

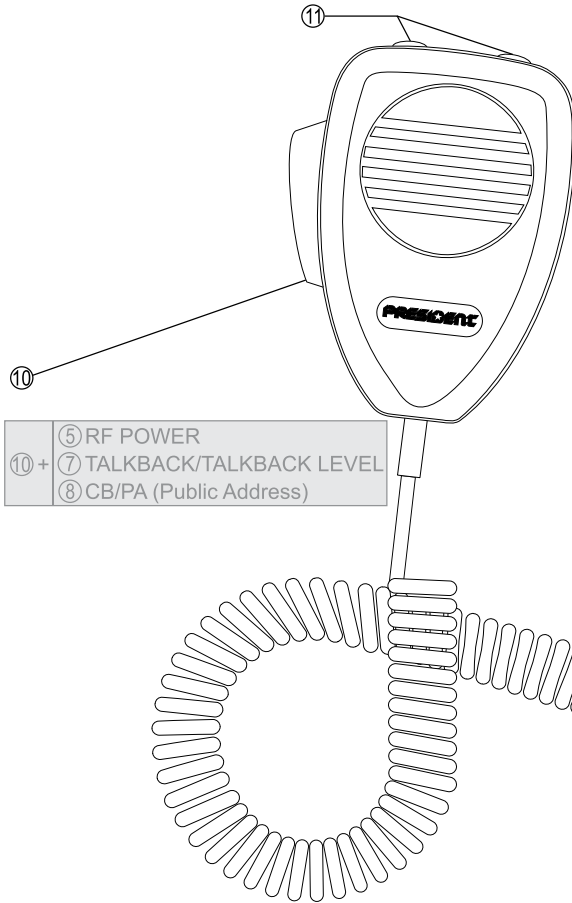
RONALD



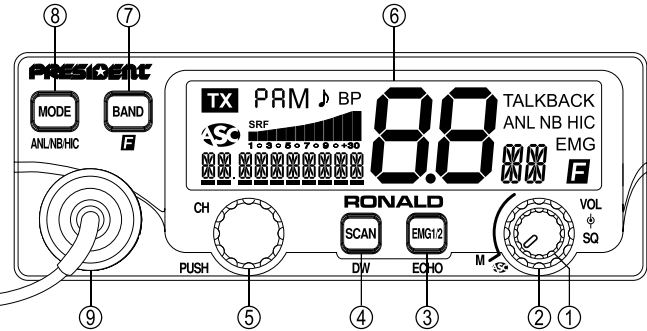
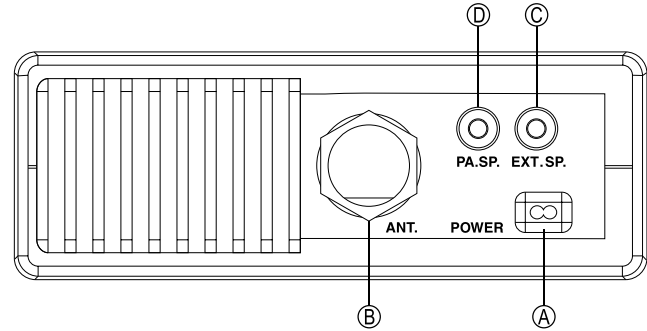
Owner's manual

PRESIDENT

Your **PRESIDENT RONALD** at a glance



- | | |
|-------|-------------------------|
| ⑤ | RF POWER |
| ⑩ + ⑦ | TALKBACK/TALKBACK LEVEL |
| ⑧ | CB/PA (Public Address) |

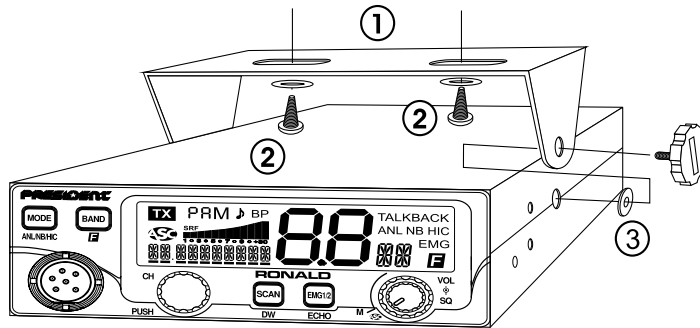


Welcome to the world of the new generation of transceiver radios. The new PRESIDENT range gives you access to top performance transceiver equipment. With the use of up-to-date technology, which guarantees unprecedented quality, your PRESIDENT RONALD is a new step in personal communication and is the surest choice for the most demanding of radio amateur users. To ensure that you make the most of all its capacities, we advise you to read carefully this manual before installing and using your PRESIDENT RONALD.

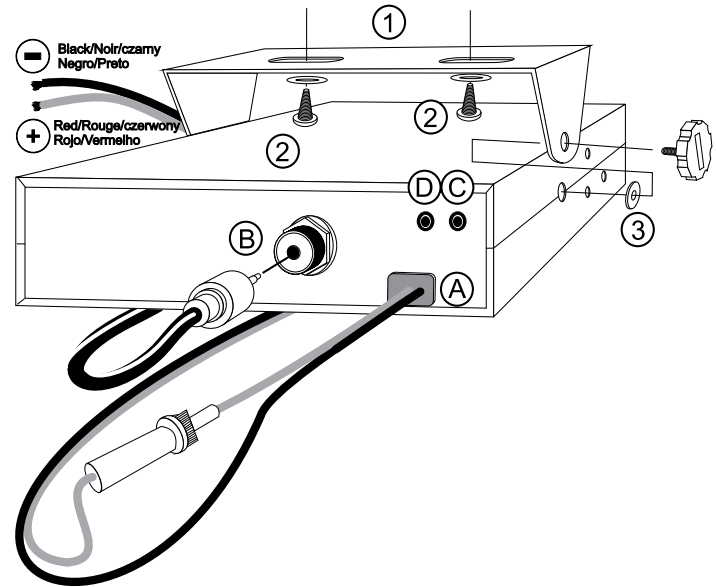
A) INSTALLATION

1) WHERE AND HOW TO MOUNT YOUR TRANSCEIVER

- You should choose a well ventilated place most appropriate setting from a simple and practical point of view.
- Your transceiver radio should not interfere with the driver or the passengers.
- Remember to provide for the passing and protection of different wires (e.g. power, antenna, accessory cabling) so that they do not in any way interfere with the driving of the vehicle.
- To install your equipment, use the cradle (1) and the self-tapping screws (2) provided (drilling diameter 3.2 mm). Take care not to damage the vehicle's electrical system while drilling the dash board.



- Do not forget to insert the rubber joints (3) between the transceiver and its support as these have a shock-absorbing effect which permits gentle orientation and tightening of the set.
- Choose where to place the microphone support and remember that the microphone cord must stretch to the driver without interfering with the controls of the vehicle.



- N.B.:** As the transceiver has a frontal microphone socket, it can be set into the dash board. In this case, you will need to add an external loud speaker to improve the sound quality of communications (connector EXT SP situated on the back panel: C). Ask your dealer for advice on mounting your transceiver radio.

2) ANTENNA INSTALLATION

a) Choosing your antenna

- For transceiver radios, the longer the antenna, the better its results. Your dealer will be able to help you with your choice of antenna.

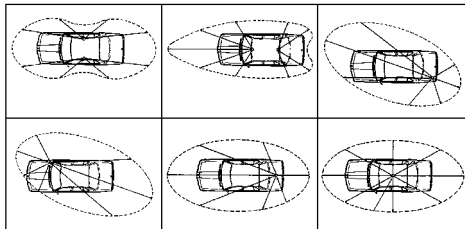
b) Mobile antenna

- Must be fixed to the vehicle where there is a maximum of metallic surface (ground plane), away from windscreen mountings.
- If you already have a radio-telephone antenna installed, the transceiver antenna should be higher than this.

- There are two types of antenna: pre-regulated which should be used on a good ground plane (e.g. car roof or lid of the boot), and adjustable which offer a much larger range and can be used on a smaller ground plane (see § **HOW TO ADJUST SWR**, below).
- For an antenna which must be fixed by drilling, you will need a good contact between the antenna and the ground plane. To obtain this, you should lightly scratch the surface where the screw and tightening star are to be placed.
- Be careful not to pinch or flatten the coaxial cable (as this runs the risk of break down and/or short-circuiting).
- Connect the antenna (**B**).

c) Fixed antenna

- A fixed antenna should be installed in as clear space as possible. If it is fixed to a mast, it will perhaps be necessary to stay it, according to the laws in force (you should seek professional advice). All PRESIDENT antennas and accessories are designed to give maximum efficiency to each transceiver radio within the range.



OUTPUT RADIUS PATTERN

3) POWER CONNECTION

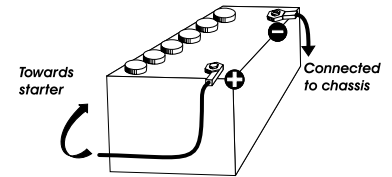
Your PRESIDENT RONALD is protected against an inversion of polarities. However, before switching it on, you are advised to check all the connections. Your equipment must be supplied with a continued current of 12 volts (**A**). Today, most cars and lorries are negative earth. You can check this by making sure that the negative terminal of the battery is connected either to the engine block or to the chassis. If this is not the case, you should consult your dealer.

WARNING: Lorries generally have two batteries and an electrical installation of 24 volts, in which case it will be necessary to insert a 24/12 volt converter (type CV 24/12 PRESIDENT) into the electrical circuit. The following connection steps should be carried out with the power cable disconnected from the set.

- Check that the battery is of 12 volts.

- Locate the positive and negative terminals of the battery (+ is red and - is black). Should it be necessary to lengthen the power cable, you should use the same or a superior type of cable.
- It is necessary to connect your transceiver to a permanent (+) and (-). We advise you to connect the power cable directly to the battery (as the connection of the transceiver cable to the wiring of the car-radio or other parts of the electrical circuit may, in some cases, increase the likelihood of interference).
- Connect the red wire (+) to the positive terminal of the battery and the black (-) wire to the negative terminal of the battery.
- Connect the power cable to your transceiver radio.

WARNING: Never replace the original fuse by one of a different value.



4) BASIC OPERATIONS TO BE

CARRIED OUT BEFORE USING YOUR SET FOR THE FIRST TIME (without transmitting and without using the "push-to-talk" switch on the microphone)

- Connect the microphone
- Check the antenna connections.
- Turn the set on by turning the **VOL** knob (1) clockwise.
- Turn the squelch **SQ** knob (2) to minimum.
- Adjust the volume to a comfortable level.
- Go to a center band frequency channel by using **PUSH** knob (5) or **UP/DN** keys (11) on the microphone.

5) HOW TO ADJUST SWR (Standing Wave Ratio)

Warning: This must be carried out when you use your radio for the first time and whenever you re-position your antenna. This adjustment must be carried out in an obstacle-free area.

* **Adjustment with external SWR meter (e.g. type TOS-1 PRESIDENT)**

a) To connect the SWR meter:

- Connect the SWR meter between the unit and the antenna, as close as possible to the set (use cable (15.75' / 40 cm maximum) type CA-2C PRESIDENT).

b) To adjust the SWR meter:

- Set the radio to a center band frequency in AM.

- Put the switch on the SWR meter to position **FWD** (calibration).
- Press the **PTT** switch (**10**) to transmit.
- Bring the index needle to ▼ by using the calibration key.
- Change the switch to position **REF** (reading of the SWR level). The reading on the Meter should be as near as possible to 1. If this is not the case, re-adjust your antenna to obtain a reading as close as possible to 1 (an SWR reading between 1 and 1.8 is acceptable).
- It will be necessary to re-calibrate the SWR meter after each adjustment of the antenna.

You can check at any time the SWR reading using the **SWR** function. See page 24.

Warning: In order to avoid any losses and attenuations in cables used for connection between the radio and its accessories, PRESIDENT recommends to use a cable with a length inferior to 3 m / 118,11".

Your transceiver is now ready for use.

B) HOW TO USE YOUR TRANSCEIVER

1) ON/OFF ~ VOLUME

Turn on radio: turn **VOL** knob (1). If the function **KEY BEEP** is active (see page 22), the radio emits a beep. The radio is "on".

Turn Off radio: counterclockwise turn **VOL** knob (1) until radio emits click sound. Your radio is "off".



Volume Adjustment: clockwise rotate **VOL** knob (1) to adjust volume. Turn the same knob anti-clockwise to reduce the sound level.

2) ASC (Automatic Squelch Control) ~ SQUELCH

Suppresses undesirable background noises when there is no communication. Squelch does not affect neither sound nor transmission power, but allows a considerable improvement in listening comfort.

a) ASC: AUTOMATIC SQUELCH CONTROL

Worldwide patent, a PRESIDENT exclusivity.

Turn the **SQ** knob (2) anti-clockwise into **ASC** position.  appears on LCD. No repetitive manual adjustment and a permanent improvement between the sensitivity and the listening comfort when **ASC** is active. This function can be disconnected by turning the switch clockwise. In this case the squelch adjustment becomes manual again.  disappears from LCD.

b) MANUAL SQUELCH

Turn the **SQ** knob (2) clockwise to the exact point where all background

noise disappears. This adjustment should be done with precision as, if set to maximum (fully clockwise), only the strongest signals will be received.

3) EMG 1/2 ~ ECHO

EMG 1/2 (short press)

Press **EMG 1/2** key (3) to **activate** priority Channels. "EMG" blinks on LCD. First press to **select** the first programmed priority channel, second press to select the second programmed priority channel, third press to go back to current channel, "EMG" disappears from LCD.

The default priority channels are channel **9** and channel **19**.

See menus **EMG SET 1** and **EMG SET 2** page 23 for the **PRIORITY CHANNEL** configuration.

ECHO (long press)

Long press **ECHO** key (3) to **enable/disable** **ECHO** function. LCD shows "ECHO ON/ECHO OFF" during 3 seconds.

See menu **ECHO SET** page 23 for **ECHO** configuration.

4) SCAN ~ DW

SCAN (short press)

Press **SCAN** key (4) to **enable** **SCAN** function. "SCAN" blinks on LCD. The scanning stops as soon as there is a busy channel. In **SCANNING** mode, press **PUSH** knob (5) or **UP/DN** keys (11) on the microphone to change scan direction. Press **SCAN** key (4) again or **PTT** switch (10) to exit **SCAN**. "SCAN" disappears from LCD.

See § **SCAN TYPE** page 24 for configuration of the **SCAN** type.

DW (Dual Watch) (long press)

This function **allows** to survey between programmed channel and the current channel.

Press **DW** key (4) to **enable** **DUAL WATCH** function. "DUAL WATCH" blinks on LCD. Press **DW** key (4) again or **PTT** switch (10) to exit **DUAL WATCH** function. "DUAL WATCH" disappears from LCD.

See menu **DW SETTING** page 24 for the **DUAL WATCH** channel configuration.

5) ROTARY "PUSH" KNOB

In **POWER ON** mode, turn rotary **PUSH** knob (5) to adjust frequency. Clockwise to increase, counterclockwise to decrease.

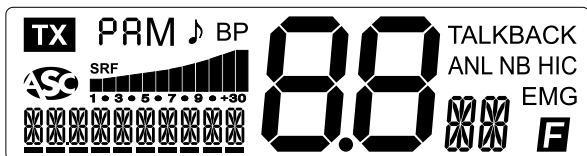
If **SPAN** function is active, a short press on **PUSH** knob (5) permits to **adjust** frequency continuously (see menu **SPAN** page 24).

In **MENU** mode (press **F** (7) to activate this mode (see § **MENU** page 22)).

1. Turn rotary **PUSH** knob (5) to *select* the function to set.
2. Press **PUSH** knob (5) to *choose* the setting parameter of the selected function. The parameter blinks on LCD.
3. Turn rotary **PUSH** knob (5) to *change* the value of the parameter.
4. New press **PUSH** knob (5) permits to *validate* the chosen value. The parameter stops blinking and if the function has more than one parameter, the next parameter blinks.

See § **UP/DN KNOBS ON THE MICROPHONE** page 22.

6) LCD



TX	Indicates transmission
PA	PA (Public Address) mode activated
AM	AM mode selected
FM	FM mode selected
	ROGER BEEP function activated
BP	Beep function activated
	Automatic Squelch Control activated
S/R/F	Bargraph shows the reception S and emission RF level
TALKBACK	TALKBACK function activated
ANL	ANL filter activated (in AM mode only)
NB	NB filter activated
HI-CUT	HI-CUT filter activated
EMG	The emergency preset channel activated (9 or 19 by default)
F	MENU mode activated
88	Indicates selected channel (large digits)
	Indicates selected band (digits on the right)
	Indicates frequency, menus and values of menu

7) BAND ~ F (Functions)

BAND (short press)

Press **BAND** key (7) for quick movement *skipping* 200 kHz in R / B / C / D / E / F / G / H / I segments.

See menu **BAND NAME** page 25.

F (Functions) (long press)

Long press **F** key (7) to *enter* in **MENU** and *set* different function. **F** appears on LCD.

8) MODE ~ ANL/NB/HIC

MODE (short press)

Press **MODE** key (8) to *select* the modulation mode: AM or FM. Selected mode is displayed on LCD.

Your modulation mode has to correspond to the one of your correspondent.

- Frequency Modulation / **FM**: for nearby communications on a flat open field.
- Amplitude Modulation / **AM**: communication on a field with relief and obstacles at middle distance (the most used).

NB/ANL/HIC (long press)

NB: Noise Blanker / **ANL**: Automatic Noise Limiter. These filters allow reducing back ground noises and some reception interferences.

HI-CUT: Cuts out the high frequency interferences and has to be used in accordance with the reception conditions. When active, the filter is displayed on LCD.

Press **NB/ANL/HIC** key (8) to *activate* the filter or filters.

4 positions switch: **1** no filter. **2** only ANL and NB filters activated. **3** only HIC filter activated. **4** all the filters (ANL, NB and HIC) activated.

Default Value, no filter activated.

Warning: **ANL** filter works only in AM mode

9) 6 PIN MICROPHONE PLUG

The plug is located on the front panel of the transceiver and makes the setting of the equipment into the dashboard easier.

See *Cabling Diagram* page 71.

10) PTT

Transmission key, press to transmit a message, **TX** is displayed and release to listen to an incoming communication.

11) UP/DN KNOBS ON THE MICROPHONE

Use **UP/DN** keys (11) to *select* the frequency. **UP** to increase frequency and **DN** to decrease frequency.
See **PUSH ROTARY** page 8.

A) DC-POWER TERMINAL (13,8 V)

B) ANTENNA CONNECTOR (SO-239)

C) JACK FOR EXTERNAL OPTIONAL SPEAKER (8 Ω, Ø 3,5 mm)

D) JACK FOR PA OPTIONAL SPEAKER (Public Address) (8 Ω, Ø 3.5 mm)

C) MENU

The order of 16 functions is as described in this manual. However, the function displayed by entering the **MENU** will be the last function modified by user. Whatever the function the procedure is the same:

Press **F (7)** for 2 seconds to *enter* or *exit MENU*. **M** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* the function to be set.
2. Press **PUSH** knob (5) to *select* the setting parameter of the chosen function. The parameter blinks on LCD.
3. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) knob to *modify* the value of the parameter.
4. New press **PUSH** knob (5) permits to *validate* the chosen value. The parameter stops blinking and if the function has more than one parameter, the next parameter blinks.

Note: **UP/DN** keys (11) on the microphone have the same effect as the rotation of **PUSH** knob (5). Transmission **PTT** switch (10) *validates* the last setting and exists **MENU**. **M** disappears from LCD.

1) BACKLIGHT COLOR

Press for 2 seconds **F (7)** key to *access* to **MENU**. **M** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* **COLOR** function.
2. Press **PUSH** knob (5). The current color blinks on LCD.
3. Use **UP/DN** keys (11) on the microphone or turn the **PUSH** knob (5) to *select* the desired color. Seven colors are possible and long-repeated:

→ red / green / blue / cyan / yellow / purple / cyan light
rE / Gr / bL / cY / yE / pU / cL

4. New press **PUSH** knob (5) permits to *validate* the chosen color. The color stops blinking. **a)** Return to point 1 to *select* another function to set or **b)** Press **PTT** switch (10) to *validate* and *exit MENU*.
5. If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.
Default color is rE (red).

2) KEY BEEP

Press for 2 seconds **F (7)** key to *access* to **MENU**. **M** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* **KEY BEEP** function.
2. Press **PUSH** knob (5). The current parameter blinks on LCD.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **activate** $\square n$ /**deactivate** $\square F$ the **KEY BEEP** function.
- New press **PUSH** knob (5) permits to **validate** the choice. The parameter stops blinking. **a)** Return to point 1 to **select** another function to set or **b)** Press **PIT** switch (10) to **validate** and **exit MENU**.
- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new press on **F (7)** key.

When the function is activated, a beep sounds when key is pressed, changing the channel etc. “**BP**” appears on the display when the function is active. Default value is $\square n$.

3) ROGER BEEP

Press for 2 seconds **F (7)** key to **access** to **MENU**. $\square F$ is displayed.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **ROGER BEEP** function.
- Press **PUSH** knob (5). The current parameter blinks on LCD.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **activate** $\square n$ /**deactivate** $\square F$ the **ROGER BEEP** function.
- New press **PUSH** knob (5) permits to **validate** the choice. The parameter stops blinking. **a)** Return to point 1 to **select** another function to set or **b)** Press **PIT** switch (10) to **validate** and **exit MENU**.
- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.

When the function is active, \square appears on LCD.

The Roger Beep sounds when the **PIT** switch (10) on the microphone is released in order to let your correspondent speak. Historically as transceiver is a “simplex” communication mode, it is not possible to speak and to listen at the same time (as it is the case with a telephone). Once someone had finished talking, he said “Roger” in order to prevent his correspondent that it was his turn to talk. The word “Roger” has been replaced by a significant beep. There comes “Roger beep” from.

Default parameter is $\square F$.

4) EMG SET 1

Press for 2 seconds **F (7)** key to **access** to **MENU**. $\square F$ is displayed.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **EMG SET 1** function.
- Press **PUSH** knob (5). The priority channel blinks on LCD.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the priority channel 1.
- New press **PUSH** knob (5) permits to **validate** the choice of the channel. The channel stops blinking.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the frequency band in segments: **R / B / C / D / E / F / G / H / I** (see **BAND NAME** page 25).

- New press **PUSH** knob (5) permits to **validate** the choice of the band. The band stops blinking. The third parameter, the mode, blinks.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the mode **AM** or **FM**.

- New press **PUSH** knob (5) permits to **validate** the chosen mode. The mode stops blinking. **a)** Return to point 1 to **select** another function to set or **b)** Press **PIT** switch (10) to **validate** and **exit MENU**.

- If no key is pressed, the unit **exits MENU** after 10 seconds or by a new long press on **F (7)** key.

Default programmed Priority Channel 1 is 9.

See § **EMG 1/2** page 20.

5) EMG SET 2

Press for 2 seconds **F (7)** key to **access** to **MENU**. $\square F$ is displayed.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **EMG SET 2** function.

The points 2 to 9 are identic to those of **EMG SET 1** page 23.

Default programmed Priority Channel 2 is 19.

See § **EMG1/2** page 20.

6) ECHO SET

Press for 2 seconds **F (7)** key to **access** to **MENU**. $\square F$ is displayed.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **ECHO SET** function.

- Press **PUSH** knob (5). The delay of the **ECHO** blinks on LCD.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **define** the value of the delay from 1 to 32 (default value is 32).

- New press **PUSH** knob (5) permits to **validate** the value of the delay. The delay stops blinking. The second parameter, time, blinks.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **define** the value of time from 1 to 32 (default value is 32).

- New press **PUSH** knob (5) permits to **validate** the value of time. The time stops blinking. **a)** Return to point 1 to **select** another function to set or **b)** Press **PIT** switch (10) to **validate** and **exit MENU**.

- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.

7) DW SETTING

Press for 2 seconds **F (7)** key to **access** to **MENU**. **■** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **DUAL WATCH** function.
2. Press **PUSH** knob (5). The dual watch channel blinks on LCD.
3. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the dual watch channel of your choice.
4. New press **PUSH** knob (5) permits to **validate** the choice of the dual watch channel. The channel stops blinking. The second parameter, the frequency band, blinks.
5. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the frequency band in segments: **A / B / C / D / E / F / G / H / I** (see **BAND NAME** page 25).
6. New press **PUSH** knob (5) permits to **validate** the choice of the band. The band stops blinking. The third parameter, the mode, blinks.
7. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the mode **AM** or **FM**.
8. New press **PUSH** knob (5) permits to **validate** the chosen mode. The mode stops blinking. **a)** Return to point **1** to **select** another function to set or **b)** Press **PTT** switch (10) to **validate** and **exit MENU**.
9. If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.
Default Dual watch channel is **9**.
See § **DW (Dual Watch)** page 20.

8) SCAN TYPE

Press for 2 seconds **F (7)** key to **access** to **MENU**. **■** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **SCAN TYPE** function.
2. Press **PUSH** knob (5). The current setting blinks on LCD.
3. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the type of **SCAN**. **SQ** Squelch or **ET** time.
4. New press **PUSH** knob (5) permits to **validate** the choice. The setting stops blinking. **a)** Return to point **1** to **select** another function to set or **b)** Press **PTT** switch (10) to **validate** and **exit MENU**.
5. If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.
SQ: scanning stops when busy channel is founded and doesn't restart as long as this channel remains active.
ET: scanning stops when busy channel is founded and return to scan after **5** seconds even if the channel remains active.
Default Scan type is **SQ**.

See § **SCAN** page 20.

9) SWR

Press for 2 seconds **F (7)** key to **access** to **MENU**. **■** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **SWR** function.
2. Press **PUSH** knob (5). The channel, the band and the mode blink on LCD.
3. Press **PTT** switch (10), the **SWR** value is displayed. In this function, as in the **RF POWER** function, a press on **PTT** switch (10) key **doesn't exit** from **MENU**.
4. If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.
See § **HOW TO ADJUST SWR** page 19.

10) SPAN

Press for 2 seconds **F (7)** key to **access** to **MENU**. **■** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **SPAN** function.
2. Press **PUSH** knob (5). The current setting blinks on LCD.
3. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **activate** **On** / **deactivate** **Off** the **SPAN** function.
4. New press **PUSH** knob (5) key permits to **validate** the choice. The setting stops blinking on LCD. **a)** Return to point **1** to **select** another function to set or **b)** Press **PTT** switch (10) to **validate** and **exit MENU**.
5. If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.

When the function is active, the frequency can be adjusted continuously. A short press **PUSH** knob (5) displays a bar in one of decimals of the frequency.

1. Press repeatedly to **select** the desired decimal. 2. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **increase/decrease** the frequency continuously with the channel and the band.

Note: the last two digits of the frequency may blink if it doesn't match exactly the frequency of the displayed channel.

Default setting is **On**.

11) MIC TYPE

The **PRESIDENT RONALD** can be used with the electret microphone as well as with the dynamic one, 6-pin **PRESIDENT** (see the cabling diagram page 71).

Press for 2 seconds **F (7)** key to **access** to **MENU**. **■** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to **select** the **MIC TYPE** function.
2. Press **PUSH** knob (5). The current setting blinks on LCD.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* the type on the microphone **EL_{EC}** (electret) or **d_{YN}** (dynamic).
- New press **PUSH** knob (5) permits to *validate* the choice. The setting stops blinking on LCD. **a)** Return to point 1 to *select* another function to set or **b)** Press **PTT** switch (10) to *validate* and *exit MENU*.
- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F** (7) key.

Default type of microphone is **EL_{EC}** (electret).

12) MIC GAIN

Press for 2 seconds **F** (7) key to *access* to **MENU**. **▣** is displayed.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* the **MIC GAIN** function.
- Press **PUSH** knob (5). The bargraph (under the frequencies) blinks on LCD.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *increase/decrease* the Gain level on the microphone (10 levels from 1 to 10).
- New press **PUSH** knob (5) permits to *validate* the level. The level stops blinking on LCD. **a)** Return to point 1 to *select* another function to set or **b)** Press **PTT** switch (10) to *validate* and *exit MENU*.
- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F** (7) key.

The Mic Gain value is displayed on the bargraph every time you press on **PTT** switch (10) to emit.

Default Mic Gain is level 5.

13) RF GAIN

Press for 2 seconds **F** (7) key to access to **MENU**. **▣** is displayed.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* the **RF GAIN** function.
- Press **PUSH** knob (5). The bargraph (under the frequencies) blinks on LCD.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *increase/decrease* the RF Gain level (10 levels from 1 to 10).
- New press **PUSH** knob (5) permits to *validate* the level. The level stops blinking on LCD. **a)** Return to point 1 to *select* another function to set or **b)** Press **PTT** switch (10) to *validate* and *exit MENU*.
- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F** (7) key.

The RF Gain value is permanently displayed on the bargraph.

The **RF GAIN** permits to adjust the reception sensibility.

Default RF Gain is the level 10.

14) BAND NAME

- Press for 2 seconds **BAND** key (7) key to *select* the band to be modified.
- Press **F** key (7) for 2 seconds to *access* to **MENU**. **▣** is displayed.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* the **BAND NAME** function.
- Press **PUSH** knob (5). The first digit blinks on LCD.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *choose* the character of the first digit.
- Press **PUSH** knob (5) to *validate* the first digit. The second digit blinks on LCD.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *choose* the character of the second digit.
- New press **PUSH** knob (5) permits to *validate* the new name assigned to the band selected in point 1. The parameter stops blinking. **a)** Return to point 1 to select another band to be modified. **b)** Press **PTT** switch (10) to *validate* and *exit MENU*.
- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F** (7) key.

Permits to rename the bands (with two digits).

Default name of the bands is: **A / B / C / D / E / F / G / H / I**.

See menu **RESET BAND** function page 26.

15) PA SETTING

Press for 2 seconds **F** (7) key to *access* to **MENU**. **▣** is displayed.

- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* the **PA SETTING** function.
- Press **PUSH** knob (5). **PR** blinks on LCD.
- Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *choose PR* or *in* setting.
- New press **PUSH** knob (5) permits to *validate* the choice. The parameter stops blinking. **a)** Return to point 1 to select another function to set or **b)** Press **PTT** switch (10) to *validate* and *exit MENU*.
- If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F** (7) key.

PR: the *modulation of the microphone* and the *received signals* are transmitted to the Public Address loudspeaker connected to jack PA.SP. (D).

In: the *modulation of the microphone* is transmitted to external loudspeaker connected to jack PA.SP. (D). The *received signal* is transmitted to the internal loudspeaker (or external optional loudspeaker connected to jack EXT.SP. (C))

The **VOL** knob (1) permits to *adjust* the audio level of the mode **PA**.

See § **RADIO/PA** page 26.

16) RESET BAND/RESET ALL

Press for 2 seconds **F (7)** key to *access* to **MENU**. **RE** is displayed.

1. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *select* the **RESET BAND** function.
2. Press **PUSH** knob (5). **BAND** blinks on LCD.
3. Use **UP/DN** keys (11) on the microphone or turn **PUSH** knob (5) to *choose* **BAND** or **ALL**.
4. New press **PUSH** knob (5) permits to *reset* the chosen option. The unit *exits* **MENU**.
5. If no key is pressed, the unit exits **MENU** after 10 seconds or by a new long press on **F (7)** key.
RESET BAND permits to *reset* the name of the bands per default.
See menu **BAND NAME** page 25.
RESET ALL permits to restore all factory settings.

D) FUNCTIONS WITH PTT SWITCH

3 additional functions are available. To *activate/deactivate* the function, press and hold down the **PTT** switch (10) and then press on another key or knob.

1) RF POWER

- Long press **PTT** (10) key and then press the **PUSH** knob (5) to *show* the RF POWER level. **RF POWER** is displayed on LCD.
 - Without releasing **PTT** switch (10), turn the rotary **PUSH** knob (5) to *increase/decrease* the **RF POWER**. The bargraph indicates the minimum power (1 bar) to maximum (12 bars).
- This function permits to adjust the transmission power of your radio.

2) TALKBACK / TALKBACK LEVEL

- Press and hold down the **PTT** switch (10) and then press the **BAND** key (7) to *activate/deactivate* the **TALKBACK** function.
 - When the **TALKBACK** function is active, press and hold down the **PTT** switch (10) and then turn the rotary **PUSH** knob (5) to *increase/decrease* the **TALKBACK** volume level.
- This function permits to hear your own modulation in the internal loudspeaker or external optional loudspeaker connected to jack EXT.SP. (C).

3) RADIO/PA (Public Address)

- Press and hold down the **PTT** switch (10) and then press the **MODE** key (8) to *alternate* between **RADIO** and **PA** (Public Address) mode.
See **PA SETTING** page 25.

TOT (Time Out Timer)

If the **PTT** switch (10) key is pressed for more than 5 minutes, the display starts blinking and the transmission ends.
A beep will sound until the **PTT** switch (10) key is released.

E) TECHNICAL CHARACTERISTICS

1) GENERAL

- Modulation modes : AM / FM
- Frequency ranges : from 28.000 MHz to 29.700 MHz
- Antenna impedance : 50 ohms
- Power supply : 13.8 V
- Dimensions : 4.92 (W) x 6.89 (D) x 1.77 (H) inches
: 125 (W) x 175 (D) x 45 (H) cm
- Weight : 1.98 lbs / 0.9 kg
- Accessories supplied : 1 microphone UP/DOWN with support, mounting cradle, screws and fused power cord.

2) TRANSMISSION

- Frequency allowance : +/- 300 Hz
- Carrier power : 13 W AM (50 W PEP)/ 35 W FM /
- Transmission interference : inferior to - 50 dBm
- Audio response : 300 Hz to 3 KHz in AM/FM
- Emitted power in the adj. channel : inferior to 20 µW
- Microphone sensitivity : 3.0 mV
- Drain : 7 A max. (with modulation)
- Modulated signal distortion : 2 %

3) RECEPTION

- Maxi. sensitivity at 20 dB sinad : 0.7 µV - 110 dBm (AM)
: 0.35 µV - 116 dBm (FM)
- Frequency response : 300 Hz to 3 kHz in AM/FM
- Adjacent channel selectivity : 60 dB
- Maximum audio power : 3 W
- Squelch sensitivity : minimum 0.2 µV - 120 dBm
: maximum 1 mV - 47 dBm
- Frequency image rejection rate : 60 dB
- Intermediate frequency rej. rate : 70 dB
- Drain : 500 mA maximum

F) TROUBLE SHOOTING

1) YOUR RADIO WILL NOT TRANSMIT OR YOUR TRANSMISSION IS OF POOR QUALITY

- Check that the antenna is correctly connected and that the SWR is properly adjusted.
- Check that the microphone is properly plugged in.
- Check that the **RF POWER** value is set on maximum. (See § **RF POWER** page 26).
- Check that the **MIC GAIN** value is set on maximum. (See § **MIC GAIN** page 25).

2) YOUR RADIO WILL NOT RECEIVE OR RECEPTION IS POOR

- Check that the squelch level is properly adjusted.
- Check that the volume (1) is set to a comfortable listening level.
- Check that the antenna is correctly connected and that the SWR is properly adjusted.
- Check that you are using the same modulation mode as your correspondent.
- Check that the **RF GAIN** level is set on maximum. (See § **RF GAIN** page 25).

3) YOUR RADIO WILL NOT LIGHT UP

- Check the power supply.
- Check the connection wiring.
- Check the fuse.

G) GLOSSARY

INTERNATIONAL PHONETIC ALPHABET

A Alpha	H Hotel	O Oscar	V Victor
B Bravo	I India	P Papa	W Whiskey
C Charlie	J Juliett	Q Quebec	X X-ray
D Delta	K Kilo	R Romeo	Y Yankee
E Echo	L Lima	S Sierra	Z Zulu
F Foxtrott	M Mike	T Tango	
G Golf	N November	U Uniform	