

Auto Store

Traffic



FM

RDS

In-Car Entertainment

Geluidsinstallatie in voertuig

Equipement de sonorisation automobile

Stereoanlage

Antenna dell'autoradio

Equipo de sonido

Sistema audio

Compact Disc





FREELANDER

In-Car Entertainment

Publication Part No. LRL 0347ENG

Published by Rover Group After Sales - Information Management

© Rover Group Limited 2000

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, electronic, mechanical, recording or other means without prior written permission from Rover Group Limited.



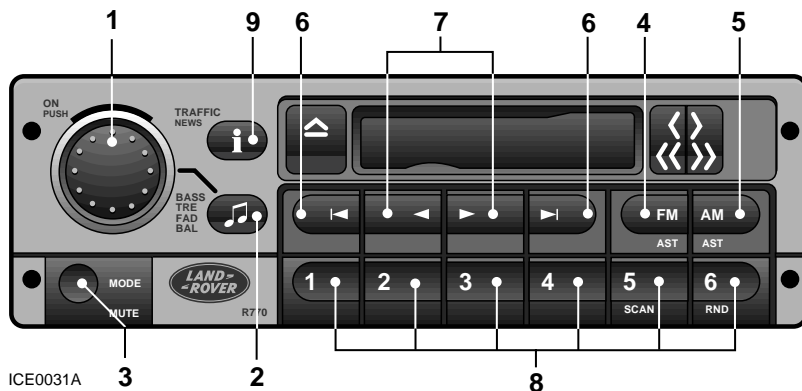
As part of Rover Cars environmental policy, this publication is printed on paper made from chlorine free pulp.

Contents

R770 Audio unit

Radio	4
Cassette Player	6
Compact Disc Player	7
Digital Display	8
Radio Tuning	9
Radio Data System	11
Traffic & News Information	12
Radio Reception	14
Care of Cassette Player and Tapes	15
CD Changer Unit	16
Caring for Compact Discs	18
Security Code	19

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').

2. Audio selection button

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

Bass: Press once, then operate the '-' or '+' buttons to reduce or increase bass response. Display shows:

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

Treble: Press twice, then operate the '-' or '+' buttons to reduce or increase treble response. Display shows:

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

Fader: Press three times, then operate the '-' or '+' buttons to adjust the balance between front and rear speakers. Display shows:

- 'FAD 0 - 9' = max sound from FRONT
- 'FAD 9 - 9' = equal balance
- 'FAD 9 - 0' = max sound from REAR

Balance: Press four times, then operate the '-' or '+' buttons to adjust the balance between left and right speakers. Display shows:

- 'BAL 0 - 9' = max sound from RIGHT
- 'BAL 9 - 9' = equal balance
- 'BAL 9 - 0' = max sound from LEFT

Press the button again to return to volume control.

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

Radio

RADIO CONTROLS

3. Mode selector

Press briefly to select radio, tape or CD play.

Press and hold for 2 seconds to mute the audio output (a two-tone bleep sounds and the display shows 'MUTE'). All sound is muted except for traffic information and news broadcasts (see 'Traffic and news information'). Press any control to cancel mute.

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

4. 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 10).

5. AM waveband 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 10).

6. Automatic tuning buttons

Briefly press either button to search up or down the frequency range (see 'RADIO TUNING', page 9).

7. Manual tuning buttons

Press and hold either button to scan up or down the frequency range (see 'RADIO TUNING', page 9).

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

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 (until radio beeps) to store a frequency on a pre-set (see 'Programming the pre-sets', page 10).

9. Traffic and news information

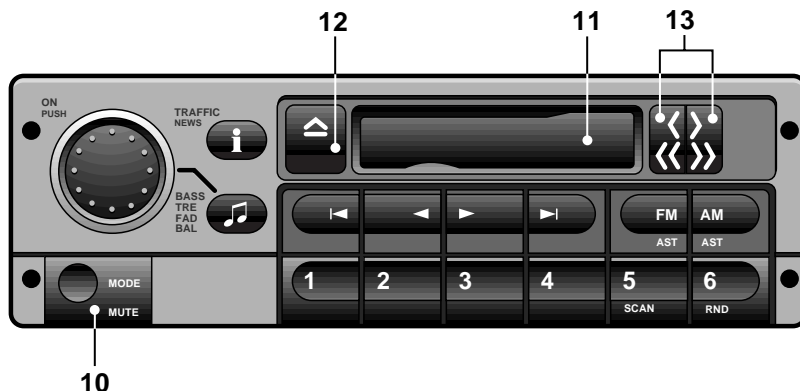
Press briefly to receive (or switch off) traffic information broadcasts - FM waveband only (see 'Selecting traffic information', page 12).

Press and hold for 2 seconds to receive (or switch off) news bulletins - FM waveband only (see 'Selecting news information', page 12).

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.*

Cassette Player



ICE0039A

CASSETTE PLAYER CONTROLS

10. Mode selector (MODE)

Press to select tape play (display shows 'TAPE'), or press to change to radio or CD operation during tape play - the cassette remains in stand-by mode until the switch is pressed again to return to tape play.

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 (the word 'TAPE' and an arrow, indicating the direction of play, appear in the display).

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

12. Cassette eject button

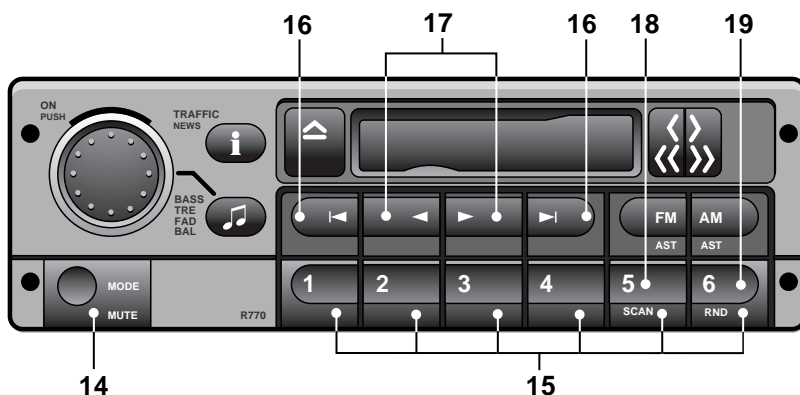
Push the button fully in to eject the tape. The unit resumes whichever mode was operating prior to tape play.

13. Fast forward/rewind/reverse and eject buttons

During tape winding, the radio operates and 'FAST' shows in the display.

- To rewind, press the button opposite to the direction of the arrow appearing in the display during tape play.
- To forward wind, press the button corresponding to the direction of the arrow in the display during tape play.
- To stop tape winding, half press the remaining (unlocked) button. Tape play will automatically resume.
- To reverse the direction of tape play, lightly press both fast forward and rewind buttons together.

Compact Disc Player



ICE0071

COMPACT DISC PLAYER* CONTROLS

14. Mode selector

Press once or twice to select CD player mode. Playback will start 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 track number ('TR01') and disc number ('CD1').

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

15. 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.

16. Track selection buttons

With a CD playing, you can move forward or back to the start of the next or current track by pressing the appropriate button (display shows CD and track numbers). This function is not permitted more than three times in a single sequence, nor will it operate beyond the start or end of a disc.

17. Track search buttons

With a CD playing, press and hold the appropriate button to move forward or back through the track at a greatly increased play speed (volume reduces).

18. Scan mode button (SCAN)

Scan mode enables you to listen to the first 10 seconds of each track of all six discs. Press and hold the SCAN button (a two-tone bleep sounds). The display shows the disc number ('CD-') and the scanned track ('SC--'). Scan continues until another function is selected.

19. Random play button (RND)

You can listen to all the tracks on a disc in a random sequence by pressing and holding the RND button (a two-tone bleep will sound). At the start of each track, the display shows disc number ('CD-') and the number of the track currently playing ('RD--'). When all tracks have been played, random selection continues on the remaining discs until the button is pressed again (hold until the two-tone bleep sounds).

Digital Display

DIGITAL DISPLAY



ICE0033B

The digital display highlights the functions of the radio/cassette and CD player during use.

! DO NOT push or rub the window. This will damage the display!

NOTE: If the word 'CODE' appears continuously in the display, an incorrect security code has been entered or the power supply has been interrupted (see 'ENTERING THE SECURITY CODE', page 20).

During radio reception

The main display shows:

- 'TUNER' shows when changing to radio reception using the Mode button.
- 'SEARCH' (accompanied by an arrow) shows while a frequency is being found.
- AST FM2 or AST MW2) shows while autostore is functioning.
- The frequency or station name and waveband (FM1, FM2, MW1, MW2, LW). After 10 seconds this will be replaced by an abbreviated display showing the pre-set number (e.g. P1) and clock display.

During tape play

The main display shows:

- 'TAPE' indicates tape play.
- 'FAST' indicates tape winding, together with an arrow showing direction of play.
- After 10 seconds the tape play display abbreviates to 'T' plus an arrow indicating the direction of play and the clock display reappears.

During compact disc play

The main display shows:

- The compact disc number ('CD1').
- The track number; (appears as 'TR01' during playback, 'SC01' during scan mode and 'RD01' during random play).
- In addition, any of the following words may be displayed to indicate the status of the CD changer: 'NO DISC', 'NO MAG', 'CD ERROR' or 'CD'.

After 10 seconds the display abbreviates to the CD number and clock. At the start of each new track the display will show 'CD- TR--' for 10 seconds before abbreviating again.

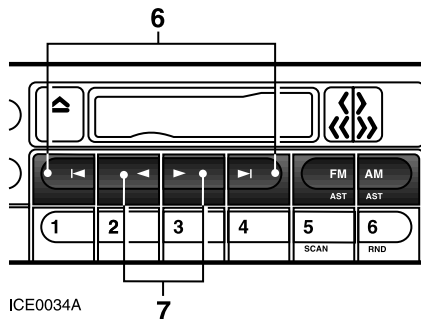
All modes

'TRAFFIC' illuminates when the traffic information mode is selected (FM waveband only).

'NEWS' illuminates when the news information mode is selected (FM waveband only).

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 by briefly pressing either manual tuning button (7), the frequency will change (either up or down) in steps of 0.05 MHz for FM, or 1kHz 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 press one of the automatic tuning buttons (6) - ('SEARCH' appears 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.

Initially, the radio will only locate strong signals. However, by searching up or down the frequency range a second time, weaker signals can also be found.

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

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.

Radio Data System

RADIO DATA SYSTEM (RDS)

Your 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.*

NOTE: *If the display shows 'SEARCH' alternately with the radio station name, the vehicle has travelled outside the reception area for that station. The set will search for the last tuned station on any other FM frequency. If it cannot be found at adequate strength, it will abandon the search and another station will have to be selected manually.*

Local radio stations

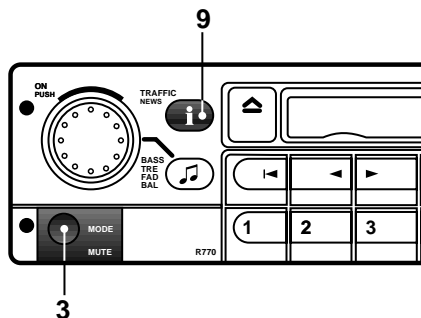
Reception of most local radio stations is intentionally limited to a comparatively small area around the transmitter.

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 (see 'NOTE' above).

Traffic & News Information

INFORMATION BROADCASTS



ICE0036A

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 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 an FM station that does not provide traffic information, the display flashes 'NO TRAF'. Either; switch off traffic information, switch to another FM station, or allow the radio to go into 'SEARCH' (after 10-15 seconds) to find a 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 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: If both Traffic and News information are selected, the radio will give priority to which ever 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 ('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 (a bleep will sound and '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 by similarly pressing the information button. In this case, because the feature is being disabled DURING an information broadcast,

Traffic & News Information

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.

Receiving ONLY information broadcasts

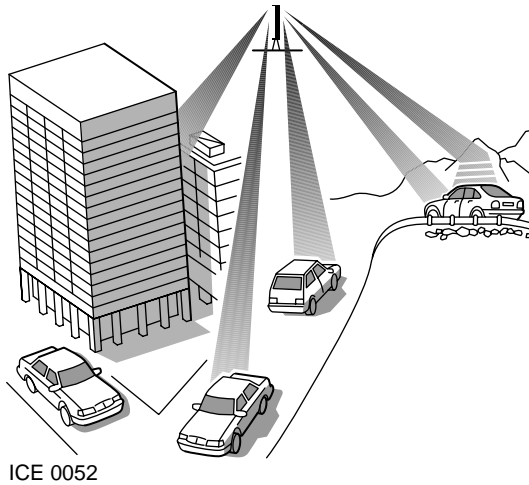
With the radio tuned to an RDS station and with Traffic or News information switched on, press and hold the Mode selector (3) until a two-tone bleep sounds (display shows 'MUTE'). The radio is silenced except for information broadcasts! When a Traffic or News broadcast is received, the display will indicate which radio station has provided the information.

Cancel the MUTE facility by pressing any of the controls.

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.

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.

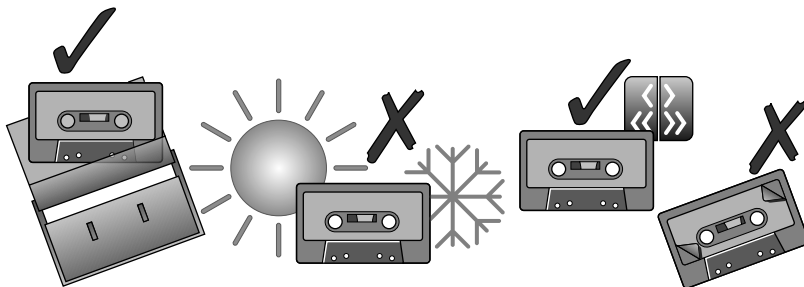
While RDS automatic retuning eases this problem, some manual retuning may still be needed (especially for local stations) in areas of weak reception.

The broadcast range for good stereo reception (usually within a 50 to 65 km 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



ICE 0054

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.*

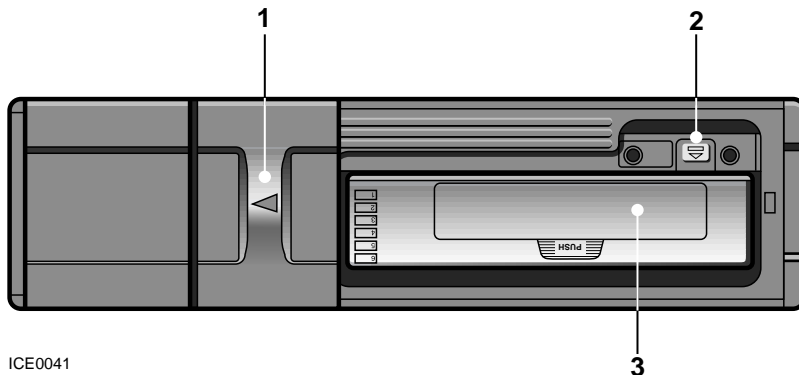
The tape will require more frequent cleaning in winter, as contamination is greater in conditions of low temperature and increased humidity. However, the use of good quality tapes keeps the build up to a minimum.

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.*

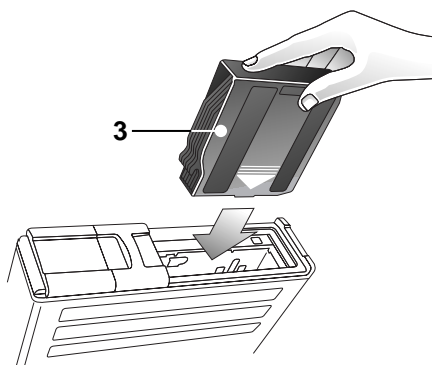
CD Changer Unit



ICE0041

COMPACT DISC CHANGER UNIT*

Removing/inserting the magazine



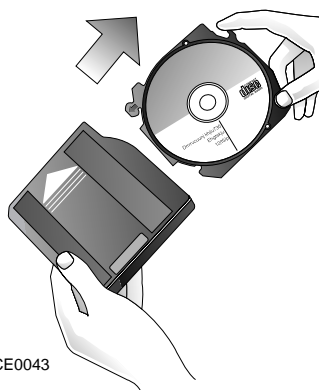
ICE0042

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.

Loading & unloading the magazine



ICE0043

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

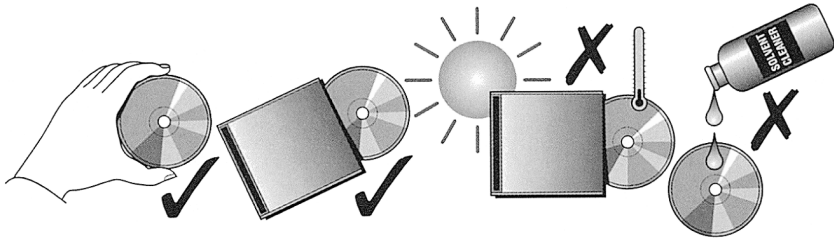
To unload the magazine, hold the magazine with the arrow uppermost, pull out each tray in turn, holding the tray securely so as not to drop the disc. Unload one disc at a time and handle only the edge and centre of the disc.

Important:

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

Caring for Compact Discs



ICE 0022

CARING FOR 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!

Security Code

SECURITY CODE INFORMATION

To reduce the risk of theft, Freelander radio/cassette and CD players are 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 radio equipment 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.*

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, who will be able to obtain this information for you.

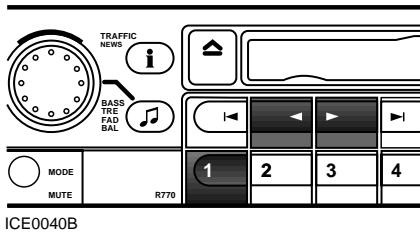
Activating the code

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 (a two-tone bleep will sound). Before activating the code, ensure that you have the Security Information card with the security code on it.

Security Code

ENTERING THE SECURITY CODE



NOTE: If an incorrect code has been entered, a single warning tone will sound and the first time delay period commences. During the delay period, 'WAIT' will appear in the display -DO NOT switch off. At the end of the delay period, 'CODE' will reappear in the display and you can then enter the correct code. Remember; the time delay period doubles each time an incorrect code is entered.

If the code has not already been entered, or power to the set has been interrupted, 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.



Select the third digit, again using the tuning buttons (until the correct digit is displayed). Press pre-set 1 to store the third digit.



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

If the correct code has been selected, a two-tone bleep will sound and the radio will operate.