

This high performance set is a combined radio-cassette player with remote control (satellite) on the right of the steering wheel and a jack socket on the front face of the radio-cassette player for connecting a portable Compact Disc player.

Sound is distributed by six speakers (according to vehicle equipment level).

For security reasons this set is coded. In effect, each time +APC contact is cut, a 4 figure code must be entered, which is provided by the manufacturer, to operate the set.

NOTE: The set coding can be disarmed by an operation described later (see pages 86-6 and 86-7).

ATTENTION :

When preparing a new vehicle, the scrambled mode operation must be cancelled. Make sure that the client has his code when performing operations on the vehicle.

OPERATIONAL CHARACTERISTICS

- A high performance radio tuner with a PLL frequency synthesiser and microprocessors enabling numerous data to be processed and stored and , in automatic storing (Travelstore) in particular, enabling the best stations transmitting your FM programmes to be automatically selected.
 - 5 wave bands - Medium Wave (MW) - Long Wave (LW) - FM1 - FM2 - automatic storage FM (Travelstore).
 - 5 pre-selected stations for each wave band,
 - electronic search of stations in increasing or decreasing frequency
 - INFO system for traffic information (depending on country),
 - automatic switching from mono to stereo,
 - 3 sensitivity levels for stopping the electronic search function (of which 1 is automatic and 2 may be selected using the keys on the control panel),
 - display indicating the power of FM stations received
 - an internal device for automatically interrupting the radio when a voice synthesiser message is emitted (depending on vehicle version or option).
- A cassette player with auto-reverse function enabling the tape playing direction to be changed automatically at the end of the tape or by pressing the "reverse" key when the tape is playing:
 - "Hard Permalloy" playback head with automatic metal/chrome selection when cassette inserted,
 - Dolby B noise reduction key,
 - frequencies can be adjusted while tape is playing,
 - direction of play indicator.
- 4 low frequency amplifiers capable of producing an effective output of 4 x 6 watts.
 - electronic volume control,
 - righthand and lefthand speaker balance,
 - front and rear speaker balance (fader),
 - continuous treble and bass control,
 - bass accentuation key
- 3,5 mm diameter jack socket for connecting a CD player on the front face of the radio with a CD socket blanking cover for which a housing is provided in the lower lefthand opening in the front panel.

For security reasons the set operates in the following manner when it arrives from the factory:

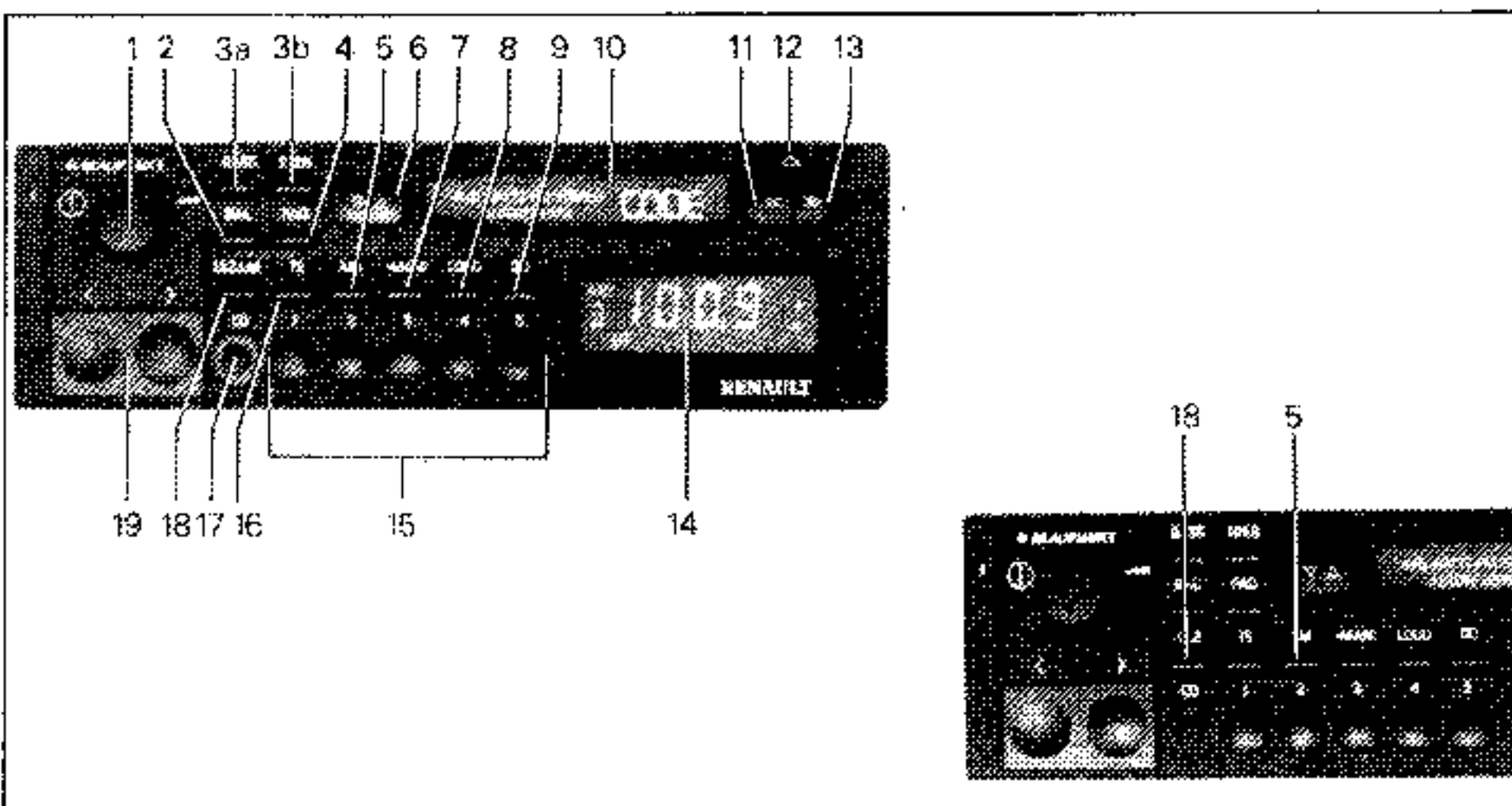
When the set is switched on bleeps are heard every 2 seconds over the radio or cassette sound for two minutes. The display alternates every second between displaying the radio frequency and the word "CodE".

When the radio frequency is displayed, all functions are operational. After 2 minutes the set is silent and the word "CodE" is permanently displayed.

This operation mode is known as the scrambled mode.

To cancel this scrambled mode, enter the code when the display shows "CodE" (see page 86-6).

AUDIO SET



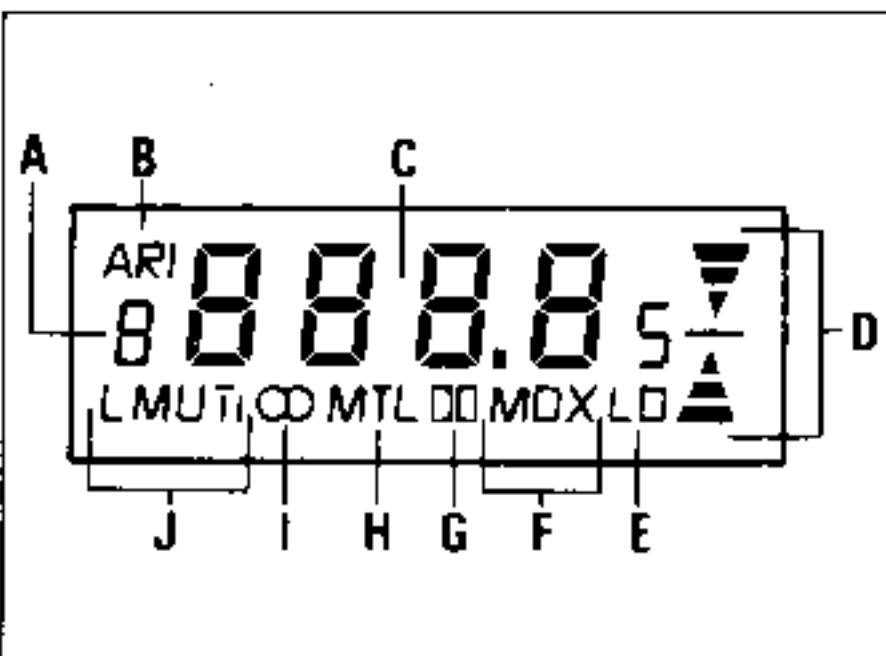
- 1 On/Off (press the key), key for adjusting volume, balance, fader and tonal quality.
- 2 Righthand/lefthand speaker balance selection key with display at 14 when adjustments made.
- 3 Tone selection keys with display at 14 when adjustments made
Key 3a : bass note adjustment
Key 3b : treble note adjustment
- 4 Fader or mixer selection key with display at 14 when adjustments made
- 5 Road traffic information key (only for certain countries) or Long Wave (L) and Medium Wave (M) wave band selection key depending on radio version.
- 6 Key for changing cassette direction of play.
- 7 Multi-purpose key :
 - Search sensitivity switch :
 - Normal sensitivity level for stopping automatic search: the electronic search function stops only when it locates stations received at a level to permit easy listening.
 - Increased sensitivity level for stopping automatic search: the electronic search function stops at all stations received even if the sound quality is not the best (DX).

- Manual/automatic station adjusting mode switch (tuning)
MAN : manual station adjustment
- 8 Loudness key to accentuate sound at low volume.
 - 9 Dynamic noise reduction key (Dolby B)
This function reduces any background noise while cassettes are playing.
 - 10 Cassette compartment.
 - 11 Cassette rewind key.
 - 12 Cassette ejection.
To eject the cassette press both keys 11 and 13 at the same time
 - 13 Cassette fast forward key
 - 14 Display
(see following page).
 - 15 Multi-purpose key :
 - Reminder of stations preselected when briefly pressed.
 - Storage of stations when pressure on key maintained.
 - Automatic replacement of a frequency stored in "Travelstore" by holding key down for increased amount of time
 - Input of confidential code.

- 16 key for Travelstore TS or automatic programming in FM wave band.
- Selects the Travelstore wave band when pressed for less than 2 seconds
 - Starts automatic programming in FM when pressed for more than 2 seconds
- 17 Socket for connecting a CD player (with blanking cover).
- 18 M (UI, UII), Long wave (L), Medium (M) wave band selector or FM (UI, UII) wave band selector only depending on radio version.
- 19 Frequency search keys

< search in downward direction
> search in upward direction

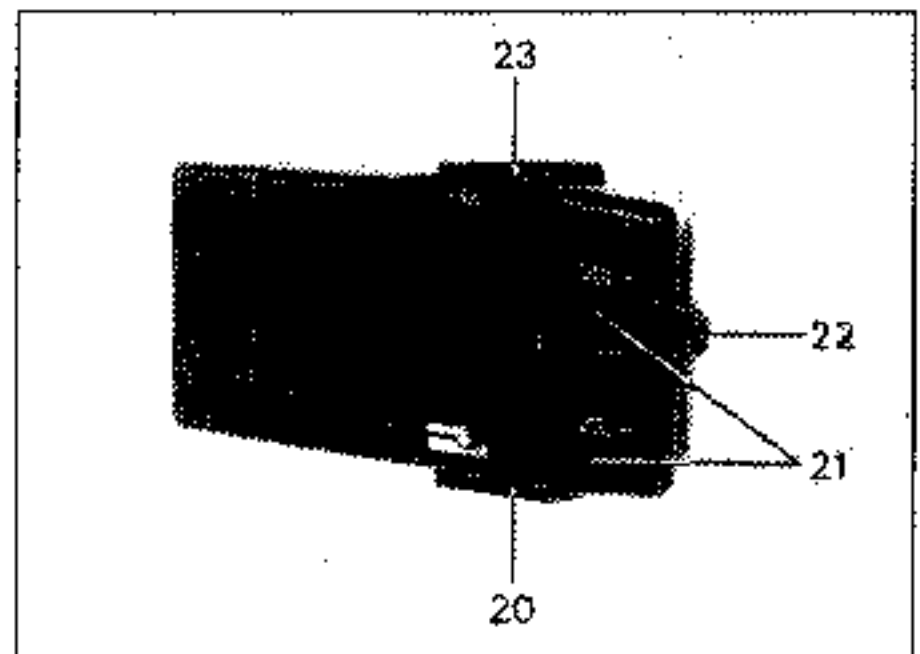
DISPLAY



- A - Active pre-selected station number (P1 to P5).
- B - ARI display (depending on version).
ARI is illuminated if the road traffic information function 6 is in operation.
- C - Frequency to which radio is tuned.
- D - Reception level/tape direction display
- Radio operation :
 - Poor reception of station displayed
 - Average reception of station displayed
 - Good reception of station displayed
 - Cassette operation :
 - Top track playing
 - Bottom track playing

- E - loudness indicator. Indicates that key 8 is activated.
- F - Automatic search sensitivity level/manual station adjustment mode indicator.
- Normal search sensitivity level.
- Increased search sensitivity level to pick up weaker stations
- Manual station adjustment mode
- G - Tell-tale indicating dynamic noise reduction system is operating. indicates that key 9 is activated.
- H - Chrome (CrO₂) or metal cassette indicator
- I - Stereo indicator.
- J - Wave band tell-tales:
UI (FM1) - UII (FM2) - UT (automatic storing) - L (Long Wave) - M (Medium Wave).

SATELLITE



- 20 - • Brief pressure (less than 2 seconds)
Automatic frequency search in upward direction only
- Prolonged pressure (more than 2 seconds)
Automatic programming in FM wave band (Travelstore).
- 21 - Volume keys (+ / -).
- 22 - Tumblewheel for 5 pre-selected station (P1 to P5) in each wave band FM1 (UI), FM2 (UII), Long Wave (L), Medium Wave (M) and Travelstore (UI).
- 23 - L-M-UI-UII-UT key
Changes band each time it is pressed.

The code is a four figure number between 0000 and 9999

It is shown on the detachable part of the PO mines which is stuck on the warranty card , or , for exported vehicles, on the vehicle invoice

This code is programmed during manufacture of the set and cannot be altered by the user.

The user may make his code operational or may cancel it (see page 86-7).

PROCEDURE FOR ENTERING THE CODE

- After power supply has been cut off.
 - To cancel the scrambled mode.
- a) Press key **19** to switch on the set, "CodE" will be displayed.
 - b) Press one of the pre-selection keys **16** P1 to P4, so that 4 zeros appear.
 - c) To enter the four code figures :
 - Press key P1 until the 1st code figure appears, then release the key,
 - repeat the operation with P2 for the 2nd figure, with p3 for the 3rd figure and P4 for the 4th figure.

Note : Continued pressure on the keys P1 to P4 runs through the figures from 0 to 9 continually.
 - d) Press key **P5** to validate the code
When the code is validated a bleep will be heard and the frequency corresponding to the pre-selection . P1 in the FM1 wave band is displayed.

Example : The code 1352 is to be entered.

Press one of keys P1 to P4 once	Press P1 once	Press P2 once	Press P3 once	Press P4 once	Press P5 once
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IMPORTANT

If the code entered is wrong, the message " - - - " is displayed.

The code can only be re-entered according to the above method when "CodE" is displayed. The set must be left on and you must wait for one minute.

If the second attempt fails, the operation can be repeated with the set still switched on but the waiting periods between each operation (for wrong entries) are of increasing length : 2, 4, 8, 16 and 32 minutes.

NOTE : When the set is on the coded mode, "CodE" is displayed temporarily when the system is switched on.

PASSING FROM ONE MODE TO THE OTHER (Coded to non-coded and non-coded to coded)

The operational mode of the set can be changed at any time. To do this, the access code must be entered as follows:

- With the set switched off, press key **P5** then, while keeping this key depressed, press key **1** (On/Off) until the word "CodE" is displayed on **14C**.
- Then, enter the code according to the method described on page 86-6.

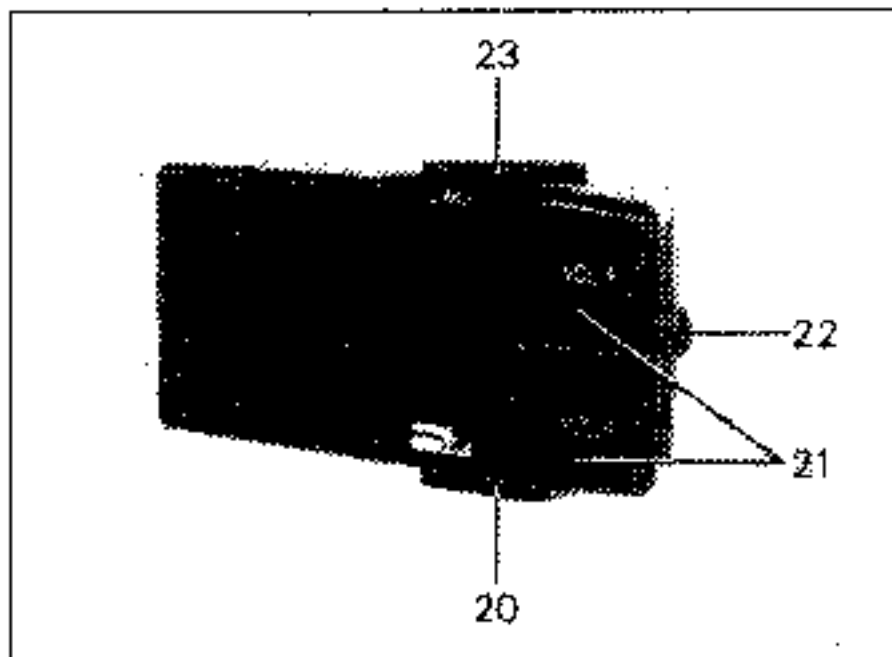
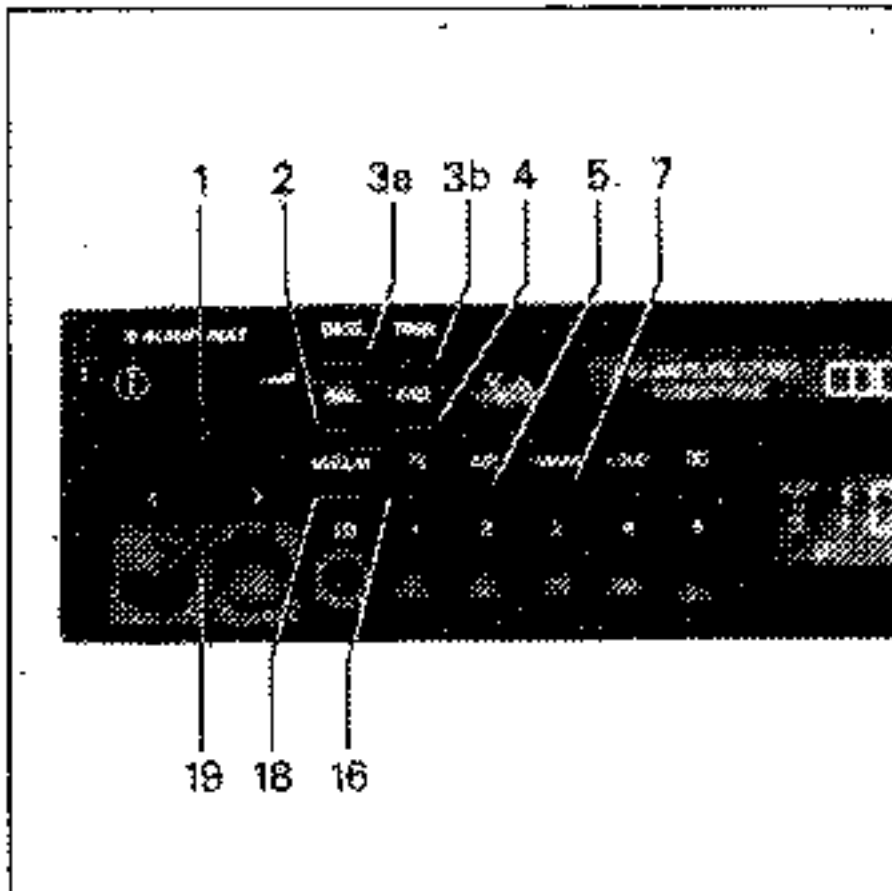
After validating the code with **P5**, the display shows what mode the set is in :

- If the code is de-activated, "Clr" appears for a few moments before being replaced by the last frequency listened to.
- if the code is activated, "CodE" appears for a few moments and reappears temporarily each time the set is switched on, before being replaced by the last frequency listened to.

MESSAGES DISPLAYED

When the set is switched on, several messages may be displayed :

Scrambled mode The scrambled mode only operates if no code has been entered. The set operates in scrambled mode for two minutes then goes quiet. When the code is entered (see page 86-6), the scrambled mode is cancelled.	Coded mode The user may operate his set as normal (supply cut) when the set is switched on again, the set displays "CodE" temporarily then returns to the last frequency listened to. If the main power supply is cut off (battery disconnected), the code must be re-entered (see page 86-5).	Non-coded mode The user may cut the supply and switch the set on again, the set returns to the last frequency listened to. If the main power supply is cut (battery disconnected) the set returns to the frequency stored under pre-set P1 for the U1(FM1) wave band, without having to re-enter the code.
	See above for changing from coded to non-coded mode	See above for changing from non-coded to coded mode.



ON/OFF

- Press key 1.

When the set is switched on, it returns to the last station listened to (except when the power supply has been cut off).

ADJUSTING THE SOUND LEVEL

Volume : Turn knob 1 or use satellite keys 21 .

Balance

Bass notes

Treble notes

Fader

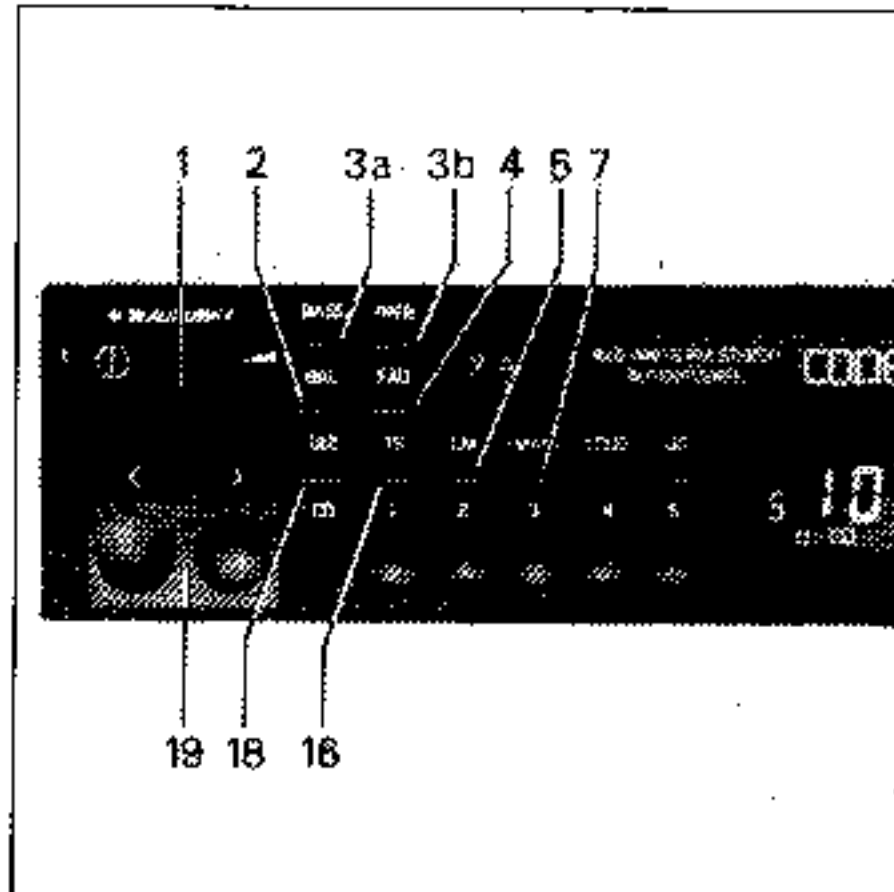
Select function desired by pressing appropriate key 2, 3a, 3b or 4, then adjust using knob 1.

As soon as one of these 4 keys is pressed, the display indicates the function selected is being adjusted

Adjusting scales :

	Balance	Fader	Bass/ treble
	all on left hand side	all at front	min
	centre	centre	average
	all on right hand side	all at rear	max

The bass and treble note adjustments may be different for the radio and cassette player.



MANUAL FREQUENCY SEARCH

Press key 7 to select the manual search mode (M tell-tale 14F will illuminate on the display).

Select the wave band : key 5 or 18 according to radio version (with or without road traffic information), 16 or 23 on the satellite.

- Brief pressure on one of keys **19** : Frequency changes one step (50 kHz in FM, 9 kHz in M, 1 kHz in L).
- Continuous pressure on one of keys **19** : radio sound cut off, rapid run through of frequencies as long as key is depressed.

- Continuous pressure on one of keys 19 : radio sound cut off, rapid run through of frequencies as long as key is depressed.

AUTOMATIC FREQUENCY SEARCH

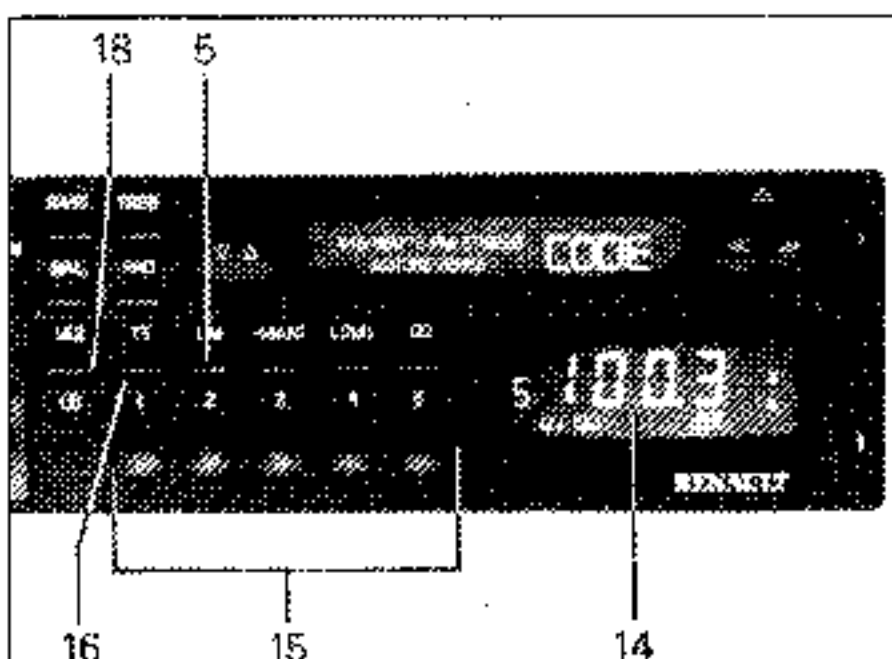
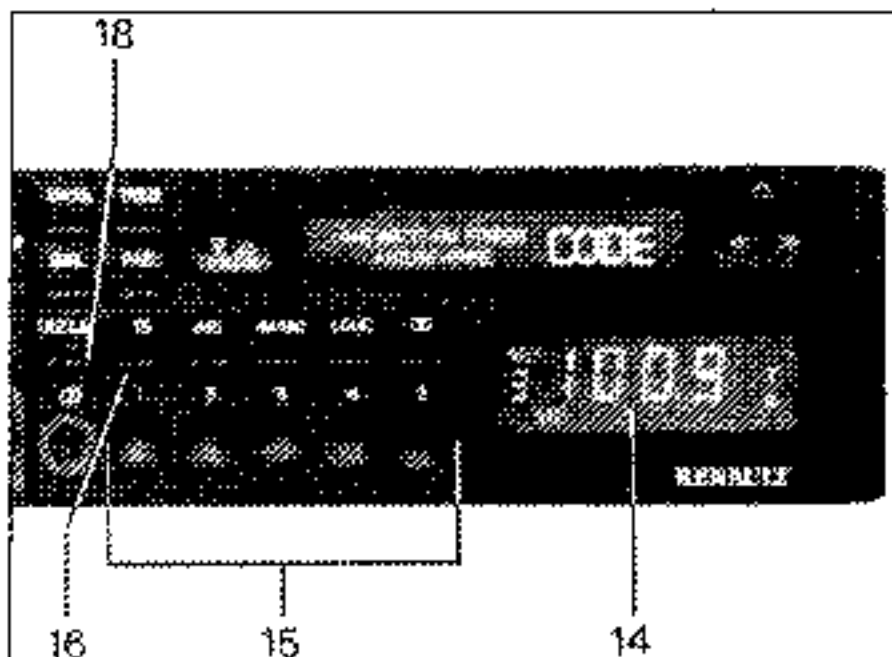
Check the tell-tale **M 14F** is extinguished on the display, the automatic search mode is active.

Select the wave band : key 5 or 18 according to radio version (with or without road traffic information), 16 or 23 on the satellite.

- Brief pressure on one of the keys **19**: increasing or decreasing frequency search.
- Brief pressure on key **20** of the satellite : increasing frequency search only

- Brief pressure on key 20 of the satellite :
increasing frequency search only

NOTE : Depending on the environment, you may have to wait up to 45 seconds to find a station in automatic search. The system has three automatic search sensitivity levels of which only two may be selected manually (local or remote) by pressing key 7.



PRE-SELECTIONS

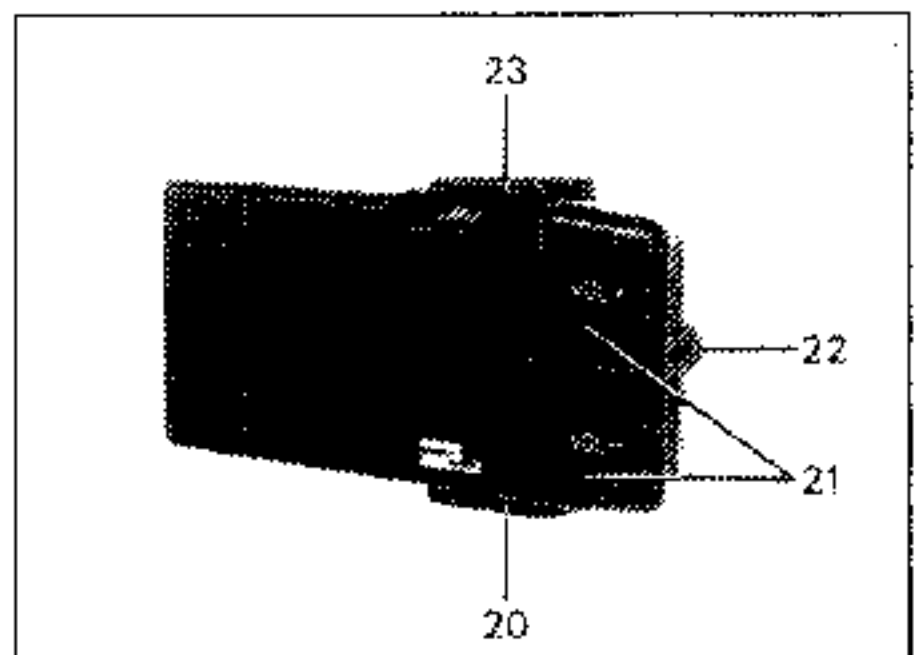
• Programming :

Select a wave band : key 5 or 18 depending on radio version (with or without INFO function, 16 or 23 on the satellite.

Search for a station manually or automatically (see page 86-8).

Press the required pre-selection key 15. The sound is switched off. Maintain pressure on the key until sound returns. The frequency displayed is programmed.

NOTE : If the frequency displayed at the end of the station search is already programmed, the display 14 indicates the wave band and pre-selection slot number where it can be found by corresponding tell tales 14J and 14J flashing for three seconds.



• Recall of a pre-selection :

Briefly press key 15 or rotate tumblewheel 22 after selecting wave band

AUTOMATIC PROGRAMMING IN FM (Travelstore)

Automatic storage (Travelstore) is an extension of the automatic search function.

This consists of initiating in a single operation the selection and storing of the 5 strongest FM stations in the region through which you are driving without having to know their wave lengths.

If fewer than 5 stations are memorised, the pre-selection slots which have not been filled are allocated the value 108.0.

Automatic programming procedure

Press key 16 on the radio or 20 on the satellite for more than 2 seconds ; the frequencies are run through.

- Wait for the first pre-selection to appear on the display 14 and the sound to return.

Automatic replacement of a station in Travelstore

If you no longer require one of the stations selected, the search procedure for a new station can be activated. Press the corresponding pre-selection key 15 for more than 2 seconds. The radio will search for and store a new station which is different from those already stored in the different FM wave bands.

USING THE RADIO IN THE INFO TRAFFIC INFORMATION MODE ARI (*)

- **For countries which do not have a road traffic information system.**

If your set has ARI key 5, it is important to check that key 5 is not activated before programming any stations in the FM wave band (tell-tale 14B extinguished).

Incorrect use in the ARI mode is shown by :

- flashing "ARI" tell-tale on display 14B when a non ARI station is selected ,
- a warning bleep and the sound from the radio is interrupted

in this case, deactivate the ARI function by pressing key 5.

- **For countries with a road traffic information system :**

Operating the ARI mode :

Activate the ARI key 5 (tell-tale 14B illuminates), and one of two things will happen :

- If the radio is already tuned to a traffic information system station, the programme will be heard ;

If the radio is not tuned to a traffic information system station, the radio will be silent. When a warning bleep is emitted after approximately 2 seconds, press search key 19. The next radioguidance station is received.

To exit from the ARI mode, press key 5.

Programming :

The ARI stations are programmed in the same way as conventional, non-ARI stations in memories P1 to P5 of the FM wave band, by substituting the stations pre-selected in the normal FM mode.

You may programme the ARI stations using the automatic search, automatic programming (TS) or manual search functions.

automatic search, two possibilities:

- a) you are not happy with the ARI station to which you are listening; the automatic search function can be restarted by holding down key 19; the set automatically switches to the next ARI station in the area;
- b) the signal received becomes weak and a bleep is emitted after approximately 30 seconds. In this case, search for another radioguidance station, as indicated under a) or deactivate the ARI function by pressing key 5.

Automatic programming in ARI mode :

If the ARI function is activated, the five best stations received which can broadcast road traffic information are automatically stored.

Manual search .

If you know the frequency of an ARI station (for example having seen the frequency on one of the signs on the motorway), you can go directly to it. Please consult the section entitled "Manual frequency search" on page 86 9.

Emission of bulletins (ARI key 5 operational)

System set

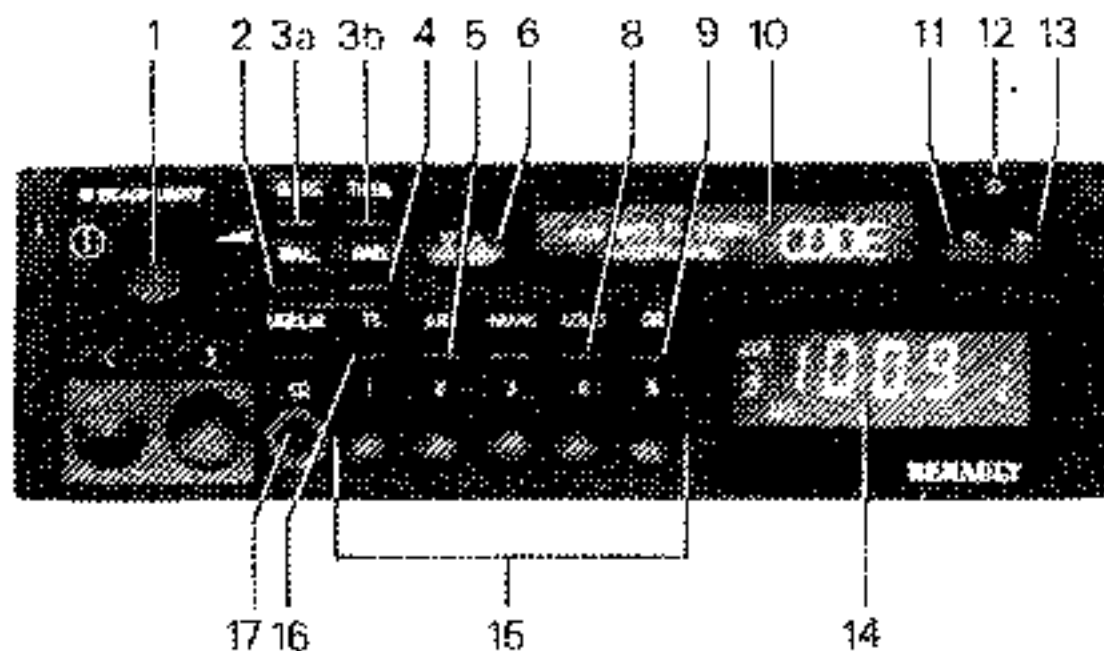
If you only wish to hear road traffic bulletins, set the volume on minimum and the bulletins will be broadcast at a preset sound level.

When a cassette or CD is playing

If you wish to hear traffic bulletins while listening to a cassette or CD, select the ARI station frequency beforehand. The bulletin will then be emitted instead of the sound of the cassette or CD at a sound level at least equal to that set previously.

At the end of the bulletin, the cassette or CD will continue playing. If you travel out of the area where the radioguidance station is received so that it can no longer be received, the radio will search automatically for another radioguidance station.

(*) The radio is fitted with ARI key 5 depending on country or version



Insertion of a cassette into the compartment 10, open side to the right, causes :

- the radio to stop playing. The frequency will still be displayed and it can still be adjusted.
- the cassette to be played in the conventional direction indicated by one of the tell-tales 14D.

CHANGING DIRECTION OF PLAY

Press key 6 ; the direction of play is indicated by tell-tales 14D.

FAST WINDING

press key 11 or 13 according to direction required

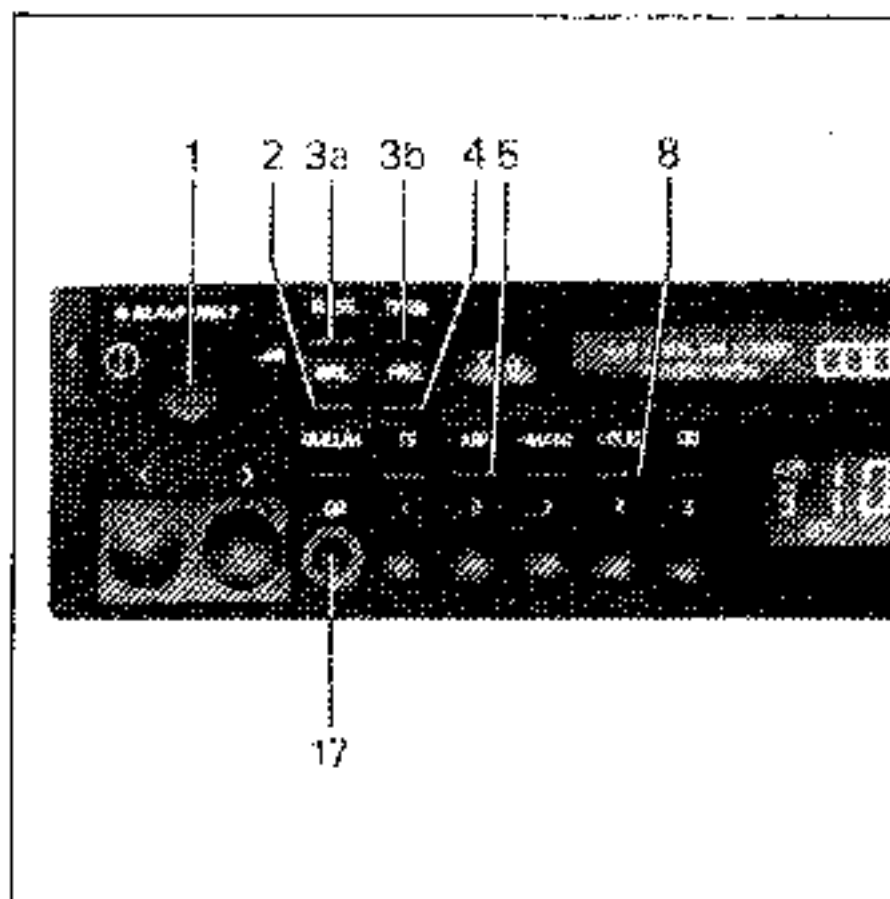
STOPPING FAST WINDING

Press key 11 which is not locked to stop fast forward and press key 13 which is not locked to stop fast rewinding

STOPPING PLAYBACK

Press keys 11 and 13 at the same time, the playback is stopped, the cassette is ejected and the radio returns to the last programme heard.

NOTE : The playback head is automatically disengaged when the power supply is switched off.



USING THE CD SOCKET

When a jack plug is inserted into the CD socket 17 the radio or cassette will automatically switch off and the playback head will be disengaged

It is still possible to adjust the radio frequencies and listen to road traffic information bulletins on systems provided with the ARI system (see "Using the system in ARI mode")

When the jack plug is extracted the system will automatically return to the previous mode (radio or cassette).

NOTE : The opening on the bottom lefthand side of the front panel originally provided for removing the set has been modified to accommodate the blanking cover for the jack socket when a CD is playing.

TUNER

- Wave bands
 - MW 522 to 1 611 kHz.
 - LW 144 to 288 kHz.
 - FM 87,5 to 108 MHz
 - AST 87,5 to 108 MHz.
- Intermediate frequencies
 - AM 460 kHz.
 - FM 10,7 MHz with automatic correction
- FM sensitivity
 - 6 μ V (for S/B 26 dB at 94 MHz)
 - Automatic search with 3 sensitivity levels.
- Interference absorption circuit (IAC)
 - Interference suppression in FM
- Mono/stereo changeover
 - Automatic switch over to mono when the signal received by the aerial weakens

"AUTOREVERSE" CASSETTE PLAYER

- Playback head
 - "Hard PERMALLOY"
- Tape speed
 - 4,76 cm/s.
- Wow and flutter
 - 0,35 % WRMS
- Signal /noise ratio
 - > 43 dB without Dolby*
- Stereo separation
 - > 24 dB

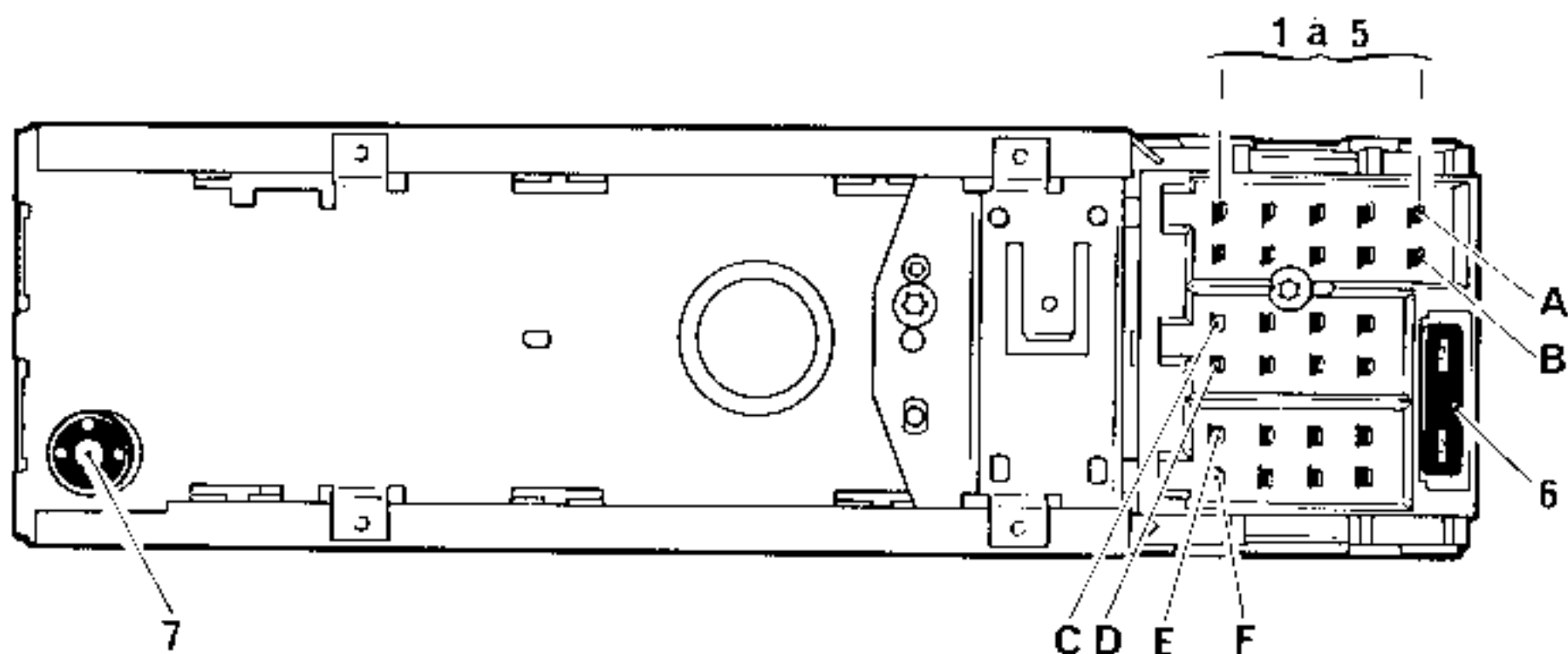
LOW FREQUENCY AMPLIFIER

- Output (4 Ω : 14,4 V)
 - 4 x 6 W \pm 1 dB for D \leq 10 %.
- Frequency response
 - 30 Hz to 15 kHz.
- Bass
 - + 12 dB to 100 Hz.
- Treble
 - + 12 dB to 10 kHz.

CD INPUT

- Impedance
 - > 20 k Ω .
- Admittance
 - 2 Veff max
- Distortion
 - < 0,1 %.

* Registered trade mark of Dolby Inc. Laboratories



94 911

A/B Satellite connector

- A1 Not used
- A2 Earth screen cable
- A3 }
- A4 } to satellite
- A5 }
- B1 Not used
- B2 Earth
- B3 }
- B4 } to satellite
- B5 }

C/D Speaker connector

- C1 + rear righthand speaker
- C2 + front righthand speaker
- C3 + front lefthand speaker
- C4 + rear lefthand speaker
- D1 - rear righthand speaker
- D2 - front righthand speaker
- D3 - front lefthand speaker
- D4 - rear lefthand speaker

E/F Supply connector

- E1 Not used
- E2 Voice synthesiser
- E3 Electric aerial
- E4 + accessories
- F1 + lights
- F2 + permanent
- F3 Rheostat lighting
- F4 Earth
- 6 Fuse 5 A
- 7 Aerial socket

Put the ignition key in Services position and press On/Off key.

The set comes on

yes

no

Display shows " - - - " and no keys operate

Display shows "CodE" and no keys operate

Check supply

- + Before ignition
- + Accessories (vehicle fuse). Earth
- Quality of connections

Wrong code entered. leave the set on, wait for 1 to 32 min. until display shows "CodE"

Battery has been disconnected

Check 5 A fuse located behind set (replace if necessary). See schema page 16 of MR.

Press one of radio pre-selection keys 1 to 4.

If fault continues, follow repair procedure (see diag. sheet).

Restart operation using MR

Display "CodE" disappears and 4 zeros appear 0000.

if the set still does not come on, follow repair procedure (see diagnostic sheet).

Having checked the code with Regional Office, enter it : for 1st figure press pre-selection key 1, each touch increases figure by 1. For 2nd figure => key 2, and so on. Validate with key 5.

If figures cannot be validated, remove satellite and re-code set

Code accepted

Display shows "CodE"

no

yes

Wave band and frequency displayed

No reception.

Fix on a well received FM station in the area.

Reception but poor quality (noise).

Test with pre-recorded cassette

Good reception but radio interference. Check aerial earth and aerial coaxial cable.

Select LW (station well received)

Check speakers

No reception

Good reception => FM fault.

if fault persists, disconnect satellite

Check + correct aerial connection. Aerial coaxial cable (test with another aerial and another cable)

Fault persists.

No fault, replace satellite

Follow repair procedure (see diagnostic sheet)

Ignition equipment G4 coded radio (4 x 6 W New generation)

SENDER :
ACCOUNT NO. :
ADDRESS :
.....
TEL :

Address to which the radio will be returned/state the document holder's name.

SECURITY CODE NO F.D NO
In case of complaint

IMPORTANT FOR ALL REPAIRS

Ensure that the code and the set in your vehicle agree, if necessary check with Regional Office. If the code has been forgotten or the wrong code is given, you will be charged accordingly.

Vehicle type Date of first use of vehicle
Mileage Radio fitting date

CUSTOMER COMPLAINT

DESCRIPTION :
.....
.....

WORKSHIOP DIAGNOSIS

GENERAL

- ☐ Does not start
☐ Security code refused (Have you checked with regional Office ?)

RADIO

- ☐ No sound or weak sound ☐ FM. ☐ LW. ☐ MW.
☐ Interference ☐ F.M. ☐ LW. ☐ MW. Engine : ☐ running / ☐ stopped
Specify circumstances :

CASSETTE

- ☐ Key does not work
☐ Insertion ☐ Ejection difficult or impossible
☐ Weak sound
☐ Tape damaged
☐ Auto reverse faulty
☐ Poor winding (wow)

AMPLIFIER

- ☐ Balance does not work ☐ front/rear ☐ left/right
☐ Speaker faulty ☐ front left ☐ front right
☐ rear left ☐ rear right

SATELLITE

- ☐ No sound from CD when plugged in
☐ No satellite operation. Set operates when satellite disconnected
☐ yes ☐ no

OTHER DEFECTS TO BE SPECIFIED:

Matter monitored by M : Date :

OBLIGATORY FOR APPLICATION OF WARRANTY

COMPANY STAMP