

## ■In Case Of Difficulty

Symptom	Cause	Remedy
The unit doesn't work	Fuse is burnt	Replace a new fuse with specified content.
	The unit doesn't powered on	Check if the connection is correct, and ACC is open.
Bluetooth doesn't work	Check if Bluetooth is paired correctly	Bluetooth pairing
	Bluetooth pairs with other device	Disconnect the other device and pair the correct device.
card doesn't work	USB/SD card can't be recognized	Change new USB/SD card
	The unit doesn't switch to USB/SD card mode	Switch to USB/SD card mode
No sound come out	Wrong connection or selecting wrong audio output	Correct into right connection and right mode.

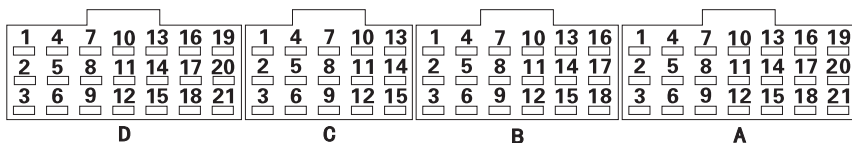
# Sound Selector VSS-06

## User Manual

## ■Pin Configuration

D1 AUDIO IN Signal -	C1 NC	B1 Dmic IN +	A1 FL- (TO VA-400)
D2 AUDIO IN Signal R+	C2 NC	B2 Dmic IN -	A2 FL+ (TO VA-400)
D3 AUDIO IN Signal L+	C3 NC	B3 Dmic Ctrl GND	A3 FR- (TO VA-400)
D4 VIDEO IN Signal -	C4 NC	B4 Dmic Ctrl input	A4 FR+ (TO VA-400)
D5 VIDEO IN Signal R+	C5 NC	B5 Gmic IN +	A5 RL- (TO VA-400)
D6 VIDEO IN Signal L+	C6 NC	B6 Gmic IN -	A6 RL+ (TO VA-400)
D7 VIDEO IN Ctrl output	C7 NC	B7 Gmic Ctrl GND	A7 RR- (TO VA-400)
D8 CAN +	C8 NC	B8 Gmic Ctrl input	A8 RR+ (TO VA-400)
D9 CAN -	C9 NC	B9 DVD Signal -	A9 Driver hard-wired mute
D10 VSS VIDEO Ctrl output	C10 NC	B10 DVD Signal R+	A10 NC
D11 NC	C11 TV Ctrl output	B11 DVD Signal L+	A11 NC
D12 NC	C12 Multichannel Force Announcement	B12 Wheelchair GONG	A12 NC
D13 NC	C13 Multichannel out R+	B13 Host notification GONG	A13 RAD/CD Signal R-
D14 NC	C14 Multichannel out L+	B14 Next stop GONG	A14 RAD/CD Signal R+
D15 NC	C15 Multichannel out -	B15 Video ON indication	A15 RAD/CD Signal L-
D16 Hearing aid loop out +		B16 DVD Ctrl output	A16 RAD/CD Signal L+
D17 Hearing aid loop out -		B17 CAM Ctrl output	A17 Power GND
D18 NC		B18 Pause playback output	A18 Amplifier Turn On
D19 Radio volume on input			A19 Ignition ON
D20 NC			A20 12-24 VDC continuous
D21 NC			A21 Analog Input DIMMING backlight

## Pin Configuration



Please read this user manual before installation and operation.

Volvo Bus Corporation

## Preface

VSS-06 is a unit for multichannel sound selection and control. It can select multichannel sounds (e.g. DVD, RADIO, etc.) and control outputs. It has two microphone inputs. Meanwhile the other equipment in the bus can also be controlled through it.

Working Temperature:  $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$   
Storage Temperature:  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$   
Net Weight: About 1.4KG  
Positive Size:  $189 \times 60 \times 26\text{mm}$  (W/H/D)  
Full Size:  $178 \times 50 \times 153\text{mm}$  (W/H/D)

### Audio part

Audio Input Sensitivity: 1.414 VPP  
Audio Input Impedance:  $>10\text{k}\Omega$   
Degree of Distortion:  $<0.3\%$   
SNR:  $>80\text{dB}$   
Channel Spacing:  $>75\text{dB}$   
Frequency Response:  $20 \sim 20\text{KHZ}$   
BAS:  $\pm 15\text{dB}$  (60HZ)  
TRE:  $\pm 15\text{dB}$  (10KHZ)

### Video Part

Video output:  $1\text{V} \pm 0.2\text{V}$   
Video Output Impedance:  $75\Omega$   
Video Output Format: NTSC

### USB/SD Card Part

USB Standard: USB 2.0 high speed  
SD Card Type: SD/SDHC  
Max Memory Capacity: 256G(USB)/32G(SD Card)

### Bluetooth Part:

Band:  $2.402\text{GHz} \sim 2.480\text{GHz}$   
Max Internal Data Transfer Rate: 3Mbps  
Range: 10 Meters  
Standard: Bluetooth V5.0, Class 1.5

## Installation And Service

1. Only professional or licensed persons can install the unit. To avoid damaging the bus, please consult the dealers before installing.
2. If need repair, please contact the dealers for professional repair.

to 99%, waiting for Android completing upgrade.

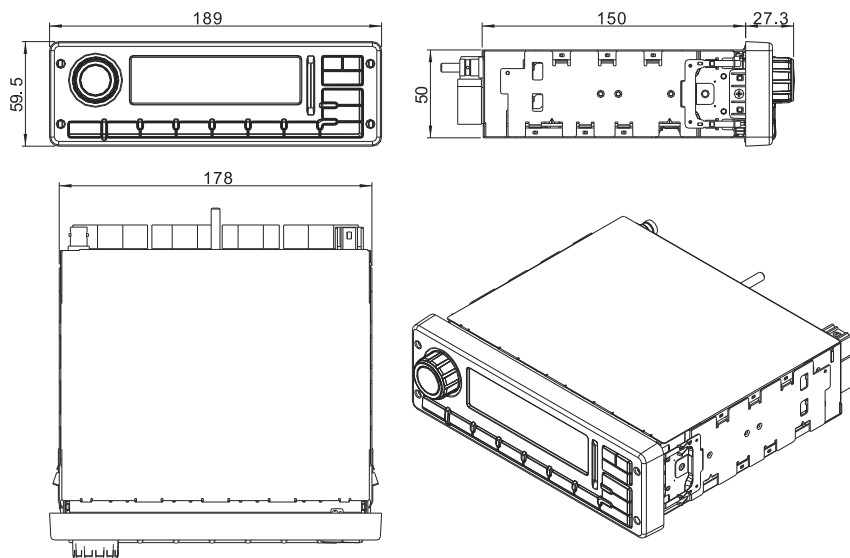
If there are no upgrade files, then it will reboot after waiting for a while on 0%.

If the unit is powered off during MCU upgrade, user needs to power it up again and insert USB disk, it can re-upgrade to the required version.

## XVI. Bluetooth Mode

1. Automatically reconnect a device after power on, and the blue Bluetooth indicator light will flash slowly.
2. Long press Bluetooth button, user can cancel automatic reconnection, waiting for device connection, then red Bluetooth indicator light will flash quickly.
3. When device connection, Bluetooth indicator light stays blue.
4. When matching the device, user can confirm whether the pairing code is the desired device via LCD screen.

## ■Installation Drawing



## ■Specification

Normal

Power Voltage: 14.5V DC (9-32V)

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## ■Precaution

1. The unit adapts to DC 12V/24V and negative should be connected ground. Before installation, please make sure that the negative of the bus's system should be connected to ground.
2. Please follow the operation instruction. If the connection is wrong, the unit maybe break down, or the electrical system may be damaged.
3. Make sure all the connections are correct, then turn on the unit.
4. When change the burned-out fuse, please use fuse of same specification.
5. Do not plug up blowhole or radiator, or else the unit will heat and burn up.
6. Do not rebuild the unit, or else may cause accidents.
7. Please do not scratch the display panel.
8. If any operations, which will affect driving, please stop the bus first at a safe place, and then operate.
9. Do not operate the unit in very high temperature or very low temperature. Before turn on the power, make sure the operation temperature is  $-20^{\circ}\text{C}\sim 70^{\circ}\text{C}$ .
10. Do not open the unit, to avoid the unit being damaged.

## ■Feature

- At most 5 standard audio inputs are independently selectable and with settings of volume, bass, treble, balance, loudness, etc. and sent to different back-ends.
- Control inputs of driver and guide microphones and with setting of volume, sending to different back-ends.
- Button controls different Gong Sound and outputs to different back-ends.
- Support English and French.
- Control devise via mobile phone APP.
- Select audio source, set volume, bass, treble, balance or loudness etc.
- Control audio and video device selected on the bus.
- Upgrade the device via USB disk or SD card.

User can check if something wrong on LCD screen and output video panel during test mode, checking the output level of control IO port, testing if every button and knob works well, checking environmental temperature, version etc.

Operation steps as follows:

1. Press MENU button to enter into menu list.
2. Press Power button/Playback button to select Test Mode to enter test mode.
3. Press Power button again to exit test mode.

Remark: Every interface for automatic switch only remains 5 seconds. If user needs to check it, user needs to exit and reenter the test mode.

## XV. Upgrade Mode

Before entering into upgrade mode, user needs to wait for Android booting up and ensure there're upgrade software in the USB disk/SD card. If there are no upgrade software/Android doesn't boot up, then the unit can't upgrade. Upgrade mode supports USB disk and SD card.

Upgrade files should be placed in the root directory of USB disk or SD card, MCU upgrade file name should be "mcuUpdate\_XXX.hex" (XXX represents the value of the upgrade file MD5), and Android upgrade file name should be "update.zip".

Detailed operation steps:

1. Waiting for Android completing startup;
2. Press MENU to enter the menu selection
3. Press Power/Playback/Pause button to select Software Update and enter the upgrade mode.

Upgrade order follows to upgrade MCU first (progress 0%~99%), from 0%~1% will take a while, then upgrade Android system (LCD interface will stay 99%), the system will reboot after completing upgrade.

If USB disk/SD card contains the mcu upgrade software and Android upgrade software at the same time, when MCU upgrades to 99%, it will stuck on 99% for a while (upgrade Android system).

If only mcu upgrade software, MCU upgrade will reboot directly (LCD interface will increase slowly from 0% to 99% and reboot) .

If only have Android update software, LCD interface will jump from 0%

3. Press any button, or not pressing any button within 6 seconds, the pop-up will disappear.

Remark: Initial setting activates microphone Gong Sound.

## XI. Volume/Treble/Bass/Balance/Loudness Setting

1. Press MENU button to enter into menu list.
2. Press Power button/Playback button to select Audio.
3. Rotate VOL knob or short press ►► button or ◀◀ button to select desired selection.

Desired selection: Treble, Bass, Balance, Loudness.

4. Press Power button/Playback button to select desired selection and rotate VOL knob or short press ►► button or ◀◀ button, until adjusting to the desired volume.

Remark: if selecting Treble, Bass, Balance, and Loudness within 6 seconds pop-up not rotating knob or switch to other mode, then the unit will set to VOL mode automatically.

## XII. Language Switch

1. Press MENU button to enter into menu list.
2. Press Power button/Playback button to select Language.
3. Rotate VOL knob or short press ►► button or ◀◀ button to select the desired language.

## XIII. Compatibility Mode

VSS06 defaults that input channels of TV, DVD and VIDEO IN are all entered through VIDEO IN channel. This means no matter selecting DVD, TV or VIDEO IN sound source on the panel, the input source are all entered through VIDEO IN. In order to be compatible with previous VSS device, please consider following operations to switch to compatibility mode, which is independent input of DVD sound source.

1. Press MENU button to enter into menu list.
2. Press Power button/Playback button to select Compatibility Mode.
3. Repeat the above operation will exit compatibility mode.

## XIV. Test Mode

## ■ Operation Instruction



### I. Basic Instruction

Turning on and off the power

Press power button to start the unit.

Press the power button again to switch off the unit.

### II. Program source selection

1. Press any button of RADIO, AUDIO IN, VIDEO IN, Bluetooth, USB, SD Card, and select the needed program, then press the TV button to select VIDEO IN program sources.
2. If it's in compatibility mode, press DVD button will select DVD program. If it's in non-compatibility mode, then press DVD to switch into VIDEO IN program sources.
3. When pressing any button of DVD, TV, VIDEO IN, select VIDEO IN video signal.
4. When USB, SD Card selection is to play video, it will select its related video signal. When switching from other signal source, the unit will mute 8s and show Prevost interface. But the unit will not display Prevost if signal sources from USB, SD Card switching each other.
5. Insert USB, SD Card will enter into active status in inactive mode.

### III. CAM Operation

Press CAM button when playing audio sources, selecting the video signal of CAM, it will show "CAM" text on the video bar of LCD screen. Press CAM button when playing video sources, video output will switch to CAM status.

#### **IV. Menu Selection**

1. Press Menu button to enter menu.
2. In menu, rotate knob or a short press ►►|button or|◀◀button to switch the previous selection/the next selection. Short pressing power button or ►||can select the related functions.
3. Short press on any button mentioned above will exit menu.

#### **V. Driver Microphone Operation**

1. Press Microphone PTT button will activate driver microphone, LCD screen will show “Driver Microphone” text and driver microphone volume progress bar.
2. Rotate knob will adjust the requested volume.
3. Press Microphone PTT button again to switch off driver microphone, “Driver Microphone” text and progress bar will disappear.
4. When driver microphone is activated, LCD screen button will be no functions.
5. Press Microphone PTT button under inactive status can also activate driver microphone.

#### **VI. Guide Microphone Operation**

1. Press Microphone PTT button will activate guide microphone, LCD screen will show “Guide Microphone” text and guide microphone volume progress bar.
2. Rotate knob to adjust to the requested volume.
3. Press Microphone PTT button again to switch off guide microphone, “Guide Microphone” text and progress bar will disappear.
4. Driver microphone has higher priority. When driver microphone turns on, guide microphone has no sound output.
5. When guide microphone is activated, LCD screen button will be no functions.
6. Press Microphone PTT button under inactive status can also activate guide microphone.

#### **VII. Gong Sound Operation**

1. Press 3 Gong sound buttons will activate Gong separately, LCD screen shows “Gong 0x” popup(x means 1, 2 or 3). It can also trigger corresponding Gong.
2. Gong sound volume can be adjusted via menu.

3. User can control if microphone triggers Gong sound via menu.

#### **VIII. Background Volume Adjustment**

When activating microphone, the previous volume of audio output will change. This is background volume set by the manufacturer. If need to adjust, please perform the following steps:

1. Short press MENU button to enter menu list, press Power button/ Playback button to select “Volume Adjustment”, after selecting “Volume background”, it will pop up background adjustment.
2. Rotate VOL knob or short press ►► button or ◀◀ button, adjust to the required volume.
3. Press any button, or not pressing any button within 6 seconds, the pop-up will disappear.

#### **IX. Gong Sound Volume Adjustment**

When pressing external Gong sound button, related Gong sound will send to passenger area. Gong sound level has been set by manufacturer. If need to adjust, please perform the following steps:

1. Short press MENU button to enter menu list, press Power button/ Playback button to select “Volume Adjustment”, after selecting “Volume Gong to Passengers”, it will pop up Gong sound adjustment.
2. Rotate VOL knob or short press ►► button or ◀◀ button, and adjust to the required volume.
3. Press any button, or not pressing any button within 6 seconds, the pop-up will disappear.

#### **X. Microphone Gong Sound Operation**

When microphone in active, User can select if to output corresponding Gong sound.

1. Short press MENU button to enter menu list, press Power button/ Playback button to select “Volume Adjustment”, after selecting “Microphone Gong Signal ON/OFF”, it will pop up Gong sound switch adjustment.
2. Rotate VOL knob or short press ►► button or ◀◀ button, user can select to turn on Gong function if under the microphone conditions or not.