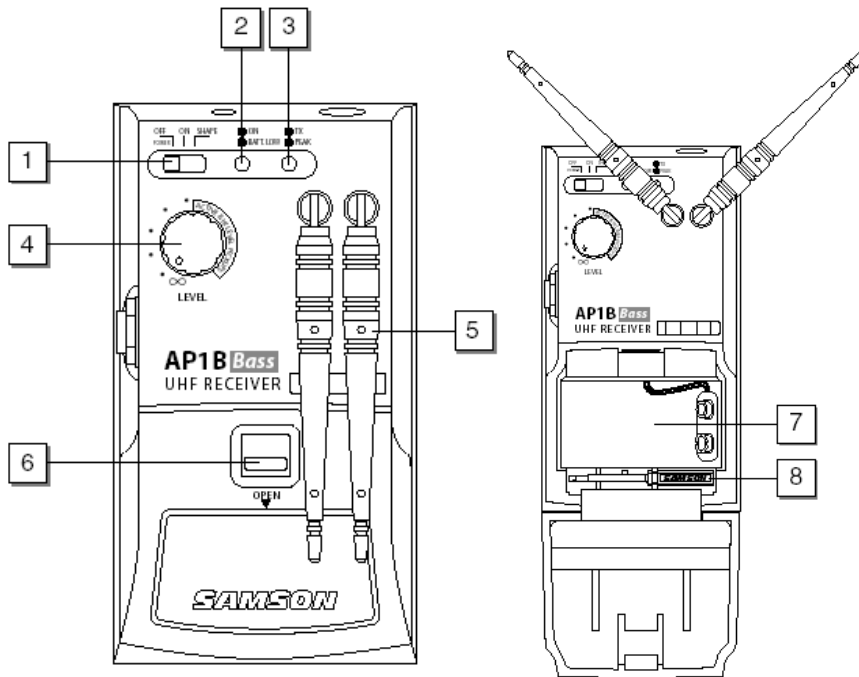


Operation description

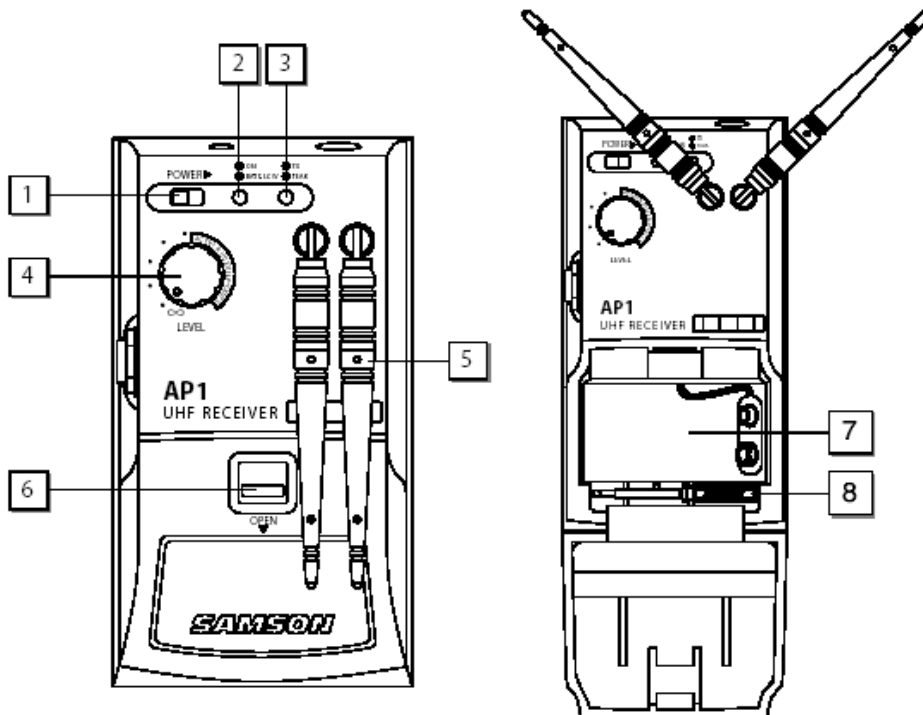
NAME OF PART

Front panel :

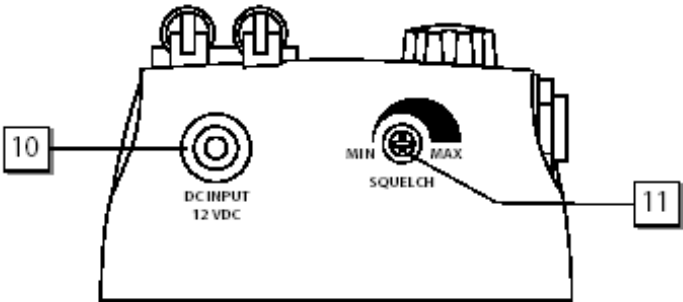
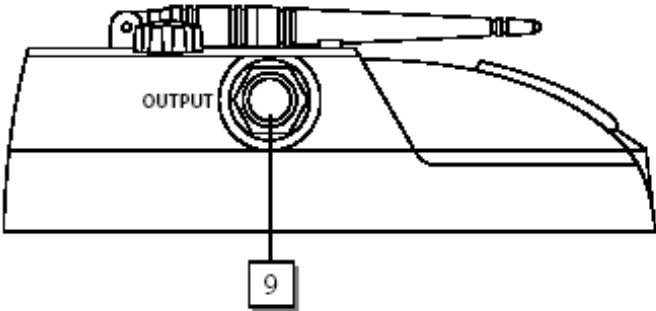
AP1B



AP1



Rear panel :
AP1B and AP1



Front panel :

1: Power On-Off / Shape switch - Move this switch to the ON position to turn power to the AP1B on; move it to the SHAPE position to engage the shape circuitry yielding a fat bottom end and fullness in tone; move it back towards the OFF position to turn power off. (A jack must be inserted into the input connector for the receiver to power up.)

1: Power switch - Move this switch in the direction of the arrow to turn power to the AP1 on; move it away from the arrow to turn power off. (A jack must be inserted into the input connector for the receiver to power up.)

2: Power On / Battery Low LED - This LED lights green whenever the AP1B is powered on and it lights red whenever the battery in the AP1B is running low. In order to avoid compromising audio fidelity (or having the AP1B stop working completely), you should always replace the battery with a fresh one immediately whenever this LED lights red.

3: TX / Peak LED - This LED lights green whenever the AP1B is receiving RF signal from a transmitter and it lights red when output signal from the AP1B is at the onset of clipping (that is, when it is on the verge of being distorted). If you see this light during operation, lower the volume level of your instrument or switch on the transmitter's 15 dB pad. For more information, see the section entitled "Setting Up and Using Your AirLine System" on page 15 in this manual.

4: Level control - This knob sets the level of the audio signal being output through the AP1B output jack (see #9 on page 9). When using an electric guitar or bass with an active or high-level pickup, set the knob in the marked area. For more information, see the section entitled "Setting Up and Using Your AirLine System" on page 15 in this manual.

5: Antennas - Swivel mounting allows full rotation for optimum positioning of the dual AP1B antennas. In normal operation, extend both antennas vertically and spread the tips horizontally outwards approximately 5 inches. For convenience, they can be folded inward when transporting the AP1B. See the "Setting Up and Using Your AirLine System" section on page 15 in this manual for more information about antenna positioning.

6: Battery compartment latch - Press gently on this latch to open the AP1B battery compartment (see #7 below).

7: Battery compartment - Insert a standard 9-volt alkaline battery here, being sure to observe the plus and minus polarity markings shown. We recommend the Duracell MN 1604 type battery. Although rechargeable Ni-Cad batteries can be used, they do not supply adequate current for more than four hours.

WARNING: Do not insert the battery backwards; doing so can cause severe damage to the AP1B and will void your warranty. Note that the AP1B can also be AC powered with the use of an optional 12 volt adapter available from your Samson dealer (see #10 on the following page).

8: Plastic screwdriver - Specially designed for use in adjusting the AP1B Squelch control (see #11 on the following page). See the "Setting Up and Using Your AirLine System" section on page 15 in this manual for more information.

Rear panel :

9: Output jack - Use this standard unbalanced high impedance (5 - 10 K Ohm) 1/4" jack to connect the AP1B to your amplifier or audio mixer. Wiring is as follows: tip hot, sleeve ground.

10: DC input - Connect an optional 12 volt 200 mA power adapter (available from your Samson dealer) here.

WARNING: Do *not* substitute any other kind of power adapter; doing so can cause severe damage to the AP1B and will void your warranty. Note that the AP1B can also be battery powered (see #7 on the previous page and the "Setting Up and Using Your AirLine System" section on page 15 in this manual).

11: Squelch control - This control determines the maximum range of the AP1B before audio signal dropout. Although it can be adjusted using the supplied plastic screwdriver, it should normally be left at its factory setting. See the "Setting Up and Using Your AirLine System" section on page 15 in this manual for more information.

Specifications

Receiver (AP1 and AP1B)

Receiver Frequencies

642.375—645.750MHz, one frequency in channel plan

| | |
|------------------------------------|--|
| Frequency Type | F3E |
| Modulation Type | Variable Reactance Modulation |
| Type of Reception | Single superheterodyne |
| OSC (Oscillator) System | Crystal controlled OSC (oscillator) |
| Local Oscillator Frequency | 79MHz Range |
| Intermediate Frequency | 10.7 MHz |
| Operating Distance | 100m (328 ft) receiver in sight |
| Noise Reduction | Compander type |
| Deemphasis | 50 μ /sec |
| Output Connector | 6.3mm / 1/4 in diameter phone jack (unbalanced) |
| Power Input Jack | 5.5mm/.21in diameter |
| Operating Temperature | 0°C – +50°C |
| Storage Temperature | -20°C – +70°C |
| Receiving Sensitivity | More than S/N60 dB (less than 2%) at 21 dBuV input |
| Squelch Sensitivity | 17dBuV \pm 4dBuV |
| S/N Ratio | More than 95dB (IHF-A) |
| (when comparing to S=0dBv) | More than 90dB (IHF-A) |
| Audio Output Level at div. f15 kHz | Unbalanced output 0dBv |
| Maximum Output Level | Audio OUT +8dBv \pm 3dB at 3% distortion div. f36kHz |
| Audio Frequency Response | 50Hz – 15kHz (at -30dBv \pm 4dB output) |
| THD (at SG output 56 dBuV) | less than 1% (at div. f20kHz AF 1 kHz) |
| Output Impedance | Unbalanced output 5K – 10K ohms, Balanced output 600K – 2.5K ohms |
| Power | AC adapter (12DVC/more than 200mA) or 9V battery |
| Current Consumption | Less than 70mA Max |
| Peak LED Lighting div. frequency | Div. f23kHz \pm 3kHz (at AF output approx. +7dBv) |
| Antenna | Dual 1/4 wave length rod antennas |
| Controls | Audio level volume (front) Squelch level volume (rear) |
| Display | 2-color LED x 2 Power On (Green) / Batt (Red) + TX (Green) / Peak (Red) |