

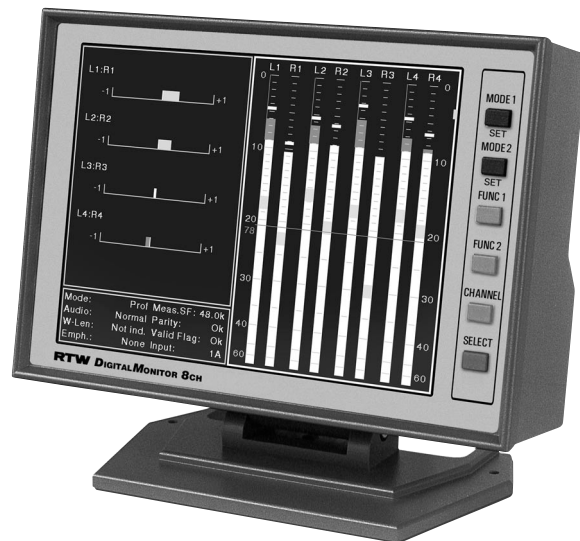
DigitalMonitor 8ch 10689-PLUS

GENERAL DESCRIPTION

The RTW DigitalMonitor 8ch 10689-PLUS contains in a 176,5 x 125,5 x 61,5 mm table-top case a digital 8-channel display unit with Peak Program Meter and 4-fold correlation display especially for digital stereo and multi-channel applications.

- 8-channel multi-standard peakmeter
- Loudness display
- Audio Vectorscope
- 4-fold Correlator
- AES/EBU Status display
- Stop Watch

The RTW DigitalMonitor 8ch 10689-PLUS features four AES-3 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.



8-Ch. Peakmeter • Loudness • Audio Vectorscope • 4-fold Correlator • AES/EBU Status • Stop Watch

TECHNICAL SPECIFICATIONS

General

Supply voltage:	+24 V DC
Current drain nominal:	290 mA (power-up current is much higher)
Operating temperature range:	0° to +45° celsius
Weight:	approx. 750 g
Connectors:	2 x 25-pin Sub-D-F 1 x 15-pin Sub-D (Remote) 1 x 15-pin Sub-D (VGA) 1 x 4-pin low voltage connector Binder 710 (DC)
Dimensions:	176,5 x 125,5 x 61,5 mm (without table stand)

Digital Inputs

Digital inputs:	4 (Stereo), AES-3, transformer balanced
Input impedance:	110 Ω or Hi-Z
Sample rate:	32 kHz to 96 kHz

Digital Outputs

Digital output:	4 (Stereo), AES-3, input signal looped through, unbuffered
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Display

Display:	VGA color TFT, 640 x 480 pixel, 132 x 99 mm
Colors:	8
Reversal direction:	12 o'clock
Viewing angle:	horizontal 60° typ., vertical 60° typ.
Contrast:	250 at reversal direction

Digital Peakmeter (PPM)

Level display:	up to 8 channels, peak hold indicator switchable, vertical display orientation
Viewing area:	68 x 98 mm (W x H)
Bargraph length:	90 mm
Display modes:	1 x Stereo, 2 x Stereo, 3 x Stereo, 4 x Stereo, 2-channel, 4-channel, 6-channel, 8-channel
Peak value memory:	maximum peak level, peak hold switchable, in 8-ch. mode for up to 4 stereo pairs
Correlator spot indicator:	switchable, in 8-ch. mode for up to 4 stereo pairs (at the bottom of each bargraph pair on the left)

Loudness meter:	additional spot indicator displayed on the bargraphs of the level display, RTW mode or A-, C-, CCIR-2k weighting, RMS
Scales digital:	Dig60dB: -60 to 0 dB FS, Dig20dB: -20 to 0 dB FS, Dig+18...-2 dB (+18 dB = 0 dB FS), Dig+18...-18dB (+18 dB = 0 dB FS), Dig+20...-40dB (+20 dB = 0 dB FS), ARD+9...-60dB (+9 dB = 0 dB FS)
Scales quasi analog:	qARD+9...-60dB, qDIN+10, qDIN+5, qNordic, qBR IIa, qBR IIb, qZoom +/-10 dB), qZoom +/-1 dB)
Headroom:	-5 to -20 dB, adjustable in steps of 1 dB
Integration time (Attack):	Scales digital: Sample, 0.1 ms, 1 ms, 10 ms; Scales quasi analog: according to standard or sample, 0.1 ms, 1 ms
Fall back time:	according to selected standard (1.5 s/20 dB for DIN)
Gain:	<ul style="list-style-type: none"> • Scales digital: +40 dB; • Scales quasi analog: +20 dB (qDIN scales, qZoom scales), +40 dB (qBritish, qNordic)
High pass filter:	OFF, 5 Hz, 10 Hz, 20 Hz
Peak hold indicator:	integration time same as level display or 1 sample (selectable)

Loudness display

Display:	switchable, spot indicators on bargraphs
Calibration:	SPL reference 72 to 80 dB (single channel)
SPL:	70 to 98 dB (stereo modes only)
Weighting filters:	linear, A, C, CCIR-2k, RTW loudness, all RMS (fast or slow)

Digital Errors

Digital Over indicator:	red spot indicators above each bargraph
Threshold:	FS, FS-1LSB, FS-2LSB, -0.1, -0.5, -1.0, -2.0 or -3.0 dB FS
Attack time:	1 to 15 samples
Word width:	16 to 24 bit

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Mute indicator: red spot indicators below each bargraph
Threshold: all bits digital „0“
Attack time: 50, 100, 200, 300 ms
Threshold level: 5 to 80 samples, adjustable in steps of 5 samples

4-fold Correlator

in stereo modes: up to 4 phase meters for up to 4 stereo pairs
Display mode: spot indicator or bargraph
Display length: 32 mm width
Scale range: -1 r to +1 r
Standard color setting: red: -1 r to -0.1 r
yellow: 0 r
green: 0.1 r to +1 r
Colors: selectable
Attack time: fast: 1.0 s, slow 2.5 s
Negative peak correlation memory: included in Peak Memory
Memory accuracy: better 0.1 r

Audio Vectorscope (Lissajous)

Viewing area: 40 x 40 mm (W x H)
Display colors: 8
AGC: auto
Modes: x/y or M/S
Time of persistence: fast, medium, slow

AES/EBU status display

Visible area: 61 x 18 mm or 61 x 80 (W x H)
Status information: locked, decoded AES/EBU status, parity, validity

Controls and Display Elements

Keys: MODE 1 (SET), MODE 2 (SET), FUNC 1, FUNC 2, CHAN, SELECT

ITEMS DELIVERED

DigitalMonitor 8ch 10689-PLUS:

- DigitalMonitor 8ch RAL 7024 graphite grey
- Table stand RAL 7024 graphite grey
- Mains adapter
- Operating manual

Order number: 10689-PLUS

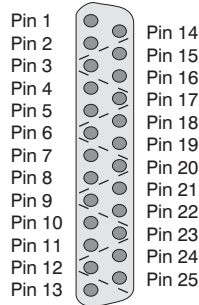
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CONNECTION

Input and Output connector (25-pin Sub-D-F)

Pin: Function:

7	in- resp. output digital 3 (+, hot)
20	in- resp. output digital 3 (-, cold)
8	shield/chassis
21	in- resp. output digital 3 (+, hot)
9	in- resp. output digital 3 (-, cold)
22	shield/chassis
10	in- resp. output digital 2 (+, hot)
23	in- resp. output digital 2 (-, cold)
11	shield/chassis
24	in- resp. output digital 1 (+, hot)
12	in- resp. output digital 1 (-, cold)
25	shield/chassis



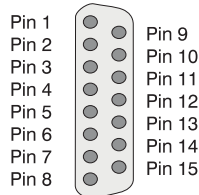
(External view of the connector)

Note: The incoming AES-3 signals are passive looped through from the input connector to the output connector.

Remote connector (15-pin Sub-D-F)

Pin: Function:

1	common potential for ext. switches - Gnd
9	external function selection: „FUNC 1“
2	external function selection: „FUNC 2“
3	external function selection: „CHAN“
6	external function selection: „MODE 1/SET“
7	external function selection: „MODE 2/SET“
8	external function selection: „SELECT“

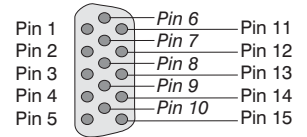


(External view of the connector)

VGA connector (15-pin Sub-D-F)

Pin: Function:

1	R Video signal
2	G
3	B
4	don't wire, for future use
5	GND
6	GND
7	GND
8	GND
9	don't wire, for future use
10	GND
11	don't wire, for future use
12	don't wire, for future use
13	H-sync
14	V-sync
15	don't wire, for future use



(External view of the connector)

Note: The connecting VGA cable has to be of 10 to 15 **maximum** length!

Power supply connector (4-pin low voltage type Binder 710)

Pin: Function:

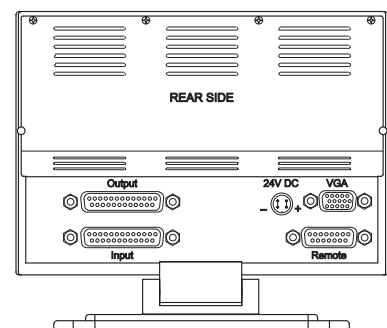
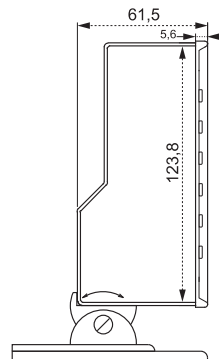
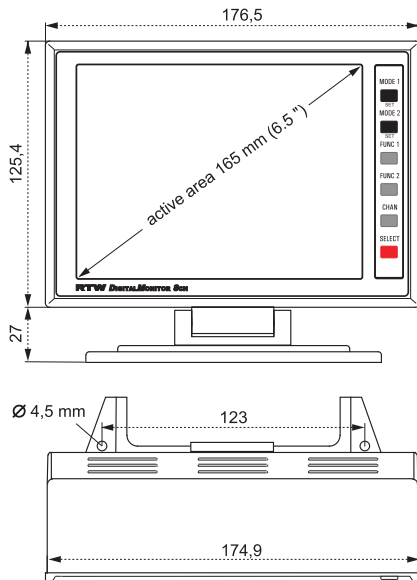
1-2	+24 V	3	2
3-4	0 V	4	1



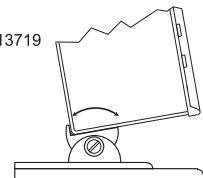
COLORS

Case: Graphite grey RAL 7024,
Scale: silver with black labelling

DIMENSIONS



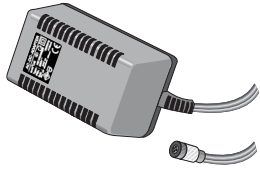
Tischfuß/Table stand 13719
(Ersatzteil/Spare part)



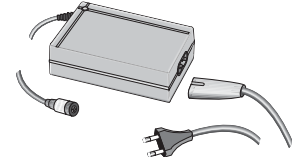
Abmessungen in mm/Dimensions in mm

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ACCESSORY COMBINATION



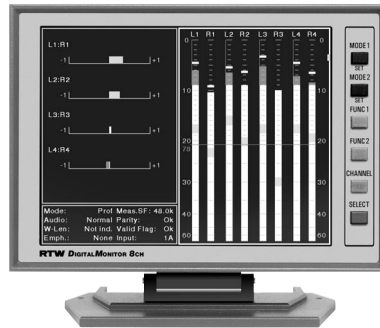
- Wide voltage power supply **1171-R**
90 - 240 V AC/24 DC, 630 mA
- Euro plug
 - Locking 4-pin low voltage connector



- Wide voltage power supply **1175-R**
100 - 240 V AC/24 DC, 2.7 A
- Corresponding power cable
 - Locking 4-pin low voltage connector



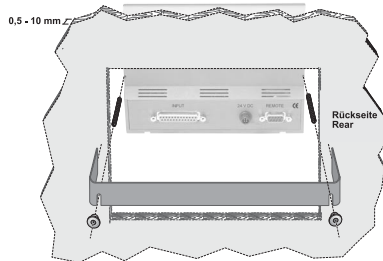
- 8-pair snake cable **1186**, 4 m
- Distributes 25-pin Sub-D connector to 8 XLR-F cable connectors
 - For connecting to "Input" connector



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Table-top unit



- 8-pair snake cable **1163**, 4 m
- Distributes 25-pin Sub-D connector to 8 XLR-M cable connectors
 - For connecting to "Output" connector



- Panel mounting kit **13713** for front panel installation
- Required panel cutout:
174,9 x 123,8 mm (B x H)
 - Panel thickness: 0.5 to 10 mm
(Instrument not included)

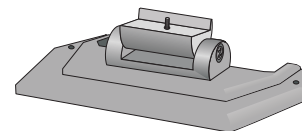


Table stand **13719**
(Spare part!)

Subject to changes without prior notice 02/2010