adt-audio

TelCo Standard Input Module
BC-IT3

BC-IT3 is the standard telephone-input module for the BC3 series. Two selectable inputs make the connection of 2 telephone hybrid units possible. Also the control for the hybrids exists twice and is switched together with the input selection. The processing section consists of an adjustable low and high pass filter and a 4band EQ with 2 wweep bands exist. Extensive facilities for the configuration of the n-minus system are integrated.

In a lot of details the IT3 is fast and simply configureable. For the adaptation of the channel logic to the requirements extensive possibilities exist. Addtionally to the basis version IT3 the IT3s is available which is fitted out with a 128 mms Penny and Giles fader and with illuminated pushbutton switches for the functions PFL, hybrid and channel On.Beide Versionen des Moduls können mit einer Vielzahl von Optionen geliefert werden.

BC TV & Radio

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

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.

The input module BC-IT3 es the standard mono module of the BC3 system for use with telephones lines and conference circuits. Two selectable inputs, a very komfortable foldback unit and a 4 band EQ with 2 sweep bands as well as a adjustable high and low pass filter are the parts of the basic equipment of the module.

The module has 2 lines inputs. The switch LINE2 selects the second one of both inputs. This switch determines, in addition which of both controls ports are active. The gain of the input is adjustable with a fader detent out with center detend around ± 20 dB.

The output for the telephone line ‚TELCO-SEND‘ is formed in n-mnus technology. As a basis mix for the sends the stereo-master is normally applied. For the selection of AUX3 a switch exists.

Every of the four aux sends can be configured for the alternate basic mix by jumpering. This configuration can be carried out per module, so the foldback mixes can be different if several telephone lines are used at the same. The program on air can be passed back to the caller if the aux switch is not pressed. During preliminary talks with the presenter the module is switched to the aux-send which is then used for the bidirectional communication.

It is possible at any time to talk to this line from the control room. For this purpose the separate talkback line TB-TELCO exists. This function can be locked by the status of the channel (fader on / CH-ON active). Farther the talkback line can be locked by the switch TB-OFF.

4 mono aux sends and a stereo cue send exist.

The cue send is located normally pre fader, pre cut and can be configured by jumper pre fader - post cut. The switch POST places this send post fader and balance pot. A level pot and a pan pot exist. A cut switch give the choice to mute the cue send independent on channel status. In the post position the cue send automatically takes over the position of the main pan pot if this is turned on. The cue send works in stereo.

The aux-sends 1 to 4 are implemented identically. They to are located usually post fader and can be switched pre fader by separate switches. The aux send operate in mono. Each of 4 aux-sends can be applied by internal configuration with jumpers for the use of the base of the alternate mix for the telco send.

The system offers the possibility to implement up to 4 other aux-sends. Therefore, special modules are avaiable with up to 10 sends (stereo cue and 8 x aux). The subdivision on stereo and mono sends and other features can be chosen by the customer.

The BC-IT3 is equipped to the signal processing with an insertable, adjustable low and high pass filter, a 4band EQ and an switchable Insert.

The low pass filter with 12 dB / octaves and can be regulated from OFF (> 20 kHz) to 1 kHz. The high pass filter (also 12 dB / octaves) and can be adjusted from OFF (<20 hertz) to 600 hertz. The switch FILT insert the filter into the audio chain.

The equalizer is a 4-band version with a range of ± 15 dB per band. The HI-EQ is implemented as a baxandall filter with outlet with 15 kHz. The LOW-EQ is a bell filter with low resonance of about Q = 0.7 with a center frequency of 80 hertz. This clarification give the choice for an effective regulation of the bass range, without an unwanted increase of subsonic disturbance. Both mid bands are implemented as sweepfilters and have fixed resonances of Q=1. The ranges for the frequency reach from 60 hertz to 3 kHz for MID1 and from 300 hertz to 15 kHz for MID2. The whole EQ is inserted by a switch in the audio chain.

The insert point is buffered entirely (balanced output driver and unbalancing input buffer). It is located usually post EQ and can be put by jumpers on the module pre EQ. By this jumper block it is also possible to block the insert point completely. The insert output is always available on the connector panel, the insert input is turned on by pressing the switch INS. External devices can remain connected and are used by pressing the insert button. Insert input and output can be implemented alternatively electronically balanced or balanced and floating (transformer-balanced).

For the main fader a 100-mm slider fader or an optional 128 mm Penny and Giles fader is used. The regulation of the audio-signal takes place about high-quality VCA's. The CH ON button switches the channel on. If it is not pressed, this has the same effects like closing the fader.

The pan pot is not usually in the audio chain. It can become inserted by the switch PAN and regulates between the left and right selected masters with 3 dB pad in the center position. The routing section of the module (see at the top) is implemented with switches for the selection of 4 stereo-subgroups (GR1-2 to GR 7-8) and the stereo-master PGM. The module can be implemented alternatively also with a Mono selection for the audio-subgroups or a stereo-selection for 16 groups (8 x in stereo).

The peak present dispaiy is implemented with a 3color Led. It displays a level above -20 dB with green color and 0 dB with yellow color. By a rise of the level the color changes to orange and red. With red colouring the headroom still is approx. 5 dB. The peak presentlLed measures the level at the input of the fader.

The PFL system is implemented in stereo. The PFL signal can be routed within the master's modules to different loudspeakers, headphone and measuring lines. Different modes of operation are possible. A status function in the master's area switches over between adding and mutually releasing operation. If ‚adding' is chosen, several channels can be switched at the same moment to PFL and be mixed. At releasing operation all other PFL switches are reseted with the pressing of any PFL switch. Per channel can be decided by a jumper whether PFL is reseted by opening the fader or pressing the CH ON switch. Furthermore, it can be chosen in this case whether PFL can be activated with open fader still, as long as the switch is pressed. A master reset can be released from the master's block.

The hybrid switch controls the telephone hybrid. The configuration of the module bc jumpers defines whether a coupling of this circuit with the fader and the PFL switch takes place or not. Furthermore it can be configured whether the output control port operates or dynamically. In this case pulses are generated by start and stop. The feedback can be implemented either as, real feedback with external wiring or inside be modules control. The hybrid control exists twice. The input selection LINE2 determines which relay sentence is active.

A light-emitting diode announces the current status of the fader switch or the CH ON. This lights if the channel is released.
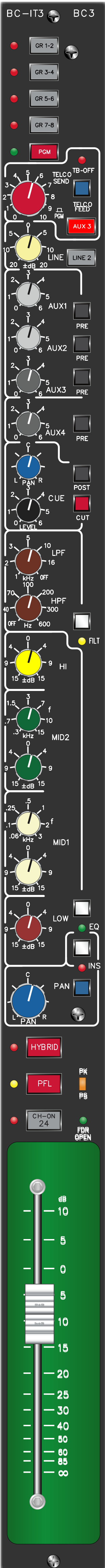
All audio-connections are implemented with XLR connectors (Neutrik). The remote control connections are available per channel on two 9-pole Sub D socket. A channel output does not exist with this module type. The connections for this way are applied for the Telco Send output.
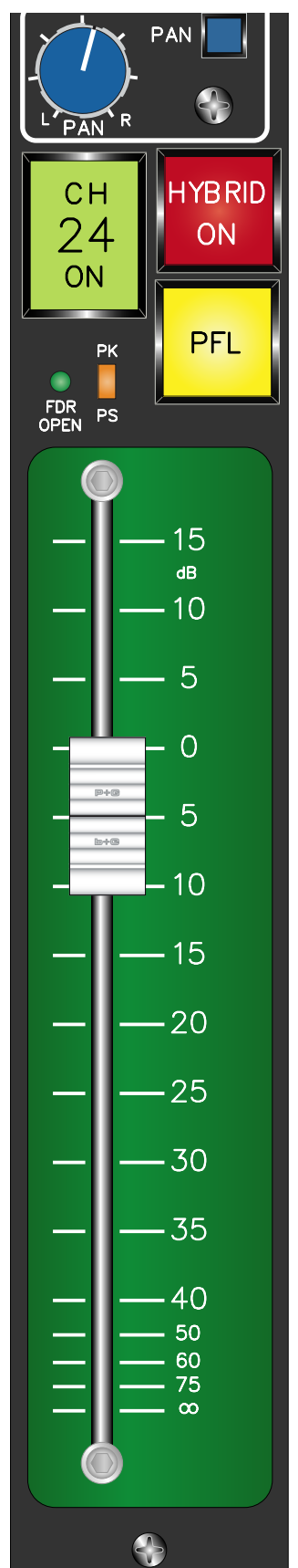
- 2 line inputs selectable
- Control functions are existing separately for both inputs
- adjustable low and high pass filters
- 4-band-EQ with 2 sweep bands
- Stereo cue send with level and pan
- 4 aux sends with spearate PRE switches
- channel out operates as separate adjustable telephone send
- n-minus foldback to the telephone line with alternate source selection
- 100mm or 128 mm main fader
- extensive adaption by jumpers
- communication facilities for telephone accessability

Options:

other resonance for the mid EQ's

sug groups select 8 x mono/8 x stereo

other zero levels than + 6dBu

Standard transformer for the inputs

Torodial transformer for the inputs

Standard output transformer for telco send

Torodial output transformer for telco send

illuminated push buttons for CH-ON, PFL and HYBRID

P&G fader 128 mm

additional VU or ledmeters for the input modules

View of the BC-IT3 in original size

Fader- and switch area of the version BC-IT3s