# ibis



# OPERATOR'S MANUAL

## Version (-1)
## Dec 1, 2007

# CRANE SONG LTD.

# The basics

The IBIS equalizer can do some very different things.

First, each band has 24 frequencies.   12 switch positions and a "+ one step button" this button moves the frequencies up one whole musical step.  The high and low bands also can be shelving by pushing the shelving button.

The frequency chart showes how each of the bands over lap and how frequencies and musical notes relate.  As an example, with the +1 step button pushed in, the frequency moves up two positions on the chart.   32.7 Hz which is the lowest frequency will become 36.7 Hz

There is a dead zone of about plus and minus .3 db on the "boost / cut" controls where the EQ is flat in response.  This allows an easy way to set your bands flat.   The range is plus or minus 12 db and is not stepped.  The mastering version has a range of 6 db in .5 db steps with a 1 db step between 5 and 6.

The Bandwidth is not stepped on the standard version and is steped on the mastering version. the range is from 0.2 Oct to 4 Oct this is at 12 db of boost

The low cut is 12 db per octave, but the steep button increases the slope to 24 db per octave.

The filters are of a special type that provide a very clean and smooth sound.  To add flexibility to the equalizer a color knob is inculuded.

The color knob is an additive second / third harmonic distortion type of process, it can be applied to the full program or any one of the 4 bands.  When doing a "cut" it will subtract the harmonic content.   The Color Knob is not stepped on the standard version and is stepped on the mastering version

The use of the color function will allow you to change the equalizer from a very transparent sound to a colored sound.   Using it on the low frequencies, band 1, it will add warmth.  On band 3 it will add presence and some nice upper midrange detail.  On the high frequency band it will add air.

# IBIS FREQUENCY CHART

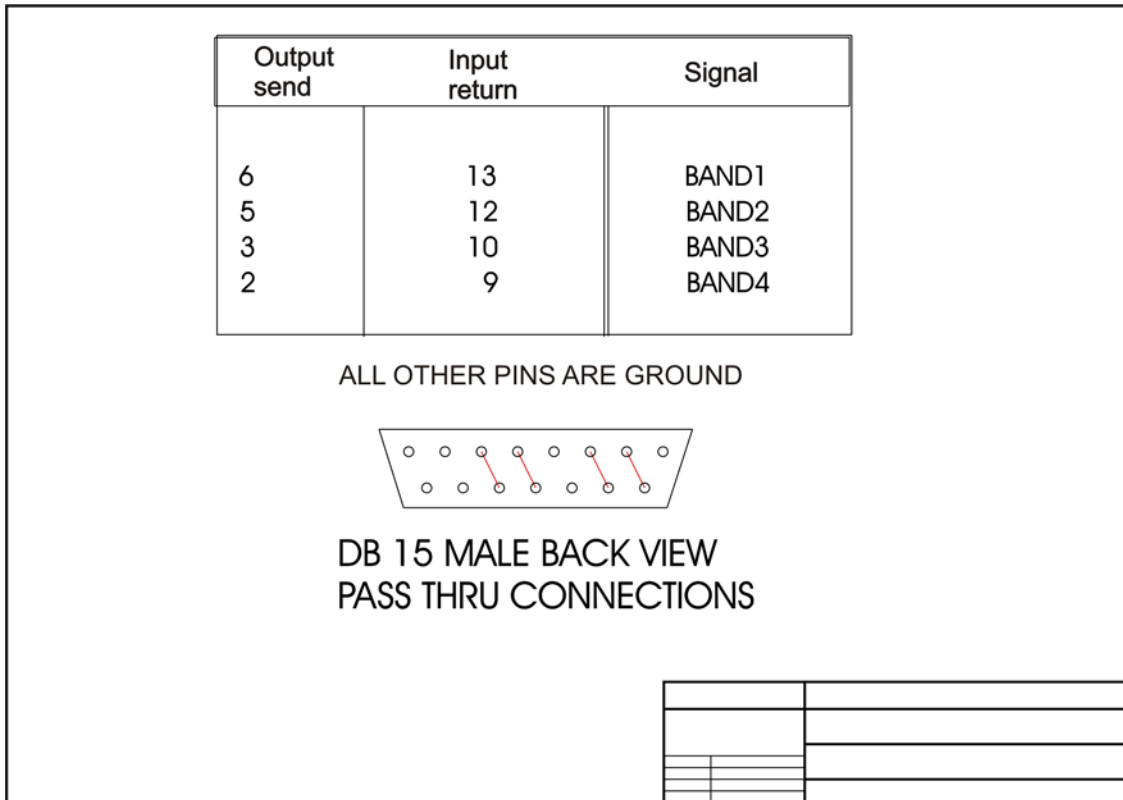| C | C# | D | D# | E | F | F# | G | G# | A | A# | B |
|---|----|---|----|---|---|----|---|----|---|----|---|
| 32.7 | 34.6 | 36.7 | 38.9 | 41.2 | 43.7 | 46.2 | 49 | 51.9 | 55 | 58.3 | 61.7 |
| 65.4 | 69.3 | 73.4 | 77.8 | 82.4 | 87.3 | 92.5 | 98 | 104 | 110 | 116.6 | 123.5 |
| 131 | 139 | 147 | 155.6 | 165 | 175 | 185 | 196 | 208 | 220 | 233 | 247 |
| 262 | 277 | 294 | 311 | 330 | 349 | 370 | 392 | 415 | 440 | 466 | 494 |
| 523 | 554 | 587 | 622 | 659 | 698 | 740 | 784 | 830 | 880 | 932 | 988 |
| 1047 | 1109 | 1175 | 1245 | 1319 | 1397 | 1480 | 1568 | 1661 | 1760 | 1865 | 1976 |
| 2093 | 2218 | 2349 | 2489 | 2637 | 2794 | 2960 | 3136 | 3322 | 3520 | 3729 | 3951 |
| 4186 | 4435 | 4699 | 4978 | 5274 | 5588 | 5920 | 6272 | 6645 | 7040 | 7459 | 7902 |
| 8372 | 8869 | 9397 | 9956 | 10548 | 11175 | 11839 | 12544 | 13289 | 14080 | 14917 | 15804 |
| 16744 | 17740 | 18794 | 19912 | 21096 | | | | | | | |

Band 1 + 1 step lowest frequency is 36.7 Hz
Band 2 + 1 step lowest frequency is 155 Hz
Band 3 + 1 step lowest frequency is 523 Hz
Band 4 + 1 step lowest frequency is 1760 Hz

# IBIS INSERT CONNECTOR

| Output send | Input return | Signal |
|---|---|---|
| 6 | 13 | BAND1 |
| 5 | 12 | BAND2 |
| 3 | 10 | BAND3 |
| 2 | 9 | BAND4 |

ALL OTHER PINS ARE GROUND

DB 15 MALE BACK VIEW
PASS THRU CONNECTIONS

If you are going to use this, use it with caution.  The inserts are a loop and must be normaled for the band to work correctly.  If there is a phase inversion in the inserted device it is possible that the system will be an oscillator.  This will not hurt Ibis, but  your Speakers.

IBIS INPUT ——— boost / cut amp ——— IBIS OUTPUT

Insert —Return
—Send
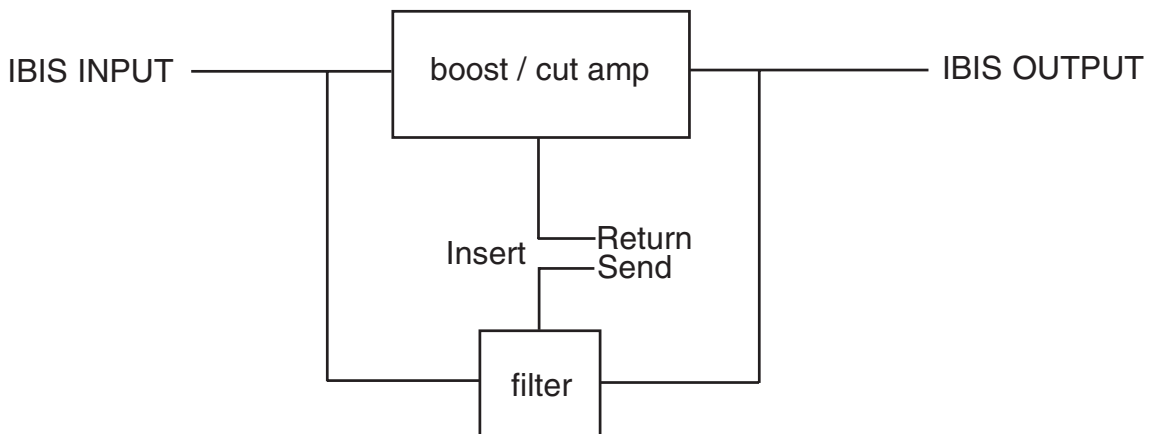
filter

There are 4 filter circuits in parallel in Ibis.  When using the insert with a compressor you are modifing the filter output before is sums back into the audio path.  The inserts are unbalanced

iBiS

CH1 IN OUT  CH2 IN OUT  POWER ON OFF

BOOST  CUT  0  3  6  9  12  IN  12  9  6  3
BANDWIDTH  .5 OCT  3.5 OCT  STEP  IN  +1  -1
LOW CUT  60  70  80  90  100  120  150  20  30  40  50
OUT  IN = STEEP
COLOR SOURCE  COLOR  0  1  2  3  4  5  6  7  8  9  10
BAND1  BAND2  BAND3  BAND4  FULL  OFF
FREQ 1  FREQ 2  FREQ 3  FREQ 4  ALL  OFF

D# 4.98K  G  B  G  D# 9.9K  B  G# 19.9K  G 1.57K  D#
F# 1.48K  A#  D 2.25K  F#  A# 3.73K  D  F# 5.9K  A# 466  F#  932
A 440  C#  F 700  A  A 880  C#  F  A 1.76K  C# 139  A 220
G# 104  C  E  G# 208  E  C 262  E  G# 415  C 33  G# 52

## INTERFACING

Input:                      Floating, balanced. Maximum input is +25 dBm.
                            The connectors are XLR.

Output:                     Floating, balanced. Maximum output is +25 dBm.
                            The connectors are XLR.

For *Input* and *Output* :   Pin 2 is  Sig + , Pin 3 is  Sig-  , Pin 1 is GND
Power:                      100, 120, 230,240 volt; 50/60 Hz; 55 watts
                            MDL .6A Fuse for 100V and 120V
                            MDL .3A Fuse for 230V and 240V

Pilot Lamp:                 # 327

Shipping
Weight:                     19 lbs. (8.6 kg)

Depth
Behind Panel:               12.5 inches  (31.75 cm)  plus cabling

Panel Height:               2 rack spaces