Do NOT throw away the microSD card! Do NOT remove the hologram label with the serial number!

In the event of loss of the microSD card, the licenses will not be replaced.

In case of a microSD card failure, the microSD card needs to be returned to

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Warning

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MicroSD card

A micro SD card is included in the following devices:

- 52/XC Cores (52-740xC or later),
- 52/XC2 Cores,
- 52/XD Cores,
- 52/XS Cores (52-180xC or later)
- 52/XS2 Cores

This card acts as a dongle and the licenses stored on the microSD card are bound to the internal serial number of this microSD card.

All available software licenses and feature upgrade licenses are stored on the microSD card. This includes the following licenses:

52-8511 - PC TFT View Software 52-8550 - Routing/Scheduling Software 52-8551 - Routing Software 52-8552 - Routing Software, single matrix 52-8553 - Additional license for 52-8550 52-8554 - Additional license for 52-8551 52-8555 - Monitoring Software 52-8562 - Snapshot Manager Software 52-8563 - Remote Control Software 52-8564 - Remote Control Software, float. 52-8565 - DSP Control Software

52-8566 - DSP Control Software, float. 52-8571 - Pro-Bel Protocol SW-P-02 52-8572 - ESAM-II control protocol 52-8575 - MIDI Protocol Converter Software 52-8581 - Enhanced DSP Processing 52-8582 - XC/XS Core Audio Network 52-8583 - XC/XS Core Control Networking 52-8584 - XC2 Core Gold upgrade 52-8585 - XC2 Core Silver upgrade 52-8591 - SNMP Support for DHDOS

The microSD card also includes the firmware, the configuration and snapshots of this core device.

In case of a replacement of the core device, it is only required to put the microSD card from the installed device to the replacement device (which has to be the same device type as the device that will be replaced). When the replaced core device will be switched on, it will boot with the last configuration state as the first device.





MicroSD card from DHD with hologram label and serial number

It is possible to copy the content of the microSD card, but the licenses will not work on this copy because they depend on the internal unique serial number of the microSD card.

1



Position at Core devices

In the following pictures you can see the position of the microSD card slot at each core.

Device	Location of the microSD Card and microSD card orientation	Picture
52/XC2 Core 52-7420, 52-7410	At the left side of the core. • Insert the micro SD card with pins on the top side	
52/XC Core 52-740xC or later	 At the front panel of the core, behind the 19"-Adapterpanel. Insert the micro SD card with pins on the bottom side 	
52/XS2 IO Core 52-1830	At the left side of the core, behind the rack mount bracket.Insert the micro SD card with pins on the top side	

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Device	Location of the microSD Card and microSD card orientation	Picture
52/XS2 Core 52-1810	At the left side of the core. Insert the micro SD card with pins on the top side 	
52/XS Core 52-180xC or later	 At the front panel of the core, behind the 19"-Adapterpanel. Insert the micro SD card with pins on the bottom side 	
52/XD Core with 52-7456 XD2 Controller	At the rear panel of the core. • Insert the micro SD card with pins on the top side	
52/XD Core with 52-7450 XD Controller	At the rear panel of the core. • Insert the micro SD card with pins on the top side	

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MicroSD card, side with license code.

MicroSD card, side with pins.

Firmware License

The firmware license is the license which is required for operation of each DHD core or DSP frame.

After loading the firmware license into the device (see <u>Load licenses into the device</u>) it is permanently stored in a separate flash memory. The firmware license will not be stored on the microSD card.

Usually, the cores will be delivered without a firmware license. This firmware license will be sent via e-mail (see <u>Receive</u> the Firmware License)



Receive the firmware license code

The firmware license will be generated automatically after the accountants' department received and booked the full payment for the order.

The generated firmware license will be sent automatically to the e-mail address which received the order confirmation. If required one or more additional e-mail destinations can be assigned for receiving the license codes.

The sender for this e-mail is support@dhd-audio.de



Software Licenses and Feature Upgrade Licenses

All DHD PC software products and all feature upgrades require a license code for the activation in the device.

Usually, the licenses will be already activated in the device if the software licenses or feature upgrade licenses are ordered together with hardware.

To activate a new license on a device, see Load licenses into the device.

The licenses are always hardware related. To order new licenses, DHD always requires the serial number either of the device or the microSD card. All available software licenses and feature upgrade licenses are stored either on a microSD card or on an internal memory.

The following table shows the storage place for each device type and the serial number type which is required to order a new license:

device	licenses are stored on microSD card	licenses are stored on internal memory	serial number type for new licenses
52/XD (all revisions) 52-7450, 52-7456	x		Serial Number Software (MicroSDCard)
52/XC (revisions A or B) 52-7400A, 52-7400B, 52- 7402A, 52-7402B, 52-7403A, 52-7403B		Х	Serial Number Device
52/XC (revisions C or later), 52/XC2 (all revisions) 52-7400C, 52-7402C, 52- 7403C, 52-7420, 52-7410	X		Serial Number Software (MicroSDCard)
52/XS (revisions A or B) 52-1801A, 52-1801B, 52- 1804A, 52-1804B		X	Serial Number Device
52/XS (revisions C or later), 52/XS2 (all revisions) 52-1801C, 52-1804C, 52- 1830, 52-1810	X		Serial Number Software (MicroSDCard)
52/XR 52-6063, 52-6066		Х	Serial Number Device
52/MB 52-5063		Х	Serial Number Device
52/RM4200D RM420-852, RM420-853		Х	Serial Number Device

You can find the different types of serial numbers in the Maintenance Window.

Serial Number Software (MicroSDCard): it will be shown on the License State page of the Maintenance Window, see <u>Available licenses in the device</u> (follow until step 5)

Serial Number Device: it will be shown on the Firmware State page of the Maintenance Window, see <u>Available</u> licenses in the device (follow until step 4)

For more information about the microSD card, see microSD card.

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Receive the license codes

All software licenses and feature upgrade licenses will be delivered as license codes on the delivery note. (for firmware license, see <u>Receive the firmware license code</u>).

You can review all your delivery notes on the update website. To review the license codes, follow these steps:

1. When you are logged in, in the project area click on Current Orders or Project History to see an overview of your orders.

DHD	Digital Broadcast Te
You're logged in as guide:30 ! » home Logout	» Edit Account
Series 52	>>> DHD Downloads
52/XR and 52/RM4200D	
52/XS, 52/XC, 52/XD	material and a local state
52/SX-Bundle	welcome to our download website
52/DX-Bundle	On this website you will find recommended and current versions of our configuration software Toolbox4 (RM4200D), Toolbox45 (RM420-027, RM420-078, RM420-079) and Toolbox5 (52/MX, 52/XR,
52/MB and 52/CR	52/RM4200D). Furthermore, you can download additional software and current firmware updates. Please use the links below to proceed to the different sections.
Series 52 PC Software	Please note:
Additional software	15566-01622500
DEMO Applications	If your System runs stable and if you do NOT need any new feature coming with a new software version, updating your system is NOT necessary.
52/MX Configuration Examples	
Presentation + Training	appropriate firmware are only updated to solve major bugs. Both, Toolbox and firmware, are dosely associated to each other. In each download section, DHD GmbH only offers related versions of firmware and Toolbox. Please make sure to download both. Toolbox and firmware.
Projects	before starting any update process! It is strongly recommended to use only related versions of firmware and Toolboy
DHD Configuration Center	and seeing, recommended to use only related relations of minimal calls footbox.
Current Orders	New DHD software is always checked in extensive tests. Though it could happen, that principally in extremly special configurations some new features distributed with a new software might be buggy. If you encounter some of these bugs, we would truly appreciate your bug-report to help us in our work. Please give us a call.
Documents	Please visit our official website (www.dhd-audio.com) to find all manuals and documents of the DHD products.

History area

2. In the Current Orders area or Project History area you can see a list with orders. In the Task column, click on a task number to see the corresponding documents.

			A state of the sta	Abbrechen in Constant and in C
4200D	»» Proje	ct History		
VD	Task	Order-No:	Details	Date
XD	210446		Table Prog. 1981	2012-07-04
	210390			2012-06-12
	209710	deu	CONTRACTOR OF A	2011-11-03
	209560		and reasoning balances have	2011-09-23
	208321		the state of the state of the state of the	2010-07-30
vare	207397		M. Conceptual of Arts	2009-10-06
re	207136	deu	an over the finance	2009-07-17
	206987			2009-05-27
5	206555		terrority and been support	2008-12-29
ion Examples	206394		ALL ALL DOG AND ALL	2008-10-30
	205323	deu	AND DECIDENTS	2007-12-10
aining	205147			2007-11-02
	204905		Mr. Mitchield	2007-09-04
	204548		and a start of the second second	2007-05-04
1 Center	200880		and the second second	2003-08-29

The Project History area shows an overview of the orders

3. In the Details column of the delivery note row, click 🖾 to open the delivery note as PDF-file.

Project Hi	istory	111	intin i	
Project Hi Order	istory			
Oudou				
Oudow				
order.	208321			
Datum:	2010-07-3	30		
Ordernumber:				
Comment:	B. 110	1.2.2.2.2.2.2.2		
Date	Number	Туре	Format	Details
2011-07-07	311877	delivery note	PRINT	网
2011 <mark>-07-07</mark>	311877_prot	protocol	PDF	20th
	Datum: Drdernumber: Comment: Date 2011-07-07 2011-07-07 rder includes	Datum: 2010-07-3 Ordernumber: Comment: Date Number 2011-07-07 311877 2011-07-07 311877_prot	Datum: 2010-07-30 Ordernumber: Comment: Date Number Type 2011-07-07 311877 delivery note 2011-07-07 311877_prot protocol	Natum: 2010-07-30 Ordernumber: Comment: Comment: Sate Number Type Oate Number 2011-07-07 311877 2011-07-07 311877_prot protocol PDF

delivery note.

4. In the delivery note document you can find the license code below the serial number and the bar code of each software product.



Available licenses in the device

The Maintenance Window of the Toolbox5 software provides an overview of active licenses in the device.

To show this overview, follow these steps:

- 1. Connect the your configuration PC to the Core.
- 2. Open the Toolbox5 software. In the View menu, select Maintenance Window or press F7 on your keyboard. The Maintenance Window opens.

DHD

3. In the left part of the Maintenance Window click on the device for which you would like to enter a license.

LTDHD System Maintenance	
<u>File Device Protocol Update</u>	
	🗞
	DHD
Index Op	erating System Firmware
	and a second line of the second
RM5200 N	aintenance
Systemtime	Fri Jan 11 14:18:48 2013
Running Ti	ne 0 day 0:44
Serial Numb	er 05-07-c4
Operation	System (Version DHD Series52 imv27 Version 1.0.10 Di 15, Mai 15:46:44 CEST 2012.)
• Eirmware	(Version : Version : 7.2.14.1.)
Constant of the second	Martineed & Group (1994) A substitute (1994)
	π
	m F
2013-01-11 14:18:24.628 MSG UDP 7400_D	EMO Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Code 🔺
2013-01-11 14:18:25.336 MSG UDP XCho 2013-01-11 14:18:25 446 MSG UDP 05 05	Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Code E2 Level: 0 Code: 0x82000190 Information: Module 52-7400 ID 1 Code
	· · · · · · · · · · · · · · · · · · ·
11.01.2013 14:18:54 05 07 C4 10 5 7 196	Connected
10.57.150	connected

Maintenance Window

4. In the right part of the Maintenance Window, click Firmware, the Firmware State page will be shown.

Index License Info	rmation serial number Port State	
2 <u>.</u>		
Firmware State		E
Version	7.2.28.1	
Serial Number Device	216309018	
Serial Number 52- 7027	216107147	
MAC-Address	00:0A:63:05:0b:B7	
Hour Meter	141	
Firmware uptime	1 days 00:41:31	
CyclTime	30 ms	
Running as	MASTER	
Restart Reason	0, Data 0x00000000	
Sync Module	1	
Systemfrequency	48000Hz	
Sync Source	2	
Core Temp	41°C	+

Maintenance Window - Firmware State page

5. Click License Information. Now, the license states will be shown for the selected device.

Index Firmware Port State		DHD
inemes State		
License State		
Serial Number Hardware	W115333002	
Firmware License	Remaining Operation Hours 753	
Hour Meter	47	
Serial Number Software (MicroSDCard)	S401088245	
52-8581 Enhanced DSP Processing	unlimited valid	
52-8582 XC/XS Core Audio Network	unlimited valid	
52-8583 XC/XS Core Control Networking	unlimited valid	
52-8550 Routing/Scheduling Software	2 Users	
52-8562 Snapshot Manager Software	1 Users	
52-8563 Remote Control Software	1 Users	
52-8564 Remote Control Software, float.	1 Users	
temporary License 52-8564	2 Users until Sat Jul 7 02:00:00 2012	
52-8565 DSP Control Software	1 Users	
52-8566 DSP Control Software, float.	1 Users	
52-8591 SNMP Support for DHDOS	1 Users	
	10 Lloora	

Maintenance Window - License State page

Usually, the core will be delivered without a firmware license. This firmware license will be sent via e-mail (see <u>Receiving</u> the <u>Firmware License</u>). Until a valid license is entered, the <u>Remaining</u> Operation Hours will be shown here. After 800 hours operation time without a valid license, invalid will be shown.

If a valid firmware license is entered to the core, unlimited valid will be displayed.



When a license for a PC software or a feature upgrade is available in the device, the product number, the product name and the number of available licenses will be shown in that window.

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Load licenses into the device

The following steps can be used for firmware licenses, PC software licenses or feature upgrade licenses.

- 1. Connect the PC with the Toolbox5 software to the Core.
- 2. Open the Toolbox5 Software. In the View menu, select Maintenance Window or press F7 on the Keyboard. The Maintenance Window opens.
- 3. In the left part of the Maintenance Window, select the device for which you would like to enter a license.

L DHD System Maintenance		X
<u>File Device Protocol Update</u>		
	Index Operating System Firmware	,
	RM5200 Maintenance	_
	Systemtime Fri Jan 11 14:18:48 2013 Running Time 0 day 0:44 Serial Number 05-07-c4	
	Operating System (Version DHD Series52 Imx27 Version 1.0.10 - Di 15. Mai 15:46:44 CEST 2012) Firmware (Version : Version : 7.2.14.1)	
2013-01-11 14:18:24.628 MSG 2013-01-11 14:18:25.336 MSG 2013-01-11 14:18:25.446 MSG	JDP 7400_DEMO Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Cc JDP XCho Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Cc JDP 05_05_E2 Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Cc	de de
		de

Maintenance Window

4. In the Maintenance Windows, in the Device menu, click on Enter License. The Store License window opens.

Store licens	se	X
License c	ode	

Store License window

5. Enter the license code into the text box and click OK. If the license code is correct, in the lower part of the Maintenance Window (the part that shows the log messages), license stored is shown for the corresponding device.

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To check the validity of the license, see the $\underline{\mbox{Available licenses in the device}}$ section.

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