

V3TSM20MA

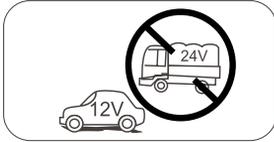


Operating Instructions

Safety Precautions

Thank you for purchasing this product. Please read through these operating instructions so you will know how to operate your model properly. After you've finished reading the instructions, keep this manual in a safe place for future reference.

Only connect the unit to a 12-volt power supply with negative grounding.



Never install this unit where the operation & condition for safe driving is impaired.



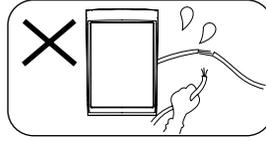
Never use the video display function in the front when driving to prevent the violation of laws & regulations and also to reduce the risk of traffic accident except for using rear view video camera.



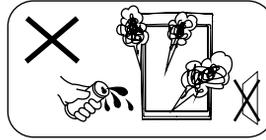
Never expose this unit, amplifier, and speakers to moisture or water to prevent electric sparks or fire.



Please don't change the fuse on the power cord without professional guidance, using improper fuse may cause damage to this unit or even cause fire.



Please contact your nearest dealer if one of the following symptoms is experienced:



- (a). Water or other objects enters the unit.
- (b). There is smoke.
- (c). Peculiar smell.

To ensure safe driving, please adjust the volume to a safe and comfortable level in case of emergency situations.

Safety Precautions

1. Never disassemble or adjust the unit without any professional guidance.
For details, please consult any professional car shop / dealer for inquiry.
2. If the front panel or TFT monitor is dirty, please use a clean silicone cloth and neutral detergent to wipe off the spot. Using a rough cloth and non-neutral detergent such as alcohol for cleaning may result in scratching or decoloration to the monitor.
3. If any abnormal behavior of the unit is found, please refer to trouble shooting guide of this manual. If no relevant information is found, please press [RST] with a ball-point pen or similar tool to resume factory default.
4. If you have parked the car in hot or cold weather for a long time, please wait until the temperature in the car becomes normal before operating the unit.
5. Do not impact the LCD monitor which could cause damage.
6. To prevent damage to the screen, avoid touching it with sharp objects.
7. To provide a clear demonstration and an alternative for easy understanding to the operation of this unit, graphic illustrations are used.
However, some illustrations are different from the actual images displayed on the screen.
8. Operate the unit correctly according to this manual to prevent unnecessary problem. The guarantee won't be valid if the problem is caused by inappropriate operation.

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Cautions:

1. Please don't forget to install CAN agreement box in the package. For specific details, please refer to installation guide.
2. Recommended USB format FAT32 for update purpose.

Basic Operations

Status bar



1. []: Tap to show main menu
2. []: Tap to reveal the multitasking screen.
Swipe up or down to see more.
To switch to another app, tap it.
To close an app, drag the app left or right from the multitasking display.
4. []: Return to previous screen
Press the center of the bar and swipe down to show shortcut menu.

Playing Source Selection

The playing sources are displayed on the upper side of the screen.



Tap to enter the selected app, swipe left/right to see other screens.

Equalizer

1. Touch the [**EQ**] icon in the source menu and the Sound setup interface will display on the screen.
2. Hold the highlight spot and drag left/right to adjust the Treble/Midrange/Bass.



Volume distribution (fader/balance)

You can adjust the volume distribution in the vehicle for all sources.

1. Press the [**Balance**] button. The menu for fader and balance is displayed.



2. Adjust fader and balance with [] / [] or [] / [] .

Radio Mode

Radio Display



1. Tune backward
Auto tune backward. (long press)
2. Store current station to favorite list
3. Current frequency
4. Preset radio station list
5. Tune forward
Auto tune forward. (long press)
6. Enter Preset Station list
7. Search stations automatically
8. Band switch
9. Goto station by inputting frequency
10. Receive local/distant stations

Select One Radio Band

Touch the [] icon on the user interface to select one radio band among FM, AM.

Tune

Auto Tuning

Hold [] / [] icon on the user interface more than 1 second to seek a higher / lower station.

To stop searching, repeat the operation above or press other buttons having radio functions.

Note:

When a station is received, searching stops and the station is played.

Manual Tuning

Method 1:

During manual tuning, the frequency will be changed in steps.

Touch the [] / [] icon on the user interface to tune in a higher / lower station.

Method 2:

1. Touch the numeric keypad icon [].
Numeric keyboard is displayed, touch number to input frequency.



2. Touch [] to delete the input number step by step.
3. Touch [OK] to enter.

Preset Station

Up to 30 FM and 20 AM stations can be stored in preset station list.

Search stations automatically

Touch [] to search station and store strongest stations in current band automatically.

Store a station manually

1. Tune to a station.
2. Hold the preset station icon on the center of the screen.

Recall a preset station

1. Select a band.
2. Touch a preset station on the screen.

Favorite station

Up to 30 FM and 20 AM stations can be stored in favorite station list.

Store a favorite station

1. Tune to a station.
2. Touch [] to store current station.

Recall a favorite station

1. Select a band .
2. Touch [] to show favorite stations.
3. Select the corresponding station.



Playback Mode

Connect a USB Device

Insert a USB device into the USB slot.
When connecting a USB device, the unit will read the files automatically.

Remove a USB Device

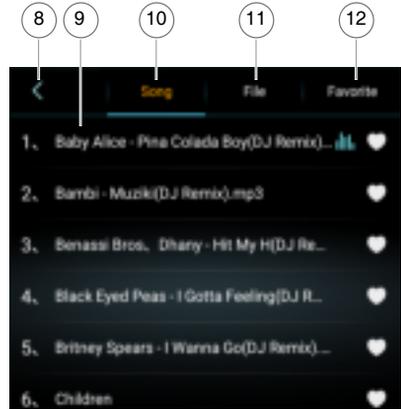
1. Select other source on the main menu.
2. Remove the USB device.

Music Playback

Select [](USB Music) of the screen, the unit will playback all the music on the mobile storages.



1. Previous track
2. Play/Pause
3. Next track
4. Display the file list
5. Add the track to favorite list
6. Playhead
7. Repeat / Shuffle Play



8. Return to playback menu
9. List window
Drag up/down to scroll.
Touch an item to select.
10. List the files by song name
Touch a song to start play.
11. Show folder/file list
12. Show favorite list

Play/Pause

When playing, press [] button to pause, and the sound will be mute.
Press [] button to play.

Previous/Next Track

Press [] or [] button to go to previous or next track.

Search for a Folder

When playback, touch [] icon to show folder/file list.

Playlists

Add a song to favorite playlist

1. Press a song and select [].
2. Add it to an favorite playlist.

Delete a song from favorite playlist

Press [] on the favorite playlist, then remove it from playlist.

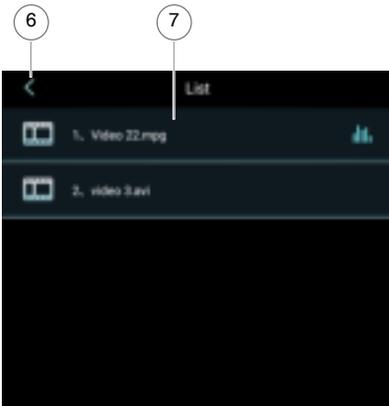
Playback Mode

Video Playback

Select [](Video) on the screen, the unit will playback all the video files on the storages. During playback, touch the screen to show control buttons.



1. Show list menu
2. Previous movie
3. Play/Pause
4. Next movie
5. Sequential/Shuffle play



6. Return to playback menu
7. List window
Drag up/down to scroll.
Touch an item to select.

Gallery Operations

1. Select [](Photo) on the screen.
2. Select one gallery to show the picture list.



3. Touch to view it.



Drag left/right to scroll.

Bluetooth Mode

The Bluetooth allows you to utilize your car's built-in audio system for handsfree wireless mobile phone or music communication. Some Bluetooth mobile phones have the audio features, and some portable audio players support Bluetooth feature. This system can play audio data stored in a Bluetooth audio device. The car stereo with Bluetooth will be able to retrieve phonebook contacts, received calls, dialed calls, missed calls, incoming calls, outgoing call and listen to music.

Notes:

- This system will not operate or may operate improperly with some Bluetooth audio players.
- The unit cannot guarantee the compatibility of all mobile phones together with the unit.
- *Audio playback will be set to the same volume level as set during telephone call. This can cause problems, if extreme volume level is set during the telephone call.*

Touch [Phone] on the source menu to enter Bluetooth Phone mode.



1. Turn on Bluetooth function of your mobile phone.
2. Search for new Bluetooth devices on your phone. Select Device name from the pairing list on the mobile phone, and enter password.(Default password: 0000)

Or touch [] button on the screen to search mobile Bluetooth devices.

If there are devices connected before, touch the chain icon  under the phone name to establish a connection.

Touch the dustbin icon  under the phone name to delete the Bluetooth® device from the list.

After connect successfully, the unit show following menu.



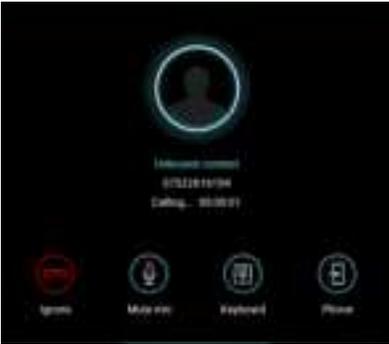
Making a Call

• Dial Number

1. Input numbers by digit-keys on the screen.
Touch [] to clear the digits.
2. Touch [] button to dial out.
3. Touch [] button to terminate call.



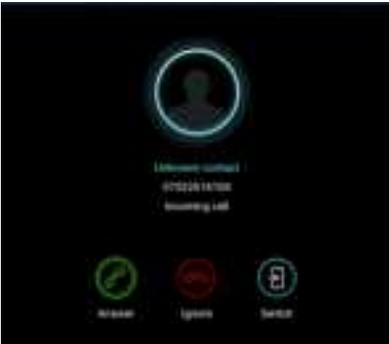
Bluetooth Mode



• Answering a call

You can answer an incoming call by pressing the [] button.

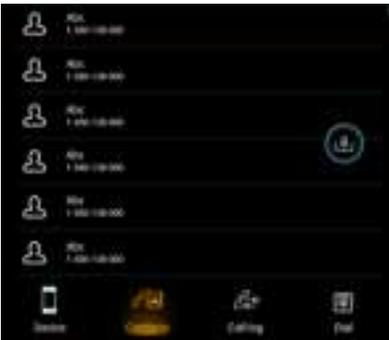
Touch [] button to reject an incoming call.



Call from Phonebook

1. Touch [] button to show your phone book.

2. Touch a number to dial out.



Call History

Access Call History by touching [] button.



Then select a number from Dialed/Missed/Received calls.

Audio playback via Bluetooth streaming

If an audio streaming device is connected with the car sound system via Bluetooth®, you can play back the music via the car sound system and control the playback.

Touch [] button to play music on your mobile phone.



[<] Previous track

[>] Play/Pause

[>] Next track

Adjust Bluetooth Settings

1. In Bluetooth menu, touch [].

The option menu is displayed.

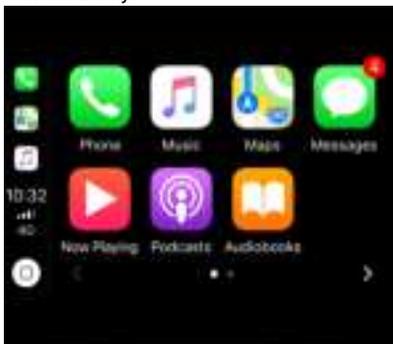


2. Touch on the selected option to change the setting.
 - **[Auto Connect]**: To turn on or off “Auto connect” function.
 - **[Auto Answer]**: To turn on or off “Auto answer” function.
 - **[PIN code]**: To set pairing code.
 - **[Phone Book Sync]**: To synchronize phone book. It may take several minutes to load on initial setup.

Available on select cars, CarPlay is a smarter, safer way to use your iPhone in the car. CarPlay takes the things you want to do with your iPhone while driving and puts them right on your car's built-in display. You can get directions, make calls, send and receive messages, and listen to audiobooks and music, all in a way that allows you to stay focused on the road.

How to enter CarPlay mode

1. Connect your iPhone to the CarPlay connector of the unit via the Apple Digital Cable. The unit will enter CarPlay mode automatically.



2. To exit CarPlay mode, select other mode on the upper side of the screen. If you want to return to CarPlay mode, touch [**CarPlay**] on the menu.

How to use CarPlay

CarPlay features and Siri voice control is specially designed for driving scenarios. It also works with your car's controls. And the apps you want to use in the car have been reimagined, so you can use them while your eyes and hands stay where they belong.

Touch

you can use the touch screen of the unit to control CarPlay.

Around View Monitor

If you have installed 4 vehicle-mounted cameras, select [AVM] in the source menu, the system will create a virtual 360° view of what surrounds the vehicle.



Touch [F], [D], [L,], [R] to switch to corresponding area.

Rear View Monitor

If the car is only equipped rearview camera, the system will display the view behind the car during reversing.



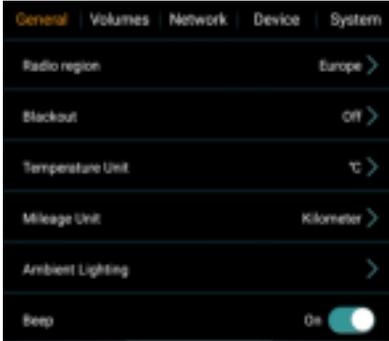
Note: The function is only an assistant system. There may be some deviation. Please operate according to the actual situation.

Settings

Basic settings

In the settings menu, you can adjust the basic settings for the different functions of the device to your requirements.

In the main menu, press the [] button. The settings menu is displayed, the General submenu is activated.



General settings

The following settings are possible:

Radio region - Select the reception region for the radio reception.

Blackout - Set the blackout time.

Temperature Unit - Set the temperature unit.

Mileage Unit - Set the Mileage Unit.

Ambient Lighting - Select the color of ambient lighting. (if the car supported)

Beep - Switch confirmation beep on/off.

Driving Video - If the function is activated, Driving will be disturbed with the video on, and increase the risk of traffic accidents.

Camera Delay - Turn on/off the delay display of AVM system.

Volumes settings

Adjust the volume level of each mode.

Device settings

Brightness - Swipe left/right to adjust the brightness of the screen. Tap [OK] to confirm.

Day/Night - Select a backlight mode from the list.

Storage - Show the storage informations.

Door KeyPad Code - Set the Door KeyPad Code.

System settings

Language - Select on-screen display language.

Time - Set date, time and time format.

Factory data reset - Load the factory settings.

All data erase - Erase all data from your vehicular platform's internal storage.

Software version - Show software version informations.

Listen to Other Devices

You can connect an external audio/video device to the unit.

1. Connect the external device with the supplied AV cable.
2. Touch the upper left corner to display the main menu.
3. Touch [**Aux in**] to access external device.

Reset

When the unit hangs up, you can reset it.

Press [RST] with a ball-point pen or similar tool.



Note:

When the unit has been reset, all the settings will return to default settings.

Replace a Fuse

If there is no power, the fuse may be damaged and need to be replaced.

1. Take out the unit from dashbpard.
2. Check all electrical connections.
3. Buy a fuse that matches the amperage of the damaged fuse.
4. Replace the fuse while the units power is disconnected.

Specifications

General

Reference Supply Voltage	12V(DC)
Operating Voltage Range	9 - 16V(DC)
Max Operating Current	15A
Maximum Output Power	4 X 20W
Grounding System	Car Battery Negative Pole
Dimensions(WXHxD)	250*380*97 mm
Weight(main unit)	2.4kg

FM

Signal Noise Ratio	≥ 50dB
Residual Noise Sensitivity (S/N=30dB)	≤ 9dBμV
Frequency Response (±3dB)	20Hz~12.5KHz
Station Seeking Level	20~28dBμV
Distortion	≤ 2.0%
Stereo Separation (1KHz)	≥ 25dB
Antenna Impedance	75Ω

AM

Residual Noise Sensitivity (S/N=20dB)	≤ 30dBμV
Selectivity (±9KHz)	≥ 50dB

LCD

Screen size	12.1 inches (4:3)
Display resolution	1024 X 768 dots
Brightness	280cd/m ²

AUX IN

Distortion	≤ 0.5%
Frequency Response (±3dB)	20Hz~20KHz
Audio Input Level	0.5Vrms

Audio

Audio Output Impedance	100Ω
Audio Output Level	2Vrms(Max)

Video

Normal Video Input Level (CVBS)	1.0±0.2V
Video Input Impedance	75Ω

Environment

Operating Temperature	-30°C ~ +70°C
Storing Temperature	-40°C ~ +85°C
Operating Humidity	30%~85%RH
Storing Humidity	30%~95%RH

Notice:

When the unit is operated to extremes, such as with maximum power output for a long time, or the temperature is over 70°C, it will enter heat protection mode, the volume will be reduced automatically. This is normal.

FCC Statement

1. This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 centimeters between the radiator and your body.

