Audio mixer console - Soundcraft Series 15

This on-air audio console is designed for mixing a variety of sources for use in broadcast radio and television production. Options for routing signals and signal processing are minimal, so the board is relatively easy to master. Audio signal flows from top down, left to right according to sub/group routing. The inputs for this board are all "Mic 1" unless otherwise specified:

- Mono (red) 1: News Mic 1
- Mono (red) 2: News Mic 2 / Ctrl Room Mic (mic 2 input)
- Mono (red) 3: News Mic 3
- Mono (red) 4: News Mic 4
- Mono (red) 5: Talk Mic 1
- Mono (red) 6: Talk Mic 2
- Mono (red) 7: Talk Mic 3
- Mono (red) 8: Talk Mic 4
- Mono (red) 9: Mic 9 / Wireless Mic 1 (mic 2 input)
- Mono (red) 10: Mic 10 / Wireless Mic 2 (mic 2 input)
- Mono (red) 11: Mic 11 / Wireless Mic 3 (mic 2 input)
- Mono (red) 12: Mic 12 / Wireless Mic 4 (mic 2 input)
- Stereo(white)13: VTR 1
- Stereo(white)14: VTR 2
- Stereo(white)15: Compact Disc Player
- Stereo(white)16: Cassette w/ aux input / Laptop (line 2 input)
- Stereo(white)17: Patch Panel (most often Tone or Globecaster audio)
- Stereo(green)18: Telephone Interface (requires Engineer for setup)



3 MIC 2

The MIC 2 switch selects the MIC 2 input socket when depressed and the Mic 1 input socket when released. A LED in the switch glows red when the MIC 2 input is selected.

AUX SEND ¼" connector with blue cable at rack

This control routes the post fade channel signal to the mono Aux bus.

5 EQUALISER

The optional 3 band EQ provides 10dB of boost or cut at 10kHz (HF), 3kHz (MF) and 180Hz (LF).

6 EQ

When the EQ switch is depressed, the EQ section is switched into the signal path. The integral yellow LED illuminates when the EQ is active. When the switch is released the signal path bypasses the EQ section.

FILTER Good for use with lav mics

A High Pass Filter is provided that gives I2dB per octave roll off at 80Hz. This control is useful for filtering-out low frequency hum.

All channels must route to Group 2 and PGM. **ROUTING** Group 1 is the dedicated "stage monitor" output. The post fade channel signal may be routed to any combination of the four stereo groups (I - 4) and the main stereo master output (PGM). Integral LEDs illuminate to show the routing selection.

🥑 PAN

The PAN control determines the position of the signal in the stereo mix. Rotation fully anticlockwise feeds the signal solely to the left mix bus, whilst rotation clockwise sweeps the image to the right mix bus.

D TRIM

This control provides +/-12dB level adjustment, and is useful when in PFL, selected by the alternate action PFL switch.

FADER

The smooth-action, 100mm fader gives a gain of unity (0dB) when it is in the fully up position.

FADER OPEN LED

There is a microswitch attached to the fader which detects when it is in the fully down position, and this is used to control several of the features which are described below. The Fader Open LED gives visual indication that the fader has moved off it's back stop.

Fader Open may be programmed to cancel PFL selection.

ID FDR SWITCH

The latching FDR switch transfers the remote CUE LITE function to the fader only, disabling the CUE LITE switch (see below).

🚺 CUE LITE

The electronically latching CUE LITE switch controls the opto-isolated remote cue light function, available on the INSERTS + REMOTES connector, and provides a closure when the switch is illuminated. When FDR is selected (see above), the illumination and switch action follow the fader.

🕒 PFL

The Pre-Fade Listen switch allows you to listen, via the Monitors section, to an input on this channel. When the Fader is moved away from the down position the PFL circuit is automatically deactivated if this function is selected by an internal jumper: PFL cannot therefore be activated when the Fader is up. A red LED glows to indicate that the PFL circuit is active.



3 LINE 2

The LINE 2 switch selects the fixed gain LINE 2 input and remotes when depressed and the Line I input and remotes when released. A LED in the switch glows red when the LINE 2 input is selected.



(SEND ¼" connector with blue cable at rack

This control routes the post fade channel signal to the mono Aux bus.

7 FILTER

A High Pass Filter is provided that gives 12dB per octave roll off at 80Hz. This control is useful for filtering-out low frequency hum.

B ROUTING

The post fade channel signal may be routed to any combination of the four stereo groups (I - 4) and the main stereo master output (PGM). Integral LEDs illuminate to show the routing selection.

🥑 🕼 Push L and R when the audio is ping-ponging

The L and R switches select Left and Right respectively in mono to both side of the channel when depressed. When both are depressed, a mono sum of the stereo input is switched to both sides of the channel.

D BAL

The BAL control determines the position of the signal in the stereo mix, providing approximately 6dB adjustment left and right.

🕕 TRIM

This control provides +/- 12dB level adjustment, and is useful when in PFL, selected by the alternate action PFL switch.

FADER

The smooth-action, 100mm fader gives a gain of unity (0dB) when it is in the fully up position.

FADER OPEN LED

There is a microswitch attached to the fader which detects when it is in the fully down position, and this may be used to control the remote start/stop functions when FDR is selected (see below). The Fader Open LED gives visual indication that the fader has moved off it's back stop.

Fader Open may be programmed to cancel PFL selection.

14 FDR SWITCH

The latching FDR switch transfers the remote START/STOP functions to the fader only, disabling the STRT and STOP switches (see below).

IS STRT/STOP

The STRT (START) and STOP switches are used for machine remotes and provide momentary pulse action via optocouplers to external equipment, or may be configured as a maintained switch closure by internal jumpers. The START function may be linked to the timer bus if required.

The internal switch illumination gives visual indication of the remotes status.

Selecting FDR (see above) disables the STRT and STOP switches and transfers control of the remotes to the fader. The switch illumination still follows the remotes, even when FDR is selected.

🚺 PFL

The Pre-Fade Listen switch allows you to listen, in mono, via the Monitors section, to an input on this channel. When the Fader is moved away from the down position the PFL circuit is automatically deactivated if this function is selected by an internal jumper: PFL cannot therefore be activated when the Fader is up. A red LED glows to indicate that the PFL circuit is active.

Groups and Mastering Section

For all productions, please have all group and master faders up 100%.

- Group 1 allows you to route the audio signal for selected channels to the dedicated "stage monitor" speaker in Studio 2. In complex audio productions, this may also send audio signals to Studio 1 and/or Control Room 1 if properly patched.
- Group 2 allows you to route the audio signal to Quality/Master Control, or Engineering. When patching audio outputs to different facilities or creating a 'live' feed to RTN Ch. 5, the Group 2 output is utilized. The limiter is active.
- The PGM output sends audio to the Record DVCPro deck in Control Room 2, as well as to the monitor speakers in the studio and control room. The monitoring levels are controlled in the Monitoring section.

Monitoring Section (functional descriptions on the next page)



Monitoring Section - functional descriptions for used features (unused not detailed)

- (3, 4, 5, 6) PRES H/PHONES: Presenter headphones can be plugged in at the jack (6). Volume is controlled at the pot (3). You can choose a source, usually PGM to monitor the program signal (4). Pushing SPLIT PFL (5) will change the monitoring in the headphones so that the left side is a mono mix of the selected main monitor signal (4) and the right side is a mono mix of any channel that has the PFL or AFL selected (useful but not often used).
- (7, 8, 9, 10, 11) C/RM MONITOR: The control room monitor speakers are controlled from this section. Use the pot (7) to adjust the volume. Select PGM (8) to monitor the program feed, same as what is being recorded. Pushing AUTO PFL (9) changes this to automatically monitor any channel that has the PFL selected. Monitoring returns to normal when the channel PFL is deselected. Pushing MUTE (10) will mute the control room monitors. Pushing DIM (11) will reduce monitor output by 20dB.
- (15, 16, 17) STUDIO H/PHONES: The volume and signal controls for the dedicated "stage monitor" speaker feed are set here. Set the volume pot (15) starting at level
 4. The source (16) should be set to EXT. Pushing AUTO PFL (17) changes this to automatically monitor any channel that has the PFL selected. Monitoring returns to normal when the channel PFL is deselected.

(19, 20, 21, 22, 23, 26) STUDIO MONTIORS & TALKBACK:

The Studio 2 monitor speakers are controlled from this section. Use the pot (19) to adjust the volume. Select PGM (20) to monitor the program feed, same as what is being recorded. Pushing AUTO PFL (21) changes this to automatically monitor any channel that has the PFL selected. Monitoring returns to normal when the channel PFL is deselected. Pushing MUTE (22) will mute the studio monitor speakers. Pushing T/B (23) activates the in-board Talk Back microphone (26), which allows the board operator to talk to the talent in studio through the dedicated "stage monitor" speaker. This switch automatically DIMs the Control Room monitor speakers.

(25) METERING OPTION: This toggle allows you to select different sources (Program, Auxiliary, or External) to monitor on a secondary meter bridge (not currently installed) and also sets the Talk Back output option. Choose EXT.

Meter Bridge

3 sets of dual VU meters display the output levels of both groups and the master. When setting tone, the needle should hit 0 VU. While mixing sources and adjusting levels, the needle should average around 0 VU, but not exceed +2 VU.



Automatic Monitor Muting

This audio mixing board will automatically mute monitor speakers based on open channels so as to avoid creating a feedback loop.

If you open (or fade up) any microphone channel, the automatic muting feature is enabled. If you open a mic designated in the studio area (news mics, talk mics, wireless mics), the studio monitor speakers are automatically muted. Likewise, if you open a mic designated for the control room (Control Room Mic at Input 2), the control room speakers are automatically muted. This is very similar to the instance when using the talkback mic. When you push the T/B button, the control room speakers are automatically dimmed. This is important to remember when speaking to talent through the monitors - if you open their mics to hear them, they won't be able to hear you because the speakers will be muted.

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Audio rack

The audio rack in Control Room 2 houses various components of the audio system including a patch panel, amplifiers, CD and cassette players, and the receivers for the wireless microphone systems.

- Wireless Audio Systems There are four complete wireless audio systems operating on individual channels and groups. Each wireless system has two microphones - one lav and one hand-held. You can only use one mic at a time per system, but any combination of mics on the four systems is fine. Be sure that when you are using two mics on the same system, only one mic is powered at a time, otherwise you will experience interference. Only power-on the wireless receiver units for the systems you want to use, and power them off when finished.
- Patch Panel The patch panel is a normaled patch panel, with all upper outputs feeding directly to the corresponding inputs below. The tone output is usually patched into the patch panel input on the console, as the current Inscriber computer system does not have audio capabilities. If you want to utilize a different sound source such as a laptop or MP3 player, use the supplied 1/8" to ¼" cables to connect your device to the input of the cassette deck. Then, adjust the cassette record and playback levels until the meters are active and passing audio through that device. Then you can open the fader for the cassette deck on the audio board. Additionally, a blue cable with ¼" plug is available at the rack, which is connected to the AUX output of the audio console. Use this as needed.
- Rack power strip there is a power strip at the bottom of the rack, so that you can plug in hard drive, laptop, and other device power without stretching power cords across the room!