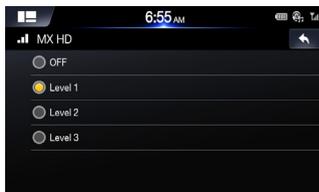## Setting MX HD

Media Xpander (MX HD) makes vocals or instruments sound distinct regardless of the music source. The Radio (FM)/DAB, USB Flash drive and iPod/iPhone, will be able to reproduce the music clearly even in cars with a lot of road noise.

1 **In the Sounds Settings screen, touch [MX HD].**

2 **Set the desired option.**

Media: Off/Level1/Level2/Level3 : The medium to high frequencies become more clear, and produces well balanced sound in all the bands.

When AUX is connected, the options will be [Off, Compressed Media / Movie / Music].
AUX: Off / Compressed Media / Movie / Music : Choose the MX HD mode (Compressed Media, Movie, or Music) that corresponds to the media connected.

- *When the Defeat setting is "On," you cannot perform the set up.*
- *The MX HD setting can be performed only when a source is currently selected.*
- *The effectiveness increases as the MX HD setting value increases Level1 Level2 Level3.*
- *Movie: The dialog portion of the video is reproduced more clearly*
- *Music: This disc contains a large quantity of data such as music clip. MX uses this data to reproduce the sound accurately.*

Setting EQ Presets

10 typical equalizer settings are preset at the factory for a variety of musical source material..

1 **In the Setup screen, touch [EQ Presets].**

- *Only one type can be set to ON.*
- *The Equalizer Presets setting can be configured when Defeat is "Off."*

Setting the Crossover Settings (X-Over)

■ About the Crossover

This unit is equipped with an active crossover. The crossover limits the frequencies delivered to the outputs. Each channel is controlled independently. Thus, each speaker pair can be driven by the frequencies for which they have been optimally designed.

The crossover adjusts the HPF (high pass filter) or LPF (low pass filter) of each band, and also the slope (how fast the filter rolls off the highs or lows).

Adjustments should be made according to the reproduction characteristics of the speakers. Depending on the speakers, a passive network may not be necessary. If you are unsure about this point, please consult your authorized Alpine dealer.

	Cut-off frequency (1/3 octave steps)		Slope		Level
	HPF	LPF	HPF	LPF	
Subwoofer (LPF)	----	20 Hz - 200 Hz	----	0, 6, 12, 18, 24 dB/oct.	0 to −12 dB
Rear speaker (HPF)	20 Hz - 200 Hz	----	0, 6, 12, 18, 24 dB/oct.	----	0 to −12 dB
Front speaker (HPF)	20 Hz - 200 Hz	----	0, 6, 12, 18, 24 dB/oct.	----	0 to −12 dB

Low range   High range
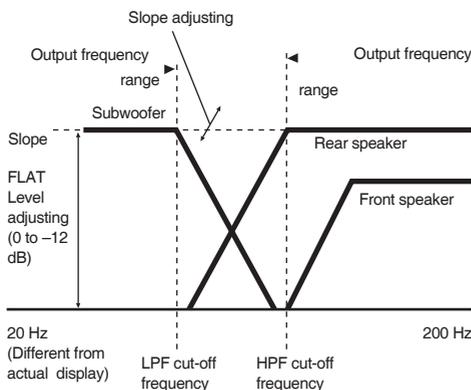
- HPF (high pass filter): Cuts the lower frequencies and allows the higher frequencies to pass.
- LPF (low pass filter): Cuts the higher frequencies and allows the lower frequencies to pass.
- Slope: The level change (in dB) for a frequency change of one octave.
- The higher the slope value, the steeper the slope becomes.
- Adjust the slope to FLAT to bypass the HP or LP filters.
- Do not use a tweeter without the HPF on or set to a low frequency, as it may cause damage to the speaker due to the low frequency content.

- Adjustment should be made according to the recommended crossover frequency of the connected speakers. Determine the recommended crossover frequency of the speakers. Adjusting to a frequency range outside that recommended may cause damage to the speakers.
  For the recommended crossover frequencies of Alpine speakers, refer to the respective Owner's Manual.
  We are not responsible for damage or malfunction of speakers caused by using the crossover outside the recommended value.

1. In the Setup screen, touch [X-Over].

2. Touch [Channel[to select the channel.
  Each time you touch, the channel switches.

- The channel being adjusted is displayed in red.
  Front HPF → Rear HPF → Subw. LPF → Front HPF

3. Adjust the crossover to your preference.

Selecting the Cut-Off Frequency

Touch [◀] or [▶] of "Frequency," and then select the cut-off frequency. (20 / 25 / 31.5 / 40 / 50 / 63 / 80(Initial setting) / 100 / 125 / 160 / 200)

Adjusting the Slope

Touch [◀] or [▶] of "Slope," and then adjust the HPF or LPF slope. (0 (Initial setting) / 6 / 12 / 18 / 24 dB/oct.)

Adjusting the Level

Touch [◀] or [▶] of "Level," and then adjust the HPF or LPF level. (-12 to 0 dB (Initial setting: 0))

4. Repeat steps 1 to 2 to make adjustment to the other channels.

5. To store the adjusted setting value, touch and hold [Preset 1], [Preset 2], or [Preset 3] for at least 2 seconds.

- Touch [Flat] to initialise all values.
- If the Subwoofer setting is "Off," the Subwoofer setting cannot be edited.
- While adjusting the X-OVER you should consider the frequency response of the connected speakers.

Calling the X-OVER adjusted value

Calling the pre-set X-OVER adjusted value.

Touch [Preset 1], [Preset 2], or [Preset 3] on the X-OVER screen.
The setting stored in the Preset will be recalled.

Setting the Time Correction

■ About Time Correction

The distance between the listener and the speakers in a car vary widely due to the complex speaker placement. This difference in the distances from the speakers to the listener creates a shift in the sounds image and frequency characteristics. This is caused by the time delay between the sound reaching the listener's right versus the left ear.

To correct this, this unit is able to delay the audio signal to the speakers closest to the listener. This effectively creates a perception of increased distance for those speakers. The listener can be placed at an equal distance between the left and right speakers for optimum staging. The adjustment will be made for each speaker in 3.4 cm steps.

Example 1. Listening Position: Front Left Seat

Adjust the time correction level of the front left speaker to a high value and the rear right to zero or a low value.
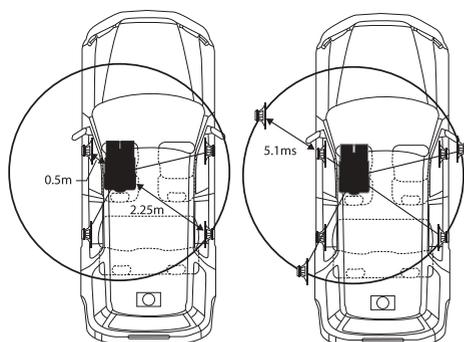
The sound is not balanced because the distance between the listening position and the various speakers is different.

The difference in distance between the front left speaker and the rear right speaker is 1.75 m (68-7/8").

Here we calculate the time correction value for the front left speaker in the diagram on the above.

Conditions:
Farthest Speaker – listening position : 2.25 m (88-9/16") Front left speaker – listening position : 0.5 m (19-11/16") Calculation:
L = 2.25 m – 0.5 m = 1.75 m (68-7/8")
Time correction = 1.75 ÷ 343* × 1,000 = 5.1 (ms)

* Speed of sound: 343 m/s (765 mph) at 20°C

In other words, giving the front left speaker a time correction value of 5.1 ms makes it seem as if its distance from the listener is the same as the distance to the farthest speaker.

Time correction eliminates the differences in the time required for the sound to reach the listening position.

The time of the front left speaker is corrected by 5.1 ms so that its sound reaches the listening position at the same time as the sound of other speakers.

Example 2. Listening Position: All Seats

Adjust the time correction level of each speaker to almost the same level.

1. **Sit in the listening position (driver's seat, etc.) and measure the distance (in meters) between your head and the various speakers.**
2. **Calculate the difference between the distance correction value to the farthest speaker and the other speakers.**

L = (distance to farthest speaker) – (distance to other speakers)
These values are the time correction values for the different speakers. Setting these values to make each sound reach the listening position at the same time as the sound of other speakers.

Time Correction Value List

Time Difference (msec)	Distance (cm)	Distance (inch)	Time Difference (msec)	Distance (cm)	Distance (inch)
0.0	0.0	0.0	5.0	170.0	67.0
0.1	3.4	1.3	5.1	173.4	68.3
0.2	6.8	2.7	5.2	176.8	69.7
0.3	10.2	4.0	5.3	180.2	71.0
0.4	13.6	5.4	5.4	183.6	72.4
0.5	17.0	6.7	5.5	187.0	73.7
0.6	20.4	8.0	5.6	190.4	75.0
0.7	23.8	9.4	5.7	193.8	76.4
0.8	27.2	10.7	5.8	197.2	77.7
0.9	30.6	12.1	5.9	200.6	79.1
1.0	34.0	13.4	6.0	204.0	80.4
1.1	37.4	14.7	6.1	207.4	81.7
1.2	40.8	16.1	6.2	210.8	83.1
1.3	44.2	17.4	6.3	214.2	84.4
1.4	47.6	18.8	6.4	217.6	85.8
1.5	51.0	20.1	6.5	221.0	87.1
1.6	54.4	21.4	6.6	224.4	88.4
1.7	57.8	22.8	6.7	227.8	89.8
1.8	61.2	24.1	6.8	231.2	91.1
1.9	64.6	25.5	6.9	234.6	92.5
2.0	68.0	26.8	7.0	238.0	93.8
2.1	71.4	28.1	7.1	241.4	95.1
2.2	74.8	29.5	7.2	244.8	96.5
2.3	78.2	30.8	7.3	248.2	97.8
2.4	81.6	32.2	7.4	251.6	99.2
2.5	85.0	33.5	7.5	255.0	100.5
2.6	88.4	34.8	7.6	258.4	101.8
2.7	91.8	36.2	7.7	261.8	103.2
2.8	95.2	37.5	7.8	265.2	104.5
2.9	98.6	38.9	7.9	268.6	105.9
3.0	102.0	40.2	8.0	272.0	107.2
3.1	105.4	41.5	8.1	275.4	108.5
3.2	108.8	42.9	8.2	278.8	109.9
3.3	112.2	44.2	8.3	282.2	111.2
3.4	115.6	45.6	8.4	285.6	112.6
3.5	119.0	45.9	8.5	289.0	113.9
3.6	122.4	48.2	8.6	292.4	115.2
3.7	125.8	49.6	8.7	295.8	116.6
3.8	129.2	50.9	8.8	299.2	117.9
3.9	132.6	52.3	8.9	302.6	119.3
4.0	136.0	53.6	9.0	306.0	120.6
4.1	139.4	54.9	9.1	309.4	121.9
4.2	142.8	56.3	9.2	312.8	123.3
4.3	146.2	57.6	9.3	316.2	124.6
4.4	149.6	59.0	9.4	319.6	126.0
4.5	153.0	60.3	9.5	323.0	127.3
4.6	156.4	61.6	9.6	326.4	128.6
4.7	159.8	63.0	9.7	329.8	130.0
4.8	163.2	64.3	9.8	333.2	131.3
4.9	166.6	65.7	9.9	336.6	132.7

1. In the Setup screen, touch [Time Correction].

2. Touch the Correction Mode button and select the mode.
Each time the button is pressed, mode is changed from ms, inch and cm.

3. Touch [▲] or [▼] for each speaker to adjust the time or distance.
   0.0 msec to 9.9 msec (0.1 msec/step)
   0.0 cm (0.0 inch) to 336.6 cm (132.7 inch) (3.4 cm/step)
   All speaker setting values are adjustable in the range of 15 ms or 510 cm.

4. To store the adjusted setting value, touch and hold [Preset 1], [Preset 2], or [Preset 3] for at least 2 seconds.

- Touch [Flat] to set all values to 0.0.
- If the Subwoofer setting is "Off," the Subwoofer setting cannot be edited.

Calling the Time Correction Value

Calling the pre-set time correction value.

Touch [Preset 1], [Preset 2], or [Preset 3] on the time correction screen.
The setting stored in the Preset will be recalled.

Setting Defeat

Defeat is "On," MX HD and Equalizer Presets features are turned off. This disables any settings made for these functions.

Check the [Off] box to turn the feature on.
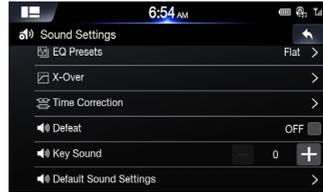
Uncheck the [On] box to turn the feature off.

Setting Key Sound

You can change the volume of the sound heard when a button is touched.

Adjust the sound level from 0 to 6.
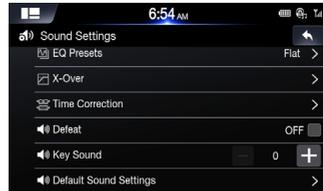
Setting Proximity Warning Priority

1 **Select the desired option from Audio Off and Audio Mixing.**

Resetting Sound Settings

This feature is used to restore all sounds settings back to default state.

1 **In the Sound Settings screen, touch [Default Sound Settings].**

2 **Touch [Reset] ▶ [Yes].**

Visual Settings

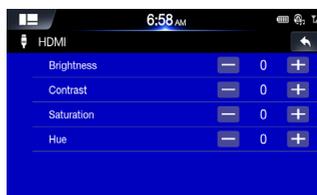This feature is used to adjust the Brightness, Saturation, Contrast and Hue levels.

1 **In the Setup screen, touch [Visual].**
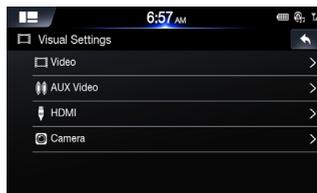
• "Video" can be selected while a video is playing.

Setting Brightness/Contrast/Saturation/Hue

1 **In the Visual Settings screen, touch the desired menu.**

2 **Use [+] and [-] to adjust settings from -5 to +5.**

• In the Video visual settings, [Hue] is not supported.

Screen Settings

This menu allows you to set the display settings
for the whole system

In the Setup screen, touch [Screen].

Setting Screen/Lighting

In the Screen Settings screen, touch [Screen/Lighting].
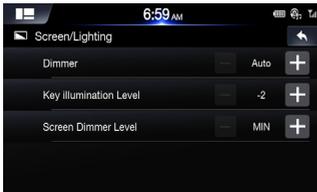
■ Setting Dimmer

Backlighting is provided by LEDs light built into the liquid crystal
panel. The illumination control adjusts the brightness of the
backlighting based on the car ambient lighting for easier viewing.

Set the desired value from Auto, On and Off.
Auto: Adjust the brightness of the background illumination of the
monitor automatically to the brightness of the car interior.
On: Keep the background illumination of the monitor dark.
Off: Deactivate Auto Dimmer mode to keep the background
illumination of the monitor bright.

• *The Key Illumination Level and Screen Dimmer Level feature are
unavailable when the Dimmer value is set to "Off".*

■ Setting Key Illumination Level

You can adjust the brightness of the button lighting at night with the
dimmer.

Adjust the value from -2 to +2.

This setting is only available when "Dimmer" is set to "On."

■ Setting Screen Dimmer Level

You can adjust the brightness of the backlight. This function could be
used, for instance, to change the screen brightness while travelling
at night.

Adjust the value from -15 to +15.
You can adjust the level between MIN (-15) and MAX (+15). When it
reaches the minimum or maximum point, the display shows "MIN" or
"MAX" respectively.

• *This setting is only available when "Dimmer" is set to "On" or "Auto."*

Setting Screen Colour

You can choose the screen colour from 5 different colours.

1 **In the Screen Settings screen,
touch [Screen Colour].**

2 **Select the desired colour.**

Setting Illumination Colour

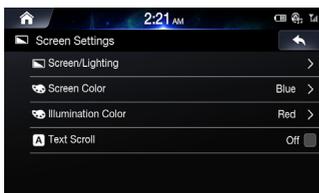You can choose the colour of the Front Panel button from one of 7 colours.

In the Screen Settings screen, touch [Illumination Colour].

Setting Text Scroll

Scroll display is available if folder name, file name or tag information is entered.
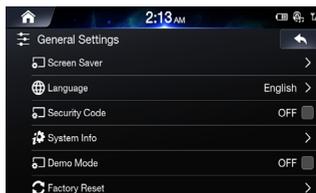
Check the [Off] box to turn the feature on.

• Uncheck the [On] box to turn the feature off.

General Settings
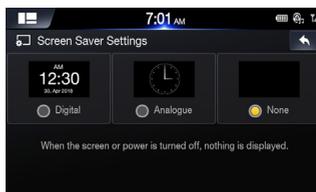
You can set up items related to the language, etc.

In the Setup screen, touch [General].

Setting Screen Saver

This feature is used to display a screen saver when the monitor is off.

1 **In the General Settings screen, touch [Screen Saver].**

2 **Select the desired option.**

• Digital: the screen will display the digital clock and date.

• Analogue: the screen will display the analogue clock and date.

• None: the screen will remain off.

Setting Language

This menu allows you to set the language of the system.

1 **In the General Settings screen, touch [Language].**
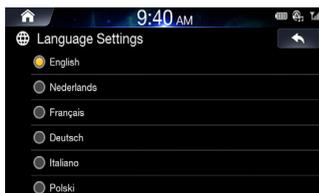
2 **Select the desired language.**
English / Nederlands / Français / Deutsch / Italiano / Polski / Русский / Español / Simplified Chinese

Setting Security Code

You can set the system to be unusable without entering a password. When you turn this setting to "On" and set a password, password input is required when the system is connected to a battery and turned on for the first time.

■ Setting the security Code
1. Check the [Off] box to turn the feature on and touch [OK].

2. Enter the password and touch [OK].
• Enter the 6~10 digit number.
• Input numbers are displayed as "*".
• Touch [X] to delete an entered number.

3. Enter the same pasword again and touch [OK].
The security code is set and the system returns to the General Setup Menu screen, then the checkbox of the Security Code is set to "On".

• If you forget a registered password, you can not use this unit. In this case, service will be required.

■ Clearing the security Code
1. Uncheck the [On] box.
The password setting screen is displayed.

2. Enter the password you have set and touch [OK].
The password is cleared and the system returns to the General Setup Menu screen, then the checkbox of the Security Code is set to "Off".

• Input numbers are displayed as "*".

Viewing System Info

You can view the version information of this product. Make note of this information and refer to it whenever you contact Alpine Tech Support or an Alpine-authorized dealer.
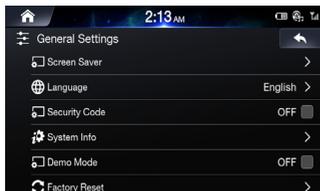
In the General Settings screen, touch [System Info].

Setting Demo Code

This unit has a Demonstration feature for the display. When you install and use the unit for the first time, the unit will enter demo mode automatically. To quit demo mode, set Demo mode to Off.

**1** Uncheck the [On] box to turn the feature off.

Check the [On] box to turn the feature on.

• If you perform an operation during the Demo mode, the demonstration is temporarily stopped.

Initializing the System

You can initialise all data, to restore the factory settings. Remove the USB flash drive, etc. from the system before operation.

1 In the General Settings screen, touch [Factory Reset].
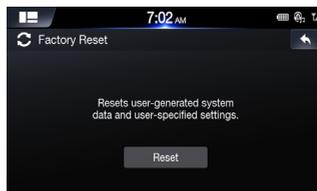
2 Touch [Reset] ▶ [Yes].

• Do not turn on/off the power, change the ignition key position or remove the screen panel until system restart is completed.

Car Settings

In the Setup screen, touch [Car].
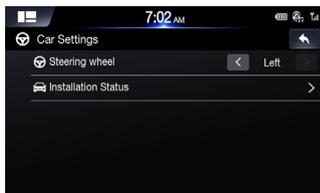
Setting Steering Wheel

Set this item when Android smartphone with Android Auto App is connected. This feature is available only in Android Auto.

Select the desired option from Left and Right.

Setting Installation Status

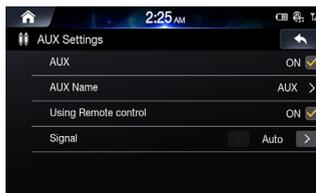Vehicle Setup enables you to check the connection status of Reverse Lead/Parking Brake Lead.

In the Car Settings screen, touch [Installation Status].
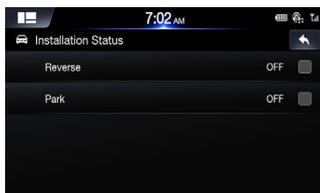
AUX Settings

You can set up the items related to the Auxiliary device.

In the Setup screen, touch [AUX].

- *This setting cannot be changed while the AUX source is being selected.*
- *This setting is only available when "AUX" is set to "On".*
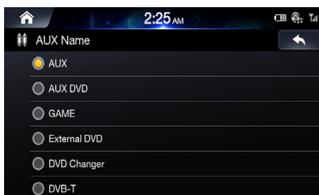
Turning AUX On/Off

Check the [Off] box to turn the feature on.
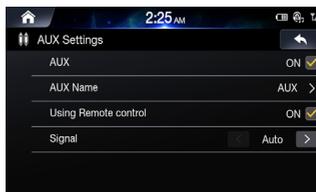
Uncheck the [On] box to turn the feature off.

Setting AUX Name

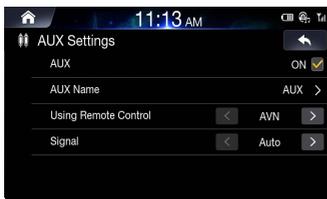**1** **In the AUX Settings screen, touch [AUX Name].**

2 **Select the desired name.**
AUX / AUX DVD / GAME / External DVD / DVD Changer / DVB-T / TV / USB Player

Using Remote Control

기능 설명

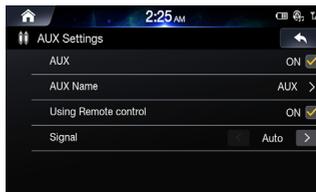**1** **Check the [Off] box to turn the feature on.**

2 **Uncheck the [On] box to turn the feature off.**

On:
Off:

Setting Signal

You can switch the visual input signal system.
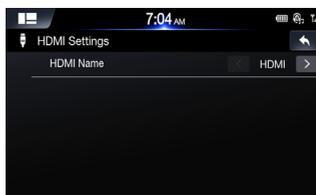
Select the desired option.

- *Auto: the video input signal type (NTSC or PAL) will be automatically selected.*
- *NTSC/PAL: choose the video input signal type manually.*

HDMI Settings

You can set the name of an external device connected via HDMI.

1 **In the Setup screen, touch [HDMI].**

2 **Select the desired name.**
- *HDMI: set when a smartphone is connected via HDMI.*
- *DVD: set when an external DVD player is connected.*

- *This setting cannot be changed while the HDMI source is being selected.*

67-EN

Camera Settings

You can set up items related to the Camera.
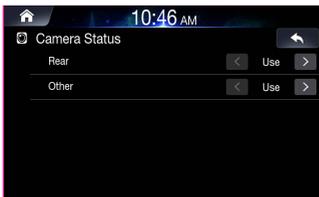
In the Setup screen, touch [Camera].

Setting Camera Status

You can set the camera input.

1 **In the Camera Settings screen, touch [Camera Status].**

2 **Set whether to use rear camera or other cameras.**
- *Rear: Rear camera*
- *Other: Side camera, Room camera, etc.*

Setting Camera Signal

You can switch the video input signal system.
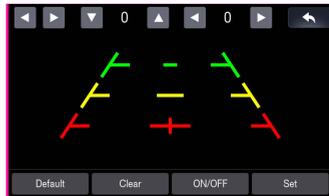
Select the desired option.

NTSC/PAL

Setting Camera Guideline

The camera guideline can be changed when connected to Rear View Camera.
This item cannot be selected when the rear camera status is set to "Off" or "Other".

1 **In the Camera Settings screen, touch [Guideline Adjustment].**

2 **Touch the guideline you intend to adjust.**
Guideline can also be selected by touching [∧,∨].

- *You cannot adjust the position of the yellow guide line in the centre independently.*
  It is controlled by a system to be the centre of the two yellow guide lines on the left and right, or the central green line and red guide line.

3 **Touch [∧,∨, <, >] to adjust the position of the guideline.**

- *Touching [Clear] clears adjustments and returns to the setting before guide line alteration.*

4 **After the adjustment is completed, touch [Set].**

■ Turning Guideline Display On/Off
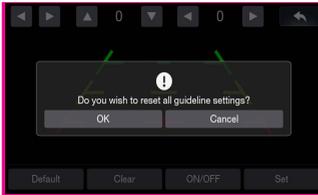
1. Select the guideline.

2. Touch [On/Off].
The currently selected guide will turn off.

3. To turn the guideline on, touch [On/Off] again.

• *Guidelines that are turned off are still adjustable.*

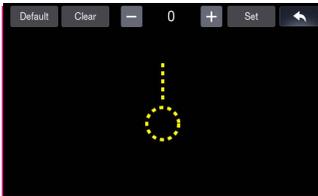## ■ Returning Guideline to Default
1. Touch [Default]

2. Touch [OK].
Adjusted values will return to default settings

■ Setting Hitch Guideline
1. In the Camera Settings screen, touch [Hitch Guideline Adjustment].

2. Touch the guideline you intend to adjust.
Guideline can also be selected by touching [∧,∨].

3. Touch [∧,∨, <, >] to adjust the position of the guideline.

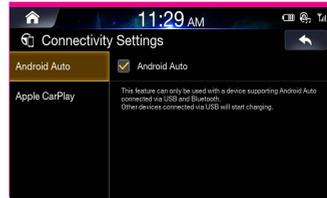**4. After the adjustment is completed, touch [Set].**

Connectivity Settings

This menu allows you to set the car connectivity of your system.

In the Setup screen, touch [Connectivity].

Setting Android Auto

1 In the Connectivity Settings screen, touch [Android Auto].

2 Check to use your Android phone with Android Auto.

If Android Auto is checked, you can use the functions of your Android phone with a USB cable and Bluetooth connected. It enables the Android Auto functions.

• *While Android Auto is running, you cannot use any of Bluetooth Audio.*

Setting Apple CarPlay

This menu allows you to set connectivity When iPhone is connected using a USB cable.

**1** **In the Connectivity Settings screen, touch [Apple CarPlay].**

2 **Select the desired option.**
- Apple CarPlay: uses your iPhone with Apple CarPlay
- Bluetooth Phone/Audio and iPod: uses your iPhone in Bluetooth/iPod mode.

• This setting is invalid for music playing of iPhone 4S and iPod.

Date/Time Settings

This feature is used to set the time and date shown within the system.

1 **In the Setup screen, touch [Date/Time].**
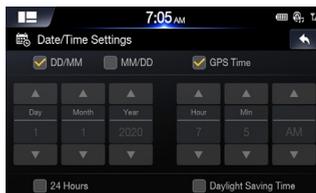
• The Date/Time feature is unavailable when GPS time is being used. To change the date/time manually, turn off the [GPS Time] feature.

2 **Adjust the date and time.**
- DD/MM: displays the date in order of day > month
- MM/DD: displays the in order of month > day.

Receiving GPS Time

Check the [GPS Time] box to display the received GPS Time.

• The Date/Time feature is unavailable when GPS time is being used.

Converting Time Format

Check/uncheck the [24 Hours] box to convert the digital clock display to 24 or 12 hours.

Turing Daylight Savings Time On/Off

Check the [Daylight Savings Time] box to turn the feature on.

Camera Operation

When an optional camera is connected, the view video of camera can be output to the monitor.
Front camera or Rear camera can be connected to this unit.
Make the Camera Status Setting (Rear or Other) according to your connected camera.

Rear camera:
If an HCE-C127D/HCE-C157D/HCE-C252RD, etc., camera is connected, when the vehicle is reversed, the rear camera view (guide marks for vehicle width and available distance) is displayed automatically on the screen of this unit.

Other camera:
Set when connecting to a camera other than the Rear camera, such as a front camera.

> **You can adjust the quality of the camera image. Setting items: Brightness / Colour / Contrast/Hue. Refer to "Visual Settings".**

Rear Camera Operation

Displaying the Rear Camera Image from the Menu screen

1 **Press [Menu] button.**
Or in the Home screen, touch [All Menu].

2 **Touch [Camera].**

- *Touch [←] to return the previous screen.*
- *You can perform a Guideline Adjustment. For details, see "Setting Camera Guideline".*

Displaying the rear view video while the car is in reverse

1. Shift the gear lever to the reverse (R) position.
The rear view image is displayed while the car remains in reverse.

2. If you shift the gear lever to a position other than reverse (R), the monitor returns to the previous screen.
- *Never depend solely on the camera when backing up. Always turn and look and only use the camera for additional assistance.*
- *This function is effective when the reverse wire is properly connected.*
- *You can perform a Guideline Adjustment. For details, see "Setting Camera Guideline".*

Guideline Display ON/OFF

1. Touch the screen when the image from the camera is displayed.
The operation screen is displayed on the screen.
- *After a 5-second time-out, the operation screen returns to the camera display screen.*

2. Touch [Guide Off] on the Rear camera display screen.
The guide disappears, and then the [Guide Off] switch changes to [Guide On].

3. Touch [Guide On] to turn on the guide.

Hitch Guideline Display On/OFF

1. Touch the screen when the image from the camera is displayed.
The operation screen is displayed on the screen.
- *After a 5-second time-out, the operation screen returns to the camera display screen.*

2. Touch [Hitch Guide On] on the Rear camera display screen.
The hitch guideline is displayed, and then the [Hitch Guide On] switch changes to [Hitch Guide Off].

3. Touch [Hitch Guide On] to turn on the guide.

Switching the Front Camera image

1. Touch the screen when the image from the camera is displayed.
The operation screen is displayed on the screen.
- *After a 5-second time-out, the operation screen returns to the camera display screen.*

2. Touch [Other View] on the Rear camera display screen.
The Front Camera View is displayed, and then the [Other View] switch changes to [Rear View].

**3. Touch [Rear View] to display the Rear Camera View.**

About the Rear Camera Guideline

To display the guideline, turn guideline on. Also, to adjust the guide, see "Setting Camera Guideline".
You can also turn off the guideline in the Rear camera display screen.

■ Indication mark meaning

When the car is put into reverse gear, the monitor switches to the rear view camera image. Guides appear to help visualise the car's width and distance from the rear bumper.
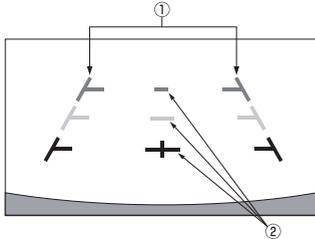
1. Car width extension marks (red, yellow and green in order of distance)
If properly calibrated, the marks indicate the car's width. This helps guide the car's path when backing up in a straight line.
The marks represent the distance from the rear of the car (from the rear end of the bumper).

The marks do not move in synchronisation with the steering wheel. Set the marks to suit the car's width.

2. Distance guidance marks
The marks represent the distance from the rear of the car (from the rear end of the bumper).
• The marks do not move in synchronisation with the steering wheel.
• We recommend that you measure the actual distance to the marks when parked on a level surface.

• Depending on the condition of the car or road surface, the range of vision may vary.

• The camera has a limited range of vision. Objects at extreme angles to the camera (e.g. under the bumper or at opposite ends of the bumper) may not be in the its field-of-vision.

• The rear camera image may have a tint which is different from the actual surroundings.

• Depending on the car, the guidance may deviate to the right or left. This is not a malfunction.
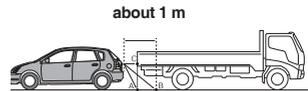
■ Distance guidance mark

The distance guides represent the ground level distance from the rear bumper. It is difficult to accurately estimate the distance to objects above ground level.

In the following example, the distance to A is 0.5 m and the distance to B is 1 m.

<Screen>

<Positions of A, B and C>
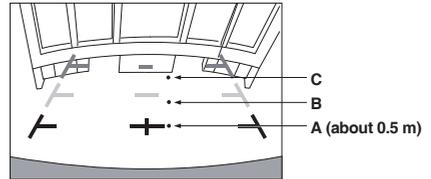
In the screen, according to the distance guidance marks, the truck seems to be parked about 1 m away (at the position B). In actual fact, however, if you reversed to position A, you would collide with the truck.
In the screen, positions A, B and C seem to be located in order of proximity. However, in actual fact, the position A and C are the same distance, and B is farther away than positions A and C.

• The car width extension mark represents the distance to the road surface. The distance to an object on the road is not accurately represented by the guides.

Error between the screen and the actual road surface

In the following conditions, errors are produced between the screen guidance and the actual road surface. (The illustrations represent a case when the camera is installed in the standard position.)
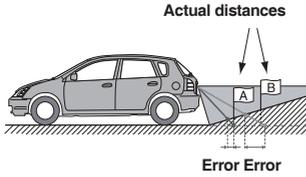
■ When there is a steep upward slope behind the car (example)

<Screen>

Distance guidance marks

<Situation of the car>
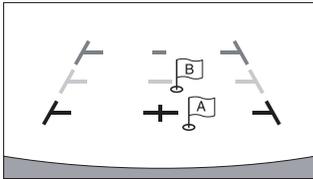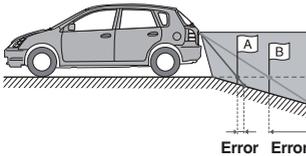
Actual distances

Error Error
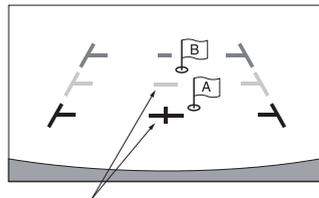
The distance guidance mark represents the distance to a flat road surface. Therefore in the case of an upward slope behind the car, the distance guides are displayed closer to the rear bumper than the actual distance. For example, if there is an obstacle on the upward slope, it may appear farther away than its actual position.
Also, an error may occur between the guidance and the actual path of the car on the road surface.

■ When there is a steep downward slope behind the car (example)

<Screen>

<Situation of the car>

Error   Error

In the case of a downward slope behind the car, the distance guides are displayed farther from the rear bumper than the actual distance.
If there is an obstacle on the downward slope, it seems closer than its actual position.
Also, an error may occur between the guidance and the actual path of the car on the road surface.