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# **C27**<sup>®</sup>



# MOBILE CB TRANSCEIVER AM- FM CITIZEN BAND **EUROPEAN MULTI-NORMS**

12/24V

# **OWNER'S MANUAL**



CE







cer and SUPERSTAR are registered and protected brands.

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## **SYMBOLS DESCRIPTION**

| Please carefully read the instructions   | <u>i</u> |
|--|----------|
| <b>Information on recycling,</b> not throwing your material in the tras at the end of life, bring it to special aera to be recycling | sh 🔀     |
| DC using   | ===      |
| Keep dry   | <u>Ť</u> |
| Shield symbol  | Ţ        |
| CE conformity symbol   | (€       |
| Warning  | <u>^</u> |
| Restrictions   |          |

# **STORAGE**, TRANSPORT, USING

Storage: Classe 1 -30/85% (°bumidity)

Transport :- 30/85% (°humidity)

Operating temperature  $-30 \text{ à} + 50^{\circ}$ 

Using cycle TX 10%/RX 90%





#### Warned before use

This transceiver corresponds to the requirements of European directive RED 2014/53/EU documents n° 62368 -1, EN 301 489-1/ -13, EN 300 433, EN 62311.

Thank you for choosing this CRT vehicle transceiver CRT always provides high quality products. Though friendly design for user, this transceiver is technically complicated and some features may be new to you. Consider this manual to be a personal tutorial from the designers, allow the manual to guide you through the learning process now, then act as a reference in the coming years.

#### Precautions



Please observe the following precautions to prevent fire, personal injury, or transceiver damage.



Do not attempt to configure your transceiver while driving, it is dangerous.



This transceiver is designed for a 13~24V DC power supply.



Do not place the transceiver in excessively dusty, humid or wet areas, nor unstable surfaces.



Do not connect the antenna while transmission, risk of burn or electric shock.



Please keep it away from interferential devices (such as TV, generator etc.) devices (such as TV, generator etc.)



For those fitted with pacemakers are advised to move away from the antenna during transmission, mainly in high power, and especially do not touch it.



Never allow metal objects or son electrical contact with the part or internal electrical connection to the risk of electric shock.



Avoid exposing the transceiver to temperatures below -30 ° C. and above +60 ° C, the temperature of the dashboard inside a vehicle can sometimes exceed 80 ° C, which can damage irreparable damage to your machine in case of prolonged exposure. Not exposed to prolonged direct sunlight or place it near heaters.





Do not place anything on top of the apparatus that would interfere with cooling.



Check that your battery is sufficiently charged to avoid rapidly exhausting its resources.



It is important to turn off your device before starting the vehicle to avoid damage caused by spikes in the ignition.



When replacing the fuse, you must use a fuse 5A 250V type F In no case a higher value!, Otherwise a fire hazard.



If an abnormal odor or smoke is detected coming from the transceiver, turn OFF the power immediately.

Contact an CRT service station or your dealer.



Do not transmit with high output power for extended periods; the transceiver may overheat.



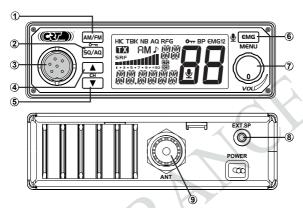
Keep out from children.

#### Attention:

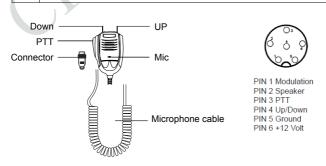
 Before using your transceiver please connect an antenna on the connector PL on back side then check the SWR before emitting. A too important SWR can entail the destruction of the transistors of power which are not flatware by the guarantee



# 1. KNOW ABOUT THIS RADIO

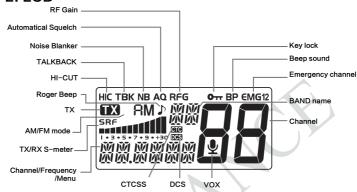


| 1 | Mode/Keypad lock                    |
|---|-------------------------------------|
| 2 | Squelch control, SQ, ASQ switch key |
| 3 | Microphone Jack                     |
| 4 | Channel up selector                 |
| 5 | Channel down selector               |
| 6 | Emergency channel                   |
| 7 | Power On/Off Volume control         |
| 8 | External speaker Jack               |
| 9 | Antenna Jack                        |



# []i

## 2. I CD



#### **FUNCTIONS AND FEATURES**

- AM : MODE AM/FM
  - VOX FUNCTIONS (TRANSMIT WITHOUT PRESS PTT) (in Vox function, the squelch must be always engaged)
- AQ: SQ,ASQ FUNCTION
- RFG: RF GAIN FUNCTION MENU: RFGAIN
- ROGER BEEP MENU: ROGBP
- NB: NB FUNCTION
- BP: BEEP SOUND MENU: KEVBP
- HIC: HI CUT FUNCTION MENU: HI.CUT
- EMG: EMG CALL MENU: EMG1 and EMG2
  - KEY LOCK FUNCTION
- CTCSS/DCS CODE : MENU : CdTSET
  - TBK : TALBACK MENU : TALBAK
- TX · INDICATES TRANSMISSION
- SRF: TX/RX S METER
- CHANNEL DISPLAY
- Channel/Frequency/Menu
- LCD with seven background colors and 6 brightness levels (Menu
- Multi frequency norm
- Scan function Menu: SCM
- ANL/NB function Menu: ANL/NB
- TOT function Menu: TOTSET
  - Microphone sensivity Menu: MISET
- Microphone type Menu: MICTP
- Reset Menu: RESET
- Automatic 12/24 V switch



# 3. HOW TO USE THIS RADIO

# 3.1 Power On/Off the Radio

- (1) Turn VOL switch clockwise to power on the radio, the LCD displays the Norms and then displays channel number.
- (2) Turn VOL switch anti-clockwise, until hear Ka Ta, the radio is powered off.

#### 3.2 Volume Control .....

Turn clockwise to increase volume, anti-clockwise to decrease volume.

#### 3.3 Channel Control

3.4 [5Q/AQ]

- (1) Short press [UP]/[DN] key to change channel by one step.
- (2) Hold [UP]/[DN] can fast changed channel.

# \*Squelch level Control (short press)

- (1) Short press [974], until LCD displays "[[][][][][][], "[][]]", "[][][]" stands for SQ/AQ level, the bigger value stands for high squelch level.
- (2) Short press microphone [ UP ] or [ DN ] to change SO/AO level.
- (3) Long press microphone [UP] or [DN] can fast change SQ/AQ level.
- (4) Short press 50/A0 or wait for 10 seconds to store and exit.

**Note:** The higher SQ level selected, the stronger signal required to open speaker and hear the calling.

#### **\*ASO Control (long press)**

- (1) Long press 50, until LCD displays "AQ", the ASQ function turned on.
- (2) Short press sa , until LCD displays "ASQUSET QE", "QE", "QE" stands for ASQ level, the bigger value stands for high squelch level.
- (3) Short press [UP]/[DN] to change ASQ level.
- (4) Hold [UP]/[DN] can fast change ASQ level.
- (5) Short press [50] or wait for 10 seconds to store and exit.
- (6) Long press [50] key again to turn on SQL function.

**Note:** The higher ASQ level selected, the stronger signal required to open speaker and hear the calling.

| []i       |   |
|-----------|---|
| 3.5 AM/FM | ] |

#### Mode Control (short press)

- (1) Short press (AM/FM), key to switch between (F) M mode.
- (2) The LCD displays the selected mode.

## «Keypad Lock (long press)

- (1) Long press (AM/FM) key for over 2 seconds to lock the keys, LCD displays

Note: In lock Mode all keys except PTT is valid.

| 3.6 | ємG |      |
|-----|-----|------|
|     |     | <br> |

# **\*Emergency Channel (short press)**

- (1) First press eme, key to choose the first programmed emergency channel, LCD displays EMG1.
- (2) Second press [666], key to choose the second programmed emergency channel.
- (3) Third press [MG], key to return to last normal channel, LCD displays EMG2.

**Note:** The default emergency channel are channel 9 and channel 19. See menus Emergency Channel Set page 11 for the emergency channel configuration.

### ※Functions (long press)

Long press key to enter in memu and set different function.

#### 3.7 Scan Function.....

- (1) Hold [UP]/[DN] for over 5 seconds, when you hear  $/di\ di/$ , scan started.
- (2) Short press [UP]/[DN] key to change scan direction.
- (3) Short press [AM]/[FM] to change mode, short press EMG or [PTT] to exit scan.



#### 3.8 VOX function.....

The VOX function allows transmitting by speaking into the original microphone without pressing the PTT switch.

Press [PTT] + [EMG] key to activate VOX function, LCD displays microphone icon, and then press [PTT] + [EMG] key to disable VOX function. The microphone icon disappeared.

Note: When turn on VOX, the mic icon flashes.

# 3.9 Talkback Level

This function allows you to adjust the volume of your walkie-talkie.

- (1) Start the intercom function (see "intercom" on page 8).
- (2) Hold down the PTT switch, then the [up] key increases or the [down] key decreases the Talkback Level
- (3) Release PTT switch and save Talkback Level.

## 3.10 Norms Control

- (1) Hold [AM/FM] to power on radio, until LCD displays the norms.
- (2) Short press ▲ or ▼ or microphone [UP]/[DN].
- (3) Power off and power on again.

| MODE | FM           | AM           |                        |
|------|--------------|--------------|------------------------|
| EU   | 40 Ch (4W)   | 40 Ch (4W)   | BE,BG,CH,CY,DK,EE,     |
|      |              |              | ES,FI,                 |
|      |              |              | FR,GB,EL,IE,IS,IT,LT,L |
|      | /            |              | U,LV,NO,PT,RO,SE       |
| PL   | -5 KHz 40 Ch | -5 KHz 40 Ch | PL                     |
|      | (4W)         | (4W)         |                        |
| DE   | 80 Ch (4W)   | 40 Ch (4W)   | DE                     |
| CE   | 40 Ch (4W)   | -            | AT,CZ,HU,MT,SI,SK      |
| U    | CEPT 40 Ch   | -            | GB                     |
|      | +ENG 40 Ch   |              |                        |
|      | (4W)         |              |                        |
| IN   | 27 Ch (4W)   | 27 Ch (4W)   | IN                     |
| 12   | 36 Ch (4W)   | 36 Ch (4W)   | IT                     |

| _ | $\sim$ |
|---|--------|
|   | •      |
|   |        |
|   |        |

## 3.11 Install External Speaker

Choose a  $8\Omega$  external speaker with 3.5 mm mono connector.

#### 3.12 Menu Operations

- (1) Long press [EMG] key to enter menu list.
- (2) Short press microphone [UP] or [DN] or ▲ or ▼ to choose menu to be.
- (3) Short press (EMG) key to enter function setting parameter of the chosen function, the parameter blinks on LCD.
- (4) Short press microphone [ UP ] or [ DN ] or ▼ to choose wanted setting.
- (5) Short press [EMG] key to validate the mode and exit setting.
- (6) Long press [EMG] key or wait 10 seconds to store exit MENU.

|     | - I I - I - I - II - II - II - II |                            |   |  |  |
|-----|-----------------------------------|----------------------------|---|--|--|
| NO. | LCD display                       | Function detail            | Setting details   |  |  |
| 1   | Carser                            | CTCSS/DCS<br>encode/decode | nF: CTCSS/DCS is OFF;<br>CT: 67.0Hz~250.3Hz;<br>DT: D023N~D754N;<br>Note: This function is optional.                |  |  |
| 2   | KEHIP                             | Beep sound                 | □ <b>n</b> : turn on beep sound<br>□ <b>F</b> : turn off beep sound<br>Default: □ <b>n</b>                          |  |  |
| 3   | SEM                               | Scan type setting          | Sq: squelch scan<br>tl: time scan<br>Default: 📆   |  |  |
| 4   | HILLIT                            | HI-CUT setting             | ດF: turn off HI-CUT function<br>ດີດ: turn on HI-CUT function<br>Default: ດີF  |  |  |
| 5   | MICSET                            | Microphone gain            | 1~9, Total 9 levels<br>Default: 6   |  |  |
| 6   | MIC TP                            | Microphone type            | EL: Electronic dy: Dynamic Default: EL Note: Speak into microphone and watch the S-meter to choose wanted mic gain. |  |  |
| 7   | VOX L                             | VOX Sensitivity            | 1~9: total 9 levels<br>Default: 3   |  |  |



| NO. | LCD display | Function detail         | Setting details   |
|-----|-------------|-------------------------|---|
| 8   | VOX T       | VOX Time                | 1~9: Total 9 levels<br>Default: 4   |
| 9   | TAL BAK     | Talkback level control  | oF, 1∼9<br>Default: oF  |
| 10  | ANL/NB      | Noise blanker           | ு⊬: turn off ANL/NB function<br>ா: turn on ANL/NB function<br>Default: ுF   |
| 11  | RF.GAIN     | RF gain level control   | Level AU 03,06,09~48 Default: oF Note: If the AUTO RFG function is on, the radio will turn on the automatic RFG function. |
| 12  | ROGIP       | RB sound setting        | F, 1-5<br>F: turn off RB sound function.<br>Default:F   |
| 13  | COLOR       | Backlight color setting | OR: Orange gr: Green bL: Blue Cy: Cyan yE: Yellow PU: Purple CL: White Default: OR  |
| 14  | BRIGHT      | Backlight<br>brighless  | Level 1~6<br>Default: 4   |
| 15  | TOTSET      | Time out timer          | □F, 1~10Min<br>Default: 1   |
| 16  | EMBI        | Priority channel 1      | Select a channel (9)  |
| 17  | EMBE        | Priority channel 2      | Select a channel (19)   |
| 18  | RE SET      | Reset to factory preset |   |

| Rey, the first digit billing on ECD.   |
|--|
| (5) Short press microphone [ UP ] or [ DN ] or ▼ to choose the<br>character of the first digit.                                    |
| (6) Short press €MG key to validate the first digit. The second digit blinks on LCD.   |
| (7) Short press microphone [ UP ] or [ DN ] or $\blacksquare$ or $\blacktriangledown$ to choose the character of the second digit. |
| (8) Short press EMG key to validate the second digit and exit setting.   |
| (9) Long press [EMG] key or wait 10 seconds to store exit MENU.  |
| 3.14 Emergency Channel Setting   |
| (1) Long press (EMG) key to enter menu list.   |
| (2) Short press microphone [ UP ] or [ DN ] or ▼ to choose EMG function memu, LCD displays EMG109 on or EMG219 on.                 |
| (3) Short press EMG key, the character "on" or character "oF" blinks on LCD.   |
| (4) Short press microphone [ UP ] or [ DN ] or ▼ to choose the emergency channel is valid.   |
| ###: stands for turn off current emergency channel.  |
| (5) Short press (EMG) key, the band name blinks on LCD.  |
| (6) Short press microphone [ UP ] or [ DN ] or ▼ to choose the frequency band.   |
| (7) Short press (EMG) key to validate the frequency band, and the channel blinks on LCD.   |
| (8) Short press microphone [ $\bf UP$ ] or [ $\bf DN$ ] or $\blacksquare$ or $\blacksquare$ to choose the channel.                 |
| 11   |

3.13 Band Name Setting

(3) Short press microphone [ UP ] or [ DN ] or  $\blacksquare$  or  $\blacktriangledown$  to choose BAND

name function memu, LCD displays TINT INTIM. (4) Short press (FMG) key the first digit blinks on LCD

(1) Choose a band to be modified. (2) Long press [EMG] key to enter menu list.



- (9) Short press EMG key to validate the channel, and the mode blinks on LCD.
- (10) Short press microphone [UP] or [DN] or ▼ to choose the mdoe AM or FM.
- (11) Short press [EMG] key to validate the mode and exit setting.
- (12) Long press [EMG] key or wait 10 seconds to store exit MENU.

### 3.15 Resume Factory Default .....

- (1) Long press EMG key to enter menu list.
- (2) Short press microphone [UP] or [DN] or ▼ to choose reset function memu, LCD displays RE SET.
- (3) Short press (EMG) key to enter menu selection, The Start falshes in the LCD.
- (4) Long press (EMG) key key until LCD only displays [1] [1] [1] ...
- (5) Release [EMG] key, the radio automatically reseted.



# CTCSS/DCS codes

| No. | Freq. eHz) |
|-----|------------|-----|------------|-----|------------|-----|------------|
| 1   | 67.0       | 11  | 97. 4      | 21  | 136. 5     | 31  | 192.8      |
| 2   | 71.9       | 12  | 100.0      | 22  | 141.3      | 32  | 203. 5     |
| 3   | 74.4       | 13  | 103. 5     | 23  | 146. 2     | 33  | 210.7      |
| 4   | 77.0       | 14  | 107. 2     | 24  | 151.4      | 34  | 218. 1     |
| 5   | 79. 7      | 15  | 110. 9     | 25  | 156. 7     | 35  | 225. 7     |
| 6   | 82. 5      | 16  | 114.8      | 26  | 162. 2     | 36  | 233. 6     |
| 7   | 85.4       | 17  | 118.8      | 27  | 167. 9     | 37  | 241.8      |
| 8   | 88. 5      | 18  | 123. 0     | 28  | 173.8      | 38  | 250. 3     |
| 9   | 91.5       | 19  | 127. 3     | 29  | 179. 9     |     |            |
| 10  | 94.8       | 20  | 131. 8     | 30  | 186. 2     |     |            |

| 1  | D023N | 27 | D152N | 53 | D311N | 79  | D466N |
|----|-------|----|-------|----|-------|-----|-------|
| 2  | D025N | 28 | D155N | 54 | D315N | 80  | D503N |
| 3  | D026N | 29 | D156N | 55 | D325N | 81  | D506N |
| 4  | D031N | 30 | D162N | 56 | D331N | 82  | D516N |
| 5  | D032N | 31 | D165N | 57 | D332N | 83  | D523N |
| 6  | D036N | 32 | D172N | 58 | D343N | 84  | D526N |
| 7  | D043N | 33 | D174N | 59 | D346N | 85  | D532N |
| 8  | D047N | 34 | D205N | 60 | D351N | 86  | D546N |
| 9  | D051N | 35 | D212N | 61 | D356N | 87  | D565N |
| 10 | D053N | 36 | D223N | 62 | D364N | 88  | D606N |
| 11 | D054N | 37 | D225N | 63 | D365N | 89  | D612N |
| 12 | D065N | 38 | D226N | 64 | D371N | 90  | D624N |
| 13 | D071N | 39 | D243N | 65 | D411N | 91  | D627N |
| 14 | D072N | 40 | D244N | 66 | D412N | 92  | D631N |
| 15 | D073N | 41 | D245N | 67 | D413N | 93  | D632N |
| 16 | D074N | 42 | D246N | 68 | D423N | 94  | D654N |
| 17 | D114N | 43 | D247N | 69 | D431N | 95  | D662N |
| 18 | D115N | 44 | D252N | 70 | D432N | 96  | D664N |
| 19 | D116N | 45 | D255N | 71 | D445N | 97  | D703N |
| 20 | D122N | 46 | D261N | 72 | D446N | 98  | D712N |
| 21 | D125N | 47 | D263N | 73 | D452N | 99  | D723N |
| 22 | D131N | 48 | D265N | 74 | D454N | 100 | D731N |
| 23 | D132N | 49 | D266N | 75 | D455N | 101 | D732N |
| 24 | D134N | 50 | D271N | 76 | D462N | 102 | D734N |
| 25 | D143N | 51 | D274N | 77 | D464N | 103 | D743N |
| 26 | D145N | 52 | D306N | 78 | D465N | 104 | D754N |
|    |       |    |       | •  |       |     |       |



# European Restrictions

| PAYS         | СВ    | RESTRICTIONS                          |     | REGLA | GE  |
|--------------|-------|---------------------------------------|-----|-------|-----|
| GERMANY      | YES   | 80 ch – 4W FM – free use              |     | D     |     |
|              |       | 40 ch – 4 W AM - free use             |     | J D   | CI. |
|              |       | 40 ch - 4 W FM - free use             | EC  |       | EU  |
| UK           | YES   | Cept 40 ch – 4 W FM                   | EC  |       |     |
|              |       | + ENG 40 ch - 4 W FM -                | UK  |       |     |
|              |       | 40 ch 4 W AM-FM                       |     |       | EU  |
| AUSTRIA      | YES   | 40 ch – 4 W FM                        | EC  |       |     |
|              |       | AM : Not authorized                   |     |       |     |
| BELGIUM      | YES   | 40 ch – 4 W FM - free use             |     | EC    |     |
|              |       | 40 ch - 4 W AM - free use             | EU  |       |     |
| BULGARIA     | YES   | 40 ch – 4 W FM - free use             | EC  |       |     |
|              |       | 40 ch – 4 W AM - free use             |     | EU    |     |
| CYPRUS       | YES   | 40 ch - 4 W FM - free use             |     | EC    |     |
|              |       | 40 ch - 4 W AM - free use             | EU  |       |     |
| CROATIA      | YES   | 40 ch – 4 W FM - free use             | EC  |       |     |
|              |       | AM : Not authorized                   |     |       |     |
| DANEMARK     | YES   | 40 ch - 4 W FM - free use             | EC  |       |     |
|              |       | 40 ch – 4 W AM - free use             |     | EU    |     |
| SPAIN        | YES   | 40 ch - 4 W FM - individual license   |     | EC    |     |
|              |       | required                              |     |       |     |
|              |       | 40 ch – 4 W AM – individual license   | E   |       | EU  |
|              |       | required                              |     |       |     |
|              |       | 12 W pep BLU/SSB                      |     |       |     |
| ESTONIA      | YES   | 40 ch – 4 W FM - free use             |     | EC    |     |
|              |       | 40 ch - 4 W AM - free use             | EU  |       |     |
| FINLAND      | YES   | 40 ch - 4 W FM - free use             |     | EC    |     |
|              |       | 40 ch - 4 W AM - free use             | EU  |       |     |
| FRANCE       | YES   | 40 ch - 4 W FM - free use             |     | EC    |     |
|              |       | 40 ch – 4 W AM – free use             | EU  |       |     |
| GREECE       | YES   | 40 ch – 4 W FM - individual license   |     |       | FC. |
|              |       | required                              |     |       |     |
|              |       | 40 ch – 4 W AM - individual license   | EU  | E     |     |
|              |       | required                              |     |       |     |
| HUNGARY      | YES   | 40 ch – 4 W FM - free use             | EC  |       |     |
|              |       | AM : Not authorized                   |     |       |     |
| IRELAND      | YES   | 40 ch – 4 W FM – free use             | FC. |       |     |
|              |       | 40 ch – 4 W AM – free use             |     | EU    |     |
| ISLAND       | YES   | 40 ch – 4 W FM - free use             | EC  |       |     |
|              |       | 40 ch – 4 W AM - free use             |     | EU    |     |
| ITALY        | YES   | 40 ch – 4 W FM – general autorisation |     | EC    |     |
|              |       | required                              |     |       |     |
|              |       | 40 ch – 4 W AM - general autorisation | E   |       | EU  |
|              |       | required                              |     |       |     |
|              |       | 12 W pep BLU/SSB                      |     |       |     |
| LATVIA       | YES   | 40 ch – 4 W FM - free use             |     | EC    |     |
|              |       | 40 ch – 4 W AM - free use             | EU  |       |     |
| LITHUANIA    | YES   | 40 ch – 4 W FM - free use             | EC  | 1     |     |
| ZIOAIIIA     | ''-3  | AM : Not authorized                   |     |       |     |
|              | l     | 40 ch – 4 W FM - free use             | EC  | -     |     |
| LLIXEMBOLIRG | I VFS |                                       |     |       |     |
| LUXEMBOURG   | YES   | 40 ch – 4 W FM - free use             | EC  | EU    |     |



| MALTA         | YES | 40 ch – 4 W FM -             | EC |    |   |
|---------------|-----|------------------------------|----|----|---|
|               |     | AM : Not authorized          |    |    |   |
| NORWAY        | YES | 40 ch – 4 W FM - free use    | EC |    |   |
|               |     | AM : Not authorized          |    |    |   |
| NETHERLAND    | YES | 40 ch – 4 W FM - free use    |    | EC |   |
|               |     | 40 ch - 4 W AM - free use    | EU |    |   |
| POLAND        | YES |                              |    |    |   |
|               |     | 40 ch – 4 W FM - free use    |    | EC |   |
|               |     |                              |    |    |   |
|               |     | 40 ch – 4 W AM/FM - free use | PL |    | 1 |
|               |     | 12 W pep BLU/SSB             |    |    |   |
| PORTUGAL      | YES | 40 ch – 4 W FM - free use    | 1  | EC |   |
|               |     | 40 ch – 4 W AM - free use    | EU |    |   |
| CZECH         | YES | 80 ch – 4 W FM - free use    | EU |    |   |
| ROMANIA       | YES | 40 ch – 4 W FM - free use    |    | EC |   |
|               |     | 40 ch – 4 W AM - free use    | EU |    |   |
| SLOVAKIA      | YES | 40 ch – 4 W FM - free use    | EC |    |   |
|               |     | AM : Not authorized          |    |    |   |
| SLOVENIA      | YES | 40 ch – 4 W FM - free use    | EC |    |   |
|               |     | 40 ch – 4 W AM - free use    |    | EU |   |
| SWEDEN        | YES | 40 ch – 4 W FM - free use    |    | EC |   |
|               |     | 40 ch = 4 W AM - free use    | EU |    |   |
| SWITZERLAND   | YES | 40 ch – 4 W FM – free use    |    | EC |   |
|               |     | 40 ch – 4 W AM -free use     | 1  |    |   |
|               |     |                              | EU |    |   |
| LIECHTENSTEIN | YES | 40 ch – 4 W FM –             | EC |    |   |
|               |     | AM : Not authorized          |    |    |   |



# 4. SPECIFICATION

|                             | GENERAL     |                                       |  |  |  |  |
|-----------------------------|-------------|---------------------------------------|--|--|--|--|
| Modulation Mode             |             | AM/FM                                 |  |  |  |  |
| Frequency Range             |             | 26.965-27.405MHz                      |  |  |  |  |
| Frequency Toleran           | ce          | ± 5.0ppm                              |  |  |  |  |
| Input Voltage               |             | 12/24V                                |  |  |  |  |
| Dimensions                  |             | 185x124x38mm                          |  |  |  |  |
| Weight                      |             | 620g                                  |  |  |  |  |
| Operating Tempera           | ature Range | -20℃ to +50℃                          |  |  |  |  |
|                             | Transmit    | 3A MAX                                |  |  |  |  |
| Current Drain               | Receive     | Squelched 0.3A                        |  |  |  |  |
|                             | VOL Max     | 0.7A                                  |  |  |  |  |
| Antenna Connector           | r           | UHF, SO-239                           |  |  |  |  |
|                             | TRAN        | SMITTER                               |  |  |  |  |
| Power Output                |             | 4 Watts FM/AM                         |  |  |  |  |
| Transmission interf         | erence      | inferior to 4nW                       |  |  |  |  |
| Frequency Respon            | se          | 300-3000Hz                            |  |  |  |  |
| Modulated signal d          | istortion   | inferior to 5%                        |  |  |  |  |
| Output Impedance            |             | 50 ohms                               |  |  |  |  |
|                             | RE          | CEIVER                                |  |  |  |  |
| Sensitivity                 |             | Less than 1uV for 10dB(S+N)/N         |  |  |  |  |
| Image Rejection             |             | 70dB                                  |  |  |  |  |
| Adjacent Channel F          | Rejection   | 60dB                                  |  |  |  |  |
| IF Frequencies              |             | 1st 10.695MHz                         |  |  |  |  |
|                             |             | 2nd 455KHz                            |  |  |  |  |
| Automatic Gain Control(AGC) |             | Less than 10dB change in audio        |  |  |  |  |
| Automatic Gall Co           | TILLOI(AGG) | Output for inputs from 10 to 50000uV  |  |  |  |  |
| Squelch                     |             | less than 1uV                         |  |  |  |  |
| Audio Output Powe           | er          | 2Watts at 8Ω less than 10% distortion |  |  |  |  |
| Frequency Respon            | se          | 300-3000Hz                            |  |  |  |  |



# FREQUENCIES TABLE

| -       |        | 1      |        |        | 1 1    | 1      |         |
|---------|--------|--------|--------|--------|--------|--------|---------|
|         | IN     | I      | )      | EU     | EC     | PL     | UK      |
| Channel | 1-27   | 1-40   | 41-80  | 1-40   | 1-40   | 1-40   | 1-40    |
|         | FM=4W   |
|         | AM=4W  | AM=4W  |        | AM=4W  |        | AM=4W  |         |
| 1       | 26.965 | 26.965 | 26.565 | 26.965 | 26.965 | 26.960 | 27.6013 |
| 2       | 26.975 | 26.975 | 26.575 | 26.975 | 26.975 | 26.970 | 27.6113 |
| 3       | 26.985 | 26.985 | 26.585 | 26.985 | 26.985 | 26.980 | 27.6213 |
| 4       | 27.005 | 27.005 | 26.595 | 27.005 | 27.005 | 27.000 | 27.6313 |
| 5       | 27.015 | 27.015 | 26.605 | 27.015 | 27.015 | 27.010 | 27.6413 |
| 6       | 27.025 | 27.025 | 26.615 | 27.025 | 27.025 | 27.020 | 27.6513 |
| 7       | 27.035 | 27.035 | 26.625 | 27.035 | 27.035 | 27.030 | 27.6613 |
| 8       | 27.055 | 27.055 | 26.635 | 27.055 | 27.055 | 27.050 | 27.6713 |
| 9       | 27.065 | 27.065 | 26.645 | 27.065 | 27.065 | 27.060 | 27.6813 |
| 10      | 27.075 | 27.075 | 26.655 | 27.075 | 27.075 | 27.070 | 27.6913 |
| 11      | 27.085 | 27.085 | 26.665 | 27.085 | 27.085 | 27.080 | 27.7013 |
| 12      | 27.105 | 27.105 | 26.675 | 27.105 | 27.105 | 27.100 | 27.7113 |
| 13      | 27.115 | 27.115 | 26.685 | 27.115 | 27.115 | 27.110 | 27.7213 |
| 14      | 27.125 | 27.125 | 26.695 | 27.125 | 27.125 | 27.120 | 27.7313 |
| 15      | 27.135 | 27.135 | 26.705 | 27.135 | 27.135 | 27.130 | 27.7413 |
| 16      | 27.155 | 27.155 | 26.715 | 27.155 | 27.155 | 27.150 | 27.7513 |
| 17      | 27.165 | 27.165 | 26.725 | 27.165 | 27.165 | 27.160 | 27.7613 |
| 18      | 27.175 | 27.175 | 26.735 | 27.175 | 27.175 | 27.170 | 27.7713 |
| 19      | 27.185 | 27.185 | 26.745 | 27.185 | 27.185 | 27.180 | 27.7813 |
| 20      | 27.205 | 27.205 | 26.755 | 27.205 | 27.205 | 27.200 | 27.7913 |
| 21      | 27.215 | 27.215 | 26.765 | 27.215 | 27.215 | 27.210 | 27.8013 |
| 22      | 27.225 | 27.225 | 26.775 | 27.225 | 27.225 | 27.220 | 27.8113 |
| 23      | 27.255 | 27.255 | 26.785 | 27.255 | 27.255 | 27.250 | 27.8213 |
| 24      | 27.235 | 27.235 | 26.795 | 27.235 | 27.235 | 27.230 | 27.8313 |
| 25      | 27.245 | 27.245 | 26.805 | 27.245 | 27.245 | 27.240 | 27.8413 |
| 26      | 27.265 | 27.265 | 26.815 | 27.265 | 27.265 | 27.260 | 27.8513 |
| 27      | 27.275 | 27.275 | 26.825 | 27.275 | 27.275 | 27.270 | 27.8613 |
| 28      |        | 27.285 | 26.835 | 27.285 | 27.285 | 27.280 | 27.8713 |
| 29      |        | 27.295 | 26.845 | 27.295 | 27.295 | 27.290 | 27.8813 |
| 30      |        | 27.305 | 26.855 | 27.305 | 27.305 | 27.300 | 27.8913 |
| 31      |        | 27.315 | 26.865 | 27.315 | 27.315 | 27.310 | 27.9013 |
| 32      |        | 27.325 | 26.875 | 27.325 | 27.325 | 27.320 | 27.9113 |
| 33      |        | 27.335 | 26.885 | 27.335 | 27.335 | 27.330 | 27.9213 |
| 34      |        | 27.345 | 26.895 | 27.345 | 27.345 | 27.340 | 27.9313 |
| 35      |        | 27.355 | 26.905 | 27.355 | 27.355 | 27.350 | 27.9413 |
| 36      |        | 27.365 | 26.915 | 27.365 | 27.365 | 27.360 | 27.9513 |
| 37      |        | 27.375 | 26.925 | 27.375 | 27.375 | 27.370 | 27.9613 |
| 38      |        | 27.385 | 26.935 | 27.385 | 27.385 | 27.380 | 27.9713 |
| 39      |        | 27.395 | 26.945 | 27.395 | 27.395 | 27.390 | 27.9813 |
| 40      |        | 27.405 | 26.955 | 27.405 | 27.405 | 27.400 | 27.9913 |



# **Supplied Accessories**

Carefully unpack the Radio, and confirm the following items in addition to this manual:

• CB Radio







· Mobile installing bracket



· Hardware kits for radio



Fuse



Manual



Microphone bracket

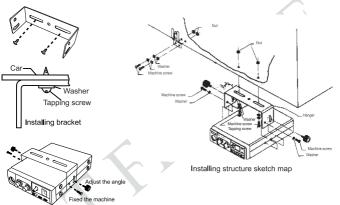




# **Mobile Installation**

Safety and convenience are the primary consideration for munting any piece of mobile equipment. All controls must be readily available to the operator without interfering with the movements necessary for safe operation of the vehicle. Be sure all cables are clear of the brake, clutch and accelerator. Also, thought must be given to the convenience and comfort of passengers.

Refer to the figures as follow:



The transceiver may be installed in any position in your car, where the monitor and microphone are easily accessible and it does not interfere with the safe operation of the vehicle. If your vehicle is equipped with airbags, be certain your radio will not interfere with their extension. If you are not certain about where to install the unit, contact your vehicle's manufacturer.





#### ANTENNA INSTALLATION

#### a) Choosing antenna:

-For CB radios, the longer the antenna, the better its results. Your dealer will 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 CB antenna should be higher than this.
- -There are two types of antenna: Pre-regulated antenna which should be used on a good ground plane (e.g. car roof or lid of the boot), and adjustable antenna which offer a much larger frequency range and can be used on a smaller ground plane.
- -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 to location (B).

#### c) Fixed antenna:

A fixed antenna should be installed in a space as spacious as possible. If it is necessary for you to fix the antenna to a mast, you need to keep it as per the requirements of the laws in force (please turn to professional advice).

## POWER CONNECTION

The voltage has to be 13,8V or 24 V DC with negative grounding. Ensure that the positive (+, red) and negative (-, black) polarity is correct, before you connect the radio. The wiring has to be done by an authorized technician.

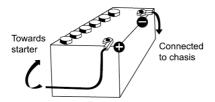
Connect the power cable directly with the battery. Do not use a cigarette lighter adapter because this kind of connectivity might not provide enough current for a proper operation of the radio. Pay special attention to the correct polarity, when connecting the cable into the battery.

CAUTION: please ensure proper polarity - check the fuse before first use of the radio.

Missed or defect fuses need to be replaced before operation of the radio.



WARNING: Never replace the original fuse (5A) by one of a different value.



#### **BASIC OPERATIONS**

- a) Connect the microphone
- b) Check the antenna connections
- c) Turn the set on by turning the volume knob clockwise
- d) Turn the squelch knob to minimum(Full-anti clockwise)
- e) Adjust the volume to a comfortable level
- f) Go to channel 20 EC by using either the [+] or[-] key.

# ADJUSTMENT OF SWR (standing wave ratio)

**WARNING:** This must be carried out when you use your CB radio for the first time (and whenever you reposition your antenna). The adjustment must be carried out in an obstacle-free area

- \*Adjustment should be operated with external SWR meter.
- a) To connect the SWR meter

Connect the SWR meter between the CB radio and the antenna as close as possible to the CB radio (use a maximum of 40cm cable)

- b) To adjust the SWR meter -Set the CB to channel 20 EC band in FM -put the switch on the SWR meter to position CAL or FWD -Press the << Push-To-Talk>> switch on the microphone to transmit.
- -Bring the index needle to lacktriangledown by using the calibration key
- -Change the switch to position SWR (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).



# **CONDITIONS OF GUARANTEE**

This transceiver **CRT SUPERSTAR** is guaranteed on 2 years.

Any abnormality of functioning must be indicated to your retailer, who will intervene or will send it to our technical service for control

The spare parts of our devices are the object of no sending under guarantee

#### Are excluded of the guarantee:

- the damages caused by accidents, shocks, natural elements (lightning, thunderstorm, static electricity etc.)
- The transistors of power, the microphones, the fuses, the bad uses: badly adjusted antenna (tos excessive), inversion of polarité, surge, bad connection etc. recognized by our technical service
- The interventions having modified the standards of approval of the device

# PROCEDURE ON RETURNING TO THE AFTER-SALES SERVICE CRT

- If you send back a radio under guarantee for repair : you pay the freight costs to go. CRT will pay the freight costs return. If the radio is not under guarantee postal charges are at your expense.
- each device must be sent accompanied with a photocopy of the invoice as well as with a descriptive note of the noticed defect

If our AFTER-SALES SERVICE estimates the repair more expensive than the value of the device, this one will send you an estimate which must have returned to him accepted or refused. If the estimate is refused, the device will have carriage forward returned.



# **DECLARATION OF CONFORMITY N° 200240**

**CE** 

We hereby declare under our responsability that the product :

Brand : CRT Model : ALPHA

Description: Mobile transceiver

Satisfies all the technical regulations applicable to the product within the scope of directive RED 2014/53/EU european standarts

EN 62368-1 :2014+A11 :2017 EN 301 489-1 V2.2.1 EN 301 489-13 V1.2.1 EN 300 433 V2.1.1 EN 62311 :2008

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E-mail: <u>superstar@crtfrance.com</u>
Web site: www.crtfrance.com







M. CELESTRANO F. Président Le 19.08.2019

