adt-audio

Control Room Module

BC-CTR3

Like a master's module PGM the listening module BC-CTR3 is indispensably required in every BC3 mixing console.

There are equipped separated select and control units for loudspeakers, headphones and mini-loudspeaker in the control room.

10 external stereo-sources and 8 internal sources (usually group 1 to 8 and Aux 1 to 4) can be selected by sets of pre select buttons. Optional versions of the modules BC-STU and BC-TBO can be equipped for selection and monitoring of up to 24 external stereo lines.

Additional in this module there are integrated the master's amplifier for PFL and also the status PFL system.

The Aux master amplifiers for the Aux masters 3 and 4 are also inserted in the module BC-CTR3.

BC3
the adt-audio console system for on air applications.

The realisation of mixing systems up to 72 input channels, 16 audio sub groups, 10 sends with vca and cut grouping facilities is possible as well as configurations for small and medium studios by the extensive range of modules. Depending on the selection of modules it is possible to match the rules of the German IRT-Pflichtenheft 3/5. The consoles are designed for professional operation with highest reliability and longevity. The combination of excellent audio quality and longevity is realized by the use of only high value components. The BC3 consoles are modularly build and makes the construction of customized designed possible.

view of the BC-CTR3 in original size

The module consists beside the selection for the monitoring and fading units, the master's amplifier and the status logic for the PFL system and also two Aux-master's amplifiers for the Aux masters 3 and 4.

Both Aux-master's amplifiers are implemented identically. The regulation of the master's signal is done by a trick fader. The oscillator and the talkback line TB-AUX can be mixed by the two buttons TB and OSC to the master{sum}. Additional there are a CUT and an AFL button.

The monitoring section consists of the sections , external pre selection ,, , internal pre selection ,, , fader and selection loudspeaker control-room ,, , fader and selection headphone control-room , and , fader and selection mini-loudspeaker ,.

- getrennte control units for headphones and control room speakers
- additional selection and control for a mono or stereo mini speaker system
- Autocut circuit for the control room speakers (for DJ mode)
- 10 external sources selectable
- expandable to 24 external sources
- interne preselector for 8 sources
- 2 aux master amplifiers
- freely selection of pfl insertion
- PFL bus amp
- PFL status functions

The mini-loudspeakers have a separated fader for the volume-control. A jumper determines if these loudspeakers are muted by the auto-cut-function or not. As a source it can be switched the PFL master, the talkback-return master and the monitoring selection of the control-room loudspeakers. This selection is adding. Additional there exists a Cut-button. The mini-loudspeakers can be externally equipped or be inserted into the over-bridge of the mixing console. The supply is done in stereo, so that there can be used alternatively 1 or 2 loudspeakers. The output can be configured by a jumper for mono-operation.

Das PFL-System ist in Stereo ausgeführt. Durch den Aufbau des Reglerbereiches der Mono-Module mit 2 VCA's und die schaltungtechnische Anordnung der Panorama-Potis vor dem Regler erfolgt die Abhörkontrolle via PFL immer in Stereo hinter dem Pan-Pot. Verschiedene Aufschaltpunkte - z.B. die Aux-Master - sind mit AFL-Tasten ausgerüstet. Hier wird dann der Ausgang hinter Regler abgehört. Das PFL-System dient zur variablen Abhör- und Messkontrolle innerhalb des gesamten Mischpultes. Das PFL-Signal kann innerhalb der Summenmodule auf verschiedene Lautsprecher, Kopfhörer und Messwege aufschaltet werden. Dadurch können für die unterschiedlichen Anwendungsbereich der Anlagen passende Betriebssituationen geschaffen werden.

The PFL system is implemented in stereo. By the construction of the fader section in the mono modules with 2 VCA's, and the circuit-technical arrangement of the panoramic pots pre fader, the monitoring control via PFL is always done in stereo behind the Pan pot. Different switching points - e.g., Aux master - are equipped with AFL buttons. Here the output is monitored behind fader. The PFL system is designed for a very variable monitoring and measuring system within the whole mixing console. The PFL signal can be switched within the master's modules to different loudspeakers, headphones and measuring-lines. So it is possible to create for very different applications of the arrangements always the right operation-situation.

A stereo VU meter for PFL in the over-bridge is standard equipment of every BC3 mixing console. Optional this meter can be also implemented as a LED-meter or RTW.

A status function for PFL switches between adding and mutually releasing operation. For that purpose there exists the button PFL-SINGLE in the lower area of the CTR3 module. If PFL-SINGLE is pressed, always only a PFL button can be active. The pressing of a second PFL-(or AFL-) button always reset an other active PFL-button automatically. If the button PFL-SINGLE is not pressed, the PFL system works adding. Arbitrarily many PFL buttons can be activated at the same moment and are mixed to the PFL master. How the Reset of the active PFL buttons is determined is fixed by the configuration within the channels. Here there is the possibility for a reset by opening the fader or pressing the button CH-ON with already opened fader. Additional all PFL buttons can be reset at the same moment by the status function PFL-RESET.

For a direct monitoring of external stereo-sources there is the set of buttons EXTERNAL SOURCE. Here can be connected up to 10 external stereo-devices or lines. The connections for line 1 to 8 are wired to two 25-pole SubD plugs. For external line 9 and 10 are XLR connectors. Additional there are versions of the playback module BC-STU3 and the talkback module BC-TBO3 that have the possibility of additional external selection. Each of these modules can be equipped with a set of buttons for the selection of 8 other additional external stereo sources. The outputs of these buttons are connected in the frame wiring automatically on the buttons EXT 9 and EXT 10. With these buttons there are selected both extension units. In this version there are available altogether 24 external stereo sources. The selection is realized mutually releasing by a mechanical switches sentence and is bolted, in addition, electrically. The selected line is signalised by a LED.

The output of the external set of buttons can be used for the selection control-room, as well as for the selection studio. Optional a meter can be assigned to this output.

The set of buttons INTERNAL SOURCE is also implemented with 8 push buttons. It is used for the pre selection of internal sources of the mixing console. In the normal version there are the audio-groups 1 to 8 each as a stereo pair (1-2 to 7-8). In addition, the line AUX1 to AUX4 can be selected in mono.

The allocation of the buttons depends on the configuration of the mixings console. In systems, which consists of 12 or 16 subgroups the additional subgroups are connected on the buttons used for AUX. Monitoring of the aux-sends can be done in every case alternatively by the AFL buttons of the separate Aux master amplifiers.

For monitoring in the control-room there exist a stereo loudspeaker and a stereo headphone line. Both systems may be separately configured and regulated.

The headphone line can be switched to the sources PGM (stereo-master), the outputs of the pre select buttons Internal or External and the Cue send. The button AIR switches the headphone line , behind broadcast ,. For this purpose an external receiver must be connected. By the button OFF the selection is switched off. If the selection is switched off, PFL and TB IN can be also monitored by the headphone line. With the button PFL ENABLE the PFL

master is automatically switched to the headphone, if somewhere in the mixing console PFL is activated. There is a selection, no addition. The button TB IN switches the talkback-return-master to the headphones. It can be selected by jumper if there is only a switching, a mixing with attenuation of the original signal or a mixing without attenuation. The switching always then is done when the talkback-return-bus is active.

The regulation is realized with a stereo-pot. The button MONO switches the whole headphone to mono operation. It can be selected by a jumper if the mixing is realized with 3 dB or 6 dB. CUT mutes the headphone output.

The connection for the headphone line is situated in the over-bridge of the mixing console. This is implemented with a jack with locking. The power amplifier is dimensioned for more headphones parallel. Optional other headphone connectors can be mounted.

The loudspeakers of the control-room can be switched to the sources PGM (stereo-master), the outputs of the pre select buttons Internal and External and to Cue send. Also here it is possible to switch the monitoring behind broadcast by pressing the button AIR. For that there is needed the connection of an externally receiver. The output of this buttons is wired to the standard meter, situated in the over-bridge of the mixing console. This is usually realized with 2 VU meters and can be implemented optional also as a LED meter or RTW-Peak-meter.

The button PFL-ENABLE releases automatically the switching of PFL to the loudspeakers in the control-room. In this area of the module there are also mounted the both status buttons PFL-RESET and PFL-SINGLE, which are needed to the control the PFL system. The button DIM causes an attenuation of the loudspeakers. If this attenuation amounts 20 dB or 12 dB, it is determined by a jumper. Additional it is determined by jumper if an attenuation is released automatically by outgoing and / or incoming talkback and by active PFL. The attenuation with PFL is only then activated if there is no PFL itself switched to the loudspeakers of the control-room. The button MONO makes possible a monitoring by a mixing matrix with alternatively 3 dB or 6 dB (jumper).The button L · · R and Ø are not implemented locking and are used for the control of the left right allocation and also the phase position between the left and right stereo-channel. Both channels are exchanged by pressing the button L · · R. Button Ø turns the phase in the right stereo channel. The regulation is realized by a stereo trick pot. The output's level of the monitoring range amounts + 6 dBu in position 10 of the pot with normal level at the input and can be raised or reduced by jumper around 10 dB. So an adaptation to the applied power amplifiers or the used active loudspeakers is possible. The button CUT mutes the monitoring output.

By the function AUTOCUT, released by the button with the same name, the loudspeakers can be automatically muted, if the red light control is activated. This can happen either by opening an appropriately configured channel or by a button in the optional command's module TBO3. This function is for the so named DJ-operation indispensably.

All audio-connections for the loudspeaker are implemented with XLR connectors (Neutrik). The headphone connector is situated in the over-bridge of the mixing console. For the external sources 1 to 8 there exist 2 SubD-25 connectors. These connectors are implemented twice and parallel for the wiring of external devices to the monitoring and also parallel to other sections of the console. For the control connections there is other Sub D connector installed.

Standard-Optionen:	Metering
other assignment of the INTERNAL switches other Normpegel als + 6dBu Standard transformers for the inputs (post external selector) Torodial transformers for the inputs (post external selector) Standard output transformers for the mini speakers Torodial transformers for the main speakers	In the standard version there exist 4 VU meters. 2 VU meters are connected parallel to the selected monitoring signal of the control-room loudspeakers. The both other VU meters measure the output of the PFL master. Optional other VU meters can be equipped for the output of the PGM master , for the outputs of the subgroups and the Aux master. Also the input channels can be equipped with meters. Instead of the VU meters LED meter or RTW-Peak-meter can be inserted in version wished by the customer also arbitrarily mixed.

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