to provide speaker signal level feeds to the HTS subwoofer 'SPEAKER LEVEL' inputs as follows:

- Prepare 2 lengths of twin speaker cable. One from the left channel amplifier output terminals to the subwoofer and one from the right channel amplifier output terminals to the subwoofer. These cables will provide the subwoofer signal feeds and can be simple stranded twin core cable (Class 2 insulation) as they will not be carrying any power, only signals.
- Remove the existing speaker cables from your amplifier terminals in turn and twist the speaker and subwoofer signal feed cables together and reconnect to each terminal.
   Remember to keep +/RED to +/RED and -/BLACK to -/BLACK meticulously on both sets of cables.
- If your amplifier has two sets of speaker terminals, usually labelled 'A' and 'B' you can use the unused second set to connect the subwoofer feed cables. Remember to switch the second set of speakers ('B') to 'on' if necessary.
- Make sure the polarity of the speaker cables and the subwoofer cables is correct - failure to observe this may result in short circuits and consequential damage to your amplifier.
- At the subwoofer connect the left feed cable to the SPEAKER LEVEL terminals marked + LEFT - and the right feed cable to the terminals marked + RIGHT -
- Do not switch the subwoofer on at this stage. Make sure that the mains power switch on the subwoofer is set to OFF by pushing the power switch rocker adjacent to the OFF label and that the mains lead is not connected to the wall socket.

#### **SETTING UP TO LISTEN**

Make sure the POWER switch on the HTS subwoofer is in the OFF position. Set the subwoofer controls as follows:

- Set the HTX subwoofer VOLUME to MIN, PHASE SWITCH to 0, CROSSOVER to half way between 50 and 200 (marker pointing vertically).
- Set your 5.1 receiver/decoder to SMALL SPEAKERS, LFE or SUB output to ON, switch the rest of your system ON and play a favourite movie. Refer to the equipment manufacture's instruction manual if you need help in making these settings.

- Connect the HTS subwoofer to a convenient mains socket using the lead and plug supplied.
- Switch the HTS subwoofer to ON and set the VOLUME half way between MIN and MAX. Assess the bass signal strength and adjust VOLUME accordingly.

The purpose of a subwoofer is to enhance the bass or low frequencies but not to overpower the music or film dialogue. The set up can be checked by using the noise signal calibration facility in most 5.1 receivers/decoders. Using this noise signal the HTS subwoofer will produce a low frequency sound a little like a continuous distant thunderstorm. The noise signal should be of the same loudness from all the speakers as the test signal cycles round the system. Adust the individual channels on the decoder to achieve this.

#### **SUBWOOFER PORT TUBE AIR FLOW MODIFIER**

A round port plug is supplied and fitted to the subwoofer port. For DVD movies the port plug can be removed for improved low frequency impact. For DVD music videos and CDs the port plug can be fitted to the port for improved bass quality and depth; for best quality reproduction with this type of material the subwoofer CROSSOVER control should be set between 50 and half way. For maximum impact with movies the port plug should be removed and the CROSSOVER control set to between half way and 200. Experiment for the best effects in your room.

#### **POSITIONING THE SUBWOOFER**

The HTS subwoofer produces low frequency sounds only. It is difficult to detect the location of low frequency sounds by ear. The subwoofer can therefore be placed in any convenient position in the room, but optimum performance will be gained by locating the subwoofer somewhere between the front pair of speakers. Low frequency output will increase when placed next to a wall and especially so when placed in a corner, so use the VOLUME control to compensate if moving your subwoofer around the room. The phase of the subwoofer may be changed between 0 & 180 degrees by operating the switch on the back panel. In certain room positions the bass quality may be improved by switching to 180°. This is best checked by experimentation.

#### **AUTO POWER/ SLEEP FUNCTION**

The HTS subwoofer can be left permanently switched ON. When a signal is present from the 5.1 decoder it will 'waken up' and operate normally. When a signal is absent for approximately 20 minutes it will go back to 'sleep mode' and consume very little power. If you are not using your subwoofer for long periods of time, for example going on holiday, then switch to OFF and remove the power cable plug from the mains outlet.

#### **CENTRE & SATELLITE SPEAKER**

#### PERFORMANCE

Drivers

Recommended amplifier power 25 - 100 Watts

Maximum Sensitivity (2.83Volts @ 1m) 87dB

Nominal impedance Centre 8 ohm

Satellite 6 ohm

Satellite 6 ohm

Frequency response (-6dB) 100Hz to 40kHz (Centre & Satellites)

HF: 19mm (3/4inch) titanium WideBand™ dome, with neodymium magnet system

LF: 75mm (3 inch) paper cone

Crossover frequency 3kHz (LF to HF)

Magnetic shielding

Satellite Weight 1.3KG (2.9lbs)

Satellite Dimensions H x W x D 162 x 120 x 170 mm (6.4 x 4.7 x 6.7 inches)

Centre Weight 2.7KG (5.9lbs)

Centre Dimensions H x W x D 120 x 355 x 170mm (4.7 x 14 x 6.7 inches)

Finish Cherry wood finish
Supplied accessories Centre support platform,
Satellite wall brackets

20metres (65 ft) speaker cable

Optional accessories Satellite floor stands with mounting brackets available in black finish

#### **TOWER SPEAKER**

#### PERFORMANCE

Recommended amplifier power 25 - 100 Watts
Maximum Sensitivity (2.83Volts @ 1m) 88dB
Nominal impedance 6 ohm
Frequency response (-6dB) 80Hz to 40kHz

Drivers HF: 19mm (3/4inch) titanium WideBand™ dome, with neodymium magnet system

2 x LF: 75mm (3 inch) paper cone

Crossover frequency 3kHz (LF to HF)

Magnetic shielding Ye

Tower Weight 5.8KG (12.8lbs)

Tower Dimensions H x W x D 940 x 120 x 170mm (37 x 4.7 x 6.7 inches)

Finish Cherry wood finish

Supplied accessories Adjustable coupling spikes and wood floor protectors

#### **SUBWOOFER**

#### PERFORMANCE

Weight

Power output 100 Watts
Frequency response (-6dB) 29Hz - 200Hz

Crossover frequency 50Hz to 200Hz variable control

Driver 200mm (8 inch) paper cone, long throw

Inputs Line Input (LFE RCA/Phono) or Left & Right speaker level input.

Power requirements 115 or 230V AC / 50 - 60 Hz, switching facility on amplifier panel, 60VA Fuse ratings AC 100-120V/60Hz - Fuse: T1.6A L /125V

AC 220-240V/50Hz - Fuse: T800mA L /250V

Additional features Energy saving AUTO power function

Switchable phase 0 or 180 degrees Crossover and Volume control

10.2KG (22.4lbs)

Dimensions H x W x D 420 x 275 x 405mm (16.5 x 10.8 x 16 inches)

Finish Cherry wood finish
Supplied accessories Port tube air flow modifier

ipplied accessories Port tube air flow modifier

Country specific mains cable (cord)

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