

RICHARD

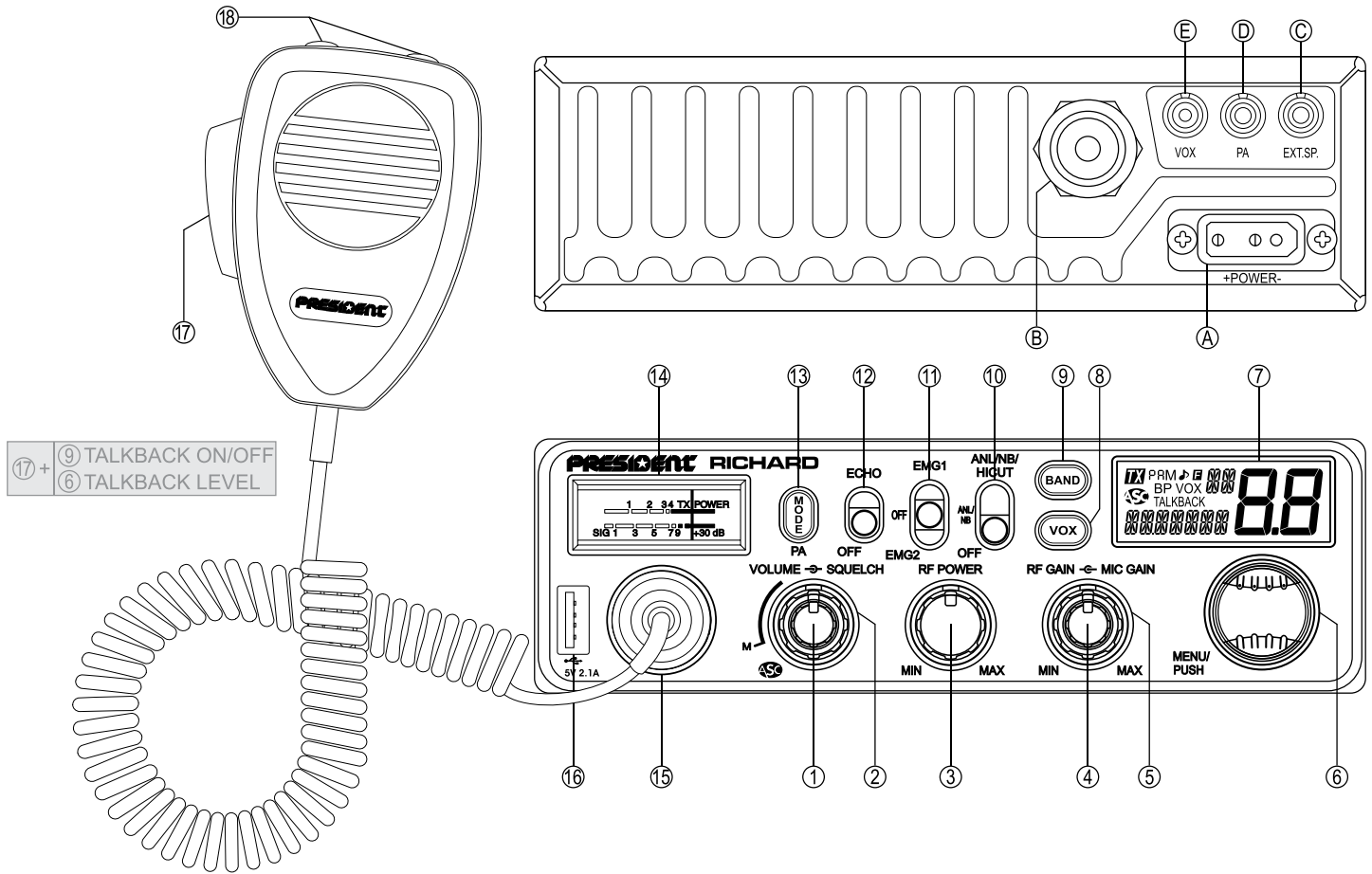
ASC Automatic
Squelch
Control



Owner's manual

PRESIDENT

Your **PRESIDENT RICHARD** at a glance

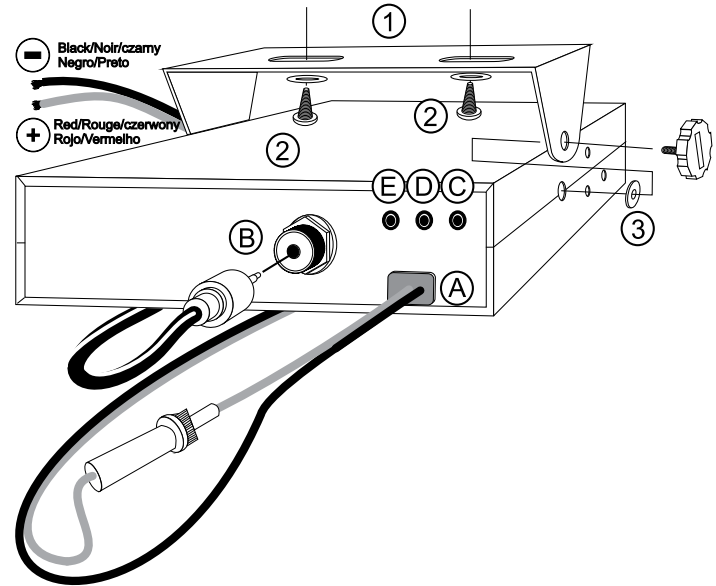
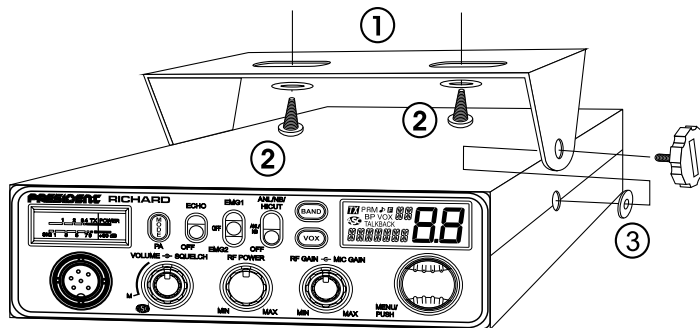


Welcome to the world of the new generation of transceiver radios. The new PRESIDENT range gives you access to top performance transceiver equipment. With the use of up-to-date technology, which guarantees unprecedented quality, your PRESIDENT RICHARD is a new step in personal communication and is the 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 RICHARD.

A) INSTALLATION

1) WHERE AND HOW TO MOUNT YOUR TRANSCEIVER

- a) You should choose a well ventilated place most appropriate setting from a simple and practical point of view.
- b) Your transceiver should not interfere with the driver or the passengers.
- c) 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.
- d) To install your equipment, use the cradle (1) and the self-tapping screws (2) provided (drilling diameter 0.126 in / 3.2 mm). Take care not to damage the vehicle's electrical system while drilling the dash board.
- e) 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.
- f) 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.

2) ANTENNA INSTALLATION

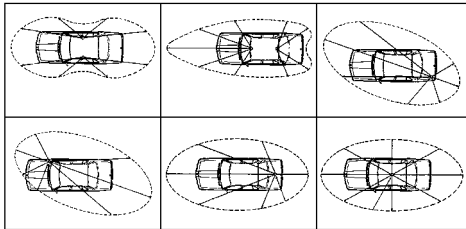
a) Choosing your antenna

- 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**).



OUTPUT RADIUS PATTERN

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 within the range.

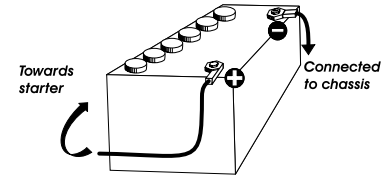
3) POWER CONNECTION

Your PRESIDENT RICHARD 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: Trucks 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.
- If 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.

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 **VOLUME** knob (1) clockwise.
- Turn the squelch **SQUELCH** knob (2) to minimum.
- Adjust the volume to a comfortable level.
- Go to a center band frequency by using rotary **PUSH** knob (6) or **UP/DN** keys (18) 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 internal SWR-meter

NEW, EASY AND VERY HANDY- Adjustment of SWR meter by beep tones

See menu **SWR ADJUSTMENT** page 27.

* **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 in/ 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 (17) 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.

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 118.11 in / 3 m.

Your transceiver is now ready for use.

B) HOW TO USE YOUR TRANSCEIVER

1) ON/OFF ~ VOLUME

Turn on : turn **VOLUME** knob (1) clockwise. If the function **KEY BEEP** is active (see menu **KEY BEEP** page 25), the radio emits a beep. The radio is "on". Display shows the microphone type setup during 1 second. See menu **MIC TYPE** page 27.

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



Volume Adjustment: rotate **VOLUME** knob (1) clockwise to adjust volume. Turn the same knob counterclockwise 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 **SQUELCH** knob (2) anti-clockwise into **ASC** position.  appears on display. 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 the display.

b) MANUAL SQUELCH

Turn the **SQUELCH** 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) RF POWER

In **TX** mode, turn the **RF POWER** knob (3) to **adjust** the transmission power; clockwise to **increase**, counterclockwise to **decrease** the **RF POWER**.

4) MIC GAIN

Adjustment of the sensitivity level of the microphone.

The normal position of this function is set to maximum clockwise.

5) RF GAIN

Adjustment of the reception sensitivity. Maximum position in the case of long-distance transmission. You can **decrease** the **RF GAIN**, to avoid distortions, when the interlocutor is near. Reduce the gain on reception in the case of a close communication with a correspondent not equipped with a **RF POWER**.

The normal position of this function is at maximum clockwise.

6) ROTARY "PUSH" KNOB

In normal operation, turn rotary **PUSH** knob (6) to adjust frequency. Clockwise to **increase**, counterclockwise to **decrease** the frequency

In **MENU** mode (long press **PUSH** knob (6) for 3 seconds to activate this mode). See § **MENU** page 25.

1. Turn rotary **PUSH** knob (6) to **select** the function to set.
2. Press **PUSH** knob (6) to **validate**. The parameter of the chosen function blinks on display.
3. Turn rotary **PUSH** knob (6) to **change** the value of the parameter.
4. New press on **PUSH** knob (6) 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 BUTTONS ON THE MICROPHONE** page 24.

7) LCD



	Indicates transmission
	PA (Public Address) mode activated
	AM modulation
	FM modulation
	ROGER BEEP function activated
	KEY BEEP function activated
	Automatic Squelch Control activated
	VOX function activated
	SCAN function activated (the dot blinks)
	TALKBACK function activated
	MENU mode activated
	Indicates selected channel (large digits)
	Indicates selected band
	Indicates frequency or menu

8) VOX ~ VOX SET

VOX (short press)

The **VOX** function allows *transmitting* by speaking into the original microphone (or in the optional vox microphone) without pressing the **PTT** switch (17). The use of an optional vox microphone connected to the rear panel of the transceiver (E) *disables* the original microphone. Press shortly **VOX** key (8) in order to *activate* the **VOX** function. “**VOX**” appears on the display. Press shortly again the **VOX** key (8) to *disable* the function. “**VOX**” disappears.

VOX SET (long press)

Press the **VOX** key (8) for 2 seconds in order to *activate* the **VOX Adjustment** mode.

Three adjustments are possible: Sensitivity **SET L** / Anti-vox level **SET R** / Vox delay time **SET T** (over and over).

- To *change* a setting other than the one displayed, press the **VOX** key (8) to select the next setting or...
 - Turn the rotary **PUSH** knob (6) or press the **UP/DN** (18) keys on the microphone to *modify* the setting.
 - Press again the **VOX** key (8) to *store* and *move* to the next setting.
 - Once the settings done, press the **PTT** switch (17) key to *exit* the **VOX Adjustment** mode. If no adjustment is made for 5 seconds, the unit automatically exits the function.
- Sensitivity SET L**: allows the adjustment of the microphone (original one or optional vox) for an optimum transmission quality. Adjustable level from 1 (high level) to 9 (low level). Default value: 5.
 - Anti-Vox R**: allows disabling the transmission generated by the surrounding noise. The level is adjustable. (according the squelch level) and from (without anti-vox) to 9 (low level). Default value: 9.
 - Delay time SET T**: allows avoiding the sudden cut of the transmission by adding a delay at the end of speaking. The level is adjustable from 1 (short delay) to 9 (long delay). Default value: 1.

The VOX Adjustment does not automatically activate the VOX function.

9) BAND

Press **BAND** key (9) for a quick 200 kHz *hopping* in R / D / C / D / E / F / G / H / I segments.

See menu BAND NAME page 27.

10) NB/ANL - HIC FILTERS

3 positions switch: **Low position**: no filter is activated. **Central position**: only **ANL** and **NB** filters are enabled. **High position**: all filters (**ANL**, **NB** and **HI-CUT**) are activated.

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.

11) PRIORITY CHANNELS

Priority channels will be automatically *selected* by switching this key (11). 3 positions switch: **EMG1** / Priority channel 1 is activated. **EMG2** / Priority channel 2 is activated. **OFF** / No priority channel is activated.

The default priority channels are channel **9/AM/band A (EMG1)** and channel **19/AM/band A (EMG2)**.

See the **EMG SET 1** and **EMG SET 2** menus page 26 to *set* priority channels.

Note: Activating a priority channel no longer allows you to change modulation mode (AM or FM), to start the **SCAN** function or activate the **PA** mode. If the **KEY BEEP** function is active, an error beep is emitted. "**EMG**" and the channel blink to indicate unauthorized handling. Turn the switch (11) to the **OFF** position to use these functions.

12) ECHO

Allows to *enable/disable* **ECHO** function.

See menu **ECHO SET** page 28 for **ECHO** configuration.

13) MODE ~ PA

MODE (short press)

Press **MODE** key (13) to *select* the modulation mode: AM or FM. Selected mode is displayed on display.

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).

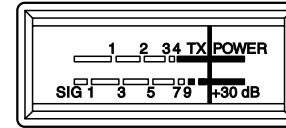
PA (long press)

Switch between normal and **PA** (Public Address) mode.

An external optional speaker can be connected to the unit to the PA.SP. jack on the rear panel. (D). Turn the **MIC GAIN** knob (4) to adjust the **PA** volume.

For details on operating in **PA** mode, see the **PA SETTING** menu on page 27.

14) BARGRAPH



Indicates the reception level and the emitted power level.

15) 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 74.

16) USB CHARGING SOCKET

The **USB** socket (16) can be used to charge smartphones, tablets or other rechargeable devices with 5 V - 2.1 A.

17) PIT

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

TOT (Time Out Timer)

If the **PIT** switch (17) key is pressed for more than 5 minutes, the display starts blinking and the transmission *ends*. A beep will sound until the **PIT** switch (17) key is released.

18) UP/DN BUTTONS ON MICROPHONE ~ SCAN

UP/DN BUTTONS ON MICROPHONE (short press)

In normal use, press **UP/DN** buttons (18) on the microphone to *change* the frequency. **UP** to *increase* and **DN** to *decrease* the frequency.

In **MENU** mode (press the **PUSH** knob (6) for about 3 seconds to activate this mode (see § **MENU** page 25)), the **UP** or **DN** buttons (18) allow to *select* the menu to be set.

See **ROTARY "PUSH" KNOB** page 22.

SCAN (long press)

Press press for ± 7 seconds or until a beep sounds to **activate** the **SCAN** function. The dot between the two channel digits flashes to indicate that the function is active.

The scanning stops as soon as a signal is detected. The scanning automatically starts 3 seconds after the end of the transmission and if no key is activated during 3 seconds. In **SCANNING** mode, turn the **PUSH** rotary knob (6) or press the **UP/DN** buttons (18) on the microphone to change scan direction.

Press **PTT** switch (17) to exit **Scan**. The dot between the two channel digits disappears from the display.

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

B) ANTENNA CONNECTOR (SO-239)

C) JACK FOR EXTERNAL OPTIONAL SPEAKER (8 Ω , \emptyset 3.5 mm)

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

E) JACK FOR OPTIONAL VOX MICROPHONE (8 Ω , \emptyset 2.5 mm)

C) MENU

The order of 14 functions is as described in this manual. However, the function displayed by entering the **MENU** will be the last function modified by user.

The procedure is the same whatever the function is:

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the function to set.
2. Press **PUSH** knob (6) to **validate**. The **parameter** of the chosen function blinks on the display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **modify** the value of the parameter.
4. New press on **PUSH** knob (6) to **validate** the chosen value. The parameter stops blinking and if the function has more than one parameter, the next parameter blinks.
5. If no key is pressed, the unit exits **MENU** after 10 seconds. **■** disappears from the display.

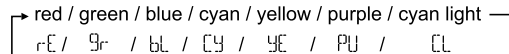
Note: **UP/DN** buttons (18) on the microphone have the same effect as the rotation of the rotary **PUSH** knob (6). **PTT** switch (17) **validates** the last setting and **exits MENU**. **■** disappears.

1) COLOR

This function allows to **choose** the backlight color of the display.

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the **COLOR** function.
2. Press **PUSH** knob (6) to **validate**. The current **color** blinks on the display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (11) on the microphone to **select** the color. 7 available colors are displayed over and over :



4. New press on **PUSH** knob (6) to **validate** the chosen **color**. The **color** stops blinking. **a)** Go back to point 1 to **adjust** another function or **b)** Press the **PTT** switch (17) to **validate** and **exit MENU**. **■** disappears on the display.
5. If no key is pressed, the unit **exits MENU** after 10 seconds, **■** disappears on the display.

Default **COLOR** is rE (red).

2) KEY BEEP

When the function is activated, a beep **sounds** when a key is pressed, by changing the channel etc. “**BP**” appears on the display when the function is active.

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the **KEYBEEP** function.
2. Press **PUSH** knob (6) to **validate**. The current status blinks on the display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **activate** **■n** / **deactivate** **■F** the function.
4. New press on **PUSH** knob (6) to **validate**. The parameter stops blinking. **a)** Go back to point 1 to **adjust** another function or **b)** Press the **PTT** switch (17) to **validate** and **exit MENU**. **■** disappears.
5. If no key is pressed, the unit **exits MENU** after 10 seconds, **■** disappears on the display.

Default **KEY BEEP** is **■n**.

3) ROGER BEEP

When the function is active, the icon **♫** appears on the display. The Roger Beep **sounds** when the **PTT** switch (17) 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.

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the **ROG BEEP** function.
2. Press **PUSH** knob (6) to **validate**. The current status blinks on display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **activate** **On / deactivate** **OFF** the function.
4. New press on **PUSH** knob (6) to **validate**. The parameter stops blinking. **a)** Go back to point 1 to **adjust** another function or **b)** Press the **PTT** switch (17) to **validate** and **exit MENU**. **■** disappears.
5. If no key is pressed, the unit **exits MENU** after 10 seconds, **■** disappears on the display.

Default **ROGER BEEP** is **OFF**.

4) TONE

The **TONE** function is used to **change** the tone on reception. 11 levels from **-5** to **+5**.

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the **TONE** function.
2. Press **PUSH** knob (6) to **validate**. The value of the **tone** blinks on display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** a new value.
4. New press on **PUSH** knob (6) to **validate**. The parameter stops blinking. **a)** Go back to point 1 to **adjust** another function or **b)** Press the **PTT** switch (17) to **validate** and **exit MENU**. **■** disappears.
5. If no key is pressed, the unit **exits MENU** after 10 seconds, **■** disappears on the display.

Default **TONE** is **0**.

5) DIMMER

The **DIMMER** function allows to **adjust** the brightness (from **1** to **9**) of the backlight or to set no backlight (**OFF**).

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the **DIMMER** function.
2. Press **PUSH** knob (6) to **validate**. The value of the **dimmer** blinks on display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** a new value.

4. New press on **PUSH** knob (6) to **validate**. The parameter stops blinking. **a)** Go back to point 1 to **adjust** another function or **b)** Press the **PTT** switch (17) to **validate** and **exit MENU**. **■** disappears.
5. If no key is pressed, the unit **exits MENU** after 10 seconds, **■** disappears on the display.

Default **DIMMER** value is **9**.

6) EMG SET 1

Allows to **set** the Priority Channel 1.

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the **EMG 1** function.
2. Press **PUSH** knob (6) to **validate**. The **channel** blinks on display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the channel.
4. New press on **PUSH** knob (6) to **validate**. The second parameter, the **band** blinks.
5. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the frequency band in segments: **A / B / C / D / E / F / G / H / I** (see **BAND NAME** page 27).
6. New press on **PUSH** knob (6) to **validate**. The third parameter, the **mode** blinks.
7. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the mode.
8. New press on **PUSH** knob (6) to **validate**. **a)** Go back to point 1 to **adjust** another function or **b)** Press the **PTT** switch (17) to **validate** and **exit MENU**. **■** disappears.
9. If no key is pressed, the unit **exits MENU** after 10 seconds, **■** disappears on the display.

Default **Priority channel 1** is **channel 9/AM/band A**.

See § **PRIORITY CHANNELS** page 24.

7) EMG SET 2

Allows to **set** the Priority Channel 2.

Press **PUSH** knob (6) for 3 seconds to **enter MENU**. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to **select** the **EMG 2** function.
Points **2** to **9** are identical to § **EMG SET 1**.

Default **Priority channel 2** is **channel 19/AM/Band A**.

See § **PRIORITY CHANNELS** page 24.

8) SWR ADJUSTMENT

This function allows to *adjust* the SWR (Standing Wave Ratio) by beep tones.

Press **PUSH** knob (6) for 3 seconds to *enter MENU*. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *select* the **SWR** function.
2. Press the rotary **PUSH** knob (6). The radio automatically *goes to TX* mode without pressing **PTT** switch (17). The **SWR** measurement starts. Measurement time is 5 minutes maximum. The remaining time is displayed.
3. Adjust your antenna.
4. The beep tone* is continuous when SWR value is equal to **1.0**. The delay between two beeps becomes longer when SWR value moves away from **1.0**. Display shows the **SWR** value. For example **2.5**.
5. Press **PTT** switch (17) to *exit MENU* mode. **■** disappears on the display.

*The volume of the beep tone is adjustable with **VOLUME** knob (1). Please check that the beep volume is set to a comfortable listening level.

See § **HOW TO ADJUST SWR** page 21.

9) MIC TYPE

The PRESIDENT RICHARD can be used with an electret microphone as well as with the dynamic one, 6-pin PRESIDENT (see the cabling diagram page 74). Turning on the unit, the type of the microphone is briefly displayed.

Press **PUSH** knob (6) for 3 seconds to *enter MENU*. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to *select* the **MIC TP** function.
2. Press **PUSH** knob (6) to *validate*. The current parameter blinks on display.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to *select* the type on the microphone **EL** (electret) or **DM** (dynamic).
4. New press on **PUSH** knob (6) to *validate*. The parameter stops blinking. **a**) Go back to point 1 to *adjust* another function or **b**) Press the **PTT** switch (17) to *validate* and *exit MENU*. **■** disappears.
5. If no key is pressed, the unit *exits MENU* after 10 seconds, **■** disappears on the display.

Default type of microphone is **EL** (electret).

10) PA SETTING

This function allows to *select* the operating mode of Public Address.

Press **PUSH** knob (6) for 3 seconds to *enter MENU*. **■** is displayed.

1. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to *select* the **PA SET** function.
2. Press **PUSH** knob (6) to *validate*. The current value blinks on display.

3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to *select* the operating mode of the PA : **IN**, **UF** or **PR**.
4. New press on **PUSH** knob (6) to *validate*. The parameter stops blinking. **a**) Go back to point 1 to *adjust* another function or **b**) Press the **PTT** switch (17) to *validate* and *exit MENU*. **■** disappears.
5. If no key is pressed, the unit *exits MENU* after 10 seconds, **■** disappears on the display.

IN: the *modulation of the microphone* is transmitted to the 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)). "**PA**" blinks alternately with the modulation mode (AM or FM).

UF: The reception is no more functional. Only the *modulation of the microphone* is transmitted to the Public Address loudspeaker connected to jack PA.SP. (D). **PR** and level of the **PA** are displayed.

PR: the *modulation of the microphone* and the *received signal* are transmitted to the Public Address loudspeaker connected to jack PA.SP. (D). "**PA**" blinks alternately with the modulation mode (AM or FM).

Turn the **MIC GAIN** knob (4) to *adjust* the audio level of the mode **PA**.

Default PA setting is **IN**.

See § **PA (Public Address)** page 24.

11) BAND NAME

This function allows you to *rename* bands with two digits.

1. Press the **BAND KEY** (9) to *select* the band to be changed.
2. Press the **PUSH** knob (6) for 3 seconds to *enter MENU*. **■** is displayed.
3. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to *select* the **BAND NAME** function.
4. Press **PUSH** knob (6) to *validate*. The first digit blinks on display.
5. Turn the rotary **PUSH** knob (6) or use **UP/DN** buttons (18) on the microphone to *select* the character of the first digit.
6. New press on **PUSH** knob (6) to *validate* the first digit. The second digit blinks on display.
7. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *select* the character of the second digit.
8. Pressing the **PUSH** knob (6) again *confirms* the new name assigned to the selected band in point 1. The second digit stops flashing. **a**) Go back to point 3 to *adjust* another function or **b**) Press the **PTT** switch (17) to *validate* and *exit MENU*. **■** disappears.
9. If no key is pressed, the unit *exits MENU* after 10 seconds, **■** disappears on the display.

The default tape names are: R / D / E / D / E / F / G / H / I. See the **RESET** menu on page 28.

See § **BAND** page 23.

12) SPAN

When the function is active, the frequency can be *adjusted* continuously. A short press on the **PUSH** knob (6) makes one of the decimals of the frequency blink. **1**. Press several times to select the desired decimal. **2** Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *increase/decrease* the frequency continuously with the channel and band.

Press the **PUSH** knob (6) for 3 seconds to *enter MENU*. **■** appears.

1. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *select* the **SPAN** function.
2. Press the **PUSH** knob (6). The current setting flashes in the display.
3. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *activate* **On** / *deactivate* **Off** the **SPAN** function.
4. New press on the **PUSH** knob (6) to *validate*. The parameter stops blinking. **a**) Go back to point 1 to *adjust* another function or **b**) Press the **PTT** switch (17) to *validate* and *exit MENU*. **■** disappears.
5. If no key is pressed, the unit *exits MENU* after 10 seconds, **■** disappears on the display.

Note: The last two digits of the frequency may blink if it does not exactly match with the frequency of the displayed channel.

The default **SPAN** setting is **On**.

13) ECHO SET

Press the **PUSH** knob (6) for 3 seconds to *enter MENU*. **■** appears.

1. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *select* the **ECHO** function.
2. Press the **PUSH** knob (6). **■** and the delay value blink on the display.
3. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *set* the delay value from **1** to **32** (default value is **32**).
4. New press on the **PUSH** knob (6) to *validate*. The delay stops flashing. **■** and the value of the second parameter, time, blink on the display.
5. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *set* the time value from **1** to **32** (default value is **32**).
6. New press on the **PUSH** knob (6) to *validate*. The time stops flashing. **a**) Go back to point 1 to *adjust* another function or **b**) Press the **PTT** switch (17) to *validate* and *exit MENU*. **■** disappears.
7. If no key is pressed, the unit *exits MENU* after 10 seconds, **■** disappears on the display.

See § **ECHO** page 20.

14) RESET

Re-initialize band names or all user-defined settings and return to default values.

Press the **PUSH** knob (6) for 3 seconds to *enter MENU*. **■** appears.

1. Turn the rotary **PUSH** knob (6) or use the **UP/DN** buttons (18) on the microphone to *select* the **RESET** function.
2. Press the **PUSH** knob (6). The current setting flashes in the display.
3. Turn the rotary **PUSH** knob (6) or use the microphone **UP/DN** buttons (18) on the microphone to *select* **bR** (BAND) or **RL** (ALL).
4. Pressing the **PUSH** knob (6) again *resets* the selected option. The unit *exits MENU*. **■** disappears from the display.
5. If no key is pressed, the unit *exits MENU* after 10 seconds, **■** disappears from the display.

RESET bR allows to reset the name of the default bands. See the menu **BAND NAME** menu on page 27.

RESET RL restores all factory settings.

D) FUNCTIONS WITH PTT SWITCH

1) TALKBACK

This function allows you to hear your own modulation in the optional internal or external speaker connected to the EXT.SP jack (C).

Press and hold the **PTT** switch (17) then press the **BAND** key (9) to *activate* / *deactivate* the **TALKBACK** function.

When the function is active, “**TALKBACK**” blinks on the display for 3 seconds, displaying the current level of the **TALKBACK** and then remains permanently displayed.

2) TALKBACK LEVEL

This function allows to adjust the volume level of the **TALKBACK**.

1. Activate the **TALKBACK** function.
2. Press and hold the **PTT** switch (17) then turn the rotary **PUSH** knob (6) to *increase* (clockwise) / *decrease* (counterclockwise) the volume level of the **TALKBACK**.
3. Release the **PTT** switch (17).

E) TECHNICAL CHARACTERISTICS

1) GENERAL

- Modulation modes : AM / FM
- Frequency range : from 28.000 to 29.700 MHz
- Antenna impedance : 50 ohms
- Power supply : 13.8 V
- Dimensions : 6.692 (W) x 6.299 (D) x 2.047 (H) inches
: 170 (W) x 160 (D) x 52 (H) mm
- Weight : 2.43 lbs / 1.1 kg
- Accessories supplied : 1 microphone electret 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) / 40 W FM
- Transmission interference : inferior to - 50 dBm
- Audio response : 300 Hz to 3 kHz AM/FM
- Emitted power in the adj. channel : inferior to 20 μ W
- 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 μ V - 110 dBm (AM)
0.35 μ V - 116 dBm (FM)
- Frequency response : 300 Hz to 3 kHz (AM/FM)
- Adjacent channel selectivity : 60 dB
- Maximum audio power : 3 W
- Squelch sensitivity : minimum 0.2 μ V - 120 dBm
maximum 1 mV - 47 dBm
- Frequency image rejection : 60 dB
- Intermediate frequency rej. ratio : 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 22).
- Check that the **MIC GAIN** value is set on maximum. (See § **MIC GAIN** page 22).

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 22).

3) YOUR RADIO WILL NOT LIGHT UP

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

G) HOW TO TRANSMIT OR RECEIVE A MESSAGE ?

Now that you have read the manual, make sure that your transceiver is ready for use (i.e. check that your antenna is connected).

Press the «push-to-talk» switch (17) and announce your message «Attention stations, transmission testing» which will allow you to check the clearness and the power of your signal. Release the switch and wait for a reply. You should receive a reply like, «Strong and clear».

If you use a calling channel (19) and you have established communication with someone, it is common practice to choose another available channel so as not to block the calling channel.

H) 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	