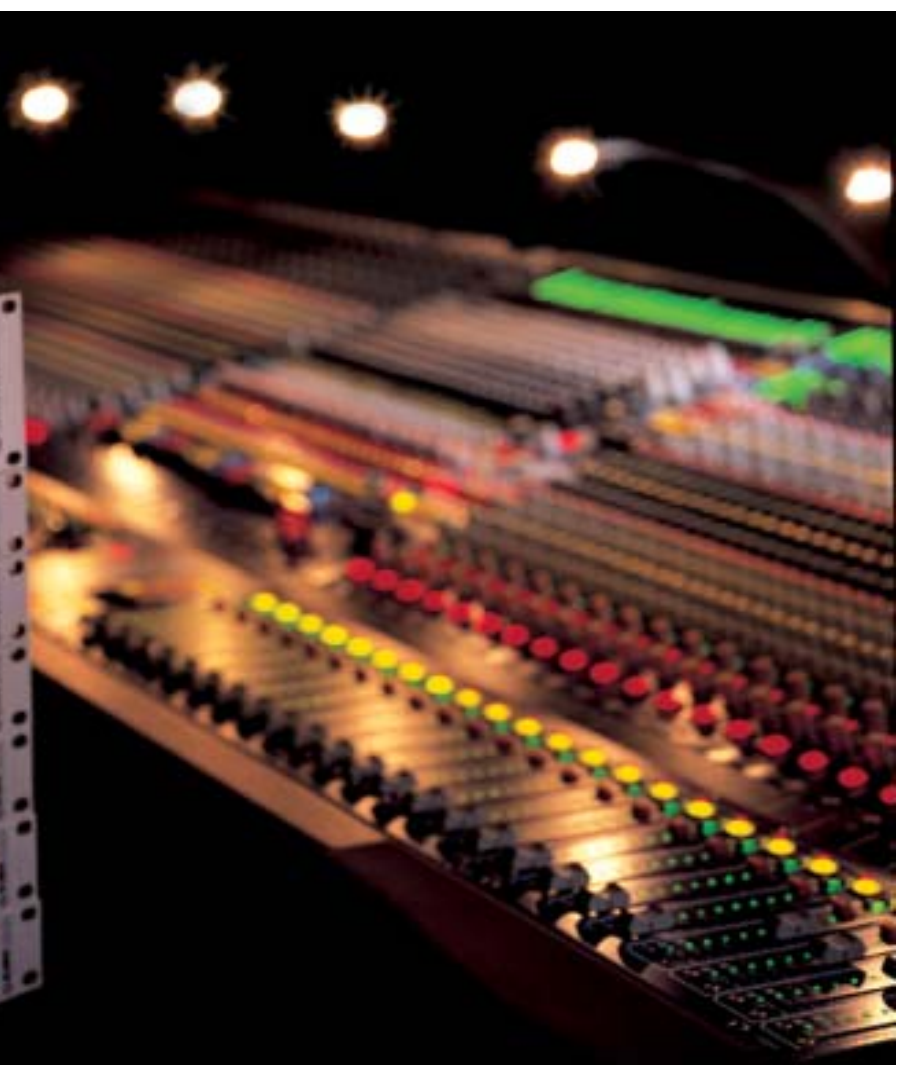


DN9340

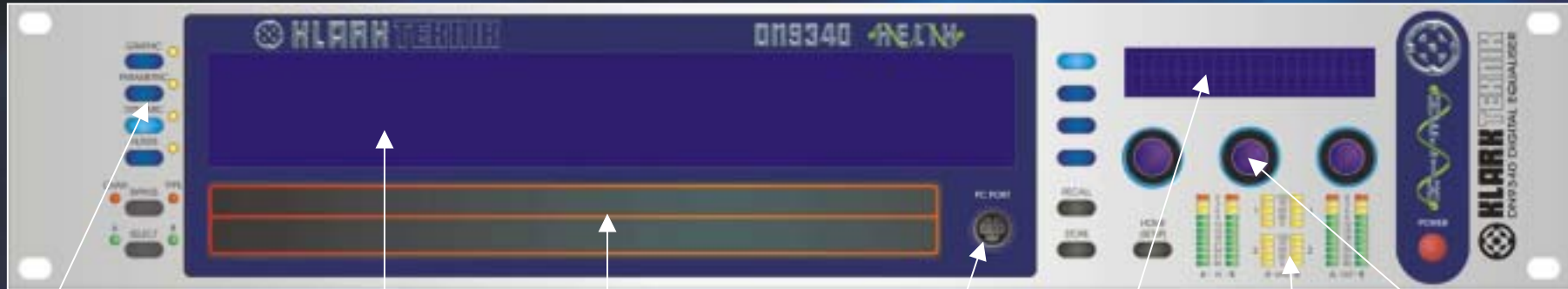


HELIX

What is Helix ??? It's a...

- ⊗ Five-mode dual 31-band **graphic** equaliser
- ⊗ Dual 12-band **parametric** equaliser
- ⊗ Four **configurable filters** per channel
- ⊗ Full function **delay line** per channel
- ⊗ Two **dynamic EQ** filters per channel
- ⊗ Numerous **supplementary** functions
- ⊗ ***EQ for every application, in any combination***





Main function keys

Split touch strip

Large, high-resolution LCD display

PC access

Secondary display

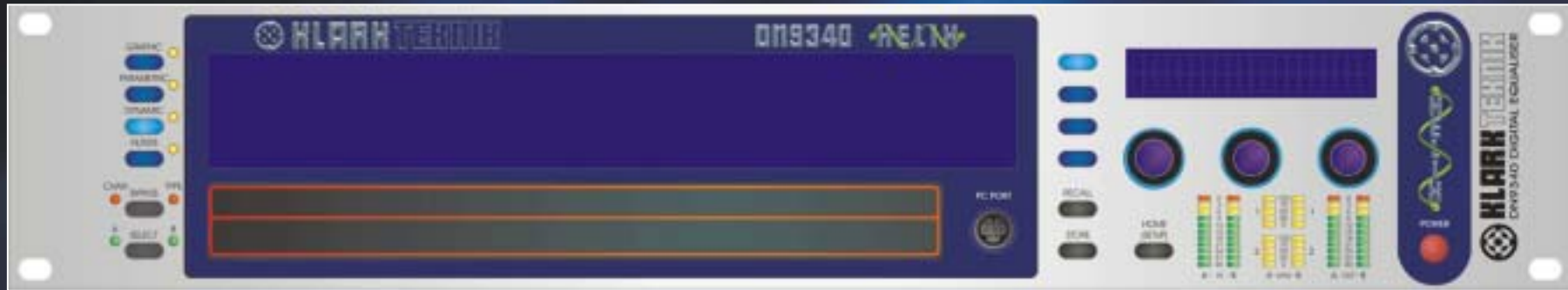
Full input, output and Dynamic EQ metering

Rotary encoders



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Touch Strip Operation



🌐 *Graphic EQ:*

- 🌐 One touch selects fader, values shown on small display
- 🌐 Upper strip boosts, lower strip cuts
- 🌐 Hold for continuous fader movement, fast in cut / slow in boost
- 🌐 Tap for +/- increments in 0.5dB steps (0.1dB on rotary)

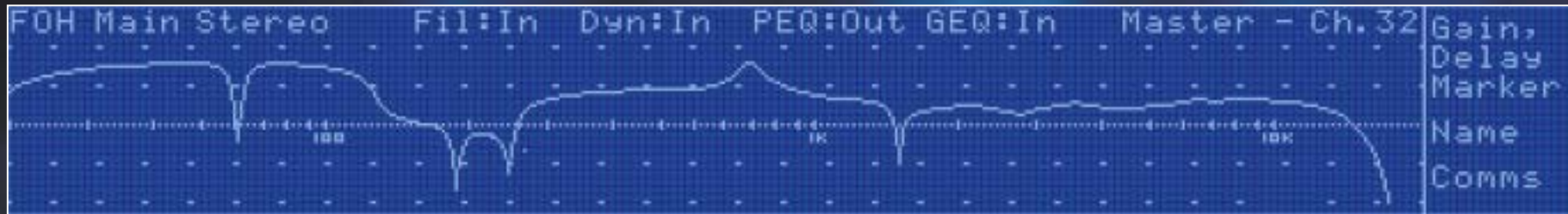
🌐 *Parametric / configurable filters / T-DEQ*

- 🌐 One touch selects filter, values shown on small display
- 🌐 Hold and slide to move filter



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Helix Home Page



- ⊗ Real time view of composite audio response of unit
- ⊗ Displays what functions are operative
- ⊗ Control overall gain and delay plus markers
- ⊗ Very easy to see what's going on...



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Graphic Equalisation Functions

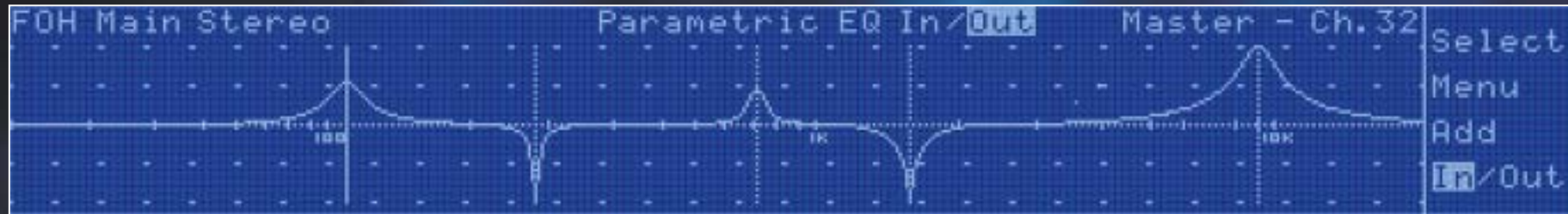


- ⊗ Dual 31-band graphic equaliser
- ⊗ Choice of Q: constant, symmetrical and proportional, plus DN360 and DN27 emulations
- ⊗ Apply an EQ curve then adjust the overall ‘Q’ and/or the graphic EQ type to suit the application.
Fantastic and Unique!
- ⊗ Individual channel, fader and overall function bypass



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Parametric Equalisation Functions

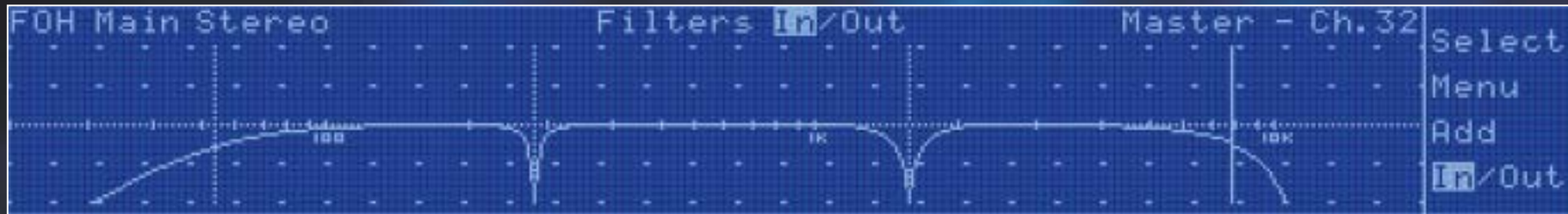


- ⊗ Dual 12-band parametric equaliser
- ⊗ All bands configurable 20Hz to 20kHz
- ⊗ Simple and intuitive operation via encoders and / or touch strip
- ⊗ Individual filter, channel and overall function bypass



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Configurable Filters

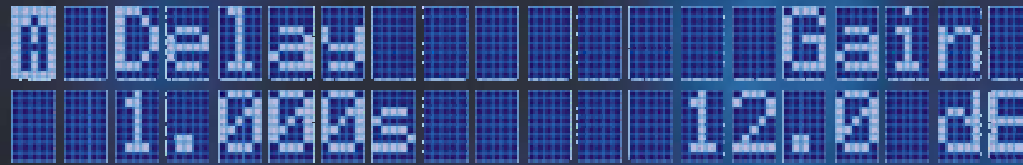


- ⊗ Four filters (up to 8th-order) available per channel
- ⊗ Each filter configurable to be:
 - ⊗ High pass / Low pass
 - ⊗ High shelf / Low shelf
 - ⊗ 12dB Notch with Q value of up to 150
- ⊗ Intuitive operation via encoders or touch strip
- ⊗ Individual channel and overall function bypass



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Delay Line



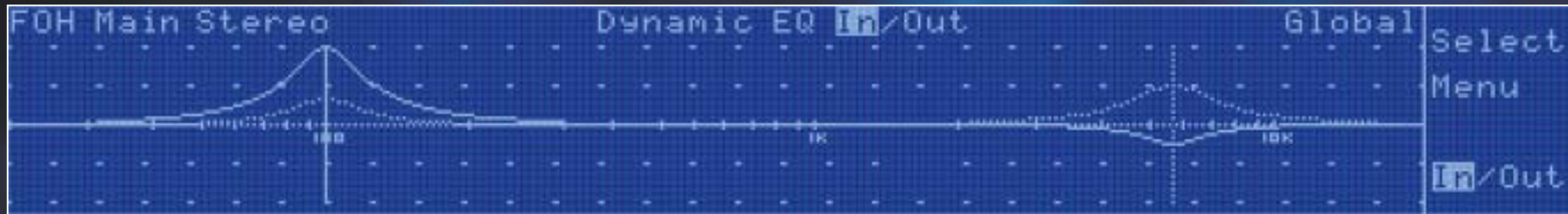
(small alpha numeric display)

- ⊗ Full function delay line per channel
- ⊗ Up to 1s delay available
- ⊗ Delay available in Time (milliseconds, microseconds) and Distance (feet / inches or metres)
- ⊗ Individual channel and overall function bypass



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Dynamic Equalisation Filters (T-DEQ)

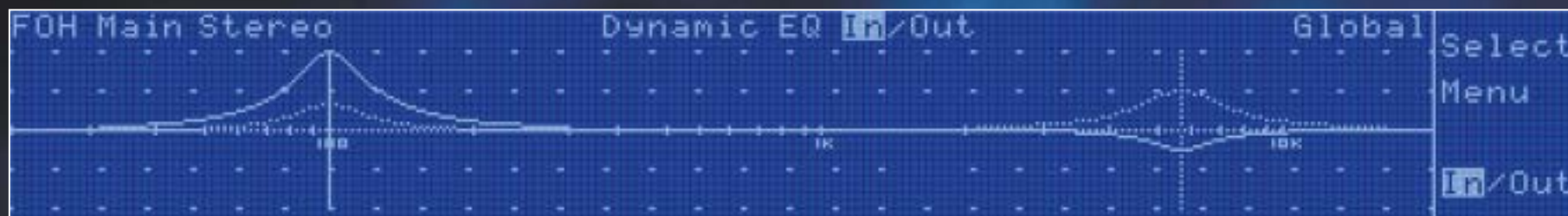


- ④ Unique functionality:
- ④ *THRESHOLD DEPENDENT EQUALISATION*
- ④ (**NOT** frequency-conscious compression)
- ④ Programmable in 4 steps:
 1. Select frequency to be controlled
 2. Select 'Q', attack and release values
 3. Select upper and / or lower threshold values
 4. Select upper and / or lower level values



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Dynamic Equalisation Filters



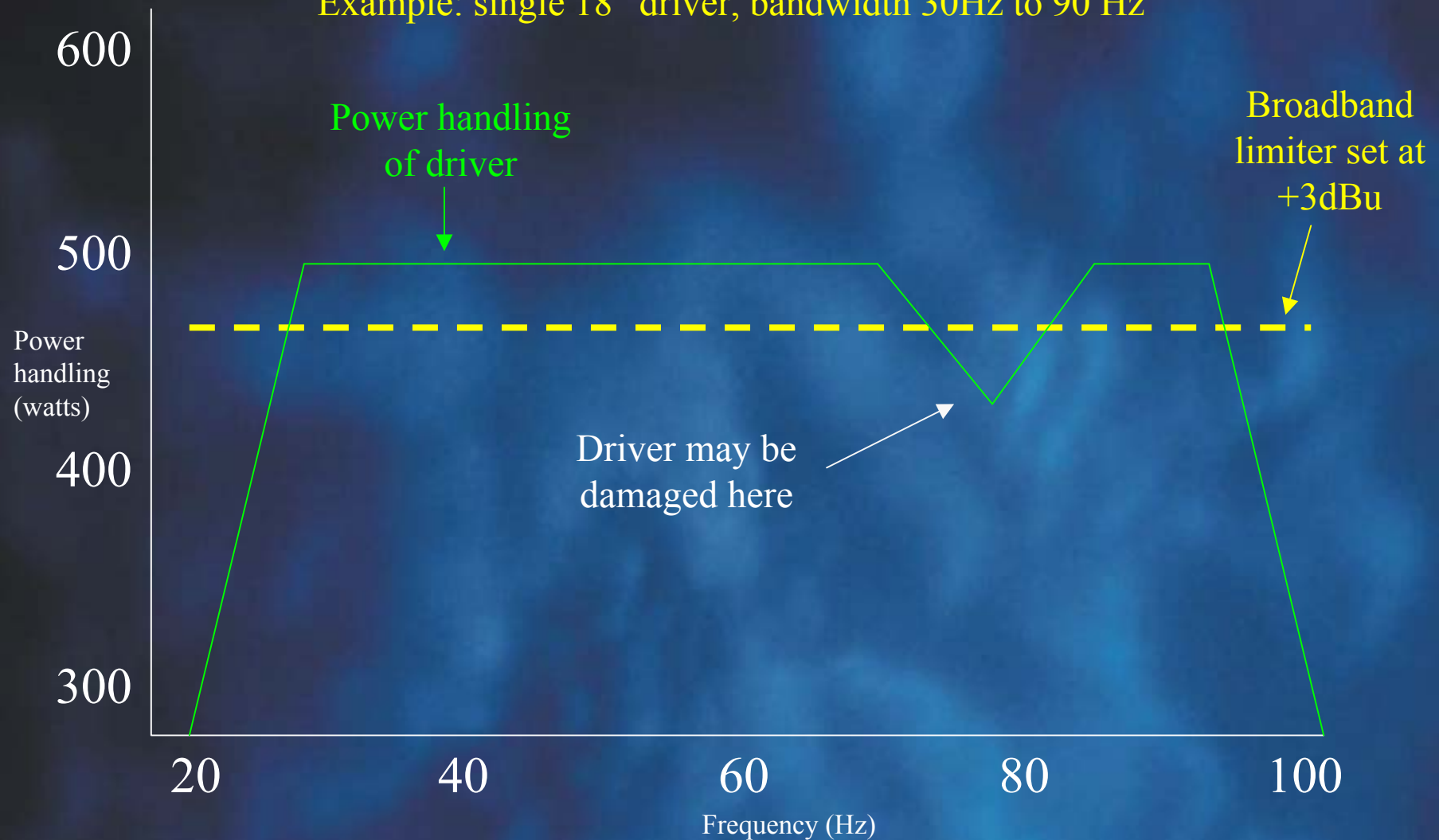
- ⊗ This means that any frequency can be programmed to be at a specific level when it reaches a chosen amplitude, i.e.:
- ⊗ At -30dB (= quiet), you want $+6\text{dB}$ at 80Hz for added bass at low level, but at 0dB (= loud) you want -3dB at 80Hz . Simply use one of the dynamic filters in HELIX to achieve this. Or...
- ⊗ Configure one filter to be a lower-threshold shelf with a suitable boost figure, then use as a channel insert to enhance quiet vocals. Or...



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Broadband limiter setting for driver protection

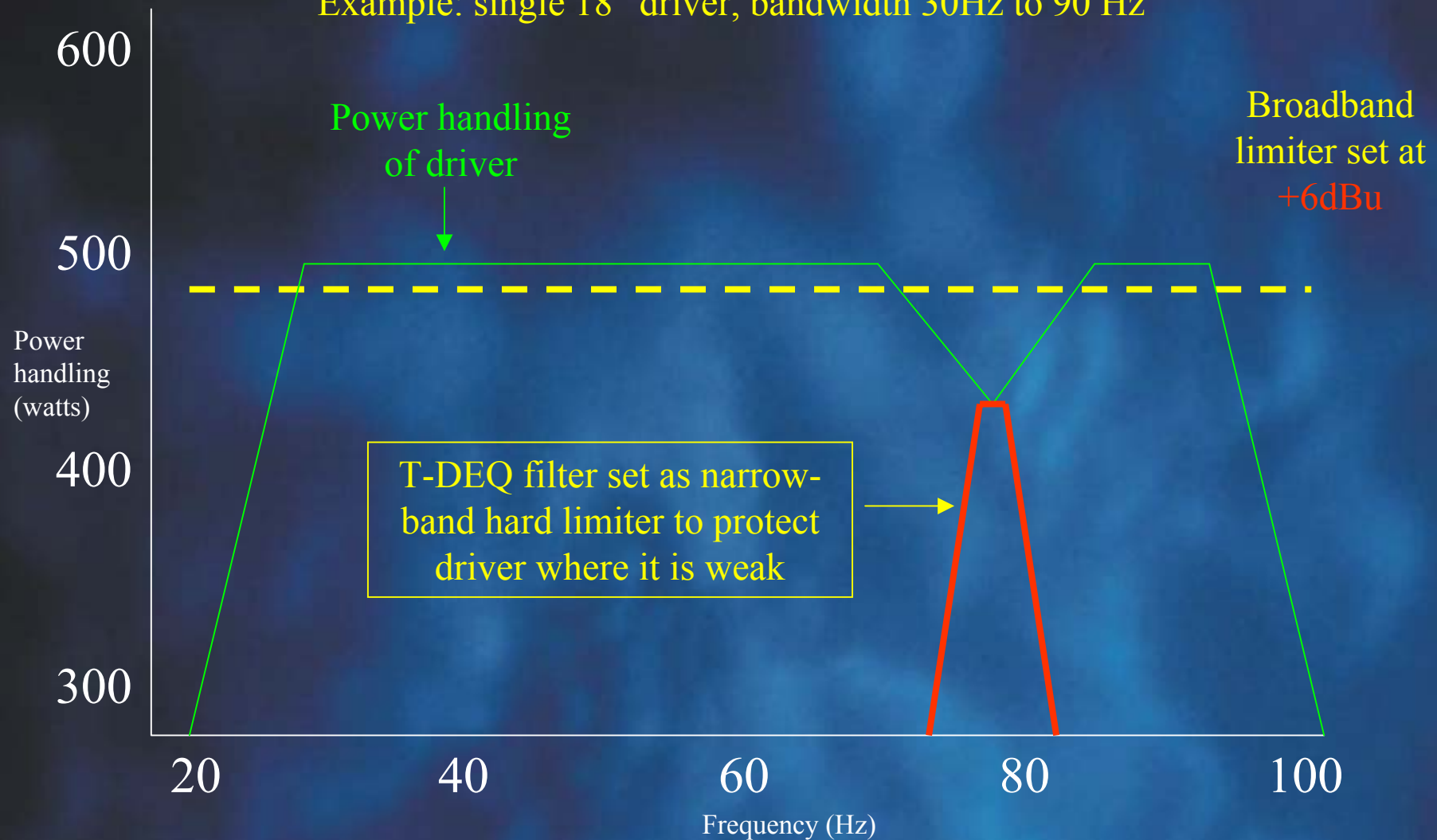
Example: single 18" driver, bandwidth 30Hz to 90 Hz



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Broadband limiter setting for driver protection

Example: single 18" driver, bandwidth 30Hz to 90 Hz



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Unique advantage of T-DEQ

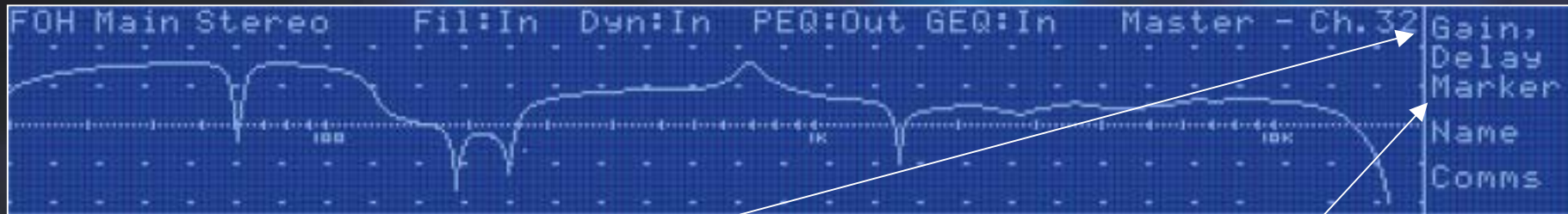
- ⊗ Because you can choose to limit only the specific frequency or frequency range you require, you can raise the broadband limiter threshold whilst using T-DEQ to protect the driver. This means:
- ⊗ **MORE POWER AND DYNAMICS**
- ⊗ **MORE PROTECTION AGAINST DRIVER FAILURE**

Impossible? Not with Helix!



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Supplementary Functions

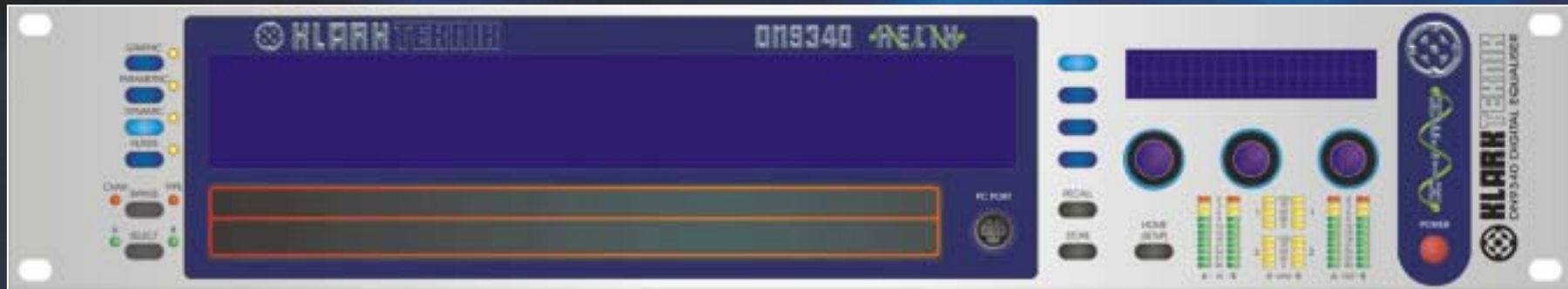


Auto-gain ranging, a feature unique to Klark Teknik. This automatically and instantly compensates for gain changes caused by cutting or boosting any frequencies. So your graphic EQ curve has no effect at all on the gain structure of the system – *NOTHING ELSE DOES THIS!*

Markers – 8 x user definable markers to indicate important or specific frequency points such as crossovers



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SYSTEM PERFORMANCE

- ⊗ Common Mode Rejection (CMRR): $>80\text{dB} / 1\text{kHz}$
- ⊗ Maximum input level: $+21.5\text{dBu}$
- ⊗ Maximum output level (into $>2\text{kohm}$): $+21.5\text{dBu}$
- ⊗ Distortion (THD+N at $+4\text{dBu}$, 20Hz - 20 kHz): $<0.01\%$
- ⊗ Dynamic Range (20Hz-20kHz unweighted): $>115\text{dB}$




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What else does Helix do?

‘AUTO-SOLO’

The world's greatest consoles,
linked to the world's greatest
EQ – at last!!!



Connect one DN9340 Helix to your **MIDAS** Heritage or Legend-series with a standard RS-232 9-pin cable...

...then link up to another **62** channels of Helix (masters and / or slaves) using standard microphone leads...

...program them to your particular application and make the audio connections as normal...



...then pressing any solo button sends a message via the RS-232 port that it has been activated, and this instantaneously brings the channel of Helix assigned to it into the control surface of the master unit!

This also means that you can have a rack of units remote from the mix position and just **one** Helix next to you for **all** your system EQ!

Just when you thought it couldn't get any better..



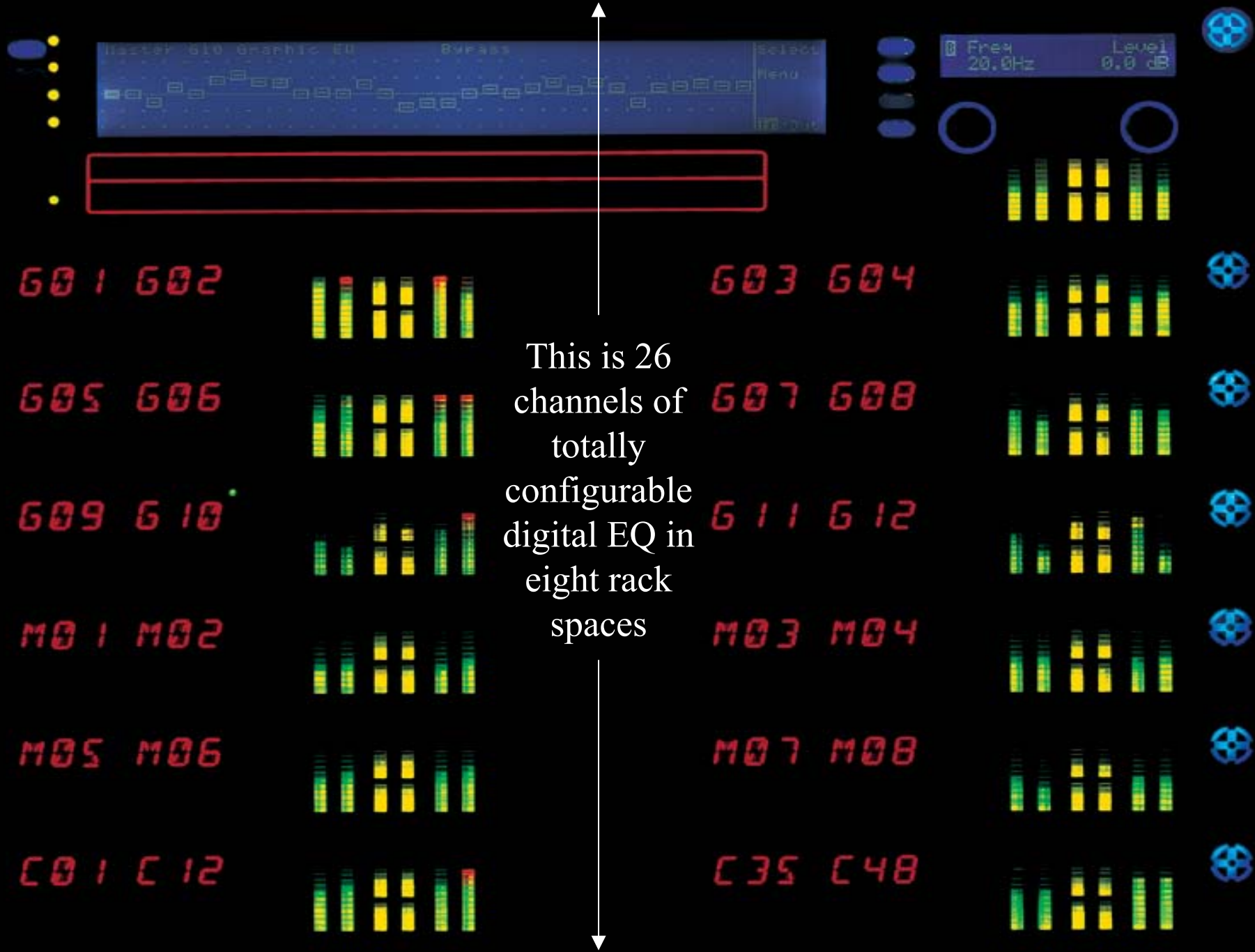
DN9344 HELIX Slave Unit

DN9344 Slave Unit

- ⊗ Two DN9340 Helix units (4 channels) in a 1RU device
- ⊗ Stereo linkable for IEM and other applications
- ⊗ Memory recall by contact closures on rear
- ⊗ Comms via RS-485 using standard XLR microphone leads
- ⊗ Integral replaceable scribble strips
- ⊗ ‘Me’ LED to show channel currently selected
- ⊗ Use to create any combination of EQ channels
- ⊗ Maximise usefulness of console linking facility
- ⊗ Extremely cost effective – about the same cost per channel as a first-class analogue graphic EQ!



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This is 26 channels of totally configurable digital EQ in eight rack spaces

Thank you for visiting...



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