



DAB-Meter HD 7 Combo

user manual

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1. General

1.1 Genaral features

- Measurement of the following reception signals: DVB-S, DVB-S2, DVB-C, DVB-C2, DVB-T, DVB-T2, DAB and DAB+.
- Integrated rechargeable battery with low power consumption (long standby operation).
- 8.9-inch touchscreen colour display with very good representation even in direct sunlight.
- With the integrated receiver, the meter can play back all free-to-air TV programmes.
- Internal memory for saving data and various channel lists.
- Large digital display for signal level and quality for quick calibration.
- DiSEqC control monitor for reading out the device switching commands.
- Constellation diagram for a graphic display of modulated signals.
- Automatic detection of the DiSEqC settings of the system.
- Automatic satellite detection (NIT) immediately shows you which satellite you are on.
- Storage of measurement data for customised documentation
- LED on the back for measuring the system even in low light conditions.
- · Clear and easy to use on-screen menu.
- High-quality aluminium housing.

1.2 Delivery

- Satmeter HD 7 Combo
- Carrying bag with strap
- Carrying strap for measuring device
- Silicone protective cover
- 230 volt mains adapter
- 12 volt car charger
- F-coaxial adapter
- User manual

2. Designations and key assignment

Front view



Connections



2. Designations and key assignment

1. **Display** 8,9 inch (22,6 cm) Touch-Screen-Colordisplay

2.

- **DVB-S** 13V: The LED lights up when the 13V LNB power supply for the vertical plane is switched on.
 - 18V: The LED lights up when the 18V LNB power supply for the vertical plane is switched on.
 - 22k: The LED lights up when the 22k supply for the LNB is switched on.
- **DVB-T/C** 5V-T: The LED lights up yellow when the 5 volt power supply for DVB-T antennas is switched on.
 - 12V-T: The LED lights up yellow when the 12 volt power supply for DVB-T antennas is switched on.
- **3. INFO** CHARGE: The LED lights up red when the unit is charging. The LED lights up green when the unit is charged.
 - ERROR: The LED lights up if a fault has occurred on the cable or on the LNB (e.g. short-circuit).
 - POWER: The LED lights up when the unit is ready for operation.
- **4. TV** Switches to live TV playback.
- 5. LED Switches the LED light on the back on / off.
- 6. VOL + / Increases or decreases the volume in playback mode.
- **7. MENU** Switches to the main menu.
- 8. EXIT Exits the respective menu.
- 9. SEARCH Switches to the Satellite Finder.
- **10. STORE** Saves a screenshot of the current screen.
- **11. F-buttons** Function keys (depending on the menu item).
- **12.** *i* Overview of the current function assignment of the F keys.

Swipe gestures with the touch screen:

- Swipe your finger up or down to change channels.
- Swipe from the top left to the bottom right to open the channel list.
- By swiping from the top right to the bottom left, you can enter a programme number directly.
- Swipe from right to left to exit Live TV mode.

- 1. Connect the coaxial cable to the LNB or ANT input of the meter.
- 2. Switch on the meter. After booting, the main menu appears. The menu consists of various submenus.
- 3. Tap directly on the symbols in the display with your finger to enter the respective menus.
- 4. Press the EXIT button or TV to exit the respective submenus.



DVB-S/S2	Menu for DVB-S / -S2 / signal search.
DVB-T/T2	Menu for DVB-T / -T2 signal search.
DVB-C/C2	Menu for DVB-C / -C2 signal search.
DAB/DAB+	Menu for DAB / DAB+ signal search.
DiSEqC	Menu for checking the DiSEqC commands of a device (e.g. receiver).
Settings	Menu for basic settings on the meter.
Help	Menu for help or instructions for the meter.
Memory	Menu for the stored data in the meter.
Ĕ	Tap the symbol to switch to the playback programme menu. (Live TV)

3.1 Satellite (DVB-S / -S2)

	Satellite > Measure							2
1/20	Astra 19.2E	1/119	11910	Н 27500	CNR	20.0 dB	LKM	10.6 dB
1/20	East 19.2° 9750 / 10600	2/110	10720	V 22000	CBER	<1.0E-7	LBER	<1.0E-7
		2/119	10729	V 22000	Pilot Pattern	PP0	Orbit Position	13.0° E
2/20	HOTBIRD, 13 East 13.0°	3/119	10743	H 22000	TS Bitrate	68.160 Mbps	Frequency Offset	0.16 MHz
	9750 / 10600	4/110	10759	V 22000	Feed current	157 mA	Feed voltage	18.7 V
3/20	Astra 2	4/112	10738	v 22000	ONID	OX13E	TSID	0X24B8
	East 28.2° 9750 / 10600	5/119	10773	H 22000		•		
4/20	ASTRA 3	6/119	10788	V 22000				Q
	East 23.5° 9750 / 10600	7/119	10802	H 22000	38.4	l dBµV		Ð
5/20	Astra 4 East 4.8°	8/119	10817	V 22000	DVB-S2	8-PSK 5/6		

- All available satellites and the respective transponders are listed on the left side of the screen.
- Tap on the satellite range to switch to it. Tap and hold to open a pop-up dialogue. In this you can edit the satellite (name, direction and orbit).
- Tap the transponder area to switch to it. Tap and hold to open a pop-up dialogue. In this you can edit the transponder (frequency, polarisation and symbol rate).

<	Tap this symbol to exit the current menu or to go back one menu step.
	Tap this symbol to enter the spectrum analysis.
	Tap this symbol to enter the constellation analysis.
	Tap this symbol to enter the antenna settings.
	Tap this symbol to access the angle calculation and alignment of the mirror.
	Tap this icon to enter the transponder control. (Allows you to control selected TP).
Ð	Tap this icon to enter the zoom menu.
	This symbol is displayed when the signal of the selected satellite has been found.
	This symbol is displayed if no signal was found.
Q	Tap this symbol to enter the channel search parameter settings.

CNR	Shows the current C/N ratio of the signal.
LKM	Shows the current LKM value.
CBER	Shows the current CBER value.
LBER	Shows the current LBER value.
Pilot Pattern	Shows the current pilot pattern value of the signal.
Orbit position	Shows the current orbit position of the selected satellite.
TS Bit rate	Shows the current input bit rate of the signal.
Frequency-Offset	Shows the current offset value of the setting frequency and
	the live input signal.
Feed current	Shows the current feed current of the LNB port.
Feed voltage	Shows the current feed voltage of the LNB port.
ONID	Shows the original network identification of the signal.
TSID	Shows the transport stream identifier
38.4 dBµV	Shows the current power level of the input signal.
DVB-S2 8-PSK 5/6	Shows the current DVB system (e.g. DVB-S2), demodulation
	type and FEC value.
i	Press the key to display the help bar. This shows you the cur-
	rent assignment of the F keys.
F1-button	Press the key to enter the "Antenna settings" menu.
F2-button	Press the key to enter the TP control.
F3-button	Press the key to switch the display between $dB\mu V / dBm$.
F4-button	Press the key to mute the display.
STORE	Press the key to save a screenshot.

3.1.1 Spectrum



This submenu analyses and displays the live spectrum from 950 MHz ~ 2150 MHz.

		Tap this icon to exit the menu and return to the previous menu.
		Tap an area of the spectrum graph to display the detailed centre frequency and power level.
Reichweite +	Reichweite -	Tap these icons to narrow the frequency search range of the spectrum.
13 V	18 V.	Tap the respective LNB output voltage to switch between 13 V and 18 V.
22K Ein	22K Aus	Tap this symbol to switch the 22 K circuit on or off.
Los	Stopp	Tap on "Go" to start the live spectrum analysis. Tap on "Stop" to stop it.

3.1.2 Constellation



This submenu shows the constellation diagram of the live stream. All transponders are listed on the left side of the menu. Tap the display area of the transponder to switch to it.

<	Tap this icon to exit the menu and return to the previous menu.
Leistungspegel	Shows the current power level of the input signal.
DVB-S2 8-PSK 5/6	Shows the current DVB system (e.g. DVB-S2), demodulation type and FEC value.
Astra 19.2E	Shows the name of the current satellite.
CNR	Shows the current C/N ratio of the signal.
LKM	Shows the current LKM value.
CBER	Shows the current CBER value.
LBER	Shows the current LBER value.
Stromaufnahme	Shows the current current consumption of the LNB port.
Speisespannung	Shows the current feed-in voltage of the LNB port.

3.1.3 Antenna settings

Satelli	te > Dish Setup > As	stra 19.2E			2
	🚖 Universal	÷ 9750/10750	÷ 5150	÷ 5750	÷9750
LNB Туре	1 10600	÷ 10750	† 11300	† 11475	+ Customised
22К	∱ On	☆ Off	📩 Auto	1	
LNB Power	☆ 13V	☆ 18V	∱ Off	📩 Auto	
	☆ ^{None}	DisEqc1.0 Port 1	+ DisEqc1.1	+ SCR_port_A	+ SCR_port_B
Switch type	SCD2_port_A	SCD2_port_B	SCD2_port_C	SCD2_port_D	1
Moto Type	🚖 Fixed	TisEqc1.2	☆ USALS		

In this menu you can set the parameters of the satellite system.

	Tap this symbol to exit the menu and return to the main menu.
LNB type	Tap the respective value, matching the LNB settings (default: Universal).
22K	Select whether 22K is to be switched on or off.
LNB power	Select the LNB voltage (13 V, 18 V, off or automatic).
Switch type	Select "None" if the LNB is connected directly to the receiver.
	Select DiSEqC 1.0 / 1.1 if a DiSEqC switch or multi-switch is in operation. A pop-up window then opens in which further settings can be adjusted.
	Select SCR (Unicable 1) or SCD2 (Unicable II) if the system is operated with a Unicable system. A pop-up window opens in which further settings can be adjusted.
Motor type	Select here whether the system is operated with a motor or whether the antenna is permanently installed.

Motor-Einstellungen



in this menu you can set all parameters of the motor.

	Tap this symbol to exit the menu and return to the main menu.
	This symbol is displayed if the set signal was found.
	This symbol is displayed if no signal was found.

All available transponders of the selected satellite are listed on the left side of the screen. Tap on a transponder to select it.

dBμV	Shows the current power level of the input signal.
DVB-S2 8-PSK 5/6	Shows the current DVB system (e.g. DVB-S2), the demodulati-
	on type and the FEC value.
Astra 19.2E (z.B.)	Shows the name of the current satellite.
CNR	Shows the current C/N ratio of the signal.
LKM	Shows the current LKM value.
CBER	Shows the current CBER value.
LBER	Shows the current LBER value.
Feed current	Shows the current current consumption of the LNB port.
Feed voltage	Shows the current feed-in voltage of the LNB port.
Longitude	Shows the local longitude. Tap the value to edit it.
Latitude	Shows the local latitude. Tap the value to edit it.

DiSEqC-commands

TO THE EAST	Tap this area to send the command "Move East".
TO THE WEST	Tap this area to send the command "Move west".
STOP	Tap this area to send the command "Stop moving".
EAST LIMIT	Tap this area to send the command "Limit for movement to the east".
WEST LIMIT	Tap this area to send the command "Limit for movement to the west".
DEACTIVATE LIMIT	Tap this area to send the command "Deactivate limit".
MOVE TO CENTRE	Tap this area to send the command "Move to centre".
GO TO POSITION	Tap this area to send the command "Move to the right".
SAVE POSITION	Tap this area to send the command "Save position".

3.1.4 Angle calculation



This menu calculates the azimuth and elevation of the satellite antenna based on the current satellite setting and local position check. At the same time, the meter monitors the alignment progress of the antenna to help you set the antenna to the correct azimuth and elevation.



3.1.5 Transponder control

	Satellite > TP Cont	rol		٢	
	10714 H 22000	Power level	CNR	Quality	87%
1/8	DVB-S2	63.6 dBµV	9.1 dB	Quality	50%
	10729 V 22000	Power level	CNR	Quality	84%
2/8	DVB-S2	60.3 dBµV	12.5 dB	Quality	68%
	10743 H 22000	Power level	CNR	Quality	84%
3/8	DVB-S2	60.3 dBµV	12.5 dB	Quality	68%
	10758 V 22000	Power level	CNR	Quality	85%
4/8	DVB-S	61.2 dBµV	12.3 dB	Quality	67%
	11493 H 22000	Power level	CNR	Quality	86%
5/8	DVB-S2	62.7 dBµV	10.1 dB	Quality	55%
	11567 V 23000	Power level	CNR	Quality	86%
6/8	DVB-S	62.3 dBµV	13.1 dB	Quality	72%
	12363 V 27500	Power level	CNR	Quality	87%
7/8	DVB-S2	63.2 dBµV	9.9 dB	Quality	54%
	12460 H 27500	Power level	CNR	Quality	86%
8/8	DVB-S2	62.7 dBuV	13.2 dB	Quality	72%

This submenu shows you the current values of various transponders simultaneously. On the left side, the respective active transponders are displayed. Helpful tool for determining the levels. (Measuring the feed line multiswitch)

<	Tap this icon to exit the menu and return to the previous menu.
Power level	Shows the current power level of the input signal.
CNR	Shows the current C/N ratio of the signal.
Signal strength	Shows the current signal strength of the transponder in %.
Signal quality	Shows the current signal quality of the transponder in %.
	Tap this symbol to adjust the transponders. A new window opens in which you can add or remove transponders.

Transponder list:

The currently selected transponders are displayed at the top of the screen. The lower list shows the transponders that are still available.

Removes the transponder





+ Adds the transponder

3.2 Terrestrial (DVB-T / -T2)

<	Terre	strial Measure				Ĺ		
27/57	CH: 39	618.0MHz	CNR	32.0 dB	MER	19.7 dB		
	DVB-T2	8 MHz		5 AE-A		-1.05.0		
00/57	CH: 40	626.0MHz	CBER	0,40.4	LBER	STOL 9		
26/3/	DVB-T2	8 MHz	Stromaufnahme	30 mA	Speisespannung	12.8 V		
20/67	CH: 41	634.0MHz	ONID		TSID			
23/3/	DVB-T2	8 MHz		000		1.612		
	CH: 42	642.0MHz	Pilotschema	FF2	FFT-Modus	TON		
30/57	DVB-T2	8 MHz	TS Bitrate	21.560 Mbps	Offset Frequenz	0.28 MHz		
	CH: 43	650.0MHz			-			
31/5/	DVB-T2	8 MHz						
	CH: 44	658.0MHz		•		Q		
32/5/	DVB-T2	8 MHz						
00/57	CH: 45	666.0MHz	75.0					
33/57	DVB-T2	8 MHz	75.00	идил	0V 5V 12V			
	CH: 46	674.0MHz	DVB-T2 64	-QAM 3/5				
34/57	DVB-T2	8 MHz						

- All available frequency channels are listed on the left side of the screen.
- Tap the area of the frequency channel to switch to it. Tap and hold to open a pop-up dialogue. In this you can now edit the channel parameters (bandwidth, frequency and system type).
- Tap the SEARCH icon to go to the programme search settings:

Search mode	Select whether you want to search only this one channel or all channels from the list.
Encrypted	Select whether you want to search all (incl. encrypted) or only free channels.
Service type	Select whether you want to search all channels, only TV channels or only radio channels.
YES / NO	Tap YES to start the search or NO to cancel.

<	Tap this symbol to exit the menu and return to the main menu.
	Tap this symbol to enter the spectrum analysis.
*** ***	Tap this symbol to enter the constellation analysis.
	Tap this symbol to enter the scope settings.
•	This symbol is displayed when a signal has been found.
	This symbol is displayed if no signal was found.
Q	Tap this symbol to enter the channel search parameter settings.
OV	Tap the symbol to set the voltage output of the antenna to 0 V.
5V	Tap the symbol to set the voltage output of the antenna to 5 V. (active antenna)
12V	Tap the symbol to set the voltage output of the antenna to 12 V. (active antenna)

CNR	Shows the current C/N ratio of the signal.
MER	Shows the current MER value.
CBER	Shows the current CBER value.
LBER	Shows the current LBER value.
Feed current	Shows the current current consumption of the antenna.
Feed voltage	Shows the current feed voltage to the antenna.
ONID	Shows the original network identification of the signal.
TSID	Shows the transport stream identifier
Pilot pattern	Shows the current pilot pattern value of the signal.
FFT mode	Shows the current FFT mode of the signal.
TS Bit rate	Shows the bit rate of the transport stream.
Frequency-Offset	Shows the current FFT mode of the signal.
dBμV	Shows the current power level of the input signal.
DVB-T2 x-QAM 5/6	Shows the current DVB system (e.g. DVB-T2), demodulation type and EEC value
i	Press the key to display the help bar.
F1-button	Press the key to enter the "Scope" menu.
F2-button	Press the key to enter the constellation analysis.
F3-button	Press the key to switch the unit of the power level between
	dBµV and dBm.
F4-button	Press the key to mute.
STORE	Press the key to save a screenshot.

3.2.1 Spectrum



This submenu analyses and displays the live spectrum from 100 MHz ~ 900 MHz.

		Tap this icon to exit the menu and return to the previous menu.
why	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Tap an area of the spectrum graph to display the detailed centre frequency and power level.
Range +	Range -	Tap these icons to narrow the frequency search range of the spectrum.
OFF 5	V 12 V	Set the correct antenna output voltage by tapping OFF, 5 V or 12 V.
Run	Stop	Tap "Go" to start the live spectrum analysis. Tap "Stop" to stop it.

3.2.2 Constellation

	Τε	errestrial > C	onstellation																1	
	CH: 21	474.0MHz	Deversional																	
9/57	DVB-T2	8 MHz	Power level	55.0 dBµV	1	÷.	2	Ÿ.	2	2	3	1	÷.		*		2	2		1
	CH: 22	482.0MHz			12	5	ζ.	1	194 201		1		*	ŗ.	8	Ĵ.	1	7	100	1
10/57	DVB-T	8 MHz	DVB-T2 2	56-QAM 5/6	е 20	9 4	Ç,		2	т. с	Į,	2		Ĵ.	а. Ж		*	7	1	1
	CH: 23	490.0MHz			1	ŝ.	Ĵ.	Ĩ	2	2	Ű.	Ĵ.	ŝ	Ì.	7	2	- X - 10	2	2	0
11/57	DVB-T	8 MHz			1	Ű.	ŝ	ž	ũ,	2	ŝ.		\$	1	2	÷.	÷.	3	÷.	- N.
	CH: 24	498.0MHz				4	÷	÷.		÷	÷	÷	ŝ,	÷	ь	ŝ.	2	4	-	12
12/57	DVB-T	8 MHz	CNR	MER	3	÷	4	0,	14	×	4	*		4		4		*	a.	-
	CH: 25	506.0MHz	40.0 dB	34.4 dB	$\cdot z$		<u>36</u>	÷	÷	4		*	28			•		e.	a a	.*
13/57	DVB-T	8 MHz			ю.	2	hr'	Ŷ	a.	6-	.,	*			.e	+	4.	ş6	*	\$
	04:26	514 0MHz	CBER	LBER	45	ł.	×	\$	7	÷.	9					7	÷	₹	15	÷
14/57	DVB-T	8 MHz	2.005.5		×	۰.	ŧ	٠	3	*		25	٠		٠	4		w.	ų,	${\rm d} h$
	011.07	500.0141	3.996-3	ST.0E-7	Υ.	9	ъ.	*	÷	d.	46	÷	.*	Â	-95	8	3	46)	÷6	
15/57	CH: 27	522.0MHz			15	2	\mathbb{N}	ч.	\mathbf{v}	2	ġe.	÷.	ч с т	ø		÷		:2년	4	81
	DVB-T	8 MHz	Feed current	Feed voltage		5-	٩.	4,	÷.	41	N	4	4	4	đ	.đ		2	32	.84.
	CH: 28	530.0MHz	38 mA	4.8 V	-97	×.	ġ.	"я. ¹	95	4	÷.	16	÷	3.	÷	à,	3	4	٩.	4
16/57	DVB-T	8 MHz																		

This submenu shows the constellation diagram of the live stream. All frequencies are listed on the left side of the menu. Tap on the display area of the frequency to switch to it.

	Tap this icon to exit the menu and return to the previous menu.
Power level	Shows the current power level of the input signal.
DVB-T2 x-QAM 5/6	Shows the current DVB system (e.g. DVB-T2), the demodula-
	tion type and the FEC value.
CNR	Shows the current C/N ratio of the signal.
MER	Shows the current MER value.
CBER	Shows the current CBER value.
LBER	Shows the current LBER value.
Feed current	Shows the current current consumption.
Feed voltage	Shows the current supply voltage.

3.2.3 Scope

	Terrestrial > Scope	9		٢	
	CH: S05	Power level	CNR	Strength	31%
1/7	DVB-C 136.500 MHz	21.0 dBµV	0.0 dB	Quality	0%
	CH: S06	Power level	CNR	Strength	36%
2/7	DVB-C 142.500 MHz	24.0 dBµV	0.0 dB	Quality	0%
	CH: S07	Power level	CNR	Strength	31%
3/7	DVB-C 149.500 MHz	21.0 dBµV	0.0 dB	Quality	0%
	CH: S21	Power level	CNR	Strength	19%
4/7	DVB-C 306.0 MHz	13.0 dBµV	0.0 dB	Quality	0%
	CH: S22	Power level	CNR	Strength	19%
5/7	DVB-C 314.0 MHz	13.0 dBµV	0.0 dB	Quality	0%
	CH: K/E21	Power level	CNR	Strength	77%
6/7	DVB-C 474.0 MHz	53.0 dBµV	38.3 dB	Quality	 99%
	CH: K/E23	Power level	CNR	Strength	21%
7/7	DVB-C 490.0 MHz	14.0 dBµV	0.0 dB	Quality	0%

This submenu shows you the current values of different frequencies at the same time. On the left side, the active frequencies are displayed.

	Tap this icon to exit the menu and return to the previous menu.
Power level	Shows the current power level of the input signal.
CNR	Shows the current C/N ratio of the signal.
Signal strength	Shows the current signal strength of the transponder in %.
Signal quality	Shows the current signal quality of the transpo nder in %.
	Tap this symbol to adjust the transponders. A new window opens in which you can add or remove transponders.

Frequency list:

The currently selected frequencies are displayed at the top of the screen. The lower list shows the frequencies that are still available.



Removes a frequency



Adds a frequency

3.3 Cable (DVB-C / -C2)

<	Cable	Measure				4
49/97	CH: K/E21	474.0MHz	CNR	38.9 dB	LBER	<1.0E-7
	DVB-C		0050	×1.0F-7	01/10	OX13E
	CH: K/E22	482.0MHz	CBER	-1.52.7	UNID	OXTOL
50/97	DVB-C		TS Bitrate	38.170 Mbps	TSID	0X3138
	CH: K/E23	490.0MHz	Frequency Offset	0.26 MHz		
51/97	DVB-C					
	CH: K/E24	498.0MHz				
52/97	DVB-C					
	CH: K/E25	506.0MHz		•		
53/97	DVB-C					Q
	CH: K/E26	514.0MHz	E2 0	dDuV	_	
54/97	DVB-C		53.0	ибру		
	CH: K/E27	522.0MHz	DVB-C	64-QAM		
55/97	DVB-C					
	CH: K/E28	530.0MHz				
56/97	DVB-C					

- All available frequency channels are listed on the left side of the screen.
- Tap the area of the frequency channel to switch to it. Tap and hold to open a pop-up dialogue. In this you can now edit the channel parameters (bandwidth, frequency and system type).
- Tap the SEARCH icon to go to the programme search settings:

Search mode	Select whether you want to search only this one channel or all channels from the list.
Encrypted	Select whether you want to search all (incl. encrypted) or only free channels.
Service type	Select whether you want to search all channels, only TV channels or only radio channels.
YES / NO	Tap YES to start the search or NO to cancel.

	Tap this symbol to exit the menu and return to the main menu.
	Tap this symbol to enter the spectrum analysis.
	Tap this symbol to enter the constellation analysis.
	Tap this symbol to enter the scope setting.
O	This symbol is displayed when a signal is found.
	This symbol is displayed if no signal was found.
Q	Tap this symbol to enter the channel search parameter settings.

CND				
CNR	Shows the current C/N ratio of the signal.			
CBER	Shows the current CBER value.			
LBER	Shows the current LBER value.			
ONID	Shows the original network identification of the signal.			
TSID	Shows the transport stream identifier.			
TS Bit rate	Shows the bit rate of the transport stream.			
Frequency-Offset	Shows the current FFT mode of the signal.			
dBμV	Shows the current power level of the input signal.			
DVB-C x-QAM 5/6	Shows the current DVB system (e.g. DVB-T2), demodulation			
	type and FEC value.			
i	Press the key to display the help bar.			
F1-button	Press the key to enter the "Scope" menu.			
F2-button	Press the key to enter the constellation analysis.			
F3-button	Press the key to switch the unit of the power level between			
	dBµV and dBm.			
F4-button	Press the key to mute the sound.			
STORE	Press the key to save a screenshot.			

3.3.1 Spectrum



This submenu analyses and displays the live spectrum from 100 MHz ~ 900 MHz.

		Tap this icon to exit the menu and return to the previous menu.
wh-h-w		Tap an area of the spectrum graph to display the detailed centre frequency and power level.
Range +	Range -	Tap these icons to narrow the frequency search range of the spectrum.
Run	Stop	Tap "Go" to start the live spectrum analysis. Tap on "Stop" to stop it.

3.3.2 Constellation

	Cat	ole > Const	ellation									
49/97	CH: K/E21 DVB-C	474.0MHz	Power level	53.0 dBµV								
50/97	CH: K/E22 DVB-C	482.0MHz	DVB-C	64-QAM	•	÷	٠	*	•	•	•	٠
51/97	CH: K/E23 DVB-C	490.0MHz			•	*		1	•	•	:	•
52/97	CH: K/E24 DVB-C	498.0MHz	CNR			•					*	•
53/97	CH: K/E25 DVB-C	506.0MHz	36.2 dB		•	•	٠	٠	•	*	٠	٠
54/97	CH: K/E26 DVB-C	514.0MHz	CBER	LBER	•	*	•		•	•	•	•
55/97	CH: K/E27 DVB-C	522.0MHz				÷	*	•			•	•
56/97	CH: K/E28 DVB-C	530.0MHz										

This submenu shows the constellation diagram of the live stream. All frequencies are listed on the left side of the menu. Tap on the display area of the frequency to switch to it.

	Tap this icon to exit the menu and return to the previous menu.
Power level	Shows the current power level of the input signal.
DVB-C 64-QAM	Shows the current DVB system (e.g. DVB-C2), the demodula- tion type and the FEC value.
CNR	Shows the current C/N ratio of the signal.
CBER	Shows the current CBER value.
LBER	Shows the current LBER value.

3.3.3 Scope

	Cable > Scope				
	CH: S05	Power level	CNR	Strength	31%
1/7	DVB-C 136.500 MHz	21.0 dBµV	0.0 dB	Quality	0%
	CH: \$06	Power level	CNR	Strength	36%
2/7	DVB-C 142.500 MHz	24.0 dBµV	0.0 dB	Quality	0%
	CH: S07	Power level	CNR	Strength	31%
3/7	DVB-C 149.500 MHz	21.0 dBµV	0.0 dB	Quality	0%
	CH: S21	Power level	CNR	Strength	19%
4/7	DVB-C 306.0 MHz	13.0 dBµV	0.0 dB	Quality	0%
	CH: S22	Power level	CNR	Strength	19%
5/7	DVB-C 314.0 MHz	13.0 dBµV	0.0 dB	Quality	0%
	CH: K/E21	Power level	CNR	Strength	77%
6/7	DVB-C 474.0 MHz	53.0 dBµV	38.3 dB	Quality	99%
	CH: K/E23	Power level	CNR	Strength	21%
7/7	DVB-C 490.0 MHz	14.0 dBµV	0.0 dB	Quality	0%

This submenu shows you the current values of different frequencies at the same time. On the left side, the active frequencies are displayed.

	Tap this icon to exit the menu and return to the previous menu.			
Power level	Shows the current power level of the input signal.			
CNR	Shows the current C/N ratio of the signal.			
Signal strength	Shows the current signal strength of the transponder in %.			
Signal quality	Shows the current signal quality of the transpo nder in %.			
	Tap this symbol to adjust the transponders. A new window opens in which you can add or remove transponders.			

Frequency list:

The currently selected frequencies are displayed at the top of the screen. The lower list shows the frequencies that are still available.



Removes a frequency



Adds a frequency

ENGLISH

3.4. DAB / DAB+

Index		DAB/DAB+ F	rogram List		
1/6		2GB	0X23200000	0	
2/6		2UE	0X24200000		RESCAN
3/6		ABC dig	0X21200000		
4/6		RADAR- Get On	VAR- Get On 0X16200000		
5/6		SBS Digital On	0X22200000		
		209.93	6 MHz		
5B 5C 5D 6	A 6B 6C 6D 7A	78 7C 7D 8A 88 8C 8D 9A 98 9C	9D 10A 10B 10C 10D 11A 11B 11C 11D 12	a 12B 12C 12D	13A 13B 13C 13D 13I
58 SC 5D 6	A 6B 6C 6D 7A Radio In	78 7C 70 8A 8B 8C 80 9A 9B 9C formation	90 104 108 100 100 11A 118 110 11D 12 Measure	A 12B 12C 12D Results	13A 13B 13C 13D 13I
5B 5C 5D 6	A 68 6C 6D 7A Radio In Frequency	78 7c 70 8A 8B 80 80 9A 98 9c formation 209.936 MHz	90 104 108 10C 100 11A 11B 11C 11D 12 Measure Power level	A 128 12C 12D Results	13A 13B 13C 13D 13 41 dBµV
58 5C 5D 6	A 68 6C 6D 7A Radio In Frequency Ensemble	78 7C 70 eA 68 6C 60 9A 96 9C formation 209.936 MHz Sydney Mux3 9C	90 104 108 100 100 114 118 110 110 12 Measure Power level SNR	A 128 12C 12D Results	13A 13B 13C 13D 13J 41 dBµV 15 dB
58 5C 5D 6	A 68 6C 6D 7A Radio In Frequency Ensemble Bitrate	76 70 04 68 60 60 94 99 90 formation 209.936 MHz Sydney Mux3 9C 64 kbps	90 100 106 100 100 11A 11B 11C 11D 12 Measure Power level SNR CNR	A 12B 12C 12D Results	13A 13B 13C 13D 13J 41 dBµV 15 dB 37 dB
58 5C 50 6	A 68 6C 60 7A Radio In Frequency Ensemble Bitrate mponent ID	78 70 70 84 88 80 80 94 99 90 formation 209.936 MHz Sydney Mux3 90 64 kbps 768	50 104 106 10C 100 114 118 110 110 12 Measure Power level SNR CNR ACQ	A 128 120 120 Results	13A 13B 13C 13D 13 41 dBμV 15 dB 37 dB 1

This menu can test the DAB and DAB+ signals. Display the test results and play DAB and DAB+ programmes.

- Tap RESCAN to restart the search of all frequency channels.
- You can set the output voltage of the antenna power according to voltage segments (OFF, 5 V or 12 V).
- All available channels are listed at the top of the table. The text colour is set to BLUE when the current channel is playing.
- Tap on another channel to play it.
- All available frequency channels are listed in the middle of the screen. The power level is displayed for each frequency channel. Tap a frequency channel to switch to it. The meter plays the first programme of the currently selected frequency channel.

3.5 DiSEqC-Monitor

DiSEqC Monitor		Ê
Eingangsspannung 18.6 V	Eingabe 22K On	
E01038F3 Commit Port 1 HH E01038F3 Commit Port 1 HH	DISEGC 1.0	

This submenu shows you the DiSEqC settings or DiSEqC commands of a connected device (e.g. receiver).

Connect the DVB-S output of the device to the DVB-S connection of the measuring device. The measuring device analyses the output signals and displays them on the screen.

3.6 Settings

Setting				6
USB Service English	German			
System Volume		•		
Display Bright				•
Lock Beep			On	Off
Key Tone			On	Off
Terrestrial/Cable Input Attentuation		0 dB	8 dB 16 d	dB 31.5 dB
Software Version				1.5
FACTORY RESET				

	Tap this icon to exit the menu and return to the previous menu.
Language	Press the Language field. A submenu opens and you can select the desired language.
System volume	Adjust the system volume higher or lower.
Display brightness	Adjust the brightness of the display.
Signal tone	Activate or deactivate the signal tone.
Key tone	Activate or deactivate the key tones.
Terrest./Cable In.	Adjust the input attenuation of the terrestrial measurement and the cable measurement.
Software version	Shows the current software version of the unit.
Factory settings	Resets the unit to the factory settings.
	ATTENTION: All data you have set will be lost!

3.7 Help



This menu shows you the operating instructions for the meter. Swipe your finger to the left or right to scroll through the pages. Spread two fingers apart to enlarge the view.

3.8 Memory

The screenshots are saved in this menu.

Create a screenshot

To take a screenshot, simply press the STORE button on the meter. The current image on the display is then automatically loaded into the STORE menu.



Copy a screenshot to a USB stick

To copy a screenshot to a USB stick, tap the desired file in the left column. Keep your finger pressed. A pop-up window then opens in which you can copy the file to a USB stick. Make sure that a suitable USB stick is inserted in the unit beforehand.

4.1 Live TV-playback

Press the TV key on the meter or tap the TV symbol on the display to switch to live TV playback. You will then see the current TV programme on the display. Make sure that a suitable channel list has been created in the meter beforehand.

To open a channel list, swipe your finger from top left to bottom right to open the channel list menu. By swiping your finger up or down, you can move the channel list and select the desired channel.



Press the Info key in Live TV mode to get information about the current channel. In Live TV mode, you can open the channel list with F1. With F2 you have the option of entering channel numbers.

- Press the symbol to exit the channel list.
- Press the satellite icon to select a satellite.
- By pressing the magnifying glass, you can search for channel names.
- By pressing the right/left arrows, you can switch between TV/radio.
- Swipe from the top right to the bottom left to enter the programme position.
- By swiping from top to bottom or from bottom to top, you can change the program.
- Swipe from right to left to exit Live TV mode.

4.2 Info-button

Press the Info key on the meter to display the functions in the respective menus. Depending on the menu, the F keys, for example, have a different function.

K	Satellite > Measure				8						
	Astra 19.2E	vm	11910	н 27500	CNR	20.0 dB	LKM	10.6 dB			
	East 19.2* 9750 / 10600	2/119	10729	V 22000	CBER	<1.0E-7	LBER	<1.0E-7			
					Pilot Pattern	PPO	Orbit Position	13.0° E			
2/23	HOTBIRD, 13 East 13.0*	3/119	10743	H 22000	TS Bitrate	68.160 Mbps	Frequency Offset	0.16 MHz			
	9750 / 10600				Feed current	158 mA	Feed voltage	18.7 V			
	Astra 2	4/119	10758	V 22000	ONID	OX13E	TSID	0X2488			
3/20	East 28.2* 9750 / 10600	\$119	10773	н 22000							
4/20	ASTRA 3	6/119	10788	V 22000		<u> </u>		Q			
	F1 Dish Setup	TP C	ontrol	F	3 Zoom	F4 dBµV)dBm	STORE SCI	eenshots			
н	Hold on satellite to edit satellite; Hold on transponder to edit transponder.										

4.3 Firmware-Update

If there is new firmware for the meter, you must copy it to the root directory (without subfolders) of a USB stick. Switch on the meter. After booting the unit, insert the USB stick. When the USB stick is recognised, a submenu appears. Exit this menu by pressing the back button at the top left. Open the Settings menu and press the Software Version button 10 times. Another menu opens. Confirm with "Yes" if you want to start the update, with "No" if you want to cancel. IMPORTANT: DO NOT switch off the meter until the update is completed. After the update is complete, switch the unit off and then on again after approx. 10 seconds. The unit will now restart. After restarting, please perform a factory reset to apply all changes.

Note:

You can always find the latest firmware on our homepage: www.megasat.tv

4.4 Edit channel list

Please refer to the current operating instructions on our homepage for this function.

5. Specifications

Genaral features

- 8.9 inch (22.6 cm) touch screen colour display
- Video Output SD/HD/FHD: 480i/p,576i/p,720p,1080i/p,4Kx2K
- Measurement of all reception types DVB-S/S2/C/C2/T/T2 H.264/H.265/DAB/DAB+
- Live TV playback
- Visual and audible signal level indicator
- Spectrum and Constellation
- DiSEqC switching command control
- Integrated loudspeaker for TV playback
- LED light on the back for poor visibility
- High-quality and stable aluminium housing
- USB port for firmware updates and storage of channel list and measurement data
- Screw connectors for easy changing of F-connectors
- Power switch and auto-standby
- Reset button
- Digital user manual on the unit
- Power supply: AC 100-240 V / DC 12 V, 2 A
- Li-lon battery (7.4 V / 5000 mA/h)

Connections

- Ix USB connection
- 1x DV output
- 1x F-connector
- Ix RF connector
- 1x 12VDC input

Other

- Dimensions (W/H/D): 278 x 200 x 36 mm
- Weight: 1245 g

Delivery

- Satmeter HD 7 Combo
- Carrying case with strap
- Silicone protective cover
- 230 volt mains adapter
- 12 volt car charger
- F-coaxial adapter
- User manual

5. Specifications

DVB-S / S2

- Frequency range: 950 2150 MHz
- Input level range: $35 \sim 100 \text{ dB}\mu\text{V}$
- LNB voltage: 13/18 V, max. 300 mA
- Measuring the LNB current consumption in mA
- LNB short-circuit indication and protection
- Displays: CNR/LKM/CBER/LBER/PWR Strength/quality dBµV/dBm
- DiSEqC 1.0 / 1.1 / 1.2 / USALS / Auto-DiSEqC
- Unicable I & II (EN 50494 / EN 50607)
- TV search mode: Auto, Blindscan, manual
- Transponder control (identification of reception planes)
- Calculation of rotation and inclination angle incl. compass
- NIT control and satellite evaluation

DVB-T / T2 / C- / -C2

- Frequency range: 42 1002 MHz
- DVB-T displays: PWR/CBER/LBER/MER/TS Bitrate/TSID/ONID
- DVB-C Displays: PWR, PBER, CNR, BER, Symbol rate
- Level range: 30 ~ 100 dBµV
- Scope display / Tilt display
- Automatic and manual channel search

DAB / DAB+

- DAB/DAB+-Signal Measuring and testing
- DAB/DAB+-Channel play
- Measured values for level dBµV, SNR, CNR, ACQ, EID

DiSEqC monitor

Measurement and control of DiSEqC switching commands

Conformity information

Hereby, Megasat Werke GmbH declares that the following product is in compliance with the essential requirements and other relevant provisions of directives 2014/30/EU (EMC), 2014/35/EU (LVD) and 2014/53/EU (RED):

Megasat Meter HD 7 Combo (Art.-No. 2600020)

The declaration of conformity for this product is located at the company: Megasat Werke GmbH, Industriestraße 4a, D-97618 Niederlauer

The declaration of conformity can be downloaded from our homepage: www.megasat.tv/support/downloads

PRODUCT REGISTRATION

Registering your Megasat product gives you access to our automatic e-mail notifications. If your product requires new firmware, you will be notified by e-mail.

For registration please visit our homepage www.megasat.tv

You can find the form in **Support** ⇒ **Product registration**





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