Operating Instructions

EVOLUTION CD 3.2
EVOLUTION CD 5.2

AVM

AUDIO VIDEO MANUFAKTUR
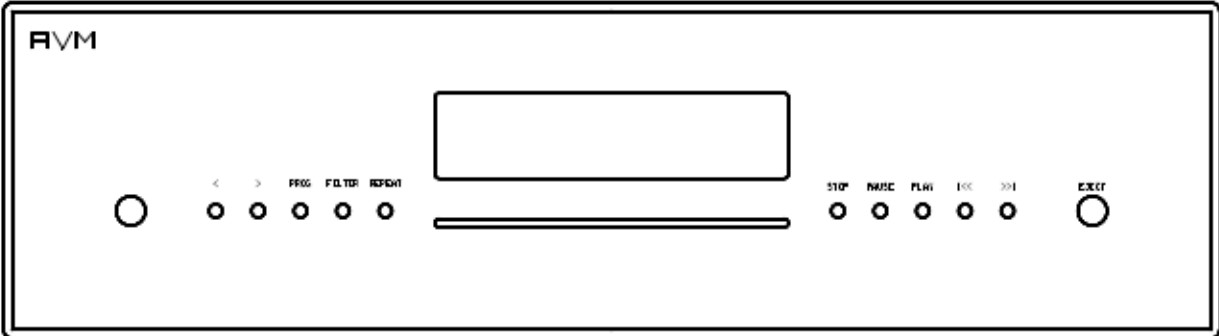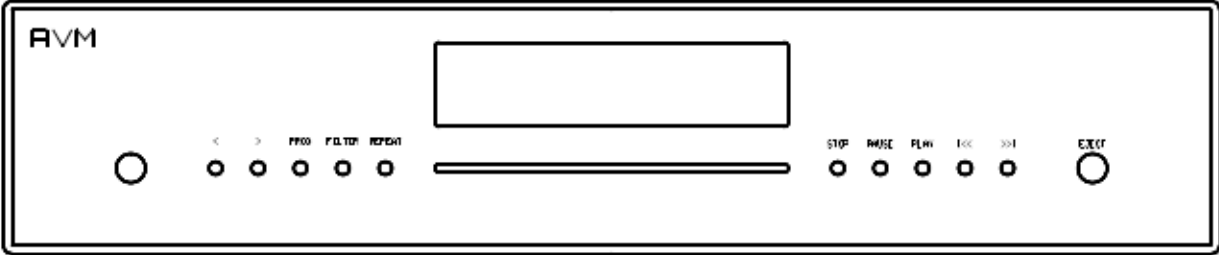
Dear Music lover,

Thank you for making AVM your choice. You now own a versatile and excellent sounding hifi component. Before enjoying music, please read thru this manual carefully. After that you will know how to use your new AVM component in the optimal way.

Sincererly yours,

The AVM Team

CAUTION : This unit contains a class 1 laser diode. Do not open. Invisible laser radiation can damage
your eyes.

Laser diode Type : Ga-Al-As
Wavelength : 755 - 815 nm (@ 25 °C)
Output power : 0,7 mW max.

CLASS 1 LASER PRODUCT
LASER KLASSE 1

Declaration of conformity (for EC only)

We herewith confirm, that the unit to which this manual belongs fulfills the EC rules necessary to obtain the sign

$C \in$

the necessary measurements were taken with positive results.

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Table of contents

Getting started

1.1 What's in the box?

- **EVOLUTION CD 3.2 / CD 5.2 CD Player**
- **Power cable**
- **RC 3 remote control**

CAUTION: After unpacking, please check the scope of delivery to ensure that all the parts have been supplied and are undamaged. In case the original packing has already been opened, please contact your local dealer. Often, your dealer prepares your new device prior to delivery to adapt and change the configuration to your personal needs.

1.2 Control and operating elements

The numbers in the drawings below mark the control elements. They refer to the numbers in the text, where the operation of the unit is described.
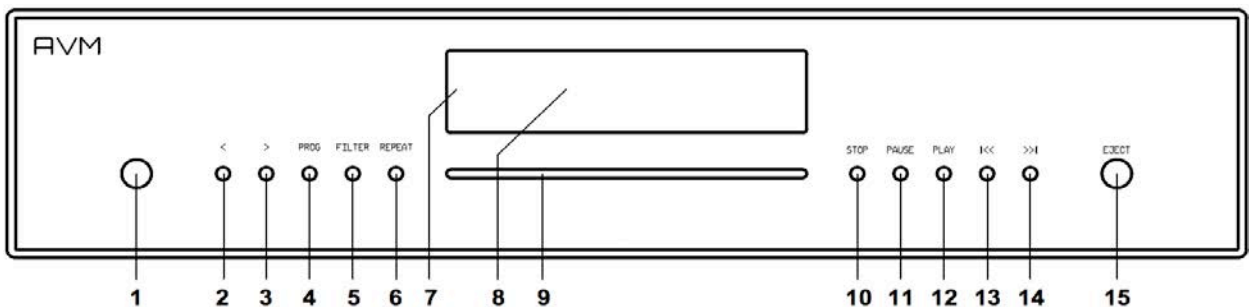
1 Power button (on / off)	9 CD-Slot
2 Option key < (Input, track programming)	10 STOP button
3 Option key > (Input, track programming)	11 PAUSE button
4 PROG button (Track programming, RND)	12 PLAY button
5 FILT button (Filter selection)	13 I<< Skip / Search button
6 REP button (Repeat)	14 >>I Skip / Search button
7 LED (lights up, when unit is in stand-by)	15 EJECT button
8 Display	
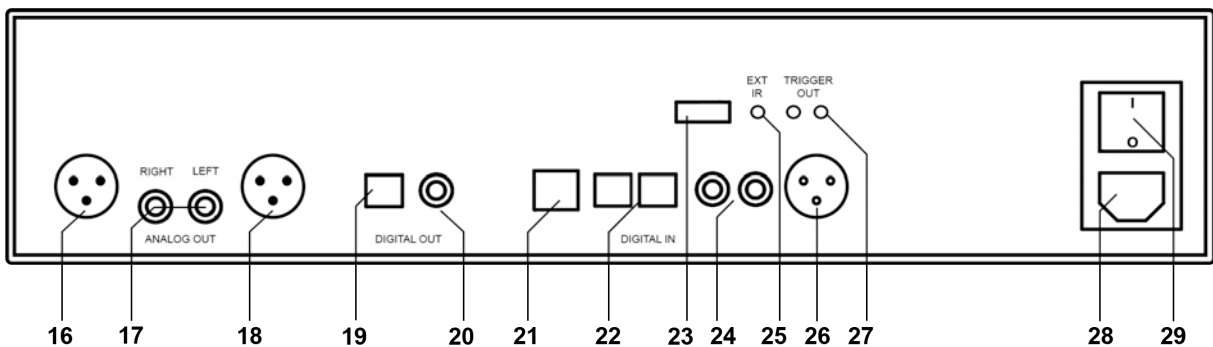
16	Analogue output right (balanced, XLR)	23	Configuration port (Updates)
17	Analogue outputs (RCA)	24	Digital inputs coaxial
18	Analogue output left (balanced, XLR)	25	Connector for external IR receiver
19	Digital output optical	26	Digital input AES/EBU
20	Digital output coaxial	27	Trigger outputs
21	USB B digital input	28	Mains connector
22	Digital inputs optical	29	Mains switch

1.3   Installation and cooling

The unit can become warm depending on environmental temperature. Therefore it is important, that the cooling air can flow unhindered into the air inlet in the bottom and flow out through the holes in the rear panel. Direct exposure to sunlight is not recommended because this will heat up the unit and may cause unwanted malfuctions.

1.4   Connection to mains

Connect the unit to the mains outlet by using the power cord which is (in some countries) delivered together with the unit. Make sure that mains voltage is according to the value printed on the rear panel of the amp (near mains connector).

CAUTION: Keep the unit switched off until all audio connections are made.

1.5   Connection to a preamplifier or integrated amplifier

Connect the analogue outputs (16-18) to the high level inputs of a preamplifier or integrated amplifier.

The RCA-cinch outputs and the balanced XLR outputs are fully decoupled from each other and can be used independently.

1.6   Connection of digital sources

Digital sources
Connect the outputs of your digital sources to the corresponding inputs of your CD player:

- Optical inputs (22)
- Coaxial inputs (24)
- USB B input (21)
- AES/EBU input (26)

Digital out
The input of a digital recorder must be connected to the digital outputs (19, 20). The signal on the digital outputs depends on the selected source (built-in CD, digital input).

1.7   RC 3 remote control

The included RC 3 remote control allows for easy and comprehensive control of the C 2.2. All main functions of the C 2.2 can be controlled by the RC 3: on/off, source selection, station selection, SKIP, PLAY/PAUSE, and STOP.

By pressing the PLAY button briefly a second time, the PAUSE function is activated while in CD mode. By pressing the STOP button briefly a second time, an inserted CD is ejected. By holding down one of the SKIP buttons a little longer, the device switches into seek mode (fast forward/reverse).

If there is no CD inserted or the CD is not in playback mode, you can switch between the different digital inputs by pressing the STATION buttons of the RC 3. P Press PLAY to return to CD mode.

If a variable output level has been activated in the personal setup menu (see 3.1.1), you can control the output level of the analogue outputs of your CD 3.2 / CD 5.2 by pressing the VOLUME buttons on your RC 33 remote control (see also 2.3).

1.7.1 Battery change
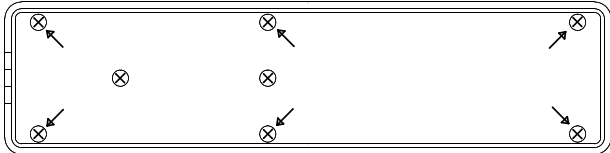
Bottom view RC 3 remote control

Unscrew the 6 marked screws (**CAUTION**: Do NOT unscrew the 2 unmarked screws in the middle). Take the bottom plate with the mounted pcb out. Remove the worn batteries and replace them with two new batteries (type CR2032, 3V Lithium cells). Make sure that polarity is correct (the "+" sign must be on top). Insert the bottom plate and screw it tight.

1.7.2 External IR remote control

The CD 3.2 / 5.2 can be connected to an external IR receiver by using the IR jack (25). The plug is a 3,5mm stereo headphone plug.

Pin configuration of IR connectors (25)

3,5mm stereo infrared input

GND   IR-Signal +5V supply
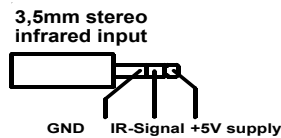
2 Basic operation

2.1 First operation / self test

In case your CD player was not connected to mains a self test will be performed when it is switched on by the mains switch (29) for the first time. The unit will check its configuration and that all the installed components work properly. The procedure is shown in the display. Afterwards the unit will switch to stand-by.

2.2 Switching on / stand-by

Using the button power (1) you can switch between on (operate) and stand-by. In the on state the display (8) lights up and the LED (7) is off. In stand-by mode the display is off and the LED is on to indicate that the unit is still connected to mains.

CAUTION: When switched to stand-by the unit is still connected to the mains. In case of a thunderstorm or if you leave the house for a longer time we recommend that you switch the amplifier off by using the mains switch (29) or pull the mains plug (28).

2.3 Display

When the unit is switched on, the display shows information about the current settings and state of your CD player. Apart from informations about the operating status (CD player, Digital Input etc.) the lower line shows you currently active settings of the D/A converter: On the left-hand side the sample rate is displayed. On the right-hand side you will find the current filter setting ("Smooth" or "Steep").

VOL / FIX

Depending on your selection of a fixed or variable output level of the analogue outputs of your CD 3.2 / CD 5.2 (see 3.1.1), an information on the current output level state is displayed in the upper-middle part of the display (8). VOL indicates a variable level setting enabling you to control the output level of the analogue outputs (16-18) by pressing the VOLUME buttons on your RC 3 remote control. FIX indicates a fixed output level setting.

2.3.1 Display in CD player mode

At the centre of the display the total duration of an inserted CD is displayed, while stopped (STOP). As soon as the CD is played (PLAY) or paused (PAUSE), the time already elapsed of the current track is displayed.

TRACK
On the left-hand side both the current title is displayed (big figures) and the total number of available tracks of the inserted CD (small figures).

STATUS
On the right-hand side the current operating status is displayed (STOP, PLAY, PAUSE).

PROG
In case of a currently active track programming both the currently playing track and the total number of programmed tracks is displayed on the left-hand side (for example "PROG 2/17").

RND
In case of an active random play the currently playing track and the total number of programmed tracks of the random play is displayed on the left-hand side (for example "RND 5/12").

2.3.2 Display in D/A converter mode

On the left-hand side the name of the currently selected input is displayed (SOURCE). If there is no incoming signal available at the currently selected input, "NO SIGNAL" is displayed right next to the input name.

2.4 CD player

2.4.1 Playable disc formats

Your CD player can play back all compact discs which are recorded according to the red book standard (means the standards for audio CDs established by Philips and Sony). Furthermore all CDRs and CDR/Ws with good reflection recorded according to this standard are playable. Most copy-protected discs are also playable. But we cannot take responsibility that all future copy protection systems are playable.

2.4.2 Insert / eject a CD

Insert a CD
Your CD player is provided with a slot-in CD drive (9). Insert the CD (coverside up) and push slightly. The drive will now automatically draw the disc inside. Now the unit will read the TOC (Table Of Content) of the inserted disc

Now the CD player reads the content of CD and shows it on the display (8). Most left is the number of the actual track followed by the total number of tracks on the CD (for example "1/17"). The middle f the display shows the total playing time of the CD.

NOTE: If there is still a CD inside or the unit is in stand by, the slot will be blocked. If the inserted disc is not readable (DVD, data-CD) the display will show "no playable disc".

Eject CD
Press the EJECT button (15). The disc will be ejected.

AUTO-CD function
If CD is not selected as source the unit will automatically change to CD from any other input after you have inserted a CD.

2.4.3 CD playback

If a disc is inside playing is started by pressing the PLAY button (12). If you press PAUSE (11) the unit will go into the pause mode until PLAY (12) or STOP (10) is pressed.

Using the skip buttons (13, 14) you can easily access any title on the disc. When you press one of the skip buttons for longer than a second while the unit is playing, it begins to play in fast forward or reverse mode.

The actual state (PLAY, PAUSE, STOP) is shown in the display (8). Furthermore the display shows the actual playing time, the actual title number and the total number of titles.

2.4.4 Repeat

Press the repeat button (6) once to repeat the actual title, twice to repeat the whole CD or the programmed sequence. A third pressing returns to the normal playing mode. The repeat state is displayed in the upper line of the display (8).

2.4.5 Programming an individual playlist, Random mode

If a disc is inside the player you can program your individual playing sequence as follows: Tip on the PROG button (4) to enter the playlist-menu.

- Pressing STOP (10) exits the menu and the unit will return to normal mode.
- Pressing PAUSE (11) generates a random playlist.
- Pressing PLAY (12) leads you to the programming menu.

The display shows on the left side the actual title ("TRCK"), below the playing time of this title ("TIME"). A title is selected by pressing the Skip buttons (13, 14).

Pressing PLAY (12) adds the selected title to the playlist. On the right side the number of programmed titles is shown ("PGM-QTY"), below the playing time of the programmed list ("P-TIME").

The button PROG (4) stores the playlist, if you want to exit without storing, press STOP (10).

2.4.6 Programming an individual playlist (example)

The CD inside the player contains 15 titles. You want to play only titles 7, 3 and 8.

- Press PROG (4) and PLAY (12). The display now shows "TRCK 1/15".
- Select title 7 using the buttons < or > (13, 14). Display shows "TRCK 7/15".
- Now add this track to the playlist by pressing PLAY (12)
- Select title 3 using the buttons < or > (13, 14). Display shows "TRCK 3/15".
- Now add this track to the playlist by pressing PLAY (12)
- Select title 8 using the buttons < or > (13, 14). Display shows "TRCK 8/15".
- Now add this track to the playlist by pressing PLAY (12)
- Now press PROG (4) to finish the programming and store the playlist.

2.4.7 Deleting an existing playlist

Press PROG (4) and after that STOP (10). and the playlist is deleted.

2.4.8 Generating a random playlist

Press PROG (4) and after that PAUSE (11). Now a random playlist will be generated.

Deleting a random playlist: Press PROG (4) and after that STOP (10). and the playlist is deleted.

2.5 Input selection

In addition to its CD drive the CD 3.2 / CD 5.2 features a numnber of digital inputs which can be selected by pressing the option keys (2, 3) on the front panel of the unit. Press PLAY (12) to return to CD mode.

2.6 Samplerate and filter setting

By pressing the FILTER button (5) once or several times you can choose between available sample rates and filter setttings for a specified source (CD or digital input). The currently selected sample rate is displayed at the bottom left corner (44.1, 48, 88.2, 96, 176.4, 192 kHz). **NATIVE** indicates that the incoming sample rate of the signal is being directly processed. **CONVERSION** however indicates an ongoing upsampling process of the incoming signal to a desired sample rate.

The digital filter settings **SMOOTH** and **STEEP** can be set according to your personal preference. Technically speaking, the setting **STEEP** indicates a steep filter characteristic at the upper end of the frequency band, leading both to a flat amplitude frequency response and a rather strong phase rotation. **SMOOTH** however leads to a less steep filter characteristic by showing a slightly earlier attenuation of the amplitude frequency response with almost no phase rotation.

Please note that a chosen filter setting is only true for a selected input and is being recalled every time you select the respective input again, even when the device has completey been switched off before.

2.7   USB B Digital Input

If a digital signal from a computer (PC or Mac) is connected to the USB B digital input of your CD player, you can choose between two different modes (**LO RES** or **HI RES**) by pressing the PROG button (4).

LO RES can be used to play back a digital input signal with a sample rate of up to 48kHz without the need for an additional audio driver on your Windows PC or Macintosh Computer.

HI RES can be used to play back a digital input signal with a sample rate of up to 192kHz without to install an audio driver on your Macintosh Computer. If you are using a Windows PC you will need to install an additional driver which is available for download on the respective product page at www.avm-audio.com.

Below the LO RES and HI RES display, the currently active data format is displayed (**PCM** or **DSD**).

Please note that you need to select the **HI RES** mode in order to play back a DSD64 file.

3 Advanced settings

3.1 Personal setup menu

The personal setup offers you a range of settings to individualize the device according to your personal needs. To enter the **personal setup** menu, please switch off your device on the rear of the unit at the mains switch (29). Keep the PROG button (4) pressed while you switch on the unit again. As soon as the display shows ***** personal setup ***** menu you can release the PROG button (4).

When the personal setup is active you can select the desired function using the option keys (2, 3). Use the Skip buttons (13, 14) to apply changes to a selected function. **EXIT** exits the personal setup and stores the settings.

3.1.1 Volume control

Choose between a fixed ("fixelevel") or a variable ("variable") output level of the analogue outputs (16-18). If "variable" is selected, the output level of the analogue outputs of your CD 3.2 or CD 5.2 can be controlled by pressing the VOLUME buttons on your RC 3 remote control. In standard operating mode an information on the current output level state is displayed in the upper-middle part of the display (e.g. **VOL 75)**. **FIX** indicates a fixed output level setting.

3.1.2 Display brightness

Sets display brightness between 25% and 100%.

NOTE: The setting 100% can lead to "burn in" effects on the display if the unit is operated in this setting for a very long time. So please switch the unit to stand by, if not in use.

3.1.3 Set autoplay

When AUTOPLAY is ON, your CD player will start playing automatically every time a new CD is inserted. If AUTOPLAY is OFF, the unit will read the TOC (Table Of Content) of the inserted disc and then go to STOP mode.

3.1.4 Skip unused inputs

Deactivate unused inputs ("SKIP"). The unit will then skip these inputs when the option keys are pressed (2, 3) or if you select the inputs via the RC 3 remote control.

3.1.5 Define input names

You can individually set the names (max. 8 characters) of the different sources shown in the display (8). Proceed as follows:

Press < or > (2,3) to select the input. Press REPEAT (6) to select the position and I<< or >>I (13,14) to define the character (holding the key pressed changes the character every half second).

3.2   Reset menu (Factory Settings)

This function cancels certain or all settings and makes the unit return to default settings.

To enter the reset menu, please switch off your device on the rear of the unit at the mains switch (29). Keep both the REPEAT button (6) and the STOP button (10) pressed while you switch on the unit again (29). As soon as the display shows the reset menu you can release both buttons (6, 10).

Select if you just want to clear the input names (**NAMES**) with the **PAUSE** button (10) or reset the unit completely (**ALL**) by pressing the **PLAY** button (12).

Pressing the **STOP** button (10) will bring the unit back to normal operating mode without resetting any item (**CANCEL**).

4   Cleaning

Use a soft cloth and normal glass cleansing fluid.

CAUTION: Make sure that no fluid comes into the unit. Do not use scouring cleaners. They may damage the surface.

5   If something doesn't work...

Some putative defects are often caused by mistakes in operation. Sometimes other units connected to the amplifier can cause problems. Therefore please read the following tips before you consult your dealer.

1. No music playback

a)   Inadvertent switching to standby by remote control. Press power button (1). If the LED indicator and display do not light up a fuse can be blown due to overvoltage (thunderstorm). Please contact your dealer.

2. Unit switches off during normal operation

This can happen if the temperature inside the unit becomes too high. In this case the CD player switches off and the display shows 'overheat'. Switch the unit off and let it cool down for five minutes.

3. Remote control doesn't work

a)   Change the battery of your RC 3 remote control (see 1.7.1).
b)   Point with the remote control transmitter directly to the unit.

5. The display shows „now disc" although a CD is inserted

a)   Please make sure the CD has not been damaged and is inserted with the correct side facing up
b)   Please clean your CD with a soft cleaning cloth

6 Conditions of warranty (EC only)

If despite expectations a defect occurs that cannot be repaired by yourself or your dealer, we undertake the repair of your unit free of charge for up to three years from date of purchase. The warranty covers the costs of material and working time, transport costs are to be borne by the owner.

Provisions for this warranty are:

- The unit must have been purchased from an authorised dealer. Equipment from other sources will not be repaired, not even at charge.

- The warranty registration card, together with a copy of the bill of sale, must be received by us within four weeks of the date of purchase.

- The defect must not have been caused by improper handling or misuse.

- Return the unit to us only in its original packing. If this is not possible we are entitled to refuse acceptance. We will not assume responsibility for transport damage under any circumstances.

- A short description of the defect is to be included with the returned unit.

- In cases of doubt we reserve the right to request a copy of the bill of sale.

- We also reserve the right to levy a handling charge for items returned without good or valid reason, or if the unit proves to be not defective.

NOTE: If you are returning the unit from a country other than Germany you should ensure that correct export documents are obtained. We cannot accept any charges for costs arising from improper or incomplete export documentation.

If you have purchased your unit from a dealer outside Germany please refer to your local distributor or dealer to process the warranty.

7 Technical Data

7.1 Digital input

Input impedance Coax / XLR	75 Ohm / 110 Ohm
Input format Coax / XLR	S/P-DIF, 32 kHz – 192 kHz / 16 – 24 Bit
Input format Optical	S/P-DIF, 32 kHz – 96 kHz / 16 – 24 Bit
Input format USB	Asynchronous, galvanically isolated
	PCM max. 48 kHz / 16 Bit
	PCM max 192 kHz / 24 Bit (additional driver installation
	is required for Windows PCs)
	64DSD (2,8 MHz)
Sampling frequency	Native, 32 kHz - 192 kHz / 16 - 24 Bit
	up/downsampling switchable to 44,1 kHz - 192 kHz / 24 Bit
Deemphasis	yes, automatic

7.2 Digital output

Output impedance Coax   75 Ohm
Output format Coax   S/P-DIF, as input format, max 192 kHz / 24 Bit
Output format Optical   S/P-DIF, as input format, max 96 kHz / 24 Bit

7.3 CD player

CD formats   CD Audio, CDR (according to Red Book standard)
Frequency response CD   <20 Hz – 20 kHz

7.4 Analog output

Output voltage   2,5 V
Frequency range CD 3.2   DC – 75kHz
Signal-to-noise ratio CD 3.2   105 dB
Frequency range CD 5.2   <2Hz – 38kHz
Signal-to-noise ratio CD 5.2   97 dB

7.5 Miscellaneous CD 3.2

Supply voltage   100 V - 240 V, 50 - 60Hz
Power consumption during operation   typ. 15W
Power consumption in stand-by mode   < 1 W
Dimensions (B x H x T)   430 x 100 x 325 mm
Weight   7,9 kg

7.6 Miscellaneous CD 5.2

Supply voltage   100 V - 240 V, 50 - 60Hz
Power consumption during operation   typ. 15W
Power consumption in stand-by mode   < 1 W
Dimensions (B x H x T)   430 x 130 x 370 mm
Weight   9,2 kg

Changes reserved without prior notice.