This high performance radio system is a combined radio-cassette player and compact disc player with remote control (satellite) on the right of the steering wheel which doubles the main functions of the keys on the set.

Sound is distributed by 4 to 6 speakers (depending on vehicle equipment level).

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

NOTE :
The radio coding can be disarmed by an operation explained later (see pages 8 and 9).

OPERATIONAL CHARACTERISTICS

- A high performance radio tuner with a PLL frequency synthesiser and microprocessors enabling numerous data to be processed and stored, and in Autostore in particular, enabling the best station transmitting your RM programme to be automatically selected.

  - 5 wavebands L(GO) - M(PO) - U1(FM1) - U2(FM2) - U AST (FM Autostore),

  - AST (Autostore) : automatic storage of the 5 best FM stations received,

  - 5 pre-selected stations for each waveband,

  - electronic search of stations in increasing or decreasing frequency,

  - automatic switching from mono to stereo,

  - 3 sensitivity levels for electronic search (one automatic and two which can be selected from the radio front panel),

  - in FM, decoding of the RDS sub-carrier :
    - automatic monitoring of stations for the same network,
    - illuminated display of programme name,
    - INFO road traffic information system (depending on country).

- A cassette-player with an auto-reverse function enabling the tape playing direction to be changed automatically at the end of the tape.

  - electrical cassette insert and eject,

  - "Hard Permalloy" playback head with automatic metal/chrome selection when cassette is inserted,

  - track search in fast forward or reverse mode,

  - Dolby B/C noise reduction key,

  - playback head disconnected when tape stops.

- A compact disc player for playing 12 cm, 8 cm and 12 cm video CDs (audio only).

  - time delay re-insertion system after disc ejected,

  - sequential access possible for each disc track,

  - fast forward or reverse play for each track with fast playback,

  - graphic equaliser,

  - random track playback.

- 4 audio frequency amplifiers capable of producing and effective output of 20 watts ± 1 dB (4 × 12 watts according to HIFI 45500 standards).

  - electronic volume control, balance and fader control (fader),

  - right and lefthand speaker balance,

  - front and rear speaker balance,

  - loudness key for sound accentuation,

  - continuous treble and bass monitoring,

  - internal device for automatic radio sound cut-out on voice synthesiser message (depending on version or option) Message "SPEECH" is displayed .

PREPARATION OF AUTORADIOS ON NEW VEHICLES

For security reasons the radio 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, cassette or CD sound for 2 minutes. The display alternates every second between displaying the radio active state (radio, cassette or CD) and the message "CODE".
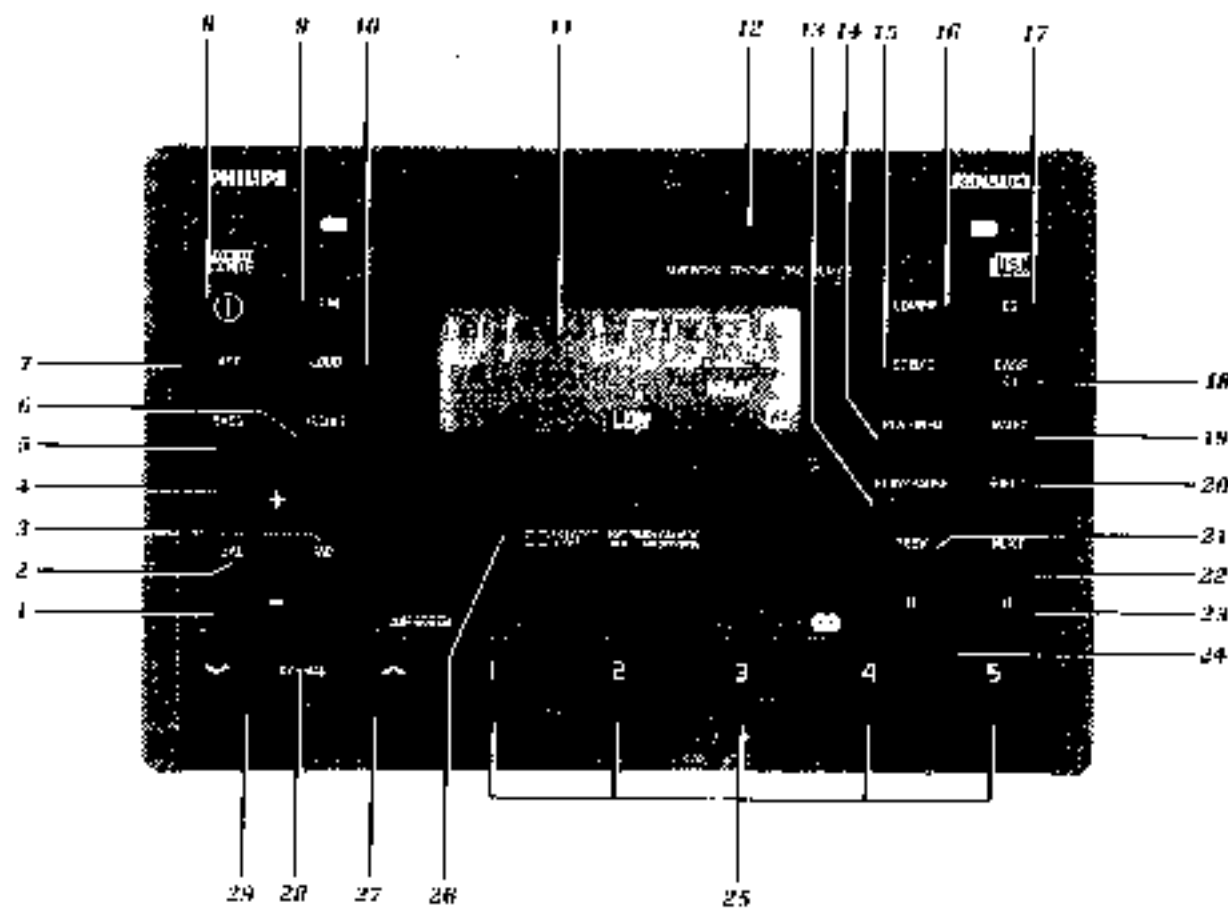
When the radio, cassette or CD message is displayed, all functions are operational.

After 2 minutes the set becomes silent and the word "CODE" is permanently displayed.

This operation mode is known as the "scrambled" mode.

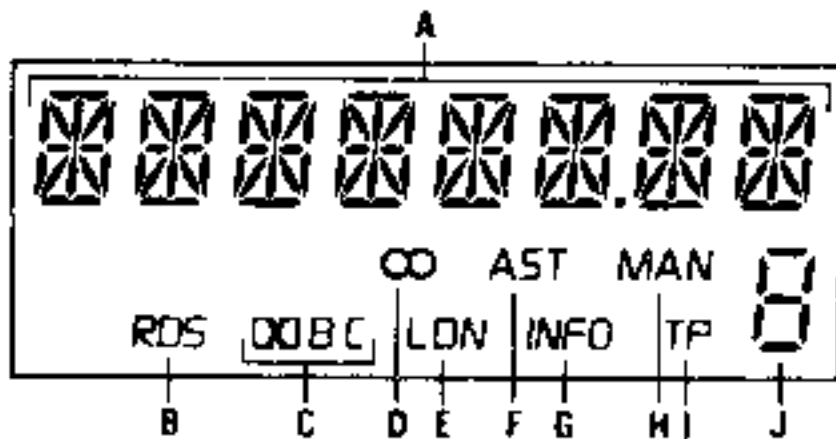To cancel this "scrambled" mode, enter the code when the display shows "CODE" (see page 8).

AUDIORADIO SET

1 Key for adjusting volume, balance right/left, fader, treble and bass.

2 Balance right/left selection key with display at **11** when adjustment made.

3 Balance front/rear (fader) selection key with display at **11** when adjustment made.

4 + key for volume adjustment, right/left balance and fader, bass and treble .

5 Bass note selection key with display at **11** when adjustment made.

6 Treble note selection key with display at **11** when adjustment is made.

7 Autostore (AST) key or automatic programming for FM.

 • Selection of Autostore, brief pressure (less than one second).

 • Start automatic programming by prolonged pressure (more than one second).

8 On/Off key for radio, cassette, CD and satellite.

9 Waveband selection key FM (U1, U2), GO (L) or PO (M).

10 Loudness key to increase sound level.

11 Display (see page 6).

12 CD player compartment (CD).

13 Pause key for creating pause during CD or cassette playback and restarting.

14 Multifunction key :

 • Selection of RDS mode for automatic monitoring of stations on same network, by brief pressure on key (less than one second).

 • Selection of INFO road traffic information mode (depending on country) by prolonged pressure on the key (more than one second).

15 Dynamic noise reduction key. This function reduces tape noise; 2 levels Dolby B and C obtained by successive key pressure.

16 Graphic equaliser switch for CD playback.

17 "CD" multifunction key.

- Cd playback selection whilst listening to another source.

- Display of total CD duration and number of tracks during CD playback.

18 "Cassette" multifunction key

- Cassette playback selection whilst listening to another source.

- Tape direction reversal during playback.

19 "Radio" multifunction key.

- Radio selection whilst listening to another source (brief pressure less than one second)

- Frequency display of station heard and waveband when station name is displayed (brief pressure less than one second).

- "station naming" mode selection (pressure more than one second).

20 Cassette and/or CD ejection according to whichever is playing.

21 Playback of previous track on CD or cassette, according to whichever is playing

22 Playback of next track on CD or cassette, according to whichever is playing.

23 Fast advance key for cassette for CD according to whichever is playing.

24 Fast return key for cassette or CD, according to whichever is playing.

25 Multifunction keys.

- Reminder of pre-selections (1 to 5) for radio stations by brief pressure (less than one second)

- Storing of radio stations by prolonged pressure (more than one second).

- Automatic replacement of stored station in Autostore by prolonged pressure (more than one second).

- Input of confidential radio code.

26 Cassette player compartment.

27 Manual or automatic upwards search.

28 Multifunction key.

- Automatic search sensitivity level switch, prolonged pressure (more than one second).

  - LOC : Normal sensitivity level for stopping automatic search. The electronic search function stops only when it locates stations received.

  - DX : Increased sensitivity levels for stopping automatic search. the electronic search function stops at all stations received even if sound quality is not the best.

- Manual or automatic adjustment mode for radio stations. Turned on or off by brief pressure (less than one second).

29 Manual or automatic decreasing search.

DISPLAY (11)

A - Various messages : the display always shows the mode in use.

B - Automatic same network station monitoring mode indicator. Shows RDS function of key **14** is active.

C - noise reduction system indicator : Dolby B or C.

D - Stereo reception indicator.

E - Loudness indicator. Key **10** is active.

F - Autostore waveband indicator (automatic programming in FM waveband).

G - Symbol illuminates if INFO for key **14** is activated.

H - Manual station adjustment indicator.

I - P (Traffic Programme)
Illuminates when radio is tuned to a station broadcasting road traffic information whether key **14** is active or not.

J - Pre-selection number indicator (1 to 5).
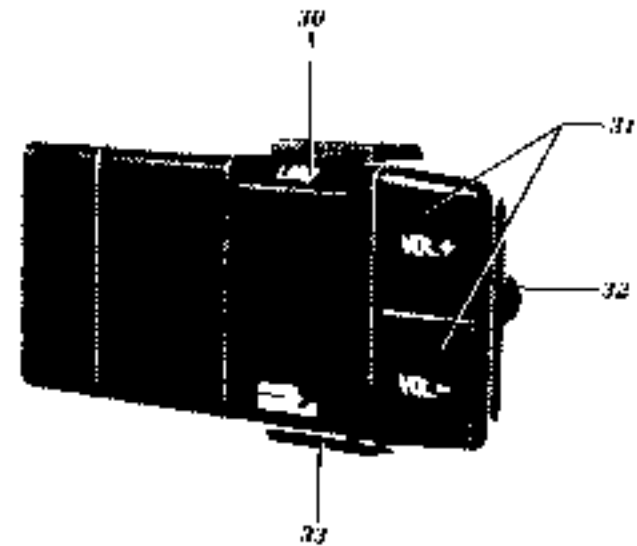
SATELLITE (remote control)

30 U-L-M-CASS-CD key

Changes radio waveband or source each time it is pressed :
- U (U1, U2 or U AST according to last FM waveband heard)
- L (GO)
- M (PO)
- CASS (cassette player)
- CD (CD player)

Radio Mode

31 +/- volume adjustment keys.

32 Tumblewheel for 15 pre-selected FM stations (1 to 5 in U1, 1 to 5 in U2, 1 to 5 in U AST), and 5 pre-selection in each of LW and MW.

33 • Brief pressure :

Increasing automatic frequency search.

• Prolonged pressure :

Starts FM automatic programming (Autostore) when radio is already tuned to an FM frequency (in U1, U2 or U AST).

Cassette mode

31 + /- volume adjustment keys.

32 Tape winding tumblewheel :

- **one notch top to bottom:**
  Fast winding, stopping at start of next track if blank between 2 tracks lasts at least 3 seconds

- **"n" notches from top to bottom:**
  Fast winding, stopping at start of "nth" track if blanks between each track lasts at least 3 seconds.

- **one notch from bottom to top :**
  Fast winding, stopping at start of current track.

- **"n" notches from bottom to top :**
  Fast winding, stopping at start of "nth - 1" previous track, if blanks between each track last at least 3 seconds

Attention : the number "n" of notches may not exceed 15.

33 ● Brief pressure :

- · Changes direction of tape play during playback.

- ·· Stops fast winding and starts playback without changing tape direction .

- ● Prolonged pressure :

  Starts FM automatic programming (Autostore) without affecting cassette playback, as long as the last waveband heard when the radio was on was FM (U1, U2 or U AST).
  The tell-tale AST flashes during the search, then disappears.

CD mode

31 + /- volume adjustment keys.

32 Track search tumblewheel.

- **one notch from top to bottom :**
  Plays the next track.

- **"n" notches from top to bottom:**
  Plays the "nth" next track.

- **one notch from bottom to top :**
  Plays the previous track.

- **"n" notches from bottom to top :**
  Plays the "nth" previous track.

Attention : the number "n" of notches may not exceed 15.

33 ● Brief pressure:

  Starts random track play/stops random track play and returns to chronological track play.

- ● Prolonged pressure:

  Starts FM automatic programming (Autostore) without affecting playback, as long as the last waveband heard when the radio was on was FM (U1, U2 or U AST). the tell-tale AST flashes during the search, then disappears.

the code is a 4-figure number between 0000 and 9999.

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

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

The user may make his code operational or may cancel it (see pages 9 and 10).

PROCEDURE FOR ENTERING THE CODE
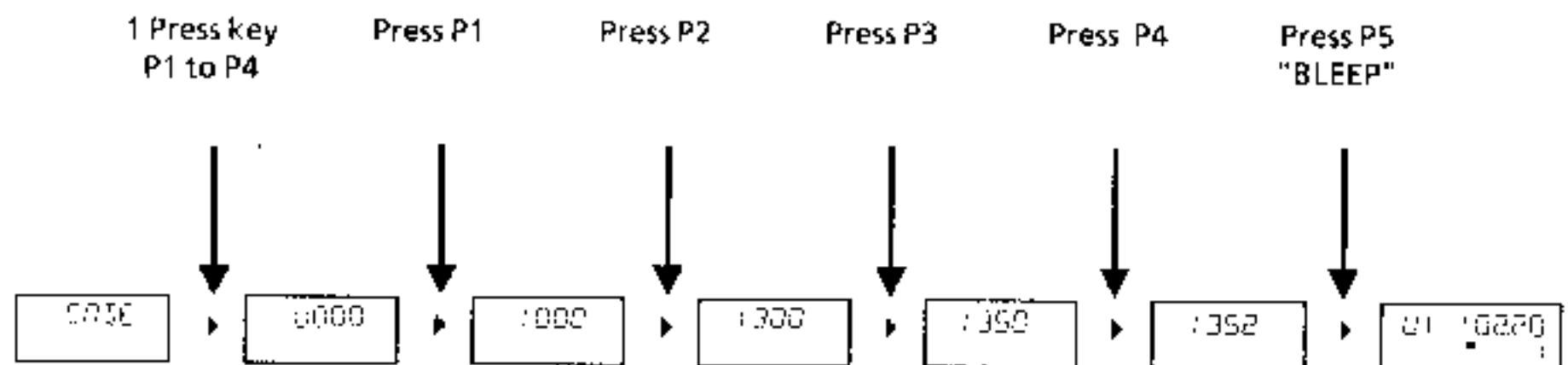
- After power supply has been cut off.

- To cancel the "scrambled mode".

    a) Press key 8 to switch on the radio, "CODE" will appear on the display.

    b) Press one of the keys 25 for pre-selection P1 to P4, so that four zeros appear.

    c) To enter the four figures of the code :

        − Press key P1 until the first code figure appears, then release the key,

        − Repeat the operation with P2 for the second figure, P3 for the third figure and P4 for the fourth figure.

        NOTE : Continued pressure on the keys P1 to P4 runs through the figures from 0 to 9 continuously

    d) Press key 5 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 waveband is displayed.

Tone adjustment settings are not retained, but the volume returns at a pre-set average level.

Example : You wish to enter the code 1352

1 Press key P1 to P4	Press P1	Press P2	Press P3	Press P4	Press P5 "BLEEP"

| CODE | 0000 | 1000 | 1300 | 1350 | 1352 | UI 10270 |

Important

If the code entered is incorrect, an error bleep is heard and the message "CODE" is displayed.

The code can be re-entered following the above method, but the radio set must be left switched on and you must wait for one minute before recommencing the operation.

If this new attempt is unsuccessful, the operation can be repeated with the radio set left on, but the waiting periods between each operation (for wrong entries) are of increasing length (2, 4, 8, 16 and 32 minutes).

CHANGING FROM CODED TO NON-CODED MODE AND FROM NON-CODED TO CODED MODE

The operation mode of the radio set can be changed at any time.

To do this, the access code must be entered as follows :

- When the radio set is **switched off**, press key **P5** then, keeping this key depressed, press key **8** (on/off) until "CODE" appears on the display **11A**. If you are changing from coded to non-coded mode, the message "CODE" is displayed temporarily when the radio set is switched on, before 4 zeros are displayed.

- Enter the code following operations c) and d) described on the previous page

When the code is validated, the radio set indicates what mode it is in :

- **Code deactivated** : 2 bleeps are heard before the last frequency listened to appears on the display **11A**,

- **Code activated** : 1 bleep is heard before the last message displayed on **11A** when the set was turned off reappears.
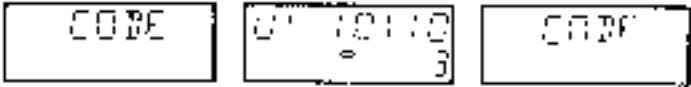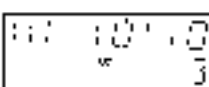
NOTE :

If the general power supply has been interrupted, when the radio set is switched on, the display indicates the state in which the radio is set.

If the set is coded "CODE" is briefly displayed before the last frequency listened to appears.

If the set is not coded, the frequency is displayed immediately.

MESSAGES DISPLAYED

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

Scrambled mode.	**Coded mode**	**Non-coded mode**
The scrambled mode only operates if no code has been entered. The set operates in scrambled mode for 2 minutes then goes quiet. When the code is entered (see page 8) the scrambled mode is cancelled.	The user may operate his set as normal (suply cut) when the set is switched on again. The set briefly displays CODE then returns to the last frequency listened to. In the case of general power suppy interruption (battery disconnected) the code must be re-entered (see page 8).	The user may cut the supply and switch the set on again, the set returns to the last frequency listened to. Also, in the case of general supply interruption (battery disconnected) the set returns to the frequency stored under pre-set P1 for the U1(FM1) waveband, without re-entering the code.
	To change from coded mode to non-coded mode, see page 9.	To change from coded mode to non-coded mode, see page 9.

RADIO
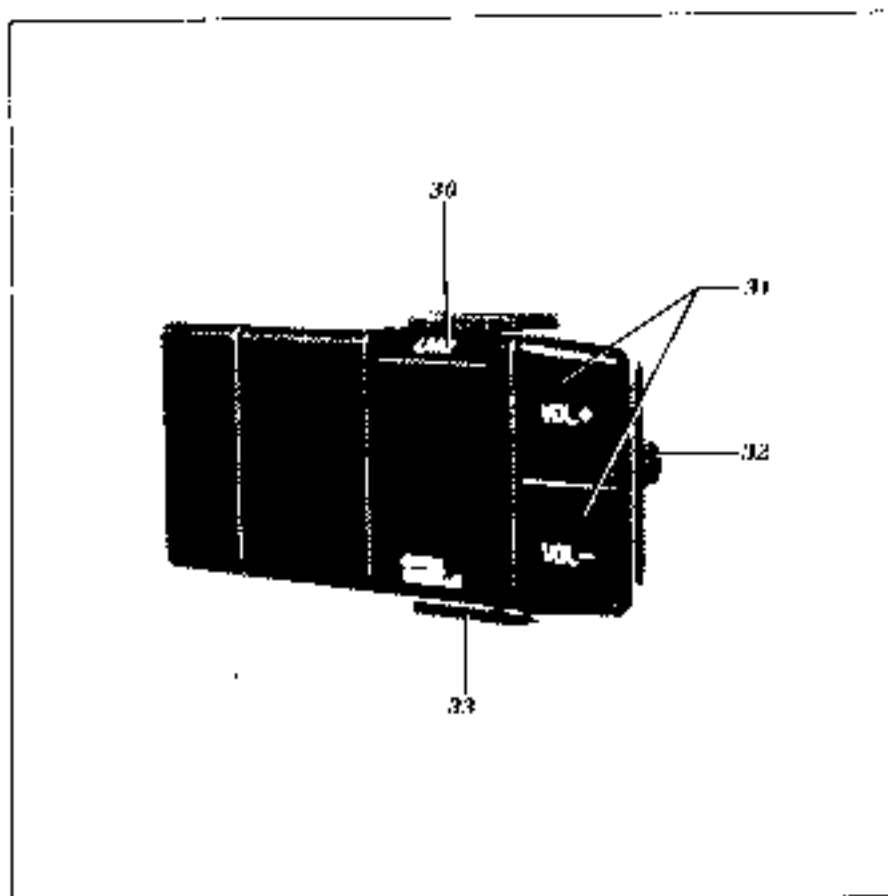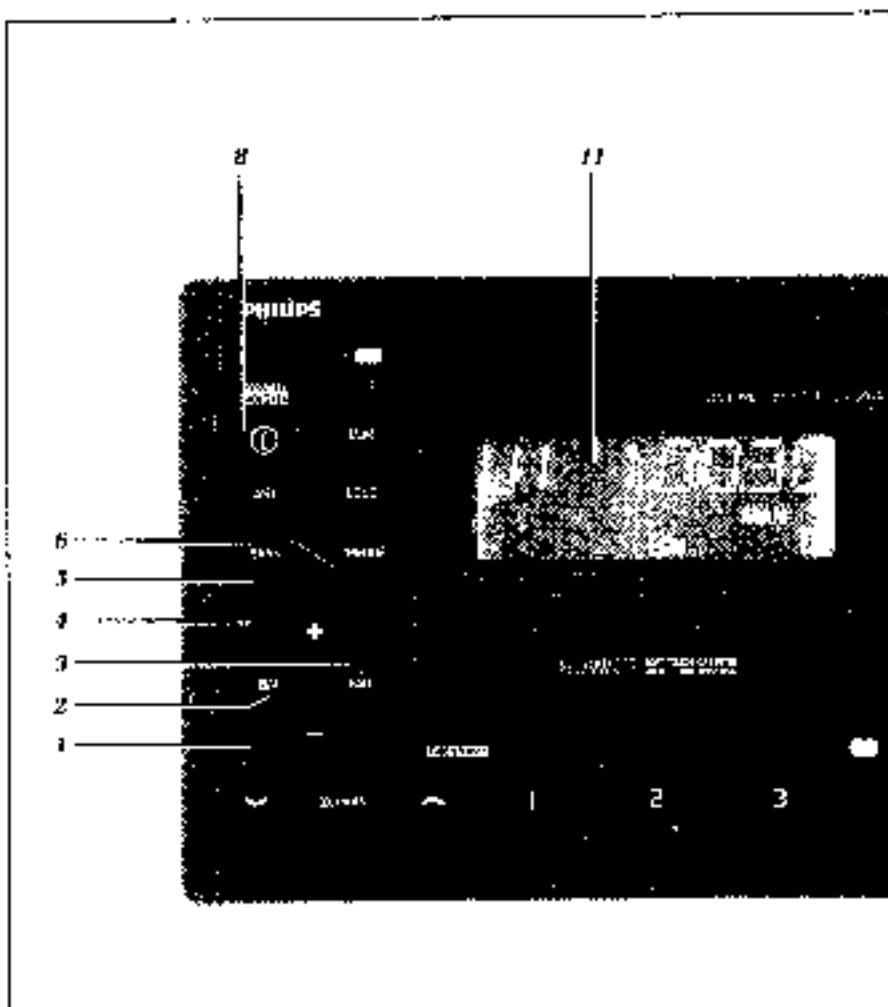
ON/OFF

Press key **8**

When the radio 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 : Rocker switches **1** and **4** or keys **31**

Bass	Select the desired function by pressing the corresponding key **2,3,5,** or **6**, then adjust using rocker switches **1** and **4** or keys **31** on the satellite.
Treble	
Balance	
Fader	

As soon as one of these four keys is pressed, the display 11 will indicate the function selected and its adjustment. (It returns to the frequency if no adjustment is made within 4 seconds)
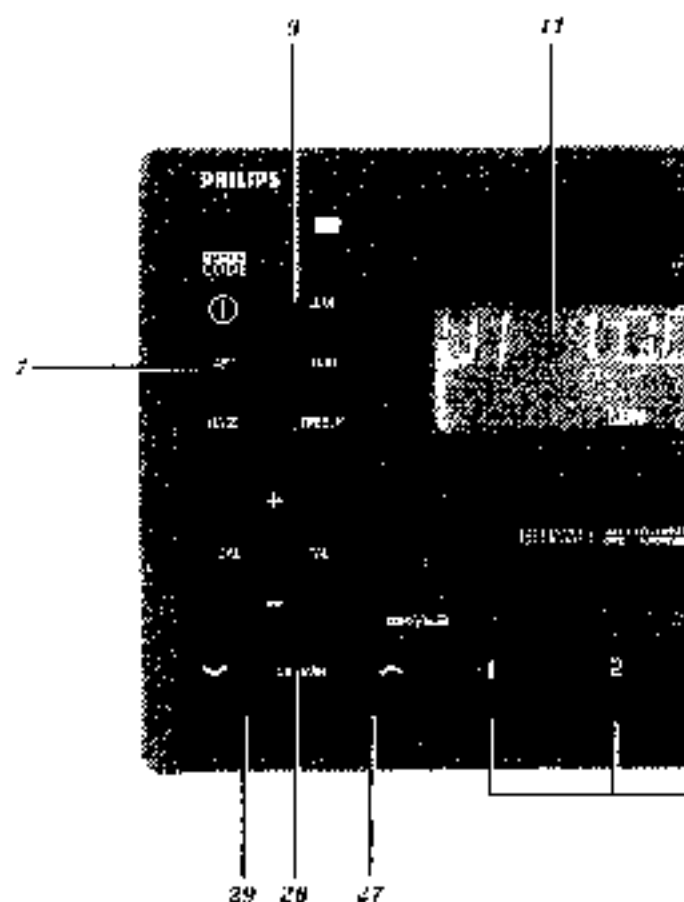
Adjustment scales

Bass	Treble	
BASS -4	TREB -4	min
BASS 0	TREB 0	average
BASS +4	TREB +4	max

Balance	
:0 B 9:	all on right
:9 B 9:	centre
:9 B 0:	all on left

Fader	
₄0 F 9°	all at front
₄9 F 9°	centre
₄9 F 0°	all at rear

The system returns to these settings whenever it is switched on except when the power is interrupted. The average value is then set.
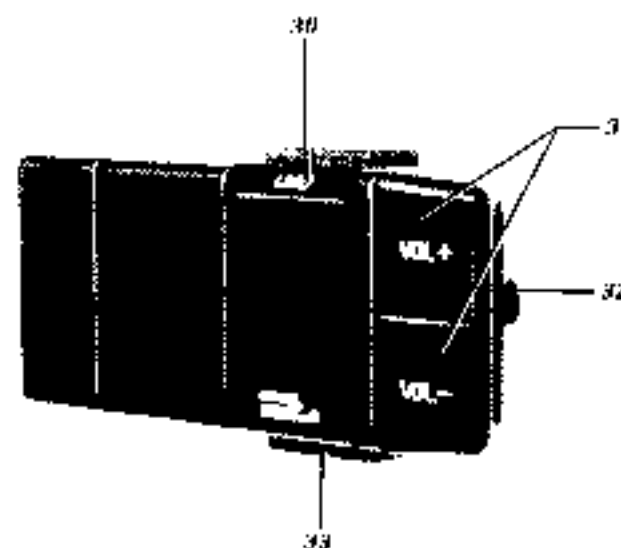
WAVEBAND SELECTION

Using the radio front panel controls

● Selection of waveband U1 (FM1), U2 (FM2), L (GO) or M (PO) :
Press key **9**.

● Selection of waveband U AST (Auto-store in FM) :

~ Presss key **9** to activate FM (U1 or U2) if required.

~ select Autostore by briefly pressing key **7**.

Using the satellite controls

● Selection of waveband U (U1, U2 or U AST according to the last stations listened to), L (GO) or M (PO) :
Press key **30**.

● Selection of FM waveband :

– Press key **30** to activate FM (U1, U2 or U AST according to the last stations listened to),

~ then select the FM waveband required (U1, U2 or U AST) by turning tublewheel **32**.

MANUAL SEARCH OF FREQUENCIES

The manual mode is active whenever the system is switched on (warning light **11H** illuminated on display).

Select the waveband : see above.

– Brief pressure on **27** or **29** : the frequency changes one step (50 kHz in FM, 1 kHz in PO, 1 kHz in GO).

– Prolonged pressure on **27** or **29** : rapid run through of frequencies as long as the key is depressed.
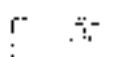
AUTOMATIC FREQUENCY SEARCH

Brief pressure on key **28** to select automatic frequency search (tell-tale **11H** extinguished)

Select the waveband as detailed above.

– Brief pressuer on key **27** or **29**: run through of frequencies in increasing or decreasing order

– Brief pressure on key **33** of the satellite: increasing run through of frequencies only
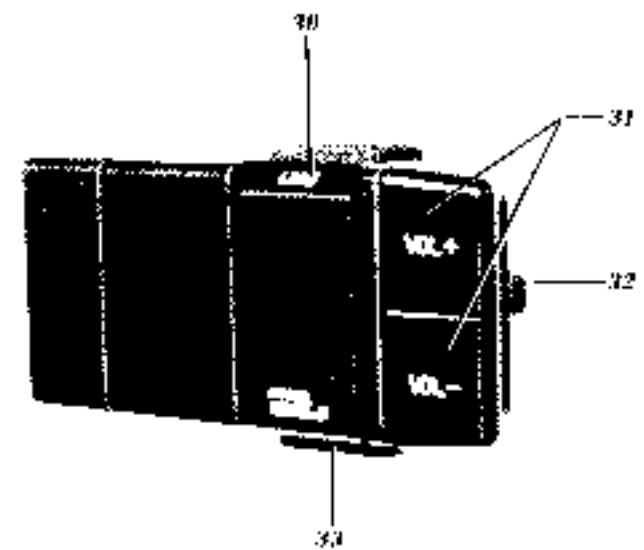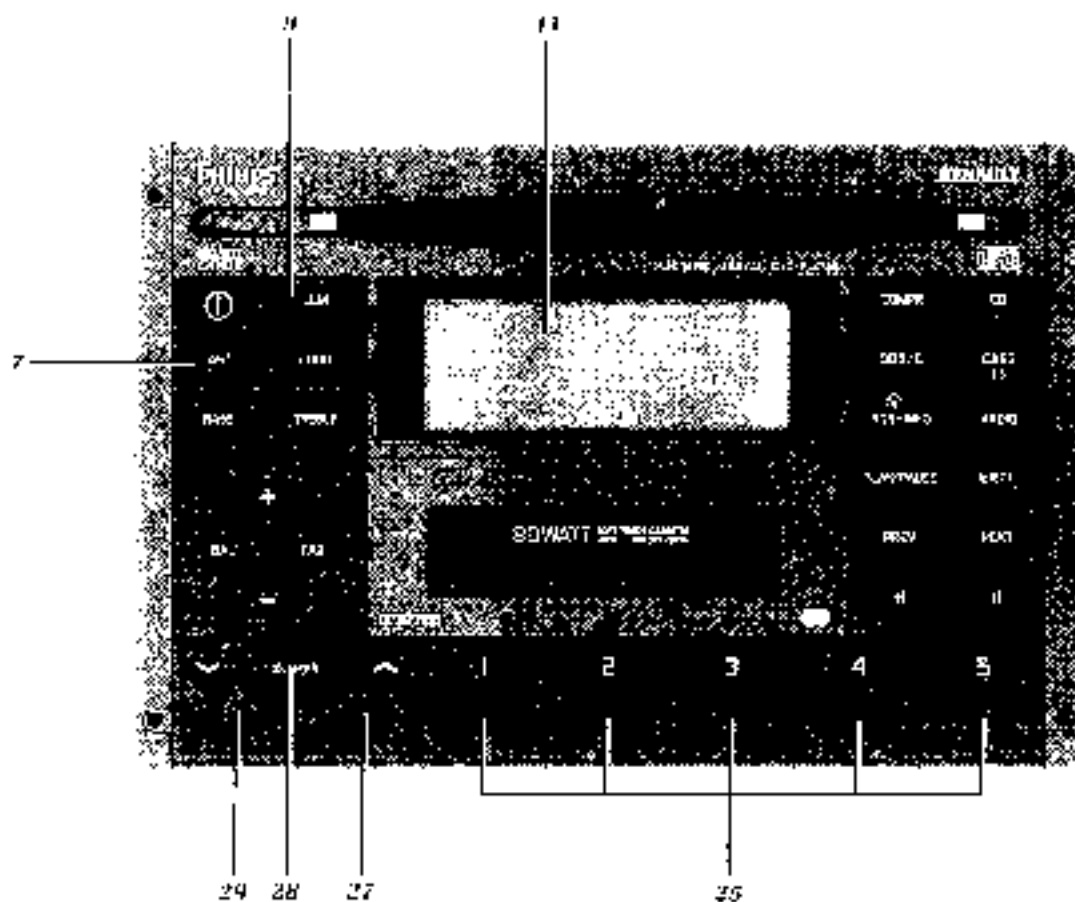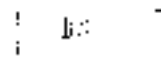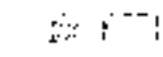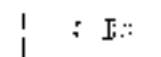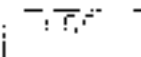
Sensitivity levels

For the first automatic search when the set is switched on, the display ⌐⟋⟍⟍ or ⟍⟍⟍

appears and is displayed all the time the search takes place.

- Searching is first carried out at the first level of sensitivity (LOCAL1 = very good reception)

- If no stations are found, after the whole of the FM band has been searched, searching continues at the second level of sensitivity (LOCAL2 = good reception) which is stored for one minute. The next automatic search is commenced from this level if it is started within the next minute.

- If no station is found once again, the search continues at the highest level of sensitivity (DX = average reception) which is only memorised for one minute. If the next automatic search is not started within one minute, it restarts at level LOCAL1

The sensitivity level DX may, however, be intentionally selected by prolonged pressure on key **28**.

The symbol ⟍⟍ appears temporarily on the display **11**. The automatic search then begun

will only be carried out at this level with symbols ⟍⟍ or ⟍⟍ on the display.

The DX level is memorised until the LOCAL1 level is selected by another prolonged pressure on key **28**, signalled by temporary display of the symbol ⟍⟍

PRE-SELECTIONS

Programming

Select waveband: key **7** or **9** on the radio, or **30** on the satellite.

Search manually or automatically for a station.

Press pre-selection key **25** The sound will switch off.

Maintain pressure on the key until a bleep is heard and sound is heard again

The frequency displayed is programmed.

Reminder:
Brief pressure on the key **25** selected or turn tumblewheel **32** after having selected waveband.
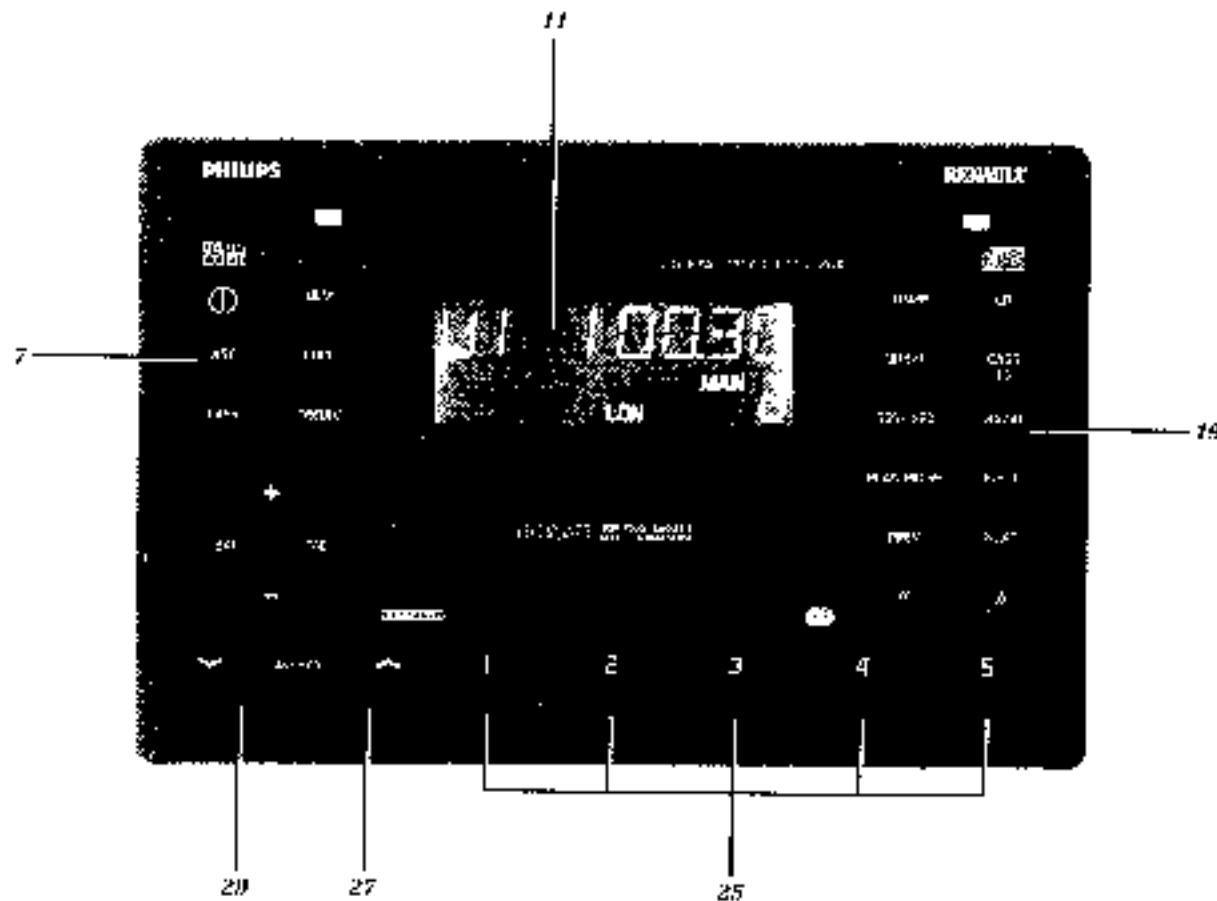
AUTOMATIC PROGRAMMING IN FM (Autostore)

The automatic storing (Autostore) extends the autmatic search function

This consists of initiating in a single operation, the selection and storing of the 5 strongest FM stations in the region without having to know their waveband lengths.

If fewer than 5 stations are memorised, the pre selection slots which have not been filled will be allocated the value 0000.

Procedure :

– Press key 7 on the radio or 33 on the satellite for more than one second; the symbol AST flashes

– Wait for the final bleep to signal the end of automatic programming, sound to be heard and the first pre-selection station to be displayed.

If you no longer want one of the stations pre-selected, the search procedure for a new station can be used by pressing the corresponding pre-selection key 25 for more than one second.
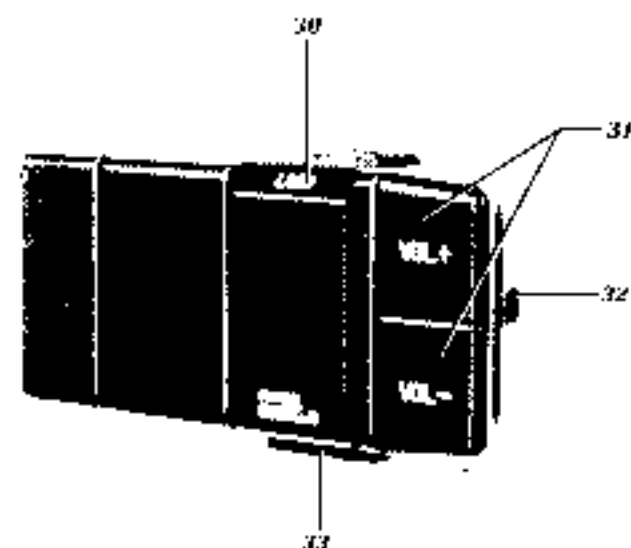
PERSONNALISED STATIONS

This function allows you to name (5 characters) the stations memorised in the pre-selections P1 to P5 and for the wavebands U1 (FM1), U2 (FM2), L (GO) and M (PO).

This name is displayed at **11** each time the pre-selection is recalled.

Example :   `U1 10220`   →   `U1 STAR2`

Method

a) Press a pre-selection key (P1 to P5).

b) Prolonged pressure on key **19**. On the display at **11**, the 5 characters on the right flash "A".

c) Alter the character using key **27** or key **29**.

d) Alter the character by pressing keys **27** or **29**.
   The different values are :
   A, B, C, ., X, Y, Z, « », 0, 1, ..., 8, 9, A, B, ... using key **27**
   9, 8, ..., 1, 0, « », Z, Y, X, ..., C, B, A, 9, 8, . using key **29**.

e) Validate your selection by pressing the previous pre-selection key   The 2nd character beings to flash and the first is fixed.

f) Repeat operations d) and e) for the 2nd, 3rd and 4th characters and only operaton d) for the 5th character.

   NOTE : A letter may be directly erased by prolonged pressure (more than one second) on the corresponding pre-selection key.

g) Validate the complete name by prolonged pressure on key **19**.

From now on, the name which you have entered for a pre-selected station will appear for a few seconds on display **11**.

To find out the frequency of the station, briefly press key **19**   The frequency appears for a few seconds on display **11**.

Example:

Press 19	Press P1 then 27 or 29	Press P2 then 27 or 29	Press P3 then 27 or 29	Press P4 then 27 or 29	Press P5 then 27 or 29	Press 19 "BLEEP"

`U1 10220` → `U1 AAAAA` → `U1 SAAAA` → `U1 STAAA` → `U1 STAAA` → `U1 STARA` → `U1 STAR2` → `U1 STAR2`
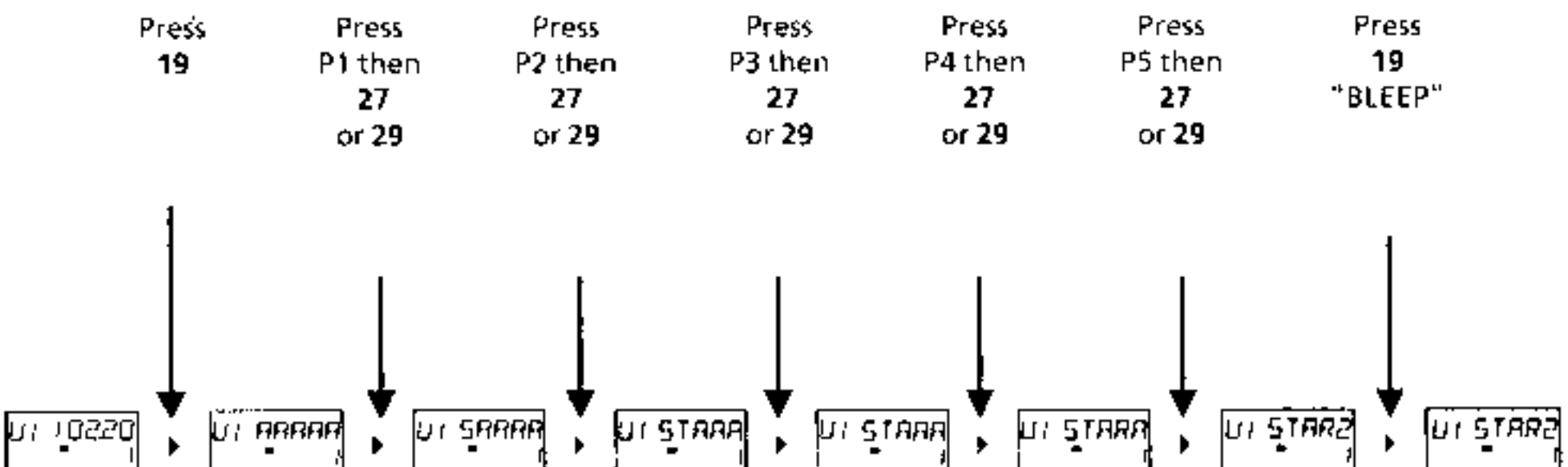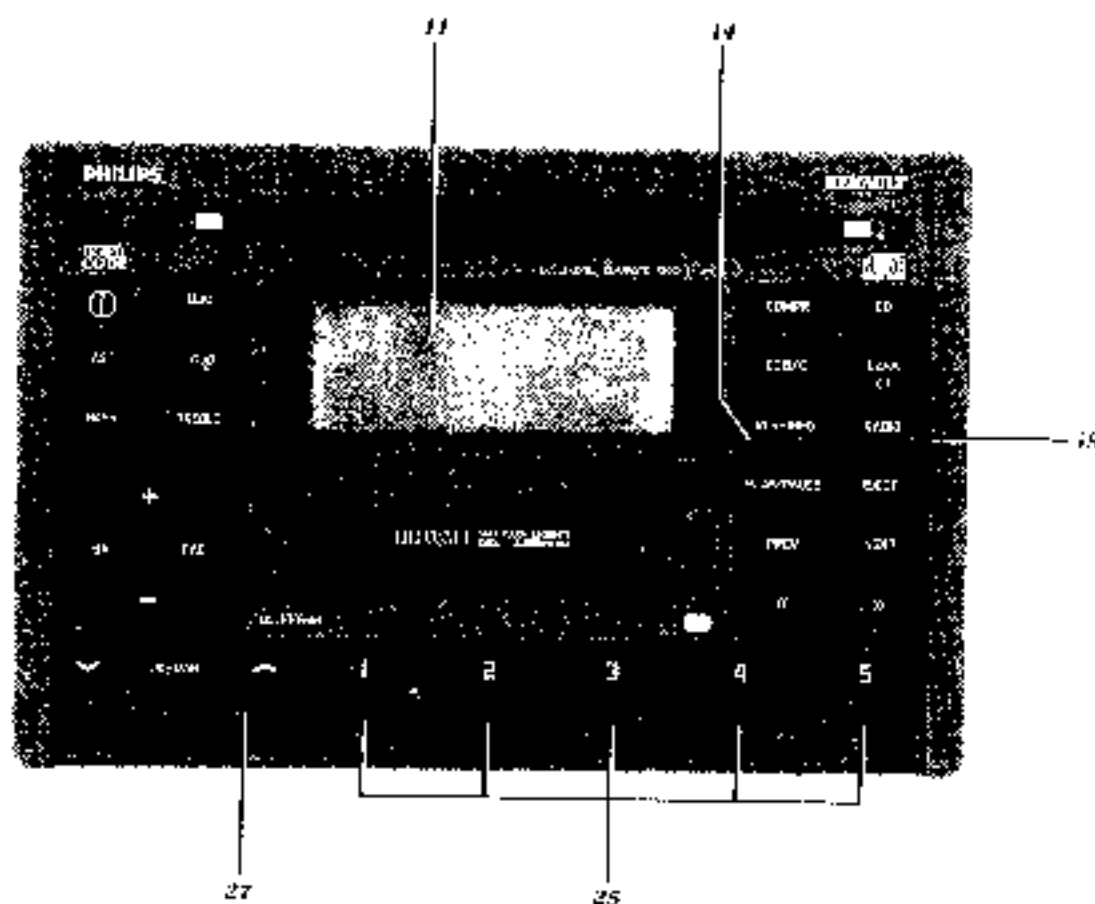
Using the radion in RDS mode (Radio Data System)

RDS is a system which allows certain FM stations to broadcast inaudible information alongside the radio signal, which:

– displays the name of the programme broadcast,

– allows automatic monitoring of the programme initially selected, during a journey for example,

– allows selection of stations broadcasting road traffic information (INFO mode).

Displaying a programme name

When the set is turned to an RDS station, during automatic or manual searching, the display **11** shows the waveband and frequency which is active the time that the set decodes the station name.
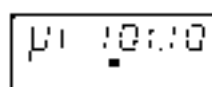
The display then alters and the name of the programme is displayed, the waveband disappears
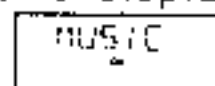
This function is active whatever the setting for key **14**.

11A

```
|▒▒|▒▒|▒▒|▒▒|▒▒|▒▒.|▒▒|▒▒|

        ∞    AST   MAN    8
  RDS  DBC  LDN  INFO   TP
```

11B   **11G 11I**

RDS System operating principle

Briefly press key **14** to select the RDS mode.   Tell-tale **11B** illuminates.

This is fixed if the set is tuned to an RDS station   If not, it flashes for about 15 seconds before being extinguished.

Apart from its name, an RDS station broadcasts a list of all stations broadcasting the same station.

When travelling around, these different stations are scanned automatically by the set, which selects the one with the strongest signal   This is shown on the display **11**, then the name (illuminated) of the programme remains unchanged.

To discover the frequency of the station, press key **19** and the display shows the usal information for a few seconds (waveband and frequency).

Selection of another source (cassette or CD) whilst listening to an RDS station does not affect automatic monitoring being displayed.

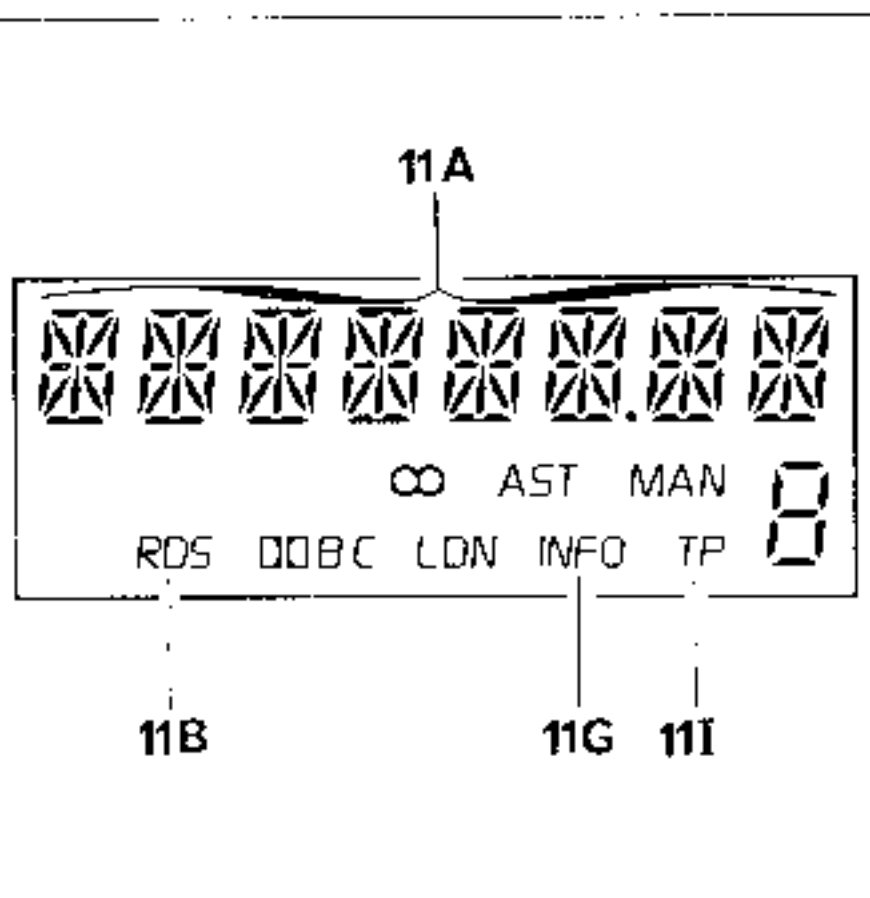Briefly pressing key **14** again cancels the RDS mode. The tell-tale **11B** extinguishes.

NOTE : During changeover from one RDS station to another, or whilst "displayed" scanning is taking place, the sound may be briefly interrupted.

Automatic searching of RDS stations

This is carried out either from an RDS station with the RDS mode activated (tell-tale **11B** illuminated), or from a non-RDS station, after briefly pressing key **14**.

The procedure is identical to that for non-RDS stations (see page 12).

Important : After the FM band has been scanned 3 times (once for each level of sensitivity), and no station has been found, the RDS mode is cancelled and searching begins agains at the DX level (see page 13)

Storing RDS stations

The procedure is identical to that for non-RDS stations (see page 13).

The RDS mode is automatically memorised at the same time as the frequency, as well as any alteration to the mode during listening.

Autostore in RDS mode

Starting this function may be done :

– either from an RDS station with RDS mode active (tell-tale **11B** illuminated),

– or from a non RDS station, after briefly pressing key **14**

The procedure is identical to that for non-RDS stations (see page 14).

After the FM band has been scanned 3 times (once for each level of sensitivity), and less than 5 RDS stations have been found, the RDS mode is cancelled and searching begins again to fill the pre-selections with non-RDS stations.

using the radio in the INFO traffic information mode (depending on country)

This radio is capable of identifying FM stations broadcasting road traffic information using the RDS system.

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

it is important to check that the tell-tale **11G** is not illuminated before FM programming.

incorrect use in the INFO mode is shown up by:

– station selected being impossible to hear,

– automatic search function being triggered, signalled by a bleep.

In this case, deactivate the INFO mode by maintaining pressure on key **14** or wait for the original frequency to return, INFO mode suppressed, which occurs when no INFO station is received at a satisfactory level.

● **For countries with a road traffic information system**

If your radio is tuned to a station broadcasting traffic information, the tell-tale **11I** will illuminate when you are in an area covered by this station, whether your radio is in the normal mode or in the INFO mode.

Operating the INFO mode on the radio

Activate the INFO mode by continuouis pressure on key **14** (INFO tell-tale **11G** illuminated) and one of two things will occur :

– if the radio isalready tuned to a traffic information station, tell-tale **11G** will illuminate and the programme will be heard,

– if the radio is not tuned to a traffic information station, tell-tales **11B** and **11G** illuminate. After several seconds the set will search upwards automatically, which is indicated by a bleep and a change in the display.

The display shows $\boxed{\text{LOC ?}}$ or $\boxed{\text{DX ?}}$
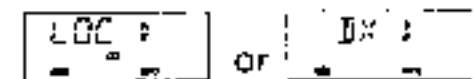
The tell-tale 11G flashes during the search which continues until the first RDS station broadcasting a TP message is found.

Automatic searching is limited to these types of stations.

This function is effective whilst listening to the radio, cassette or CD.

The original frequency is the one being listened to (radio mode) or the last frequency to be heard (cassette or CD mode).

To come out of the INFO mode, maintain pressure on key **14**.
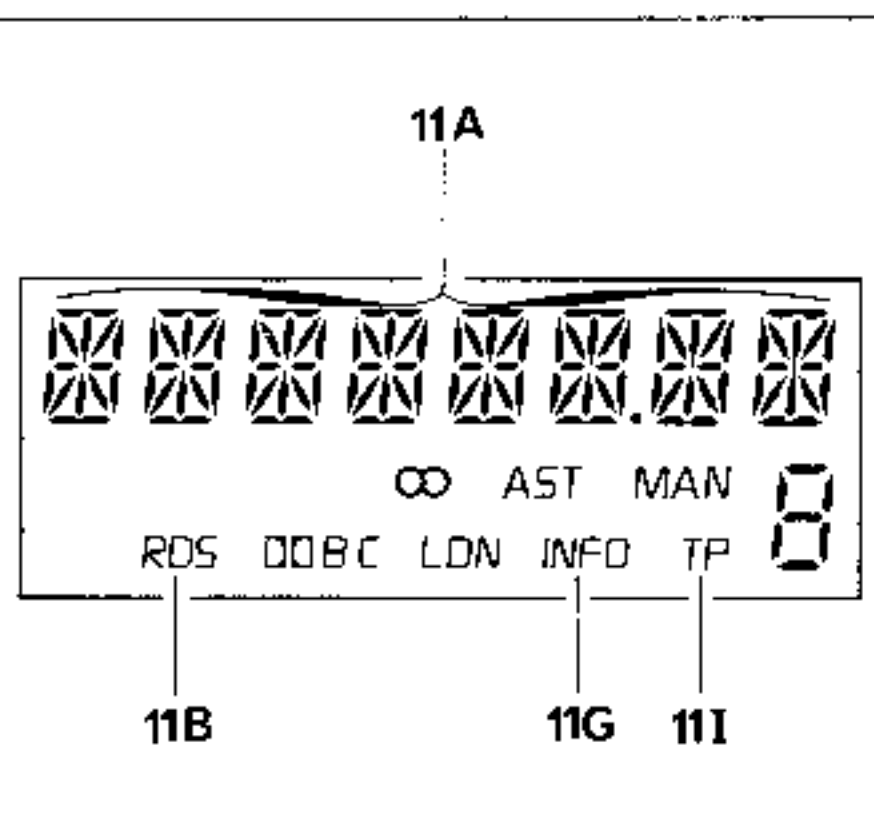
INFO mode regionalisation

This function is only effective in limited areas of Germany.

It allows monitoring of a station broadcasting regional information.

It is activated and cancelled by pressing keys **14 and 19** at the same time

The message ⌐REG ON¬ or ⌐REG OFF¬ is displayed for 2 seconds.

This function is not shown on the radio front control panel

Programming INFO stations

The INFO stations are programmed in the same way as conventional non-INFO stations, in memories P1 to P5 (key **25**) in the FM waveband, by substituting the stations pre-selected in the normal FM mode..

The INFO stations may be programmed using the automatic or manual search function.

– For automatic searching there are 2 particular instances :

a) you are not happy with the INFO stations to which you are listening; the automatic search can be restarted by holding down key **27**; the set automatically switches to the next INFO station in the region and tell-tale **11I** will illuminate;

b) the signal received becomes weak, the tell-tale **11I** is extinguished and after 5 seconds a local station broadcasting more strongly will automatically be searched for, accompanied by a bleep. However, if no station is found at a satisfactory level, the set returns to the original station. The INFO mode is suppressed.

– manual searching :

If you know the frequency of an INFO station (for example, having seen the frequency on one of the signs along the motorway) you can go directly to it - see page 12.

once the station has been selected, activate the INFO mode by maintaining pressure on key **14**.

NOTE : When a pre-selection is recalled, if reception is too weak, the display shows alternately :

This display remains whilst the set searches the list sent by the original station to see if there is another frequency where the same "MUSIC" programme is broadcast.

Emission of messages INFO mode active, tell-tale **11G** illuminated).

When a cassette or CD is playing :

if you wish to hear traffic messages whilst listening to a cassette or CD, select the INFO station frequency before playback.

The message will then be emitted instead of the sound of the cassette or CD at the same sound level. The cassette or CD will continue at the end of the message

Attention : Certain INFO stations only broadcast road traffic information in the radio mode.

CASSETTE PLAYER
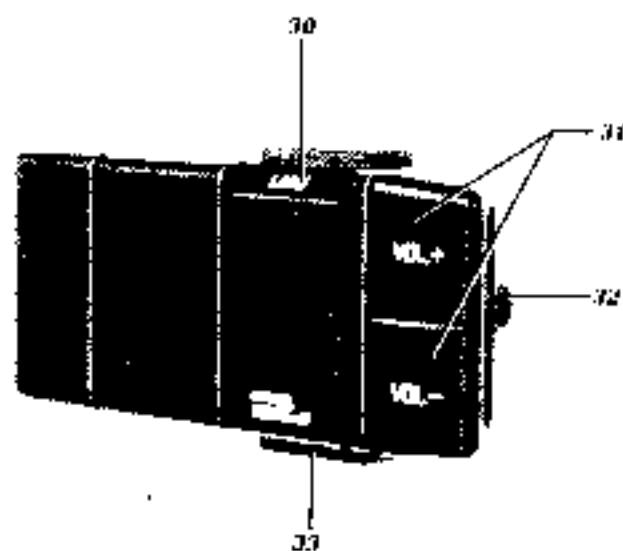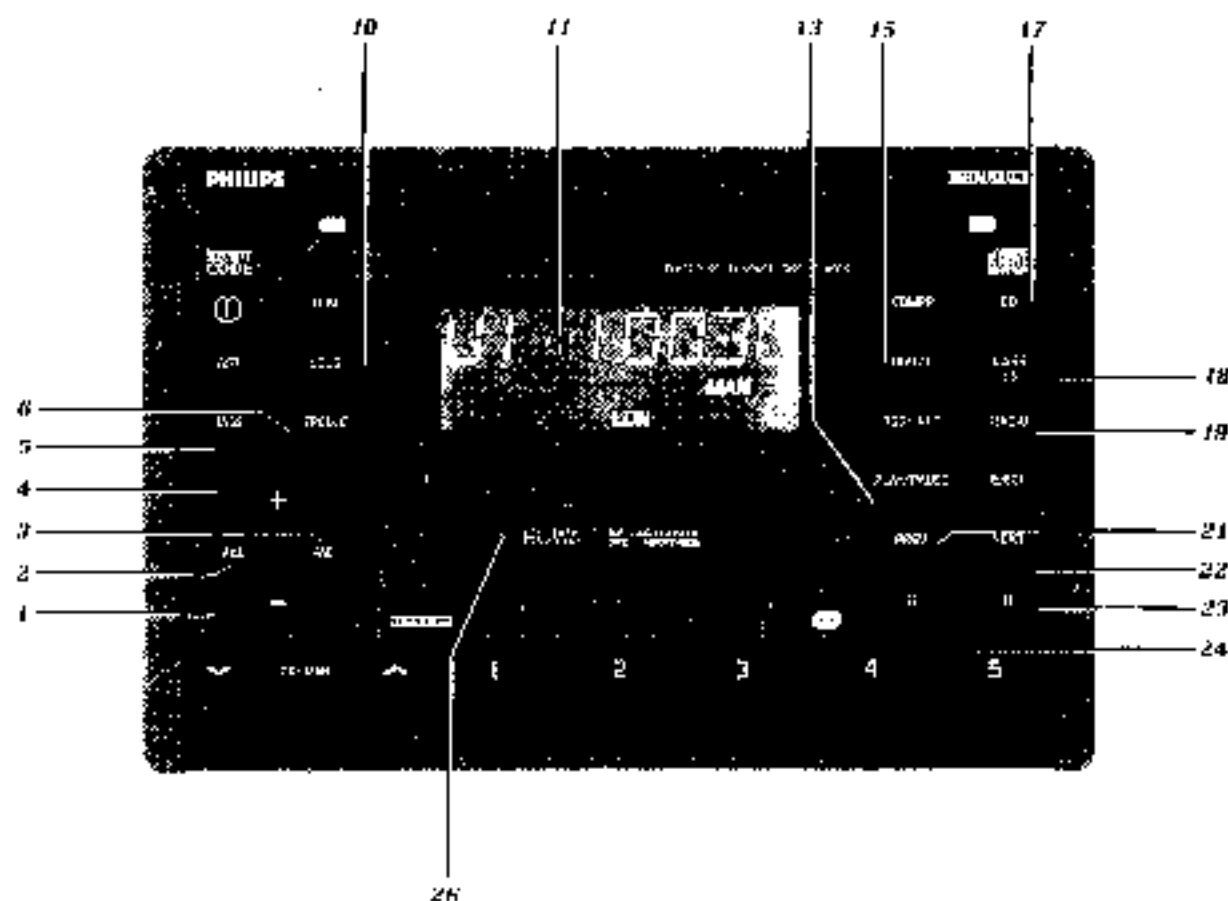
Inserting a cassette :

– stops the radio or CD playing,

– temporary display on **11** of the type of cassette used
(chrome or metal) CASS CR or CASS FERI

– playing the cassette in the conventional direction (top track) is displayed on **11** by
CASS ...

NOTE : If the cassette is at the end of one side, it is played in the opposite direction, displayed as

CASS ... or CASS ...

Accessing cassette mode.

Pressing key **18** selects the cassette mode and starts play. Key **30** also selects this mode. If there is no cassette in the compartment **26**, a beep sounds and the message
CASS OUT appears on the display **11**.

The set remains in this mode until a cassette is inserted or another mode is selected (radio or CD).

Playing a cassette.

Sound adjustments are as described on page 11.

Key **15** allows selection of Dolby B or Dolby C.

Inverting the play direction

During playback, pressing key **18** or **33**, changes the direction of play and the display **11** changes accordingly.

Track search

Action		Display	Result
pressing a key	tumblewheel 32		
1 press 21	1 notch up	PREV 01	Fast rewind to start of current track
2 presses 21	2 notches up	PREV 02	Fast rewind to start of previous track
3 presses 21	3 notches up	PREV 03	Fast rewind to start of track before previous track
etc.	etc.		etc.
1 press 22	1 notch down	NEXT 01	Fast forward to start of next track
2 presses 22	2 notches down	NEXT 02	Fast forward to start of next but one track
3 presses 22	3 notches down	NEXT 03	Fast forward to start of next but two track
etc.	etc.		etc.

The figure on the display reduces for each track found.
If the tape comes to the end or beginning, the operation is stopped and playback continues in the opposite direction.

This function is stopped by pressing key **13** or briefly pressing key **33** on the satellite.

Fast winding

Press key **23** or **24** according to winding direction required.

Key	Function	Display
23	Fast forward	CASS
24	Fast rewind	CASS

Stopping fast winding

Press key **13** or briefly press key **33** on the satellite.
Play resumes on the side currently being played.

Changing source without ejecting

Pressing key **17** or **19** activates the CD or radio mode respectively, without ejecting the cassette. This function is also available by pressing key **30** on the satellite.
Playback, fast winding and track search are interrupted, and the playback head is disengaged.
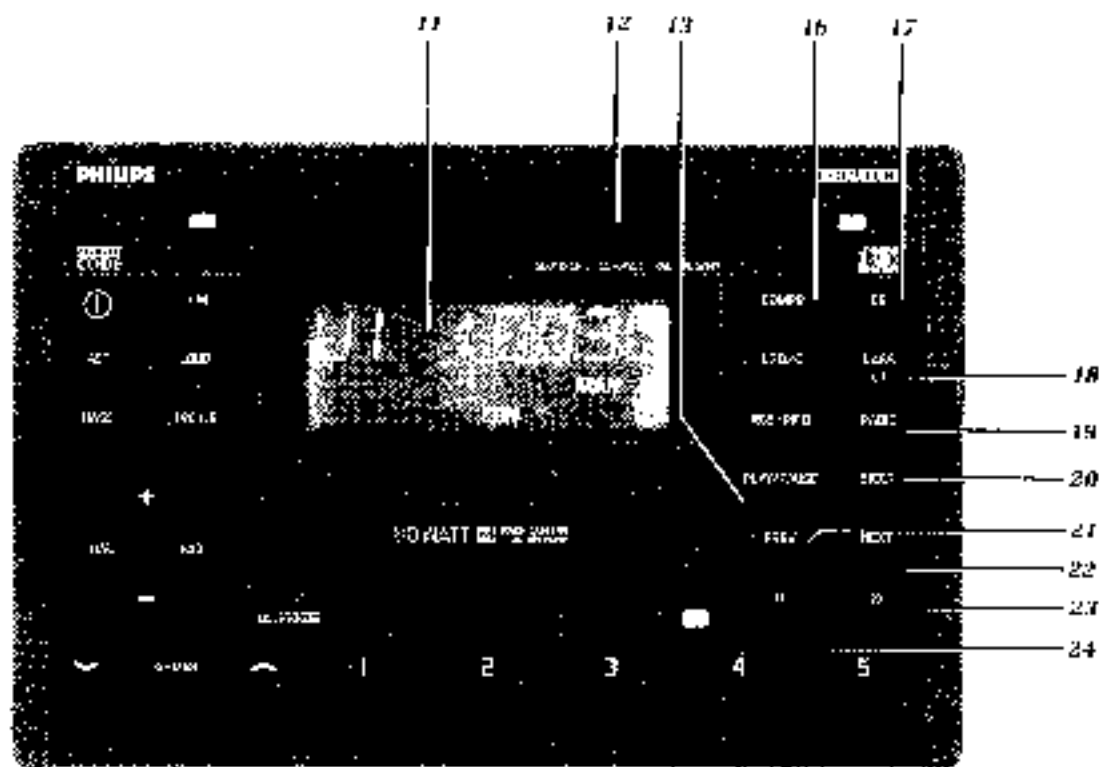
Stopping playback

~ During playback, pressing key **13** briefly disengages the playback head and stops the cassette playing.

Stoppage is displayed on **11**.   `PAUSE`

Pressing key **13** again plays the current side again..

- If the INFO mode is activated, the cassette playback is interrupted automatically and the playback head is disengaged while road traffic information is given. The tape starts playing again after the information has finished.

Ejection

- The cassette is ejected by pressing key **20**.

The radio returns to the last radio station listened to for more than 2 seconds.

NOTE :
- When the ignition is turned off, and when a CD is inserted, the playback head is automatically disengaged.

- All winding problems cause the playback head to be automatically disengaged, winding to stop and the cassette to be ejected.

COMPACT DISC PLAYER (CD)

When a CD is inserted :

- the radio or cassette stops playing

- the load indicator is temporarily displayed on 11

  `CD LOAD`

  (flashing).

- the first track is played and the track number is displayed, together with the active source
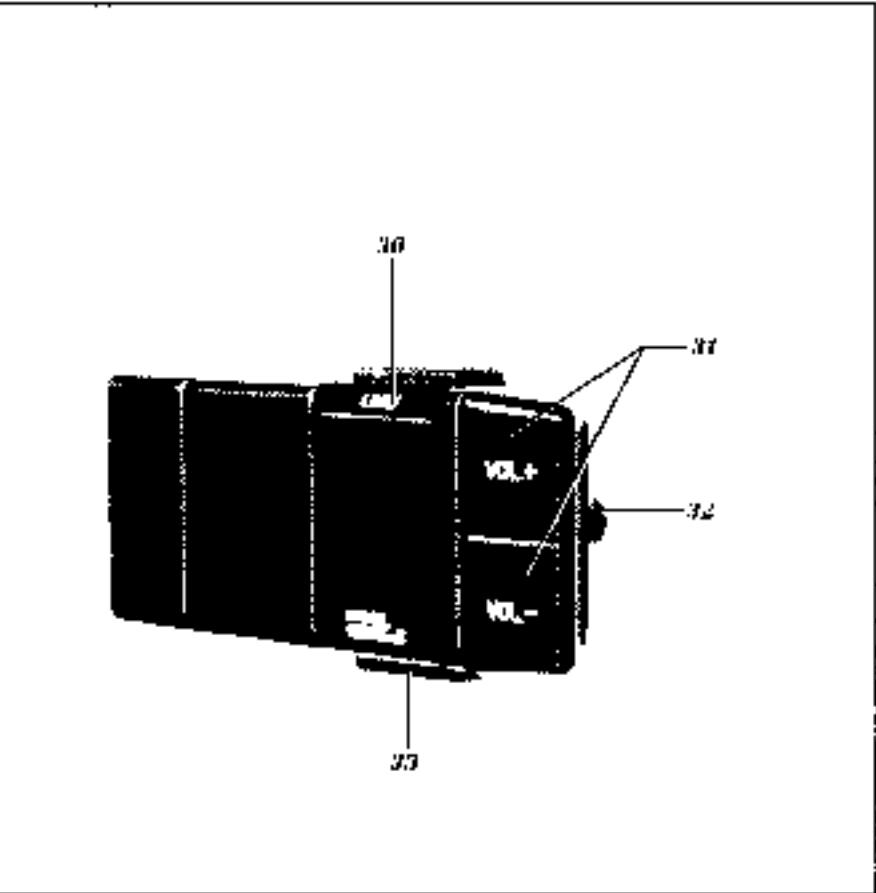
  `CD 01`

NOTE : at the end of the CD, playback begins again from the first track.

Accessing the CD mode

Pressing key **17** selects the CD mode and the temporary display `CD PLAY` appears, and playback begins.

If this is not the first time CD mode has been selected, playback begins at the start of the track which was being played the last time this mode was selected, and the track number is displayed.

`CD 03`

This selection can also be made using key **30**.

If there is no CD in the compartment **12**, a bleep is heard and `CD OUT` appears on the display **11**.

The set remains in this mode until a CD is inserted or the source is changed (to radio or cassette, see page 25).

Playing a CD

Sound adjustments are as described on page 11.

During playback, pressing key **17** displays the number of tracks and the total duration of the CD (in minutes) for about 3 seconds.

Example :

The display `15 68.33` indicates that the CD lasts 68.33 minutes and has 15 tracks.

Key **16** allows the graphic equaliser to be activated at any time (see below).

Graphic equaliser

System which lowers high signals and increases low signals.

Operation by pressing key **16** is shown temporarily on the display **11** by `COMP ON` and during play by the display `CD co 01` where 01 is the track number which changes during playback.

Pressing key **16** again stops the graphic equaliser function and the display temporarily shows `COMP OFF`

Playing of the CD continues with the usual display on 11 `CD 01`

Track search

● Key **22** searches for the following tracks when pressed repeatedly. The same operation can be carried out by turning the tumblewheel **32** from top to bottom by one or more notches.

The track selected is also displayed.

Example :
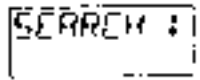
press **22** twice
or rotate tumble wheel **32**
2 notches from top to bottom

NOTE : When the last CD track is reached, pressing key 22 has no effect. The CD returns to the beginning of the last track.

● Key **21** searches for previous tracks when pressed repeatedly. The same operation can be carried out by turning the tumblewheel **32** from bottom to top by one or more notches.

The track selected is also displayed.

Example :
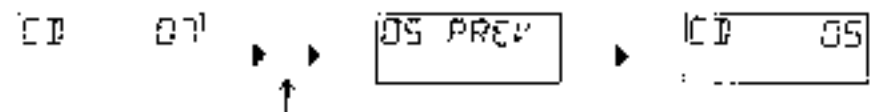
press **21** twice
or rotate tumble wheel **32**
2 notches from bottom to top

NOTE : When the first CD track is reached, pressing key 22 has no effect. The CD returns to the beginning of the first track.

Fast playing

~ During playback, pressing key **23** plays the current track forwards at accelerated speed.

The message $\boxed{\text{SEARCH :}}$ appears on the display **11** and remains as long as key **23** is held down.

If the end of the CD is reached, playback begins again from the first track.

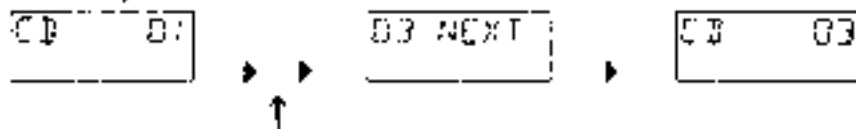– During playback, pressing key **24** plays the current track backwards at accelerated speed.
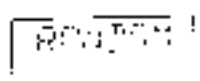
The message $\boxed{\text{: SEARCH}}$ appears on the display **11** and remains as long as key **24** is held down.
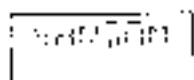
If the start of the CD is reached, playback begins again from the first track.

Random playback
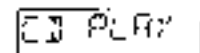
This function is only available from the satellite.

Select it by briefly pressing **33**.

The message $\boxed{\text{RANDOM :}}$ briefly appears on the display **11** The playing order of the tracks on the CD is then randomly selected.

At the end of each track the message $\boxed{\text{RANDOM}}$ appears again on the display, while the set selects the next track to be played All the tracks on the CD are then played in a random order.

Pressing **21** and **22** gives the same result.

Pressing **33** briefly again stops this function. The message $\boxed{\text{CD PLAY}}$ appears on the display **11**.

This function is cancelled when the set is switched off and when the CD is ejected.

Changing source without ejection.

Press key **18** or **19** to activate the cassette mode or the radio mode respectively.

This function is accessible from key **30** on the satellite.
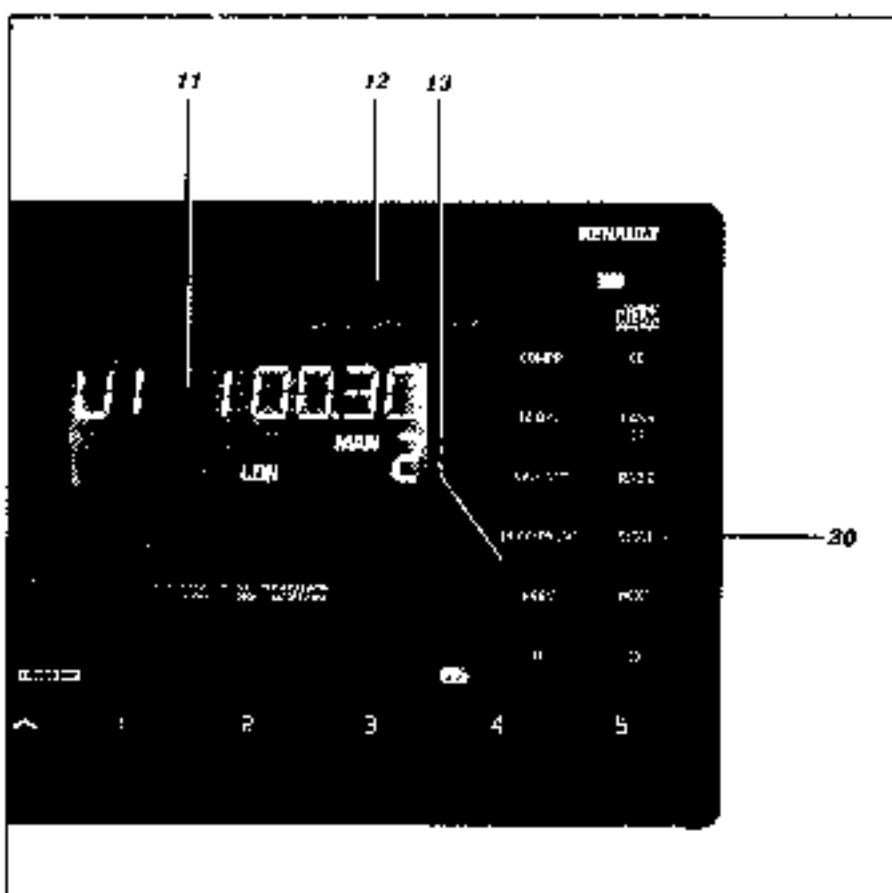
Stop and eject

- CD play is stopped by pressing key **13**.

  Stoppage is shown on the display **11**.

  ⎿ CD PAUSE ⏌

  Pressing key **13** again starts playback at the position where it was last stopped.

- If the INFO mode is activated, (**11G** illuminated) playback is interrupted automatically while road traffic information is given. The CD starts playing again after the information has finished.

- CD playback is interrupted when a signal for sound volume cut-off signal is received (eg : voice synthesiser).

- The CD is ejected by pressing key **20**.

  The display **11** temporarily shows ⎿ CD EJECT ⏌

  The set returns to the last radio station listened to.

  If the CD is not removed from the compartment **12**, after about 10 seconds, it is automatically reinserted..

NOTE :

- There is a system which protects the CD against excessive temperatures, which stops playback and displays the message "temp". The radio and cassette mode are accessible, but volume is limited.

  Normal operation resumes when the temperature drops.

- When a faulty CD is detected (eg : scratches, frost, condensation ...) the CD is ejected and the message "CD ERROR" is displayed.

1. Tuner

- Wave bands

  MW :   531 to 1 611 kHz.
  LW :   144 to 288 kHz.
  FM :   87,5 to 108 MHz.
  AST :   87,5 to 108 MHz.

- Intermediate frequencies

  10,7 MHz in MW-LW and FM.

- FM sensitivity

  6 µV (for S/B 26 dB at 94 MHz).
  Automatic search with 3 levels of sensitivity
  Autostore search with 3 levels of sensitivity (wave band search).

- IAC system

  Interference suppression in FM

- SDS system

  Automatic switch over to mono when the signal received by the aerial weakens

- SDR system

  Treble frequency cut-off when FM field weak.

- MDS/MDR system

  Automatic switching to SDS and SDR circuits when multi-track distortion occurs.

2. "Autoreverse" cassette player

- Keys = satellite - Loudness - Autoreverse.

- Playback head

  "Hard PERMALLOY"

- Tape speed

  4,76 cm/s.

- Wow and flutter

  0,2 % WRMS.

- Signal/noise ratio

  > 43 dB without dolby *
  > 51 dB with dolby * B.
  > 61 dB with dolby * C.

- Stereo separation

  > 28 dB.

- MSS system

  Track search; forward/backwards search for start of music tracks

- Dolby N.R. *

  Type B, type C.

3. Audio frequency amplifier

- Output (4 Ω : 14,4 V)

  4 × 20 W ± 1 dB for D ≤ 10 %.
  4 × 12 W for D ≤ 0,7 % (HIFI DIN 45500).

- Frequency response

  30 Hz to 20 kHz.

- Digital balance

  Right/Left.

- Digital fader

  Front/Rear.

- Bass

  + 10 dB at 60 kHz.

- Treble

  + 10 dB at 60 kHz.

- Loudness correction

  + 6 dB at 100 Hz.
  + 4 dB at 10 kHz.

4. CD Input

- Stereo separation

  > 45 dB

- Signal/noise ratio

  > 80 dB without equalisation.
  > 60 dB with equalisation.

* Registered by Dolby Inc. Laboratories
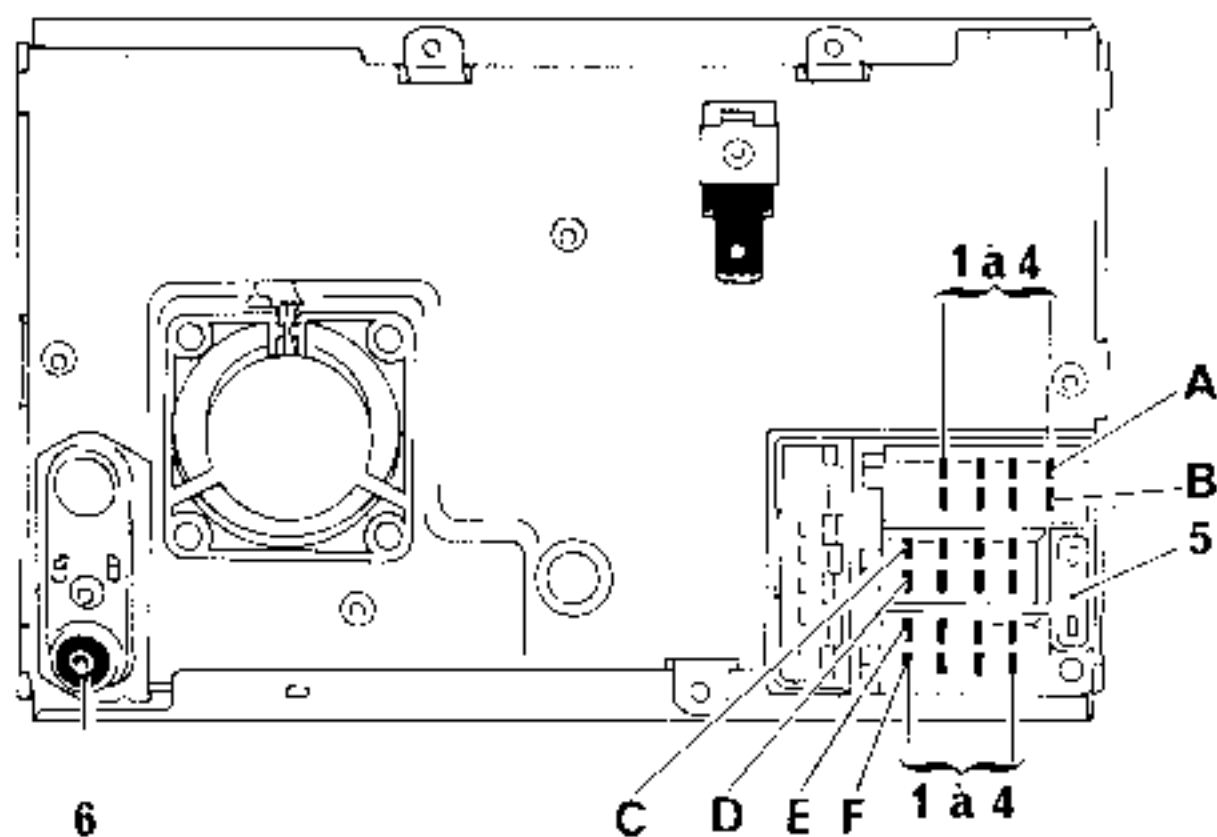
95.120

A/B Satellite connection

A1   earth

A2

A3   to satellite

A4

B1   earth screen cable

B2

B3   to satellite

B4

C/D loudspeaker connection

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 connection

E1   headphones info, rear loudspeaker signal ON/OFF

E2   speech synthesis

E3   electrical aerial

E4   + accessories

F1   + lights

F2   + permanent

F3   + rheostat

F4   earth

5   fuse 15 A

6   Aerial socket

Put the ignition key in Services position

The right hand side of the display illuminates and displays the time and external temperature

→ yes → Press stop/start key

no ↓

Check supply:
+ Accessories
+ Permanent
+ Rheostat
Earth

The radio illuminates — no → Check supply:
+ Permanent
+ After ignition
Earth.
+ Rheostat
Fuse 15 amp behind the set
Replace if necessary.

The display shows "CODE"

If the display still does not work, follow repair procedure

Check connections between radio and display

No key operates

no

If the audio set still does not work, follow the repair procedure.

The wrong code has been entered. leave the set on and wait 1 to 32 minutes, then press one of the radio preselection keys 1 to 4.

If fault persists, follow repair procedure

Begin operation again using MR ← no ← Display "CODE" disappears and 4 zeros are displayed

Having checked code with Regional Office , enter it : see pages 8 and 9 in MR ← yes ← If code cannot be validated using keys, remove satellite and start again.

Bleep signals code accepted ← yes → Wave band and frequency displayed

No reception ← Tune to an FM station which is well received → Reception, but poor quality (noise)

Test with prerecorded cassette or CD

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

Select LW station (well received)

No reception

Good reception. FM fault

no

Check speakers

If fault persists, remove satellite

Check: Correct aerial connection.
Aerial coaxial cable (Test with another aerial and another cable)

Fault persists

No fault, replace satellite

Follow repair procedure

RENAULT / PHILIPS   Initial equipment coded radio 4 X 20 W   New generation   Reference: ....

☐ Integral display   ☐ Separate display

SENDER :
ACCOUNT NUMBER : ⌷_⌷_⌷_⌷⌷ ⌷_⌷_⌷
ADDRESS : ....
....
....
TEL. : ....

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

SECURITY CODE NO. ⌷_⌷_⌷_⌷   FD number ⌷_⌷_⌷_⌷_⌷_⌷_⌷_⌷_⌷_⌷_⌷_⌷_⌷
(In case of complaint)

IMPORTANT FOR ALL REPAIRS

Ensure that the code and the set in your vehicle agree, if necessary check with your 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 : ....
....
....

WORKSHOP DIAGNOSIS

GENERAL   ☐ Does not illuminate
☐ Security code refused (Check with Regional Office ?)

RADIO   ☐ Poor or weak sound in   ☐ F.M.   ☐ F.M. R.D.S   ☐ L.W.   ☐ M.W.
☐ Interference ☐ F.M. ☐ F.M. R.D.S ☐   L.W ☐   M.W   Engine: Running☐/ stopped
Specify circumstances : ....

☐ Key .... does not work

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

COMPACT DISC   ☐ Insertion   ☐ Ejection difficult or impossible
☐ No sound
☐ Key .... does not work

AMPLIFIER   ☐ Balance does not work   ☐ front /rear   ☐ left/right
☐ Speaker does not work   ☐ front left   ☐ front right
☐ rear left   ☐ rear right   check headphone socket switch
☐ Equaliser does not work

DISPLAY.   ☐ Does not illuminate   ☐ Display fault   ☐ Time/temperature

SATELLITE   ☐ No operation with satellite, set operates when satellite disconnected
☐ yes   ☐ no

OTHER FAULTS : ....

COMPANY STAMP

Matter monitored by Mr : ....   Date : ....