



# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for BEHRINGER MX2642A. You'll find the answers to all your questions on the BEHRINGER MX2642A in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual BEHRINGER MX2642A  
User guide BEHRINGER MX2642A  
Operating instructions BEHRINGER MX2642A  
Instructions for use BEHRINGER MX2642A  
Instruction manual BEHRINGER MX2642A

**MX2642A**

**EUROTRACK®**

**User's Manual** ENGLISH

Version 1.1 January 2001

BEHRINGER

www.behringer.com



[You're reading an excerpt. Click here to read official BEHRINGER MX2642A user guide](http://yourpdfguides.com/dref/2302057)  
<http://yourpdfguides.com/dref/2302057>



.....  
... 6 1.1 Nomenclature .....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.... 6 1.2 Keys .....

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

..... 6 2. EURORACK OVERVIEW .

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

..... 2.1 Architecture .

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
*. 2.2 Metering ...*

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

*2.3 PSU (Power Supply Unit) .....*

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

*... 3. MONO INPUT CHANNEL .....*

.....

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

*.. 3.1 Input Level Setting .....*

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

*..... 3.2 Equalizer ...*

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

*..... 3.*

*3 Aux Sends .....*

.....  
.....  
.....  
.....



.....  
.....  
.....  
.....

.....  
.....  
... 9 4.2 Equalizer .  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

..... 9 4.3 Aux Sends ...

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....

..... 10 4.  
4 Routing .....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....

.....  
.....  
.....  
.....  
.....

..... 10 5. SUBGROUPS, DIRECT OUTPUTS AND INSERTS ..

.....  
.....  
.....  
.....  
.....

..... 10 5.1 Subgroups ....

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

..... 10 5.2 Multitracking .

.....  
.....

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

... 10 5.3 Direct Outputs .

.....



.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

..... 10 5.4 Inserts .....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....

..... 11 6. MAIN SECTION .....

.....  
.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

..... 11 6.

1 Aux Sends .....

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
*... 11 6.2 Stereo Line Inputs .*

.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....

*. 11 6.3 Metering ...*

.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

*... 12 6.4 Channel Mode .....*

.....  
.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

*.. 12 6.5 2-Track Input and Output ..*

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

*... 13 6.6 Monitoring .....*

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

*.. 13 7. CONNECTIONS ..*

.....

.....

.....

.....

.....

.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

..... 14 7.

*1 Relocating the Connector Panel .....*

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

*14 7.2 Connectors ....*

.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

*.. 14 8. SETTING UP .....*

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....

.....  
.....  
.....  
.....  
.....

..... 8.1 *Selecting Inputs* .

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

... 8.2 *Initializing Channels for Gain-Setting* .

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

.. 8.3 *Auditioning a Signal and Setting up a Channel* ..

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

..... 8.4 *Desk Normalization* ...

.....  
.....  
.....  
.....  
.....  
.....

.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... 8.



[You're reading an excerpt. Click here to read official BEHRINGER  
MX2642A user guide](http://yourpdfguides.com/dref/2302057)  
<http://yourpdfguides.com/dref/2302057>



.....SK MX9000, while a large external power supply ensures low noise and superior transient response at all times. Insert points and direct outputs are also provided, giving big console functionality to the mono input channels. Stereo Input Channels A further 8 line inputs on the MX2642A are configured as 4 stereo input channels, accepting line level signals at -10 dBV (semi-pro) as well as at +4 dBu (professional) operating levels. These are ideal for multitrack tape returns, or for accepting outputs from MIDI and other electronic instruments.

Channel Outputs A high-quality true-logarithmic 60 mm fader feeds the main via a constant-power channel PANORAMA control. On your MX2642A, subgroup buses are fed via SUBGROUP and MIX ASSIGN switches, too. Here the channel PANORAMA control also selects between odd and even-numbered subgroup buses. Subgroups For ease and flexibility of mixing, four mono (two stereo) assignable subgroups are provided on your MX2642A. Aux Sends There are six aux send buses on the MX2642A, each with PFL.

Stereo Line Inputs Four stereo line inputs, each with Solo/PFL, lie above the subgroup faders. These inputs are each assigned to two aux send buses. When these are used for returning tape tracks, these aux sends could be used as cue feeds to the performers headphones, or as effects sends for wet monitoring. Alternatively, the stereo line inputs could be used for MIDI instruments etc. Main Mix Output Main mix output level is via a high-quality true-log 60 mm stereo fader, and is monitored by a pair of accurate 12 segment bargraph peak meters, surrounded by four status LEDs.

Other functions of the main section include headphones output with gain, and a 2-track tape return, which doubles as an extra stereo line input available to the mix with its own level control, completing the 26 input channels of the innovative MX2642A. 2.2 Metering Channels 1 - 8 on your MX2642A have overload LEDs, while the L and R outputs have 12 segment bargraph meters. The L/R meters double up as mono PFL or stereo solo meters. + The master bargraph meters should average around 0 dB during loud passages. If they read persistently higher, or are peaking above +10 dB (top segment of the main L/R LED display), reduce either the main L/R fader, the subgroup faders and/or channel faders, or (as a last resort) channel input gain. Maybe its time to do a round of PFL metering. 2. EURORACK OVERVIEW 7 EURORACK MX2642A 2.3 PSU (Power Supply Unit) Any amplifier circuit is limited in its transient response by the available current.

Every mixer has numerous line level operational amplifiers (op-amps) inside. When being driven hard, many desks begin to show signs of stress due to power supply limitations. Not so with the EURORACK. The sound will always stay clean and crisp right up to the operating limits of the op-amps themselves, thanks to our generous 40 W external power supply unit. + Do not connect the PSU to the EURORACK while the PSU is connected to the mains. 3. MONO INPUT CHANNEL Each channel comes with a balanced line input on 1/4" jack, and an XLR mic input. Phantom powering is switchable from the master panel (S36). The gain circuit has an unusually wide range from -50 dB to +10 dB, obviating the need for mic/line switching. The crucial operating levels -10 dBV and +4 dBu are clearly and accurately legended (P1).

3.1 Input Level Setting Channel input level is determined by the GAIN control (P1). Use Solo/PFL (S14) to bring the channel input onto the left and right bargraph meters respectively. This also sends the Solo/PFL-ed signal to the left and right speakers. + For level setting (as opposed to localized listening) choose to use the mono PFL bus rather than the post-fader (post-channel pan) stereo solo bus (CHANNEL MODE global switch S37 up).

Solo/PFL never interrupts the mix at the main recording outputs. It follows that aux sends and subgroups must also be unaffected, since they contribute directly to the main mix. In addition to switchable Solo/PFL (S14) metering, a channel LED (L15) illuminates when a channel is going into overload. This takes its cue from three test points: Input, post-EQ and post-fader. This is very important, especially when using extreme EQ settings or using a dynamics processor in an insert.

In all cases the higher level wins. You do not want the overload light to come on except very intermittently during a take or a mix. If it does light persistently, reduce input gain. There is a steep Lo Cut (High Pass) filter (S2), slope @ 18 dB/Oct, -3 dB @ 75 Hz, for reducing floor rumble, explosives, woolly bottom end etc. 3.2 Equalizer All mono input channels are fitted with three-band EQ and a switchable Lo Cut filter for eliminating unwanted subsonics. All three bands have up to 15 dB of cut and boost, with a centre detent for off. The upper (P3) and lower (P6) shelving controls have their frequencies fixed at 12 kHz and 80 Hz respectively. The midrange (P4) control is semi-parametric with a peaking response. Q fixed at 1 octave, sweepable from 100 Hz - 8 kHz (P5).

3.3 Aux Sends All aux sends are mono and post-EQ. For aux sends 1 & 2, two dedicated pots (P7, P8) are used. These can be taken from a point before or after the channel fader, i.e. pre or post (S9). Aux sends 3 & 5, and 4 & 6 are serviced by two potentiometers (P10, P11). The SHIFT button (S12) determines whether buses 3 and 4 or 5 and 6 are addressed. Aux sends 3/4/5/6 are always wired post-fader. For almost all FX send purposes, you will want aux sends to be post-fader so that when a fader level is adjusted, any reverb send from that channel follows the fader.

Otherwise, when the fader is pulled down, the reverb from that channel would still be audible. For cueing purposes, aux sends will usually be set pre-fader. i.e. independent of the channel fader and mute.

+ 8 Most reverbs etc. sum internally the left and right inputs. The very few that dont may be driven in true stereo by using 2 aux sends. 3. MONO INPUT CHANNEL EURORACK MX2642A There is +15 dB of gain on every aux send.

Such a high boost is usually only appropriate where the channel fader is set around -15 dB or lower. Here, an almost exclusively wet signal will be heard. In most consoles, such a wet mix requires the use of a pre-setting for the channel aux send, losing fader control. With the EURORACK you can have a virtually wet mix with fader control. 3.4 Routing, Fading and Muting Routing means selecting which bus you want a channel to address. There are 3 stereo buses in the EURORACK MX2642A (plus a stereo solo bus). The main L/R bus is selected by S20, while the subgroups are selected by 1-2 and 3-4 assign switches (S18, S19). All 4 stereo buses follow channel PANORAMA (P13). Usually, only one of L/R, 1-2 or 3-4 will be selected for a particular channel.

+ An exception to this rule is when laying down voice takes.





[You're reading an excerpt. Click here to read official BEHRINGER  
MX2642A user guide](http://yourpdfguides.com/dref/2302057)  
<http://yourpdfguides.com/dref/2302057>

It is often convenient to have the mic channel(s) routed to all potential take tracks simultaneously, since you are often dropping in quickly between four or more tracks. It means one less button press each time you switch tracks. Level to the main L/R bus and to the group buses is ultimately determined by the channel faders (F17). These are designed to give a smooth logarithmic taper of a type more usually associated with megabuck consoles. The low level performance particularly is far smoother than that of a normal budget fader. Channel PANORAMA (P13) positions the output of the channel in the stereo field. Its constant-power design ensures there are no level discrepancies whether a signal is hard-panned, centre-stage, or somewhere in-between. Such pin-point accuracy will be a revelation if you have been working on consoles with lower quality circuits. Solo/PFL we encountered in section 3.

1. Solo also follows channel PANORAMA. The MUTE button (S16) is ergonomically placed immediately above the channel fader. Engaging MUTE, indicated by L16, is equivalent to setting a fader level of minus infinity. 4.

**STEREO INPUT CHANNEL** Each stereo channel comes with two balanced line level inputs on 1/4" TRS jacks, for left and right signals, When only the left input is connected, the channel operates in mono. 4.1 Input Level Setting Channel input sensitivity is adjustable within a +/- 20 dB gain range (P22), enabling a perfect match with most common sources including multitrack tape outputs, MIDI and other electronic instruments, and effects units, all of which are normally designed to operate at -10 dBV (semi-pro) and/or +4 dBu (pro) operating levels. 4.2 Equalizer The stereo input channels are fitted with four-band EQ.

The upper (P3), high midrange (P23), low midrange (P23a) and lower (P6) shelving controls have their frequencies fixed at 12 kHz, 3 kHz, 500 Hz and 80 Hz respectively. All bands have up to +/- 15 dB of cut and boost, with a centre detent for off. The EQ on the stereo channels is in principle identical to that on mono channels, except that the EQ is stereo, of course! + A stereo equalizer is generally preferable to using two mono equalizers when EQ-ing a stereo signal, as often discrepancies between left and right settings can occur. 4. STEREO INPUT CHANNEL 9 EURORACK MX2642A 4.3 Aux Sends These are the same as for mono channels (see 3.3). Note that a mono sum is taken from the stereo input. 4.4 Routing The only difference here from the mono channel described in 3.

4 is in the implementation of the BALANCE control. When a channel is run in stereo, this control functions as a BALANCE control, determining the relative balance of the left and right channel signals being sent to the left and right main mix buses (or maybe odd and even group buses). For example, with the BALANCE control turned fully clockwise, only the right portion of the channels stereo signal will be routed to the main mix or to any or all of buses chosen. 5.

**SUBGROUPS, DIRECT OUTPUTS AND INSERTS** 5.1 Subgroups The principal routes to multitrack are via the subgroup outputs. There are 2 stereo (or 4 mono) subgroups. All channels can access all of them. Subgroup level is determined by the subgroup faders (F67, F68). PFL is supported (S33, S34).

Subgroups outputs can also be assigned to the main mix in pairs during mixdown (S35). If you want to run a subgroup in mono, it should not be fed into the main mix by the MAIN MIX switch (S35). Rather it should be brought back on a mono channel (or via e.g. a BEHRINGER ULTRALINK PRO MX882) so that it can be panned.

If you want to insert a dynamics processor between any of the four subgroups and the main mix, the group output should be used as a send, return being effected through another desk input. Here, remember to de-assign the subgroup pair from the main mix (S35). The 2-track stereo input is particularly suitable for returning processed subgroup signals. Since this input cannot be routed back to any subgroup, a feedback loop is impossible. Four subgroup returns may easily be blended in stereo into this input simply by using the BEHRINGER ULTRALINK PRO MX882, greatly extending the functionality of your EURORACK.

@@backing vocals, drums, layered synths). @@@@post EQ and after the aux sends). @@@@Here an aux send would be inappropriate. @@The insert point is normalized, i.e. the signal is only interrupted when a jack is plugged into it. All mono input channels have got insert points, as has the main mix. @@@@The solution? Apply more EQ. @@@@No master aux send level pots are provided. @@@@Each has LEVEL (P27), BALANCE (P28), and PFL (S29).

These line inputs have been cleverly designed to be multi-functional as described below. The stereo line inputs can be sent to two of the aux send buses (auxes 1 and 3 in the cases of A and C, and auxes 2 and 4 in the cases of B and D). Tape Monitor Returns You could use the stereo line inputs as tape returns from a multitrack recorder. You might want to feed tape tracks into the artists headphones. Using aux sends 1 or 2 as a cue feed you can do this. You might want to wet monitor. Using aux sends 3 or 4 you can add reverb or echo without tying up a main desk channel. 6. MAIN SECTION 11 EURORACK MX2642A

**Instrument Inputs** The stereo line inputs may be used as extra instrument inputs, especially if your MIDI keyboard or rack supplies a pre-mixed stereo signal. When using the stereo line inputs as extra instrument inputs, you have access to the aux buses for effects processing.

**Effects (Aux) Returns** The stereo line inputs may be used for returning the outputs of effects units. Often it is useful to be able to send an effect into another effect. Echo sounds fatter when put through a stereo chorus or phaser. To do this use the aux send facility of the stereo line inputs. Just be sure not to send to an effect from its own output, creating feedback.

Certain stereo effects produce a perceived imbalance between the left and right channel levels. When applying short left and right delays, the shortest one will always seem loudest. When pitch shifting up and down in wide stereo to thicken a sound, the signal shifted upwards will seem louder than one that goes down.

In both cases use the BALANCE control (P28) to compensate. + When carrying any stereo imaging exercise, dont just rely on the control room monitors. Get a pair of headphones and listen in stereo and in reverse stereo, just in case you have any significant hearing discrepancies between your ears (and if you are in the habit of listening to high sound pressure levels (SPLs), chances are you will). Sometimes an engineer wants to narrow the stereo width of a reverb field. To do this you will have to come back on two mono channels to get independent PAN for the left and right signals. Each of A + B and C + D is assignable to all or any of main mix (S32), or subgroup pairs 1+2 and 3+4 (S30, S31). Normally these will be assigned only to the main mix. However, provision is made for routing to the subgroups, in case you want to record the signal to tape, or mixdown via a subgroup.



[You're reading an excerpt. Click here to read official BEHRINGER MX2642A user guide](http://yourpdfguides.com/dref/2302057)  
<http://yourpdfguides.com/dref/2302057>

6.3 Metering Main mix/Solo/PFL level is displayed on a pair of highly-accurate 12 segment bargraph peak meters. LEDs indicate Power on (top left), +48 V phantom power present (top right), and whether the mono pre-fader listen bus (bottom left) or the stereo solo bus (bottom right) is engaged. 6.

4 CHANNEL MODE The CHANNEL MODE switch (S37) determines whether solo-in-place or pre-fader listen is assigned to the channel solo buttons. SOLO Solo is short for solo-in-place, and is the preferred method for auditioning an isolated signal, or group of signals. Whenever a SOLO button is pressed, all unselected channels are muted in the monitors. Stereo panning is maintained. The solo bus is derived from the output of the channel pans, aux sends, stereo line inputs and subgroups, too. The solo bus is always post-fader. PFL Pressing S37 once disengages the stereo solo bus, and replaces it with a separate mono PFL (pre-fader listen) bus. Now any channel which is solo-ed, isn't. It is PFL-ed instead. PFL should always be used for gain-setting.

12 6. MAIN SECTION EURORACK MX2642A 6.5 2-Track Input and Output Input The 2-track input is on balanced 1/4" TRS jacks at +4 dBu, and is primarily for auditioning mix playback from tape. S46 routes this signal to the monitors. However, it can also be routed to the main mix via S44. Here S46 should be disengaged, or you will be listening to the 2-track signal twice over! With S44 depressed you have another stereo line input available to the mix, suitable for accepting the output of a second EURORACK or the BEHRINGER ULTRALINK PRO MX882. With the LEVEL control (P45) fully clockwise, your 2-track input will be matched to the semi-professional level -10 dBV. For higher output recording sources (eg. +4 dBu) turn the level of P45 down. Output A single pair of balanced jacks deliver the mix output to your 2-track recorder (or PA system) at +4 dBu.

Level to tape is ultimately determined by a precision stereo fader (F77). A mix insert point is provided for patching a gate, compressor etc. pre-fader. + Connecting a compressor or gate after the 2-track output would disrupt any attempt at a smooth fade using the output fader (F77). Although the 2-track output is primarily designed for recording, it can also be used as a PA feed, or as a send to the input of your sampler. 6.6 Monitoring A single volume control sends the level to the headphones and main monitors (P47). The L/R meters follow whatever source is being auditioned (the meters won't make much sense if more than one source is selected!) Selecting Solo/PFL (or monitoring a source other than the main mix) does not affect the signal from the L/R recording outputs. Just as well, or every time you wanted to do a quick solo during a mix, you'd have to start again! Though most of you will want to audition the main mix most of the time there are exceptions. These include Solo/PFL of course, and also 2-track (or other external source) playback.

The 2-track input could be normalised to a hi-fi pre-amp, allowing you to monitor extra sources such as vinyl, cassette, CD etc. 6. MAIN SECTION 13 EURORACK MX2642A 7. CONNECTIONS 7.1 Relocating the Connector Panel A moveable panel houses all connection sockets to the EURORACK, except that to headphones. The EURORACK comes supplied with this panel fixed to the rear of the unit, ready for flat-mounting the console. If you want to rack mount your EURORACK, you will probably want to re-locate the connector panel to a more convenient site on the underside of the chassis. Lay the EURORACK on a soft surface, face down. Take care not to apply excessive pressure to the console during the following procedures. You will need a cross-head screwdriver to effect this manoeuvre.

s A blank panel on the underside of the chassis covers the recess where the connector panel is to be re-located. Remove the screws which are fixing this blank panel to the sides of the EURORACK chassis. s Next remove the screws fixing the cover panel to the base of the EURORACK. s Turn your attention to the rear panel, where the connector panel is currently sited. Remove the screws that fix this connector panel to the upper edge of the EURORACK.

s Now loosen (do not yet remove!) the screws fixing this connector panel to the sides of the EURORACK chassis. While you support the weight of the connector panel with one hand, remove the loosened screws with the other. s Carefully manoeuvre the connector panel into its new location, taking care not to snag or strain any of the ribbon cables that connect it to the rest of the console's circuitry. The bottom edge of the connector panel should now rest on a flange at the base of the chassis. s Loosely fit the screws that will fix the connector panel to the EURORACK's sides.

s Now fit the cover plate into its new location on the back of the EURORACK. The folded edge of the cover plate always faces the right-angled edge between the base and back of the EURORACK. s Loosely fit the screws that fix the cover plate to the rear of the chassis, and the ones that complete the mounting of the connector panel on the underside. s Once you are satisfied that both panels are properly seated and all screws are on the correct locations, tighten up all screws. Do not force any screw. Check that you have aligned the panels correctly if any seem too tight. The entire procedure may be reversed at any time. 7.2 Connectors You will need a lot of cables for different purposes. Make sure you got the right ones.

All outputs (except direct outputs and insert point sends) are ground-compensated (decoupled from the mains supply earth) to eliminate the possibility of ground loops. Unbalanced equipment may be connected to balanced inputs/outputs. Either use mono 1/4" jacks or connect ring and barrel of TRS jacks (or pin 1 and 3 of XLR plugs). Phantom power (+48 V DC) is provided. This can be switched on or off by the +48 V PHANTOM switch (S36). + + + 14 Care should be taken NOT to plug mics into the console (or stagebox) while the phantom power is on. Also, mute the monitor/PA speakers when turning phantom power on or off. Allow 1 minute after powering up for the system to equilibrate before setting input gains. Please note that all units must be grounded properly. For your own safety, you should never remove any ground connectors from electrical devices or power cords or render them inoperative. Please ensure that only qualified personnel install and operate the MX2642A. During installation and operation the user must have sufficient electrical contact to earth. Electrostatic charges might affect the operation of the unit. 7. CONNECTIONS EURORACK MX2642A Fig.

7.1: Different plug types Fig. 7.2: Headphones connector / insert send & return connector 7. CONNECTIONS 15 EURORACK MX2642A 8. SETTING UP 8.1 Selecting Inputs 1) Mono channels accept mic or line inputs. If you are using the mic input, make sure nothing is connected to the line input (and vice-versa). + The mic inputs are more sensitive than the line inputs.



[You're reading an excerpt. Click here to read official BEHRINGER MX2642A user guide](http://yourpdfguides.com/dref/2302057)  
<http://yourpdfguides.com/dref/2302057>

Do not connect mics with phantom power switched on. NEVER use unbalanced mic cables with the phantom power switched on ever! Shorting +48 V to earth can cause serious damage. 2) Stereo channels accept -10 dBV or +4 dBu line level signals. Any stereo channel can be run in mono simply by connecting into the left jack socket only. These channels are suitable for a variety of line-level sources including MIDI instruments and tape returns from multitrack. 3) Stereo line inputs are primarily designed for returning effects units, though these too may be given over to multitrack returns or MIDI instrument outputs.

8.2 Initializing Channels for Gain-Setting 1) Set gain to minimum and all aux sends to Off (fully counterclockwise). 2) Set EQ to flat (all knobs at 12 o'clock). 3) Where applicable, set Lo Cut switch (S2) On for most mics, Off for signals with desired very low frequency content. 4) Set channel mode to PFL (S37 up). 5) Depress SOLO/PFL (S14) switch. 8.3 Auditioning a Signal and Setting up a Channel 1) Make a typical noise, or roll the tape. There should also be some activity at the main L/R bargraph meters, indicating the PFL level. 2) For Mic/Line inputs: Adjust the GAIN control (P1) until transient peaks are regularly hitting +6 dB.

Continuous signals should not exceed 0 dB. 3) For stereo line inputs: Adjust the GAIN control (P22) until transient peaks are regularly hitting +6 dB.

Continuous signals should not exceed 0 dB. 4) If EQ is used, repeat steps 8.2 1) & 2).

5) If an insert is used to patch in a compressor, gate, EQ etc, use the outboard processors bypass or effect Off switch to A/B monitor the effect. If it does not have a bypass switch or equivalent, you will have to keep connecting and disconnecting the device until you complete the following procedure: Adjust the processors output level so that effected and bypassed signals are of comparable level, ie unity gain. 6) SOLO/PFL switch (S14) up. Move onto next channel. 8.

4 Desk Normalization All board settings should be set to the normal default condition before or after every session. Usually faders are set to zero (minus infinity) EQs set flat and switched out, trimpots and channel aux sends turned fully counterclockwise etc. Many controls have a natural initial setting. For EQ cut and boost this is centre position. However, some settings, such as selecting pre or post for channel aux sends, will depend on the operating environment (e.g. studio or live), or on a particular engineers preferred way of working. 8.5 Multitrack Initialization Set up the multitrack so that any track in record ready condition has its input monitored when the tape is stationary. Place all tracks to be recorded into record ready status.

(Once a recording has been made, these tracks should automatically switch to tape playback.) Check that the input levels to each track are optimized before recording commences. 16 8. SETTING UP EURORACK MX2642A 8.6 Recording Levels When recording to digital, its a good idea to keep the recorders peak meters below 0 dB. Most (not all, esp. samplers) read 0 dB with some headroom left. This is because, unlike with analogue, the onset of digital distortion is as sudden as it is horrible. If you really want to take your recording level to the limit (and fully exploit 16-bit digitals 96 dB dynamic range), youll have to do some calibrating. How to do it? Well, you could run a tone at 0 dB from the mixer and use that as your DAT or ADAT reference.

But your DAT or ADAT may be way under its maximum input limit. Probably a better way to work out just how hard you can drive your recorder is to incrementally increase the record level until the onset of digital distortion, subtract, say, 5 or 10 dB, and never exceed that level. Engage peak hold on your recorder before recording if you want to confirm that you havent. When recording to analogue, the tape machines VU meters should show around +3 dB on bass, but only around -10 dB for hi hat. Although analogue distortion is more like compression at modest overload levels (often desirable on bottom end), higher frequencies cause saturation even at modest levels (an unpleasant crunchiness).

Also, VU meters tend to progressively under-read above 1 kHz, due to their sluggish response time. Hi hats should read about -10 dB on a VU meter, as against 0 dB for a typical snare drum, and +3 dB or more for a kick drum. + 8.7 Peak meters read more-or-less independent of frequency. Aim for 0 dB recording level for all signals.

Lining Up Recorder/Sampler Inputs Set the channel sensitivity to match the operating level of your multitrack (consult the manual, phone the manufacturer, or simply suck & see to find which setting works best). The samplers variable/switchable input gain range is bound to accept -10 dBV and/or +4 dBu. There is no oscillator in the EURORACK, but you can use a simple unmodulated sustained tone from a keyboard. Choose one around 1 kHz. Set the channel EQ to normal (12-o-clock), and line up the channel according to the setting up procedures (8.2). Route this signal to all subgroups and adjust the subgroup output faders so that the bargraph meters read 0 dB. Now put the recorder into input mode on all channels, and the sampler into sample mode. If the tape operating level switches are correctly set, then 0 dB on the group output meters should also show 0 dB on the tape recorders input meters. A discrepancy of 12 dB indicates that a wrong operating level has been selected.

Now adjust the samplers input level until it also reads 0 dB. + Beware of inaccurate/uncalibrated sampler input meters. Work out how hard you can safely drive the samplers input, reference this to 0 dB on your EURORACK group (PFL). Then take note of the samplers input gain pot setting. (Or use soft adhesive tape etc. to hold it in one position). Now you can use the subgroup meters to confirm level when sampling, usually far clearer than using the samplers own input level display. 8.8 Auditioning a Mix In order to be heard other than when Solo/PFL-ed, a channel must be routed to the main mix bus. This can be either from the channel routing matrix directly (S20), or via one of the subgroups (S18/19), so long as that subgroup is itself routed to the L/R bus (S35).

Channels going to tape are usually monitored via tape returns. On the EURORACK this means using either input channels (stereo or mono). Stereo line inputs, or via a separate submixer (e.g. BEHRINGER ULTRALINK PRO MX 882), patched into a suitable input such as that for 2-track playback. The MAIN MIX button of channels and subgroups going to tape should be up so as to avoid double auditioning. 8.9 Track Sheet When laying out channels for recording or mixing, try to be sensible. Keep tom-toms together, etc. Work out a scheme that suits you and stick to it.

A common order is: kick drum, snare, hi-hat, tom-toms (as the audience sees the kit), cymbals (ditto), bass, guitars, keyboards, other instruments, vocals. From session to session and gig to gig you will soon know where you are without hardly ever having to look at a tracksheet.



[You're reading an excerpt. Click here to read official BEHRINGER MX2642A user guide](http://yourpdfguides.com/dref/2302057)

<http://yourpdfguides.com/dref/2302057>

8. SETTING UP 17 EURORACK MX2642A 9. APPENDIX Fig. 9.1: MX2642A front view 18 9. APPENDIX EURORACK MX2642A Fig. 9.2: MX2642A rear panel 9.

APPENDIX 19 EURORACK MX2642A Fig. 9.3: MX2642A block diagram 20 9. APPENDIX EURORACK MX2642A 10. SPECIFICATIONS Input Channels Mic Input Mic E.I.N. (22 Hz - 22 kHz) Distortion (THD & N) Gain Range Max Input (Mic) Line Input Gain Range Max Input (Line) Channel Fader Range Aux Send Gain Range Equalization Hi shelving Hi Mid shelving Mid sweep Lo Mid shelving Lo shelving Lo Cut (High Pass) filter Channel Direct Out Max Output Noise @ Unity Gain Output Impedance Channel Insert Max In / Out Channel to Channel Crosstalk Subgroup Section Noise Submaster Output Max Out Fader Range Main Mix Section Noise Max Output Aux Returns Gain Range Aux Sends Max Out General Distortion (THD & N) Frequency Response Physical Dimensions (H \* W \* D) Net weight Electronically balanced, discrete input configuration -129.0 dBu, 150 Ohm source -117.3 dBq, 150 Ohm source -132.

0 dBu, input shorted -122.0 dBq, input shorted 0.007% @ +4 dBu, 1 kHz, bandwidth 80 kHz +10 dB to +50 dB +12 dBu Electronically balanced Unity to +40 dB +22 dBu +10 dB to -85 dB Off to Unity to +15 dB 12 kHz +/-15 dB, Q fixed at 2 oct. 3 kHz +/-15 dB, Q fixed at 2 oct. 100 Hz - 8 kHz +/-15 dB, Q fixed at 1 oct.

500 Hz +/-15 dB, Q fixed at 2 oct. 80 Hz +/-15 dB, Q fixed at 2 oct. 75 Hz, 18 dB/oct. +22 dBu -94 dBu 120 Ohm +22 dBu -95 dB @ 1 kHz Bus noise @ fader 0 dB: -102.5 dB (ref.

: +4 dBu); -92.5 dB (ref.: +4 dBu, all channels assigned and set @ Unity Gain) +22 dBu balanced/unbalanced +10 dB to -85 dB/off Bus noise @ fader 0 dB: -101.0 dB (ref.: +4 dBu); -92.5 dB (ref.: +4 dBu, all channels assigned and set @ Unity Gain) +28 dBu balanced, +22 dBu unbalanced off to Unity to +20 dB +22 dBu 0.007 %, @ +4 dBu, 1 kHz, Bandwidth 80 kHz; 20 Hz - 40 kHz, +/- 1 dB any input to any output: 10 Hz -120 kHz +/- 3 dB ca. 2 3/8" / 6" (61/152.4 mm) x 17 1/8" / 19" (435.

6/482.6 mm) x 14" (355.6 mm) 7.5 kg BEHRINGER is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or shown.

10. SPECIFICATIONS 21 EURORACK MX2642A 11. WARRANTY § 1 WARRANTY CARD/ONLINE REGISTRATION To be protected by the extended warranty, the buyer must complete and return the enclosed warranty card within 14 days of the date of purchase to BEHRINGER Spezielle Studioteknik GmbH, in accordance with the conditions stipulated in § 3. Failure to return the card in due time (date as per postmark) will void any extended warranty claims.

Based on the conditions herein, the buyer may also choose to use the online registration option via the Internet ([www.behringer.com](http://www.behringer.com) or [www.behringer.de](http://www.behringer.de)). § 2 WARRANTY 1. BEHRINGER (BEHRINGER Spezielle Studioteknik GmbH including all BEHRINGER subsidiaries listed on the enclosed page, except BEHRINGER Japan) warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (1) year from the original date of purchase, in accordance with the warranty regulations described below. If the product shows any defects within the specified warranty period that are not due to normal wear and tear and/or improper handling by the user, BEHRINGER shall, at its sole discretion, either repair or replace the product. 2. If the warranty claim proves to be justified, the product will be returned to the user freight prepaid.

3. Warranty claims other than those indicated above are expressly excluded. § 3 RETURN AUTHORIZATION NUMBER 1. @ @ All inquiries must be accompanied by a description of the problem. BEHRINGER will then issue a return authorization number. 2. @ @ 3. Shipments without freight prepaid will not be accepted. § 4 WARRANTY REGULATIONS 1. @ @ @ 2.

If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country which is not the country for which the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship. The warranty does not cover any such modification/adaptation, irrespective of whether it was carried out properly or not. Under the terms of this warranty, BEHRINGER shall not be held responsible for any cost resulting from such a modification/adaptation. 3. Free inspections and maintenance/repair work are expressly excluded from this warranty, in particular, if caused by improper handling of the product by the user. This also applies to defects caused by normal wear and tear, in particular, of faders, potentiometers, keys/buttons and similar parts. 4. Damages/defects caused by the following conditions are not covered by this warranty: s misuse, neglect or failure to operate the unit in compliance with the instructions given in BEHRINGER user or service manuals. s connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used. s damages/defects caused by force majeure or any other condition that is beyond the control of BEHRINGER.

5. Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the warranty. 6. If an inspection of the product by BEHRINGER shows that the defect in question is not covered by the warranty, the inspection costs are payable by the customer. 7.

Products which do not meet the terms of this warranty will be repaired exclusively at the buyers expense. BEHRINGER will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 6 weeks after notification, BEHRINGER will return the unit C.O.D. with a separate invoice for freight and packing. Such costs will also be invoiced separately when the buyer has sent in a written repair order. § 5 WARRANTY TRANSFERABILITY This warranty is extended exclusively to the original buyer (customer of retail dealer) and is not transferable to anyone who may subsequently purchase this product. No other person (retail dealer, etc.) shall be entitled to give any warranty promise on behalf of BEHRINGER. § 6 CLAIM FOR DAMAGES Failure of BEHRINGER to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of BEHRINGER exceed the invoiced value of the product. § 7 OTHER WARRANTY RIGHTS AND NATIONAL LAW 1. This warranty does not exclude or limit the buyers statutory rights provided by national law, in particular, any such rights against the seller that arise from a legally effective purchase contract. 2.

The warranty regulations mentioned herein are applicable unless they constitute an infringement of national warranty law. The information contained in this manual is subject to change without notice.



[You're reading an excerpt. Click here to read official BEHRINGER MX2642A user guide](http://yourpdfguides.com/dref/2302057)  
<http://yourpdfguides.com/dref/2302057>



*No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording of any kind, for any purpose, without the express written permission of BEHRINGER Spezielle Studiotechnik GmbH. BEHRINGER, EURORACK and EURODESK are registered trademarks. ALL RIGHTS RESERVED. © 2000 BEHRINGER Spezielle Studiotechnik GmbH. BEHRINGER Spezielle Studiotechnik GmbH, Hanns-Martin-Schleyer-Str. 36-38, 47877 Willich-Münchheide II, Germany Tel. +49 (0) 21 54 / 92 06-0, Fax +49 (0) 21 54 / 92 06-30 22 11. WARRANTY .*



[You're reading an excerpt. Click here to read official BEHRINGER MX2642A user guide](http://yourpdfguides.com/dref/2302057)

<http://yourpdfguides.com/dref/2302057>