





## Multimedia Manager™

- OWNER'S MANUAL
   Please read before using this equipment.
- MODE D'EMPLOI Veuillez lire avant d'utiliser cet appareil.
- MANUAL DE OPERACIÓN Léalo antes de utilizar este equipo.





# Contents

## WARNING

WARNING	2
CAUTION	3
PRECAUTIONS	3

## **Basic Operation**

Remote control unit	. 4
Resetting	. 6
Turning the power on and off	. 6
About indicators	. 7
Setting the speakers	. 8
Using with Ai-NET connections	. 9
Using with RCA-type or optical cable	
connections	
(non Ai-NET connections)	10

## **Automatic Adjustments**

Preparations for automatic adjustments 14
Automatic adjustments
(Adaptive Equalizer) 16
Performing time correction automatically
(Precision Automated Time Correction) 20

## Settings/Adjustments

Performing time correction manually			
(Time Correction)24			
Equalizer adjustments 28			
Crossover network			
Crossover adjustment 32			
Switching the phase			

## **Using Dolby Surround**

Using the Pro Logic mode 36
Adjustment procedure for
Dolby Surround37
Speaker setup 38
Adjusting the speaker levels 40
Center speaker time correction 42
Rear speaker time correction 44
Adjusting the acoustic image 46
Mixing bass sound to the rear channel 48
Achieving powerful high volume sound 50

## **Convenient Functions**

Navigation system voice guidance
interruption51
Storing settings in the memory 52
Calling out stored values 52
Defeat mode 53
Switching the display mode
Switching the indicator color
(for non Ai-NET connections only) 54
DTS

## Information

Terminology	55
In case of difficulty	56
Specifications	58

## LIMITED WARRANTY

## WARNING

## \land WARNING

This symbol means important instructions.

Failure to heed them can result in serious injury or death.

### DO NOT OPERATE ANY FUNCTION THAT TAKES YOUR ATTENTION AWAY FROM SAFELY DRIVING YOUR VEHICLE.

Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop the vehicle in a safe location before performing these functions. Failure to do so may result in an accident.

### KEEP THE VOLUME AT A LEVEL WHERE YOU CAN STILL HEAR OUTSIDE NOISE WHILE DRIVING.

Failure to do so may result in an accident.

# MINIMIZE DISPLAY VIEWING WHILE DRIVING.

Viewing the display may distract the driver from looking ahead of the vehicle and cause an accident.

#### DO NOT DISASSEMBLE OR ALTER.

Doing so may result in an accident, fire or electric shock.

# USE THIS PRODUCT FOR MOBILE 12V APPLICATIONS.

Use for other than its designed application may result in fire, electric shock or other injury.

### KEEP SMALL OBJECTS SUCH AS BATTERIES OUT OF THE REACH OF CHILDREN.

Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

# USE THE CORRECT AMPERE RATING WHEN REPLACING FUSES.

Failure to do so may result in fire or electric shock.

#### USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.

(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

## DO NOT BLOCK VENTS OR RADIATOR PANELS.

Doing so may cause heat to build up inside and may result in fire.

# ⚠ CAUTION

This symbol means important instructions.

Failure to heed them can result in injury or material property damage.

## HALT USE IMMEDIATELY IF A PROBLEM APPEARS.

Failure to do so may cause personal injury or damage to the product. Return it to your authorized Alpine dealer or the nearest Alpine Service Center for repairing.

### DO NOT MIX NEW BATTERIES WITH OLD BATTERIES. INSERT WITH THE CORRECT BATTERY POLARITY.

When inserting the batteries, be sure to observe proper polarity (+ and –) as instructed. Rupture or chemical leakage from the battery may cause fire or personal injury.



#### Temperature

Be sure the temperature inside the vehicle is between  $+60^{\circ}C (+140^{\circ}F)$  and  $-10^{\circ}C (+14^{\circ}F)$  before turning your unit on.

#### Installation Location

Make sure the PXA-H900 will not be installed in a location subjected to:

- · Direct sun and heat
- High humidity and water
- Excessive dust
- Excessive vibrations

#### Maintenance

If you have problems, do not attempt to repair the unit yourself. Return it to your Alpine dealer or the nearest Alpine Service Station for servicing.

# **Basic Operation**

## **Remote control unit**

## When using the remote control unit

- Point the remote control unit's transmitter at the remote control sensor and operate it within a distance of 2 meters.
- Note that the remote control unit may not operate if the remote control sensor is exposed to direct sunlight.
- The remote control unit is a compact, lightweight, high precision device. To avoid damage, battery wear, erroneous operation or reduced operability, be careful of the following:
  - Do not subject the remote control unit to shocks.
  - Do not place it in pant pockets.
  - Do not spill liquids on it.
  - Avoid humidity and dust.
  - Do not set it in places exposed to direct sunlight.

## Remote control unit light

When the **LIGHT** button on the remote control unit is pressed, the remote control unit's light section turns on for 10 seconds.



LIGHT

## Holding the remote control unit

Be careful not to cover the transmitter with your fingers, etc., when operating the remote control unit.







• When the remaining battery power gets low, only the LIGHT button lights.



Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop the vehicle in a safe location before performing these functions. Failure to do so may result in an accident.

# **Basic Operation**

## Resetting

Reset the unit when using it for the first time or after replacing the vehicle's battery.



Press the reset switch with the tip of a pen, etc.

Open the cover using a hexagonal wrench.



## Turning the power on and off

This unit does not have a power switch. The head unit to which the unit is connected, controls its power.

**1** The power indicator lights when the power is turned on.



## About indicators



\* When the Pro Logic mode is on during HDCD playback

- If "CENTER" or "REAR" is set to "ON" at "Speaker setup", the HDCD indicator does not light.
- If both "CENTER" and "REAR" are set to "OFF" at "Speaker setup", the HDCD indicator lights.

# **Basic Operation**



## Setting the speakers

First make the speaker settings. Turn off speaker channels that are not connected.

- Press the **TCR** button.
- 2 Press the **ch UP** or **ch DN** button to select a speaker channel to which no speaker is connected.

```
\rightarrow \mathsf{FLLOW} \leftrightarrow \mathsf{FRLOW} \leftrightarrow \mathsf{FLMID} \leftrightarrow \mathsf{FRMID} \leftrightarrow \mathsf{FLHIGH} \leftrightarrow \mathsf{FRHIGH} \leftarrow
\rightarrow \mathsf{Sub} \ \mathsf{Wf.R} \ \leftrightarrow \ \mathsf{Sub} \ \mathsf{Wf.L} \ \leftrightarrow \ \mathsf{CENTER} \ \leftrightarrow \ \mathsf{REAR} \ \mathsf{R} \ \leftrightarrow \ \mathsf{REAR} \ \mathsf{L} \leftarrow
```

**3** Press the ▼ button to set the speaker level to "OFF".

Repeat steps **2** and **3** to turn "OFF" all nonconnected speaker channels.



**4** Press the **ENTER** button to complete the setting.

· Names of speakers displayed FLLOW: Front low range speaker (L) FRLOW: Front low range speaker (R) FLMID : Front mid range speaker (L) FRMID : Front mid range speaker (R) FLHIGH : Front high range speaker (L) FRHIGH : Front high range speaker (R) REAR L: Rear speaker (L) REAR R: Rear speaker (R) CENTER : Center speaker Sub Wf. L: Subwoofer (L) Sub Wf. R: Subwoofer (R)

## **Using with Ai-NET** connections

## Adjusting the subwoofer

When Ai-NET connections are used, the volume, subwoofer, balance and fader are adjusted from the head unit (they cannot be adjusted from the PXA-H900). The subwoofer level only can be adjusted from the PXA-H900 as well.

1 Press the **MODE** button for at least 2 seconds to turn the "Sub Wf." setting to "ON".

Sub  $Wf. \rightarrow Sub Wf.$ OFF ON

**2** Press the **MODE** button. Press the  $\blacktriangle$  or  $\checkmark$  button within 5 seconds to adjust.

The level can be adjusted between 0 and +15.



The subwoofer cannot be adjusted when the "Sub Wf." setting is set to "OFF".

# **Basic Operation**



# Using with RCA-type or optical cable connections (non Ai-NET connections)

## Switching the input

The PXA-H900 is equipped with three sets of analog signal inputs and three sets of digital signal inputs.

**1** Press the **INPUT SELECT** button to select the input mode.

The sound of the selected mode is output.

 $\rightarrow$ ANALOG1 $\rightarrow$ ANALOG2 $\rightarrow$ ANALOG3 $\rightarrow$ DIGITAL1 $\rightarrow$ DIGITAL2 $\rightarrow$ DIGITAL3 $\neg$ 

ANALOG INPUT

LR

#### Non Ai-NET connections

Alpine products are equipped for a bus connection system called "Ai-NET" which can only be used for connections between Ai-NET products.

The PXA-H900 is an Ai-NET product, but is designed to allow connections to other (non Ai-NET) products as well. Thus RCA-type and optical cable connections are also possible.

Connections to non Ai-NET products are referred to as "non Ai-NET connections".

## Adjusting the input level

Using the analog, RCA-type connections, the PXA-H900's input level must be preset from the head unit.

Adjust the input level using a sound source with a high recording level (such as pops or rock music).

Turn on the head unit's power.

**2** Press the VOL  $\lor$  button on the PXA-H900 and set the volume level to "0".

**3** Gradually increase the volume of the head unit until the "OVER" indicator appears in the display. Reduce the volume slightly from this position, until the OVER indicator just turns off. This completes the setting. (The OVER indicator should only flash momentarily while playing any source.)

Do not change the head unit volume level from this optimum setting. Use the PXA-H900, only, for changing the volume level.

OVER

# **Basic Operation**



# Using with RCA-type or optical cable connections (non Ai-NET connections)

# Adjusting the volume, fader, balance and subwoofer

After determining the input level, adjust the volume, fader, balance and subwoofer from the PXA-H900. Be careful not to make these adjustments on the head unit.

#### Adjusting the volume

**1** Use the VOL  $\land$  and VOL  $\lor$  buttons to adjust the volume (from 0 to 35).



### Adjusting the fader and balance

**1** Press the **MODE** button and select the mode to be adjusted.

ightarrow Sub Wf. ightarrow BALANCE ightarrow FADER -

2 Use the ▲ and ▼ buttons or the ◄ and ► buttons within 5 seconds to adjust to the desired level.

#### BALANCE:

Press the ◄ or ► button to adjust the balance of the volume between the left and right speakers (from L15 to R15).



#### FADER:

Press the  $\blacktriangle$  or  $\checkmark$  button to adjust the balance of the volume between the front and back speakers (from F15 to R15).



## Adjusting the subwoofer

**1** Press the **MODE** button for at least 2 seconds to turn the "Sub Wf." setting to "ON".

Sub Wf. ON → OFF

2 Press the MODE button and select "Sub Wf.".

 $\rightarrow$  Sub Wf.  $\rightarrow$  BALANCE  $\rightarrow$  FADER -

**3** Press the ▲ or ▼ button within 5 seconds to adjust to the desired level (from 0 to +15).



# Automatic Adjustments

## Preparations for automatic adjustments

The PXA-H900 is equipped with two automatic adjustment functions: "Adaptive Equalizer" and "Precision Automated Time Correction".

The preparations described below must be made in order to perform these automatic adjustments. After making these preparations, refer to "Automatic adjustments (Adaptive Equalizer)" (page 16) and "Performing time correction automatically (Precision Automated Time Correction)" (page 20) to perform the respective automatic adjustments.

1 Check that the defeat mode is off. (See page 53.)

**2** Adjust the head unit and amplifier levels.

#### Head unit:

Set the balance and fader to "center".

Front, rear and center amplifiers:

Set the amp gains to "center" or "normal" to start. If there are no rear speakers, check that the rear speakers are turned off. (See page 8.) Gain levels may be changed if you are not satisfied with the automatic results. Make the gain changes and return the automatic adjustment. Subwoofer amplifier:

Set the amplifier gain to "center" or "normal". If the subwoofer is located in the trunk or a remote place (for example at the very back of a station wagon), adjust the subwoofer to increase the volume several steps.

#### Speaker Crossovers:

Set the crossovers for all the speakers in the system that will require them. See page 32, "Crossover adjustment", for more information on setting the crossovers.

**3** Connect the included microphone to the PXA-H900.

Refer to the Installation manual.

- The adjustment differs according to the position of the microphone. Search for the position at which the desired sound quality can be achieved.
- We recommend using speaker boxes or box locations that produce low levels of indirect sound (for example, sealed boxes or vented boxes with the vents firing into the trunk).
- The proper adjustments cannot be achieved if the subwoofer is located in the trunk and the trunk and cabin are separated by a metal sheet. Either move the subwoofer into the cabin or open a hole in the rear tray to join the two spaces. (This is not necessary if the partition is not a metal sheet.)

If the partition is a metal sheet, open a hole in the rear tray. If you encounter a problem, consult your authorized dealer.



Is the partition a metal sheet?

Or move the subwoofer into the cabin.

• Do not disconnect the microphone during the automatic adjustment procedure. **A** Secure the microphone in place. Failure to fix the microphone securely in place may result in distortion or improper acoustic positioning. The microphone must be mounted very securely so the bass frequencies will not vibrate it. For example, the microphone could be wedged between the headrest and the seat. If the microphone is placed on a tripod, the microphone must be very securely mounted to the tripod (not loosely clamped). The tripod must also be very securely weighted and/or strapped so it cannot move. The microphone would usually be placed near the driver's ear position. However, since the Adaptive Equalizer is adjusting low frequencies, the microphone does not need to be at the exact ear position, it is more important that it is securely mounted.



#### Hints for making the Adaptive Equalizer adjustments

To achieve the desired acoustic image, we recommend fastening the microphone to the four points described below. (The figures are approximates. Adjust them according to the vehicle.)

- A Ceiling directly above the listening position (driver's seat position sharp sound)
- B 20 cm (7-7/8") in front of above position (driver's seat position softer sound than above, bass sound positioned toward front)
- C 20 cm (7-7/8") further in front of above position (driver's seat position even softer sound, bass sound positioned further toward front)
- D Base of rearview mirror (position for both driver's and passenger's seats)



• The acoustic positioning changes according to the position of the microphone because the human ear senses the distance from the sound's focal position. Adjust according to your personal tastes.

# Automatic Adjustments



# Automatic adjustments (Adaptive Equalizer)

Use this function to automatically perform frequency, phase and time correction. Adjustments for the acoustic properties specific to the vehicle's interior are made to achieve the ideal acoustic space.

- Before starting the automatic adjustment procedure, park the vehicle in a quiet place to avoid the effects of external sounds.
- 2 Set the vehicle's key to the ACC position. Do not start the engine. The vibrations may make it impossible to achieve the proper adjustment values.

- Preparations must be made before performing the automatic adjustment procedure. Refer to page 14.
- The adjustments differ according to the position of the microphone. We recommend performing the operation repeatedly with the microphone in different positions. After each operation, store the settings. Compare the sound at the different setting and from different locations. Select the one you prefer.
- The Adaptive Equalizer eliminates or reduces the boomy bass peaks common to the car cabin. Elimination of the peaks "uncovers" the lower bass information which was masked before. However, because your ear and brain are used to those peaks, the subwoofers may sound less loud. You must listen for a few weeks to allow your ears and brain to recalibrate and become used to the flat sound.

- **3** Adjust the volume.
  - When using RCA-type connections, use the PXA-H900's VOL ∧ and VOL ∨ buttons to display "5" (on the PXA-H900's display).
  - When using Ai-NET connections, perform the head unit's volume operation to display "5" (on the head unit's display).

When the CDA-7990 is combined as a head unit, adjust to "-50dB".

4 Press the AUTO AEQ button.

5 Press the ▲ or ▼ button to select the channel or speaker environment for outputting the correction signals.



- The Adaptive Equalizer flattens the overall bass response, both the SPL and the phase. Depending on how noisy your vehicle is, a flat SPL response may cause low bass notes to be masked by road noise. In such cases, use the conventional EQ features of the PXA-H900 to gently "tilt up" the low bass response. Again, listen for a few weeks to allow your ears and brain to recalibrate and become used to the flat sound.
- After the automatic adjustments are performed, the sound from the different speakers arrives at the listening position at virtually the same time. If you are accustomed to delays in the bass sound (which is common with conventional systems), the sound may seem somewhat strange to you. If so, increase the subwoofer delay time slightly to achieve sound closer to that of home audio systems.
- Heavy bass speakers do not reproduce medium low frequencies (150 to 400 Hz) well (the sound tends to be distorted). When using such speakers, lower the subwoofer's cutoff frequency.
- If the volume of the subwoofer is too low after the automatic adjustment procedure is performed, the adjustments have not been performed properly. Refer to step 2 under "Preparations for automatic adjustments" and perform the adjustments again.
- Depending on the speaker settings (on or off), certain speakers may not be displayed (in which case they cannot be set).



# Automatic Adjustments



6 Press the ENTER button to set the automatic adjustment mode, then leave the vehicle. To cancel, press the AUTO AEQ button. The automatic adjustment procedure consists of the operations described below and requires 2 to 8 minutes to be completed.

Perform the time correction.

Perform the acoustic response measurement.

Perform the frequency response and phase response corrections.

#### "ADJUSTMENTS ARE COMPLETED" is displayed for about 5 seconds and the automatic adjustment mode is canceled.

Strong sounds (about 90 dB) are produced during the automatic adjustment procedure. These sounds can be heard outside the vehicle. Be sure to park the vehicle in a place where the sound will not be a nuisance.

- The time required to perform the adjustments depends on the speaker connections.
- The frequency response and phase response corrections are only applied to the front and subwoofer channels.
   Time correction is applied to all channels.
- If processing is interrupted after time correction is completed, time correction is set to the adjusted value.
- If the microphone does not pick up the sound or the speakers are not working or are connected or wired improperly, the automatic adjustments are not performed and a warning message is displayed.

Check the various speakers then perform the automatic adjustments again.

Example of warning message

NOTICE PLEASE CHECK AMPLIFIER GAIN AND CONNECTIONS 7 Check that the automatic adjustments have been completed (that "ADJUSTMENTS ARE COM-PLETED" has been displayed for 5 seconds), get back in the vehicle, then disconnect the microphone.

**8** To store the settings, refer to "Storing settings in the memory" (page 52).

## Turning the adjusted settings off

The adjusted settings can be turned off. Doing so clears the settings, so we recommend storing them in the memory before turning them off.

1) Press the AUTO AEQ button.

- 2) Press the ► button.
- 3) Press the ENTER button.

• Note that using for extended periods of time without turning on the engine may wear down the battery.

# Automatic Adjustments



## Performing time correction automatically (Precision Automated Time Correction)

Due to the particular conditions inside the vehicle, there is a major difference between the distances of the various speakers and the listening position. This function uses the included measurement microphone to automatically measure and analyze the distances between the speakers and the listening position and perform the optimum time correction.

- **1** Before starting the automatic adjustment procedure, park the vehicle in a quiet place to avoid the effects of external sounds.
- 2 Set the vehicle's key to the ACC position. Do not start the engine. The vibrations may make it impossible to achieve the proper adjustment values.

- Preparations must be made before performing the automatic adjustment procedure. Refer to page 14.
- The PXA-H900's automatic adjustments take into account the delay time between the time at which the signals are input to the speakers until the sound is output. This does not correspond to the actual distance.
- With the automatic adjustments, the average delay time within the speakers' playable frequency range is measured. Measurements may not be possible when using special speakers or in special playback environments. If this is the case, perform the adjustments manually.



- When using RCA-type connections, use the PXA-H900's VOL ∧ and VOL ∨ buttons to display "5" (on the PXA-H900's display).
- When using Ai-NET connections, perform the head unit's volume operation to display "5" (on the head unit's display).
   When the CDA-7990 is combined as a head unit, adjust to "–50dB".

4 Press the AUTO TCR button.



# **Automatic Adjustments**



5 Press the ENTER button to set the automatic adjustment mode, then leave the vehicle. To cancel, press the AUTO TCR button. The automatic adjustment procedure consists of the operations described below and requires about 2 minutes to be completed.

Perform the time correction.

#### "ADJUSTMENTS ARE COMPLETED" is displayed for about 5 seconds and the automatic adjustment mode is canceled.

Strong sounds (about 90 dB) are produced during the automatic adjustment procedure. These sounds can be heard outside the vehicle. Be sure to park the vehicle in a place where the sound will not be a nuisance.  If the microphone does not pick up the sound or the speakers are not working or are connected or wired improperly, the automatic adjustments are not performed and a warning message is displayed.
 Check the various speakers then

perform the automatic adjustments again.

Example of warning message

NOTICE PLEASE CHECK AMPLIFIER GAIN AND CONNECTIONS 6 Check that the automatic adjustments have been completed (that "ADJUSTMENTS ARE COM-PLETED" has been displayed for 5 seconds), get back in the vehicle, then disconnect the microphone.

**7** To store the settings, refer to "Storing settings in the memory" (page 52).

• Note that using for extended periods of time without turning on the engine may wear down the battery.

# Settings/Adjustments

# Performing time correction manually (Time Correction)

Though sufficient correction can be achieved with the "Adaptive Equalizer" and "Precision Automated Time Correction" automatic adjustments, it is also possible for the user to calculate the correction values and make the adjustments manually. This manual adjustment requires sufficient knowledge and experience, however, so we suggest you have it performed at your store of purchase.

- 1 Check that the defeat mode is off. (See page 53.)
- 2 Sit in the listening position (the driver's seat, for example) and measure the distance (in meters) between your head and the various speakers.
- **3** Calculate the difference in distance between the farthest speaker and the other speakers.
  - L = (distance of farthest speaker) (distance of other speakers)
- 4 Divide the distances calculated for the different speakers by the speed of sound (340 m/s temperature 14°C).

This value is the time correction value for the different speakers.

- When the microphone is connected, the sound in the car is input through the microphone and displayed on the spectrum analyzer. This display can be used as reference when making the adjustment. For details of the spectrum analyzer display, see "Switching the display mode" (page 53).
- This adjustment is easier when test signals such as pink noise are used. For information on test signals, consult your store of purchase.

 The speed of sound fluctuates according to the temperature. The accurate speed of sound can be achieved with the formula shown below.
 Speed of sound = 331.45 + C x T C: 0.607 T: Temperature (°C)

#### Concrete examples

1. Calculating the time correction value for the front left speaker on the diagram below.

Conditions:

Distance between farthest speaker and listening position: 2.25 m (88-3/4") Distance between front left speaker and listening position: 0.5 m (20") Calculation: L = 2.25 m (88-3/4") - 0.5 m (20") = 1.75 m (68-3/4") Compensation time =  $1.75 \div 340 \times 1000 = 5.1$  (ms)

In other words, setting the time correction value for the front left speaker to 5.1 (ms) sets a virtual distance matching the distance to the farthest speaker.



The sound is uneven because the distance between the listening position and the different speakers is different. The difference in the distance between the front left and rear right speakers is 1.75 meters (68-3/4").



Time correction eliminates the difference between the time required for the sound from the different speakers to reach the listening position.

Setting the time correction of the front left speaker to 5.1 ms makes it possible to coordinate the distance from the listening position to the speaker.

→ next page
25-EN

# Settings/Adjustments



**5** Press the **TCR** button to set the time correction mode.

6 Press the **ch UP** or **ch DN** button to select the desired channel.

ightarrow FLLOW  $\leftrightarrow$  FLMID  $\leftrightarrow$  FRMID  $\leftrightarrow$  FLHIGH  $\leftrightarrow$  FRHIGH  $\leftarrow$ 

- ightarrow Sub Wf.R  $\,\leftrightarrow\,$  Sub Wf.L  $\,\leftrightarrow\,$  Center  $\,\leftrightarrow\,$  Rear R  $\,\leftrightarrow\,$  Rear L  $\,\leftarrow^{\perp}$
- 7 Press the ◄ or ► button to adjust the time correction value.



- Displayed distance The values indicated for "inch" and "cm" are the distance calculated from the time. (340 m/s temperature 14°C, 1 inch is calculated as 2.54 cm.)
- In reality the time difference depends not only on the difference in physical distance but also on the delay time between the time at which the signals are input to the speakers until the sound is output. This delay time depends on the speaker, and may also be somewhat affected on how the speaker is mounted on the vehicle. After making the setting, we recommend listening to the sound and fine-adjusting if necessary.

8 Press the ▲ or ▼ button to adjust the speaker output level.
 The level can be set to "OFF" or adjusted between -12 and 0.

**9** Press the **ENTER** button to complete the setting.

# Settings/Adjustments



## Equalizer adjustments

The level of the front, rear and center channels can be adjusted separately for 31 bands and the subwoofer can be adjusted for 10 bands (a total of 175 bands) to achieve the desired sound field.

- 1 Check that the defeat mode is off. (See page 53.)
- **2** Press the **GEQ** button.

**3** Press the **ch UP** or **ch DN** button to select the desired channel.

ightarrow FRONT $\leftrightarrow$  REAR  $\leftrightarrow$  CENTER  $\leftrightarrow$  Sub Wf. $\leftarrow$ 

- When the microphone is connected, the sound in the car is input through the microphone and displayed on the spectrum analyzer. This display can be used as reference when making the adjustment. For details of the spectrum analyzer display, see "Switching the display mode" (page 53).
- This adjustment is easier when test signals such as pink noise are used. For information on test signals, consult your store of purchase.
- Even more subtle adjustments can be used using a computer. For details, consult your store of purchase.
- Check the playable frequency ranges of the connected speakers before making the equalizer adjustments. If the speaker's playable frequency range is 55 Hz to 30 kHz, for example, adjusting the 40 Hz or 20 Hz band has no effect. Additionally, you may overload and damage the speakers.



# Settings/Adjustments

## **Crossover network**

The PXA-H900 is equipped with an active dividing network allowing the bands to be split before amplification by the power amplifier.

Because of this, there is no need for a passive network between the speakers and amplifiers and the amplifiers are fully independent, thus eliminating the problem of interference and making it possible to achieve the optimum acoustic space by dividing the playback frequencies in a way suited to the capacities of the speakers.

This adjustment requires sufficient knowledge and experience. If you have problems, so we suggest you have the adjustment made by your store of purchase.

Adjust the high pass filter (H.P.F.) and low pass filter (L.P.F.) and set the slope (filter response attenuation slope) for the different bands.

Make the adjustments according to the playable frequency ranges and frequency responses of the connected speakers.

	Cutoff frequency adjustment range (1/6 octave steps)		Slope adjustment		
	H.P.F.	L.P.F.	H.P.F.	L.P.F.	
FLOW	20Hz –	22.5Hz –	-6/-12/-18/-24/-30dB/	-6/-12/-18/-24/-30dB/	
(Front low range speaker)	18kHz	20kHz	Filter OFF	Filter OFF	
FMID	20Hz –	22.5Hz –	-6/-12/-18/-24/-30dB/	-6/-12/-18/-24/-30dB/	
(Front mid range speaker)	18kHz	20kHz	Filter OFF	Filter OFF	
FHIGH	1kHz –	1.1kHz –	-6/-12/-18/-24/-30dB	-6/-12/-18/-24/-30dB/	
(Front high range speaker)	18kHz	20kHz		Filter OFF	
REAR	20Hz –	22.5Hz –	-6/-12/-18/-24/-30dB/	-6/-12/-18/-24/-30dB/	
(Rear speaker)	18kHz	20kHz	Filter OFF	Filter OFF	
CENTER	20Hz –	22.5Hz –	-6/-12/-18/-24/-30dB/	-6/-12/-18/-24/-30dB/	
(Center speaker)	18kHz	20kHz	Filter OFF	Filter OFF	
Sub Wf.	20Hz –	22.5Hz –	-6/-12/-18/-24/-30dB/	-6/-12/-18/-24/-30dB	
(Subwoofer)	180Hz	200Hz	Filter OFF		

Output signals with these frequencies



## The H.P.F. setting cannot be the same as or exceed the L.P.F. setting for that channel.

- The crossover network is a filter that divides specific frequency bands.
- The high pass filter is a filter that cuts frequencies below a certain frequency (bass frequencies) and lets through treble frequencies.
- The low pass filter is a filter that cuts frequencies above a certain frequency (treble frequencies) and lets through bass frequencies.
- The slope is a value expressing the attenuation of the signal in decibels when the frequency is increased or decreased by one octave.
- The higher the slope value, the steeper the slope.
- If the slope is set to "OFF", the signal does not pass through the filter, so there is no effect.
- In order to protect the speakers, the front high range high pass filter cannot be turned off (the slope cannot be set to "OFF").

For the same reason, the subwoofer low pass filter cannot be turned off (the slope cannot be set to "OFF").

• Tweeters may be damaged if low frequency signals are input to them.

# Settings/Adjustments



## **Crossover adjustment**

- 1 Check that the defeat mode is off. (See page 53.)
- **2** Press the **DIV** button to set the divider adjustment mode.
- **3** Press the **ch UP** or **ch DN** button to select the channel (speaker) to be adjusted.

ightarrow FMID  $\leftrightarrow$  FHIGH  $\leftrightarrow$  REAR  $\leftrightarrow$  CENTER  $\leftrightarrow$  Sub Wf. $\leftarrow$ 

4 Press the ▲ or ▼ button to select the crossover H.P.F. or L.P.F. band.

The selected band flashes.



 If the Adaptive Equalizer adjustment has been performed, adjusting "FLOW" or "Sub Wf." has no effect since this is no longer the Adaptive Equalizer "DIV" setting.

A caution message appears on the screen. Press the ENTER button to continue the adjustment, ch UP or ch DN button to cancel it.



# Settings/Adjustments



## Switching the phase

The phase of the different speakers can be switched. Set to the phase at which the sound from the speakers is clearest. It is also possible to switch the subwoofer between stereo and monaural.

Check that the defeat mode is off. (See page 53.)

2 Press the PHASE button.

**3** Press the **ch UP** or **ch DN** button to select the desired channel.

ightarrow FLOW  $\leftrightarrow$  FMID  $\leftrightarrow$  FHIGH  $\leftrightarrow$  REAR  $\leftrightarrow$  CENTER  $\leftrightarrow$  Sub Wf. $\leftarrow$ 



# **Using Dolby Surround**



## Using the Pro Logic mode

With the PXA-H900, Pro Logic processing can be conducted on the music signals recorded on two channels to achieve Dolby Pro Logic surround sound. For two-channel Dolby Digital, DTS and MPEG2 signals, there is also a "REAR FILL" function for outputting the signals of the front channel to the rear channel.

Press the DD PL/REAR FILL button to select the desired mode.

ightarrow DOLBY PROLOGIC ightarrow REAR FILL ightarrow OFF -

DOLBY DIGITAL DOLBY PL / REAR FILL CR DOLBY PROLOGIC S

- This function only works with two-channel signals. This operation cannot be performed when 5.1-channel DTS or Dolby Digital signals are input.
- "REAR FILL" function Depending on the input signals, the sound may only be output from the front speakers. In this case, the "REAR FILL" function can be used to output signals from the rear speakers as well.
- Once the settings are made, we recommend storing them in the memory. See page 52 for instructions.
- When the "REAR FILL" mode is turned on, sound may be produced from the rear speakers even if the rear speakers are set to "OFF". Do not use the "REAR FILL" function if you do not want to output sound from the rear speakers.
- The HDCD decode mode cannot be used in the "DOLBY PROLOGIC" mode.

## Adjustment procedure for Dolby Surround

Make the adjustments described below in order to reproduce Dolby Digital and DTS sound with greater accuracy.

#### Adjustment procedure



Note: In case of combining the Automatic adjustments etc.

We recommend to make the Automatic adjustments before the Dolby Surround adjustments.

# **Using Dolby Surround**



## Speaker setup

The PXA-H900 can be set according to the playable frequency range of your speakers.

Check the playable frequency range of the speakers (not including the subwoofer) before performing this operation to verify whether the speakers can play low frequencies (of about 80 Hz or less).

Press the **5.1ch SETUP** button.

2 Press the ▲ or ▼ button and select "SPEAKER SETUP".

ightarrow SPEAKER SETUP  $\leftrightarrow$  OUTPUTLEVEL SETUP  $\leftrightarrow$  BI-PHANTOM SETUP  $\leftarrow$ ightarrow Rear delay setup  $\leftrightarrow$  Center delay setup  $\leftrightarrow$  Rear-Mix setup  $\leftarrow$ 

**3** Press the ENTER button.

- This function can be set in the Pro Logic, DTS, MPEG and Dolby Digital modes.
- Avoid stopping, pausing, switching the disc, cueing, fastforwarding or switching the audio channel of the player while making this adjustment. The setting is canceled if the decode mode is switched.

4 Press the ▲ or ▼ button and select the speakers to be set.

#### $\rightarrow$ FRONT $\leftrightarrow$ CENTER $\leftrightarrow$ REAR $\leftarrow$

**5** Press the ◄ or ► button and select the speaker response.

$$\rightarrow$$
 SMALL  $\leftrightarrow$  LARGE  $\stackrel{*2}{\leftrightarrow}$  OFF  $\stackrel{*1}{\leftarrow}$ 

#### SMALL:

When a speaker that cannot play low frequencies (80 Hz or less) is connected

LARGE:

When a speaker that can play low frequencies (80 Hz or less) is connected

OFF:

When no speaker is connected

DOLBY DIGITAL
SPEAKER SETUP
FRONT LARGE LS RS

6 Press the 5.1ch SETUP button to complete the setting.

To perform other setup operations, press the **ENTER** button to display the setup menu.

- If the center speaker is turned "OFF", the center channel's audio signals are added to the audio signals output from the front speakers.
- If you set the speaker response to "OFF", also set the speaker level adjustment (speaker setting) to "OFF". (See page 8.)
- \*1 It is not possible to set the front speakers to "OFF".
- \*2 If the front speakers are set to "SMALL", the rear and center speakers cannot be set to "LARGE".
- Perform the setup for the all the speakers ("FRONT", "CENTER" and "REAR"). If not, the sound may not be balanced.

• Once the settings are made, we recommend storing them in the memory. See page 52 for instructions.

# Using Dolby Surround



## Adjusting the speaker levels

Use the test tones output from the PXA-H900 to adjust so that the volume of the different speakers is equal.

To achieve a strong sense of presence, adjust so that the volume of the sound heard from the different speakers at the listening position is the same.

Press the **5.1ch SETUP** button.

2 Press the ▲ or ▼ button and select "OUTPUT LEVEL SETUP".

ightarrow SPEAKER SETUP  $\leftrightarrow$  OUTPUTLEVEL SETUP  $\leftrightarrow$  BI-PHANTOM SETUP  $\leftarrow$ ightarrow REAR DELAY SETUP  $\leftrightarrow$  CENTER DELAY SETUP  $\leftrightarrow$  REAR-MIX SETUP  $\leftarrow$ 

 $\ast$  Not displayed when the rear/center speaker setting is set to "OFF".

3 Press the ENTER button. Test tones are output from the various speaker channels in order for about 2 seconds each.

L (left front)  $\rightarrow$  C (center)  $\rightarrow$  R (right front) –

— LS (left surround)  $\leftarrow$ 

RS (right surround) ←

- This function can be set in the Pro Logic, DTS, MPEG and Dolby Digital modes.
- Avoid stopping, pausing, switching the disc, cueing, fastforwarding or switching the audio channel of the player while making this adjustment. The setting is canceled if the decode mode is switched.

 If a speaker is set to the off mode, that speaker's level cannot be adjusted. Refer to "Speaker setup" (page 38).



• Adjust based on the front speakers.

• Once the settings are made, we recommend storing them in the memory. See page 52 for instructions.

# **Using Dolby Surround**



## Center speaker time correction

Use this function after adjusting the delay time of the different speakers with the "Adaptive Equalizer", "Precision Automated Time Correction" and "automatic/manual time compensation" functions. Using this function results in sound with a sense of presence.

Press the 5.1ch SETUP button.

2 Press the ▲ or ▼ button and select "CENTER DELAY SETUP".

 $\rightarrow$  SPEAKER SETUP  $\leftrightarrow$  OUTPUTLEVEL SETUP  $\leftrightarrow$  BI-PHANTOM SETUP  $\leftarrow$  $\rightarrow$  REAR DELAY SETUP  $\leftrightarrow$  CENTER DELAY SETUP  $\leftrightarrow$  REAR-MIX SETUP  $\leftarrow$ 

\* Not displayed when the rear/center speaker setting is set to "OFF". (See page 38.)

- This function can be set in the Pro Logic, DTS, MPEG and Dolby Digital modes.
- Avoid stopping, pausing, switching the disc, cueing, fastforwarding or switching the audio channel of the player while making this adjustment. The setting is canceled if the decode mode is switched.

3 Press the ENTER button.

▲ Press the ▲ or ▼ button to adjust the time correction value.

The center delay setting can be adjusted within the range of 0 to 5 ms.



5 Press the 5.1ch SETUP button to complete the adjustment.

To perform other setup operations, press the **ENTER** button to display the setup menu.

- This adjustment cannot be performed when the center speaker setup setting is set to "OFF"
- If the distance of the front speaker is shorter than or the same as that of the center speaker, set to "0". If the distance of the front speaker is longer, set to 1 to 5.
- · Once the settings are made, we recommend storing them in the memory. See page 52 for instructions.

# **Using Dolby Surround**



## Rear speaker time correction

Perform this function after adjusting the delay time of the various speakers.

Adding this time correction to the values adjusted with the "Adaptive Equalizer", "Precision Automated Time Correction" and "automatic/manual time compensation" functions gives the sound a sense of expansion.

Press the 5.1ch SETUP button.

2 Press the ▲ or ▼ button and select "REAR DELAY SETUP".

 $\rightarrow \mathsf{SPEAKER} \mathsf{SETUP} \leftrightarrow \mathsf{OUTPUTLEVEL} \mathsf{SETUP} \leftrightarrow \mathsf{BI-PHANTOM} \mathsf{SETUP}^{\mathsf{H}} \rightarrow \mathsf{REAR} \mathsf{DELAY} \mathsf{SETUP}^{\mathsf{H}} \leftrightarrow \mathsf{CENTER} \mathsf{DELAY} \mathsf{SETUP}^{\mathsf{H}} \leftrightarrow \mathsf{REAR-MIX} \mathsf{SETUP}^{\mathsf{H}} \leftrightarrow \mathsf{REAP} \mathsf{RE$ 

\* Not displayed when the rear/center speaker setting is set to "OFF". (See page 38.)

**3** Press the **ENTER** button.

- This function can be set in the Pro Logic, DTS, MPEG and Dolby Digital modes.
- Avoid stopping, pausing, switching the disc, cueing, fastforwarding or switching the audio channel of the player while making this adjustment. The setting is canceled if the decode mode is switched.

4 Press the ▲ or ▼ button to adjust the time correction value.

When the Pro Logic mode is off: 0: 0ms, 1: 5ms, 2: 10ms, 3: 15ms When the Pro Logic mode is on: 0: 15ms, 1: 20ms, 2: 25ms, 3: 30ms



**5** Press the **5.1ch SETUP** button to complete the adjustment.

To perform other setup operations, press the **ENTER** button to display the setup menu.

- This adjustment cannot be performed when the rear speaker mode setting is set to "OFF".
- If the distance of the front speaker is shorter than or the same as that of the center speaker, set to "0". If the distance of the front speaker is longer, set to 1 to 3.
- Once the settings are made, we recommend storing them in the memory. See page 52 for instructions.

# **Using Dolby Surround**



## Adjusting the acoustic image

To achieve sound with a sense of presence, the center speaker must be placed directly in front of the listening position. With this function, the center channel information is distributed to the left and right speakers. This creates an acoustic images simulating a center speaker directly in front of the listener.

#### Press the **5.1ch SETUP** button.

2 Press the ▲ or ▼ button and select "BI-PHANTOM SETUP".

 $\rightarrow \mathsf{SPEAKER} \mathsf{SETUP} \leftrightarrow \mathsf{OUTPUTLEVEL} \mathsf{SETUP} \leftrightarrow \mathsf{BI-PHANTOM} \mathsf{SETUP}^* \leftrightarrow \mathsf{CENTER} \mathsf{DELAY} \mathsf{SETUP}^* \leftrightarrow \mathsf{REAR-MIX} \mathsf{SETUP}^* \leftrightarrow \mathsf{CENTER} \mathsf{DELAY} \mathsf{SETUP}^* \leftrightarrow \mathsf{REAR-MIX} \mathsf{SETUP}^* \leftrightarrow \mathsf{CENTER} \mathsf{DELAY} \mathsf{SETUP}^* \to \mathsf{REAR-MIX} \mathsf{SETUP}^$ 

\* Not displayed when the rear/center speaker setting is set to "OFF". (See page 38.)

**3** Press the **ENTER** button.

- This function can be set in the Pro Logic, DTS, MPEG and Dolby Digital modes.
- Avoid stopping, pausing, switching the disc, cueing, fastforwarding or switching the audio channel of the player while making this adjustment. The setting is canceled if the decode mode is switched.



instructions.

To perform other setup operations, press the **ENTER** button to display the setup menu.

# **Using Dolby Surround**



# Mixing bass sound to the rear channel

This function mixes the front channel audio signals to the audio signals output from the rear speakers, improving the sound in the vehicle's rear seat.

Press the **5.1ch SETUP** button.

2 Press the ▲ or ▼ button and select "REAR-MIX SETUP".

 $\rightarrow \mathsf{SPEAKER} \mathsf{SETUP} \leftrightarrow \mathsf{OUTPUTLEVEL} \mathsf{SETUP} \leftrightarrow \mathsf{BI-PHANTOM} \mathsf{SETUP}^* \leftarrow \mathsf{RETUP}^* \leftrightarrow \mathsf{RETUP}^* \to \mathsf{RE$ 

\* Not displayed when the rear/center speaker setting is set to "OFF". (See page 38.)

**3** Press the **ENTER** button.

- This function can be set in the Pro Logic, DTS, MPEG and Dolby Digital modes.
- Avoid stopping, pausing, switching the disc, cueing, fastforwarding or switching the audio channel of the player while making this adjustment. The setting is canceled if the decode mode is switched.

4	Press the $\blacktriangleleft$ or $\blacktriangleright$ button to select "ON".	•		
		•		
		•		
5	Press the $\blacktriangle$ or $\lor$ button to adjust the level. The level can be set to one of five positions: -6, -3, 0, +3, and +6. The higher the level, the more the bass sound output from the rear speakers. (The effect differs according to the software (DVD, etc.).)			
	DOLBY DIGITAL			
	REAR-MIX SETUP +3 LS RS			
6	Press the <b>5.1ch SETUP</b> button to complete the adjustment. To perform other setup operations, press the <b>ENTER</b> button to display the setup menu.	•		

- This adjustment cannot be performed when the rear speaker setup setting is set to "OFF".
- The off mode is set automatically when the rear speaker setup setting is set to "OFF".
- When the "REAR-MIX" function is turned "ON", sound may be produced from the rear speakers even if the rear speakers are set to "OFF". If you do not want sound to be produced from the rear speakers, turn the "REAR-MIX" mode "OFF".
- If the "REAR-MIX" adjustment is performed when the "REAR FILL" function is on, during the 2-channel decode mode the "REAR FILL" function is given priority, so the sound does not change as adjusted with the "REAR-MIX" function.

• Once the settings are made, we recommend storing them in the memory. See page 52 for instructions.

# Using Dolby Surround



# Achieving powerful high volume sound

With Dolby Digital, the dynamic range is compressed so that powerful sound can be achieved at regular volume levels. This compression can be canceled to achieve an energetic sound with even greater power, like the sound in a movie theater.

**1** Press the **LISTENING MODE** button and select the "MAXIMUM" mode.

#### STANDARD↔MAXIMUM

STANDARD: For powerful sound at regular volume levels MAXIMUM: For powerful sound at high volumes

DOLBY DIGITAL	
LISTENING MODE MAXIMUM	LCR LFE Ls Rs

**2** Press the **ENTER** button to complete the setting.

- This function works only in the Dolby Digital mode.
- Keep the volume to a level at which sounds outside the vehicle can still be heard.
- This function may have no effect, depending on the type of software (DVD, etc.).

• Once the settings are made, we recommend storing them in the memory. See page 52 for instructions.

# **Convenient Functions**

# Navigation system voice guidance interruption

When a navigation system is connected, this setting makes it possible for the system's voice guidance messages to interrupt the sound of the PXA-H900.

It is also possible to set the audio volume level during voice guidance message interruptions.

- Press the NAV. MIX button.
- 2 Press the ◄ or ► button and select the mode.

#### VOICE GUIDANCE $\leftrightarrow$ AUDIO ATT.

**3** Press the  $\blacktriangle$  or  $\blacktriangledown$  button to adjust the volume level.

VOICE GUIDANCE: OFF and 1 to 7 (navigation system voice guidance message volume level) AUDIO ATT.: 0 to 7 (Audio attenuation level during navigation system voice guidance interruptions)

DOLBY DIGITAL	
NAVI-MIX	
VOICE GUIDANCE 4	Ls Rs

**4** Press the **ENTER** button to complete the setting.

 This function does not work when no center speaker is connected.

For details, refer to the Installation manual.

# **Convenient Functions**



## Storing settings in the memory

The PXA-H900 includes six memories in which all the current adjustments and settings can be stored.

- 1 Make the adjustments and settings you wish to store in the memory.
- **2** Press and hold any of buttons **P1** to **P6** for at least 2 seconds.
- **3** Within 5 seconds, press the button (**P1** to **P6**) at which you want to store the values.



## Calling out stored values

Press the P1 to P6 button to select the number ("MEMORY1" to "MEMORY6") you wish to call out.

Approximately 3 seconds are required to call out the stored values.



 Release the PXA-H900's MEMORY LOCK switch (set it to the left side) when you wish to store settings.
 For instructions on using the MEMORY LOCK switch, refer to the installation manual.



- Approximately 5 seconds are required for memory processing.
- The operations "Storing settings in the memory" and "Calling out stored values" are effective only when the defeat is off.

• The display flashes while the values are being called out.

## Defeat mode

**1** Press the **DEFEAT** button. All the settings become flat.



2 To cancel, press the **DEFEAT** button again.

## Switching the display mode

- **1** Press the **DISPLAY ON/OFF** button to select the desired display mode.
  - → Operation → Spectrum → Display off display analyzer display



Operation display



Spectrum analyzer display

Display off

- When the defeat mode is turned on, none of the Adaptive Equalizer, Precision Automated Time Correction, Time Correction, phase switching, equalizer adjustment, crossover network, memory or memory recall operations can be performed.
- To protect the speakers, the crossover network settings do not change.

• Press the VOL or INPUT SELECT button in the Display off mode to display for a few seconds.

## **Convenient Functions**



## Switching the indicator color (for non Ai-NET connections only)

**1** Press and hold the **DISPLAY** button for at least 2 seconds to select the desired indicator color. Select blue or green.



## DTS

Normally the PXA-H900 automatically identifies DTS signals so there is no need to perform any particular operation to output DTS signals.

If for some reason the DTS input signals cannot be identified, perform the operation described below.

## Press the **DTS** button.

**2** To cancel, press the **DTS** button again.

- Check whether the disc contains DTS signals.
- If the DTS button is pressed while no DTS signals are being input, in some cases the sound will be turned off.
- DTS is the abbreviation for Digital Theater Systems.

# Information

## Terminology

## **Dolby Digital**

Dolby Digital is a digital audio compression technology developed by Dolby Laboratories that allows large quantities of audio data to be efficiently recorded on discs. It is compatible with audio signals from mono (1 channel) all the way up to 5.1-channel surround sound. The signals for the different channels are completely independent, and since the sound is high quality digital there is no loss of sound quality.



Speaker layout for enjoying Dolby Digital sound/DTS sound

## DTS

This is a home-use digital sound format of the DTS Sound System. This is a high quality sound system, developed by Digital Theater Systems Corp for use in movie theaters. DTS has six independent sound tracks. The theater presentation is fully realized in the home and other settings. DTS is the abbreviation for Digital Theater Systems.

## **Dolby Pro Logic**

Dolby Pro Logic is the technology used to decode programs encoded in Dolby Surround. Pro Logic decoding will provide you with four channels of sound (front left/right, center and monaural rear surround) from a 2-channel (stereo) source.

## HDCD<sup>®</sup> (<u>HCCD</u><sup>°</sup>, High Definition Compatible Digital<sup>®</sup>)

Normally, the signals on music CDs use 16-bit digitization. Discs mastered with HDCD, however, contain data equivalent to 20 bits. This set is equipped with an HDCD decoder. When HDCD decoder compatible discs are played, the sound is reproduced with a sense of expansion and quality near that of the original sound.

## HDCD Equipped Car Audio

Your Alpine Car Audio PXA-H900 is equipped with HDCD playback technology which improves the audio fidelity of all CDs. Please note that HDCD playback decoding will increase the dynamic range of some CD tracks recorded with the HDCD process, which may cause their average level to sound quieter than some other CD tracks.

HDCD<sup>®</sup>, HDCD<sup>®</sup>, High Definition Compatible Digital<sup>®</sup> and Pacific Microsonics<sup>™</sup> are either registered trademarks or trademarks of Pacific Microsonics, Inc. in the United States and/or other countries. HDCD system manufactured under license from Pacific Microsonics, Inc.

# Information

## In case of difficulty

If you encounter a problem, please review the items in the following checklist. This guide will help you isolate the problem if the unit is at fault. Otherwise, make sure the rest of your system is properly connected or consult your authorized Alpine dealer.

## Set does not operate.

### Nothing appears on the display.

- Vehicle's ignition key is turned off. - Turn the vehicle's ignition key on.
- Set's power is not turned on.
  Turn the vehicle's ignition key on then turn on the power of the head unit.
- Power cord is not securely connected. - Connect the power cord securely.
- Fuse is blown.
  - Replace with a fuse of the specified capacity.
- Display mode is set to off.
  - Switch the display to another mode. (Page 53)

# Power is on but no sound is produced.

- Volume level is set to the minimum. - Increase the volume level. (Page 12)
- Input mode is set to a mode to which nothing is connected.
  - Set to a connected mode. (Page 10)
- DTS mode is turned on though no DTS signals are being input.
  - Turn the DTS mode off. (Page 54)

# No sound is produced from the speakers.

- Cords are not securely connected. - Connect the cords securely.
- Speaker is set to the off mode.
  - Set the speaker to the on mode. (Pages 8 and 38)
- Subwoofer is turned off.
  Turn the subwoofer on. (Pages 9 and 13)

# Dolby Surround adjustments cannot be made.

- No Dolby Digital, DTS or MPEG signals are being input.
  - Input Dolby Digital, DTS or MPEG signals.
- Pro Logic mode is turned off.
  - Set the Pro Logic mode to "DOLBY PROLOGIC". (Page 36)

# Speaker setup settings cannot be made.

- Front speakers are set to "SMALL".
  - Set the front speakers to "LARGE". (Page 38)

### Speaker level cannot be adjusted.

- Speaker is set to the off mode.
  - Set the speaker to the on mode. (Pages 8 and 38)

# Speaker time correction cannot be set.

- Speaker is set to the off mode.
  - Set the speaker to the on mode. (Pages 8 and 38)

# Center speaker's acoustic image cannot be adjusted.

- Speaker is set to the off mode.
  - Set the speaker to the on mode. (Pages 8 and 38)

# Sound cannot be mixed with the rear channel.

- Speaker is set to the off mode.
  - Set the speaker to the on mode. (Pages 8 and 38)

# Caution when connecting the DVA-5205/DVA-5200

Although the DVA-5205 and DVA-5200 provide adjustment screens for Parametric Equalizer and Sound, these do not apply to the PXA-H900.

## **Specifications**

	EQ number of bands:	Front: Rear: Center: Subwoofer:	31 31 31 10	
	Graphic equalizer boost cut range: Time correction control	±9 dB		
	range:	0 to 20 ms (0	).1 ms st	eps)
	Frequency response:	20 Hz to 20 l	kHz	
	S/N ratio:	110 dB		
	Channel separation:	80 dB		
	Input sensitivity:	850 mA (2V	for anal	og 1 only)
	Subwoofer crossover:	20 to 200 Hz	(1/6  oct)	t. steps)
	Subwoofer level control:	0 dB to +15	dB	
	Rated output:	4V (with 10	k ohms l	load)
	Input impedance:	10 k ohms on	greater	
	Output impedance:	I k ohm or le	ess	100 (6 )
	Weight:	Display unit	1 .	180 g (6 oz)
		Remote cont	rol unit	140 g (5 oZ)
		Base unit		(not including batteries) 5.1 kg (11 lbs. 4 oz)
Diı	mensions			6(
	Display unit			
	Width	170 mm (6-3	5/4")	
	Height	46 mm (1-13	/16")	
	Depth	24.6 mm (1"	)	
	Remote control unit		, ,	
	Width	144.7 mm (5	-3/4")	
	Height	30.7 mm (1-2	3/16")	
	Depth	80 mm (3-1/	8")	
	Base unit			
	Width	325 mm (12-	25/32")	
	Height	69 mm (2-3/	4")	
	Depth	280 mm (11'	')	

#### <Components>

Parts name	Quantity
Parts for mounting	1set
Owner's manual	1set
Remote control unit/ho	lder 1set
Batteries (AAA)	4
Microphone/stand	1set

Due to continuous product improvement, specifications and design are subject to change without notice.

The illustrations included in these instructions may appear different from the actual product due to printing conditions.

## 58-EN

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# LIMITED WARRANTY

ALPINE ELECTRONICS OF AMERICA, INC. AND ALPINE OF CANADA INC. ("Alpine"), are dedicated to quality craftsmanship and are pleased to offer this Warranty. We suggest that you read it thoroughly. Should you have any questions, please contact your Dealer or Alpine at one of the telephone numbers listed below.

#### PRODUCTS COVERED:

This Warranty covers Car Audio/Visual Products and Related Accessories ("the product"). Products purchased in the Canada are covered only in the Canada. Products purchased in the U.S.A. are covered only in the U.S.A.

#### • LENGTH OF WARRANTY:

This Warranty is in effect for one year from the date of the first consumer purchase.

#### • LIFETIME TAPE HEAD WARRANTY:

All Alpine Car Audio analog tape heads excluding Video tape heads are warranted for life against manufacturing defects causing failure.

#### WHO IS COVERED:

This Warranty only covers the original purchaser of the product, who must reside in the United States, Puerto Rico or Canada.

#### WHAT IS COVERED:

This Warranty covers defects in materials or workmanship (parts and labor) in the product.

#### WHAT IS NOT COVERED:

This Warranty does not cover the following:

- Damage occurring during shipment of the product to Alpine for repair (claims must be presented to the carrier).
- Damage caused by accident, abuse, negligence, misuse, improper connections, improper operation or failure to follow instructions contained in the Owner's manual.
- ③ Damage caused by act of God, including without limitation, earthquake, fire, flood, storms or other acts of nature.
- (4) Any cost or expense related to the removal or reinstallation of the product.
- Service performed by an unauthorized person, company or association.
- 6 Any product which has the serial number defaced, altered or removed.
- ⑦ Any product which has been adjusted, altered or modified without Alpine's consent.
- (8) Any product not distributed by Alpine within the United States, Puerto Rico or Canada.
- (9) Any product not purchased from an Authorized Alpine Dealer.
- 1 Any product that has been determined to contain an excessive amount of dust or dirt and any product that contains other contaminants including liquid or foreign objects.

#### HOW TO OBTAIN WARRANTY SERVICE:

1 You are responsible for delivery of the product to an Authorized Alpine Service Center or Alpine for repair and for payment of any initial shipping charges. Alpine will, at its option, repair or replace the product with a new or reconditioned product without charge. If the repairs are covered by the warranty, and if the product was shipped to an Authorized Alpine Service Center or Alpine, Alpine will pay the return shipping charges.

- (2) You should provide a detailed description of the problem(s) for which service is required.
- ③ You must supply proof of your purchase of the product.
- ④ You must package the product securely to avoid damage during shipment.

• HOW WE LIMIT IMPLIED WARRANTIES: ANY IMPLIED WARRANTIES INCLUDING FITNESS FOR USE AND MERCHANTABILITY ARE LIMITED IN DURATION TO THE PERIOD OF THE EXPRESS WARRANTY SET FORTH ABOVE AND NO PERSON IS AUTHORIZED TO ASSUME FOR ALPINE ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT.

HOW WE EXCLUDE CERTAIN DAMAGES: ALPINE EXPRESSLY DISCLAIMS LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES CAUSED BY THE PRODUCT. THE TERM "INCIDENTAL DAMAGES" REFERS TO EXPENSES OF TRANSPORTING THE PRODUCT TO THE ALPINE SERVICE CENTER, LOSS OF THE ORIGINAL PURCHASER'S TIME, LOSS OF THE USE OF THE PRODUCT, BUS FARES, CAR RENTALS OR OTHERS COSTS RELATING TO THE CARE AND CUSTODY OF THE PRODUCT. THE TERM "CONSEQUENTIAL DAMAGES' REFERS TO THE COST OF REPAIRING OR REPLACING OTHER PROPERTY WHICH IS DAMAGED WHEN THIS PRODUCT DOES NOT WORK PROPERLY. THE REMEDIES PROVIDED UNDER THIS WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS

#### HOW STATE/PROVINCIAL LAW RELATES TO THE WARRANTY:

This Warranty gives you specific legal rights, and you may also have other rights which vary form state to state and province to province. In addition, some states/provinces do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages. Accordingly, limitations as to these matters contained herein may not apply to you.

#### IN CANADA ONLY:

This Warranty is not valid unless your Alpine car audio product has been installed in your vehicle by an Authorized Installation Center, and this warranty stamped upon installation by the installation center.

#### HOW TO CONTACT CUSTOMER SERVICE:

Should the product require service, please call the following number for your nearest Authorized Alpine Service Center.

U.S.A. 1-800-ALPINE-1 (1-800-257-4631) CANADA 1-800-ALPINE-1 (1-800-257-4631)

Alpine Electronics of America, Inc., 19145 Gramercy Place, Torrance, California 90501, U.S.A. Alpine Electronics of Canada, Inc., Suite 203, 7300 Warden Ave. Markham, Ontario, L3R 9Z6, Canada

ALPINE ELECTRONICS, INC. Tokyo office: 1-1-8 Nishi Gotanda, Shinagawa-ku, Tokyo 141-8501, Japan Tel.: (03) 3494-1101

ALPINE ELECTRONICS OF AMERICA, INC. 19145 Gramercy Place, Torrance, California 90501, U.S.A. Tel.: 1-800-ALPINE-1 (1-800-257-4631)

ALPINE ELECTRONICS OF CANADA, INC. Suite 203, 7300 Warden Ave. Markham, Ontario L3R 9Z6, Canada Tel.: 1-800-ALPINE-1 (1-800-257-4631)

ALPINE ELECTRONICS OF AUSTRALIA PTY. LTD.

6-8 Fiveways Boulevarde Keysborough, Victoria 3173, Australia Tel.: (03) 9769-0000

ALPINE ELECTRONICS GmbH Kreuzerkamp 7-11 40878 Ratingen, Germany Tel.: 02102-45 50

ALPINE ITALIA S.p.A. Via C. Colombo 8, 20090 Trezzano Sul Naviglio MI, Italy Tel.: 02-48 47 81

ALPINE ELECTRONICS FRANCE S.A.R.L. (RCS PONTOISE B 338 101 280) 98, Rue De La Belle Etoile, Z.I. Paris Nord II B.P. 50016 F-95945, Roissy, Charles de Gaulle Cedex, France Tel.: 01-48 63 89 89

ALPINE ELECTRONICS OF U. K., LTD. 13 Tanners Drive, Blakelands, Milton Keynes MK14 5BU, U.K. Tel.: 01908-61 15 56

ALPINE ELECTRONICS DE ESPAÑA, S.A. Portal De Gamarra 36, Pabellón 32 01013 Vitoria (Alava) - Apdo. 133, Spain Tel.: 34-45-283588

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