

S120 G.P. mixer

Product Information

The S120 is a flexible, modular general purpose mixer. A professional and multifunctional product which combines its user-friendly working surface with tremendous reliability. It is available in a variety of frame sizes including a 19" rackmount version.



Frame: CH11 for 19" rackmount

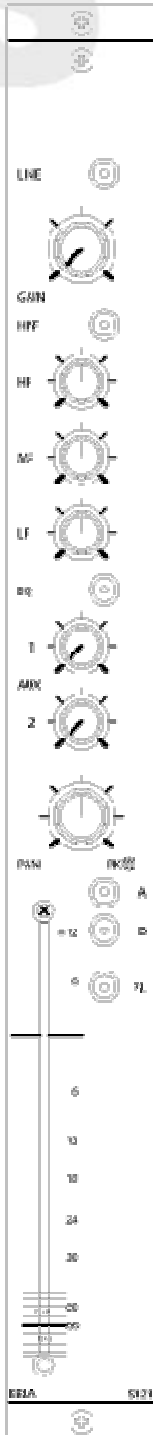
S120 configuration:

- S121 Microphone / Line mono input;
- S122(E) Stereo Line input (with or without equalizer);
- S123 Telephone I/O (for external telephone hybrid);
- S124 Stereo output with Compr./Lim;
- S125 Dual mono output;
- S126 Aux / oscillator / talkback module;
- S127 Selector
- S128 Monitor module

Facilities:

- Internal foldback / communication busses;
- LED PPM standard
- Meterbridge Cue Amplifier and LSP optional;
- Separate LSP and HPH output;
- Faderstart, start/stop;
- Transformer balanced main outputs;
- Script space optional;
- Frame sizes from 8 to 32 modules;

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MICROPHONE / LINE INPUT S121

Standard its input is electronically balanced, as an option a transformer can be fitted as well as an RF filter. The module has an opto isolated faderstart output as well as an INSERT that can be programmed as a COUGH input.

MIC / LINE INPUT SELECT: both inputs are on separate XLR connector, the microphone input has + 48V phantom power for the use of condenser microphones and is fully protected against misuse.

GAIN: One knob is used for both MIC and LINE input, but with adapted ranges. The gaincontrol range is 50dB for the MIC and 26 dB for the LINE.

HIGH PASS FILTER: For inhibiting unwanted LF disturbance in the signal. Operates on both inputs. The frequency is 80 HZ, slope 12 dB/octave.

3 band EQUALIZER: has a restricted range, an EQ ON SWITCH allows complete bypassing of the section.

AUX SEND 1 AND 2: two send level controls, suitable for effect and foldback purposes. Aux 1 can be set pre- or postfader with an internal jumper. AUX 2 is postfader only.

PANPOT: positions the signal anywhere in the stereo mix.

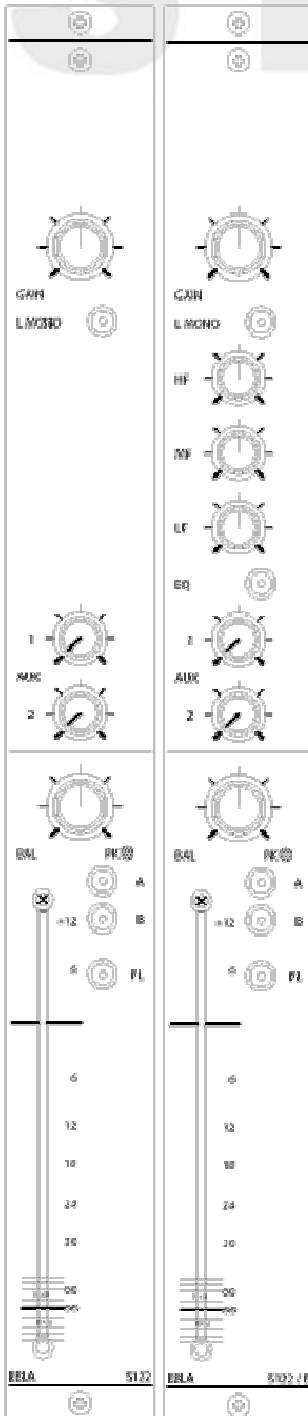
PEAK: a LED, indicating the signal level in the channel is approaching 3 dB below clipping either pre- or post fader.

ROUTING SWITCHES: the two switches are available for addressing a maximum of 4 mixing busses in stereo pairs. In a 2 output configuration the switches can also be used for individual left and right selection.

PFL SWITCH: sends the prefader signal (after the insert point) to the monitor. It also generates a signal to change over the monitor and depressing one or more channel pfl switches.

FADER: generates a DC-voltage to both channel VCA's for left and right with very accurate tracking. Opening and closing of the fader generates an (isolated) output signal for remote control The character of the signals can be set to continuous or pulsed by an internal jumper. All faders are PENNY & GILES plastic conductive faders for all inputs.

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STEREO LINE INPUT S122 and S122/E

This module is meant for the connection of stereo (or mono) line level sources to the mixer. Inputs are on two XLR's and electronically balanced. As an option transformers can be fitted.

GAIN CONTROL: A potentiometer with a centre detent for calibrated unity gain setting. The control range is +/- 10 dB with respect to nominal unity gain.

LEFT MONO SWITCH: When MONO sources are connected this switch brings the signal present on the LEFT input to both channels.

EQUALISER: available in the S122/E modules. Three bands of e.q. are available:

- HF shelving +/- 12 dB @ 10 kHz
- MF bell curve +/- 10 dB @ 3 kHz
- LF shelving +/- 12 dB @ 60 Hz

An EQ ON switch allows complete bypassing of the section.

AUX SENDS 1 AND 2: Two send level controls. Aux1 can be set pre- or post fader with a jumper on the PCB. Aux2 is postfader. The signal to the busses a mix from the left and right channel.

BALANCE: to obtain the correct balance between the left and right signals.

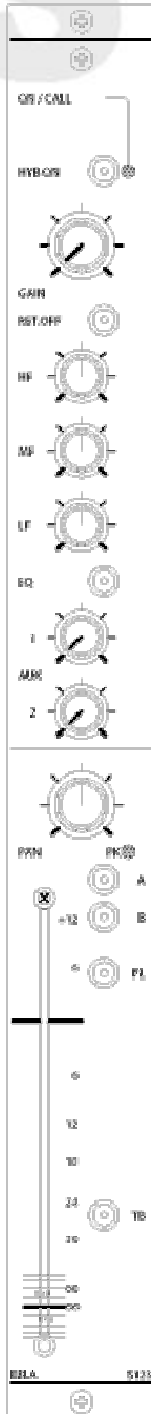
ROUTING SWITCHES: the two switches are available for addressing a maximum of 4 mixing busses in stereo pairs.

PEAK: A LED indicating the signal level approaching 3 dB below clipping, both pre- or post fader.

PFL SWITCH: a stereo prefader listening facility, it generates a DC signal for automatic change over of the monitor.

FADER: generates a DC-voltage to both channel VCA's for left and right with very accurate tracking. Opening and closing of the fader generates an (isolated) output signal for remote control. The character of the signals can be set to continuous or pulsed by an internal jumper. All faders are PENNY & GILES plastic conductive faders for all inputs.

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TELEPHONE IN/OUTPUT S123

A complete input/output channel to connect an external HYBRID. E.g. Eela Audio EA915X or EA815/1. All audio control facilities are equal to the S121 mono/mic input module.

ON/CALL INDICATION: This LED indicates if a call is coming in by blinking.

HYB ON SELECT : With this pushbutton a remote hybrid can be switched on when a call has come in or after a outgoing connection has been made with a telephone.

RET. OFF: In situations when sending a return signal to the hybrid or CL line is unwanted this signal can be muted. Talkback remains possible.

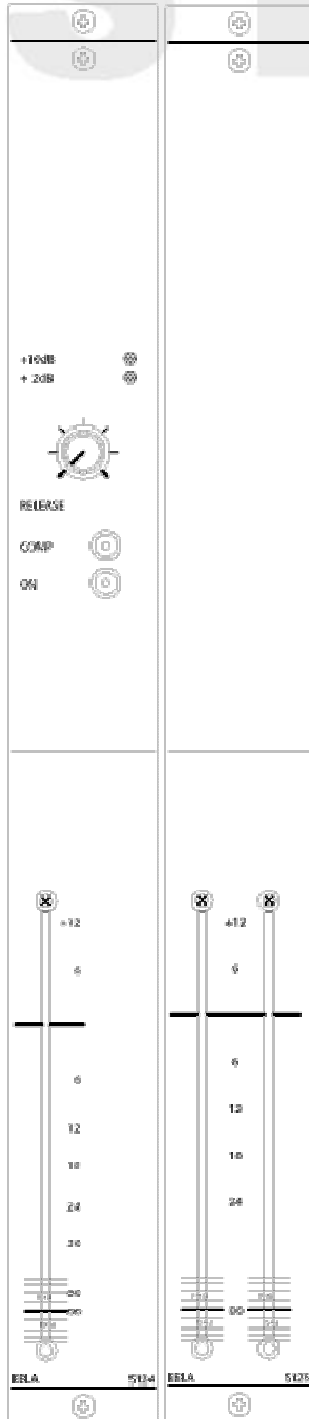
TB SWITCH: Sends the TB signal from the microphone and preamp in the S126 aux/osc/TB module to the N-1 output instead of the original signal. It also generates a dim on the monitor loudspeakers.

Note: It is possible to disable commands when the fader is opened e.g. for use with analogue hybrids. There is a jumper on the PCB marked "2-wire" to disable TalkBack when the fader is open and "4-wire" for talkback anytime.

FADER: generates a DC-voltage to both channel VCA's for left and right with very accurate tracking. Opening and closing of the fader generates an (isolated) output signal for remote control The character of the signals can be set to continuous or pulsed by an internal jumper. All faders are PENNY & GILES plastic conductive faders for all inputs.

RING DETECT INPUT: From the hybrid a logic "RING DETECT" can be connected to this input to indicate an incoming call.

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STEREO OUTPUT S124(A) / DUAL MONO OUTPUT S125

The S120 has 4 mono output busses, switched in pairs (A and B)

One or 2 master modules can be used in a S120. Different types of masters are available:

S124 STEREO MASTER: A single fader for Left and Right output. It also contains a COMPRESSOR / LIMITER circuit.

S124A STEREO MASTER: Fixed output, no fader but with compressor/ limiter for "ON-AIR" use.

S125 DUAL MONO MASTER: With 2 faders for individual level control of both channels, no COMPRESSOR / LIMITER.

In addition also a **SCRIPTSPACE** is available, 6 modules wide, 240 mm.

COMPRESSOR / LIMITER: Integrated in the circuits is a compressor / limiter control circuit with two operational settings. It can be switched as a fixed threshold limiter for overload protection or as a compressor for enhancing the loudness of the signal.

LED +2, +10: Two LED's are used to indicate the amount of gain reduction. In compressor mode the 10 dB LED indicates the override by the limiter.

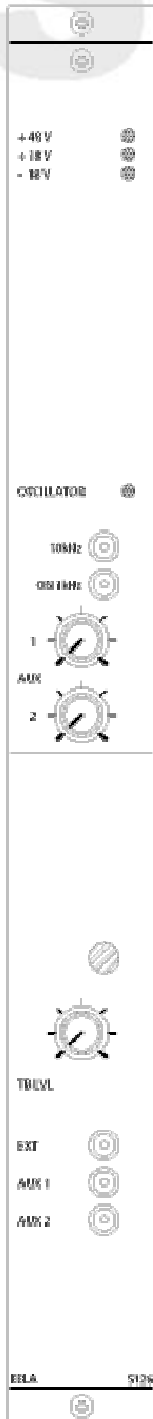
RELEASE TIME This rotary control is for varying the timing of the release circuit. It ranges from fast (300 msec.) to slow (3 sec.) The most CCW activates a switch bringing an automatic release network in circuit with a fast release for short peaks and a slow, gain riding action for overloads of longer duration.

FADER: The output of the S124 is controlled by a single fader, the S125 has dual faders for Left and Right. The S124A has no fader, the output is set at a fixed level.

INSERTS: A prefader insertion point at a level 6 dB below the output level is available for each channel on a 1/4" jack.

OUTPUTS: The OUTPUTS for Left and Right are on male XLR's and TRANSFORMER balanced. The maximum level is +20 dBu into a 600 Ohm load, the maximum load being 200 Ohms. A special circuit is employed to reduce the LF distortion at high levels caused by the transformer giving a specification of THD better than -60 dB @ +18 dBu from 40 Hz to 15 kHz. The output impedance is low with a value of 30 Ohms.

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AUX / OSCILLATOR / TALKBACK MODULE S126

This module, needed in every mixer, contains the mix- and lineamps for the two AUX SEND OUTPUTS. Outputs are transformer balanced on male XLR's. The OSCILLATOR and TALKBACK circuits are also located in this module.

POWER SUPPLY INDICATION: The LED's on the S126 module indicate the presence of the 3 power supply voltages +18V, -18V and the 48V phantom powering.

OSCILLATOR: An oscillator with a fixed level is built in. The frequency can be selected at the front panel. Depressing the ON/1kHz button switches the oscillator on at 1000 Hz. The 10 kHz button changes the frequency to 10 kHz. The LED indicates the ON status.

The oscillator signal is routed to the 4 main output busses via the ¼" jack marked OSC. Inserting a connector cuts the signal path and gives access to the signal for external purposes. The output is unbalanced, 6 dB below the nominal output level.

AUX1 AND AUX2 MASTER CONTROLS: For setting the output level from the mixing busses. The signal can be overridden by a TALKBACK signal on pressing the appropriate talkback pushbutton.

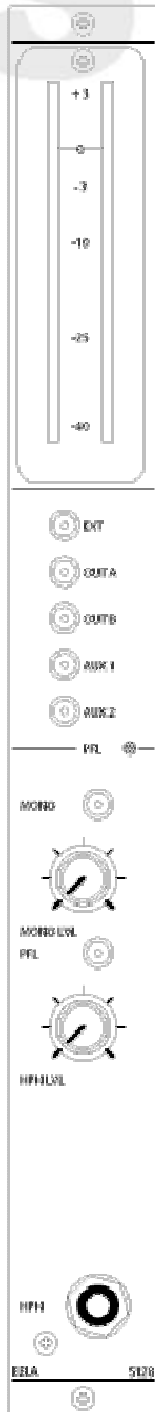
TALKBACK MICROPHONE: An electret microphone is built in, followed by a limiter circuit for a constant output level independent of the speech distance.

TALKBACK LEVEL: Located after the limiter circuit for adapting the talkback level to the application.

TALKBACK PUSHBUTTONS: Three destinations can be selected via pushbuttons being both AUX outputs and an EXT. The EXTernal signal is fed to the main busses for SLATE talkback and to a ¼" jack. If there is a connector present the signal to the main busses is interrupted. Activating the talkback gives a DIM on the loudspeaker outputs of the control room monitor.

AUX 1 AND AUX 2 OUTPUTS: Transformer balanced line level outputs with similar specifications as the main outputs.

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CONTROL ROOM MONITOR S128

This module feeds the main monitor loudspeakers and headphones output. It also includes a LED peakmeter.

DUAL LED PPM: This 19 segment stereo PPM follows the monitor selector or indicated pfl when any of the pfl switches on the input channels is switched.

MONITOR SOURCE SELECTOR: Interlocking push buttons that selects either one of the MAIN outputs, AUX outputs or EXTERNAL input. The EXTERNAL INPUT is transformer balanced on XLR's to avoid any problems in ground systems and can also be selected by an external control input.

PFL LED: The source selection can be overridden by the output from the PFL mixing bus on depressing one or more channel PFL switches. Both meters and the audio outputs follow this action indicated by the LED. This switching does not occur when PFL to phones is selected.

MONO: This switch mixes the signal to the LOUDSPEAKER OUTPUT to mono for an audible phase or mono compatibility check.

MONITOR LEVEL: This potentiometer determines the level on the CR LOUDSPEAKER OUTPUTS. This level is also influenced by the DIM and MUTE busses.

PFL: Changes the signal to the headphones from the monitor selector to pfl.

HEADPHONE LEVEL: This sets the level to the operators headphones. The source of this output normally follows the loudspeaker selection, including the automatic changeover to pfl. This selection will be replaced by the PFL on depressing the PFL to PHONES switch.

HPH: 1/4" jack for the headphones with individual volume control without MUTE and DIM.

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FRAME SIZES:

Several frame sizes are available ranging from a small 8 modules wide frame, a 19", 11 modules wide chassis up to a full size studio console with 36 modules and a series of "BC" frames with a eurocard toprack to house any of the EA700 series modules. For available EA700 series modules see separate brochure.

Options and additional units:

A wide range of options and additional modules is available.
The S127 is a 12-way source selector that can be used for input select or as a monitor extender.



The METERBRIDGE to standard frames houses the PFL amplifier and loudspeaker, VU meters or RTW PPM.

EA800/900 MODULES:



A range of modules is available, the most important are:
EA862 Red light relays
EA853 4-way headphone amplifier / studio interface
EA825 Distribution amplifier, transformer balanced.
EA815/1 and EA915X Telephone hybrids
For other modules available see separate brochure.

For information and prices please contact:



Power supply:
External, 19" rackmount unit, 2HE
Input: 110 or 220 Volt, 50/60 Hz
Cable: 4 meters included