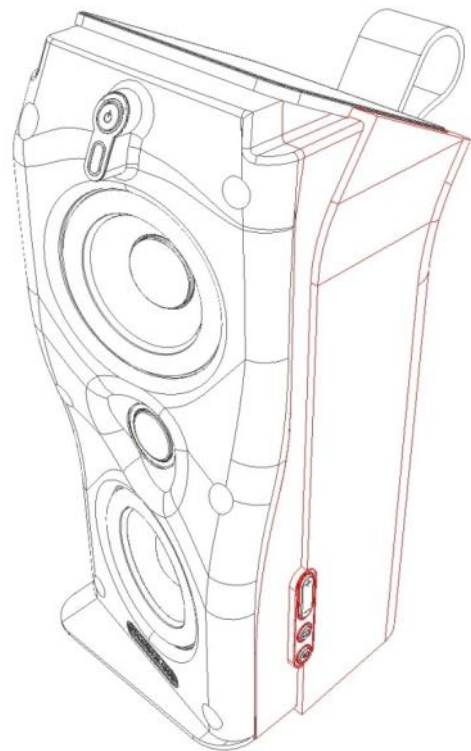




S150

Instruction Manual

DRAFT



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This document is intended to be used as a reference for the supplier. It is designed to clearly communicate all the key design features and reasoning behind the design supplied.

Note: This document contains confidential information that should not be distributed to third parties without prior consent from the Monitor Audio board of Directors.

1 Introduction

A compact Bluetooth speaker system with Bluetooth only functionality. The acoustic system is based around a 3 amplifier platform driving 2 x full range drivers and 1 x 19mm tweeter. The functionality will be the same as other Airstream products and incorporate the same UI features. The unit will be mains powered.

2 Electronic Specification Overview

2.1 PSU

- The outboard PSU adaptor is auto-ranging from mains input of 94-264Vac (100-240v nominal working voltage range) and with a minimum output of 17V/2300mA (40W)
- The PSU adaptor style will be designed to fit onto a wall socket and feature replaceable plug pins for; U.S.A, U.K, EU;

2.2 Power Amp section

- 3 x 20W @ 6Ω for drivers
- Class D amplifiers
- <1% THD+N (full power)

2.3 Other features

- ARM Cortex M4
- aptX codec for Bluetooth

3 Control

3.1 Local Controls

Localised controls should include:

- Volume up/down (side mounted)
- Power on/standby (front mounted)
- Auxiliary input button (side mounted)
- Bluetooth source button- using BT logo. (side mounted)
- Bluetooth pairing button (rear)

Localised inputs and connections should include:

- 3.5mm mini-jack (aux input)
- DC input by coaxial connector
- USB type A connector for generic 5v charging purposes (Apple charging?) – removed Apple authentication chip.

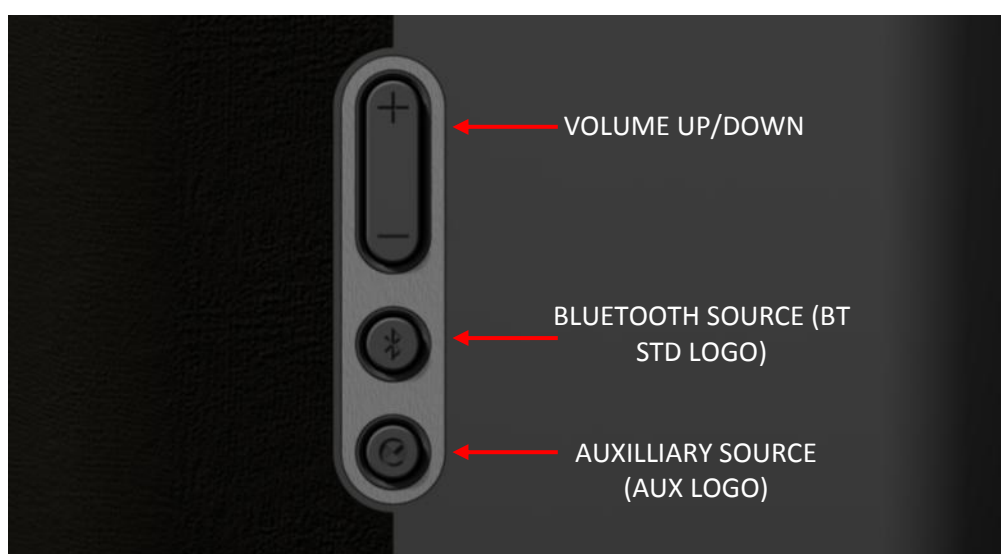


Figure 1. - Airstream S150 Local Controls

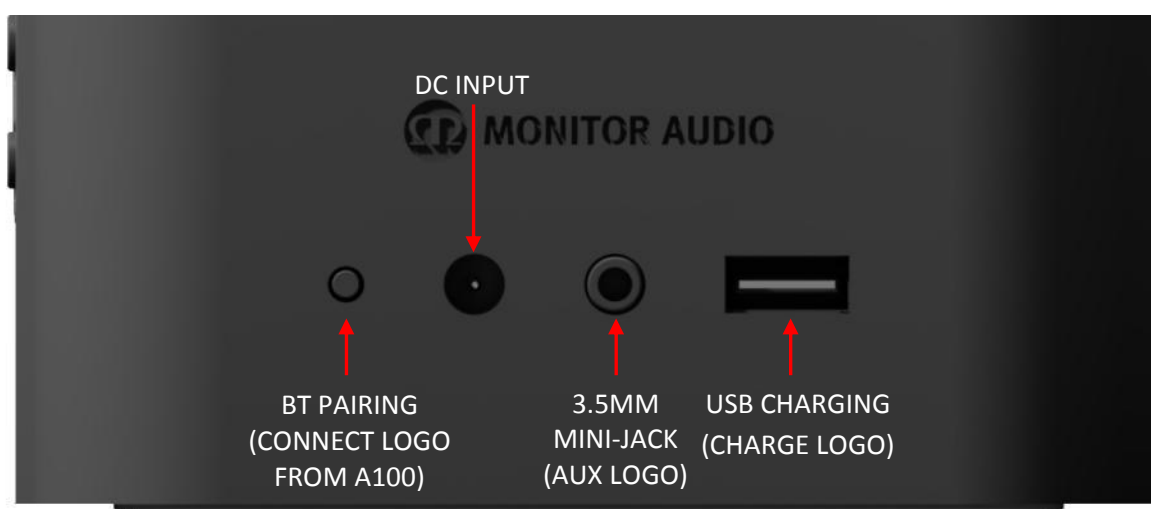


Figure 2. - Airstream S150 Inputs and Connections

3.2 Indicators and functionality

3.2.1 LED States

1. Solid Green – Auxiliary input
2. Flashing Cyan – Bluetooth searching
3. Solid Cyan – Bluetooth Paired/Connected

3.2.2 Functionality

- When the power button is pressed or the power lead is plugged in, the device will power on and initialise. The device will find and connect to the last BT paired device and then return to whichever source was last selected (if available). The user can then scroll through the available sources by pressing the source select button
- Bluetooth should remain connected to the BT device, even when in Aux mode. When playing a BT track and Aux is selected, the BT module should send a signal to the device to pause the track.

3.2.3 Button Controls



Figure 3. – Side Button Controls

4 Packaging

4.1.1 Pack in accessories

- PSU adaptor + plug pins
- Quick Start Guide
- Safety Instructions

5 Specifications

	S150
Frequency Response	80Hz - 20kHz
Maximum SPL	94dB
Power Output (RMS)	Bass: 2 x 15 watts (<1% THD+N, 100Hz) Tweeter: 1 x 10 watts (<2% THD+N, 10,000Hz)
Drive Unit Complement	2 x 3" (76mm) C-CAM® Cone Bass Driver 2 x 3/4" (19mm) C-CAM® Gold Dome Tweeter
System Configuration	2 Way, Rear ABR Loading
Auxiliary Input Impedance/ Sensitivity	10k Ohms/ 300mV
Signal to Noise Ratio	> 60dB
DAC	28 - 56 Bit dual precision
Input Voltage	100 - 240v for Power Adapter
Amplifier Category	Class D
Power Consumption	Standby: < 0.5W Rated: 70W
Electrical Approvals	ETL/ CE/ Fcc/CB/ ErP/ Wi-Fi/ Wi-Fi WMM/ Bluetooth/ Apple MFi Certified
Dimensions (each) (H x W x D)	274 x 120 x 137mm (10 ^{13/16} x 4 ^{3/4} x 5 ^{3/8} ")
Colour/ Finish	Charcoal Grey with Black Grille Cloth White with Light Grey Grille Cloth
Weight (each)	2.25Kg (5lb 4oz)