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ANALYMOTUNESS OF
LAND ROVER VEHICLES



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IN-CAR ENTERTAINMENT

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As part of Land Rover environmental policy, this publication is printed on paper made from chlorine free pulp.

Introduction

For your convenience, this handbook is divided into sections, each dealing with a different aspect of the unit. These are listed on the contents page and you will find it worthwhile to take a little time to read each one, and get to know your Audio unit as soon as you possibly can.

The specification of each vehicle will vary according to territorial requirements and also from model to model within the vehicle range. Some of the information published in this handbook, therefore, may not apply to your particular vehicle.

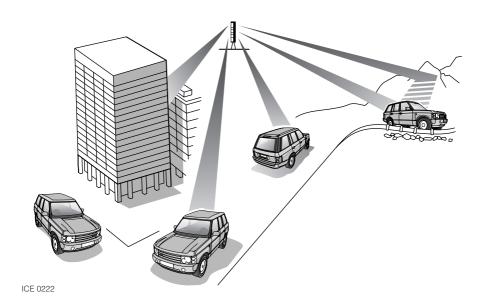
*An asterisk appearing within the text, identifies features or items of equipment that are fitted as options.

Land Rover operates a policy of constant product improvement and therefore reserves the right to change specifications without notice at any time. Whilst every effort is made to ensure complete accuracy of the information in this handbook, no liabilities for inaccuracies or the consequences thereof can be accepted by the manufacturer or the dealer, except in respect of personal injury caused by the negligence of the manufacturer or the dealer.

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Radio Reception



RADIO RECEPTION

Distortion, interference and lack of signal clarity, are often attributed to a fault in the radio - this is rarely the case.

Problems of this kind are usually caused by phenomena such as atmospheric conditions, signal strength, hilly terrain, tall buildings, bridges and even electrical interference from power lines.

Please remember: A car radio receives signals while the vehicle is in motion (unlike a domestic set) - constantly changing direction and moving away from, or nearer to, the transmitter whilst negotiating terrain with widely differing reception characteristics. Some interference is to be expected from time to time.

FM transmitters can only broadcast over a limited range and good, clear signals will only be received in the immediate area of the transmitter. When travelling, it may be necessary to re-tune the radio from time to time, to offset the effects of moving from one transmitter area to another.

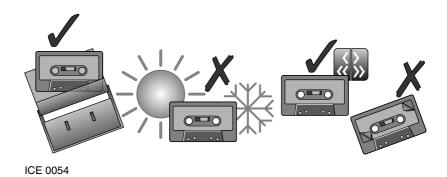
While RDS automatic retuning eases this problem, some manual retuning may still be needed (especially for local stations) in areas of weak reception.

The broadcast range for good stereo reception (usually within a 30 to 40 miles radius of the transmitter) is noticeably less than it is for mono.

FM Signals (like light waves) travel in a straight line, so large obstacles, such as tall buildings, can shield the car from the signal causing distortion or loss of reception (known as dead spots).

Distortion can also occur if FM signals received directly from the transmitter mix with signals which have been reflected by obstructions such as mountains, hills and tall buildings (this is known as multi-path distortion).

Care of Cassette Player and Tapes



CARE OF CASSETTE PLAYER AND TAPES

Use only good quality tapes with a maximum capacity of ninety minutes (C90). Check that both spools rotate freely and remove any loose turns at the start of the tape by winding one spool with a pen or pencil.

Cassette player

In use, the tape head accumulates dust and contamination, gradually impairing sound reproduction and, in extreme cases, reducing volume too. To combat contamination, clean the tape head periodically (after approximately every 20 hours playing time) by passing a wet type cleaning cassette through the player.

NOTE: Because your cassette player is fitted with auto reverse, the cleaning cassette must be played in both directions.

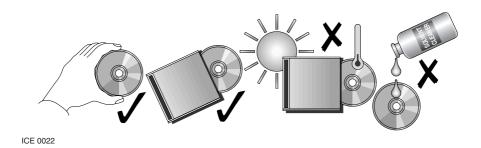
The tape will require more frequent cleaning in winter, as contamination is greater in conditions of low temperature and increased humidity. However, the use of good quality tapes keeps the build-up to a minimum.

Cassette tapes

- Always store cassettes in their boxes when not in use.
- Never leave cassettes in the vehicle during extremes of temperature. In particular, do not leave tapes in direct sunlight as they may warp and become unusable, or jam the tape player mechanism.
- Fast forward, or rewind tapes every 8 to 10 plays to prevent them from becoming too tightly wound.
- Ensure that labels attached to the cassette are glued firmly in place.
- DO NOT leave tapes in the cassette player for more than a few hours in very cold or humid conditions - the oxides on the tape surface may contaminate the cassette player mechanism.

NOTE: After continuous playing, cassettes may become hot to touch. This is normal and will not harm good quality tape.

Care of Compact Discs



CARE OF COMPACT DISCS

Dirt, dust, condensation and heat can damage discs. Always observe the following precautions:

NEVER touch the horizontal playing surface (the unlabelled side) of a disc! Handle discs by holding the outer edges, or the edge of the central hole and the outer edge, between finger and thumb.

ALWAYS return discs to their boxes after use (dirt detracts from the sound quality).

NEVER leave the disc or the box exposed to excessive heat or direct sunlight!

NEVER use a solvent or abrasive cleaner! Dust or dirt should be removed from the playing surface by wiping with a clean, dry, lint-free cloth always wipe in a straight line from the centre to the edge of the disc!

If minor scratches on the surface of a compact disc cause skipping or mistracking, use CD restorer polish to remove the scratches and improve the performance of the disc. When using CD restorer polish, always follow the manufacturer's instructions.

NOTE: Some music CD manufacturers are using data encryption to 'copy-protect' their recordings and prevent the production of pirate copies. These CD's differ from the internationally agreed CD audio standard, RedBook, a standard that serves as the operating basis for all CD players and changers.

Copy-protected CD's may not play in your Audio unit or CD changer or may be played subject to various limitations, e.g., sound quality may be impaired.

If you do experience a problem, try the CD in other players before contacting the CD vendor.

Security Code

SECURITY CODE INFORMATION

To reduce the risk of theft, your audio unit is programmed with a four-digit security code. Once activated, this code prevents the unit from functioning if it is illegally removed from the vehicle. There are 10,000 different codes - making your audio unit valueless to a thief unless he has the correct one. In addition, each unit is further protected by a time delay penalty system that effectively defies even the most systematic attempt to break the code.

NOTE: If an incorrect code is entered, a one minute time delay is imposed before a second code can be attempted. Each time a wrong code is entered, the time delay doubles (2 min, 4 min, 8 min, etc.) making theft a very unattractive proposition.

NOTE: VISTEON UNIT ONLY - After 12

unsuccessful attempts to enter a code, the unit becomes inoperable and CANNOT be repaired (even by the manufacturer). In cases where the code number has been forgotten or mislayed (as opposed to wrongly entered), owners are strongly advised to contact a Land Rover Dealer / Approved Repairer for assistance, rather than risking irreparable damage to the audio unit.

On delivery of the vehicle you were supplied with a Security Information card. This card contains a record of the four-digit security code, as well as the unit's unique serial number. The serial number is also stamped into the metal side of the unit and, in the event of theft, would confirm proof of ownership.

It is VERY IMPORTANT that you keep a safe record of the security code and heed the following advice:

- NEVER keep a record of the security code in the car.
- If you lose your code number, contact the nearest Land Rover Dealer / Approved Repairer, who will be able to obtain this information for you.

Activating the code

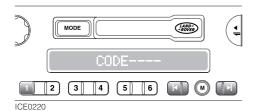
Your Dealer will have correctly activated the security code before you took delivery of the vehicle. This will be confirmed whenever you switch the unit on by 'CODE' appearing BRIEFLY in the display.

If this display is absent, the radio will still work, but will not be protected by the security code. If this is the case, you should activate the code by keeping the 'up' tuning button depressed while turning the set on.

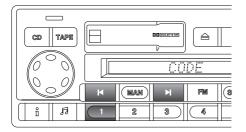
NOTE: Before activating the code, ensure that you have the Security Information card with the security card on it for future reference.

Security Code

ENTERING THE SECURITY CODE (C42 & R990 ONLY)



C-42 audio system



ICE0085

R990 audio system

If the power to the set has been interrupted (vehicle battery disconnection, for example), the code MUST be entered before the set will operate. Enter the code as follows:

Switch on the radio ('CODE' appears in the display). Press pre-set button 1.



Press either the up or down tuning button (highlighted in illustration) until the first digit of

the security code appears in the display. Press pre-set 1 to store the first digit in the unit's memory.



Use either tuning button to select the second digit of the code (until the correct digit appears in the

display). Press pre-set 1 to store the second digit.

123-

Select the third digit, again using the tuning buttons (until the correct digit is displayed). Press

pre-set 1 to store the third digit.

1234

Select the final digit (the display now shows the full four digit code). Press pre-set 1 to store the

final digit.

If an incorrect code has been entered, the first time delay period commences. During the delay period, 'Err', 'CODE WAIT' or 'WAIT' appears in the display - DO NOT switch off. At the end of the delay period, 'CODE' reappears in the display and you can then enter the correct code. Remember; the time delay period doubles each time an incorrect code is entered.

Security Code

ENTERING THE SECURITY CODE - VISTEON



ICE 1188

If power to the audio unit has been interrupted (vehicle battery disconnected, for example), the code must be re-entered before the set will operate. Enter the code as follows:

- 1. Switch on the set 'CODE -- -- -- appears in the display.
- 2. Press pre-set button 1 repeatedly until the correct first digit of the code is shown.
- Press the second pre-set button repeatedly to select the second digit of the code.
- **4.** Press pre-set button 3 until the third digit of the code is shown in the display.
- **5.** Press the fourth pre-set button to select the final digit of the code.
- **6.** With the full code displayed, press the right hand Search control (arrowed in illustration) to enter the code.

If the correct code has been selected the radio will commence operating immediately.

If an incorrect code is entered, 'CODE -- -- -- will be displayed and the above procedure must be repeated using the correct code.

WARNING

After 12 incorrect code entry attempts, the audio unit will be damaged beyond repair. If you have forgotten or mislayed the code, contact a Land Rover Dealer / Authorised Repairer for assistance.

VIN CODE

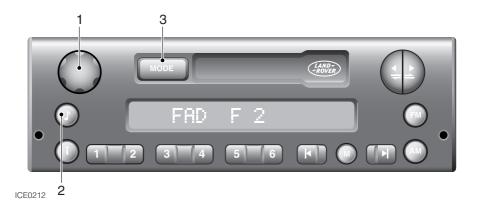
As an additional safeguard, a portion of the vehicle identification number (VIN) can be stored in the audio unit. This will assist the police to locate the owner in the event that the radio is stolen.

To enter the VIN:

- 1. Press and hold the Menu control (4) until 'VID -- -- -- 'is displayed.
- 2. Use the first four pre-set buttons to enter the last four digits of the VIN (use the pre-set buttons in the manner described for entering the code.
- Press the right hand Search control (arrowed in illustration) to enter the VIN code.

C42 Radio

SOUND CONTROLS



1. On/off and volume control

Press to switch on (display briefly shows 'CODE ENABLED'). Press again to switch off.

Rotate steadily to right or left to adjust the volume.

The volume can also be adjusted using the remote switches* on the steering wheel (see 'Owner's handbook').

NOTE: If you have a car telephone with a mute signal output connected to the stereo system, radio, tape or CD play automatically mutes when the telephone is in use.

2. Audio selection button

Press one or more times to select bass, treble, fader or balance (display confirms selection), as described below

Press and hold for at least two seconds to reset all audio settings to their default values (display shows 'FLAT').

Bass: Press once, then rotate the volume control to the left or right to reduce or increase bass response. The display shows:

- 'BASS -6' = minimum bass
- 'BASS 0' = normal bass

'BASS +6' = maximum bass

Treble: Press twice, then rotate the volume control to the left or right to reduce or increase treble response. The display shows:

- 'TREB -6' = minimum treble
- 'TRFB 0' = normal treble
- 'TREB +6' = maximum treble

Fader: Press three times, then rotate the volume control to the left or right to adjust the balance between front and rear speakers. The display shows:

- 'FADE F 6' = max sound from FRONT
- 'FADE 0' = equal balance
- 'FADE R 6' = max sound from REAR

Balance: Press four times, then rotate the volume control to the left or right to adjust the balance between left and right speakers. The display shows:

- 'BAL R 6' = max sound from RIGHT
- 'BAL 0'= equal balance
- 'BAL L 6' = max sound from LEFT

NOTE: After approximately 8 seconds without further adjustment, the audio selection mode is cancelled automatically.

C42 Radio

3. Mode selector (MODE)

Press briefly to select radio, tape or CD play.

Press to change to radio reception during tape or CD play. Tape or CD play will stop and the radio automatically selects the frequency and waveband last in use.

NOTE: The remote switches * on the steering wheel can also be used to change to or from radio, tape or CD play (see 'Owner's handbook').

C42 Radio

RADIO CONTROLS



4. FM waveband selector

Press briefly once or twice to select FM frequencies. There are two FM bands (FM1 and FM2), both have the same tuning range and six frequencies can be stored on each one, using the pre-set buttons (see 'Programming the pre-sets', page 14).

Press and hold to activate auto-store (on FM2 only - see 'AUTO-STORE', page 15).

5. AM waveband selector

Press briefly to select one of the three AM bands (MW1, MW2 and LW). Six frequencies can be stored on each one, using the pre-set buttons (see 'Programming the pre-sets', page 14).

Press and hold to activate auto-store (on MW2 only - see 'AUTO-STORE', page 15).

6. Tuning buttons

Briefly press either button to search up or down the frequency range (see 'RADIO TUNING', page 13).

7. Manual tuning selector

Press to select manual tuning mode ('MANUAL' is displayed) - use in conjunction with the tuning buttons (see 'RADIO TUNING', page 13). Press again to return to automatic tuning.

The frequency can also be selected using the remote switches * on the steering wheel (see 'Owner's handbook').

NOTE: Tuning defaults to automatic mode, if unused for more than 8 seconds.

8. Pre-set buttons

Use to store up to 6 radio stations on each waveband.

Press briefly to select a stored frequency.

Press and hold (for approximately 2 seconds) to store a frequency on a pre-set (see 'Programming the pre-sets', page 14).

9. Traffic and news information

Press briefly to switch on (or switch off) traffic information mode - FM waveband only (see 'Selecting traffic information', page 16).

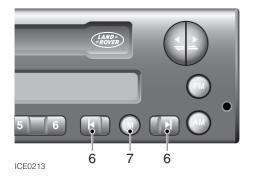
Press and hold for approximately 2 seconds to switch on (or switch off) news mode - FM waveband only (see 'Selecting news information', page 16).

Press briefly to return to normal radio, tape or CD reception during a traffic or news announcement.

NOTE: Both traffic and news information can be operational at the same time.

C42 - Radio Tuning

RADIO TUNING



Manual tuning

If you know the frequency of the radio station you are seeking, or you need to select a radio station that is too weak to be found by automatic tuning, use manual tuning, as follows:

Select the desired waveband (FM or AM), then press the manual tuning button (7) ('MANUAL' appears in the display). By pressing either tuning button (6), the frequency changes (either up or down) in steps of 0.1 MHz for FM, or 9 kHz for MW, or 1 kHz for LW.

Fast manual tuning

By keeping either tuning button depressed, the waveband is scanned rapidly up or down until the button is released.

Automatic tuning

Select the required waveband (FM or AM), then briefly press one of the tuning buttons (6).

The radio automatically searches the frequency range (either up or down depending upon which of the tuning buttons is pressed) looking for a radio station of acceptable strength. Once a suitable station is found, the search stops unless you choose to continue by pressing the tuning button again.

The search can be stopped at any time, by pressing any pre-set button.

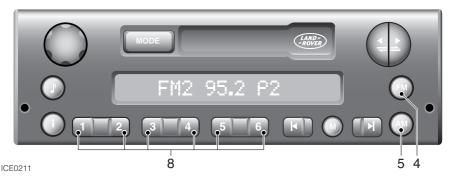
NOTE: If you have a car telephone with a mute signal output connected to the radio, the radio automatically mutes when the telephone is in use.

Mono/Stereo

Whenever the FM waveband is selected, the radio automatically reproduces stereo sound, provided a suitable signal is available. However, if a signal becomes too weak for good stereo reception, only mono sound is produced until the signal strengthens sufficiently for stereo sound reproduction.

C42 - Radio Tuning

RADIO PRF-SFT BUTTONS



The six pre-set buttons (8) can be used to manually store up to twelve FM stations (six each on FM1 and FM2), twelve MW stations (six each on MW1 and MW2), and six LW stations.

Programming the pre-sets

- Select the required waveband (FM1, FM2, MW1, MW2 or LW).
- Tune to the desired frequency using either automatic or manual tuning (see 'RADIO TUNING', page 13).
- Press and hold one of the pre-set buttons.
 The radio will mute while the frequency you have chosen is stored on the pre-set. The display briefly shows the frequency and station name (where appropriate) of the radio station previously stored on the pre-set, and then the new frequency (and station name).
- Release the pre-set as soon as radio sound is restored and the new frequency details are displayed.

NOTE: Once the pre-sets have been programmed, they will be retained by the unit until either; they are re-programmed, or power to the audio unit is disturbed (vehicle battery disconnection, for example).

Operating the pre-sets

Once the pre-set buttons have been programmed, operation is simple; select the desired waveband, then press the pre-set button of your choice.

C42 - Radio Tuning

AUTO-STORE



Auto-store enables you to rapidly tune and store the strongest FM and MW radio signals in a single operation. This facility is particularly useful if you are in an unfamiliar area and have little knowledge of local transmitter frequencies.

Programming auto-store

Press and hold the appropriate waveband selection button (4 or 5) - the radio mutes and the display shows either 'FM AUTOSTORE' or 'MW AUTOSTORE').

Auto-store scans the waveband to find the six strongest frequencies and then stores them on either the FM2 or MW2 pre-set buttons in order of signal strength. Radio sound is restored once the operation is complete.

If auto-store is unable to find six strong stations, the remaining pre-sets are not used (display shows 'NO STATION').

NOTE: Auto-store overwrites any stations already stored on the FM2 or MW2 pre-set buttons.

NOTE: If FM auto-store is programmed with the traffic facility switched on, then programming will be limited to those stations capable of providing traffic information only. For this reason, it is recommended that the traffic information facility is switched off before the pre-set stations are stored and before auto-store is programmed.

Operating auto-store

To tune to one of the auto-store frequencies, select FM2 or MW2, then press the pre-set button of your choice.

C42 - Traffic & News Information

INFORMATION BROADCASTS



On the FM waveband, the Radio Data System (RDS) facility enables your radio to receive traffic and news information broadcasts from local radio stations that are linked to the same network as the station to which it is tuned.

Traffic and news information broadcasts can be selected by pressing the information button (9).

Once selected, any available traffic and news information broadcasts are then received automatically as and when they occur (even if you are listening to cassette tapes or CDs).

Selecting traffic information

BRIEFLY press the information button - the word 'TRAFFIC' illuminates in the display.

During traffic announcements the display flashes 'TRAFFIC' alternately with the name of the radio station providing the information.

If the radio is tuned to a weak FM signal or a radio station that cannot provide traffic information, the display briefly shows 'NO TRAFFIC', then the message 'STATION SEEK' flashes in the display while the radio searches the waveband. It then tunes to a radio station that does provide traffic information broadcasts

In remote areas, it may be impossible to find a traffic information station. The radio will search the waveband twice; if a station cannot be found, the radio displays 'NO TRAFFIC' and returns to the station to which it was previously tuned.

NOTE: When traffic information is switched on, occasional, and very brief, muting of the radio may occur while the set searches for traffic broadcasts. For this reason, it is recommended that traffic information is switched off when not needed

Selecting news information

Press and hold the information button for approximately 2 seconds - the word 'NEWS' illuminates in the display.

During news broadcasts the display flashes 'NEWS' alternately with the name of the radio station providing the news information.

NOTE: Both traffic and news information can be selected at the same time. However, the radio gives priority to traffic information.

C42 - Traffic & News Information

Switching off information broadcasts

Traffic information: To switch off traffic information, briefly press the information button ('TRAFFIC' disappears from the display). This action will prevent traffic information broadcasts from being received until the button is pressed again.

News information: To switch off news information, press and hold the information button for approximately 2 seconds ('NEWS' disappears from the display). This action will prevent future news broadcasts from being received until the feature is reselected.

Unwanted information broadcasts can be aborted while they are in progress by similarly pressing the information button. In this case, because the feature is being disabled DURING an information broadcast, disablement is only temporary - the feature will return as soon as the next traffic or news information bulletin is broadcast

Information broadcasts during tape or CD play

When the radio is in either traffic or news information mode, CD or tape play will be interrupted by information broadcasts automatically as and when they occur.

The display will alternatively flash the station name and 'TRAFFIC' or 'NEWS'. At the end of the broadcast, tape or CD play will resume.

Volume for Traffic and News announcements

The volume of traffic and news information broadcasts can be set independently from the volume required for other audio output (e.g. radio, cassette and CD), as follows:

Wait for a traffic or news announcement, then during the broadcast, adjust the volume to the desired level (this is likely to be greater than that required for other audio output). Once this volume has been set, it will be memorised by the audio unit and replicated automatically next time a traffic or news announcement is broadcast.

Note that further adjustments to the volume can be made during any subsequent traffic or news announcements.

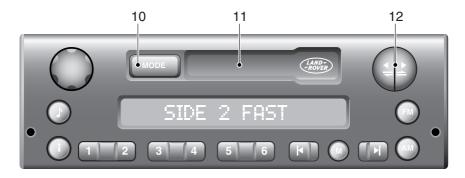
NOTE: The volume level for traffic announcements will be lower than the current volume.

Emergency alarm announcement

Emergency announcements cannot be activated or deactivated by the user. If an emergency traffic or news announcement is transmitted ('ALARM' appears in the display), all other audio functions will be overridden.

C42 - Cassette Player

CASSETTE PLAYER CONTROLS



ICE0209

10. Mode selector (MODE)

Press briefly to change to radio or CD operation during tape play. The cassette player remains in stand-by mode until the button is pressed again to return to tape play.

11. Cassette compartment

Insert the tape with the open side to the right and push in carefully. The radio mutes and tape play starts immediately (display shows 'SIDE 1').

At the end of either side of the tape, play will automatically continue in the opposite direction.

If the set is switched off during tape play, the cassette player remains in stand-by mode. Play resumes when the set is switched on again.

NOTE: If a metal type cassette is loaded, the tape player automatically adjusts to the equalisation required for metal and any other high bias tape.

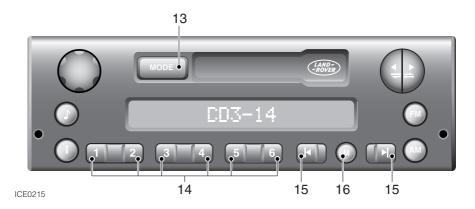
12. Fast forward/rewind/reverse and eject buttons

During tape winding, 'FAST' shows in the display.

- To forward wind, press the right hand button.
- To rewind, press the left hand button.
- To stop tape winding, lightly press the remaining (unlocked) button. Tape play will automatically resume.
- To reverse the direction of tape play, lightly press both buttons simultaneously.
- To eject the tape, FULLY press both buttons simultaneously. The unit returns to radio mode, selecting the waveband and frequency last in use.

C42 - Compact Disc Player

COMPACT DISC PLAYER* CONTROLS



13. Mode selector (MODE)

Press to select CD play, or to change to radio or tape operation during CD play. With CD selected, the display shows the disc and track number ('CD3 - 14'). If a magazine has not been inserted into the autochanger, 'NO MAGAZINE' is displayed, if an empty magazine has been inserted, 'NO DISCS' is displayed.

14. Disc selection buttons (1-6)

Press the appropriate button to select the desired disc. Playback will start from the beginning of that disc. If an empty compartment is selected, a a faulty CD is inserted or a CD is inserted the wrong way up, the display shows 'NO DISC' and the next available disc is selected instead.

15. Track search buttons

Skip: Briefly press the appropriate button to skip to the beginning of the next track, or return to the start of the current track (the display shows disc and track numbers). Press the search buttons as many times as necessary to reach the desired track.

NOTE: If either button is pressed and held (for more than 1 second), the CD player performs the 'search' function (forward or back) until the button is released

Search: Press the Manual mode button (16), then press and hold the appropriate search button to move forward or backward (display shows '>>' or '<<') through the track at a greatly increased play speed (volume mutes). When the search key is released, CD playback starts at the current position of the selected CD/track. The CD search mode remains active.

The same operation can be carried out without the need to press the manual mode button (16), by pressing and holding the appropriate search button for more than 1 second.

NOTE: The compact disc player controls will operate only with the CD changer unit *.

NOTE: Skip, search and mode selection can be operated using the remote switches * on the steering wheel (see 'Owner's handbook').

NOTE: Copy-protected CD's may not play in your Audio unit. See 'CARE OF COMPACT DISCS', page 6.

SOUND CONTROLS



1. On/off and volume control

Press to switch on. Press again to switch off.

NOTE: The unit can be switched on and operated for up to 60 minutes after the starter switch has been turned off (display shows '1 HOUR').

Rotate to adjust the volume (display shows the volume level selected between '0' and '30' e.g. 'VOL 09').

The volume can also be adjusted using the remote switches* on the steering wheel (see 'Owner's handbook').

NOTE: If you have a car telephone with a mute signal output connected to the audio system, radio or CD play mutes automatically when the telephone is in use.

2. Fader and balance control

Fader: Press once (display shows 'FADE'), then rotate the volume control to right or left to adjust the balance between front and rear speakers. The display shows:

- 'FADE F 7' = max sound from FRONT
- 'FADE 0' = equal balance
- 'FADE R 7' = max sound from REAR

Balance: Press twice (display shows 'BAL'), then rotate the volume control to left or right to adjust the balance between left and right speakers. The display shows:

- 'BAL L 7' = max sound from LEFT
- 'BAL 0'= equal balance
- 'BAL R 7' = max sound from RIGHT

NOTE: After 5 seconds without adjustment, fader and balance selection are cancelled and must be reselected if further adjustment is required.

3. Bass and treble control

Bass: Press once (display shows 'BASS'), then rotate the volume control to left or right to reduce or increase bass response. The display shows:

- 'BASS -7' = minimum bass
- 'BASS 0' = normal bass
- 'BASS +7' = maximum bass

Treble: Press twice (display shows 'TREB'), then rotate the volume control to left or right to reduce or increase treble response. The display shows:

- 'TREB -7' = minimum treble
- 'TREB 0' = normal treble
- 'TREB +7' = maximum treble

NOTE: After 5 seconds without adjustment, bass and treble selection are cancelled and must be reselected if further adjustment is required.

Selecting default settings: Press and hold the bass and treble control (3) for two seconds to reset all audio settings (including balance, fader and volume), to their default values (display shows 'AUD--RST').

Bass, treble, fader and balance values are set to '0', volume is set to level '10'.

4. Menu control (MENU)

A number of additional sound control features can be selected using the Menu control, as follows:

Loudness mode: Emphasises bass frequencies to create a more dynamic sound at low volume levels.

- Press the Menu control repeatedly until 'LD' is displayed.
- Press either of the Search controls (5) to select either 'LD--AUTO' or 'LD--OFF'. The display will confirm your selection.

Music/speech selector (FM only): With RDS switched on (see 'RADIO DATA SYSTEM (RDS)', page 27), bass, treble and volume settings are adjusted automatically to optimise clarity of speech.

- **1.** Press and hold the Menu control for 8 seconds (until the display changes).
- 2. Briefly release the Menu control, then press repeatedly until 'SP' is displayed.
- Press either of the Search controls (5) to select either 'SP--ON' or 'SP--OFF'. The display will confirm your selection.

Clip detect: With Clip Detect activated, the audio unit automatically reduces volume levels to ensure that distortion is limited to 1%

- 1. Press and hold the Menu control for 8 seconds (until the display changes).
- 2. Briefly release the Menu control, then press repeatedly until 'CLIP' is displayed.
- Press either of the Search controls (5) to select either 'CLIP--ON' or 'CLIP--OFF'. The display will confirm your selection.

5. Search controls (< >)

Use in conjunction with the Menu control (4) to select Loudness, Music/speech and Clip detect modes.

RADIO CONTROLS



ICE 1182

4. Menu control (MENU)

The Menu control can be used to access a number of tuning and frequency selection options as follows:

Press the control repeatedly to locate:

- Manual tuning; use in conjunction with the search controls (see 'RADIO TUNING', page 24).
- Scan tuning; use in conjunction with the search controls (see 'RADIO TUNING', page 24).
- Scanning the pre-set buttons; use in conjunction with the search controls (see 'Programming the pre-sets', page 25).
- Programme type (PTY) selection; use in conjunction with the volume control and the search controls (see 'PTY (PROGRAMME TYPE) TUNING', page 29).

5. Search controls (< >)

Use the right hand control to search up the frequency range, and the left hand control to search down the frequency range.

Press either control briefly to tune to the next receivable radio station on the waveband.

Press and hold either control to search, up or down, through the whole frequency range (see 'RADIO TUNING', page 24).

NOTE: The frequency can also be selected using the remote switches on the steering wheel (see 'Owner's handbook').

6. Waveband selector (BAND)

Press repeatedly. The selector scrolls through the wavebands in the following order: FM1, FM2, FMT (Auto-store), LW, MW and MWT or LWT (Auto-store). The selected waveband is shown in the upper left of the display.

Auto-store: Press and hold the waveband selector to activate. Auto-store selects the six strongest stations on the FMT or MWT/LWT wavebands and stores them on the pre-set buttons (see 'AUTO-STORE', page 26).

7. Pre-set buttons

Use to store up to 6 radio stations on each waveband (FM1, FM2, MW and LW).

Press and hold until a bleep sounds to store a frequency on a pre-set. Press briefly to select a frequency already stored on a pre-set (see 'RADIO PRE-SET BUTTONS', page 25).

8. Radio data system (RDS) selector

Press briefly to either select or de-select the radio data system. The display shows: 'RDS--ON', or 'RDS--OFF' (see 'RADIO DATA SYSTEM (RDS)', page 27).

9. Traffic and news information

Press briefly to switch on (or switch off) the traffic information mode - FM waveband only (see 'Selecting traffic information', page 30).

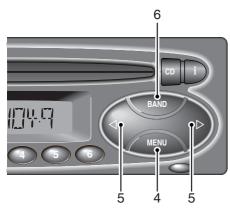
Press and hold for more than 2 seconds to switch on (or switch off) news information mode - FM waveband only (see 'Selecting news information', page 32).

Press briefly to return to normal radio or CD reception during the course of a traffic or news announcement.

NOTE: Traffic and news information can be operational at the same time.

Visteon - Radio Tuning

RADIO TUNING



ICE 1187

Automatic tuning

Select the required waveband (6) - FM1, FM2, MW or LW, then briefly press one of the Search controls (5). The radio tuner searches the frequency range (either up or down, depending upon whether the right or left control is pressed). Once a radio station of acceptable strength is found, the search ends unless the control is operated again.

Automatic search can be stopped at any time by pressing one of the pre-set buttons.

Automatic search tuning can also be activated using the remote switches * on the steering wheel (see 'Owner's handbook').

NOTE: If you have a car telephone with a mute signal output connected to the radio, the radio automatically mutes when the telephone is in use.

Manual tuning

If you know the frequency of the radio station you are seeking, or you need to select a radio station with a signal too weak to be found by automatic tuning, use manual tuning, as follows:

- 1. Select the desired waveband (6) FM1, FM2. MW or LW.
- 2. Press the Menu control (4) until 'MAN' is displayed.
- Press either of the Search controls (5) to search up or down the frequency range. The radio tuner searches in steps of 50 kHz for FM, and 9 kHz for MW and LW.

NOTE: Manual tuning defaults to automatic mode, if unused for more than 5 seconds.

Fast manual tuning: By keeping either side of the search tuning control (5) depressed, the waveband will be scanned rapidly up or down until the control is released.

Scanning the waveband

The waveband scan feature can be used to listen to every radio station on the selected waveband for 7 seconds.

- 1. Press the Menu control (4) repeatedly until 'SCAN' appears in the display.
- Press either of the Search controls (5) to set the scan feature in motion ('Scn' flashes in the display, together with the frequency).

Scanning can be stopped at any time by pressing the Menu button or one of the Search controls.

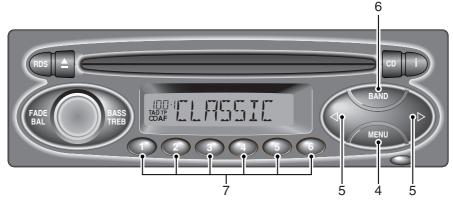
Mono/Stereo

Whenever the FM waveband is selected, the radio tuner automatically reproduces stereo sound, provided a suitable signal is available (the stereo indicator illuminates in the display).

If a signal becomes too weak for good stereo reception, the tuner reproduces mono sound until the signal strengthens sufficient for satisfactory stereo reproduction to be restored.

Visteon - Radio Tuning

RADIO PRF-SFT BUTTONS



ICE 1180

The six pre-set buttons (7) can be used to manually store up to twelve FM stations (six each on FM1 and FM2), six MW stations and six LW stations.

Programming the pre-sets

- Press the waveband selector (6) to select the required waveband (FM1, FM2, MW or LW).
- 2. Use the Search controls (5) to tune to the desired frequency, using either automatic or manual tuning (see 'RADIO TUNING', page 24).
- 3. Press and hold one of the pre-set buttons (7). The radio will mute briefly, and a bleep will sound once the desired frequency is stored on the pre-set.
- **4.** Release the pre-set button as soon as radio reception is restored.

NOTE: The radio stations stored on the pre-set buttons will be retained by the unit until the buttons are re-programmed.

Operating the pre-sets

Once the pre-set buttons have been programmed, select the desired waveband, then press the pre-set button of your choice (a numeral on the far left of the display confirms the pre-set that has been selected).

Scanning the pre-sets

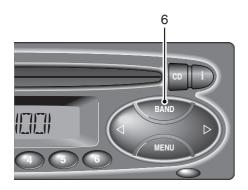
Once the pre-set buttons have been programmed, the pre-set scan feature can be used to listen to the radio stations stored on each of the pre-sets for 7 seconds.

- 1. Press the Menu button (4) repeatedly until 'P--SCAN' appears in the display.
- Press either of the Search controls (5) once to start scanning through the frequencies stored on the pre-set buttons ('Scn' flashes in the display, together with the pre-set number).

The pre-set scan can be stopped at any time by pressing the Menu button or one of the pre-sets.

Visteon - Radio Tuning

AUTO-STORE



NOTE: Both the FMT and MWT/LWT auto-store facilities can be used as additional wavebands to store radio stations manually (see 'RADIO PRE-SET BUTTONS', page 25). However, it is important to remember that whenever auto-store is operated any radio stations already stored on the FMT and MWT/LWT wavebands will be overwritten.

Operating auto-store

To tune to one of the stored frequencies, select FMT or MWT (LWT), then press the pre-set button of your choice.

ICE 1186

Auto-store enables you to rapidly tune and store the six strongest FM and MW (or LW) radio signals in a single operation. This facility is particularly useful if you are in an unfamiliar area and have little knowledge of local transmitter frequencies.

Programming auto-store

- 1. Use the waveband selector (6) to select the desired waveband (FM1, FM2, MW or LW).
- 2. Press and hold the waveband selector for at least 2 seconds the radio mutes and either 'FMT', 'MWT' or 'LWT' flash in the display while auto-store selects the six strongest stations and stores them on the pre-set buttons in order of signal strength.

Radio sound is restored once the operation is complete.

Medium wave (MW) and long wave (LW) frequencies use a shared auto-store facility. It is, therefore, not possible to auto-store both medium and long wave frequencies. (Note that the display will change to show either 'MWT' or 'LWT' according to whichever waveband was selected.

Visteon - Radio Data System

RADIO DATA SYSTEM (RDS)



ICE 1189

Your radio is equipped with RDS, which enables the audio unit to receive other information in addition to radio signals, including:

- programme service name: enables the audio unit to display the radio station name instead of the frequency. This occurs automatically and cannot be actioned by the user.
- alternative frequencies: enables the audio unit to select the strongest available, alternative signal for a particular radio station, thereby maintaining the best possible reception.
- clock and date displays: RDS enables the audio unit to display accurate time and date displays automatically.
- PTY (programme type): enables the audio unit to limit frequency selection to stations broadcasting programmes of similar content.
- traffic or news information: enables the unit to give priority to traffic or news broadcasts over other radio programmes or CD play.
- EON (enhanced other networks): enables the audio unit to broadcast traffic information from radio stations other than the one to which it is tuned (provided they are all part of the same, linked, EON network).

NOTE: Not all FM radio stations broadcast RDS. If a non-RDS station is received RDS features will not be available.

Selecting RDS

Press the RDS button (8) to activate or deactivate the radio data system (the display will briefly show either 'RDS--ON' or 'RDS--OFF').

CLOCK AND DATE DISPLAY

The clock and date displays are updated automatically and cannot be adjusted by the user. To view the displays:

- With RDS switched on, press the Menu control (4) repeatedly until the clock or date display appears, e.g. 'RDS 14:25', or '16/07/01'.
- 2. Press one of the Search controls (5) to change between the two.

NOTE: If RDS is only recently switched on, the displays 'CLOCK------', or '--/--' may appear. This is not an indication of a malfunction. The Radio Data System will resolve these displays after a short period.

Visteon - Radio Data System

ALTERNATIVE FREQUENCIES (AF)

Some radio stations broadcast on different frequencies in different parts of the country. If the selected station signal weakens, the radio will automatically retune to a stronger alternative frequency if one is available. If a better alternative cannot be found, the radio returns to the original frequency (this feature is particularly useful on long journeys where the vehicle travels through different transmitter areas serving the same radio station).

With 'AF--AUTO' selected (this is the default setting), this process occurs automatically and frequency changes are normally not apparent to the listener. However, in certain circumstances (mostly concerning the topography of the area and the geographical locations of transmitters), alternative frequency selection can disrupt reception, and it may be desirable to manually control the feature, or dispense with it altogether.

With 'AF--MAN' selected, alternative frequency selection is controlled manually and occurs ONLY in response to the operation of one of the pre-set buttons. In this case the tuner will scan the whole of the selected waveband searching for an alternative frequency for the radio station stored on the pre-set. If a suitable alternative cannot be found, the radio returns to the original frequency and the words 'Not Found' appear in the display.

To select 'AF--AUTO', 'AF--MAN' or 'AF--OFF':

- **1.** Press and hold the Menu control (4) for more than 8 seconds.
- 2. Press the Menu control repeatedly until 'AF' appears in the display.
- Use either of the Search controls (5) to select either: 'AF--AUTO', 'AF--MAN' or 'AF--OFF'.

Visteon - Radio Data System

PTY (PROGRAMME TYPE) TUNING

This feature enables radio stations to be selected according to programme type and content (e.g. sport, news, pop music etc...).

To select a radio station using PTY:

- 1. Press the Menu control (4) repeatedly until 'PTY' appears in the upper left part of the display (a programme type will appear in the main display area).
- While 'PTY' is displayed, rotate the volume control to scroll through the list of programme types (see accompanying list).
- 3. Within 5 seconds of the desired programme type being displayed, press one of the Search controls (5). The tuner will then search for a radio station broadcasting a programme of the selected type (the programme type will be displayed in the main display area, while 'PTY' flashes in the upper left part of the display).

Once a suitable radio station is found, the programme type will flash in the display alternately with the radio station name. If the selected radio station is not suitable, press one of the Search controls again (before the station name stops flashing) to activate another search.

If the tuner is unable to identify a radio station broadcasting a programme of the selected type, the words 'Not Found' will appear in the display.

NOTE: If no control is pressed within 5 seconds of PTY being selected, programme type tuning will be cancelled automatically.

Operating PTY during CD play

If PTY is selected and the Search controls are pressed during CD playback, radio reception will be restored as soon as the selected programme type has been found (while the tuner is searching, 'PTY' will flash in the display).

When CD mode is reselected, playback will continue from the point on the disc at which play was suspended.

PTY (programme type) options

1	1 News 'NEWS'		
2	Current affairs	'AFFAIRS'	
		_	
3	Information	'INFO'	
4	Sport	'SPORT'	
5	Education	'EDUCATE'	
6	Drama	'DRAMA'	
7	Culture	'CULTURE'	
8	Science	'SCIENCE'	
9	Varied	'VARIED'	
10	Pop music	'POP M'	
11	Rock music	'ROCK M'	
12	Easy listening music	'EASY M'	
13	Light classical	'LIGHT M'	
14	Serious classical	'CLASSICS'	
15	Other music	'OTHER M'	
16	Weather	'WEATHER'	
17	Finance	'FINANCE'	
18	Children's interest	'CHILDREN'	
19	Social issues	'SOCIAL'	
20	Religious affairs	'RELIGION'	
21	Phone in	'PHONE IN'	
22	Travel	'TRAVEL'	
23	Leisure	'LEISURE'	
24	Jazz music	'JAZZ'	
25	Country music	'COUNTRY'	
26	National music	'NATION M'	
27	60s & 70s pop music	'OLDIES'	
28	Folk music	'FOLK M'	
29	Documentaries	'DOCUMENT'	

Visteon - Traffic & News Information

INFORMATION BROADCASTS



ICE 1181

On the FM waveband, RDS enables the radio to receive traffic and news information broadcasts from radio stations that are linked to the same network as the station to which the radio is tuned

With the feature selected, any available traffic and news information broadcasts are received automatically as and when they occur (even during CD play).

NOTE: Both traffic and news information can be selected at the same time. However, the radio will always give priority to traffic information.

Selecting traffic information

BRIEFLY press the information button (9) - the 'TA' indicator appears on the left of the display.

When a radio station capable of providing traffic information is selected, the 'TP' indicator illuminates alongside.

As soon as a traffic announcement is received, normal radio reception, (or CD play), is interrupted and the word 'TRAFFIC' appears briefly in the main display area, followed by the name of the station providing the information.

Tuning difficulties

- If the radio is tuned to a weak FM signal (in remote areas, for example) or a radio station that cannot provide traffic information, when the information button (9) is pressed, the tuner will search for a good traffic information signal. 'TP SEEK' will be displayed for the duration of the search.
- If a traffic information station cannot be found, the words 'Not Found' will be displayed. In this case the radio will return to the previously tuned frequency.
- If the signal from a traffic information station weakens, the 'TP' indicator in the left side of the display will start to flash. In this case, press either of the Search controls (5) to start searching for another radio station. If the traffic information signal weakens during CD play, the radio will automatically attempt to locate and retune to a traffic information station with a stronger signal.

NOTE: If a non-traffic information station has been stored on one of the pre-set buttons, and is selected while the traffic information facility is switched on, the radio will remain on the selected station unless Traffic Information is turned off and on again.

Visteon - Traffic & News Information

Enhanced other networks (EON)

The EON facility enables certain radio stations to be linked in such a way that traffic information broadcast from one can be received while the radio is tuned to another. Stations identified with a square around the 'TP' indicator on the left side of the display will only receive traffic announcements from other linked stations within the enhanced network. In this case, if poor reception prevents traffic information from being received, the radio will mute and the letters 'EON--TA' will be displayed.

Local or Distant Traffic Announcements

Because the number of traffic announcements may become excessive in some areas, traffic information can be limited to that supplied by local radio stations only ('TA-LOCAL), as follows:

- 1. Press and hold the Menu control (4) for at least 8 seconds (until the display changes).
- Press the Menu control repeatedly until either 'TA-DIST' or 'TA-LOCAL' appears in the display.
- **3.** If necessary, use the Search controls (5) to change from 'TA-DIST' to 'TA-LOCAL'.

Note that with 'TA-DIST' selected, traffic information announcements covering a wider geographical area will be received.

With traffic information switched on, the letters 'TA-L' or 'TA-D' will always be displayed in the left side of the display to confirm your selection.

Traffic information during CD play

When traffic information is switched on, CD play will be interrupted by information broadcasts automatically as and when they occur.

The display will alternatively flash the station name and 'TRAFFIC'. At the end of the broadcast, CD play will resume from the point on the disc at which CD play was interrupted.

Adjusting the volume of traffic information

The volume level of traffic information broadcasts can be set independently from that selected for other audio output, as follows:

- Press and hold the Menu control (4) for at least 8 seconds, then press the control repeatedly until 'TA-VOL' appears in the display.
- 2. Rotate the volume control to set the minimum volume at which you require traffic information to be broadcast (the display will briefly show the volume level you have selected).

NOTE: If, during use, the volume control is adjusted to a level higher than that set as the minimum for traffic information broadcasts, then traffic announcements will be broadcast at the higher volume level.

Switching off traffic information

Briefly press the information button (9) (the 'TA' indicator will disappear from the left side of the display). This action will prevent traffic information broadcasts from being received until the feature is reselected.

Unwanted traffic information broadcasts can be aborted by briefly pressing the information button. In this case, because the feature is being disabled DURING a traffic information broadcast, disablement is only temporary - the feature will return as soon as the next traffic information bulletin is broadcast.

Visteon - Traffic & News Information

NEWS INFORMATION

Selecting news information

Press and hold the information button (9) for more than 2 seconds to select, or de-select, News Information - the words 'NEWS ON' or 'NEWS OFF' will appear in the display.

During news broadcasts the display flashes 'NEWS' alternately with the name of the radio station providing the news information.

NOTE: If news information has been selected, the 'NEWS ON' message will appear briefly in the main display whenever the unit is switched on.

Switching off news information

Press and hold the information button (9) for more than 2 seconds ('NEWS OFF' appears in the display). This action will prevent future news broadcasts from being received until the feature is reselected.

Unwanted news information broadcasts can be aborted by briefly pressing the information button. In this case, because the feature is being disabled DURING an information broadcast, disablement is only temporary - the feature will return as soon as the next news information bulletin is broadcast.

News information during CD play

When the news information mode is active, CD play will be interrupted by news information broadcasts automatically whenever they occur.

The display will alternatively flash the station name and 'NEWS'. At the end of each broadcast, CD play will resume from the point at which CD play was interrupted.

Visteon - Compact Disc Player

SINGLE DISC CD PLAYER CONTROLS



ICE 1183

1. CD compartment

Partially insert a compact disc (label side uppermost) into the aperture until slight resistance is felt. The audio unit will then automatically load the disc.

Starting playback: Playback starts automatically as soon as the disc is loaded (even if the audio unit is not switched on). The display shows 'CD PLAY', followed by 'CD Tr 01' once the first track is playing. Note that a track time counter appears in the upper left side of the display.

Once the final track on the CD has been played, playback will resume from the first track.

Changing to radio reception: During CD playback, press the BAND control to restore radio reception without ejecting the disc. When CD mode is reselected, playback resumes from the point at which playback was interrupted.

2. Selection/search controls (< >)

Track selection: With a CD playing, briefly press the right hand control to skip to the beginning of the next track, or the left control to return to the start of the current track. Press the controls repeatedly to reach the desired track.

Track search (fast forward/reverse): Press and hold either of the controls to play rapidly, forward or back, through one or more tracks. Normal playback will resume as soon as the control is released.

3. CD mode/repeat selector (CD)

If a CD is already loaded, press the mode selector to change from radio reception to CD play. Playback will resume from the track at which play last stopped, or from the start of the disc if it is newly inserted.

NOTE: If there is no disc in place, the display shows ('NO DISC').

Repeat play: During CD play, press and hold the CD mode/repeat selector until 'RPT--ON' is displayed. The track will be repeated until the repeat function is switched off.

To cancel the repeat function, press and hold the control again until 'RPT--OFF' appears in the display.

Visteon - Compact Disc Player

4. Menu control (MENU)

Use the Menu control in conjunction with the selection/search controls (2) to select the following features:

Disc scan: Scanning enables you to hear the first 7 seconds of each track on the CD.

- Press the Menu control repeatedly until 'CD--SCAN' is displayed.
- Press the selection/search controls to scan the disc in either direction (the display shows 'CD' and the track number).
- Press either side of the selection/search control again to end scanning.

Shuffle (random) play: Selection enables the tracks to be played in a random order.

- Press the Menu control repeatedly until 'SHUF--ON' (or 'SHUF--OFF') is displayed.
- If 'SHUF--OFF' is displayed, press either of the selection/search controls (2) to select (SHUF--ON).
- To switch off shuffle, select 'SHUFF--OFF'.

NOTE: With Shuffle selected, the selection/search controls (2) can be used to skip to the next random selection or the start of the current track.

Sound compression: Reduces the contrast between soft and loud passages, thereby reducing the need for frequent volume adjustment in conditions of varying traffic noise.

- Press the Menu control repeatedly until 'COMP--ON)' (or 'COMP--OFF') is displayed.
- If 'COMP--OFF' is displayed, press either of the selection/search controls (2) to select 'COMP--ON'.

5. CD eject control

Press to end playback and eject the disc ('CD EJECT' is displayed). If the disc is not removed from the audio unit within 15 seconds, it is automatically reloaded for protection.

NOTE: The CD can still be ejected after the audio unit is switched off.

Important:

- Use standard 12cm CDs only.
- DO NOT use irregularly shaped discs these may damage the CD player.
- DO NOT use damaged discs (warped, cracked or with labels peeling) - these may damage the CD player.
- 8cm CD singles must NOT be used.
- The CD player should not be used in temperatures outside the range -20°C to +70°C.

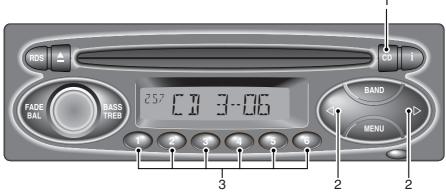
NOTE: If the CD player reaches temperatures higher than recommended for normal use, 'CD HIGH TEMP' appears in the display. If this occurs, stop using the player, eject the disc and allow the unit to cool. If the problem persists, consult a Land Rover dealer.

 The single-disc CD player should only be used as described - any other application or method of use could result in the user being exposed to invisible laser radiation exceeding the limit of laser class 1.

NOTE: Copy-protected CD's may not play in your Audio unit. See 'CARE OF COMPACT DISCS', page 6.

Visteon - Compact Disc Player

6-DISC CD CHANGER CONTROLS



ICF 1185

NOTE: These control functions will be inoperative unless the optional disc changer is fitted.

1. CD changer selector (CD)

To select the CD changer, press the control *twice* (a single press will select the single disc player in the audio unit). The letters 'CD' appear in the display, together with the disc number and track being played e.g. 'CD 3-06'. A track time counter also shows in the upper left side of the display.

NOTE: To select the CD changer while a disc is playing in the single disc player, or if there is no disc present in the single disc player, press the control once only.

2. Selection/search controls (< >)

Track selection: With a CD playing, briefly press the right hand control to skip to the beginning of the next track, or the left control to return to the start of the current track. Press either control repeatedly to reach the desired track.

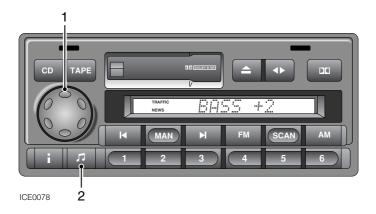
Track search (fast forward/reverse): Press and hold either control to play rapidly, forward or back, through one or more tracks. Normal playback will resume as soon as the control is released.

3. Disc selection buttons (1-6)

With the CD changer selected, press the appropriate button to select a disc from the changer. Playback will start from the beginning of that disc and progress sequentially through all the discs in the disc changer.

If an empty compartment is selected, a faulty CD is inserted or a CD is inserted the wrong way up, the display shows 'NO DISC' and the next available disc is selected instead.

R990 Radio



SOUND CONTROLS

1. On/off and volume control

Press to switch on (display shows 'LAND', then 'ROVER', followed briefly by 'CODE'. Press again to switch off.

Rotate steadily to right or left to adjust the volume. Note that turning the control rapidly has no effect!

The volume can also be adjusted using the remote switches on the steering wheel (see 'Owner's handbook').

NOTE: If you have a car telephone with a mute signal output connected to the stereo system, radio, tape or CD play automatically mutes when the telephone is in use.

IMPORTANT

This unit is equipped with a 20-minute time-out function. This enables the unit to be switched on and then used for up to 20 minutes after the vehicle starter switch has been turned to position '0', even if the key is removed. This means that if a passenger is to be left in the vehicle, music can be listened to, without the security risk of leaving the keys in the starter switch (at the end of the 20 minutes, the unit will switch off automatically).

2. Audio selection button

Press one or more times to select bass, treble, balance, fader or spatial (display confirms selection), as described below.

Bass: Press once then rotate the volume control to left or right to increase or reduce bass response. Display shows:

- 'BASS -9' = minimum bass
- 'BASS 0' = normal bass
- 'BASS +9' = maximum bass

R990 Radio

Treble: Press twice then rotate volume control to left or right to increase or reduce treble response. Display shows:

- 'TREB -9' = minimum treble
- 'TREB 0' = normal treble
- 'TREB +9' = maximum treble

Balance: Press three times then rotate volume control to left or right to adjust balance between left and right speakers. Display shows:

- 'BAL R9' = max sound from RIGHT
- 'BAL 0' = equal balance
- 'BAL L9' = max sound from LEFT

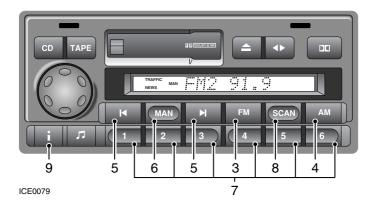
Fader: Press four times then rotate volume control to left or right to adjust balance between front and rear speakers. Display shows:

- 'FAD F9' = max sound from FRONT
- 'FAD 0' = equal balance
- 'FAD R9' = max sound from REAR

NOTE: After 5 seconds without further adjustment, audio mode is deselected and reverts to volume control.

Press and hold the button to reset the audio settings to their default values.

R990 Radio



RADIO CONTROLS

3. FM waveband selector

Press briefly to select FM frequencies. There are two FM bands (FM1 and FM2). Both have the same tuning range, and each one can be used to store six frequencies on the pre-set buttons.

Press and hold to activate auto-store (on FM2 only - see 'AUTO-STORE', page 41).

4. AM wavehand selector

Press briefly to select one of the three AM bands (MW1, MW2 and LW). Each can be used to store six stations on the pre-set buttons.

Press and hold to activate auto-store (on MW2 only - see 'AUTO-STORE', page 41).

5. Tuning buttons

Briefly press either button to search (manually or automatically) up or down the frequency range (see 'RADIO TUNING', page 40).

6. Manual tuning selector

Press to select manual tuning mode ('MAN') is displayed - use in conjunction with the tuning buttons (see 'RADIO TUNING', page 40). Press again to return to automatic tuning.

NOTE: The frequency can also be adjusted by using the remote switches on the steering wheel (see 'Owner's handbook').

7. Radio pre-set buttons (1-6)

Use to store up to 6 radio stations on each wavehand.

Press briefly to select a stored frequency.

Press and hold (until radio bleeps) to store a frequency on a pre-set (see 'Programming the pre-sets', page 41).

8. Scan mode button

Press the button to scan through all frequencies on the chosen waveband 10 seconds of each frequency will be played).

Press again to cancel the scan.

9. Traffic and news information

Press briefly to receive (or switch off) traffic information broadcasts - FM waveband only (see 'Selecting traffic information', page 43).

Press and hold for 2 seconds to receive (or switch off) news bulletins - FM waveband only (see 'Selecting news information', page 43).

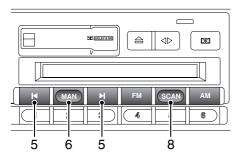
R990 Radio

Press briefly to return to normal radio, tape or CD reception during a traffic or news announcement.

NOTE: Both traffic and news information can be operational at the same time.

R990 - Radio Tuning

RADIO TUNING



ICE0082

Manual tuning

If you know the frequency of the radio station you are seeking, or you need to select a radio station that is too weak to be found by automatic tuning, use manual tuning, as follows:

Select the desired waveband (FM or AM), then press the 'MAN' button (6). By briefly pressing either tuning button (5), the frequency changes (either up or down) in steps of 0.1 MHz for FM, or 1 kHz for MW and LW.

Fast manual tuning

By keeping either tuning button depressed, the waveband will be scanned rapidly (up or down) until the button is released.

Automatic tuning

Select the required waveband (FM or AM), then briefly press one of the tuning buttons (5) - ('SEEK' along with the chosen waveband appear in the display).

The radio automatically searches the frequency range (either up or down depending upon which of the tuning buttons is pressed) looking for a radio station of acceptable strength. Once a suitable station is found, the search stops unless you choose to continue by pressing the tuning button again.

The search can be stopped at any time by pressing any pre-set button.

Wavehand scan

Select the desired waveband (FM or AM) and press the SCAN button (8). The radio scans through the waveband, seeking stations of acceptable strength (the waveband, frequency and 'SC' are displayed). The radio stops at each one it finds and plays that station for 10 seconds, the radio then mutes and scans for the next station

To stop the scan, press the button again - the radio commences playing the station at which the scan was stopped.

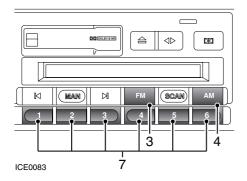
NOTE: If you have a car telephone with a mute signal output connected to the radio, the radio automatically mutes when the telephone is in use.

MONO/STEREO

Whenever the FM waveband is selected, the radio automatically reproduces stereo sound, provided a suitable signal is available. However, if a signal becomes too weak for good stereo reception, only mono sound is produced until the signal strengthens sufficiently for stereo sound reproduction.

R990 - Radio Tuning

RADIO PRF-SFT BUTTONS



The six pre-set buttons (7) can be used to manually store up to twelve FM stations (six each on FM1 and FM2), twelve MW stations (six each on MW1 and MW2), and six LW stations. The pre-sets are programmed as follows:

Programming the pre-sets

- Select the required waveband (FM1, FM2, MW1, MW2 or LW).
- Tune to the desired frequency using either automatic or manual tuning.
- Press and hold one of the pre-set buttons until a bleep sounds. The frequency is now stored (the display shows the waveband and frequency or name of the station you have tuned).

NOTE: Once the pre-sets have been programmed, they will be retained by the unit until they are re-programmed or until the battery is disconnected.

Operating the pre-sets

Once the pre-set buttons have been programmed, operation is simple; select the desired waveband, then press the pre-set button of your choice.

AUTO-STORE

Auto-store enables you to rapidly tune and store the strongest FM and MW radio signals in a single operation. This facility is particularly useful if you are in an unfamiliar area and have little knowledge of local transmitter frequencies.

Programming auto-store

Press and hold the appropriate waveband selection button (3 or 4) until a bleep sounds (the radio mutes and the display shows either 'FM AUTOSTORE' or 'MW AUTOSTORE').

Auto-store scans the waveband to find the six strongest frequencies and then stores them on either the FM2 or MW2 pre-set buttons in order of signal strength.

Auto-store overwrites any stations already stored on the FM2 or MW2 pre-set buttons.

Radio play restores when the operation is complete.

NOTE: If FM auto-store is programmed with the traffic facility active, then only stations capable of providing traffic information will be stored.

NOTE: If auto-store is unable to find six strong stations, the remaining pre-set buttons remain blank.

Operating auto-store

To tune to one of the auto-store frequencies, select FM2 or MW2, then press the pre-set button of your choice; the frequency or radio station name will appear on the display.

NOTE: It is recommended that both traffic and news information facilities are switched off before the pre-set stations are stored and before auto-store is programmed.

R990 - Radio Data System

RADIO DATA SYSTEM (RDS)

This radio is equipped with RDS (Radio Data System). RDS is being introduced in European countries and operates on the FM waveband. The system enables the radio to receive other information in addition to radio signals, including:

- the programme service name: this enables the set to display the radio station name instead of the frequency.
- alternative frequencies for the FM radio station being received: this enables the audio unit to automatically select the strongest available signal, thereby maintaining the best possible reception.
- a traffic or news information facility: this enables the set to give priority to traffic or news information broadcasts over other radio, tape or CD programmes.
- an alarm announcement facility: this enables the set to give priority to emergency information broadcasts; e.g. a very serious accident or natural disaster.
- EON (enhanced other networks): this enables
 the radio to broadcast traffic or news
 information from radio stations other than the
 one to which the radio is currently tuned
 (provided they are all members of a linked
 EON network).

Receiving RDS stations

The radio is automatically in the RDS mode whenever the FM waveband is selected.

Whenever an RDS radio station is selected, the radio station name illuminates in the display. The set will constantly scan all alternative frequencies on which that station can be received, and automatically switch to the strongest signal it can find.

This is particularly useful on long journeys where the car travels through several different transmitter areas which serve the same radio station.

NOTE: In some countries, not all FM radio stations broadcast RDS. If a non-RDS station is received the features described previously will not be available.

Local radio stations

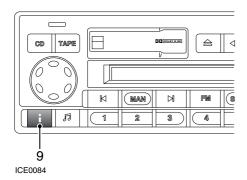
Reception of most local radio stations is intentionally limited to a comparatively small area around the transmitter.

Once the limit of the reception range is reached, it is unlikely that the RDS facility will be able to locate an alternative frequency to the local radio station being received.

If the signal is weak but no alternative frequencies are available, the set will stay tuned to that frequency until the signal is unreceivable. At this point SEARCH mode will operate.

R990 - Traffic & News Information

INFORMATION BROADCASTS



On the FM waveband, the RDS facility enables your radio to receive traffic and news information broadcasts from local radio stations that are linked to the same network as the station to which it is tuned.

Traffic and news information broadcasts can be selected by pressing the information button (9).

Once selected any available traffic and news information broadcasts are then received automatically as and when they occur (even if you are listening to cassette tapes or CDs).

Selecting traffic information

BRIEFLY press the information button (9) - the TRAFFIC indicator illuminates in the display.

During traffic announcements the display flashes 'TRAFFIC INFO' alternately with the name of the radio station providing the information.

If the radio is tuned to an FM station that is not networked to a station that does provide traffic information, the display flashes 'NO TRAFFIC'. In this case, either switch off traffic information, or switch to an FM station that does broadcast traffic information.

In remote areas, it may be impossible to find a traffic information station. The radio will search the waveband twice; if a station cannot be found, the radio will switch off traffic and return to the station to which it was previously tuned.

NOTE: When traffic information is switched on, occasional, and very brief, muting of the radio may occur while the set searches for traffic broadcasts. For this reason, it is recommended that traffic information is switched off when not needed

Selecting news information

Press and hold the information button (9) until a bleep sounds - the NEWS indicator illuminates in the display.

During news broadcasts the display flashes 'NEWS' alternately with the name of the radio station providing the news information.

NOTE: If both Traffic and News information are selected, the radio will give priority to whichever broadcast commenced first - one information source cannot interrupt another!

Switching off information broadcasts

Traffic information: To switch off traffic information, briefly press the information button (the TRAFFIC indicator disappears from the display). This action will prevent traffic information broadcasts from being received until the button is pressed again.

News information: To switch off news information, press and hold the information button for approximately 2 seconds (a bleep will sound and the NEWS indicator disappears from the display). This action will prevent future news broadcasts from being received until the feature is reselected.

Unwanted information broadcasts can be aborted while they are in progress by BRIEFLY pressing the information button. In this case, because the feature is being disabled DURING an information broadcast, disablement is only temporary - the feature will return as soon as the next traffic or news information bulletin is broadcast

R990 - Traffic & News Information

Information broadcasts during tape or CD play

When the radio is in either traffic or news information mode, CD or tape play will be interrupted by information broadcasts automatically as and when they occur.

Volume for information broadcasts

The volume of traffic and news information broadcasts can be set independently from the volume required for other audio output (e.g. radio, cassette tape and CD), as follows:

Wait for a traffic or news announcement, then during the broadcast, adjust the volume to the desired level (this is likely to be greater than that required for other audio output). Once this volume has been set, it will be memorised by the audio unit and replicated automatically next time a traffic or news announcement is broadcast.

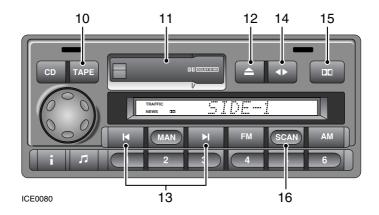
Note that further adjustments to the volume can be made during any subsequent traffic or news announcement.

NOTE: The volume level for traffic announcements will never be lower than the current volume.

Emergency alarm announcement

Emergency announcements cannot be activated or deactivated by the user. If an emergency traffic or news announcement is transmitted ('ALARM' appears in the display), all other audio functions will be overridden.

R990 - Cassette Player



CASSETTE PLAYER CONTROLS

10. Tape mode selector

Press to select tape play (display shows 'SIDE-1' or 'SIDE-2').

If the set is switched off during tape play, the cassette remains in stand-by mode. Play resumes when the set is switched on again.

11. Cassette compartment

Insert the tape with the open side to the right and push in gently. The radio mutes and tape play starts immediately.

NOTE: At the end of either side of the tape, play will automatically continue in the opposite direction.

12. Cassette eject button

Press to eject the tape (display shows 'TAPE EJECT'). The unit returns to radio mode, selecting the waveband and frequency last in use.

NOTE: If the tape is ejected when the set is in radio or CD mode, sound briefly mutes.

13. Tape search controls

Fast forward/rewind:

Press the manual mode button ('MAN'), then press and hold (for at least 1 second) the appropriate search button ('TAPE FFWD' or 'TAPE FREW' appear in the display). The tape will fast forward/rewind until either the search button or the 'MAN' button are pressed again.

Skip:

With the unit in automatic mode, press the appropriate search button to skip to either the beginning of the next track, or the beginning of the current track ('SEEK' and chevrons indicating direction appear in the display).

NOTE: The skip function may not find spaces between tracks of less than three seconds duration, and also may be confused by excessive background noise, very soft musical passages and intermittent pauses in music or speech.

NOTE: Skip and mode selection can be operated using the remote switches on the steering wheel (see 'Owner's handbook').

R990 - Cassette Player

14. Tape reverse

Press to play the opposite side of the tape.

15. Dolby B noise reduction[†]

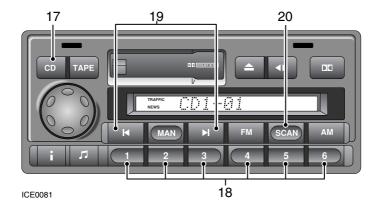
Press when playing tapes recorded using the Dolby B NR system (display shows 'DD').

16. Tape scan button

Press the SCAN button to listen to the first 10 seconds of each track on the tape (both sides). The display shows 'TAPE SCAN'. The scan continues until the button is pressed again or until another function is selected.

Noise reduction manufactured under license. Dolby and the DD symbol are trade marks of Dolby Laboratories Licensing Corporation.

R990 - Compact Disc Player



COMPACT DISC PLAYER CONTROLS

17. CD mode selector

Press to select CD player mode. Playback starts from the point on the disc at which play last stopped, or from the start of the first disc if the magazine is newly inserted. The display shows disc number ('CD1') and track number ('01'). If no magazine has been inserted into the autochanger, 'NO MAGAZINE' is displayed.

At the end of each disc, playback automatically continues with the next disc (missing discs are skipped if less than six have been loaded).

18. Disc selection buttons (1-6)

Press the appropriate button to select the desired disc. If an empty compartment is selected, the display shows 'NO DISC' and the next available disc is selected instead.

NOTE: Skip and mode selection can be operated using the remote switches on the steering wheel (see 'Owner's handbook').

19. Track search buttons

Skip:

Press the appropriate button to skip to the beginning of the next, or back to the beginning of the current track (the display shows disc and track numbers). If the button is pressed and held, the CD player continues to skip tracks until the button is released.

Search:

Press the Manual mode button ('MAN'), then press and hold the appropriate search button to move forward or backward (display shows 'FFWD' or 'FREW') through the track at a greatly increased play speed (volume reduces).

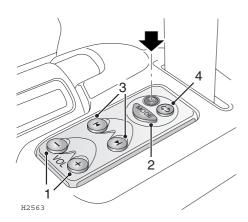
20. Scan mode button (SCAN)

Press the SCAN button to listen to the first 10 seconds of every track on the selected disc. 'SCAN' appears in the display, along with the numbers of the disc and the scanned track. The scan continues until the button is pressed again or until another function is selected.

NOTE: Copy-protected CD's may not play in your Audio unit. See 'CARE OF COMPACT DISCS', page 6.

R990 - Headphones

HEADPHONE CONTROLS*



The rear passenger headphone controls only operate with the radio/cassette player switched on. Plug the headphones into the socket (arrowed in illustration) to activate the controls -bass response from the vehicle speakers reduces and the headphone symbol, along with a symbol indicating the current headphone unit mode, appears in the display.

NOTE: To override the drop in bass response, press and hold the on/off volume control on the radio/cassette player.

NOTE: Only headphones compatible with a 3.5 mm jack plug socket can be used. To obtain optimum sound quality, use headphones with a resistance of 16 Ohms.

1. Volume controls

Press the +/- buttons to increase/reduce headphone volume output.

2. Mode control

If a tape and CDs* have been loaded, press the control to change between cassette, CD and radio play back.

NOTE: Changing mode using the headphone control unit does NOT affect the audio output for the rest of the vehicle.

3. Auto search controls

The auto search controls has no effect if the headphone control unit is in the same mode as the radio/cassette player. For example; if the radio/cassette player AND the headphone unit are both in tape mode, the control does not operate.

During radio play:

Press the appropriate button to search up or down the selected waveband to locate the next or previous radio station.

During tape play:

Press the appropriate button to skip to the beginning of the next, or current track. Press repeatedly to search through more than one track.

During CD play:

Press the appropriate button to skip to the beginning of the next, or current track.

Press and hold the button to search through more than one track on the currently selected CD. The search stops when the button is released.

4. Selection button

The selection button has no effect if the headphone control unit is in the same mode as the radio/cassette player.

During radio play:

Press to select the next pre-set station on the current waveband.

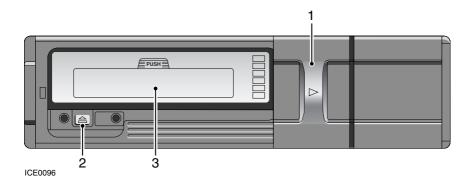
During tape play:

Press to reverse the direction of play.

During CD play:

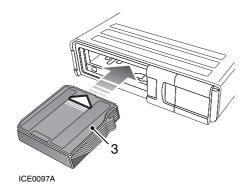
Press to select the next CD in the autochanger.

CD Changer Unit



COMPACT DISC CHANGER UNIT*

Removing/inserting the magazine



Fully open the sliding cover (1) to insert or remove the magazine. Keep the cover closed at all other times to prevent dust and dirt from entering the changer unit.

Press the button (2) to eject the magazine.

Insert the magazine (3) in the direction of the arrow marked on the magazine casing and push it fully into the changer. Finally, close the sliding cover.

If the audio system is operating when the magazine is inserted, 'CD CHECK' is displayed while the autochanger checks the loaded CDs.

Loading & unloading the magazine



Holding the magazine as shown (arrow on magazine casing uppermost), remove each CD tray in turn.

Place a disc (label side uppermost) onto each tray - holding ONLY the outside edge and centre hole of the disc. Load only one disc in each tray.

Correctly align the tray with the parallel slots on each side of the magazine and slide the tray into the magazine.

CD Changer Unit

NOTE: If a CD is inserted the wrong way up, or a faulty disc is inserted, 'NO DISC' will be displayed on the audio unit.

To unload the magazine, hold the magazine with the arrow uppermost, pull out each tray in turn, holding the tray securely so as not to drop the disc. Unload one disc at a time and handle only the edge and centre of the disc.

Important:

- · Use standard 12-cm CDs only.
- DO NOT use irregularly shaped or damaged CDs - these may damage the compact disc changer.
- 8-cm CD singles must NOT be used, even if a CD adaptor is fitted.
- Closed session CD-R discs can be played, but CD-RW discs will not operate with the CD autochanger.
- The CD autochanger should not be used in temperatures outside the range -10°C to +60°C.

NOTE: If the CD autochanger reaches temperatures higher than recommended for normal use, 'CD HIGH TEMP' appears in the audio unit display. If this occurs, stop using the CD player, eject the magazine and allow the autochanger to cool down. If the problem persists, consult your Dealer.

 The CD autochanger should only be used as described - any other application or method of use could result in the user being exposed to invisible laser radiation exceeding the limit of laser class 1.

NOTE: Additional magazines can be obtained from a Land Rover Dealer / Authorised Repairer.

CD autochanger maintenance

In use, the laser lens of the CD autochanger may accumulate dirt and dust. This will gradually impair sound reproduction and, in extreme cases, may cause slipping and mistracking. To combat this, periodically use a CD lens cleaning disc.

Conformance

EEC CONFORMANCE

In conformance with current EC guidelines, any person may operate this radio receiver. This unit conforms to the current valid European or harmonised national regulations. The designation is your guarantee of conformance to the applicable specifications concerning electromagnetic compatibility for the unit. This means that interference affecting other electrical/electronic devices caused by your unit, as well as interfering influences on your unit from other electrical/electronic devices, can be largely prevented.

Current valid designations are:

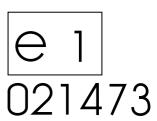
- **CE** symbol for issue according to European guideline 89/336/EEC under application of the following standards:

EN 55013

EN 55020

 e symbol according to European motor vehicle EMC guideline 95/54/EU, also permits operation in motor vehicles (classes M, N and 0) which received their type approval after 1st January 1996.





H4371

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