

C2E

A 70s British broadcast-console channel EQ that can work on the middle or the sides of each band, and lets two bands move with the music.

A Lab plug-in. The Lab is where new GFX plug-ins are built in the open: they may change sound or controls between versions.



Overview

C2E is the EQ module from a 70s British broadcast desk: an input stage with transformer iron, high- and low-pass filters and four bands whose bells are proportional-Q, broad and gentle for small moves and tighter as you push them. It is the same sound as the Stable C2E.

This Lab version adds two things the desk never had. **M / S per band:** each band can work on the whole stereo signal, on the middle only or on the sides only, so you can

brighten just the sides, firm up the low end in the middle, or tame a harsh centre vocal without touching the room. **Two dynamic bands:** HMF (for tracks) and LMF (for the mix buss) can move only when their frequency gets loud, then let go. With every band on STEREO and DYN off, it sounds exactly like the Stable C2E.

DRIFT is the desk's power supply and iron: the supply rail wanders (the input stage's headroom breathes, with a tiny level wander) and each side's transformer core wanders on its own.

Reach for it for

- Vocals: presence and warmth, with a dynamic HMF to catch harsh notes
- Mix buss: a dynamic LMF that holds back boxiness only when it builds up
- Wider, brighter sides without a brighter centre
- Mono-solid low end: LF on MID, a cut on SIDE
- Console colour on its own (Desk Colour Only)

Controls

The header

PRESETS / < / >	The preset list, and the previous or next preset (wrapping round). Click the display for the list too.
BYPASS	Lit = bypassed: the output crossfades (15 ms) to the untouched input, so comparing never clicks.

INPUT and FILTERS

O/L	Lights when the input stage is being pushed into its headroom.
TRIM	-20 to +20 dB into the input transformer and op-amp stage. Push it for console colour.
PH	Flips the polarity.
HPF	20 - 400 Hz, 12 dB/oct; fully left is OFF.
LPF	2.5 - 20 kHz, 12 dB/oct; fully right is OFF.
F	Both filters in or out.

EQUALISER

IN	The whole EQ in or out (crossfaded).
M / S	Which part of the stereo signal the band works on: STEREO (cream), MID (amber) or SIDE (blue). Click it for the menu. A change glides like a knob, so it never clicks.
GAIN	-15 to +15 dB.
FREQ	HF 2.7 - 16 kHz, HMF 1.1 - 6.8 kHz, LMF 180 Hz - 2.4 kHz, LF 47 - 470 Hz.
BELL (HF, LF)	Lit = bell, dark = shelf.
DYN (HMF, LMF)	Makes the band dynamic. Its amber lamp glows as the band moves.
DEPTH (HMF, LMF)	-15 to +15 dB, threshold and range on one dial. The further from the "0" at the top, the lower the level where the band starts to act and the further it moves (up to DEPTH dB on top of GAIN). Left of centre cuts when the band gets loud; right of centre lifts it. It reacts in about 3 ms and lets go over about 120 ms.

The right strip

RESPONSE	The whole curve. When any band is on MID or SIDE it draws two curves, MID in amber and SIDE in blue; the dynamic bands are drawn where they are right now.
OUTPUT	-20 to +20 dB after the output transformer.
DRIFT	0 - 10 (3 = standard): power supply and iron wander.
IRON	Both transformers in or out.
PEAK	The highest output peak, held; click to clear.
IN / OUT	Level meters, -48 to +3 dB, OUT with a floating peak.

Knobs: drag up and down, double-click (or Ctrl-click) to return to the default. Every move is glided, so nothing clicks.

Presets

Init	Flat, iron in.
Vocal: Presence	HPF 80 Hz, air and presence, a little LMF and LF out.
Vocal: Warm Broadcast	Low warmth, a softer upper mid.
Kick: Thump + Click	LF bell at 65 Hz, LMF scooped, HMF click.
Snare: Crack	HF and HMF lift, LMF out, LF bell at 200 Hz.
Acoustic Guitar	HPF 120 Hz, sparkle, less boom.
Bass: Round	LPF 6.8 kHz, LF and upper-mid lift, LMF out.
Electric Guitar: Tame	A touch of drive, LPF 12 kHz, less fizz and mud.
Overheads: Air	HPF 140 Hz, 14 kHz air.
Telephone	250 Hz - 4 kHz band with a mid push.
Desk Colour Only	EQ out, +6 dB into the input stage.

Presets start every band on STEREO, with DYN off and OUTPUT at 0.

Tips

- Find the frequency with GAIN first, then turn DYN on and set DEPTH so the lamp glows only on the notes that bother you.
- On the mix buss, LMF on DYN with a small negative DEPTH clears boxiness only when the arrangement gets thick.
- HF on SIDE with a gentle lift widens without making the vocal brighter.

Latency: none.

File: gfx-lab-c2e.jsfx (needs gfx-lab-bypass.jsfx-inc beside it)