TECHNICAL DATA SURROUNDMONITOR 10800X
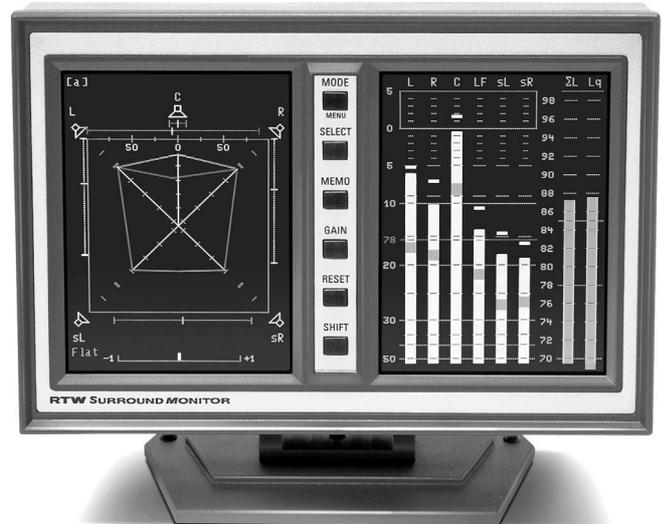
The RTW SurroundMonitor 10800X contains in a 215 x 145 x 65 mm compact desktop cabinet seven instruments visible on two colour-TFT-displays.

Surround sound analyzer	plus
Audio vectorscope	plus
Loudness-/ Leq-display	plus
8-channel Peakmeter	plus
Correlator	plus
Real Time Analyzer	plus
AES/EBU Status display	

The SurroundMonitor 10800X features balanced analog inputs as well as AES/EBU digital inputs. Comprehensive menus allow a user defined configuration of the instrument to meet with the requirements of the application. This settings may be saved to or recalled from memory as user-presets.

Surround Analyzer	Audio-Vectorscope	Loudness Leq	Peakmeter Correlator	RTA Status	Analog Digital	8-channel

TECHNICAL SPECIFICATIONS

General

Supply voltage:	+24 V/800 mA (power-up current: 1.4 A)
Dimensions:	203 x 170 x 60.5 mm
Weight:	1200 g
Connector:	2 x Sub-D-25p-f, 1 x Sub-D-9p-f 1 x flange connector type 710
Operating temperature:	0° to +45° Celsius
Displays:	• active colour matrix-LCD • viewing direction 9 o´clock • active display area: 75 x 102 mm • contrast: 1:60 • viewing angle: ver. ±65°; hor. +40 to -65°
Colour of display:	selectable via menu
Inputs:	routing via menu • analog: bal. > 10 kΩ • digital: AES/EBU; x-former bal., 110 Ω, 32 - 96 kHz
Standby-mode:	backlight cut off • 10 min; 60 min; inactive

Peakmeter

Display mode:	2ch, 8ch, surround 3/1, surround 3/2 (5.1)
Scales:	• DIN-5, DIN-10, NORDIC, BRITISH IIa or IIb, VU, 0 to -60 dB FS, 0 to -20 dB FS, Zoom 2, Zoom 20, +18 bis 0 dB, +18 bis -18 dB, +20 bis -40 dB
Integration time:	norm; 1 ms; 0.1 ms; sample
Operation mode analog:	• +20 dB-gain for DIN, VU • +40 dB-gain for NORDIC, BRITISH
digital:	• headroom -5 to -20 dB, in 1 dB-steps selectable • overload display, wordlength and number of samples adjustable • Operation field adjustable 0 - 15 dB below headroom • +40 dB-gain • DC/HP-Filter 5 Hz, 10 Hz, 20 Hz, OFF
Peakhold:	display of peaks
Peakhold time:	'auto' approx. 2,5 s, 4 s and 'manual'
Numerical level display:	switchable

Loudness/Leq

Display:	selectable
Calibration:	SPL reference 72 - 80 dB (single channel)
Total loudness/SPL:	70 - 98 dB (without LF channel)
Weighting filters:	A, C, CCIR-2k, (fast or slow) RTW, all RMS
Leq:	loudness versus time (manually)

Surround sound analyzer

Surround formats:	3/1 or 3/2 (5.1), LF only as PPM
Function:	weighted loudness display (A, C, CCIR-2k, RTW)
Indicators:	• graphics display indicating the single channel and total program loudness (TVI) • Correlation adjacent channels • Dominance vector • position and width of phantom sound sources (PSI) • 2-channel audio vectorscope • 4-channel audio vectorscope (L-R, LS-RS) • Low frequency LS-RS phase meter

Correlating display

Mode:	spot/bargraph
Attack time:	1.0 s or 2.5 s
Frequency range:	wide range or LP 300 Hz (only surround)

Audio vectorscope

AGC:	Auto/manuell
Viewing area:	70 x 70 mm
Calibration mode:	graduated scale 90°, 20°

Real Time Analyzer

Frequency bands:	31, 1/3 octav
Frequency range:	Normal: 20 Hz - 20 kHz, LF: 5 Hz - 5 kHz
Display areas:	15 dB, 30 dB, 45 dB
Integration time:	fast/medium/slow, RMS, Peak
Standard:	acc. IEC 225 (CLASS II)
Peakhold:	display of peaks

AES/EBU-Status-Monitor

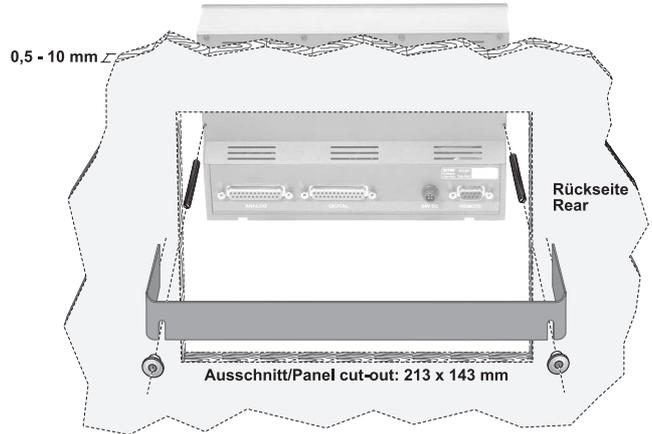|	
Status information:	digital channel pairs 1-2, 3-4, 5-6, 7-8
Audio data bit display:	activity of digital audio data bits
Display modes:	hexadecimal, binary, plaintext

Items delivered

SurroundMonitor 10800X:	• operating manual
	Order number: 10800X
SurroundMonitor 10800X-PLUS:	• operating manual • power supply • table stand
	Order number: 10800X-PLUS

215 mm

65

145

142,5

27

123

212,5

REAR

Analog   Digital   24V DC   Remote
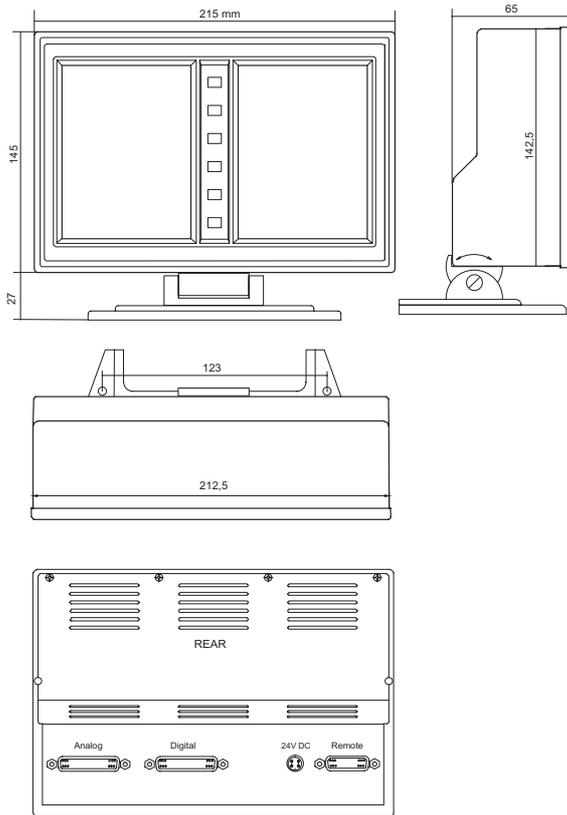
Option: Panel mounting kit 13715
Instrument is not included.

0,5 - 10 mm

Rückseite
Rear

Ausschnitt/Panel cut-out: 213 x 143 mm

CONNECTION

The SurroundMonitor is connected up as follows:

Remote control connector:

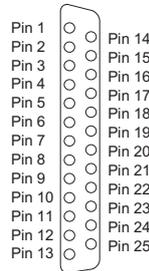| Pin:	Function:
1	common potential for ext. switches-Gnd
2	external function selection: select
3	external function selection: gain
4	external function selection: shift
5	for future use
6	external function selection: mode - menu
7	external function selection: memo
8	external function selection: memo reset
9	for future use

Pin 1   Pin 6
Pin 2   Pin 7
Pin 3   Pin 8
Pin 4   Pin 9
Pin 5

Power supply connector
Pin assignment:

1-2	+24 V
3-4	0 V

3 1
4 2
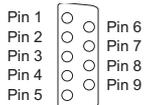
Analog inputs

Pin:	Function:
24	audio input analog 1 (+, hot)
12	audio input analog 1 (-, cold)
25	screen/case
10	audio input analog 2 (+, hot)
23	audio input analog 2 (-, cold)
11	screen/case
21	audio input analog 3 (+, hot)
9	audio input analog 3 (-, cold)
22	screen/case
7	audio input analog 4 (+, hot)
20	audio input analog 4 (-, cold)
8	screen/case
18	audio input analog 5 (+, hot)
6	audio input analog 5 (-, cold)
19	screen/case
4	audio input analog 6 (+, hot)
17	audio input analog 6 (-, cold)
5	screen/case
15	audio input analog 7 (+, hot)
3	audio input analog 7 (-, cold)
16	screen/case
1	audio input analog 8 (+, hot)
14	audio input analog 8 (-, cold)
2	screen/case

Pin 1   Pin 14
Pin 2   Pin 15
Pin 3   Pin 16
Pin 4   Pin 17
Pin 5   Pin 18
Pin 6   Pin 19
Pin 7   Pin 20
Pin 8   Pin 21
Pin 9   Pin 22
Pin 10   Pin 23
Pin 11   Pin 24
Pin 12   Pin 25
Pin 13

Digital inputs

Pin:	Function:
24	audio input digital 1 (+, hot)
12	audio input digital 1 (-, cold)
25	screen/case
10	audio input digital 2 (+, hot)
23	audio input digital 2 (-, cold)
11	screen/case
21	audio input digital 3 (+, hot)
9	audio input digital 3 (-, cold)
22	screen/case
7	audio input digital 4 (+, hot)
20	audio input digital 4 (-, cold)
8	screen/case
18	audio output digital 1 (+, hot)
6	audio output digital 1 (-, col)
19	screen/case
4	audio output digital 2 (+, hot)
17	audio output digital 2 (-, cold)
5	screen/case
15	audio output digital 3 (+, hot)
3	audio output digital 3 (-, cold)
16	screen/case
1	audio output digital 4 (+, hot)
14	audio output digital 4 (-, cold)
2	screen/case

Note: Digital I/O´s are in parallel, not active buffered.

COLOURS

Scale   RAL 7000 Squirrel grey
Case   RAL 7015 Slate grey

ACCESSORIES

Subject to technical changes without prior notice 04/2004

Power supply, Euro	Power supply, Euro, UK, US, AUS	Sub-D snake cable to XLR	Table stand	Mounting kit	Adapter kit for 190 mm mounting
Order no. 1169-R	Order no. 1174-R	Order no. 1186	Order no. 13710	Order no. 13715	Order no. 13716