

11
CE

WURLITZER®

RAVE ON

K99/F 91



OPERATING INSTRUCTIONS

Warning



Although the beam emitted by the laser diodes is nearly invisible, it may cause damage to the human eye. When the laser is being operated, the emitting surface must not be viewed either directly or through a lens, fiber or mirror.

Caution



The CD mechanism and many electronic components are extremely susceptible to electrostatic discharges.

Careless handling may immediately destroy components or can drastically reduce life expectancy of these components so that it will lead to failure after several weeks or even months of use.

Before you touch the player, discharge your hands and tools by touching a grounded metal part of the jukebox, such as the amplifier or the machine chassis. Do not touch terminals or electronic components.

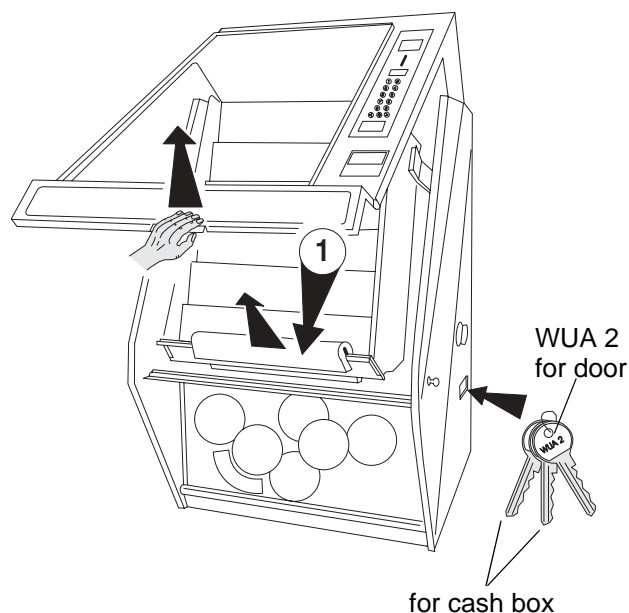
1	Unpacking	3
1.1	Unlocking	3
1.2	Removal of mechanism shipping guards	3
1.3	Power on	4
2	Loading compact discs	4
2.1	Position of CDs in the magazine	4
2.2	Remove magazine	5
2.3	Inserting CDs	5
2.4	CD handling precautions	5
2.5	Insertion of CD covers and title cards	6
2.6	Programming number of CDs in the magazine	7
3	Coin operation or free play?	8
3.1	Coin operation	8
3.2	Free play	8
3.3	Test credit	9
4	Track selection	10
4.1	How to select a track	10
4.2	The button R	10
4.3	The display flashes	10
4.4	I do not like this track - the button CANCEL	11
4.5	Albumplay - playing a whole CD	11
5	Volume, sound and balance control - amplifier F91	12
5.1	The control terminal at the rear	12
5.2	The infrared remote control	13
5.3	Pre-settings for volume	14
5.4	Pre-settings for bass and treble	14
6	Volume, sound and balance control - amplifier K99	15
6.1	Volume control	15
6.2	The infrared remote control	16

6.3	Treble and bass control	17
6.4	Automatic volume correction.....	17
6.5	External amplifier connection	18
6.6	Position of fuses and plug connectors on the K99	19
6.7	External speaker connection	20
6.8	Technical data	22
7	The internal clock	23
7.1	Clock setting	23
7.2	Set date	23
7.3	Set year and weekday	24
8	Automatic random select (Playstimulator)	25
8.1	Repeat time programming	25
8.2	Programming start and stop time	27
9	Back Ground Music (BGM)	29
9.1	Number of BGM CDs and repeat time	30
9.2	Start position for BGM CDs and configuration.....	30
9.3	BGM time zones at different weekdays.....	31
10	Further programming options	33
10.1	Number of tracks played successively on the same disc.....	33
10.2	Disabling single tracks	34
10.3	Selection and credit memory reset by power off.....	35
11	Player and CD cleaning	36
11.1	Nicotine, dust, fingerprints.....	36
11.2	Removing scratches.....	36
11.3	Laser lens cleaning.....	36
12	Technical data	37
13	Declaration of Conformity	38

1 Unpacking

1.1 Unlocking

The key is stored in the coin return cup in the RH cabinet wall. The key WUA 2 unlocks the cabinet by turning the key clockwise. The lock is spring loaded, press slightly against the door, this allows the key to turn easily. The two other keys with 5 digit number codes unlock the cash box inside the cabinet. In this box the hand transmitter is located if an infrared remote control has been installed.

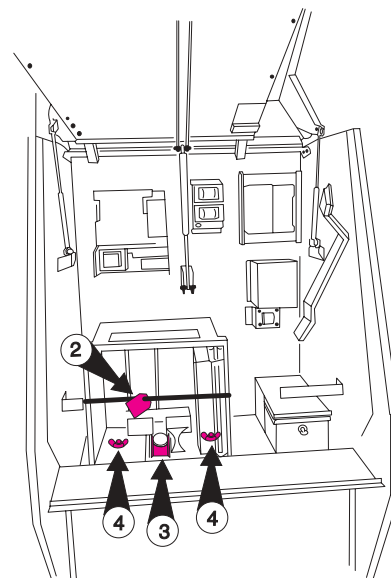


1.2 Removal of mechanism shipping guards

1. Open the door and remove the foam from the prism book.
2. Remove elastic band from the magazine cabinet and remove the plastic pane completely.
3. Remove CD lens cover.
4. Take out the magazine and loosen both wing nuts on the bottom of the magazine cabinet until fully extended.

IMPORTANT:

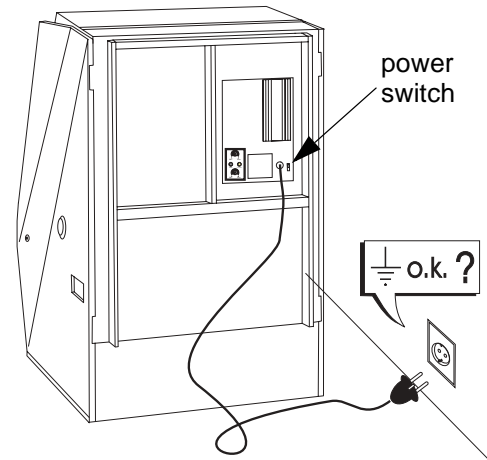
Save the removed shipping guards. You may need them if you decide to move your machine to another location.



1.3 Power on

IMPORTANT: Make sure that wall socket is grounded properly.

Insert the power plug. Set the power switch on the rear side of the jukebox to ON. The illumination will light. The selection sledge starts an initialisation run and the counting of the disc compartments can be watched in the display. If all compartments are recognized the display shows "0 0 6 1" for short time. After all the sledge stops in its home position. The digital display shows the most played track, the 'Hit Of The House'. If the box is brandnew and the selection memory is empty the display shows "0 0 0 0".

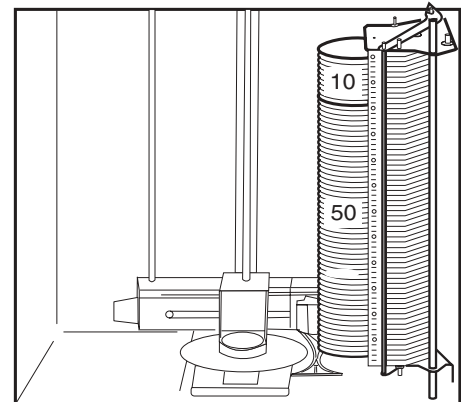


2 Loading compact discs

2.1 Position of CDs in the magazine

The magazine only contains all CDs with even selection numbers (e.g. 02, 04, 06 ...). So you can insert a maximum of 60 CDs. But only 50 CDs can be selected in normal operation, the even selections between CD no. 00 and CD no. 98. CD no. 00 corresponds to compartment 100. The CDs with the (even)numbers between 102 and 120 can only be used for Back Ground Music.

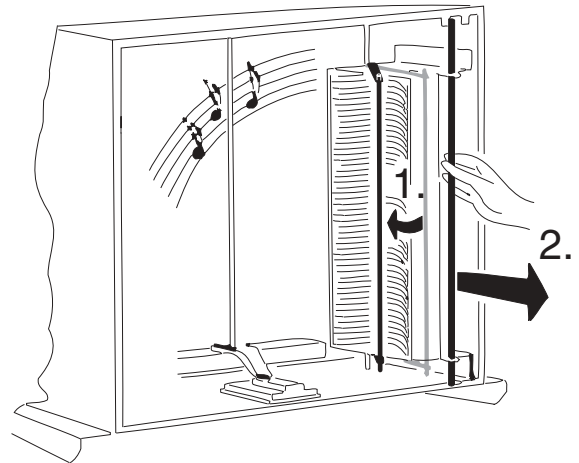
CD 102 - 120 BGM only



2.2 Remove magazine

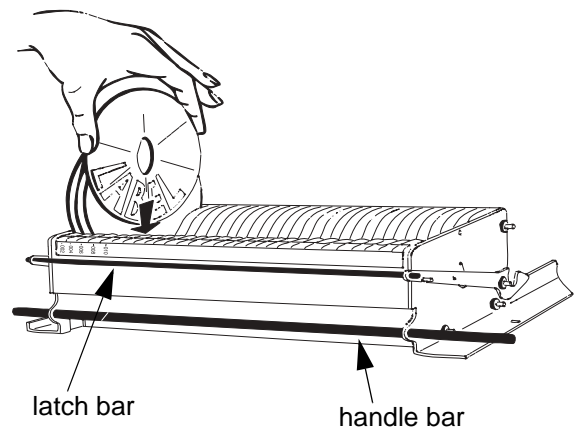
You can take out the magazine by turning the latch bar (1). At the same time all CDs located in the magazine are saved. Pull the handle bar (2) to remove the magazine completely.

When you insert the magazine later again the latch bar clicks into place. This will fix it firmly.



2.3 Inserting CDs

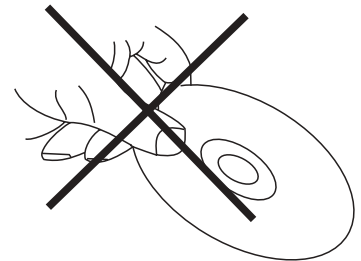
You can lay the magazine flat on a table. Insert the CDs starting in compartment 02. The CD label has to show to the higher compartment numbers.



2.4 CD handling precautions

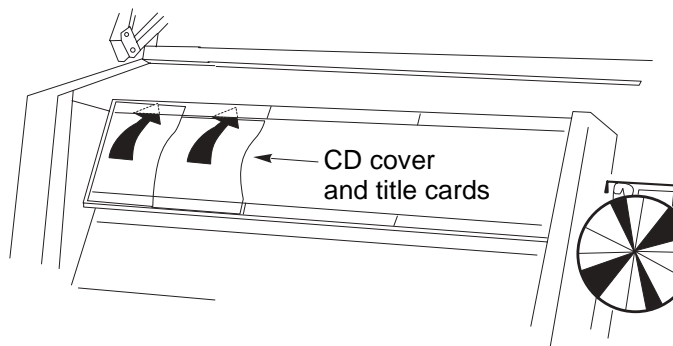
Dust, fingerprints or other dirt on the disc surface can cause skipping, jumping or sticking problems.

Use only clean and undamaged CDs. Never touch the surface of a disc.



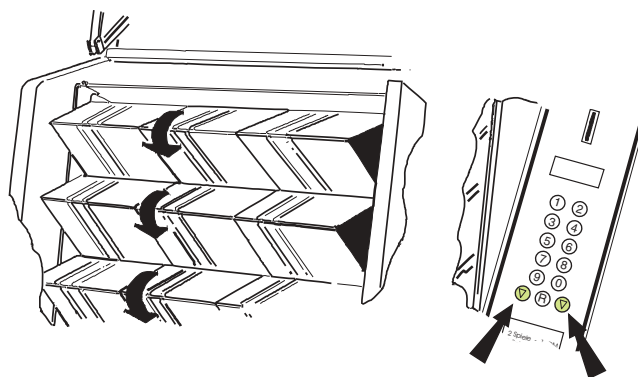
2.5 Insertion of CD covers and title cards

It is recommended to insert the Compact Disc and then the title card into the appropriate numerical slot position of the prism page system.



You can turn the prisms by pressing one of the both arrow buttons. They will stop automatically in the next position.

To avoid that the changer mechanism operates with empty compartments, if less than 50 CDs are inserted the corresponding number of CDs has to be programmed.



If the number of CDs is correct programmed the display will flash when you select an empty compartment. A flashing display always indicates a wrong (also an odd) selection or not enough credit.

The number of CDs in the magazine has to be programmed in service level 1, selection button 5, described as follows.

2.6 Programming number of CDs in the magazine

The CD mechanism of the Rave On only contains the RH magazine. Therefore only the even selection numbers can be used. All the odd selections will be skipped. Because of this the double number of the really (max. 100) inserted CDs has to be programmed. At the rear wall inside of the jukebox cabinet the so-called Selection & Credit Computer is situated. Some units are equipped with a metal cover. But the slide switch "SERVICE" and the button "LT" are accessible through holes.

To program the number of inserted CDs (service level 1):

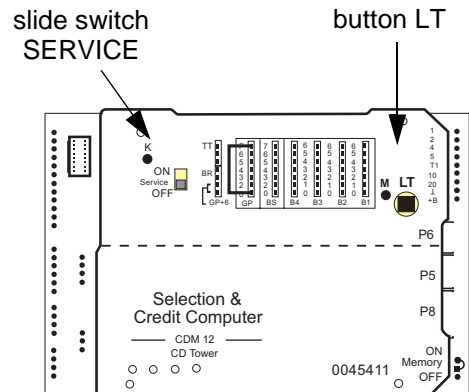
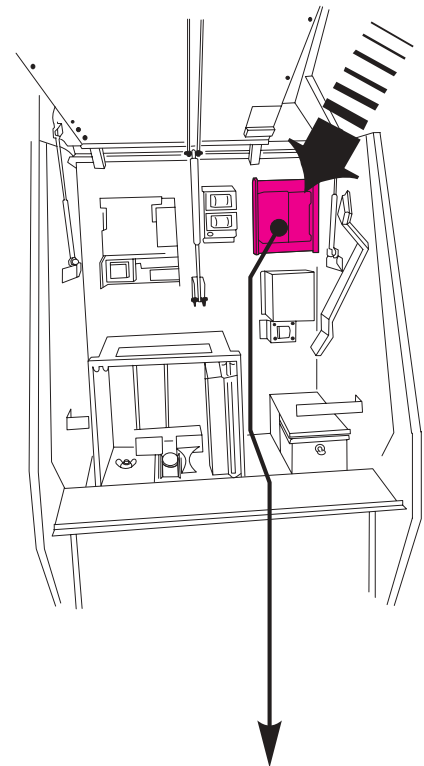
1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R -hold down- and press selection button 0 than release both buttons.
4. Press selection button 1. Service level 1 is reached.
5. To reprogram press selection button 5 -hold down- and press selection button R. Enter the double number of inserted CDs with two digits (exception: 100. CDs = 00).
Example: 24 CDs really exist - enter 48.
6. To check the new settings, press button 5 again.

Exit the service program:

1. Set the slide switch 'service' at the SCC unit to OFF.
2. Press 'LT' button.



The changer starts an initialisation run. After this the jukebox is ready to operate.



3 Coin operation or free play?

Both coin operation or free play are adjustable at the "Selection & Credit Computer" unit. It is located at the RH side of the rear wall inside the cabinet. Special jumpers (short wires, located in the accessory pack of the manual) are used to be set on the SCC-unit. As long as no jumper is set in row GP from 0 to F (free play) the jukebox works with coins only.

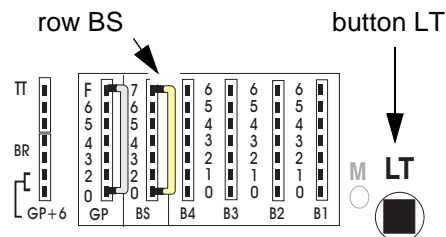
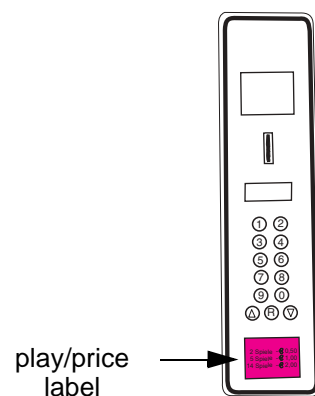
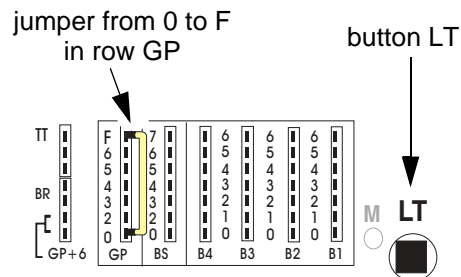
3.1 Coin operation

From factory the jukebox is set to coin operation. If you insert a certain number of coins according to the play/price label, the jukebox gives the credits or plays it is adjusted for. If you want to change the play prices you have to change the jumper settings on the SCC-unit.

3.2 Free play

To set the jukebox to free play:

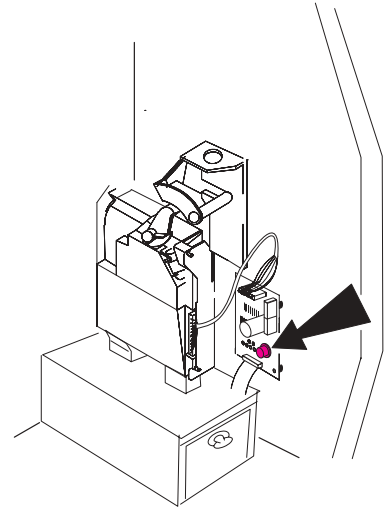
1. In case there are already jumpers in the rows GP and BS, notice their position (for later resetting to coin operation) and remove them.
2. Set a jumper from 0 to F (free play) in the row GP on the SCC unit.
3. Press 'LT' button.
4. Now **one track** is selectable without coin insertion.
5. In between two to six plays are selectable by setting an additional jumper in the row 'BS' (Bonus Step) from 0 to 2 or from 0 to 6.
6. Up to **47 tracks** are pre-selectable by setting a jumper in the row 'BS' from 0 to 7.



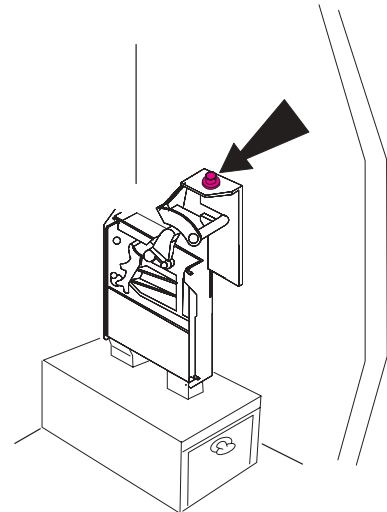
3.3 Test credit

For repair and test purposes it is possible to give test credits. By touching the test credit button you get one credit also shown in the digital display. You can terminate not used credits by pressing the LT button.

In jukeboxes with an electronic coin validator you can find the test credit button on the coin validator interface board.



In jukeboxes with mechanical coin validator the test credit button is mounted over the return lever inside.



4 Track selection

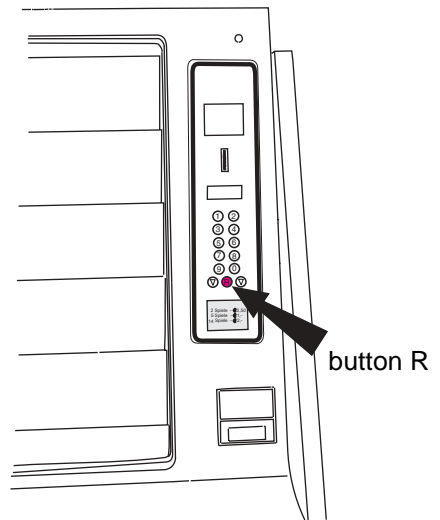
4.1 How to select a track

If credit exists or free play is set you can select tracks by means of the buttons 0 - 9 on the keyboard. First enter the number of the CD with two digits, then the track with two digits too. Remember that the Rave On only accepts even selection (CD) numbers.

Example: CD 2, track 9: Enter 0 - 4 - 0 - 9 (Exception: CD 100 = 00.)

4.2 The button R

You can delete wrongly entered numbers up to the third digit by means of the button R (Reset). But after having entered the fourth digit the jukebox stores and executes a selection. By pressing the button R the available credit will be displayed for a few seconds.



4.3 The display flashes

After entering the fourth digit of a selection the jukebox starts to search and play the selected CD immediately. If the display flashes the entered selection was not valid. Check:

- if credit is available or
- if the selection is higher then the programmed number of CDs in the carrier
- if you have selected an odd selection number



If you select a higher track number than available on a CD the jukebox overcounts the tracks and starts at the beginning.

Example: CD 06 contains 17 tracks. But selected track is 0 - 6 - 1 - 9. The jukebox plays track 02 of CD 03.

A maximum of 35 tracks per CD can be selected!

4.4 I do not like this track - the button CANCEL

If you do not like a track you can cancel it by pressing the button 'CANCEL' at the rear side of the jukebox or at the remote control. The jukebox stops playing or plays the next track if a selection has already been made.

You can terminate all selections only by pressing the button LT on the SCC unit .

4.5 Albumplay - playing a whole CD

You can select a whole CD by entering the CD number followed by '00'. 'Albumplay' has to be enabled and the SCC has either reached the fourth bonus level or free play is set.

How to programme 'Albumplay' (service level 1):

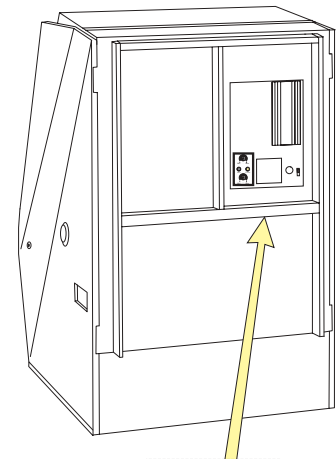
1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R - hold it - and selection button 0, release both buttons.
4. Press selection button 1, service program, level 1 is reached.
5. Press selection button 9 -hold down- and press selection button R. Release both buttons. Enter 01 to enable (or 00 to disable) 'Albumplay'.
6. To check, press selection button 9 again.

Exit the service program:

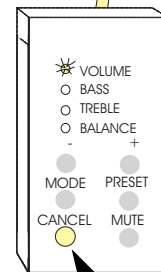
1. Set the slide switch 'service' at the SCC unit to OFF.
2. Press 'LT' button.



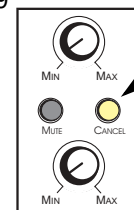
The changer starts an initialisation run. After this the jukebox is ready to operate.



control terminal F91



control terminal K99



button CANCEL

5 Volume, sound and balance control - amplifier F91



ATTENTION! Depending on settings the jukebox can produce volume of more than 70 dB.

5.1 The control terminal at the rear

With the control terminal at the rear side of the jukebox the volume, treble, bass and balance can be controlled individually.

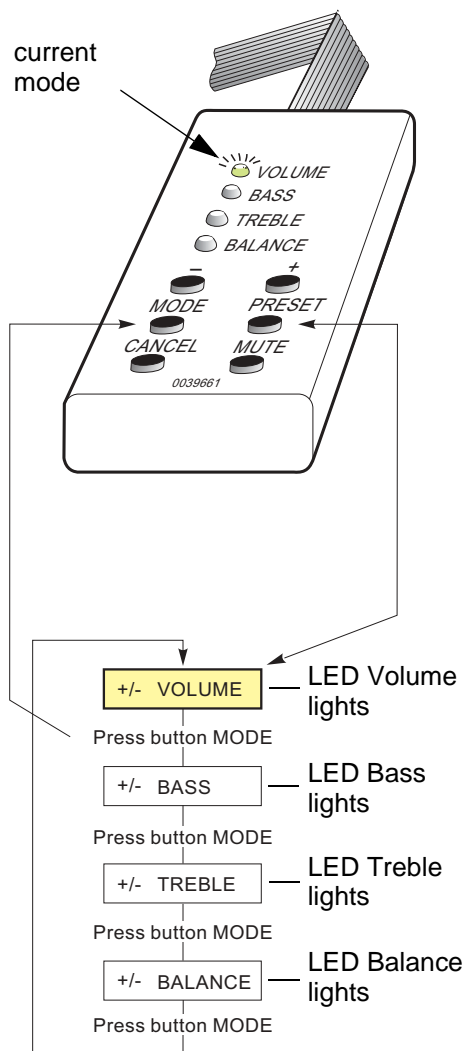
After power up or if no button has been pressed for approx. 5 sec or after the button PRESET has been pressed, the terminal stays in the mode "VOLUME". The LED "VOLUME" lights. In this mode you can control the volume by means of the buttons '+' and '-'.

One LED corresponds to each mode. All modes are accessible by pressing the 'mode' button. With the buttons '+' and '-' treble, bass or balance can be controlled.

The control terminal can be taken out and be used as a wired remote control.

The meanings of the buttons...

- **MODE:** Switches to the next operating mode. After about 5 seconds without operating any buttons, 'volume' mode is resumed.
- **PRESET:** Volume, bass, treble, and balance are set to the pre-set according to DIP switch setting. Actual mode is set to 'Volume'.
- **CANCEL:** Rejects a playing track. If album play is selected the next track will be played.
- **MUTE:** As long as this button is activated, the amplifier output is muted.



5.2 The infrared remote control

As desired an infrared remote control will be installed from factory or can be delivered as conversion kit (part no. 0040435). If it has been installed the hand transmitter is located in the cashbox.

If credit is given or free play is programmed a CD can be selected with the buttons 0 to 9 and R.

Double button functions as required in the service programs (i.e. press button 5 -hold down- and press button R), are impossible. For this you can use the keyboard of the jukebox only.

The meanings of the music control buttons are according to the buttons on the control terminal on the rear side of the jukebox (ref. to the prev. chapter).

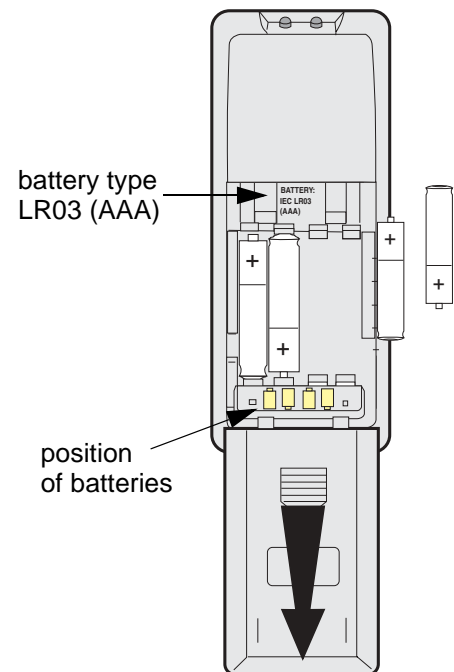
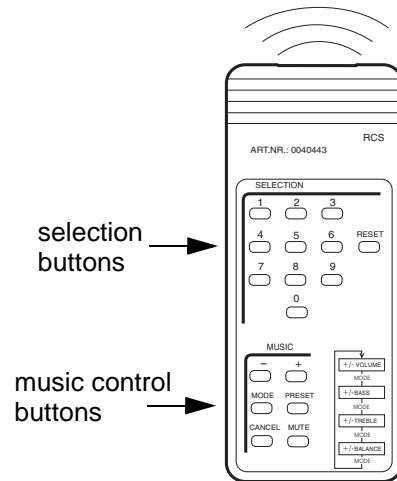
The receiver eye of the infrared remote control is located behind the hole on top right side of the front door. Beam this point directly if possible.

The control terminal on the rear wall is working in parallel to the IR remote control. It can be mounted outside to display the actual mode.

Batteries will be delivered. To open the battery compartment move the cover as shown in the picture.

The required battery type and position of the batteries in the hand transmitter are shown on the casing.

Part no. of the hand transmitter: 0040443.



5.3 Pre-settings for volume

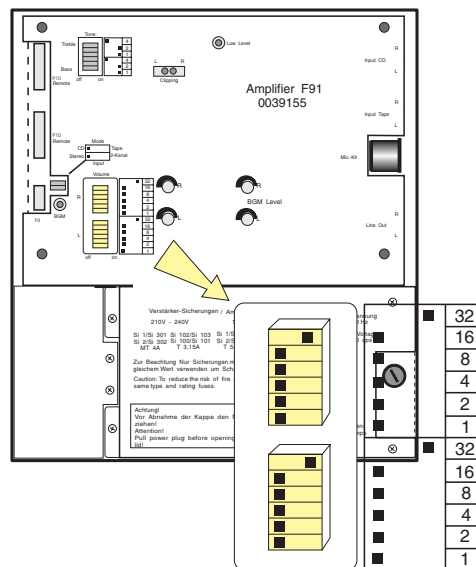
After power on of the jukebox or after pressing the button 'preset' volume, bass and treble working at the preset values set by the DIP switches.

You can set the basic values for volume in 63 steps from zero up to maximum volume.

At the amplifier front side, you have access to 6 DIP switches for preset volume of each channel. These switches have different values (1, 2 ... to 32). If you add all the values of the switches in position "ON" you will get the value for the preset volume.

Consequently the switches 32 and 16 give a coarse adjustment whilst the lower numbers may be used for fine adjustment.

You can find the recommended settings on the amplifier cover.



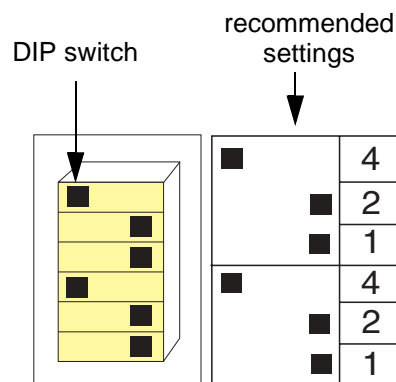
IMPORTANT: If all switches are in position OFF no volume, if all switches are in position ON, the maximum volume appears at power on !

5.4 Pre-settings for bass and treble

Similarly the values for bass and treble can be set. Both channels are adjusted together.

Three DIP-switches with the values 1, 2, 4 are provided for each bass and treble. You can choose 7 different steps from minimum to maximum. Adding all switches set to "ON" gets the set value.

The recommended factory settings are printed on the amplifier cover.



If you change the DIP switch settings while the jukebox is switched on remember that the new settings will only take effect after having pressed the button 'PRESET' at the control terminal or the jukebox is switched off and on again.

6 Volume, sound and balance control - amplifier K99

6.1 Volume control

You can control the volume of the jukebox from different points at the same time:

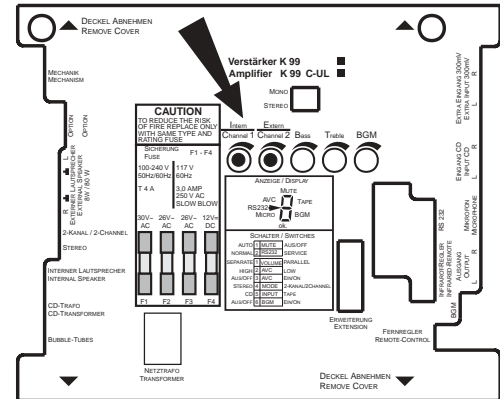
1. With the pots Vol.1 and Vol.2 on the amplifier.
2. With an optional connectable IR remote control.
3. With the pots of the control box at the rear side of the jukebox.

The device from which the volume is altered last determines it.

The volume control box can be taken out and may be mounted at another place as a remote control. Its cable may be extended as required with any kind of wire. The voltages of the control wires are 5V DC.

The control box has two volume knobs (Intern / Channel 1 and Extern / Channel 2). In position "Stereo" the knob "Intern / Channel 1" is effective for the internal speakers. The knob Extern / Channel 2 is controlling the volume of the RCA outputs for an optional external amplifier. In position "2 Channel" of the DIP switch the channels1 (RH) and 2 (LH) are controllable separately.

The pots Vol. 1 and Vol. 2 on the amplifier are not effective if the wire control box is connected.



6.2 The infrared remote control

As desired an infrared remote control will be installed from factory or can be delivered as conversion kit (part no. 0058809). If it has been installed the hand transmitter is located in the cashbox.

If credit is given or free play is programmed a CD can be selected with the buttons 0 to 9 and R.

Double button functions as required in the service programs (i.e. press button 5 -hold down- and press button R), are impossible. For this you only can use the keyboard of the jukebox.

You can control the volume by means of the buttons + and -. In stereo mode the internal +/- buttons control the volume of the internal speakers. The external +/- buttons control the volume of the K99 RCA jacks for an optional external amplifier. In 2-channel mode you can control the external speakers by the buttons + and - of the external channel.

Beam the jukebox directly if possible.

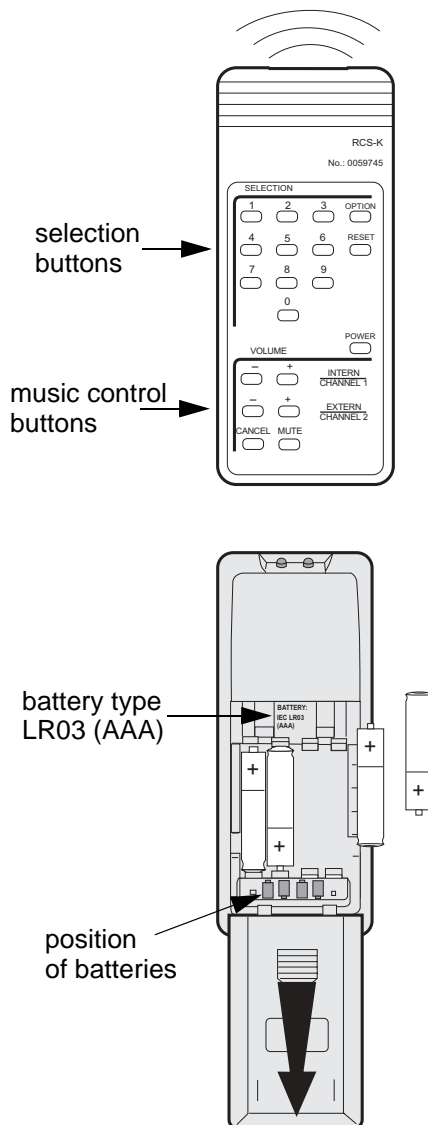
You can use the wired volume control box in parallel.

The power-on volume level is always set by the channel 1 and 2 pots on the amplifier or on the control box (if connected).

Batteries will be delivered. To open the battery compartment move the cover like shown in the picture.

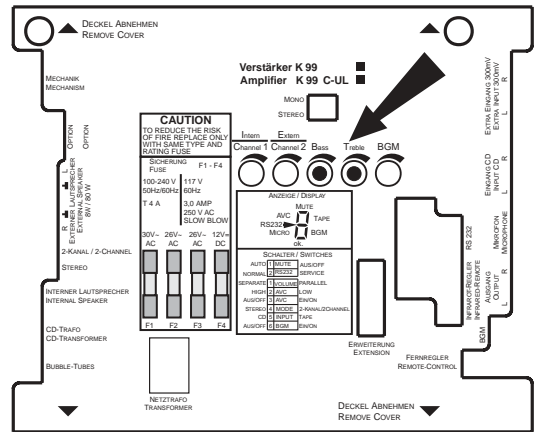
Needed battery type and position of the batteries in the hand transmitter are shown on the casing.

Part no. of the hand transmitter: 0059745.



6.3 Treble and bass control

You can control the sound with the knobs bass and treble on the amplifier.

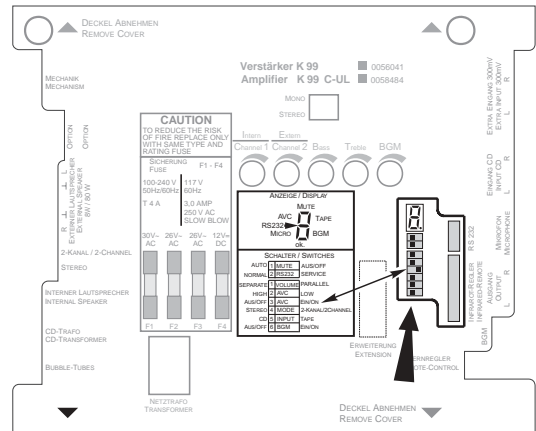


6.4 Automatic volume correction

The AVC sets CDs with different volume levels to an equal level. The level of CDs with a high level will be reduced; the level of low-levelled CDs will be increased. This control works rather slow to save the dynamic range of the track.

You can enable the correction with the DIP switch “AVC” the 3rd switch of the 6 switch group. Default is AVC disabled.

With the second DIP of the 6 switch group you can reduce the intensity of volume correction.



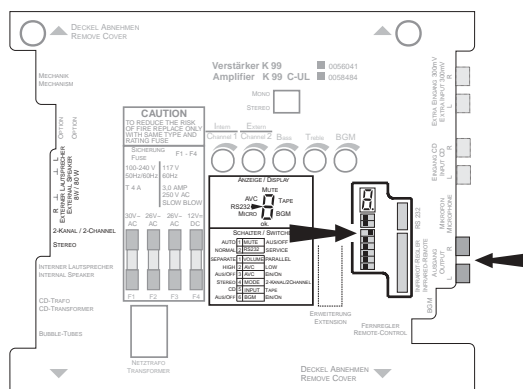
6.5 External amplifier connection

On the RCA terminals “Ausgang - Output” you can connect an external amplifier with any power rate. In Stereo mode the output level is normally controlled by means of the pot for the 2nd channel. Alternatively you can set the first DIP switch of the 6 switch group to ON to couple this output to the normal volume control knobs (1st channel), so that both amplifiers can be controlled together.

Connecting an external amplifier in 2-channel mode is not useful.

To avoid hum- (earth-) loops try to use an external amplifier with ground insulation; it has no earth contacts. If it is impossible (e.g. receivers with cable supply) you can separate both amps by means of the ground isolator part no. 0053300.

The signal of the RCA terminals is also controlled by the settings of bass, treble, BGM, AVC and Mute.



6.6 Position of fuses and plug connectors on the K99

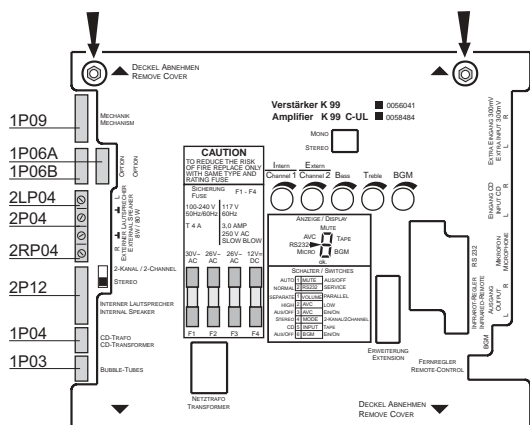
Usually the jukeboxes are fitted with fuses of DIN 41571 (5x20 mm) slow blow or medium blow. Slow blow fuses of DIN standard bear the letter T (T = "Träge") e.g. T 4/250 means T = slow blow, 4 amps, 250 V maximum operating voltage. Which fuses have to fit in where is printed on the power transformer cover. Fast blow fuses (F = Flink) are unsuitable for the jukebox.

The fuse holders on the amplifier P.C.B. are capable to hold also fuses of 6x32 mm size.

You will find the fuses behind the amplifier cover plate. To remove the plate unplug first the cable coming from the mains transformer. Next lose slightly both nuts on top of the amplifier accessible through the holes in the cover plate (arrows). To remove the plate first take the bottom side out of its hinges and then the top side.

Connection plan of the plug terminals:

1P09	-	mechanism, SCC unit
1P06A	-	option
1P06B	-	option
2LP04	-	external speakers, LH
2P04	-	external speakers, ground
2RP04	-	external speakers, RH
2P12	-	internal speakers
1P04	-	CD sub transformer, CD player
1P03	-	bubble tubes



Fuse

Main fuse T 3.15, res. T8 A for 110/117 V.

Fuse F1: T4A supply 30V ~

Fuse F2: T4A supply 26V ~

Fuse F3: T4A supply 26V ~

Fuse F4: T4A supply +12 V=

Failure

No illumination, machine completely dead.

The digital digit on the CD-control is dark. Power supply for CD player and control unit is interrupted. Credit circuit via LED M is interrupted. If credits are still in memory or free play is programmed; a CD will be placed on turntable but is not spinning.

Effect lighting door, CD tower without function, prisms do not turn, possibly defect of the power stage of the amplifier.

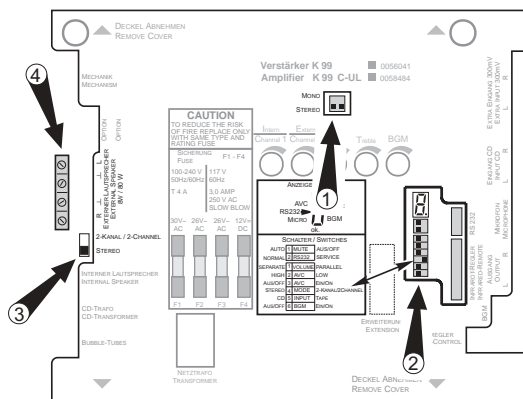
SCC unit dead - digital display dark (except red LED M still lighting up on coin insertion). The LED's K and Z on the SCC unit are dark. No initialisations run after power ON. The status display on the amplifier is dark.

6.7 External speaker connection

The amplifier can operate in two different modes. The normal operation mode reproduces the music in normal stereo sound. So external speakers can be added to each channel.

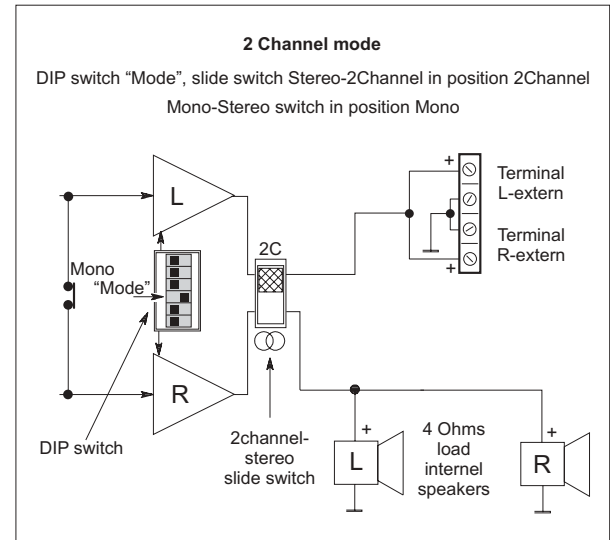
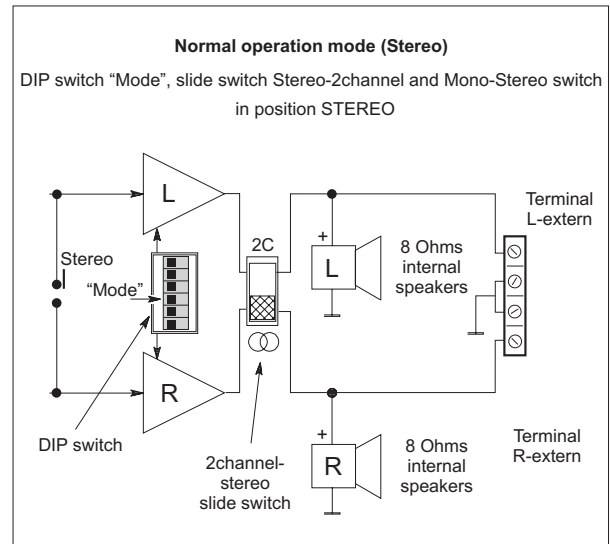
The so-called 2Channel mode uses both stereo channels like separate mono amplifiers so that the sound can be reproduced in different rooms but then in mono only.

The amplifier may not be loaded with more than 4 ohms per channel (less ohms means more load!). On an overload it switches itself off. After a certain cool down time it switches itself on. So if you do not eliminate the reason for the overload the amplifier produces continuously volume dropouts.



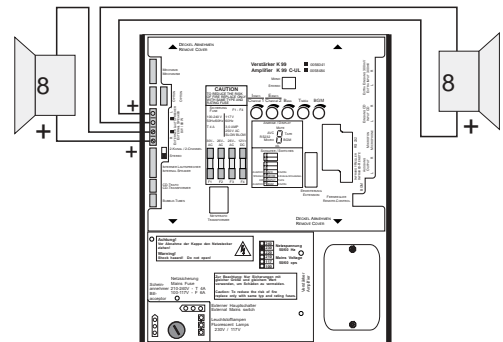
The impedance of all external speakers per channel in "Stereo" mode should not be less than 8 ohms, because the cabinet speakers represent a load of already 8 ohms per channel. If the amplifier is operating in 2-Channel mode, the internal speakers are all loaded to the RH channel (Channel 1); the LH channel (Channel 2) now applying to the screw terminals "Externer Lautsprecher - External speakers" may be loaded with max. 4 ohms.

The amplifier applies approx. 55 watts (rms on max. 0.1% dist.) on a 4 ohms speaker per channel, 18 watts to a 12 ohms speaker and approx. 9 watts to a 24 ohms speaker. That means, that e.g., a 12 ohms speaker connected to the external channel at Dual Channel operation must be a type of at least 18 watts, otherwise the speaker is in danger of destruction at higher volumes. Note that speaker groups like in hi-fi boxes may have, at certain frequencies, impedance's much lower than their rating. Make sure that all speakers are connected in correct polarity.

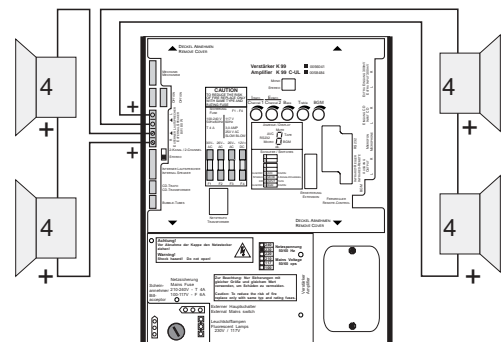


Connect external speakers to the screw terminals on the LH amplifier side.

In Stereo mode do not connect speakers with less than 8 ohms to each channel.



Two speakers of 4ohms also represent total impedance of 8 ohms.



6.8 Technical data

Power supply	100V - 240V
Mains frequency	50Hz - 60Hz
Input voltage CD	typ. 1,2 V
Input voltage tape	300 mV
Output voltage pre-amplifier	<= 1Veff
Output power	2 x 55W (rms)
Output impedance	min. 4 Ohm
Transmission range	20Hz - 20000Hz
Distorsion factor	< 1%
Noise level	depending on the adjusted volume of the jukebox loudness levels of more than 70 dB (A) can be reached

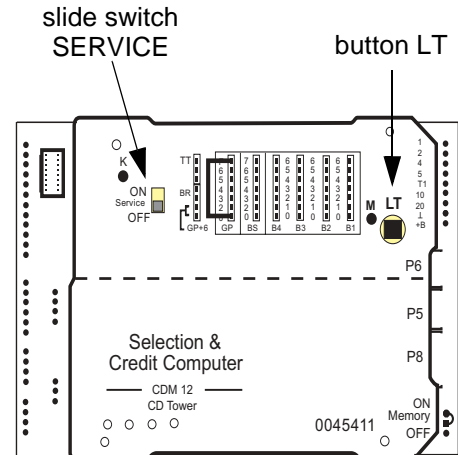
7 The internal clock

It is necessary to programme the time, date and weekday once or at least to control these settings. Only then can the jukebox switch on and off the Playstimulator or the Back Ground Music at the desired time. It is useful to programme time, date and weekday in a single pass.

7.1 Clock setting

To programme the time (and also the date) (service program, level 2):

1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R -hold down- and press selection button 0 than release both buttons.
4. Press selection button 2, service level 2 is reached.
5. Press selection button 0. The display shows the current time.

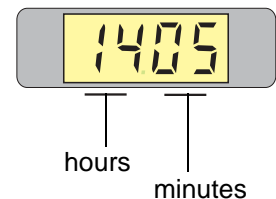


If the displayed time is not correct:

Press selection button 0 -hold down- and press selection button R. Release both buttons. Enter the correct time with four digits.

ATTENTION! Do not press selection button R after reprogramming, otherwise you will get back to service level 1!

Example:



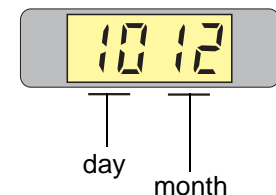
7.2 Set date

Press selection button 1. The display shows the current date.

If the displayed date is not correct:

Press selection button 1 -hold down- and press selection button R. Release both buttons. Enter the correct date with four digits.

Example (Dec. 10th):



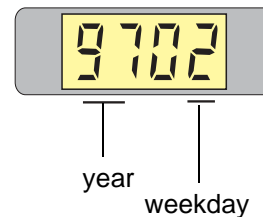
7.3 Set year and weekday

To display the year and the weekday press selection button 2:

The weekdays are assigned to numbers as shown.

0 = Sunday	4 = Thursday
1 = Monday	5 = Friday
2 = Tuesday	6 = Saturday
3 = Wednesday	

Example:



To programme press selection button 2 -hold down- and press selection button R. Release both buttons. Enter the correct year with two digits, then enter a '0' followed by the number of the weekday.

Exit the service program:

1. Set the slide switch 'service' at the SCC unit to OFF.
 2. Press 'LT' button.
- The changer starts an initialisation run. After this the jukebox is ready to operate.

8 Automatic random select (Playstimulator)

If the Playstimulator is programmed the jukebox plays random tracks of all CDs in the magazine registered in the service program level 1, button 5. CDs declared as BGM CDs (ref. to the next chapter) will not be used! The time between the last track played by inserted money and the first random track of the Playstimulator is programmable from 1 up to 98 min. This time is also the repeat time between two random plays. The volume is the same as in normal operation. The Playstimulator will be interrupted immediately when a selection is made and restarts after having played the selected track(s).

The Playstimulator only works:

- if **Back Ground Music is not activated at the same time**
- if **time is programmed correctly**
- if **no credit available**

8.1 Repeat time programming

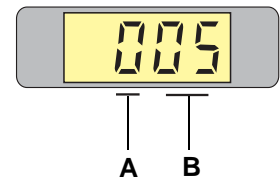
To programme the repeat time for the playstimulator(service program level 2):

1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R -hold down- and press selection button 0 than release both buttons.
4. Press selection button 2. Service level 2 is reached. Display shows: 2_ _ _.
5. Press selection button 9 . The display shows three digits.

A = This digit enables or disables the CONTINUOUS PLAY MODE,
random tracks one after another.
0 = CONTINUOUS PLAY OFF,
1 = CONTINUOUS PLAY ON.

B = Repeat time is set to 5 minutes.

Example:



Operating modes:

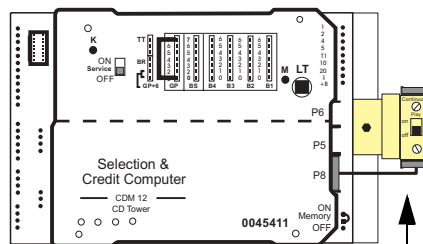
- Continuous playing of random tracks

You can set the jukebox in an easy way to CONTINUOUS PLAY MODE by programming the digit CONTINUOUS PLAY to '1'. An additional programming of the clock and the start and stop time is not necessary.



- CONTINUOUS PLAY switch

By means of an optional switch you can also switch the box to CONTINUOUS PLAY MODE without any need to enter the service program. Part number of this switch is 0034410. It has to be connected to P8 of the SCC unit. (This switch is standard for all One More Time CD).



CONTINUOUS PLAY switch

- A more precise programming in conjunction with the internal clock and the start, stop and repeat time is possible if the digit CONTINUOUS PLAY is set to '0'. A correct programming of all these items is necessary.

- no random plays



- Continuous random plays, however in conjunction with start and stop time.



- After a played random track the jukebox waits about 5 minutes before it starts the next one.



To programme press selection button 9 -hold down- and press selection button R. Release both buttons. Now enter the digit for CONTINUOUS PLAY and the REPEAT TIME with three digits.

To check the settings: Press button 9 again.

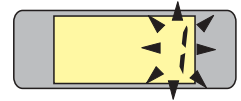
Random tracks will only be played in the time between start and stop time. The programming of this 'time window' is described as follows.

8.2 Programming start and stop time

If start and stop time is programmed the jukebox only plays random tracks in this time period.

You can not programme the Playstimulator over 24.00 o'clock (e.g. 23.00 to 2.00 o'clock) !

Press selection button 8. The display shows at first a flashing '1'.
This means 'start time'.



Then the time will be displayed, here 14.05 o'clock (2.05 p.m.).



Press selection button 8 once again. Now the display shows a flashing '2'.
This means 'stop time'.



Then the time will be displayed, here 18.30 o'clock (6.30 p.m.).



To reprogramme press selection button 8 - hold - and press selection button R. Release both buttons. The digital display goes dark. Enter the start and stop time with eight digits.

Example: The jukebox should play random tracks from 09.00 in the morning to 17.00 in the afternoon.

Enter: 0-9-0-0 - 1-7-0-0
 start time stop time

Then press selection button R. The display shows 2 _ _ _ (service program, level 2).

To check the stop time: Press selection button 8 again.

Exit the service program:

1. Set the slide switch 'service' at the SCC unit to OFF.
 2. Press 'LT' button.
- The changer starts an initialisation run. After this the jukebox is ready to operate.

If the Playstimulator does not work. Check if:

- the clock is set correctly ?
- start and stop time is programmed?
- repeat time is set correctly (not 0)?
- BGM play mode is disabled (ref. to next chapter).
- credits are still in memory.
Display the remaining credits by pressing button R. If so, delete with button LT.

9 Back Ground Music (BGM)

If BGM is programmed and activated a random track from the CDs declared for BGM will be played. The time between the last selected played track and the first BGM track is programmable between 1 and 98 minutes. This time is also the repeat time between two BGM tracks.

The volume by BGM music is reduced compared to the normal volume. It is adjustable with the two BGM pots (RH channel / LH channel) on the amplifiers F91 and K99. BGM mode is active when the relevant LED lights. Once the BGM mode is activated it is not possible to operate the Playstimulator.

If a selection is made by means of coin insertion the track being played will be interrupted immediately. Two intervals can be programmed for each weekday.

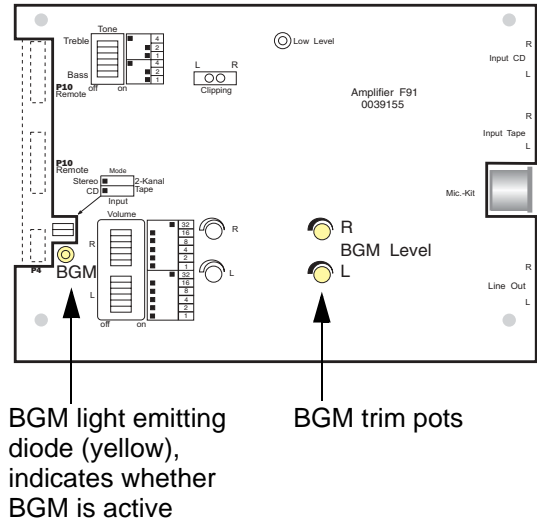
For the K99 amplifier the reproduction volume will be reduced by a certain factor in the BGM (Back Ground Music) mode.

You also can switch "BGM" on by means of the DIP switch "BGM" for test purposes. The RH bottom segment of the status display on the amplifier indicates "BGM active". You can adjust the volume attenuation with the pot "BGM", as long it is active.

To enable BGM (service program, level 3) :

1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R -hold down- and press selection button 0 then release both buttons.
4. Press selection button 3. Service level 3 is reached.

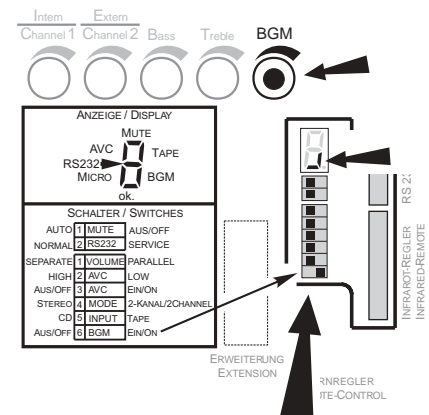
amplifier F91



BGM light emitting diode (yellow), indicates whether BGM is active

BGM trim pots

amplifier K99



ERWEITERUNG EXTENSION
INFRAROT-REGLER INFRARED-CONTROL

9.1 Number of BGM CDs and repeat time

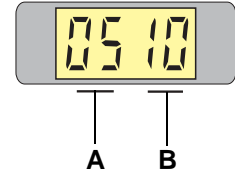
Press selection button 7, the display shows e.g.:

A = Number of BGM CDs; disabled for Playstimulator
BGM OFF = 00.

B = Repeat time between the single BGM tracks (10 min.)
BGM-continuous play = 00

To programme press selection button 7 -hold down- and press selection button R. Release both buttons. The display goes dark. Enter the number of CDs and the repeat time with 4 digits.

Example:
5 CDs reserved for BGM,
repeat time 10 min.



9.2 Start position for BGM CDs and configuration

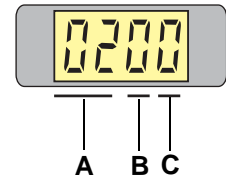
Press button 8. The start position of the BGM CDs is displayed in the left two digits. The RH digits indicate whether BGM CDs can be selected over coin insertion or not.

A = start position of BGM CDs

B = not used, always 0

C = BGM mode

You can determine the digit for the BGM mode as follows:



BGM mode	selection
You want to select BGM CDs by coin insertion too:	yes -> 0; no -> 1
You want that the jukebox plays BGM CDs also if credit still exists:	yes -> 2; no -> 0
BGM start position over 100:	yes -> 4; no -> 0

Select the desired features and add the corresponding code numbers. Enter the sum of the code numbers as BGM mode digit.

Example:

BGM-CDs not selectable by coin insertion	= 1
BGM-CDs should not be played at still existing credit	= 0
BGM start position over 100:	= 4
<hr/>	
Mode number	= 5

To reprogramme press selection button 8 - hold - and press selection button R. The digital display goes dark. Enter start position and the selection option with 4 digits!

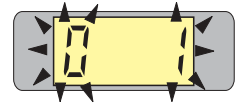
9.3 BGM time zones at different weekdays

You can programme two BGM music intervals per weekday. The following steps are the same for the buttons 1 to 6 in service level 3 according to the table for weekdays..

0 = Sunday	4 = Thursday
1 = Monday	5 = Friday
2 = Tuesday	6 = Saturday
3 = Wednesday	

1. Press button 0, the display shows flashing:

- ⇒ 0 (LH) = Sunday
- ⇒ 1 means start time one,

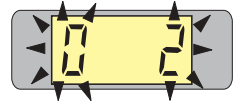


then the time will be displayed, here 9.00 o'clock.



2. Press selection button 0 again, the display shows flashing:

- ⇒ 0 (LH) = Sunday
- ⇒ 2 means stop time one,

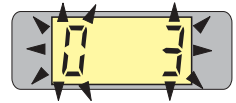


then the time will be displayed, here 12.30 o'clock.



3. Press selection button 0 again, the display shows flashing:

- ⇒ 0 (LH) = Sunday
- ⇒ 3 means start time two,

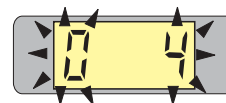


then the time will be displayed, here 20.00 o'clock.

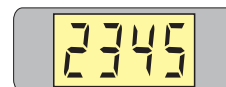


4. Press selection button 0 again, the display shows flashing:

- ⇒ 0 (LH) = Sunday
- ⇒ 4 means stop time two,



then the time will be displayed, here 23.45 o'clock.



To programme press selection button 0 (or button 1 - 6 depending on the weekday to be programmed), hold it and press selection button R. The digital display goes dark. Enter the two time zones in four blocks containing four digits per block one after the other (16 digits).

Examples:

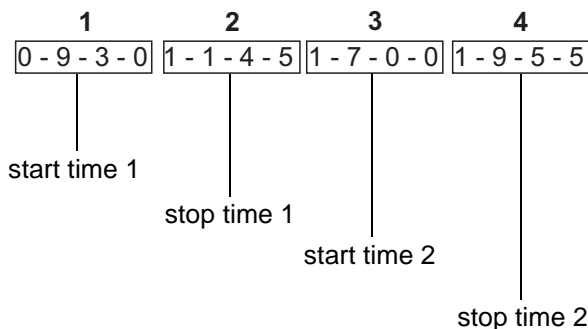
The jukebox should play BGM on Tuesday from 9.30 to 11.45 and from 17.00 to 19.55. To programme press selection button 2 - hold - and press selection button R. The digital display goes dark.

Then enter 0-9-3-0-1-1-4-5-1-7-0-0-1-9-5-5.

If the jukebox should play BGM on Wednesday from 17.00 to 19.55 only, then programme selection button 3 as described: 1-7-0-0-1-9-5-5-0-0-0-0-0-0-0-0. The second time zone has to be filled with zeros. Also this programming is possible:

0-0-0-0-0-0-0-0-1-7-0-0-1-9-5-5.

Meaning of the digits to be entered in the example



Repeat this procedure until all weekdays are programmed (selection buttons 0 to 6).

Exit the service program:

1. Set the slide switch 'service' at the SCC unit to OFF.
2. Press 'LT' button.
- The changer starts an initialisation run. After this the jukebox is ready to operate.

10 Further programming options

10.1 Number of tracks played successively on the same disc

The display shows the maximum number of tracks played successively from the same disc if more tracks have been selected. Preset value = 04 tracks, i.e. after four tracks from this CD it will be taken back to the carrier, and the next CD stored in the selection memory will be played. If selections for the previous CD still exist, they will be played later.

This option to limit the tracks played from one CD is more useful for operators. For individual use this value can be set up to 25.

To change this value (service program, level 2) :

1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R -hold down- and press selection button 0 than release both buttons.
4. Press selection button 2, service level 2 is reached.
5. Press selection button 3, the display shows e.g.:
 ⇒ 04 is factory pre-set for number of tracks played successively on the same disc.



To programme press selection button 3 - hold - and press selection button R. The digital display goes dark. Enter the desired setting by means of the selection buttons with two digits.

If you set this value to 01 all selections will be played in selection order.

To check the settings: Press selection button 3 again.

Exit the service program:

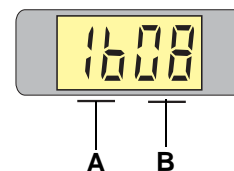
1. Set the slide switch 'service' at the SCC unit to OFF.
 2. Press 'LT' button.
- The changer starts an initialisation run. After this the jukebox is ready to operate.

10.2 Disabling single tracks

You can disable up to maximum 25 different tracks of different CDs. If somebody selects a disabled track the digital display flashes. This indicates that this track is not selectable.

To disable tracks (service program, level 2):

1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R -hold down- and press selection button 0 then release both buttons.
4. Press selection button 2, service level 2 is reached.
5. Press selection button 4, the display shows e.g.:
 - ⇒ **A** = CD number
 - ⇒ **B** = track number



Each operation of selection button 4 shows the next disabled track, maximum 25 tracks.

After having reached the last disabled track, the first one is displayed again. If the display shows 0000 after the first button operation no track is disabled.

To programme:

1. Press selection button 4 -hold- and selection button R. The digital display goes dark.
2. Enter first the number of the CD to be disabled followed by the track (total four digits).
3. To disable the next CD/track, press selection button 4 as often as display shows 0 0 0 0 .
4. Press selection button 4 again -hold- and press selection button R. The digital display goes dark. Then enter CD and track to be disabled.
5. Continue programming for the next track with step 3.

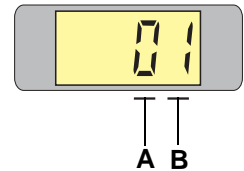
To enable a disabled track: When a track is displayed, press button 4 - hold - and press selection button R and enter first the number of the CD followed by 0 0. To enable all disabled tracks enter 0 0 0 0 (4 times 0).

10.3 Selection and credit memory reset by power off

The function memory reset will cancel remaining credits and selections by power OFF of the jukebox.

To enable this function (service program, level 1):

1. Set the slide switch 'service' at the SCC-unit to ON.
2. Press 'LT' button.
3. Press selection button R -hold down- and press selection button 0 then release both buttons.
4. Press selection button 1, service level 2 is reached.
5. Press selection button 9, the display shows e.g.:
 - ⇒ **A** = digit for memory reset by power off
 - ⇒ **B** = digit for albumplay



This function has to be programmed together with "Albumplay" (ref. to chap. Track selection). A programmed '0' disables the function, a '1' enables it.

To programme press selection button 9 -hold- and press selection button R. The digital display goes dark. Enter the desired setting by means of the selection buttons with 2 digits.

To check, press selection button 9 again.

Exit the service program:

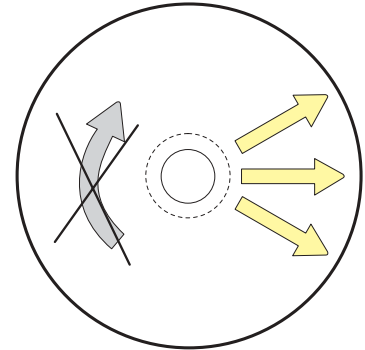
1. Set the slide switch 'service' at the SCC unit to OFF.
 2. Press 'LT' button.
- The changer starts an initialisation run. After this the jukebox is ready to operate.

11 Player and CD cleaning

Dust, fingerprints or other dirt on the disc surface can cause skipping, jumping or sticking problems. Because of this **never touch the surface of a disc!** However it is rather easy to remove nicotine, dust or fingerprints.

11.1 Nicotine, dust, fingerprints

Dust can be removed with a lintfree soft cloth. If necessary, remove heavy dirt or fingerprints with a moistened soft cloth soaked in a solution of water and a detergent. Never use record cleaning sprays or anti static sprays! Furthermore, do not use other types of cleaners containing benzene, thinner or other solvents. These liquids will cause damage to the surface of discs. Move the cloth from the inside towards the outside and not in circular motion.

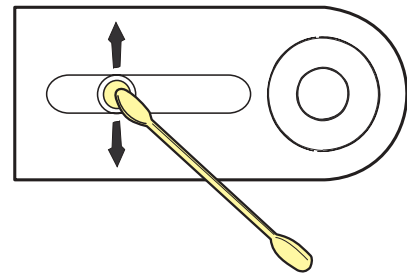


11.2 Removing scratches

Use a soft cloth and a soft polish.

11.3 Laser lens cleaning

Smoke and dust soil the lens. It can be cleaned with a cue-tip soaked in a detergent (i.e. Kodak lens cleaner, available under part no. 0051735 or 25% Isopropanol IPA). Place the tip on the lens and press down carefully.



Caution! The whole laser unit is very sensitive!


1. Move the cue-tip only in the direction shown in the picture so that the lens cannot move.
2. Do not scratch the special treated surface of the lens.
3. The cleaning solution must not run into the focus unit.
4. Keep away metal parts from the lens unit. A strong magnet is located underneath the lens. It attracts also small metal parts and this can block the complete unit.

12 Technical data

Power supply	110 - 240 Volt
Dimensions	Height 151.0 cm Width 79.6 cm Depth 62.2 cm
Weight	137.0 kg

	amplifier F91	amplifier K99
Power supply	100 - 240 V	100 - 240 V
Power consumption	in standby: 146 Watt max. 540 Watt	in standby: 146 Watt max. 205 Watt
Mains frequency	50 - 60 cps	50 - 60 cps
Input voltage CD	typ. 1.2 V	typ. 1.2 V
Input voltage tape	300 mV	300 mV
Output power	2 x 170 W rms	2 x 55 W rms
Output impedance	min. 4 Ohm	min. 4 Ohm
Transmission range	20 - 20000 cps	20 - 20000 cps
Distorsion factor	< 1 %	< 1 %
Noise level	depending on the adjusted volume of the jukebox loudness levels of more than 70db(A) can be reached	

13 Declaration of Conformity

Konformitätserklärung – Declaration of Conformity – Déclaration de Conformité		
Geräteart: Product Description:	Musikbox Jukebox	
Typenbezeichnung: Model No.:	Rave On	
Angewandte EG-Richtlinien: Directives Complied with:	73/23/EEC	Niederspannungsrichtlinie Low voltage directive
	89/336/EEC	Elektromagnetische Verträglichkeit EMC Directive
Technische Vorschriften: Standards used:	EN 50081-1	Elektromagnetische Verträglichkeit Fachgrundnorm Störaussendung Electromagnetic compatibility Generic emissions requirements
	EN 50082-1	Elektromagnetische Verträglichkeit Fachgrundnorm Störfestigkeit Electromagnetic Compatibility Generic Immunity Requirements
	EN 60335-1	Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke Safety of household and similar Electrical appliances
	EN 60335-75	Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke Safety of household and similar Electrical appliances
	EN 550022	Grenzwerte und Messverfahren für Funkstörungen von informationstechnischen Einrichtungen Limits an methods of measurement of radio interference characteristics of information technology equipment
Unterschrift/Signature/Signature		
Gedruckter Name/Print name/nom	Jürgen Obermeier	
Position/Position/Position	Chief Engineer/Technischer Leiter/Directeur Technique	
Datum/Date/Date	2. Januar 1997/2. January 1997/2. Janvier 1997	

A	
Albumplay	11
Amplifier F91	
control terminal	12
infrared remote control	13
pre-settings for bass and treble	14
pre-settings for volume	14
Amplifier K99	
automatic volume correction	17
external amplifier connection	18
external speaker connection	20
infrared remote control	16
position of fuses and plug connectors	19
technical data	22
Treble and bass control	17
volume control	15
Automatic random select (Playstimulator)	25
B	
Back Ground Music (BGM)	29
Button CANCEL	11
Button R	10
C	
CD and player cleaning	36
CDs	
programming of number	7
Coin operation	8
D	
Declaration of Conformity	38
Display flashes	10
F	
Free play	8
I	
Internal clock	23
L	
Laser lens cleaning	36
P	
Player and CD cleaning	36
Power on	4
Programming	
disabling single tracks	34
number of tracks played successively on the same disc	33
S	
Selection and credit memory reset by power off	35
Set	
clock	23
date	23
year and weekday	24
Shipping guards	3
T	
Technical data	37
Test credit	9
Track selection	10
U	
Unlocking	3

WURLITZER®

Germany

Deutsche Wurlitzer GmbH
Niederdorf 5
D-32351 Stemwede-Levern
Tel.: 0 57 45 - 28-0
Fax: 0 57 45 - 2 82 20
contact@deutsche-wurlitzer.de