

## Infotainment System



### Introduction

Thank you for purchasing our product – MS 5752 infotainment system. This product is specially designed for buses and coaches. In order to ensure more safety when using this product, please be sure to read this manual thoroughly before installing and using it. Besides, please notice the installation instructions and keep it for future reference!

- The system can be installed and maintained by qualified installation and maintenance personnel.
- Please read each item of this manual thoroughly before installing and using this system.
- It is prohibited to spread the content of this manual without permission.
- This manual is only for reference of related information; please make the actual product as the standard and some items may be subject to change without notice.

Date: 08.01.2015

Page 1 / 16

Molpir s.r.o. sídlo: SNP 129, 919 04 Smolenice; prevádzka: Hrachová 30, 821 05 Bratislava, Slovenská republika, Tel.: 00421 2 4319 1219, Fax: 00421 2 4319 1220, e-mail: obchod@molpir.com, www.molpir.com, www.shop.molpir.com

IČO: 31431372, IČPD: SK 2020391560, Tatra banka Bratislava, č. ú.: 2628020575/1100, register: OS Trnava, odd: Sro, vlož.: 1045/T

MOLPIR GROUP CZ a.s., Technologická 838/14, 779 00 Olomouc, Holice, Česká republika, Tel.: 00420 585 315 017, Fax: 00420 585 315 021, e-mail: molpir\_o@molpir.cz, www.molpir.cz  
MOLPIR GROUP CZ a.s., Business centrum Klamovka, Plzeňská 155/113, 150 00 Praha 5 – Košíře, Tel.: 00420 724 606 000, e-mail: jsvoboda@molpir.cz, www.molpir.cz

IČO: 25828843, DIČ: CZ25828843, ČSOB Olomouc, č. ú.: 377913723/0300, Registrace: KOS, OR Ostrava, oddíl B, vložka č. 2094



## Catalog

☆	Introduction	1
☆	Catalog	2
☆	Main Functions	3
☆	Specification	4
☆	Panel Description	7
☆	Panel Display	8~9
☆	Function Description	9
☆	Profile Description	9
☆	Specific Description	10
☆	Software Update	10~12
☆	Installation Guide	13
☆	System Architecture HDMI	14
☆	System Architecture VGA	15
☆	Trouble Shooting	16
☆	Remark	16



## Main Functions

### Infotainment

- Maximum resolution: 1920 X 1080 for HDMI, and 1024x768 for LVDS
- Video format: MP4, AVI, MKV, 3GP, MOV, FLV, F4V, VOB, and MPG
- Audio format: MP3, ACC, AMR, M4A, OGG and WAV
- Photo format: JPG
- Storage: USB (on the front panel), SD Card (2G–32G), SSD (support up to 64G-2TB with EXT2 and NTFS)
- Support Last Good function (the source from SSD, SD Card and USB )

### Announcement

- There are 2 lines microphones, one is for the driver and the other is for the attendant.
- The announcement can be automatically started and stopped via microphone switch.
- When it is in the mode of Announcement, other function modes like radio or media are all in state of Pause.

### Dual Zone Control

- For passengers: can select "RADIO(FM/AM)–MEDIA–AUX–OFF" by circle
- For the driver: can select "RADIO(FM/AM)–MEDIA–AUX–OFF" by circle

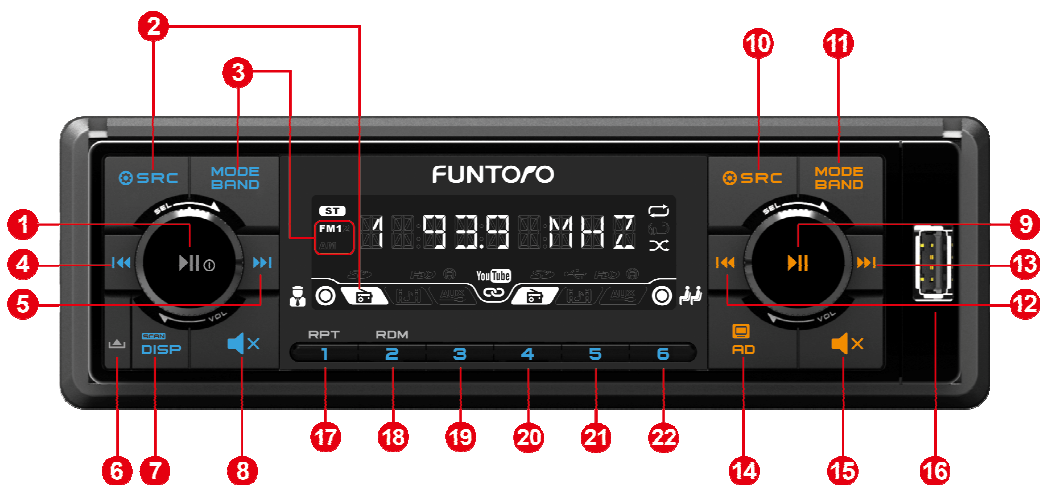


## Specification

Chipset	Freescale i.MX6 Dual Core
Display	LCM module (72mm × 23mm)
	Detachable with anti-thief design
Memory	2GB DDR3 SDRAM
	8GB eMMC storage
Storage	Swappable SATA 2.5" SSD , Standard SD & Micro SD slot
Radio	FM Tuning range (76.0MHz-108.0MHz )
	AM Tuning range (522.0KHz-1269.0KHz )
HDMI	HDMI In/out (1080P)
USB	Front: USB 2.0 *1
	Back: USB 2.0 *2
I/O	VGA out × 2 (S-8 green *1 + DB15*1)
	Video out × 1 (CVBS, Yellow)
	AV-in × 1 (RCA, R/W/Y)
	RS232 × 2
	Audio Line out × 6 (2+4, 45W)
	MIC-In × 2 (4-pin connector)
	CAR I/O wire reserved × 4
Connectivity	Giga LAN for ext. device (ex. 3G router)
	Support Mini-PCIE slot
Power	Wide range 9~36V vehicle power
Operation System	Android 4.2.2
Remote	Support Cloud platform (FTR Cloud 4.0 )
Environment	Operation Temperature: -20° ~ 70° C
	Storage Temperature: -40° ~ 85° C
Dimension	7.2inch (W) × 2.11inch (H) × 6.1 inch (D)
Accessory Cables	PWR+SPK cable *1
	Media IO cable *1
	CAR IO+MIC cable*1
Certification	CE, FCC, BSMI, E-mark



## Panel Description



### Please change the above picture to English version

1. Power on/Power off/Play/Pause/VOL/SETTING/SEL
  - ✓ Short press: you can play or pause in state of Media; adjust or finish the setting of the item in state of Setting; select specified media file in state of Media List mode.
  - ✓ Long press: you can power on in state of Power off; power off in state of Power on.
  - ✓ Turn: in general state, turn left to volume down and turn right to volume up; in setting mode, you can adjust or select BASS / TREBLE / BLA / FAD / LOUD / EQ / UPDATE / DIAGNOSIS; in Media list mode, you can quickly select the file in play list.
2. SRC/Setting
  - ✓ Short press: switch to RADIO/MEDIA/AUX/OFF
  - ✓ Long press: enter to setting mode or exist from setting mode
3. MODE/BAND
  - ✓ Short press: in state of Media, you can select to switch Movie/Music/Photo (in SSD/SD/USB)/Internet Radio or YouTube; in state of Radio, you can switch to FM1/FM2/AM.
  - ✓ Long press: no action
4. Turn Back
  - ✓ Short press: in state of Media, short press to the previous file (movie music, photo, youtube and e-radio); in state of radio, short press to decrease 0.1MHz of FM band and 100 Hz of AM band; in state of Turn Back, you can switch to (2X/4X/8X/16X/20X/32X); in state of Media list mode, select the previous media file in play list.
  - ✓ Long press: in state of Media, long press to turn back; in state of Radio, long press to backward search the nearest available radio channel. Press any key to stop long press action.
5. Fast Forward
  - ✓ Short press: in state of Media, short press to the next file (movie music,





- photo, YouTube and e-radio); in state of radio, short press to increase 0.1MHz of FM band and 100 Hz of AM band; in state of Fast Forward, you can switch to (2X/4X/8X/16X/20X/32X); in state of Media list mode, select the next media file in play list.
- ✓ Long press: in state of Media, long press to fast forward; in state of Radio, long press to forward search the nearest available radio channel. Press any key to stop long press action.
6. Release the front panel. Open the cover of bottom left and remove the screw, then close the cover and press the button to release the front panel for SSD or SD card change.
7. DISP/SCAN
- ✓ Short press: switch to 3 kinds of display states (Driver, Passenger and Time).
  - ✓ Long press: scan all bands of radio, and then select the 6 bands with the best reception and record in hotkeys.
8. MUTE
- ✓ Short press: mute at the driver side
  - ✓ Long press: no reaction
9. Power on/Power off/Play/Pause/VOL/SETTING/SEL
- ✓ Short press: you can play or pause in state of Media; adjust or finish the setting of the item in state of Setting; select specified media file in state of Media List mode.
  - ✓ Long press: you can power on in state of Power off; power off in state of Power on.
  - ✓ Turn: in general state, turn left to volume down and turn right to volume up; in setting mode, you can adjust or select BASS / TREBLE / BLA / FAD / LOUD / EQ / UPDATE / DIAGNOSIS; in Media list mode, you can quickly select the files in play list.
10. SRC/Setting
- ✓ Short press: switch to RADIO/MEDIA/AUX/OFF
  - ✓ Long press: enter to setting mode or exit from setting mode.
11. MODE/BAND
- ✓ Short press: in state of Media, you can select to switch Movie/Music/Photo (in SSD/SD/USB)/Internet Radio or YouTube; in state of Radio, you can switch to FM1/FM2/AM.
  - ✓ Long press: in states of Media, long press to open play list.
12. Turn Back
- ✓ Short press: in state of Media, short press to the previous file (movie music, photo, YouTube and e-radio); in state of radio, short press to decrease 0.1MHz of FM band and 100 Hz of AM band; in state of Turn Back, short press to switch to (2X/4X/8X/16X/20X/32X); in state of Media list mode, select the previous media file in play list.
  - ✓ Long press: in state of Media, long press to turn back; in state of Radio, long press to backward search the nearest available radio channel. Press any key to stop long press action.
13. Fast Forward
- ✓ Short press: in state of Media, short press to the next file (movie music, photo, YouTube and e-radio); in state of radio, short press to increase 0.1MHz



of FM band and 100 Hz of AM band; in state of Fast Forward, you can switch to (2X/4X/8X/16X/20X/32X); in state of Media list mode, select the next media file in play list.

- ✓ Long press: in state of Media, long press to fast forward; in state of Radio, long press to forward search the nearest available radio channel. Press any key to stop long press action.
- 14. Monitor/AD
  - ✓ Short press: play the specified AD movie with hotkey 1 to 6
  - ✓ Long press: open or close the lift-type screen.
- 15. MUTE
  - ✓ Short press: mute at passenger side
  - ✓ Long press: no reaction
- 16. USB Slot

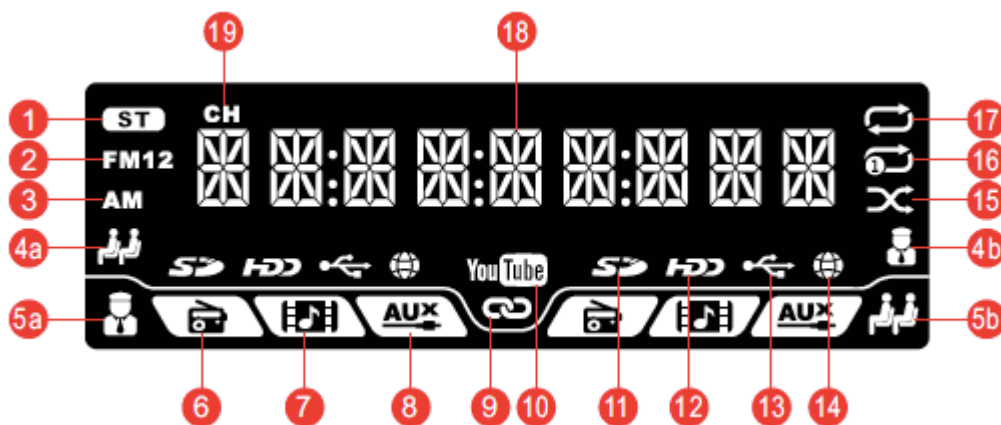
Used for USB flash drive, as content of media source or of software update. Cell phone can plug-in to USB slot as USB flash drive.
- 17. Hotkey 1
  - ✓ Short press: in state of Radio, short press to switch to channel 1; in state of Media, short press to set Repeat All/Repeat One/None; in mode of AD, short press to play the first movie.
  - ✓ Long press: in state of Radio, save the current band to channel 1.
- 18. Hotkey 2
  - ✓ Short press: in state of Radio, short press to switch to channel 2; in state of Media, short press to set Random or Sequence; in mode of AD, short press to play the second movie.
  - ✓ Long press: in state of Radio, save the band to channel 2.
- 19. Hotkey 3
  - ✓ Short press: in state of Radio, short press to switch to channel 3; in mode of AD, short press to play the third movie.
  - ✓ Long press: in state of Radio, save the band to channel 3.
- 20. Hotkey 4
  - ✓ Short press: in state of Radio, short press to switch to channel 4; in mode of AD, short press to play the fourth movie.
  - ✓ Long press: in state of Radio, save the band to channel 4.
- 21. Hotkey 5
  - ✓ Short press: in state of Radio, short press to switch to channel 5; in mode of AD, short press to play the fourth movie.
  - ✓ Long press: in state of Radio, save the band to channel 5.
- 22. Hotkey 6
  - ✓ Short press: in state of Radio, short press to switch to channel 6; in mode of AD, short press to play the fourth movie.
  - ✓ Long press: in state of Radio, save the band to channel 6.



## Panel Display

There are 3 kinds of display modes, Driver Mode, Passenger Mode and Time Display Mode. As for display function, it's mainly based on Driver Mode while Passenger Mode subsidiary.

1. In normal status, the function of panel display is mainly based on Driver Mode.
2. If the driver needs to operate some functions for passengers, like play content (movie or music), the panel display will show information of Passenger Mode. However, if no any function in Passenger Mode is operated within 8 seconds, the function of panel display will be returned to Driver Mode.
3. Press "DISP" key, then the driver can switch to Passenger Mode or Time Display Mode. However, if no any function in Passenger Mode is operated within 8 seconds, the function of panel display will be returned to Driver Mode.



- 1 - Stereo / mono broadcasting
- 2 - FM1 / FM2 Radio
- 3 - AM radio
- 4 - Present the passenger zone is on the left side and the driver zone is on the right side. It is not default setting, so the icon is hidden unless modified the setting.
- 5 - Present the driver zone is on the left side and the passenger zone is on the right side. It is default setting, so the icon is showed up.
- 6 - Source: Radio
- 7 - Source: Multi media
- 8 - Source: AUX in
- 9 - When the 2 zones are set in the same source, they are synchronized and this icon will be showed up
- 10 - Current media mode is YouTube
- 11 - Current media content is from SD card
- 12 - Current media content is from hard disc
- 13 - Current media content is from USB drive
- 14 - Current media mode is internet radio





- 15 – Random
- 16 – Repeat one
- 17 – Repeat all
- 18 – Time, file name, radio band, playing information, setting items and so on.
- 19 – The preset radio stations (1 to 6)

## Function Description

1. Driver zone and passenger zone can play different source. For example, driver zone is radio, and passenger is movie
2. Support MTP (Media Transfer Protocol). With this engine, cell phone's music can be played via front USB slot
3. Support AD play by schedule
  - With function of schedule play.
  - The screen can be split with functions of banner and marquee.
  - Can be published from FUNTORO Cloud
4. Trace car by GPS signal from cloud
5. Upload movie, music and AD playing statistic data to cloud.
6. Preset the URL of YouTube and Internet radio URL to profile
7. Support HUAWEI 3G module (Mini PCIE)
8. Support Ralink WiFi module (Mini PCIE)

## Profile Description

Profile is necessary files for running SuperDIN function. It is stored in SuperDIN flash.

1. Installation guide
  - Copy all profiles to external storage (USB, SD card or SSD) "\\funtoro\conf\_new" folder.
  - Create a new file "new.flag" under "\\funtoro\conf\_new" folder.
  - Plug-In the external storage to SuperDIN
  - System will automatically do copy process.
  - If success, the new.flag in external storage will be removed.
2. Important Profiles
  - A. conf\properties.xml:  
set system language, time zone, radio channel and so forth default settings.
  - B. conf\fan\_control.cfg:  
set default temperature to open or close FAN.
  - C. conf\resolution.cfg:  
set default HDMI and LVDS output resolution. For HDMI, it can be 920x1080M@60, 1280x720M@60, 720x480M@60 or 720x576M@50.  
For LVDS, it can 800x480 or 1024x768
  - D. conf\RemoteConfig.xml:  
set cloud address and which data type to be uploaded to cloud.
  - E. conf\volume\_am.curve, volume\_aux.curve, volume\_fm.curve



Date: 08.01.2015

Page 9 / 16

Molpir s.r.o. sídlo: SNP 129, 919 04 Smolenice; prevádzka: Hrachová 30, 821 05 Bratislava, Slovenská republika, Tel.: 00421 2 4319 1219, Fax: 00421 2 4319 1220, e-mail: obchod@molpir.com, www.molpir.com, www.shop.molpir.com

IČO: 31431372, IČpD: SK 2020391560, Tatra banka Bratislava, č. ú.: 2628020575/1100, register: OS Trnava, odd: Sro, vlož.: 1045/T

MOLPIR GROUP CZ a.s., Technologická 838/14, 779 00 Olomouc, Holic, Česká republika, Tel.: 00420 585 315 017, Fax: 00420 585 315 021, e-mail: molpir\_o@molpir.cz, www.molpir.cz

MOLPIR GROUP CZ a.s., Business centrum Klamovka, Plzeňská 155/113, 150 00 Praha 5 – Košíře, Tel.: 00420 724 606 000, e-mail: jsvoboda@molpir.cz, www.molpir.cz

IČO: 25828843, DIČ: CZ25828843, ČSOB Olomouc, č. ú.: 377913723/0300, Registrace: KOS, OR Ostrava, oddíl B, vložka č. 2094

- and volume\_mp3.curve:  
set each volume step's DB gain for AM, FM, MP3 and AUX-IN.
- F. resources\com.funtoro.posreporter\properties.xml: set cloud GPS server information
  - G. resources\com.funtoro.onedin.funtoroframework\properties.xml: set AD download path and other system needed path name.
  - H. resources\com.funtoro.central.siam.register\properties.xml: set password and other needed setting for running Diagnostic function

## Specific Description

When panel display is in state of Power off, you can press F1 to F3 on keyboard.

1. Press F1 : Android Applications List
2. Press F2 : File Management(Delete File)
3. Press F3 : SuperDIN Information
4. Press F4 : Run In (For Factory)

## Software Update

Operator can update system software by below two ways via USB Flash drive. System software includes:

- OS Image (file name: update.zip)
- MCU application (file name: ms57521AP.hex)
- MCU bootloader (file name: ms57521BL.hex)
- Audio board Application (file name: ms57522AP.hex)
- Audio board bootloader (file name: ms57522BL.hex)

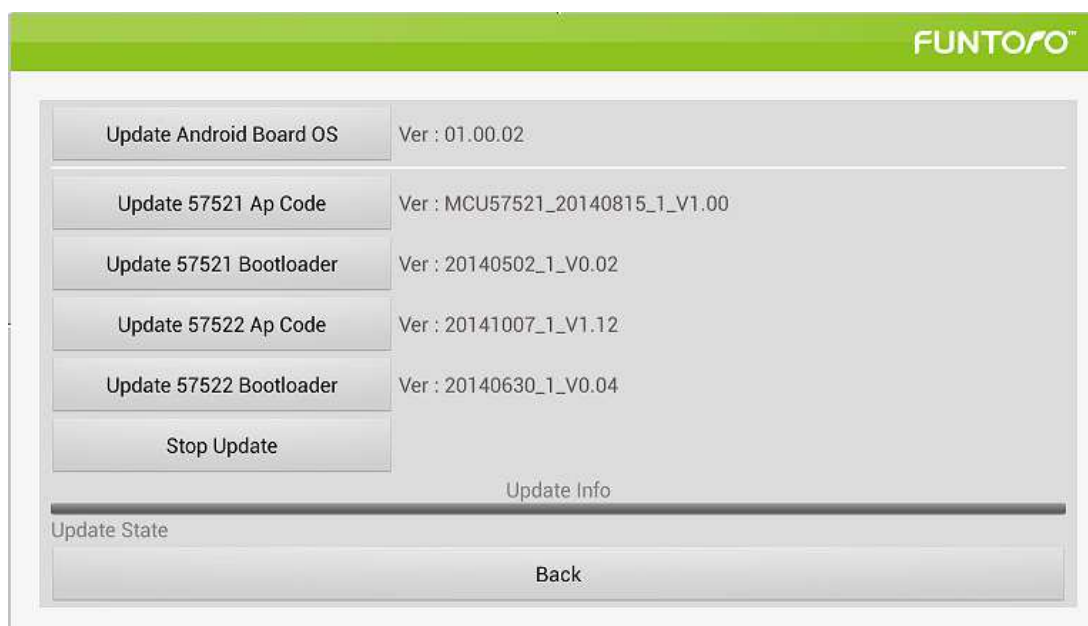
Before update, operator must copy these files to USB root path.

### Update Software by LCM panel:

1. Insert USB into the front USB slot.
2. After booting of SuperDIN, long press the SRC button
3. System enter the Setting mode
4. Clockwise rotate the Knob button until LCM shows "UPDATE",
5. Press the Power button to enter the updating mode
6. Rotate the Knob button again until the item you want to update appears.
7. LCM will display the item name and version alternatively
8. Operator can long press SRC button to exit, or rotate the knob counterclockwise until "SKIP" appears. Then press Power button to exit.
9. Short press the Power button while the updated item blinking to start updating process.
10. If success, system will be rebooted and prompt beep sound.







7. Click the item you want to update.
8. If success, the progress bar will have a moving thumb, and system will be reboot after finish.
9. If fail, the progress bar becomes empty. Operator can try again.



Date: 08.01.2015

Page 12 / 16

Molpir s.r.o. sídlo: SNP 129, 919 04 Smolenice; prevádzka: Hrachová 30, 821 05 Bratislava, Slovenská republika, Tel.: 00421 2 4319 1219, Fax: 00421 2 4319 1220, e-mail: obchod@molpir.com, www.molpir.com, www.shop.molpir.com

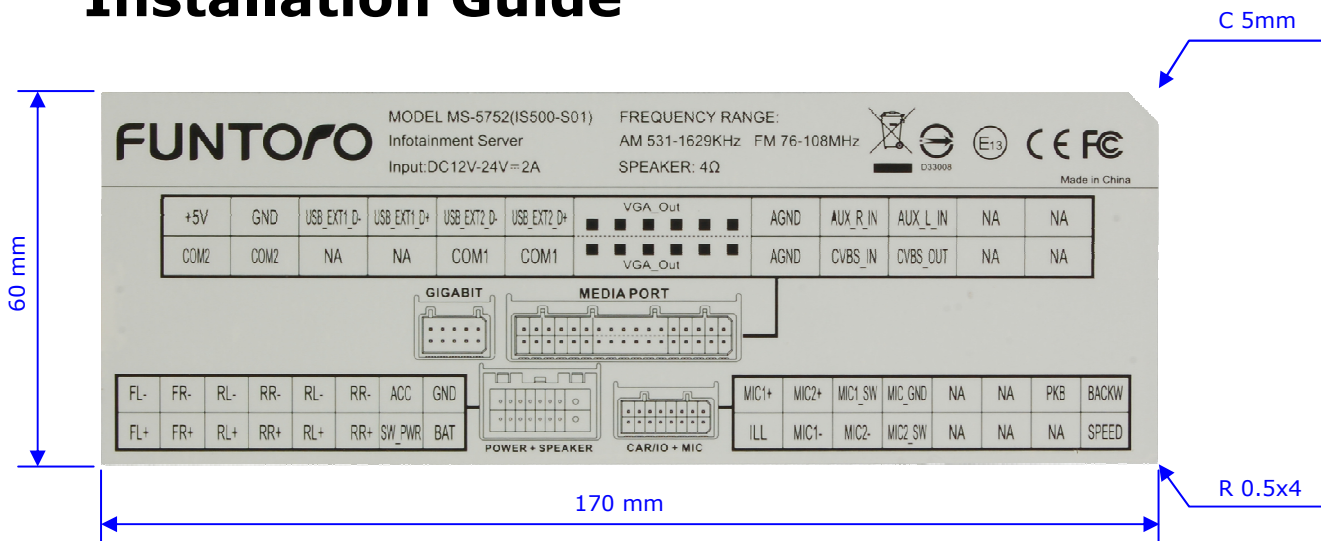
IČO: 31431372, IČpD: SK 2020391560, Tatra banka Bratislava, č. ú.: 2628020575/1100, register: OS Trnava, odd: Sro, vlož.: 1045/T

MOLPIR GROUP CZ a.s., Technologická 838/14, 779 00 Olomouc, Holice, Česká republika, Tel.: 00420 585 315 017, Fax: 00420 585 315 021, e-mail: molpir\_o@molpir.cz, www.molpir.cz

MOLPIR GROUP CZ a.s., Business centrum Klamovka, Plzeňská 155/113, 150 00 Praha 5 – Košíře, Tel.: 00420 724 606 000, e-mail: jsvoboda@molpir.cz, www.molpir.cz

IČO: 25828843, DIČ: CZ25828843, ČSOB Olomouc, č. ú.: 377913723/0300, Registrace: KOS, OR Ostrava, oddíl B, vložka č. 2094

## Installation Guide



### The steps to install:

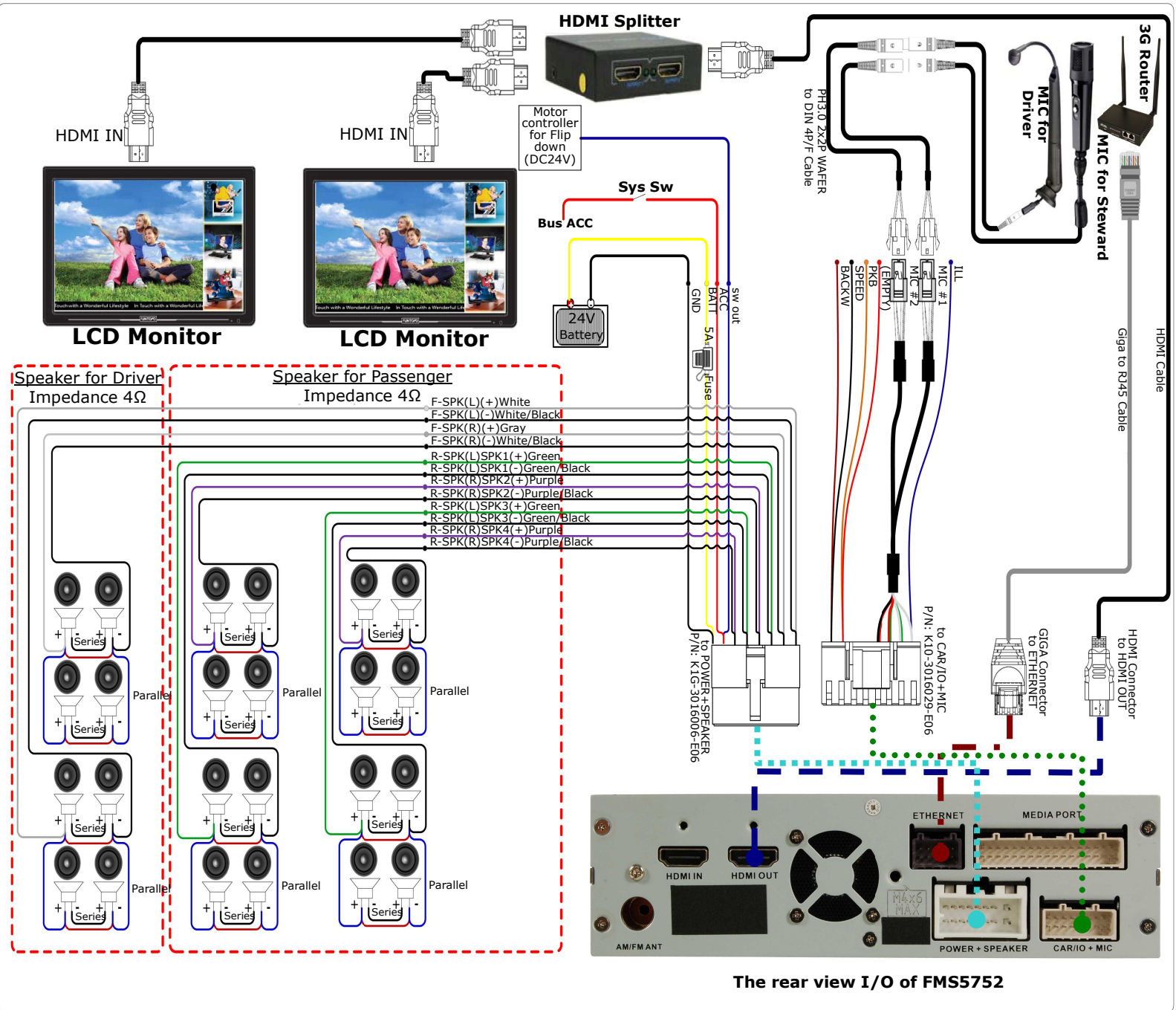
Please turn off the power and switch of the device before installation. Do not power on before connecting well.

1. Put the holder into the hole of super DIN in the car.
2. Connect the circuit in the car according to the directions of cables.
3. Insert the connector and make sure it is fixed properly.
4. Finally, put the device into the holder until it is fixed properly.





## System Architecture HDMI



The rear view I/O of FMS5752

Date: 08.01.2015

Molpir s.r.o. sídlo: SNP 129, 919 04 Smolenice; prevádzka: Hrachová 30, 821 05 Bratislava, Slovenská republika. Tel.: 00421 2 4319 1219, Fax: 00421 2 4319 1220,

e-mail: obchod@molpir.com, www.molpir.com, www.shop.molpir.com

IČO: 31431372, IČPD: SK 2020391560, Tatra banka Bratislava, č. ú.: 2628020575/1100, register: OS Trnava, odd: Sro, vlož.: 1045/T

MOLPIR GROUP CZ as, Technická 838/14, 779 00 Olomouc, Holice, Česká republika. Tel.: 00420 585 315 017, Fax: 00420 585 315 021, e-mail: molpir\_o@molpir.cz, www.molpir.cz

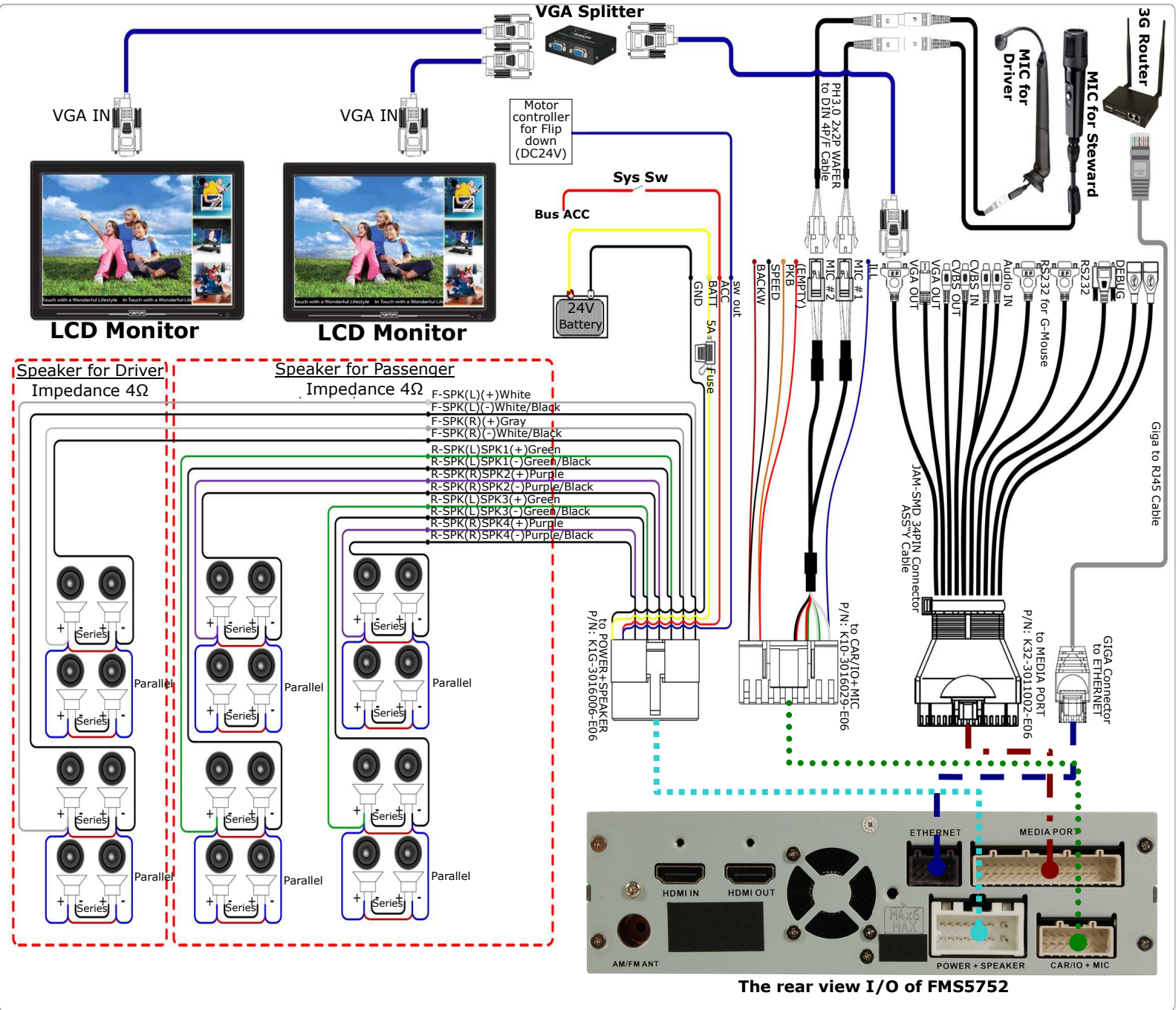
MOLPIR GROUP CZ as, Business centrum Klamovka, Pizenská 155/113, 150 00 Praha 5 – Košiče, Tel.: 00420 724 606 000, e-mail: svoboda@molpir.cz, www.molpir.cz

IČO: 25828843, DIČ: CZ25828843, ČSOB Olomouc, č. ú.: 377913723/0300, Registrace: KOS, OR Ostrava, oddíl B, vložka č. 2094

ISO 9001

NU\_FMS5752\_000\_08012015\_EN

## System Architecture VGA



The rear view I/O of FMS5752

Date: 08.01.2015

Molpir s.r.o. sídlo: SNP 129, 919 04 Smolenice; prevádzka: Hrachová 30, 821 05 Bratislava, Slovenská republika, Tel.: 00421 2 4319 1219, Fax: 00421 2 4319 1220.

e-mail: obchod@molpir.com, www.molpir.com, www.shop.molpir.com

IČO: 31431372, IČPD: SK 2020391560, Tatra banka Bratislava, č. ú.: 2628020575/1100, register: OS Trnava, odd: Sro, voľz: 1045T

MOLPIR GROUP CZ as., Technická 838/14, 779 00 Olomouc, Holice, Česká republika, Tel.: 00420 585 315 017, Fax: 00420 585 315 021, e-mail: molpir\_o@molpir.cz, www.molpir.cz

MOLPIR GROUP CZ as., Business centrum Klamovka, Pilsenská 155/113, 150 00 Praha 5 – Košíře, Tel.: 00420 724 606 000, e-mail: isvoboda@molpir.cz, www.molpir.cz

IČO: 25828843, DIČ: CZ25828843, ČSOB Olomouc, č. ú.: 377913723/0300, Registrace: KOS, OR Ostrava, oddíl B, vozčka č. 2094

ISO 9001

NU\_FMS5752\_000\_08012015\_EN

## Trouble Shooting

Failure description	Reasons	Solutions
Power off	Power polarity error	Check the power cable is connected properly.
	The fuse is burned out.	Change the fuse
No sound	Turn on the volume	Adjust the volume
	The speaker is not properly connected.	Check the circuit and connect properly.
	The device is muted.	Turn off the mute function.
Unstable image	The cable is not connected well.	Check and connect properly.
No color image	Format error	Adjust to correct format.
The key is no reaction	MCU error	Re-install the front panel and re-boot.
Constant noise	Antenna has problems.	Adjust the length of antenna properly and put the antenna grounded.
	The signal is too weak.	Seek the band available.
Abnormal sound	The program is disordered.	Re-start 3 seconds after power off.
No sound when changing songs	The process of operation is too fast.	Wait or power off to re-boot.
Shutdown	Due to unstable voltage and current, the main program will protect automatically.	Re-start 10 seconds after power off.

## Remark

1. Before installation, please make sure the circuit is connected properly and the system can work normally.
2. Regarding the device connection, please refer to the manual. Wrong connection will lead to the damage of the device.
3. Please only use the accessories of this device for proper installation. If you use the parts not authorized, it might have a breakdown.
4. Please make sure all the power is fixed properly before installation.
5. When connecting to power supply of the battery, it should connect cables from the negative of battery. If you connect from the positive side, it might cause danger.

Remark :

If you still cannot solve your problems by above solutions, please ask a professional technician or your agent for further help instead of removing and repairing the device by yourself.



Date: 08.01.2015

Page 16 / 16

Molpir s.r.o. sídlo: SNP 129, 919 04 Smolenice; prevádzka: Hrachová 30, 821 05 Bratislava, Slovenská republika, Tel.: 00421 2 4319 1219, Fax: 00421 2 4319 1220, e-mail: obchod@molpir.com, www.molpir.com, www.shop.molpir.com

IČO: 31431372, IČpD: SK 2020391560, Tatra banka Bratislava, č. ú.: 2628020575/1100, register: OS Trnava, odd: Sro, vlož.: 1045/T

MOLPIR GROUP CZ a.s., Technologická 838/14, 779 00 Olomouc, Holiče, Česká republika, Tel.: 00420 585 315 017, Fax: 00420 585 315 021, e-mail: molpir\_o@molpir.cz, www.molpir.cz

MOLPIR GROUP CZ a.s., Business centrum Klamovka, Plzeňská 155/113, 150 00 Praha 5 – Košíře, Tel.: 00420 724 606 000, e-mail: jsvoboda@molpir.cz, www.molpir.cz

IČO: 25828843, DIČ: CZ25828843, ČSOB Olomouc, č. ú.: 377913723/0300, Registrace: KOS, OR Ostrava, oddíl B, vložka č. 2094

Note ! Specifications subject to change without notice.

ISO 9001

NU\_FMS5752\_000\_08012015\_EN