WallboxPlayer – Install – DEC (DMT-direct)

www.wallboxplayer.com

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This WallboxPlayer is a device that turns your wallbox into a music player. This manual provides instructions on how to install and operate the WallboxPlayer. For operation and options, refer to the full manual. In case you have any questions, contact me anytime.

WallboxPlayer Features

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- Have your wallbox play your favorite music
- Song queue and/or autoplay
- Audio (3.5mm jack and speaker outputs
- Range of compatible wallboxes

General Description

Specifications Compact 75 * 90mm Uses wallbox 24VAC MicroSD (FAT32 max 16GB): max 999 MP3 songs Board version V9 E and up

The WallboxPlayer supports a range of jukeboxes. Tuning and customization is possible. Power to the player is provided from the wallbox, reducing the need for an extra power supply. Music is stored on a microSD card.

The WallboxPlayer on top of the DEC interface (DMT)

board has connectors for most of the connections to be made to jukebox, wallbox, speakers. The on-board MP3 player accepts a user-filled microSD card. It has a jack plug for external audio. The board has an optional data microSD for supporting functions. There are buttons for HW reset on the microprocessor and board to do the setup, cancel or add a play. The board features header connectors for an external 16x2 I2C LCD display. All settings are done in the setup through software and stored. The on-board processor can be updated (refer to the website). The board is powered by a 24VAC (48VA;



2A) transformer. The board including the DEC interface backboard is 7.5 cm x 12 cm and can be mounted in the wallboxes (with a coin slide housing), or outside in a separate housing.

The MP3 music SD card slot can be found on the top left under the blue MP3 player; contacts should be on your side and visible before inserting. The MP3 files are stored on a micro-SD card. Ensure the card is clicked in. The microSD card must be formatted as FAT32 (max 16GB)! The number of (.MP3) files can be as many selections as the wallbox can select. The best place for the MP3 files is in the root folder of the card. When copying files from the PC onto the SD card, windows will hustle the order that then does not match the file/selections. A foolproof way to get the numbering and order right is as follows:

- Format the SD card
- Copy files from computer to SD with drag and drop, one at a time starting with the first one
- Wait until each file is copied, then copy the next (every time just one at a time)

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This way, windows will not change the order as every file can only be added and has a later timestamp than the previous one. When during startup, the MP3 files cannot be read, the status LED will blink twice, and the red MP3 player LED will not be on.

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To get a matching listing of the order of the songs on the SD, use Windows CMD command (after going to the correct SD drive, e.g. \mathbf{E} :):

DIR /B /A:-D *.MP3 > SONGS.TXT

Speaker output is via the onboard amplifier, two speakers (max 2*3W) can be connected. These speakers can be within the wallbox or external. The speaker output is via the connector labeled SpL+ SpL-, SpR+ and SpR-. Note the difference between wiring two separate speakers or a 3-lead consolette (see further below)!

LEDs onboard are used to display status:

- ExtVcc [green] Lights when an external 24V is connected (converted to 5V), supplying the board
- InP [yellow] optional: lights up when a wallbox pulse is detected
- Cntrl [blue] optional: indicates enabling 'make selection' lightbulb or external on/off.
- Ready [green] shows that system is listening/ready to accept inputs (from wallbox or app).

The MP3 player mounted on the board has a red light that lights when the player is ready and blinks when playing a song. The microprocessor mounted on the board has an onboard red light that is on when the system is ready. The blue led on the DEC interface panel indicated the DEC interface is also getting the supply voltage.

2 Installation

Make connections to the board as shown. After the connections have been made, powering up should show

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screen startup messages with release version, jukebox type DEC-direct, and number of MP3 files on card. After a few seconds the system will show the green status light and be available for selections and will display 'Select Song'. If the control relay is set up to enable the lightbulb, the blue led will also be on. When during startup, the MP3 files cannot be read, the red MP3 player LED will not be on.





General overview of wiring to wallbox

The onboard 'select' button to perform setup serves two functions, its primary function is to cancel the currently playing song or add a song when nothing is playing. The secondary function of this button is used within the setup menu which follows. The setup menu is accessed by pressing the button for 5 seconds. After the display instruction, which will be displayed for a few seconds, subsequent settings will be shown to be modified. Pressing the button will change the value of the item, waiting will show the next configuration item.

The setup menu allows you to configure the following settings:

Tools: This menu choice will allow system updates, reset values, restart and a measure/listen utility mode. No need to use if only settings are to be changed. "RESTART" will restart the device. Note that MP3-player will keep playing until early in the startup process. Selecting "DEFAULTS" will set values of settings back to factory defaults. Choices: NO, RESTART, DEFAULTS, UPDATEMODE, LISTEN.

will send out a pulse to a connected jukebox.

Wallbox In: This will configure what input signal is detected by the board, the type of wallbox the board is connected to. Compatible choices: NONE, MP3, Sb_3W1, Sb_3W100, Sb_3W160, Sb_3WA, Sb_SC1, Sb_DEC, Sb_DEC-direct, Ami_W40, Ami_W80, Ami_W120, Ami_W200, Roc_1544, Roc_1555, Roc_1558, Wur_5207, Wur_5210, Wur_5220, Wur_5225, Wur_5250, and more. Use Sb_DEC-direct for this board configuration.
Jukebox Out: if selectable, for WallboxPlayer mode and audio output, this must be MP3. For other selections, it

AutoPlay: If selectable, this value sets the time in seconds until a random song is added to the queue. Selecting 0 will disable this function. Setting it to 60 will add song after one minute of idle time. Choices: 0, 15, 60, 300, 3600.

Volume: This will determine the output volume of the MP3 player (jack output and speakers). It can be adjusted from 0 to 24. Choices: 0...24. 22 is a good setting for DEC.

Equalizer: This will select one of the available equalizers (jack output and speakers). Choices: FLAT, POP, ROCK, CLASSIC, BASS. BASS is recommended.

AutoPlay_number: If selecting this number with the buttons, (1=100, 2=200, 160=279) selects autoplay and plays random songs until selected again. (0, 1 ... 159, 160, (default is 0)

Control_mode: determines the function of the additional on-board relay: NONE, JBCANCEL, WBCOIN, WBCREDIT, SELECT, ON-OFF (default is ON-OFF). The "Select mode" can be used to enable the "Make selection" lightbulb in the wallbox.

3 INSTALLATION:

Seeburg DEC:

The best place is replacing the coin. If not using the coin slide housing, ensure there is an isolation layer or plate below the unit. Connect the wires (black = ground; white = \sim 24V) to the wallbox as it needs to be powered by 24V on the black and white connector slugs. Mounting the optional external 'select' button will allow cancel and adding random songs by pressing a button.

3.1 Prepare to mount the board

- Remove coin unit
- Remove any old grey 10lead cables that may have been cut

3.2 Preparing the wallbox

- To enable Freeplay, remove the narrow credit card on the right in the black-box unit.
- The DEC has a relay to enable the speakers, in cases where the relay is not activated, the relay contacts must be bridged or otherwise no sound will be heard – see picture (or ensure the relay is mechanically locked).





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3.3 Mounting the board and button

 Use the coin unit housing or make 4 M3 holes for player (with DEC interface backboard - DMT, use screws to mount the boards at distance and isolate from the back cover).

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• Mount the select/cancel/setup button in a (drilled) hole on the back or bottom



3.4 Making connections

- Connect the 2 power leads (BLK and WHT) to WallboxPlayer (large middle screw connector, only 2 of 4p will be used). IMPORTANT on the other (wallboxplayer) side connect the black to screw connector GND and the white with the DIODE to 24-25V~.
- Connect the select/cancel/setup button (pin header or green screw connector on the board next to the button) –in picture. Polarity is not important. This is a simple make-contact.
- Connect the 3 speaker wallbox leads (YEL, GRY, GRN) to the wallbox speakers (top small 4p screw connector) – for internal consolette speakers only 3 of 4p will be used.

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Important:

Connecting the speakers in a wallbox (or a set of 2 speakers). For DEC use the middle picture (with green /yellow /grey leads).



3.5 Connecting the 24VAC transformer and powering up

- Ensure the 24VAC (2A) transformer is connected to the connector: the BLK (=gnd) and the WHITE (that has THE DIODE to WallboxPlayer).
- After powering up, the WallboxPlayer will also power up and the display will show relevant information on status and number of songs etc. After starting up, "Select Song" will show.
- Press the "Select/Cancel/Setup button on the board to test if song will start. Press again to cancel.
- Make selection (e.g. 123) on the Wallbox with the buttons 1-9 If properly functioning, a song will start, and the number played will be shown.

4 OPERATION:

The WallboxPlayer in the wallbox (or an enclosure) has following functions are available

- Songs can be selected on the wallbox, play will start after selection or when a song is playing, song will be added to the queue. If the button is pressed longer (2sec) AutoPlay will start and stop if pressed again.
- After choosing the AutoPlay number/selection with the keys, (1=DEC#100,160=DEC#279), random songs will automatically be added and played (even MP3's on the SD beyond the selection limit of 160 see instructions further below for how to do this.), select AutoPlay number again to switch off the function.

(Re)loading songs, playing more than 160/200 and making listing

The MP3 files are stored on a micro-SD card. Ensure the card is clicked in. The microSD card must be formatted as FAT32 (max 16GB). The number of (.MP3) files can be as many selections as the wallbox can select. The best place for the MP3 files is in the root folder of the card. When copying files from the PC onto the SD card, <u>Windows will hustle the order that then does not match the file/</u>selections. A foolproof way to get the numbering and order right is as follows:

- Format the SD card
- Copy files from computer to SD with drag and drop, one at a time starting with the first one
- Wait until each file is copied, then copy the next (every time just one at a time)

This way, windows will not change the order as every file can only be added and has a later timestamp than the previous one. There is a data microSD (FAT32) slot for configuration settings and songname information.

The best way to get a matching listing of the order of the songs on the SD, use widows CMD command, first go to the drive (e.g. E:), then

DIR /B /A:-D *.MP3 > SONGS.TXT

This will create a file that you can read and use for song titles.

Some configurations have a data SD card; this option enables generation of labels (see operation manual).

F:\>DIR /B /A:-D *.MP3 > SONGS.TXT

- F:\>DIR /B /A:-D *.MP3
- 0001 Queen Bohemian Rhapsody.mp3
- 0002 Eagles Hotel California.mp3 0003 - Deep Purple - Child In Time.mp3
- 0004 Led Zeppelin Stairway To Heaven.mp3
- 0005 Meat Loaf Paradise By The Dashboard Light.mp 0006 - Alan Parsons Project - Old And Wise.mp3
- 0006 Alan Parsons Project Old And Wise.mp 0007 - Animals - House Of The Rising Sun.mp3
- 0008 Dire Straits Brothers In Arms.mp3
- 0009 Beatles Hey Jude.mp3 0010 - John Lennon - Imagine.m

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The WallboxPlayer will also play songs that go beyond the selectable numbers (160/200). This is great for random play and hearing (random/surprise) songs other than the ones on the labels. For this, the best way is to create an extra folder (after having put the 160/200 songs on the SD) and simply fill it with the songs you want to hear in random play mode. In below, the folder "extra songs" contains more songs..

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me	Status	#
Extra songs	0	
0001 - Queen - Bohemian Rhapsody.mp3	0	1
0002 - Eagles - Hotel California.mp3	0	2
0003 - Deep Purple - Child In Time.mp3	0	3
0004 - Led Zeppelin - Stairway To Heaven.mp3	0	4
0005 - Meat Loaf - Paradise By The Dashboard Light.mp3	0	5
0006 - Alan Parsons Project - Old And Wise.mp3	0	6
0007 - Animals - House Of The Rising Sun.mp3	0	7
0000 - Dire Straite - Prothers In Arms mn2	0	0

Please contact me in case of questions or inquiries or items not described here.

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