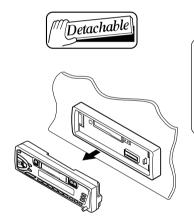
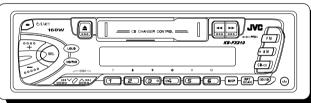




## CASSETTE RECEIVER RECEPTOR-REPRODUCTOR DE CASSETTE RADIOCASSETTE

## **KS-FX210**





For installation and connections, refer to the separate manual. Para la instalación y las conexiones, refiérase al manual separado. Pour l'installation et les raccordements, se référer au manuel séparé.

## INSTRUCTIONS

MANUAL DE INSTRUCCIONES MANUEL D'INSTRUCTIONS

#### For customer Use:

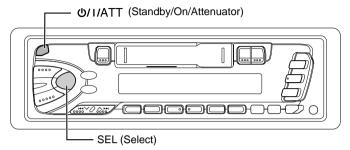
Enter below the Model No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference.

Model No.

Serial No.

## How to reset your unit

This will reset the built-in microcomputer.



#### Note:

• Your preset adjustments — such as preset channels or sound adjustments — will also be erased.

Thank you for purchasing a JVC product. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

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Storing your own sound adjustinents	12		

#### **BEFORE USE**

- \* For safety....
- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.

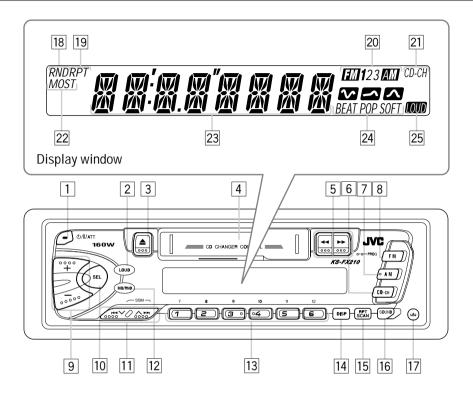
#### \* Temperature inside the car....

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.



## LOCATION OF THE BUTTONS

#### Control panel



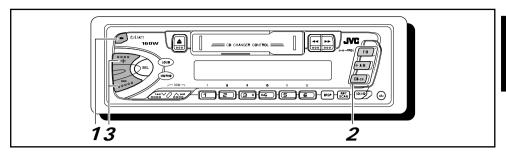
- 1 **७/1/**ATT (Standby/On/Attenuator) button
- 2 LOUD (Loudness) button
- 3 ▲ (Eject) button
- 4 Cassette compartment
- 6 CD-сн button
- 7 AM button
- 8 FM button
- 9 +/- button
- 10 SEL (Select) button
- - · Also functions as SSM buttons when pressed together.
- 12 MO (Monaural) button RND (Random) button
- 13 Number buttons
- 14 DISP (Display) button
- 15 RPT/SCAN (Repeat/Scan) button
- 16 SOUND button
- [17] (Control panel release) button

#### Display window

- 18 RND (Random) indicator
- 19 RPT (Repeat) indicator
- 20 Band indicators FM1, FM2, FM3, AM
- 21 CD-CH (CD Changer) indicator
- 22 MO(Monaural) indicator, ST(Stereo) indicator
- 23 Main display
- 24 Sound mode indicators BEAT, POP, SOFT
- 25 LOUD indicator

#### BASIC OPERATIONS





#### Turning on the power

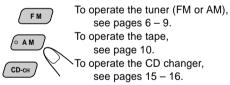
#### **1** Turn on the power.



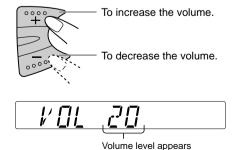
Note on One-Touch Operation:

- When you select a source in step 2 below, the power automatically comes on. You do not have to press this button to turn on the power.
- If the cassette is already in the cassette compartment, tape play starts automatically. However, it is not recommended to leave the cassette in the compartment when turning off the power or ignition key. It may damage the tape head and the cassette.

#### 2 Select the source.



#### 3 Adjust the volume.



## 4 Adjust the sound as you want (see pages 11 – 12).

#### To drop the volume in a moment

Press **b/I/ATT** briefly while listening to any source. "ATT" starts flashing on the display, and the volume level will drop in a moment.

To resume the previous volume level, press the button briefly again.

#### To turn off the power

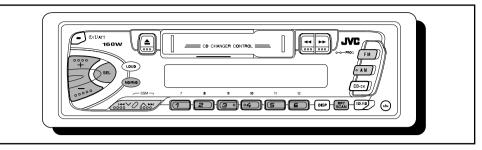
Press and hold **b/I/ATT** for more than 1 second.

#### Note:

When you use this unit for the first time, set the built-in clock correctly, see page 13.



## RADIO BASIC OPERATIONS



#### Listening to the radio

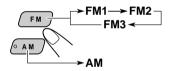
You can use either automatic searching or manual searching to tune into a particular station.

#### Note:

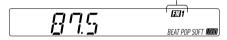
When a cassette is in the cassette compartment, you cannot select the tuner. Be sure to eject the cassette from the cassette compartment to listen to the radio.

#### <u>Searching a station automatically:</u> Auto search

**7** Select the band (FM1 – 3, AM).



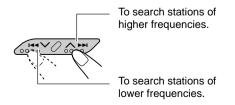
Selected band appears



#### Note:

This receiver has three FM bands (FM1, FM2, FM3). You can use any one of them to listen to an FM broadcast.

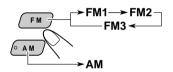
#### 2 Start searching a station.



To stop searching before a station is received, press the same button you have pressed for searching.

#### <u>Searching a station manually:</u> Manual search

7 Select the band (FM1 – 3, AM).



#### Note:

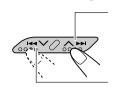
This receiver has three FM bands (FM1, FM2, FM3). You can use any one of them to listen to an FM broadcast.

2 Press and hold ∧ ►►I or I◄◄ v until "M" (manual) starts flashing on the display.





#### 3 Tune into a station you want while "M" is flashing.



To tune into stations of higher frequencies.

To tune into stations of lower frequencies.

- If you release your finger from the button, the manual mode will automatically turn off after 5 seconds.
- If you hold down the button, the frequency keeps changing until you release the button.

## When an FM stereo broadcast is hard to receive:

Press MO/RND (Monaural/Random) while listening to an FM stereo broadcast.

 Each time you press the button, the MO indicator lights up and goes off alternately.

Lights up when receiving an FM broadcast in stereo.



When the MO indicator is lit on the display, the sound you hear becomes monaural but the reception will be improved (the ST indicator goes off).

To restore the stereo effect, press the same button again.

#### Storing stations in memory

You can use one of the following two methods to store broadcasting stations in memory.

- Automatic preset of FM stations: SSM (Strongstation Sequential Memory)
- Manual preset of both FM and AM stations

#### FM station automatic preset: SSM

You can preset 6 local FM stations in each FM band (FM1, FM2 and FM3).

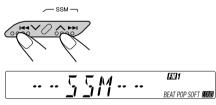
Select the FM band (FM1 - 3) you want to store FM stations into.



Each time you press the button, the FM band changes as follows:



Press and hold both buttons for more than 2 seconds.



"SSM" appears, then disappears when automatic preset is over.

Local FM stations with the strongest signals are searched and stored automatically in the band number you have selected (FM1, FM2 or FM3). These stations are preset in the number buttons — No.1 (lowest frequency) to No.6 (highest frequency).

When automatic preset is over, the station stored in button number 1 will be automatically tuned into.



#### Manual preset

You can preset up to 6 stations in each band (FM1, FM2, FM3 and AM) manually.

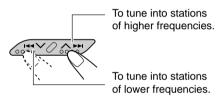
Ex: Storing an FM station of 88.3 MHz into the preset number 1 of the FM1 band

7 Select the band (FM1 – 3, AM) you want to store stations into (in this example, FM1).

Each time you press the button, the FM band changes as follows:



2 Tune into a station of 88.3 MHz.





3 Press and hold the number button (in this example, 1) for more than 2 seconds.



Preset number "P1" flashes for a while

4 Repeat the above procedure to store other stations into other preset numbers.

#### Notes:

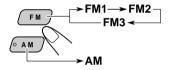
- A previously preset station is erased when a new station is stored in the same preset number.
- Preset stations are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the stations again.

#### Tuning into a preset station

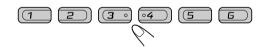
You can easily tune into a preset station.

Remember that you must store stations first. If you have not stored them yet, see "Storing stations in memory" on page 7.

**1** Select the band (FM1 -3, AM).



2 Select the number (1 – 6) for the preset station you want.





## Other convenient tuner functions

#### Scanning broadcast stations



When you press RPT/SCAN while listening to the radio, station scanning starts. Each time a broadcast is tuned in, scanning stops for about 5 seconds (tuned frequency number flashes on the display), and you can check what program is now being broadcast.

If you want to listen to that program, press the same button again to stop scanning.

#### Changing the AM/FM channel intervals

## When using this unit in an area other than North or South America:

When this unit is shipped from the factory, the channel intervals are set to 10 kHz for AM and 200 kHz for FM. You can change the channel intervals by following the procedure below.

- 1 Press SEL (Select) for more than 2 seconds. "CLOCK H", "CLOCK M" or "AREA" appears on the display.
- 2 If "AREA" does not appear, press I◄◀✔ or ▲►►I until it appears.
- 3 Press +.

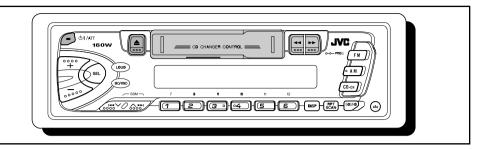
"AREA EU" appears and the channel intervals are set to 9 kHz for AM and 50 kHz (for manual tuning) / 100 kHz (for searching) for FM.

To reset to the factory setting, follow the above step 1 and 2, then press – in step 3 ("AREA US" appears on the display.)

AREA EU: Select this when used in an area other than North and South America.

AREA US: Select this when used in North or South America.





#### Listening to a cassette

You can playback type 1 (normal) tapes.

#### 1 Turn on the power.



Note on One-Touch Operation:

If a cassette is already in the cassette compartment, tape play starts automatically. However, it is not recommended to leave the cassette in the compartment when turning off the power or ignition key. It may damage the tape head and the cassette.

## 2 Insert a cassette into the cassette compartment.



When one side of the tape reaches its end during play, the other side of the tape automatically starts playing. (Auto Reverse)

#### 3 Select the tape direction.



Press both buttons at the same time.

Each time you press both buttons, the tape direction changes alternately – forward (TRPE: \*\*\*) and reverse (TRPE \*\*\*\*).

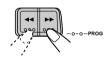
To stop play and eject the cassette.

#### Press A

Tape play stops and the cassette automatically ejects from the cassette compartment. The source changes to the previously selected one.

- You cannot change the source if the cassette is still in the cassette compartment.
   To change source, you must eject the cassette
- You can also eject the cassette by pressing 
   while the unit is turned off.

To fast-wind a tape.



Press in ▶▶ or ◄◄.

The tape will be wound in the direction of the arrows ( $\blacktriangleright \blacktriangleright$  or  $\blacktriangleleft \blacktriangleleft$ ).



**To restart playback**, lightly press the other button which is not pressed in (◄◄ or ►►).

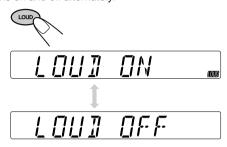
#### SOUND ADJUSTMENTS



## Turning on/off the loudness function

The human ear is less sensitive to low and high frequencies at low volumes.

The loudness function can boost these frequencies to produce a well-balanced sound at low volume levels. Each time you press LOUD, the loudness function turns on and off alternately.



### Selecting preset sound modes

You can select a preset sound adjustment suitable to the music genre.

Each time you press SOUND, the sound mode changes as follows:



Indication	For	Preset values		
illulcation	FOI	BAS	TRE	LOUD
SCM OFF	(Flat sound)	00	00	On
BEAT	Rock or disco music	+2	00	On
POP	Light music	+4	+1	Off
SOFT	Quiet background music	+1	-3	Off

#### Notes:

- You can adjust the preset sound mode to your preference, and store it in memory.
  - If you want to adjust and store your original sound mode, see "Storing your own sound adjustments" on page 12.
- To adjust only the bass and treble reinforcement levels to your preference, see "Adjusting the sound" on page 11.
- When one of the sound modes is selected, it is shown on the display as follows:



For example, when "POP" is selected.

#### Adjusting the sound

You can adjust the sound characteristics to your preference.

#### **1** Select the item you want to adjust.



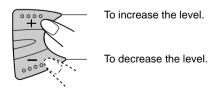
Each time you press the button, the adjustable items change as follows:

Indication To do		Range	
BAS (Bass)	Adjust the bass	-6 (min.)   +6 (max.)	
TRE (Treble)	Adjust the treble	-6 (min.)   +6 (max.)	
FAD* (Fader)*	Adjust the front and rear speaker balance	R6 (Rear only)     F6 (Front only)	
BAL (Balance)	Adjust the left and right speaker balance	L6 (Left only)   R6 (Right only)	
VOL (Volume)	Adjust the volume	00 (min.)   50 (max.)	

#### Note:

\* If you are using a two-speaker system, set the fader level to "00".

#### **2** Adjust the level.



#### Note:

Normally the + and – buttons work as the volume control buttons. So you do not have to select "VOL" to adjust the volume level.



## Storing your own sound adjustments

You can adjust the sound modes (BEAT, POP, SOFT) to your preference and store your own adjustments in memory.

- There is a time limit in doing the following procedure. If the setting is canceled before you finish, start from step 1 again.
- 7 Call up the sound mode you want to adjust.
  - See page 11 for details.

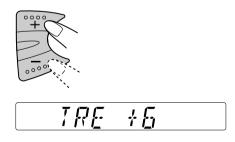


2 Select "BAS" (Bass) or "TRE" (Treble).



 $\boldsymbol{3}$  Adjust the bass or treble level.

• See page 11 for details.



## **4** To turn on or off the loudness function.

Each time you press LOUD, the loudness function turns on and off alternately. See page 11 for details.



- **5** Repeat steps 2 and 3 to adjust the other items.
- 6 Press and hold SOUND until the sound mode you have selected in step 1 flashes on the display.

Your setting is stored in memory.



7 Repeat the same procedure to store other settings.

To reset to the factory settings

Repeat the same procedure and reassign the preset values listed in the table on page 11.



#### Setting the clock

Press and hold the button for more than 2 seconds.



"CLOCK H", "CLOCK M" or "AREA" appears on the display.

- 2 Set the hour.
  - 1 Select "CLOCK H" if not shown on the display.
  - 2 Adjust the hour.









- 3 Set the minute.
  - Select "CLOCK M".
  - 2 Adjust the minute.









4 Press SEL (Select) to finish the setting.



To check the current clock time or change the display mode.



Press DISP (display) repeatedly. Each time you press the button, the display mode changes as follows:

· During tuner operation:

Frequency ← ➤ Clock

· During tape operation:

Play mode (tape direction) ← ➤ Clock

· During CD changer operation:

Elapsed playing time → Disc number → Clock



#### Detaching the control panel

You can detach the control panel when leaving the car.

When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

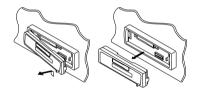
#### Detaching the control panel

Before detaching the control panel, be sure to turn off the power.

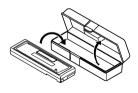
**1** Unlock the control panel.



2 Lift and pull the control panel out of the unit.

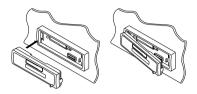


3 Put the detached control panel into the provided case.



#### Attaching the control panel

1 Insert the left side of the control panel into the groove on the panel holder.



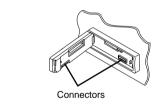
2 Press the right side of the control panel to fix it to the panel holder.



Note on cleaning the connectors:

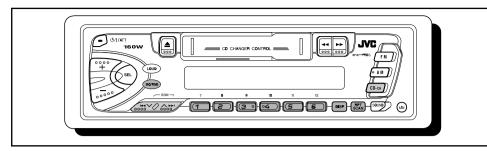
If you frequently detach the control panel, the connectors will deteriorate.

To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.



#### CD CHANGER OPERATIONS





We recommend that you use one of the CH-X series with your unit.

If you have another CD automatic changer, consult your JVC car audio dealer for connections.

• For example, if your CD automatic changer is one of the KD-MK series, you need a cord (KS-U15K) for connecting it to this unit.

Before operating your CD automatic changer:

- Refer also to the Instructions supplied with your CD changer.
- If no discs are in the magazine of the CD changer or the discs are inserted upside down, "NO CD" or "NO DISC" will appear on the display. If this happens, remove the magazine and set the discs correctly.
- If "RESET 1 RESET 8" appears on the display, something is wrong with the connection between this unit and the CD changer. If this happens, check the connection, connect the connecting cord(s) firmly if necessary, then press the reset button of the CD changer.

To check the elapsed playing time.

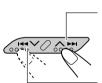


Press DISP (display) repeatedly.

Each time you press the button, the display mode changes as follows.



To fast forward or reverse the track



Press and hold  $\wedge \triangleright$ , while playing a CD, to fast forward the track.

Press and hold I◄◄ ✔, while playing a CD, to reverse the track.

#### Playing CDs

#### **1** Select the CD automatic changer.



Playback starts from the first track of the first disc. All tracks of all discs are played back.

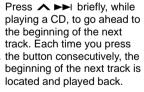


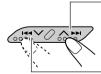
Track number

Note on One-Touch Operation:

When you press CD-cH, the power automatically comes on. You do not have to press **O/I/ATT** to turn on the power.

To go to the next track or the previous track

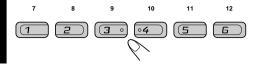




Press I◄◀➤ briefly, while playing a CD, to go back to the beginning of the current track. Each time you press the button consecutively, the beginning of the previous track is located and played back.



To go to a particular disc directly



Press the number button corresponding to the disc number to start its playback.

- To select a disc number from 1 6:
   Press 1 (7) 6 (12) briefly.
- To select a disc number from 7 12:
   Press and hold 1 (7) 6 (12) for more than 1 second.

Disc number



Track number

Ex. When disc number 3 is selected

## changes as follows:

while playing a CD, CD repeat play mode

To playback tracks repeatedly (Repeat Play) Each time you press RPT/SCAN (Repeat/Scan)

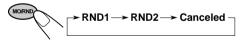


Mode	RPT Indicator	Plays repeatedly
RPT1 (repeat1)	Lights	The current track (or specified track).
RPT2	Flashes	All tracks of the current disc
(repeat2)		(or specified disc).

#### Selecting CD playback modes

To playback tracks at random (Random Play)

Each time you press MO/RND (Mono/Random) while playing a CD, CD random play mode changes as follows:



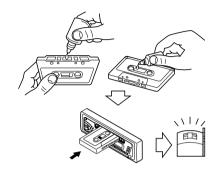
Mode	RND Indicator	Plays at random
RND1 (random1)	Lights	All tracks of the current disc, then the tracks of the next disc, and so on.
RND2 (random2)	Flashes	All tracks of all discs inserted in the magazine.

#### **MAINTENANCE**



This unit requires very little attention, but you will be able to extend the life of the unit if you follow the instructions below.

#### To clean the heads

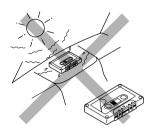


 Clean the heads after every 10 hours of use using a wet-type head cleaning tape (available at an audio store).

When the head becomes dirty, you may realize the following symptoms:

- Sound quality is reduced.
- Sound level decreases.
- Sound drops out.
- Do not play dirty or dusty tapes.
- Do not touch the highly-polished head with any metallic or magnetic tools.

#### To keep the tape clean



- Always store the tapes to their storage cases after use.
- Do not store tapes in the following places:
  - Subject to direct sunlight
  - With high humidity
  - At extremely hot temperatures

#### CAUTIONS:

- Do not play the tapes with peeling labels; otherwise, they can damage the unit.
- Tighten tapes to remove slack since loose tape may become entangled with the mechanism.
- Do not leave a cassette in the cassette compartment after use, as the tape may become slack.



## **TROUBLESHOOTING**

What appears to be trouble is not always serious. Check the following points before calling a service center.

Symptoms	Causes	Remedies	
A cassette tape cannot be inserted.	You have tried to insert a cassette in the wrong way.	Insert the cassette with the exposed tape facing right.	
Cassette tapes become hot.	This is not a malfunction.		
Tape sound is at very low level and sound quality is degraded.	The tape head is dirty.	Clean it with a head cleaning tape.	
Sound is sometimes interrupted.	Connections are not good.	Check the cords and connections.	
Sound cannot be heard from the speakers.	The volume control is turned to the minimum level.	Adjust it to the optimum level.	
	Connections are incorrect.	Check the cords and connections.	
Static noise while listening to the radio.	The antenna is not connected firmly.	Connect the antenna firmly.	
"NO CD" or "NO DISC" appears on the display.	No CD is in the magazine.	Insert CDs into the magazine.	
appears on the display.	CDs are inserted incorrectly.	Insert them correctly.	
"RESET 8" appears on the display.	This unit is not connected to a CD changer correctly.	Connect this unit and the CD changer correctly and press the reset button of the CD changer.	
"RESET 1-RESET 7" appears on the display.		Press the reset button of the CD changer.	
<ul> <li>The unit does not work at all.</li> <li>The CD changer does not work at all.</li> </ul>	The built-in microcomputer may function incorrectly due to noise, etc.	While holding SEL, press $\mathfrak{G}/I/ATT$ for more than 2 seconds to reset the unit. (The clock setting and preset stations stored in memory are erased.) (See page 2).	

#### **SPECIFICATIONS**

#### **AUDIO AMPLIFIER SECTION**

Maximum Power Output:

Front: 40 W per channel Rear: 40 W per channel Continuous Power Output (RMS):

Front : 16 W per channel into 4  $\Omega$ , 40 Hz

to 20 000 Hz at no more than 0.8% total harmonic distortion.

Rear : 16 W per channel into 4  $\Omega$ , 40 Hz

to 20 000 Hz at no more than 0.8% total harmonic distortion.

Load Impedance: 4  $\Omega$  (4  $\Omega$  to 8  $\Omega$  allowance)

Tone Control Range:

Bass:  $\pm 10 \text{ dB}$  at 100 Hz Treble:  $\pm 10 \text{ dB}$  at 10 kHz

Frequency Response: 40 Hz to 20 000 Hz

Signal-to-Noise Ratio: 70 dB Line-Out Level/Impedance:

2.0 V/20 kΩ load (250 nWb/m)

#### **TUNER SECTION**

Frequency Range:

FM: 87.5 MHz to 107.9 MHz

(with channel interval set to 200 kHz)

87.5 MHz to 108.0 MHz

(with channel interval set to 50 kHz)

AM : 530 kHz to 1 710 kHz

(with channel interval set to 10 kHz)

531 kHz to 1 602 kHz

(with channel interval set to 9 kHz)

#### [FM Tuner]

Usable Sensitivity: 11.3 dBf (1.0  $\mu$ V/75  $\Omega$ )

50 dB Quieting Sensitivity:  $16.3 \text{ dBf} (1.8 \mu\text{V}/75 \Omega)$ 

Alternate Channel Selectivity (400 kHz):

65 dB

Frequency Response: 40 Hz to 15 000 Hz

Stereo Separation: 35 dB Capture Ratio: 2.0 dB

#### [AM Tuner]

Sensitivity: 20 µV Selectivity: 35 dB

#### CASSETTE DECK SECTION

Wow & Flutter : 0.15% (WRMS) Fast-Wind Time : 190 sec. (C-60) Frequency Response : 50 to 14 000 Hz

(normal tape)

Signal-to-Noise Ratio: 52 dB Stereo Separation: 40 dB

#### **GENERAL**

Power Requirement:

Operating Voltage: DC 14.4 V

(11 V to 16 V allowance)

Grounding System: Negative ground Allowable Operating Temperature: 0°C to +40°C (32°F to 104°F)

Dimensions (W  $\times$  H  $\times$  D):

Installation Size : 182 mm  $\times$  52 mm  $\times$  150 mm

(7-3/16" x 2-1/16 "x 5-15/16")

Panel Size : 188 mm  $\times$  58 mm  $\times$  14 mm

(7-7/16" x 2-5/16" x 5/8")

Mass: 1.3 kg (2.9 lbs) (excluding accessories)

Design and specifications subject to change without notice.

If a kit is necessary for your car, consult your telephone directory for the nearest car audio speciality shop.



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