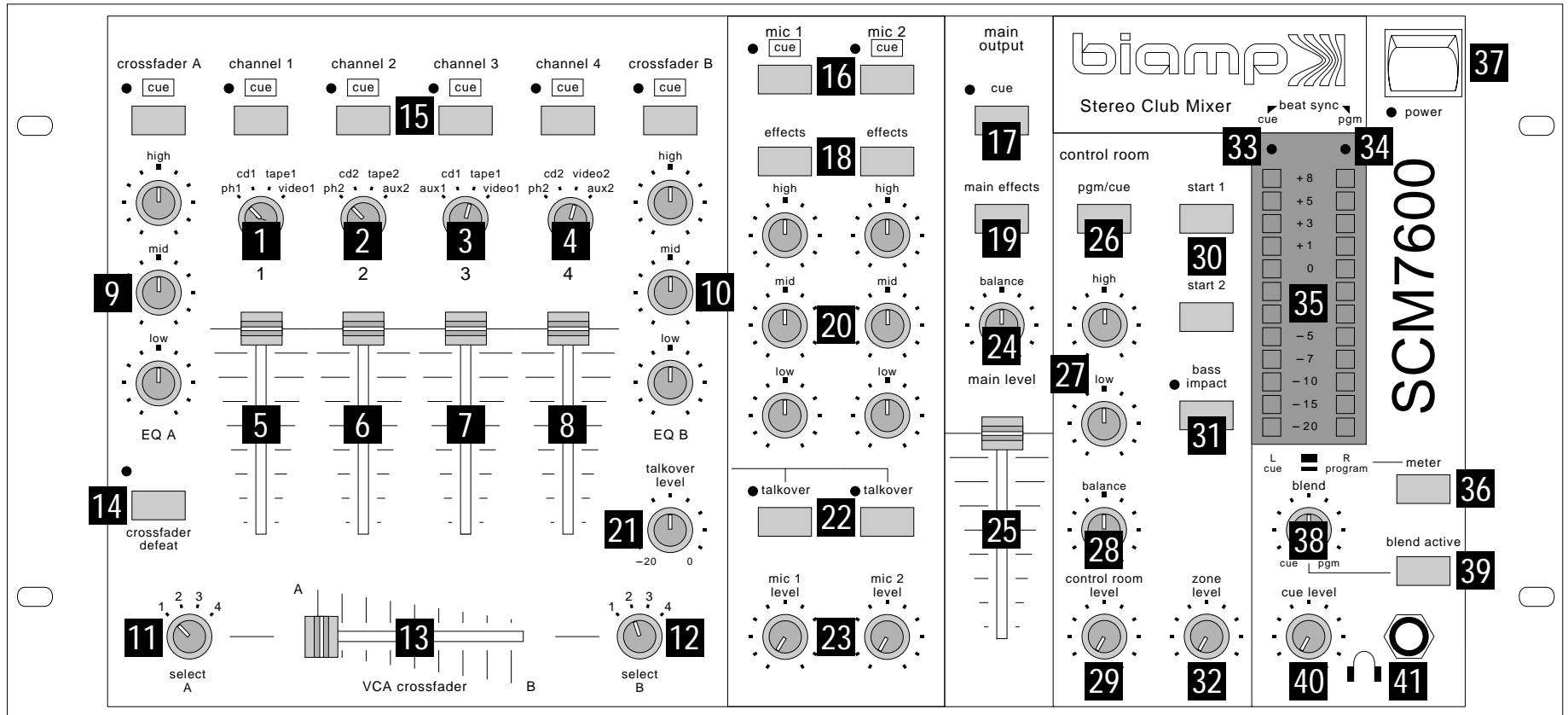


# FRONT PANEL DIAGRAM



2

# FRONT PANEL DESCRIPTION

- 1** Selects **Stereo Input for Channel 1** (Phono 1, CD 1, Tape 1, or Video 1).
- 2** Selects **Stereo Input for Channel 2** (Phono 2, CD 2, Tape 2, or Aux 2).
- 3** Selects **Stereo Input for Channel 3** (Aux 1, CD 1, Tape 1, or Video 1).
- 4** Selects **Stereo Input for Channel 4** (Phono 2, CD 2, Video 2, or Aux 2).
- 5** **Channel 1 Fader** adjusts the level of Channel 1 signal sent to the Crossfader Select A & B switches (11 & 12). \*See 14.
- 6** **Channel 2 Fader** adjusts the level of Channel 2 signal sent to the Crossfader Select A & B switches (11 & 12). \*See 14.
- 7** **Channel 3 Fader** adjusts the level of Channel 3 signal sent to the Crossfader Select A & B switches (11 & 12). \*See 14.
- 8** **Channel 4 Fader** adjusts the level of Channel 4 signal sent to the Crossfader Select A & B switches (11 & 12). \*See 14.
- 9** **EQ A** equalizes signal selected by the Crossfader Select A switch (11). \*See 14. Low EQ:  $\pm 12\text{dB}$  at 75Hz (shelving). Mid EQ:  $\pm 6\text{dB}$  at 1.5kHz (peaking). High EQ:  $\pm 12\text{dB}$  at 10kHz (shelving).
- 10** **EQ B** equalizes signal selected by the Crossfader Select B switch (12). \*See 14. Low EQ:  $\pm 12\text{dB}$  at 75Hz (shelving). Mid EQ:  $\pm 6\text{dB}$  at 1.5kHz (peaking). High EQ:  $\pm 12\text{dB}$  at 10kHz (shelving).
- 11** **Crossfader Select A** switch selects which channel signal is sent to the left side of the Crossfader.
- 12** **Crossfader Select B** switch selects which channel signal is sent to the right side of the Crossfader.
- 13** **VCA Crossfader** selects signal from the left (Select A switch) or the right (Select B switch) to be sent to the Main Output. The Crossfader is used to fade from one input signal to another. A 'VCA' circuit helps prevent drop-out due to wear.

**14** **Crossfader Defeat** bypasses the Crossfader and Select A & B. This allows mixing directly from the channel faders, with Channels 1 & 2 routed through EQ 1 and Channels 3 & 4 routed through EQ 2. The red indicator above the switch will light when the switch is depressed.

**15** **Program Cue** switches select which "Program" signals are sent to the Cue system for monitoring. The red indicator above each switch will light when that switch is depressed. \*See also 16 & 17. Channels 1-4: selects a mono sum of the pre-fader channel signal, as determined by the channel select switches (1-4). Crossfader A: selects a mono sum of the output signal from EQ A (crossfader input). Crossfader B: selects a mono sum of the output signal from EQ B (crossfader input).

**16** **Mic 1 & 2 Cue** switches select the return signal from the associated Mic Effects jacks as Cue signal.

**17** **Main Effects Cue** switch selects a mono sum of the return signals from the Main Effects jacks as Cue signal.

**18** **Mic 1 & 2 Effects** switches select the return signal from the associated Mic Effects jack as Mic signal.

**19** **Main Effects** switch selects the return signals from the Main Effects jacks as Main signal.

**20** **Mic 1 & 2 EQ** equalizes signals from each of the Mic inputs. Low EQ:  $\pm 12\text{dB}$  at 100Hz (shelving). Mid EQ:  $\pm 12\text{dB}$  at 2.5kHz (peaking). High EQ:  $\pm 12\text{dB}$  at 12kHz (shelving).

**21** **Talkover Level** determines the amount of Main signal attenuation, when either Talkover switch (22) is depressed. Attenuation is adjustable from 0dB (clockwise) to -20dB (counter-clockwise).

**22** **Mic 1 & 2 Talkover** switches activate the Talkover Level control and apply the associated Mic signals to the Main Output. The red indicator above each switch will light when that switch is depressed.

**23** **Mic 1 & 2 Level** adjusts the level of signal from each of the Mic inputs.

**24** **Main Balance** controls the left-to-right balance of the Main signal.

**25** **Main Level** adjusts the level of the Main signal sent to the stereo Main Output and the Subwoofer Output.

**26** **Control Room Pgm/Cue** switch selects either Main "Program" signal (pre-Main Balance & Level) or Cue signal (pre-Cue Level) as the Control Room signal.

**27** **Control Room EQ** equalizes the Control Room signal only. Low:  $\pm 10\text{dB}$  at 100Hz (shelving). High:  $\pm 10\text{dB}$  at 2kHz (shelving).

**28** **Control Room Balance** controls the left-to-right balance of the Control Room signal only.

**29** **Control Room Level** adjusts the level of Control Room signal sent to the Control Room Output.

**30** **Start 1 & 2** switches have no effect on the mixer itself. The switch contacts are on the rear panel (see Accessory On/Off Terminals on page 5). These switches are used for "remote start" applications, such as starting a record or playback machine at a remote location.

**31** **Bass Impact** switch routes the Main signal through the Bass Impact circuit. Bass Impact expands the dynamic range of the low-frequency signals. Brightness of the red indicator above the switch varies in relation to the amount of expansion.

**32** **Zone Level** adjusts the level of Zone signal sent to the Zone Output (see Zone Pre/Post switch on page 5).

**33** **Cue Beat Sync** indicator flashes in time with the beat of the Cue signals.

**34** **Pgm Beat Sync** indicator flashes in time with the beat of "Program" (Crossfader) signals.

**35** **Meter** indicates the level of either the stereo Main Output signal or the Cue & "Program" signals, as determined by the Meter Switch (36). (See Meter Calibrate on page 5).

**36** **Meter Switch** selects which signals are sent to the Meter. When the switch is released, the Meter indicates signal levels at the stereo Main Output (L & R). When the switch is depressed, the Meter indicates Cue signal level (left) and "Program" (Crossfader) signal level (right).

**37** **Power Switch** applies AC power to the mixer.

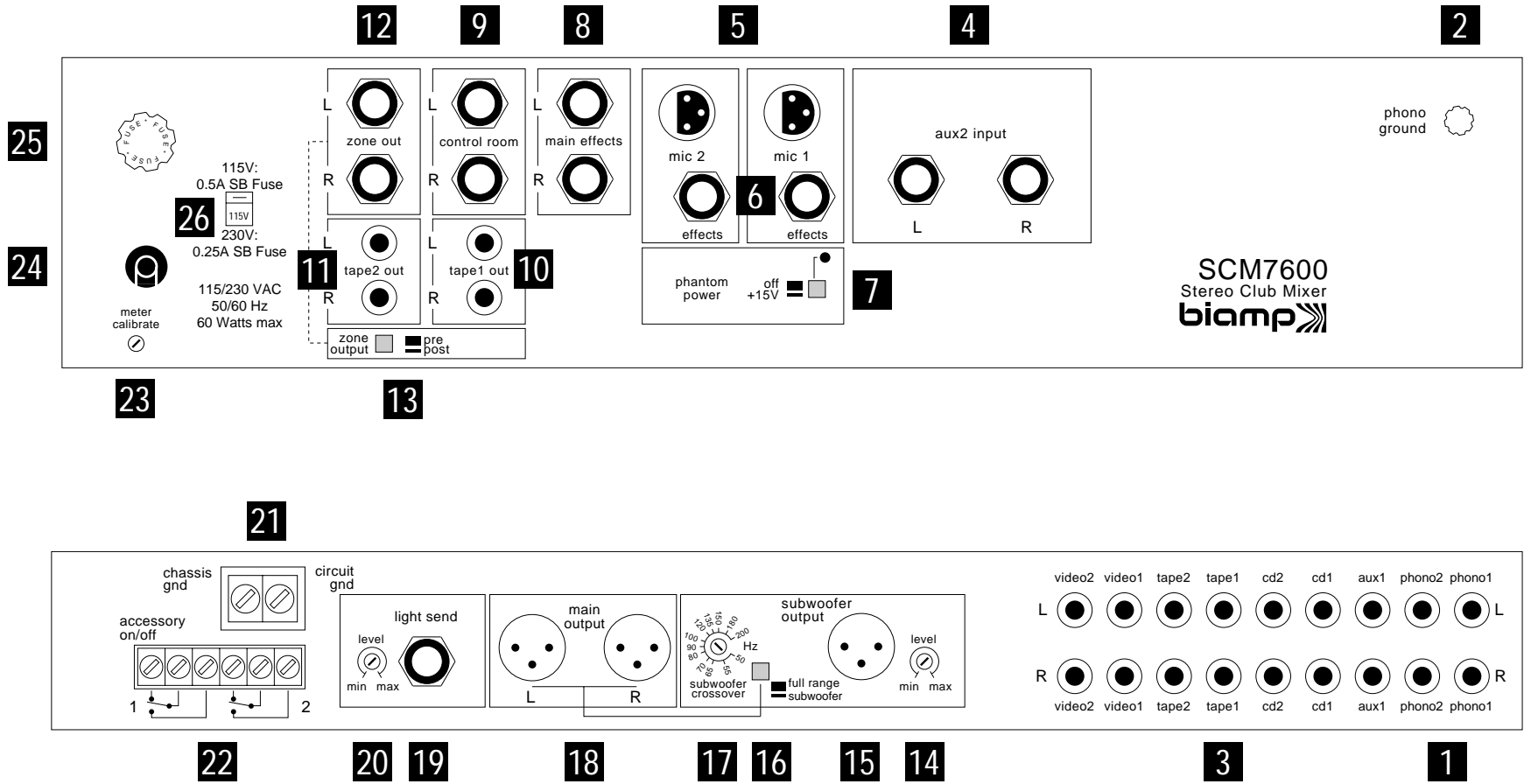
**38** **Blend** determines the mix of signals that are sent to the Cue system, when the Blend Active switch (39) is depressed. When turned fully counter-clockwise, mono Cue signal appears on both the left and right sides (centered). When turned fully clockwise, "Program" (Crossfader) signal appears in stereo. When turned midway (12 o'clock), equal amounts of mono Cue and stereo "Program" signals appear. This control has no effect unless the Blend Active switch (39) is depressed.

**39** **Blend Active** selects how signals appear in the Cue system for monitoring. When this switch is depressed, the Blend control (38) is activated. When this switch is released, the Blend control becomes inactive, with Cue signal appearing on the left side and a mono sum of "Program" (Crossfader) signal on the right side.

**40** **Cue Level** adjusts the volume of Cue signal sent to the Headphone Output (41).

**41** **Headphone Output** is a 3-conductor (stereo) TRS 1/4" phone connector, wired with Tip left, Ring right, and Sleeve ground. Headphone impedance should be 8 ohms or greater. CAUTION: Use only stereo 3-conductor plugs with this connector. Using a mono 2-conductor plug will cause a short-circuit at the right output, and may cause some internal damage to the headphone circuit.

# REAR PANEL DIAGRAM



4

# REAR PANEL DESCRIPTION

**1 Phono Inputs** on RCA connectors for Phono 1 & 2 inputs. Input sees 47k ohms in parallel with 150pf.

**2 Phono Ground Binding Post** provides a ground tie point for turntables having a separate ground lead.

**3 Line Inputs** provide seven stereo line level inputs on RCA connectors. All seven inputs have identical gain and input characteristics, and are compatible with line level outputs (-10dBu nominal).

**4 Aux 2 Input** is the same as all Line Inputs, except on 1/4" phone connectors.

**5 Mic Inputs** for balanced low impedance microphones. These XLR connectors are wired with pin 2 high (+), pin 3 low (-), and pin 1 shield (ground).

**6 Mic Effects** provide post-EQ Mic output signals and return paths for external effects processors. These 3 conductor (TRS) 1/4" phone connectors are wired with Mic send signal on the Tip, effects return signal on the Ring, and the Sleeve is ground for both (see Patch Cable on page 7). When a front panel Mic Effects switch is pressed in, the effects return signal is selected as the Mic signal.

**7 Phantom Power Switch** applies +15 volts to both Mic connectors (pins 2 & 3) for operation of condenser microphones. The red indicator remains lit while Phantom Power is turned on. NOTE: Verify microphone Phantom Power requirements before using this feature.

**8 Main Effects (L & R)** each provide a Main output signal and a return path for an external effects processor. These 3 conductor (TRS) 1/4" phone connectors are wired with the Main send signal on the Tip, the effects return signal on the Ring, and the Sleeve is ground for both (see Patch Cable on page 7). When the front panel Main Effects switch is pressed in, the effects return signal is selected as the Main signal.

**9 Control Room (L & R)** is an unbalanced stereo line level output on 2 conductor (TS) 1/4" phone connectors. Control Room is selectable to contain either Main Output signal (pre-Balance & Level) or Cue signal (pre-Cue Level).

**10 Tape 1 Out** is an unbalanced stereo line level output on RCA connectors. Tape 1 contains Main Output signal (pre-Balance & Level), complete with Effects, Bass Impact, and Talkover.

**11 Tape 2 Out** is an unbalanced stereo line level output on RCA connectors. Tape 2 contains signal directly from the Crossfader, which does not include Effects, Bass Impact, or Talkover.

**12 Zone Out (L & R)** is a balanced stereo line level output on 3 conductor (TRS) 1/4" phone connectors, which are wired with Tip high (+), Ring low (-), and Sleeve common (ground). Zone Out is selectable with the Zone Pre/Post switch to contain either signal directly from the Crossfader ("Pre") or after Talkover ("Post"). Internal jumpers also allow programming of "Post" signal to include Effects & Bass Impact, but not Talkover (see Options on page 7).

**13 Zone Pre/Post Switch** selects either signal directly from the Crossfader ("Pre") or after Talkover ("Post") as the source for Zone Out. Internal jumpers also allow programming of "Post" signal to include Effects & Bass Impact, but not Talkover (see Options on page 7).

**14 Subwoofer Level** is a screwdriver adjustable control that sets the signal level at the Subwoofer Output, to align Main & Subwoofer system volume levels. Subwoofer signal level is also affected by the Main Level control, on the front panel.

**15 Subwoofer Output** is a balanced mono line level output on an XLR connector, wired with pin 2 high (+), pin 3 low (-), and pin 1 common (ground). A mono sum of the stereo Main Output signals is passed through an internal crossover circuit, and the low-frequency signals are sent to the Subwoofer Output.

**16 Full Range/Subwoofer Switch** selects the stereo Main Output to provide either a complete frequency response ("Full Range") or only the range of frequencies above the Subwoofer Crossover frequency ("Subwoofer"). This switch does not affect the operation of the Subwoofer Output.

**17 Subwoofer Crossover** is a screwdriver adjustable control that sets the internal crossover frequency. Only frequencies below this setting are sent to the Subwoofer Output. When the Full Range/Subwoofer switch is pressed in, only frequencies above this setting are sent to the stereo Main Output.

**18 Main Output (L & R)** provides a balanced stereo line level output on XLR connectors, wired with pin 2 high (+), pin 3 low (-), and pin 1 common (ground). This output is affected by the Main Level fader and the Full Range/Subwoofer switch.

**19 Light Send** provides a pre-fader mono sum of the stereo Main Output signal, to trigger a lighting controller. This output is on a 2 conductor (TS) 1/4" phone connector, and is transformer-coupled to provide DC isolation between the mixer and the lighting controller.

**20 Light Send Level** is a screwdriver adjustable control that sets the signal level at the Light Send output.

**21 Ground Strap** normally connects chassis ground and signal ground together. If ground loops occur, as a result of connecting equipment with different chassis ground potentials, removing the "strap" from these terminals may reduce or eliminate system hum.

**22 Accessory On/Off Terminals** are connected to the Start 1 & 2 switches on the front panel. Numbered 1 to 6 (from left to right) the functions are:

1. switch 1 out terminal
2. switch 1 common terminal
3. switch 1 in terminal
4. switch 2 out terminal
5. switch 2 common terminal
6. switch 2 in terminal

These switches are single pole/double throw type and can handle current up to 1 amp, but a maximum of 100mA is recommended due to the possibility of transients (glitches) being coupled to signal-carrying circuitry.

**23 Meter Calibrate** is factory set so the "0" indicators on the front panel Meter are referenced to +4dBu. This screwdriver adjustable control may be used to set a new "0" reference from -15dBu to +6dBu.

**24 AC Power Cord** is for connection to three-prong grounded AC outlets. CAUTION: Do not remove or defeat the AC ground prong on the plug, as this constitutes a shock hazard.

**25 AC Fuse:** Replace only with the same type and rating (.5A SB for 115V operation or .25A SB for 230V operation).

**26 AC Line Voltage Switch** allows operation on either 115 Volt or 230 Volt AC lines. This switch is factory set for 115V operation (North America). For 230V operation, change both the AC Line Voltage Switch and the AC Fuse value.