

INFINITY®

IMS

Input Management System
Système de Gestion des Entrées
Sistema de Gestión de Entrada



 Infinity®

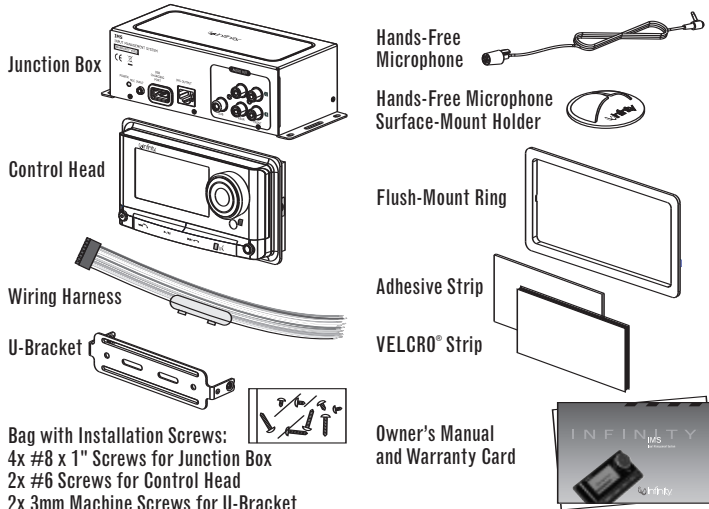
IMS

THANK YOU for purchasing the Infinity® IMS Input Management System. So that you may be better served should your new product require service, please retain your original purchase receipt and read the enclosed warranty registration card.

BOX CONTENTS

Your IMS package should contain all the items shown in Figure 1:

Figure 1. Contents



WARNING

Playing loud music in an automobile can hinder your ability to hear traffic and permanently damage your hearing. Listening at low or moderate levels while driving your car is recommended. Infinity Systems accepts no responsibility for hearing loss, bodily injury or property damage resulting from the use or misuse of this product.

INSTALLATION

IMPORTANT

To get the most out of your IMS's features, it is strongly recommended that installation be entrusted to a qualified professional. Although these instructions explain how to install, connect and set up the IMS, they cannot show all of the different possible systems that can be assembled using the IMS. Please ask your authorized Infinity car audio dealer about professional installation.

INSTALLATION WARNINGS AND TIPS

- Always use protective eyewear when using tools.
- Turn OFF the vehicle's audio system and other electrical devices before beginning installation. Disconnect the (-) negative lead from the vehicle's battery.
- Check clearances on both sides of any planned mounting surface before drilling any holes or installing any screws. Remember that the screws can extend behind the mounting surface.
- At the installation locations, locate and make a note of all fuel lines, hydraulic brake lines, vacuum lines and electrical wiring. Use extreme caution when cutting or drilling in and around these areas.
- Before drilling or cutting holes, use a utility knife to remove unwanted fabric or vinyl to keep material from snagging in the drill bit.
- When routing cables, keep input-signal cables away from power cables and speaker wires to minimize noise.
- When making connections, make certain they are secure and properly insulated.
- If the IMS's fuse must be replaced, use only the same type and rating as the original. Do not substitute another kind.

INSTALLING THE CONTROL HEAD

It is recommended that you find a location for the Control Head first, and then find a location for the Junction Box that is within a distance of 4m, the length of the Control Head's integral cable.

IMPORTANT INSTALLATION WARNINGS:

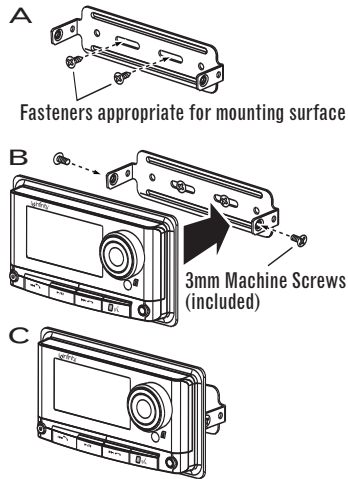
- Do not install the Control Head where it may obstruct your view through the windshield or your view of your vehicle's indicator displays.
- Do not install the Control Head where it may hinder the function of safety devices such as an airbag. Doing so may prevent the airbag from functioning properly, in the event of an accident.
- Mount the Control Head in a location that is easily accessible.

The Control Head can be surface-mounted using the included U-Bracket, VELCRO strip, or adhesive strip, or it can be flush-mounted using the included Flush-Mount Ring.

USING THE U-BRACKET

1. Determine the location for the Control Head. Be sure to leave room to route the integral cable.
2. Attach the U-Bracket to the mounting location using fasteners that are appropriate for the mounting surface, as shown in Figure 2.
3. Attach the Control Head to the U-Bracket, as shown in Figure 2.

Figure 2. Attaching the U-Bracket



USING THE VELCRO STRIP

1. Determine the location for the Control Head. Be sure to leave room to route the integral cable.
2. Clean the mounting location with an alcohol swab or something similar.
3. Remove the protective strip from the hook side of the VELCRO strip and adhere the strip to the mounting location.
4. Remove the protective strip from the loop side of the VELCRO strip and adhere the strip to the back of the Control Head.

USING THE ADHESIVE STRIP

1. Determine the location for the Control Head. Be sure to leave room to route the integral cable.
2. Clean the mounting location with an alcohol swab or something similar.
3. Remove the protective strip from one side of the adhesive strip and adhere it to the back of the Control Head.
4. Remove the remaining protective strip from the adhesive strip and adhere the Control Head to the mounting surface.

IMPORTANT: Select the mounting location carefully – once the adhesive strip has been adhered to the surface, it is not possible to remove it and re-adhere it elsewhere.

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INSTALLING THE JUNCTION BOX

The Junction Box should be installed in an out-of-the-way location where you can route the input/output connections from all of the audio system's components.

IMPORTANT: The Junction Box must be mounted within 4m of the Control Head.

Use the four supplied #6 screws to secure the Junction Box to the mounting surface.

INSTALLING THE HANDS-FREE MICROPHONE

IMPORTANT INSTALLATION WARNINGS:

- Do not install the microphone where it may obstruct your view through the windshield or your view of your vehicle's indicator displays.
- Do not install the microphone where it may hinder the function of safety devices such as an airbag. Doing so may prevent the airbag from functioning properly, in the event of an accident.

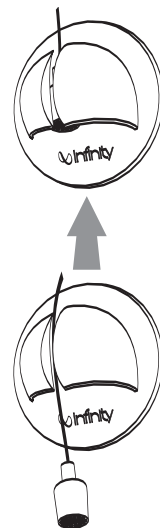
The hands-free microphone's design allows it to work properly from a wide variety of installation locations. Experiment with different locations before permanently attaching the microphone or routing its cable. The microphone has a "butterfly" clip that lets you attach it to a sun visor or similar location. A surface-mount microphone holder is also included (see Figure 3). The holder has an adhesive pad on the bottom and is made of a flexible material so you can attach it to a curved surface.

To attach the microphone holder:

1. Clean the mounting surface with an alcohol swab or something similar.
2. Remove the protective cover from the adhesive pad and adhere the microphone holder to the mounting surface.

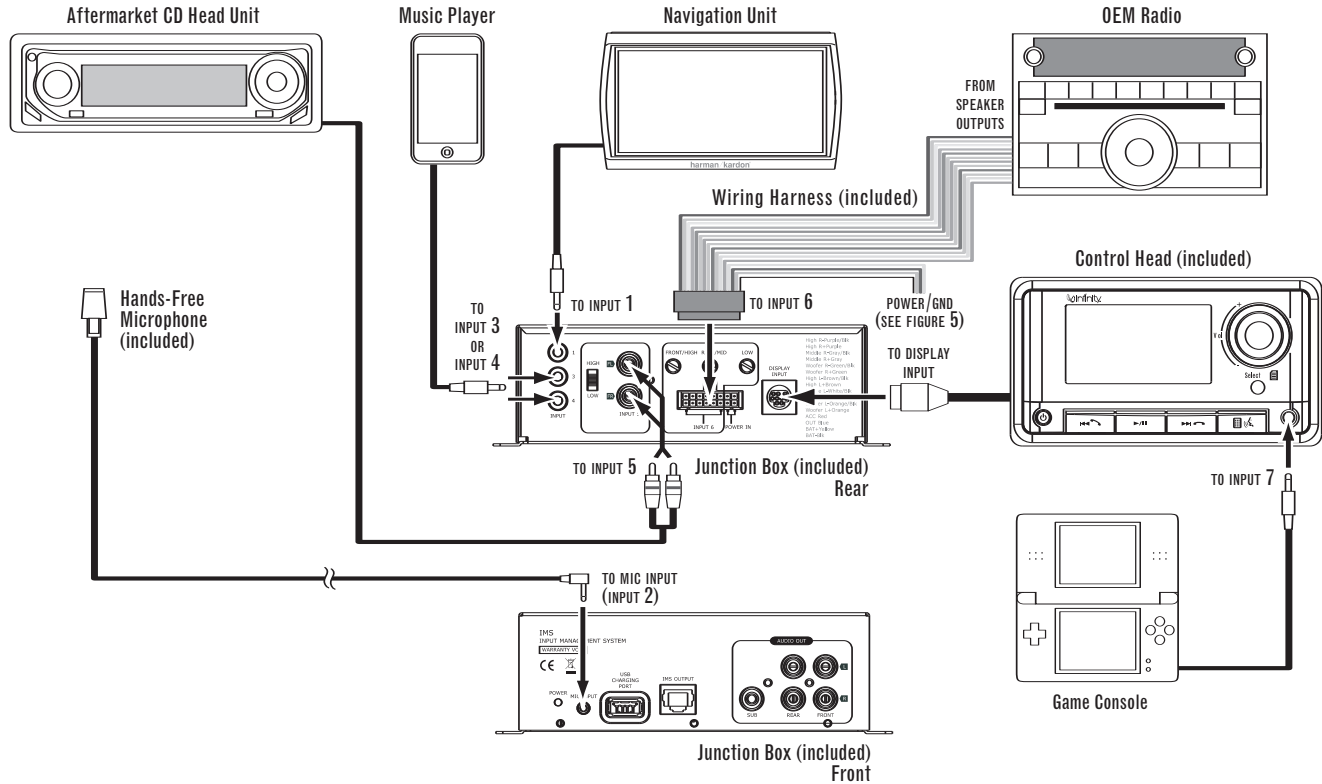
3. Run the microphone cable through the slot in the holder and tuck the microphone under the holder's "hood," as shown in Figure 3.

Figure 3. Inserting the Hands-Free Microphone in the Holder



4. Route the cable to the Junction Box and plug it into the Input 2 jack (see Figure 4 on page 5).

Figure 4. Input Connections



IMS

CONNECTIONS

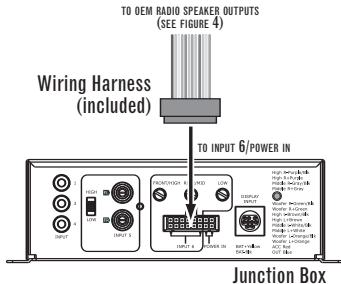
POWER CONNECTIONS

The included Wiring Harness contains the IMS power connections, as well as the Input 6 OEM radio speaker input connections. See Figure 6 for Input 6 connections.

Wiring Harness power connections (see Figure 5):

- Yellow = +12V Batt (constant)
- Red = +12V Accessory (switched)
- Black = Ground
- Blue = +12V Out (for amp turn-on)

Figure 5. Power Connections



AUDIO INPUTS

(See Figure 4 on page 5)

INPUT 1: 3.5mm Stereo jack. This input has priority over all other inputs, and is intended for the audio (voice command) output of a navigation system. When an audio signal is present at Input 1, the IMS will automatically switch to Input 1, and will return to the previous input when the Input 1 audio signal ceases.

INPUT 2: *Bluetooth*[®] wireless and 2.5mm stereo jack. This input has priority over all other inputs except Input 1, and is intended for use with a *Bluetooth*-enabled phone. The included microphone plugs into the Input 2 connector and enables hands-free performance, as well as voice dialing when used with a voice-dialing-capable phone. Input 2 is actually two separate inputs, since it also supports A2DP streaming from a music-enabled *Bluetooth*-capable phone, or from a portable music player via available dongles.

INPUT 3: 3.5mm Stereo jack. For audio devices like portable music players, CD players, etc.

INPUT 4: 3.5mm Stereo jack. For audio devices like portable music players, CD players, etc.

INPUT 5: Stereo RCA jack. Intended for use with an aftermarket CD head unit. Input 5 has selectable input sensitivity via a two-position switch located next to the input connection:

- “High” is high sensitivity, for use with low-output head units.
- “Low” is low sensitivity, for use with high-output head units.

INPUT 6: Six-pair bare wires on included Wiring Harness. Input 6 is intended for the speaker outputs of the vehicle’s OEM radio. Input 6 has left and right Front (High), Rear (Middle) and Woofer connections.

The Input 6 Wiring Harness color coding is:

- Front Left: Brown (+) Brown/Black (-)
- Front Right: Purple (+) Purple/Black (-)
- Rear Left: White (+) White/Black (-)
- Rear Right: Gray (+) Gray/Black (-)
- Woofer Left: Orange (+) Orange/Black (-)
- Woofer Right: Green (+) Green/Black (-)

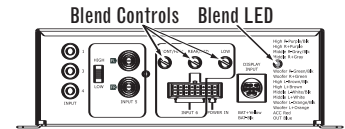
If the OEM radio’s speaker outputs are bandwidth-limited (high/midrange/low), connect them as follows:

- Radio high to IMS Front Left and Right
- Radio middle to IMS Rear Left and Right
- Radio low to IMS Woofer Left and Right

The Front-/High-, Rear-/Middle- and Woofer-/Low-input signals are blended to stereo by the IMS. After connecting the OEM radio to Input 6, you must balance these three inputs:

1. Turn the OEM radio ON and tune to a strong radio station signal.
2. Turn the Front-/High-blend control clockwise until the Blend LED just barely lights (see Figure 6). Then repeat with the Rear-/Mid-blend control and again with the Low-blend control.

Figure 6. Adjusting the Input 6 Blend Controls



INPUT 7: 3.5mm Stereo jack. Located on the front of the Control Head, this jack is ideal for temporary connections (game consoles, portable DVD players, etc).

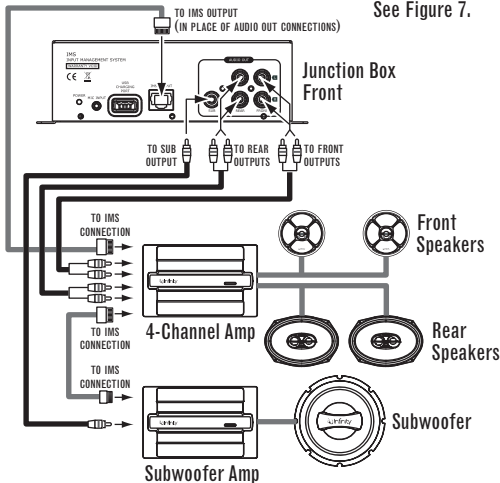
AUDIO OUTPUTS

The IMS has stereo Front and Rear RCA-type output connectors, and a mono Sub RCA-type output connector. All stereo sources appear at both the Front and Rear outputs, which are controlled by the IMS's Balance and Fader controls (see "Audio Adj" on page 9).

The Sub Output connector supplies a full-range output signal derived from any of the inputs. It should be used with a crossover or a dedicated subwoofer input to drive a subwoofer amplifier. The level of the Sub output is controlled by the IMS's Volume Knob, and is balanced with the Front and Rear outputs by the Sub-Level control (see "Sub Level" on page 9).

Connect the IMS's Front and Rear outputs to the system's front and rear amplifier inputs. Connect the IMS's Sub output to the system's subwoofer amplifier input. See Figure 7.

Figure 7. Output Connections



IMS OUTPUT

This RJ45 connector duplicates the signal found at the Audio Out connections (see Figure 7), and can be used in place of the Audio-Out RCA jacks when connecting the IMS to compatible Infinity Reference Series amplifiers. Connection is made via standard Cat. 5 cable with RJ45 plugs. (See Figure 7.)

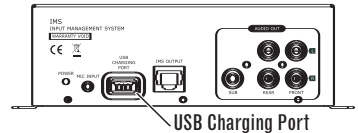
Note: When using the IMS Output jack, it is not necessary to connect the +12V Out Wiring Harness wire (see Figure 5 on page 6), since the IMS Output connection includes an amplifier turn-on function.

USB CHARGING PORT

A standard USB connector that supplies charging voltage to compatible music players and other components. See Figure 8. Use the USB charging cable included with the component.

NOTE: The USB Charging Port only supplies a charging voltage – it does not enable any audio or control functions.

Figure 8. USB Charging Port



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OPERATION

FRONT-PANEL CONTROLS

(See Figure 9.)

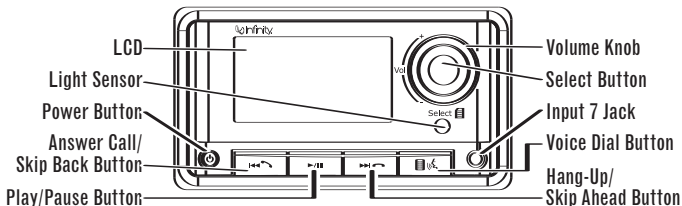
VOLUME KNOB: Turn to raise and lower the IMS volume.

NOTE: IMS remembers the volume setting last used with each input.

SELECT BUTTON: Pressing the Select button once displays the main menu screen. Rotate the Volume knob within 3 seconds to highlight and then press to select menu items (see "Menus" on page 9).

Pressing the Select button twice while any input is playing advances the display to the next available input. Each press advances to the next input in line. Once the desired input is displayed, leave it displayed for 3 seconds and the IMS will switch to it.

Figure 9. Front-Panel Controls and Connections



LIGHT SENSOR: The Light Sensor detects the amount of ambient light and automatically sets the LCD for day or night viewing. See Figure 10.

Figure 10. LCD Day- and Night-Viewing Models



INPUT 7 JACK: 3.5mm Stereo jack that is ideal for temporary input connections such as game consoles and portable DVD players. See Figure 4 on page 5.

VOICE-DIAL BUTTON: Activates voice dialing when used with a voice-dialing-capable *Bluetooth* cellular phone. See "Using the IMS With a Cell Phone" on page 10.

HANG-UP/SKIP AHEAD BUTTON: When making a telephone call on a *Bluetooth* cell phone paired through Input 2 (see "Using the IMS With a Cell Phone" on page 10), pressing the Hang-Up/Skip Ahead button disconnects the phone call.

When using the IMS to control a paired *Bluetooth* music player or cell phone's music play functions, pressing the Hang-Up/Skip Ahead button skips ahead to the next music track.

PLAY/PAUSE BUTTON: When using the IMS to control a *Bluetooth* music player or cell phone's music play functions through Input 2, pressing the Play/Pause button pauses the current music track. Pressing the Play/Pause button again resumes play.

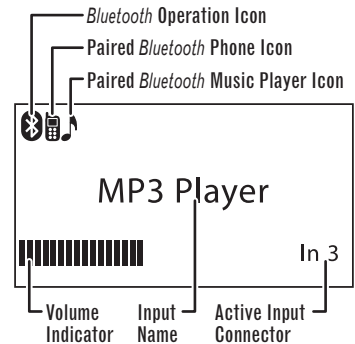
ANSWER CALL/SKIP BACK BUTTON: When using a *Bluetooth* cell phone paired through Input 2 (see "Using the IMS With a Cell Phone" on page 10), pressing the Answer Call/Skip Back button will answer an incoming phone call.

When using the IMS to control a paired *Bluetooth* music player or cell phone's music play functions, pressing the Hang-Up/Skip Ahead button skips back to the beginning of the current music track. Pressing the button multiple times skips to previous music tracks.

POWER BUTTON: Turns the IMS on and off.

LCD: Provides information about the IMS's operating status, and displays adjustment menus. During normal operation, the LCD will look as shown in Figure 11.

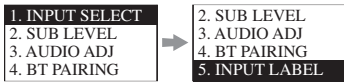
Figure 11. Normal Operation Display Screen



MENUS

During normal operation, pressing the Select button activates the Main Menu Screen (see Figure 12). Rotate the Volume Knob to highlight one of the five items and press the Select button to select it.

Figure 12. Main Menu Screen



NOTE: The IMS will return to the Normal Operation Display Screen if you don't make a menu selection within 3 seconds.

INPUT SELECT: Turn the Volume Knob to scroll through the available inputs. As you scroll, the display will show each input's name and its connection number will flash (see Figure 13). When the desired input is shown, press the Select button and the IMS will change to that input.

NOTE: Each time you select a different input, the volume will change to the level setting from the previous time that input was active.

IMPORTANT: When an audio signal or phone call is received at Input 1 or Input 2, the IMS will automatically switch to that input for as long as the audio signal or phone call lasts, then it will switch back to the previously active input. If Input 2 is the active input when audio is received at Input 1, the IMS will mix the audio from both Input 1 and Input 2 so you can continue with a cell phone call when a navigation prompt occurs.

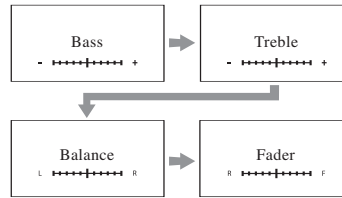
Figure 13. Input Select Screen (Input 1 shown, left); Subwoofer Level Screen (right)



SUB LEVEL: Lets you balance the subwoofer volume with the rest of the sound (see Figure 13). The Sub-Level control only functions with an OEM radio woofer output that is connected to Input 6. For all other inputs, the Sub-Level control does not function.

AUDIO ADJ: Lets you adjust the following audio parameters: bass, treble, balance and fader (see Figure 14). Press the Select button to cycle through the items, and turn the Volume Knob to make adjustments.

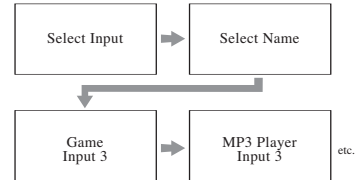
Figure 14. Audio Adjustment Menu Items



BT PAIRING: Enables pairing for operation with a *Bluetooth*-capable cell phone through Input 2. For details, see "*Bluetooth Pairing*" on page 10.

INPUT LABEL: Lets you assign a name to each input connection (see Figure 15). The following input names are available: Radio, Navigation, DVD, Game, MP3 Player, Phone/BT Audio, XM® Radio, SIRIUS® iPod, Radar, Input 1, Input 2, Input 3, Input 4, Input 5, Input 6, Input 7 and Hide. You can assign the same name to as many inputs as you wish.

Figure 15. Labeling Inputs



HIDE: Naming an input "Hide" removes it from the Input Select rotation (so you don't have to cycle through unused inputs). To return the input to the rotation, use the Input Label function to assign a different name to it.

RADIO: Whenever the IMS is turned OFF via the accessory power wire (such as when the vehicle's ignition is switched off while the IMS is ON) or when the IMS is turned back ON, it will automatically default to whichever input is labeled "Radio".

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USING THE IMS WITH A CELL PHONE

Since different *Bluetooth*-enabled cell phones operate differently, please read your cell phone's instruction manual before using your cell phone with the IMS.

BLUETOOTH PAIRING

The exact connection procedure may vary somewhat among different *Bluetooth*-enabled phones. When attempting to pair the IMS to a cell phone for the first time, be sure to follow any screen prompts on the *Bluetooth*-enabled phone.

1. Put the cell phone in Pairing Mode. Note: The *Bluetooth* pairing code for the IMS is 0-0-0-0.
2. Press the Select button on the IMS. The Main Menu Screen will appear. (See Figure 12 on page 9.)
3. Use the Volume Knob to highlight "BT Pairing" and press the Select button. The IMS will enter the pairing mode. The display will read "IMS Pairing," and the word "Pairing" will flash. See Figure 16.

4. Once pairing has been completed, the screen will change to "Pairing Complete" (see Figure 16). The *Bluetooth* Operation and Paired *Bluetooth* Phone icons will appear on the Normal Operation Display Screen (see Figure 11 on page 8).

Figure 16. *Bluetooth*-Pairing Screens



PLACING VOICE-DIALED CALLS

1. Press the Voice-Dial button (see Figure 9 on page 8).
2. The IMS will automatically switch to Input 2, and you will hear your phone's voice-dial prompts through the audio system.
3. Follow the prompts to complete dialing the call.
4. You will hear the other party's voice through the audio system's speakers, and the IMS's Hands-Free Microphone will pick up your voice.
5. When the call is completed, press the Hang-Up/Skip Ahead button (see Figure 9 on page 8).

PLACING NUMERICALLY DIALED CALLS

1. Switch the IMS to Input 2.
2. Dial the call directly through your cell phone.
3. You will hear the other party's voice through the audio system's speakers, and the IMS's Hands-Free Microphone will pick up your voice.
4. When the call is completed, press the Hang-Up/Skip Ahead button (see Figure 9 on page 8).

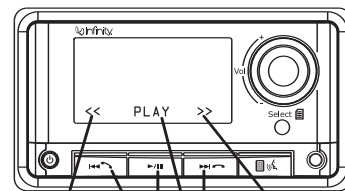
ANSWERING INCOMING CALLS

1. When you receive a call, the IMS will automatically switch to Input 2 and play a ringtone through the audio system's speakers.
2. Press the Answer Call/Skip Back button (see Figure 9 on page 8).
3. You will hear the other party's voice through the audio system's speakers, and the IMS's Hands-Free Microphone will pick up your voice.
4. When the call is completed, press the Hang-Up/Skip Ahead button (see Figure 9 on page 8).

CONTROLLING CELL PHONE MUSIC-PLAY FUNCTIONS

Since different cell phones operate differently, please read your cell phone's instruction manual before using your cell phone's music-play features with the IMS.

Figure 17. Cell Phone Music-Play Controls



Skip Back Icon
Skip Back Button
Skip Ahead Icon
Skip Ahead Button
Play/Pause Button
Play/Pause Icon

1. Place your cell phone in its music-play mode.
2. Press the IMS's Play/Pause button to play and pause the current music track. An icon will appear on the LCD (see Figure 17).
3. Press the IMS's Skip Ahead button to skip to the next song in the queue. An icon will appear on the LCD (see Figure 17).

4. Press the IMS's Skip Back button once to skip to the beginning of the current music track. Press the Skip Back button multiple times to skip to previous songs in the queue. An icon will appear on the LCD (see Figure 17).

NOTES ABOUT USING A CELL PHONE WITH THE IMS

- If you turn the IMS off during a phone call, the call's audio will mute for 3 or 4 seconds before resuming through the phone. The call remains connected during this time.
 - If you break pairing while the IMS remains on (e.g., walking away while talking on the phone), then once the phone is back within pairing range, the IMS may take up to 1 minute to re-pair with it. During this time, the IMS will automatically switch to Input 2, but you can manually change to a different input.
 - Depending on your particular cell phone, if you're listening to the cell phone's music mode through Input 2 when an incoming call is received, the music will mute, but the phone call ringtone may not sound through the audio system's speakers.
- When operating a music player through Input 2 using an A2DP dongle, the Play/Pause icon on the IMS display may get out of sync if you press the music player's Play/Pause button.
 - Input 2 will only work with one music player at a time. If you have a paired phone with music-play capability and a music player with an A2DP dongle, the phone will take priority over the music player with the dongle.
 - If you want to change from a phone that is currently paired with the IMS to another phone that was previously paired with the IMS, then:
 - a) Turn the currently paired phone's *Bluetooth* off or remove it from the vicinity.
 - b) Cycle the IMS's power.
 - c) IMS will automatically connect with the other previously paired phone.

SPECIFICATIONS

Input Connections: 4x 3.5mm Stereo Mini plug (one on front panel)
1x RCA (stereo pair)
1x Speaker Level (three combinable sections)
1x *Bluetooth* Phone
1x *Bluetooth* Audio (A2DP)

Output Connections: 1x RCA Front (stereo pair)
1x RCA Rear (stereo pair)
1x RCA Sub (mono)
1x IMS Output (RJ45)

Input Sensitivity Range and Impedance: Mini Plug: 1V, 20k ohms
RCA: Switchable, 2V and 4V, 20k ohms
Speaker Level: 3V to 13V, 20k ohms

Maximum Output Voltage and Impedance: 8V, 560 ohms

Frequency Response: 20Hz – 20kHz

Signal-to-Noise Ratio: 100dB

Dimensions (W x H x D) Control Head: 3-7/8" x 2" x 1-1/16" (99mm x 50mm x 26mm)

Dimensions (W x H x D) Junction Box: 6" x 2-1/8" x 2-13/16" (152mm x 53mm x 70mm)

Fuse Size: 1 Amp

A valid serial number is required for warranty coverage.
Features, specifications and appearance are subject to change without notice.
These products are designed for mobile applications and are not intended for connection to the mains.

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www.infinitysystems.com

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VELCRO is a registered trademark of Velcro Industries B.V.

H Harman International



Declaration of Conformity



We, Harman Consumer Group, Inc.
2, route de Tours
72500 Château du Loir
France

declare in own responsibility that the product described
in this owner's manual is in compliance with technical
standards:

EN 61000-6-3:2001
EN 61000-6-1:2001

Klaus Lebherz
Harman Consumer Group, Inc.
Château du Loir, France 4/09