Ghost Typical Specifications

INPUT CHANNEL

Microphone input

Sensitivity range for 0VU output: -8dBu to -60dBu
Maximum input level: +14dBu
Input impedance: 2k ohm
Common Mode Rejection Ratio (CMRR) 1kHz: -90dB @ sensitivity -30dBu

Line input

Sensitivity range for 0VU output: +12dBu to -40dBu
Input impedance: 2k ohm
Common Mode Rejection Ratio (CMRR) 1kHz: -60dB @ sensitivity 0dBu

Insert send & return

Nominal level: -2dBu
Maximum level: +22dBu
Maximum send load: 2k ohm

Direct Output level

Channel output selected: -2dBu
Group output selected: +4dBu / -10dBV link selected

Tape Return input

Sensitivity at calibrated centre detent: +4dBu
Tape trim range: +4dBu to -60dBu
Common Mode Rejection Ratio (CMRR) 1kHz: -60dB @ Calibrated detent

Low Cut Filter

Frequency: 100Hz
Type of filter: 3 pole, 18dB per octave

Equaliser section

HP EQ turnover frequency: 12kHz
Maximum boost/cut: +/−15dB

MASTER SECTION

Nominal levels

Group output level: +4dBu / -10dBV linked
Group fader level: +22dBu
Aux output level: +4dBu
UFX output level: +4dBu
UFX insert level: +22dBu
UFX B output level: +4dBu
Output level: +4dBu
Channel & Mix B output level: +4dBu at maximum 0dBu outputs
2 TRS inputs: +4dBu
Stereo return inputs: +4dBu

Bus noise

22Hz-22kHz Channel fader down: -90dBu
Group fader at unity, nothing routed: -90dBu
24 channels routed, channel faders down: -90dBu
32 channels routed, channel faders down: -90dBu

Dimensions and weights

CH Overall width: 1059.36mm (41.71"")
Height: 230.7mm (9.09"")
Weight: 44.0/97lb

24 exp. Overall width: 881.52mm (34.61"")
Height: 230.7mm (9.09"")
Weight: 33.0/73lb
EVERYTHING YOU EVER WANTED IN A MIXER... AND MORE

Designing good audio mixers has never been easy – but with the widespread use of ultra-quiet digital recorders, and improvements all through the live and studio audio chain, today’s mixers have to stand up to closer sonic scrutiny than ever before. At the same time, mixing has become less a process that takes place at the console alone, and more one that involves feedback effects, samplers, and synchronisation of audio and video recorders. It’s a big task for a mixer to keep in touch with all of that – which is why Soundcraft created Ghost, the ultimate affordable analogue recording console. Simply put, Ghost is the only desk that delivers the audio precision, quality and all the control features of a big studio desk without the usual prohibitive price ticket.

The EQ, for instance, is directly comparable to that of the classic Soundcraft 3200 and Europa consoles. No compromises. An all-new mic preamp, ProMic, has been developed just for Ghost. Its performance alone puts Ghost into a different league from other consoles of similar price.

The killer punch, however, is delivered by Ghost’s integral computer-based machine control and mute automation. Derived from the innovative Soundcraft DC200 post-production console, the machine control in Ghost makes it far more than just another mixer. It actually forms the heart of an automated recording setup with countless benefits in ease of use and production efficiency.

Read on and discover just what Ghost will do for you.

QUALITY AND VERSATILITY

Ghost is a highly versatile 8-bus mixer, packed with facilities for handling a wide range of recording and mixing applications. Whether for studio or live recording, or mixing for picture, this is a console that offers unparalleled flexibility and value.

Ghost is an in-line multitrack mixer with a Mix B path (often called monitor path), as well as the main signal path on each channel strip. It’s called “Mix B” because the architecture of the signal routing is much more flexible than that suggested by the term “monitor”, offering many of the features normally found only on a main input channel. Unlike many mid-range consoles, Ghost doesn’t restrict facilities such as muting and EG to the main channel path.

24 and 32 channel frames are available, providing 56 and 72 inputs respectively at midgain. In addition, using the 24 channel expander unit, a further 48 inputs at midgain are possible. There’s signal level indication on each channel as standard, plus an optional meterbridge with 12-segment channel meters and 20-segment left/right master meters, for more precise metering. Ghost’s audio path combines traditional analogue benefits, and innovations like Soundcraft’s latest high-performance ProMic mic preamp, with automated muting on both the main channel and Mix B paths. The automation is based on the advanced technology used on Soundcraft’s groundbreaking DC200 console, and proven in both professional recording and post-production environments.

Unlike other mixers, Ghost’s ProMic mic amplifier offers smooth control over a wide gain range – up to 60dB. It’s amazingly quiet, giving greatly improved noise performance in the mid-gain region, with enough headroom for peaks from drum kit mics, and extremely low distortion figures.

EG is a crucial part of a mixer, and the EG on Ghost is designed without compromise – two fully parametric overlapping mid bands, with shelving high and low filters. Classic ‘British EQ’, in fact, like that found on Soundcraft’s acclaimed 3200 and Europa consoles. The result is unsurpassed ability to control and correct – for creative effect in a recording session, or applying corrective EQ to an awkward live signal.

Bring able to swap main and Mix B inputs, and split the EG between the two paths, Ghost allows a high degree of control over a mix. Professional features on the channel strip include individually switchable phantom power, phase reverse and plenty of aux sends – 10 aux buses including 2 stereo pairs in all. There’s level and peak metering on every channel, and both the main and Mix B paths have MUTE muting and PFL, while the main channel path also offers true solo-in-place.
GHOST PUTS YOU IN CONTROL

TRANSPORT AND AUTOMATION

As on the biggest studio consoles, Ghost’s master section offers full transport control for analogue and digital tape recorders, VTRs, and hard disk recorders, equipping it for remixing, mixing for picture, or live recording sessions. A built-in timecode reader/generator means that Ghost is compatible with professional audio or video equipment, supporting both MIDI timecode and SMPTE. (See table).

Ghost also has comprehensive MIDI support. Certain faders can be used to transmit MIDI controller data, for automated effects control. MIDI Sequencer transport functions can be controlled from the Ghost master section, and external MIDI data from a sequencer can be used to automate desk mute dynamically. Whether under MIDI control or switched by the desk’s own mute groups, all mutes benefit from ‘soft cut’ switching, effectively fading a signal in a few milliseconds (rather than cutting it instantly), thereby avoiding any sudden clicks or thumps. (Even some so-called ‘silent switches’ will introduce an audible ‘Fourier click’ if they operate too fast.)

Group faders 1 to 4 double up as MIDI faders, allowing the control of effects units or levels on digital audio systems — anything that can be controlled by MIDI continuous controller data. Transport controls use MIDI Machine Control or Sony 9-pin protocol for remote operation. LEDs above the Rew, FF, Stop, Play, Track Enable and Record buttons offer ‘tally back’ confirmation that a machine is responding. Ghost’s internal software supports a wide range of machines such as the Alesis ADAT, Tascam DA88, etc. See the table above, and Machine Control Notes inside back cover for further details.

Above the transport controls, four locate buttons let you jump to cue points, and the cycle facility will loop between points 1 and 4. Cue points can be set up either by entering them ‘on the fly’, or as the desk receives timecode, or by specifying precise timecode locations. To the left of the transport controls, an 8-character display shows incoming timecode, as well as providing a display facility to set up and edit the desk’s MIDI fader facilities.

A third mode displays the snapshot number currently recalled. 128 of these ‘snapshots’ record all channel and Mix B mute settings, plus MIDI fader set up, and MIDI program change information. Snapshots can be referenced to incoming timecode, or recalled directly using their program change number. Mute settings can also be stored against the four multi-function buttons, which act like four mute groups, laying their stored mutes together when several are called at once. It is sometimes useful to assign groups of channels in this way, especially in a live situation.

THE JOG/SHUTTLE WHEEL

When supported by a recording machine, the jog/shuttle wheel allows an operator great precision in locating edit points – the points in a song, or in video post-production the points in a film, where some change is required in the mix. The wheel provides a very quick and intuitive means of scanning backwards or forwards, or even stepping frame-by-frame through a song or video tape.

MACHINE CONTROL

Ghost offers totally integrated machine control facilities. The CPU in Ghost’s master section provides full remote control – with autolocation points – of audio tape recorders, VTRs or digital audio workstations. Without even turning away from your mixer you can drop tracks into and out of record and loop, while Ghost’s mute automation constantly locks to incoming timecode. You can even scrub video and audio with the jog/shuttle wheel.

SOUNDCRAFT GHOST MACHINE CONTROL NOTES

<table>
<thead>
<tr>
<th>Protocol support</th>
<th>Timecode source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine/Transport</td>
<td>Timecode master</td>
</tr>
<tr>
<td>Tascam Master</td>
<td>LTC</td>
</tr>
<tr>
<td>Tascam Slave</td>
<td>Internal</td>
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<tr>
<td>Fostex R-Series</td>
<td>MTC</td>
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<tr>
<td>Fostex G-Series</td>
<td>MTC</td>
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<tr>
<td>Tascam RD-8</td>
<td>LTC</td>
</tr>
<tr>
<td>Tascam DA88</td>
<td>LTC</td>
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<tr>
<td>Sony UVW1800</td>
<td>LTC</td>
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<tr>
<td>Sony 9-pin P2</td>
<td>LTC</td>
</tr>
<tr>
<td>Akai DR4/DR8</td>
<td>MTC</td>
</tr>
<tr>
<td>Alesis ADAT</td>
<td>MTC</td>
</tr>
<tr>
<td>Tascam DA88</td>
<td>MTC</td>
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MASTER SECTION

Ghost’s master section provides just as much in the way of output and monitoring control as it does transport and MIDI facilities. Each of the eight groups gets its own 100mm fader, with routing to the main stereo mix bus in mono or stereo (odd-numbered groups feed left, even-numbered groups feed right), and AFD Metering, for groups and the main stereo mix bus, is via 12-segment bargraphs above the CPU. Group inserts and ground-compensated group outputs are located on rear panel jack sockets. These, as well as the channel direct outputs, can be switched to +4dBu or -10dBV operation via an internal jumper option.

The main stereo mix output is a 100mm stereo fader, with a second rotary fader for the Mix B output. The stereo Mix B signal can be switched into the main mix bus, pre fader, when you want to use Ghost's full input potential at minimum.

The four stereo effects return each have a PFL solo facility with precision level and balance pots. Each can be routed to the main mix bus and to any of the four pairs of sub-groups.

Aux sends are on ground-compensated jack outputs, with a rotary fader and AFD solo for each bus; auxes 7/8 and 9/10 are combined on two stereo send pots.

The master output section allows the use of several sets of studio and control room speakers, and headphones. In addition to the main mix output and Mix B outputs, there are two sets of Control Room outputs, allowing you to switch between two alternative sets of monitors at the flick of the Alt switch. Both Main and Alt outputs can be summed to mono, to check mono compatibility.

The source for the Control Room outputs is switchable between Main Mix and Mix B (both post-master faders), and two sets of 2-track tape inputs. Two Sets of Studio outputs, A & B, are also provided. Each has its own level control, and can be sourced from the Control Room monitor signal, Mix B, or from the Aux 1 & 2 outputs. Two sets of headphones can be used; one via the main headphones output, which disconnects the control room speaker outputs, whilst a second can be driven from the Studio B outputs.

See System Configuration diagrams for examples. Ghost's talkback section allows the built-in intercom mic to be momentarily routed to the studio outputs, to auxes 1 & 2, or to the main stereo mix and group outputs. A level control is provided.

As well as PFL/Solo-in-place switching, there’s also a trim control for the output level of PFL and AFD solo, to control room outputs.

On the rear panel, each channel offers balanced XLR mic and balanced 1/4" jack line inputs to the main channel path, a balanced jack Mix B in, jack tape send, and jack insert point (pre-fade, pre-EQ). Phantom power is individually switched on each mic input, rather than in blocks of 8 or more. The routing of Main and Mix B input signals to the two channel paths can be reversed for more control over the Mix B signal – at minimum, for example.

Mix input gain is variable from +6 to +15dB. The Mix/Solo switch selects either mic or line level input to the channel. Line input gain is from -12dB (for very high levels) to +6dB. Mix B also has a trim control, offering adjustable gain variation.

The main channel path provides Phase Reverse, essential for full control in live recordings or any application where the phase of signals may vary, and a 3-pole (18dB/octave) 10kHz low cut filter to treat low frequency vibrations.

The EQ section of Ghost offers an unprecedented level of tonal control for a console in this class, with two fully parametric mid bands in addition to the high frequency and low frequency bands. The mid bands overlap, offering a high degree of flexibility, covering 250Hz - 1.5kHz and 400Hz - 20kHz. Q is continuously variable from 0.7 to 6, with up to 15dB of cut or boost. The shelving HF and LF bands operate at 12kHz and 60Hz, with 15dB of cut or boost. If both the main and Mix B channel paths are being used simultaneously, both require a degree of EQ, then the LF and HF bands can be switched into the Mix B path.

A total of 10 aux buses are provided – six mono sends and two stereo. Auxes 1 & 2 are switched as a pair to pre or post-fade operation. Auxes 3 & 4 are post-fade, and can be switched as a pair from the main channel signal path to Mix B, making the latter much more than just a tape return path. Another switch re-routes the signal from these two pots to aux buses 5 & 6. The two sets of post-fader stereo sends, 7/8 and 9/10, are each controlled by a single pot, and follow the channel pan settings.

The main channel signal output level is set by a 100mm linear fader, designed for smooth operation, excellent attenuation and long life. Its construction and right-angled mounting are such that dust and dirt falling through the fader slot will not foul the slider track. Routing switches send the panned signal to the main stereo mix bus, or to any of four pairs of groups: 1 & 2, 3 & 4, 5 & 6, 7 & 8. The Mix B signal has rotary gain and level controls, and is sent only to the stereo Mix B bus. A Source button allows the Mix B pan and level controls to pick up, in place of the regular Mix B path, the post-EQ, pre fade main channel signal – for an additional stereo aux send, perhaps, or a stereo monitor mix.

Ghost has all the connections required for multitrack recording. Tape tracks can be fed from the channel direct outputs, or switched individually on each channel to feed from the group busses which are allocated in blocks of eight (i.e. channels 1-8 from groups 1-8, channels 9-16 from groups 1-8, channels 17-24 from groups 1-8).

Both the main channel and Mix B path have solo and cut features. Mute settings can be individually switched, stored into snapshot memories in the master section for recall later at cue points, allocated to four internal mute groups, or remotely switched via MIDI.

INPUT CHANNEL

Channel metering is via a single LED next to the channel fader that glows brighter as signal level increases, augmented by a peak LED that measures four points in the signal path – at the output of the mid EQ bands, after the low-cut filter, after the HF and LF bands, and after the channel faders. For more comprehensive input level metering, an optional overbridge is available.

MIC AMP

Ghost’s ProMic is the best mic pre-amp Soundcraft has ever produced with much lower noise in the low and mid gain settings, high gain noise performance equal to consoles many times the price and superior mid gain performance.

The sensitivity control is super-smooth for fine adjustment of level, even at high gain. Ghost’s customised pot ensures that the gain range is equally distributed which means that getting the right gain setting is always easy.
Soundcraft have been making mixers for over 20 years, and throughout this time the Soundcraft EQ has remained at the top of the list of reasons why people love our desks, and why top artists rely on Soundcraft technology on stage and in the studio. Smoothness, musicality, and ease of use are qualities that appeal to engineers who use classic Soundcraft designs such as the 3200 and Europa – the same qualities are to be found on Ghost.

Whilst most parts of the mixer’s audio chain must alter a signal as little as possible, EQ has the tricky task of allowing tonal modifications to specific parts of a signal without affecting the rest, whether for bringing out the character of a voice or instrument, resolving elements in a mix, or correcting a troublesome signal. Ghost’s 4-band EQ section offers the same precision and warmth that Soundcraft consoles are renowned for – the classic attributes of British EQ. It’s accurate, consistent and reliable – the same control positions produce the same predictable results every time. The wide-ranging mid bands are fully parametric, allowing independent control of filter frequency, 15dB of cut/boost, and Q. Whether you need to bring up a broad range of frequencies, or notch out a narrow band, you can do it clearly and quickly. The lo-mid band covers the range 25–15kHz, and the hi-mid covers 400–20,000Hz, providing full coverage of the audio spectrum from the deepest bass to the upper limit of human hearing, with a very usable overlapping region. In reaching all the way down to 25kHz, the lo-mid band goes deeper than other parametric EQ filters. That gives Ghost the flexibility to cope with a wide range of musical and mixing styles, including modern dance music where control of ultra-low bass frequencies is important. Even the hi-mid reaches down to 40kHz, allowing both parametric bands to be applied to bass frequencies for even finer control.

Q, the measure of the filter’s bandwidth, is continuously variable from 0.7 to 6. As the response curves (see opposite) show, over the full range of settings the filter response remains even and smooth. Q and boost settings remain accurate even down to the lowest setting of 25kHz, delivering precise control over the full filter range. Thanks to custom-designed pots, there’s no ‘squeezing’ of range as you twist them all the way round (where a small movement of a pot near the end of its travel produces a large change in EQ than near the middle) – response remains even. The two mid bands are supported by LF and HF shelving filters, each with up to 15dB of cut or boost. Operating at 6kHz and 12kHz, they are perfectly placed to roll off or enhance the most important low and high frequency components without interfering with and muddying the mid bands. Whilst they complement the two mid bands perfectly, the frequencies chosen, and the wide range of those two mids, means that when the HF and LF bands are switched into the Mix B channel path, both channel signal paths are equipped with practical EQ facilities.

An EQ In/Out switch lets you hear what the channel sounds like with or without EQ – a valuable instant reference facility that no professional engineer would be without. Also, when switched out, the audio signal bypasses the EQ circuitry altogether, reducing the likelihood of noise. There are very good reasons why Ghost’s EQ performs to such a high standard. Each mid band on Ghost uses four op-amps, with high-grade bi-polar types for the main signal. Some desk designs attempt to achieve parametric performance with only three op-amps, but there’s a price: only a truly parametric EQ like Ghost’s preserves accurate gain values even when you push the Q and frequency settings to the limit, and only such a circuit will avoid distortion at extreme settings. The response of the Ghost EQ is at all times predictable, precise, and has the warm sound that has won Soundcraft praise from engineers around the world.

**SPLIT EQ**

With two inputs on each channel, split EQ means you can apply control where it’s needed. Normally all EQ bands affect the main path, but the high and low bands can be switched into Mix B – perhaps to lift high frequencies on a tape track.
A SOLID INVESTMENT

INTERNAL CONSTRUCTION

The construction of Ghost is based on individual vertical circuit boards for each channel, rather than on a single horizontal board. This allows more board space to be devoted to each channel strip, hence more components, and more flexibility. All pots are bolted directly to the front panel, so if a load is accidentally placed on the knobs, for example when a heavy object is dropped on them, then it's the metalwork that takes the strain – not the circuit board underneath. Vertical boards allow the desk to function even if an individual channel is removed, and make servicing and repair a good deal easier. Should anything need replacing, all components are readily available from Soundcraft distributors around the world.

Ghost's custom pots and faders are vital to its excellent audio performance. Properties such as end stop resistance (how much attenuation a knob offers at the end of its travel), and usable fader laws with predictable attenuation characteristics and smooth response, were among the key requirements specified by Soundcraft designers. The result is a mixer whose controls offer predictable, smooth operation across their full range, excellent attenuation, and low crosstalk.

BUILT TO LAST

Within the audio circuitry, you'll find bi-polar 5532 op amps – more expensive and requiring more power than the op amps most consoles use - but creating less noise and distortion. Not only are the components themselves superior in terms of audio performance, but their ability to drive lower impedance loads means that the signal path as a whole can be designed for lower inherent noise, one of the sources of which is impedance-related 'Johnson Noise'. All pots and faders have been specially designed for use on Ghost – no off-the-shelf components would meet the specifications required by our designers and yet still be small enough to pack all of the controls into Ghost's frame. Gold plated pins are used on the connectors of all boards to minimise noise in the audio path.

WHY BE PICKY ABOUT COMPONENTS?

High quality components ensure that an electronic circuit behaves as it is designed to. It is vitally important that no compromises are made in component selection as relatively small differences in their resistance or capacitance can have a disproportionate effect on a circuit. It is also important that the passage of time, changing temperature, or other changes in environment do not affect a component's performance – only high quality parts have the necessary stability.

Soundcraft is the world's leading manufacturer of professional mixing consoles, for applications ranging from film and TV post-production, through music recording, to live and installed sound. We know what professionals need in a mixer, and how to deliver it in a rugged, cost-effective design that is built to withstand a lifetime of hard work. Which is why, over 20 years after we started making them, thousands of Soundcraft mixers – including Europas, 3200s, Deltas, Venues and Viennas – are still going strong.
GHOST EXPANDER

Should you ever run out of inputs on your Ghost, there’s a simple solution – the Ghost Expander. This 24-channel extension module features removable side panels allowing it to be positioned flush alongside a Ghost or Ghost LE for configurations up to 56 inputs – a massive 120 separately controllable inputs on midmix. The channel strips are identical to those on the Ghost and Ghost LE, and the audio bussing integrates fully, via a single D-type connector and ribbon cable, with the right group busses, 10 aux sends, solo detection and solo-in-place functions on the main desk. Furthermore, when the expander is added to a Ghost, its MIDI and mute functions are integrated with, and controlled from, the main console’s master section.

GHOST LE

Ghost LE is a stripped-down version of Ghost, designed for users who do not need transport control or MIDI facilities. Channel strips are identical to Ghost, offering the same superb audio quality and facilities, and all audio facilities of the master section are also carried over. The CPU and its associated facilities, however, are omitted. Mutes can be switched manually, but there is no mute automation or mute grouping, and no machine control or MIDI support. Ghost LE is ideally suited to live recording and mixing, installed sound, or recording applications where little or no MIDI equipment is involved.
Ghost is designed to connect to multitrack tape machines via dedicated send and return jack sockets, avoiding the need to patch. Ghost's transport buttons will control tape transports via a number of protocols. Sound sources are connected to channels as required and input processors, such as compressors or gates, can be inserted into the channel path. Effects units are fed from auxiliary outputs in the master section and return via the stereo return inputs. Multiple outputs are possible, including the main monitor mix and secondary mixes for separate performance space headphones.

Many of the same machines and sound sources will be connected to Ghost as in the previous example. However, it is likely that these will include an external MIDI sequencer, which drives a number of sound modules and can also control the automatic mutes on Ghost. Additionally, there will be a VTR player, which will follow Ghost's Sony 9 pin protocol transport messages. Multitrack tape machines can be set to chase the VTR's timecode generator.

Composing to picture

Ghost can also be used for live PA work. Live sound sources are input in the usual way, treated as necessary by effects and dynamics processors connected to inserts and auxiliaries, and then output via a graphic equalizer to the main front of house speakers. Auxiliary mixes, switched per fade, can be used to provide monitor mixes to the musicians on stage – up to four separate mixes if using MidB as a pre fade stereo bus. The 4 mute groups, controlled from Ghost's onboard computer, are particularly useful in a live situation.

Live public address

At this stage, it is likely that the Main and MidB inputs will be swapped over so that the multitrack machines become the main sound source. Additional sound sources required at mixdown can also be connected via extra channels or via MidB paths. It is likely that a sequencer will still be controlled from Ghost, via MIDI, to generate input from sound modules. The end result is a stereo mix, recorded onto DAT or some other high quality mastering medium.
**EQ Curves**

- **Low frequency section**
- **High frequency section**
- **Low mid frequency section**
- **High mid frequency section**
- **Low cut filter**

**Ghost Machine Control Notes**

### Timecode Support
- The console will display the last timecode value sent by the tape machine.
- The console will display the last timecode value sent by the tape machine. If the tape machine is not sending any timecode, the console will display the last available timecode.
- To sync with timecode dropouts, the SMPTE reader 'flywheels' for a short period after which the timecode stops.

### Control Button Support
- To provide feedback to the console, transport controls buttons have the tape machine's transport buttons to indicate whether timecode is running, stopped, etc.

### MIDI Timecode Master Mode
- Ghost uses its own internal clock as a timecode reference for mixing. It also sends out MIDI timecode. This mode would normally be used with a tape machine that has no interface for the Ghost to control it, but which has SMPTE timecode recorded on one track.

### MIDI Timecode Slave Mode
- The automation follows incoming MIDI timecode. The transport buttons on the console indicate whether timecode is running, stopped, etc.

### MIDI Machine Control with MTC Mode
- This allows Ghost to work with a tape machine which can be controlled using the generic MIDI Machine Control (MMC) protocol and which sends the timecode out as SMPTE Longitude Timecode (LTC).

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### LTC Timecode (Master) Mode
- Ghost uses its own internal SMPTE generator as a timecode reference for mixing. It also sends out SMPTE from its MMC port, but this mode would normally be used with a tape machine that can chase timecode, but does not have specific transport control support.

### LTC Timecode (Slave) Mode
- The automation follows incoming MIDI timecode. The transport buttons on the console indicate whether timecode is running, stopped, etc.

### EQ Curves
- **Low frequency section**
- **High frequency section**
- **Low mid frequency section**
- **High mid frequency section**
- **Low cut filter**

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