4W MOBILE CB TRANSCEIVER

TCB-1100

CHANNEL

SQUELCH

DSS

VOLUME

MIC

tti

M SCAN AM
DSS EMG VOX FM
TONE MEM COMP TX
EXT MUTE LOCK DW
S-MTR SIG
PWR

MENU   S.MEM   VOX   TONE   LOCK   M
9/19   SCAN   DW   COMP   B.L   MO/LCR
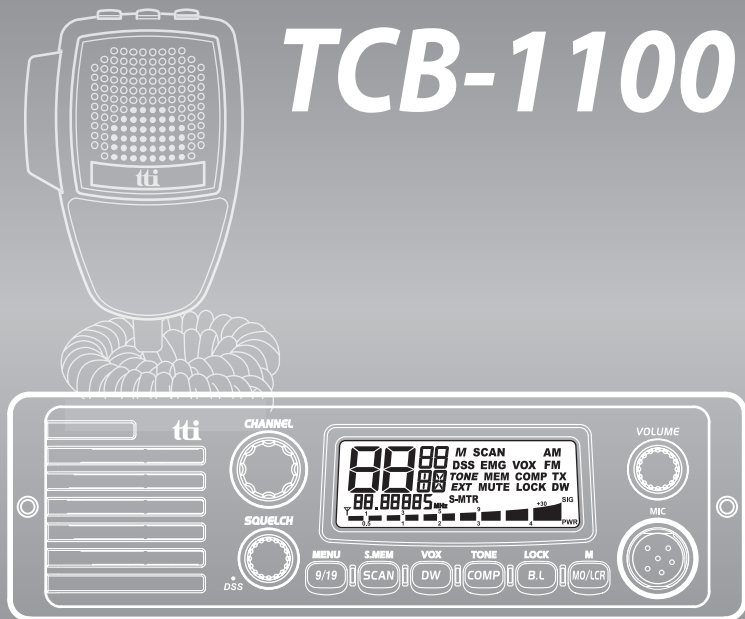
INSTRUCTION MANUAL

tti
www.ttikorea.co.kr

Our Thanks to You

Our Thanks to You

Thank you for purchasing a TTI CB TRANSCEIVER radio. Properly used, this TTI product will give you many years of reliable service.

All our products are built to offer excellent value by combining advanced features, great design and manufacturing quality.

To ensure you are familiar with the operation and features of your radio, and in order to obtain the best performance, please read this manual carefully before operation.

Contents

Contents

1. Introduction

TCB-1100 transceiver is designed to have a good performance in any conditions that the transceiver operates, using rugged build chassis, PCB's and components. This transceiver is also designed for users' convenience, implementing human ergonomics to locate the knobs and buttons in the proper places. The combination of well designed knobs and buttons as well as user friendly graphic layouts will lead users to quickly adapt themselves for the easy operation. The newly applied menu mode will make professional users more satisfactory with pleasure. The elegant, luxury and different colored LED light supporting the face design will go well with any vehicles.

This instruction manual has been designed to enable you to get the best use from your CB Transceiver, therefore you are recommended to take a few minutes to read this instruction manual before initial use of your CB Transceiver.

2. Supplied Accessories

Your transceiver is supplied with a full range of accessories to help you get started and virtually benefit from all the features straight away.

|	
TCB-1100 Transceiver	1 unit
Microphone with cord	1 unit
Power cable	1 unit
Radio mounting bracket	1 unit
Radio mounting thumb screw with rubber washer	2 pieces
Mounting screw with washer(for transceiver bracket)	3 pieces
Mounting screw with washer(for microphone bracket)	2 pieces
Microphone mounting bracket	1 piece
Din Front Plate	1 unit
Din Body Plate	1 unit

3. Installation

Normal Installation using Mounting Bracket

Plan the location of the transceiver and microphone first, which is most convenient for the operation. The transceiver should normally be mounted horizontally, but may be mounted vertically. The bracket supplied can be fitted above or below the case allowing the TCB-1100 to be cradled by the bracket or suspended from it.

Installation

Consider that this location of the transceiver should not interfere with the driver and passengers. Choose a spot where the microphone and all controls are easily accessible.

1) Put the mounting bracket on the proper location where you are going to install.
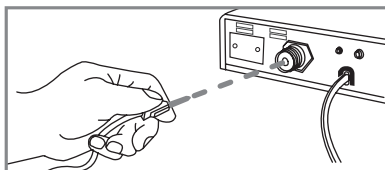
2) Drill holes and fix mounting bracket on the location.

3) Connect the antenna cable plug to the standard receptacle on the transceiver, which is marked "ANT".

4) Connect the power cable directly to the vehicle battery or fuse box of the car. Be careful to make sure of the polarity of the battery first and connect the cable.
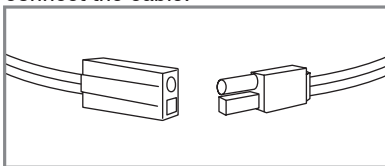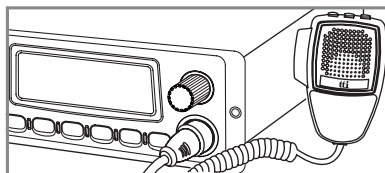

(Red: Positive Pole($+$), Black: Negative Pole(-). The same colors are shown on the battery and in the fuse box of the car.)

5) Connect the power cable to the transceiver cable.

6) Mount the microphone bracket on one side of the transceiver, or near it using two screws included.

7) Connect the microphone to the transceiver's microphone receptacle.

Now you are ready to operate the transceiver.

Installing into Audio Compartment

This transceiver is also designed to have the DIN size to be directly installed into the audio compartment of your vehicle.

For this purpose, use the TTI supplied installation supporting DIN plates. All other connections and installations are same as the above "Normal Installation Using Mounting Bracket."

Installation

1) Install the Din-Body plate into the audio compartment (center fascia) of your vehicle.(Use the ready made locking flaps.)

2) Set the transceiver in the Din-Front plate, and insert the transceiver in the Din-Body plate.

3) Fix the screws through the transceiver, Din-Front plate and Din-Bodyplate.
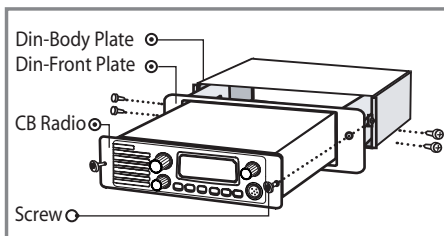
Installing an Antenna
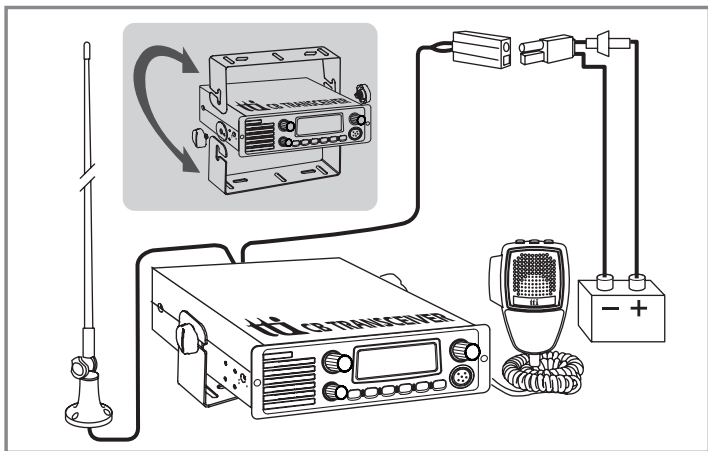
It is very important to select a good quality high efficiency 27MHz antenna. A poor quality antenna or one not designed for the 27MHz band will give very poor performance and could cause damage to the transceiver.
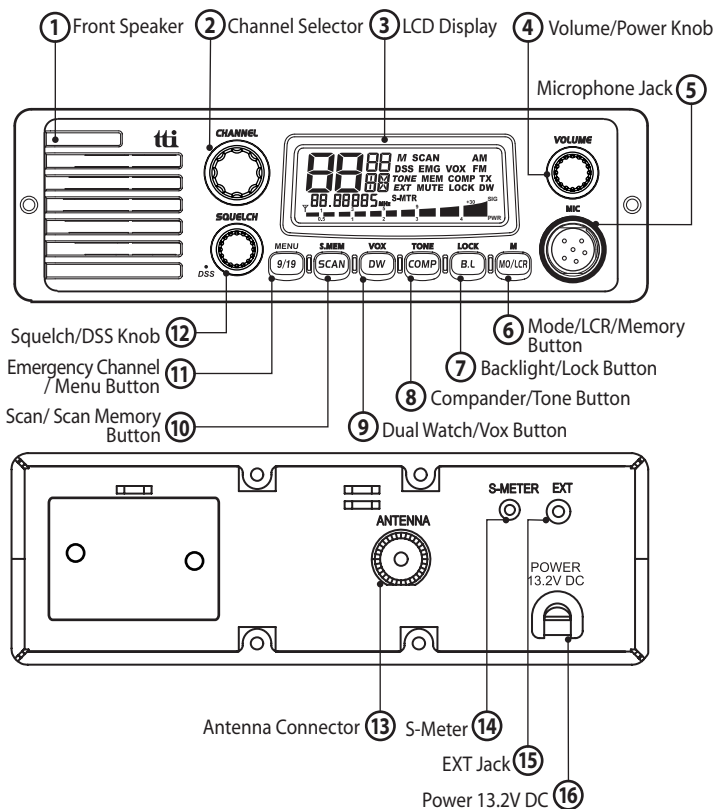
1) Place the antenna as high as possible.

2) The longer the antenna is, normally the better is the performance of the transceiver.

Transceiver Controls and Functions

3) Try to mount the antenna in the centre of the surface that you select.
4) Make sure that you have a solid metal-to-metal ground connection.
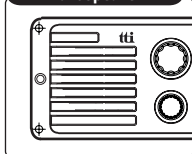5) Be careful not to damage the cable during the installation.

Warning : Never try the operation of your transceiver before connecting a proper antenna in order not to cause any damage.

4. Transceiver Controls and Functions

① Front Speaker ② Channel Selector ③ LCD Display ④ Volume/Power Knob

Microphone Jack ⑤

⑫ Squelch/DSS Knob

⑪ Emergency Channel / Menu Button

⑩ Scan/ Scan Memory Button

⑨ Dual Watch/Vox Button

⑧ Compander/Tone Button

⑦ Backlight/Lock Button

⑥ Mode/LCR/Memory Button

Antenna Connector ⑬ S-Meter ⑭

EXT Jack ⑮

Power 13.2V DC ⑯

Transceiver Controls and Functions

Front Speaker

1) Front Speaker

The front speaker makes the audio always loud enough even when the transceiver is located in the audio compartment (center fascia) or in some places difficult to be found.

Channel Selector

CHANNEL

2) Channel Selector

Turn right or left, and this allows you to select the channel one by one that you like to use. For the quick channel up/down, momentarily press this selector, and the channel display will blink. Then turn right or left, which will allow you to use the quick channel up or down function. Using this function, the channel numbers will move by 10 channel steps.
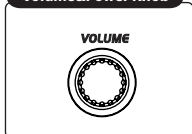
LCD Display
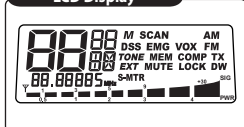
3) LCD Display

Most of the operational information is displayed. Please see item no.5 LCD Display for the details of information.

Volume&Power Knob

VOLUME

4) Volume & Power On/Off Knob

To switch on the transceiver turn this knob clockwise. After clicking sound the transceiver is switched on. The more you turn this knob clockwise, the bigger the audio sound grows.
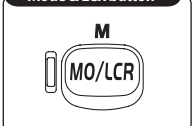
Microphone Jack

MIC

5) Microphone Jack

Insert the microphone into this jack. Use the guide for easy connection.

Mode & LCR button

M

MO/LCR

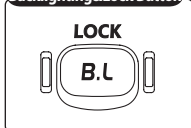### 6) Mode & LCR & Memory Button

Mode and LCR : When the transceiver is used in UK,UE,EC,D or D2 frequency band modes this button activates Last Channel Recall function. In all other modes (where national regulations

permit this), this button allows the user to switch between AM and FM modes by momentarily pressing this button.

Memory : Pressing and holding this button lead the user to the memorized channel which has been selected in the Menu mode. "MEM" is on in the LCD display.

7) Backlighting & Lock Button

Backlighting : Three colors are available for user selection. The colors include amber, green and blue. Momentarily press this button to change the color.

Lock : Press this button for more than 2 seconds to activate and deactivate the keypad lock function. "Lock" is on in the LCD display. The volume knob, squelch knob and 9/19 button are working normal even while the Lock is activated.

8) Compander & Tone Button

Compander on/off : Advanced compander circuit is embedded in the transceiver to allow crystal clear audio sound. To activate this compander circuit momentarily press this button. "COMP" is on in the LCD display.

Tone on/off : CTCSS tone is selected and activated in the MENU mode. Pressing and holding the button lead users to deactivate or activate the selected tone code.

9) Dual Watch & Vox Button

Dual Watch : Press momentarily this button while you are on the current (primary) channel. The dual watch icon "DW" blinks. Turn the channel knob to select another(secondary) channel that you like to monitor. The dual watch icon "DW" stops blinking and the dual watch starts between the selected(secondary) channel and the primary channel. If you like to change the selected (secodndary)

channel, just turn the channel knob to select a new one. You may select the emergency channel. To stop this function, press momentarily again this button.

If you press the PTT button whilst receiving a signal in dual watch mode the transceiver will transmit on the currently displayed channel.

will transmit on the currently displayed channel. If you press the PTT button when no signal is present the transceiver will transmit on the primary channel.

VOX : Press and hold this button, and this will allow you to use vox function. "VOX" is displayed. The Vox level is pre-selected and memorized in the MENU mode.
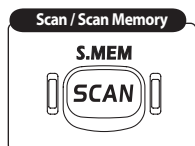
10) Scan & Scan Memory Button

Scan : Press this button momentarily to start scanning upward to catch any channels that are occupied by others.

To activate/deactivate the channel scan, press the Scan button briefly. The Scan icon will appear when the channel scan is active. Scanning will only stop when you deactivate the scan function.

Turn the channel selector counter-clockwise during scanning in order to change the scanning direction.

The transceiver will scan through the whole transceiver channels. If your transceiver detects a valid signal the scan will pause for the period that has been set by the menu mode setting (continuously receiving or 1-99 seconds for scan receive time and immediate response or 1-99 seconds for scan delay time).

If you press the PTT button when your transceiver detects a signal, the radio will transmit on the same channel. Scanning will resume after the scan receive time and/or the scan delay time. Use the channel selector to resume scanning immediately.

Scan Memory : It is possible to memorize or erase any channel(s) in the scan memory list. When a channel or channels are contained in the scan memory list, the channels are scanned by the scan activation For user convenience, all the channels are memorized in the list upon shipment from the factory, and "M" is displayed with the memorized channels. To erase the displayed channels from the scan memory list, press and hold the button.

Transceiver Controls and Functions

EMG & MENU Button
MENU
9/19
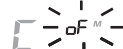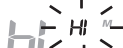
11) Emergency Channel(9/19) & Menu Button
Emergency Channel(9/19) : Pressing this button will lead you to the emergency channel, "CH9(or CH19)" and the EMG icon will be displayed. Only the squelch knob and volume knob will work. To return to the previous operation mode, momentarily press the emergency button again.

MENU : The menu mode allows you to set-up and edit the selectable functions. To access the MENU mode, press and hold this button, and afterwards each press of the MENU button steps the transceiver sequentially through the different functions. The LCD display indicates the current function. The present setting and associated icons flash.

Use the channel selector to change the setting. Press the PTT or MENU button or wait for about 10 seconds to store your choice. If you do not press any button or knob for about 10seconds, your transceiver will return to the stand-by mode automatically.

Display	Functions	Settings
38 oF TONE	CTCSS TONE SELECTION (Receive)	01-38 and off(oF)
38 oF TONE TX	CTCSS TONE SELECTION (Transmit)	01-38 and off(oF)
Uo on VOX	VOX Level Selection	01,02,03
bP on M	Beep Tone	On(on), Off(oF)
C oF M	Call Tone	01-05 and Off(oF)
to oF M	Time-out Timer	1-99 sec., Off(oF)
Sr Co M	Scan Receive Timer	Continue(Co), 1-99sec.
Sd oF M	Scan Delay Timer (after receiving signal)	1-99 sec, Off(oF)
bL HI M	Backlight Dimmer and off	High(HI), Low(Lo), Off(oF)
CH 88 MEM	Channel Memory	01-40

Transceiver Controls and Functions

Note:
1. Use the channel selector to select the main MENU feature values such as tone numbers, VOX levels and etc.
2. Press Lock button or PTT button of the Microphone to complete the selections and changes and return to the stand-by mode. Or the selections and changes will be automatically confirmed after 10 seconds of the selections and changes.

Squelch & DSS Knob

SQUELCH

DSS
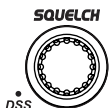
12) Squelch & DSS Knob

Manual Adjustment : Turn this knob counter-clockwise until you hear the background noise and then turn the knob a little clockwise until the noise disappears. In this way, you get the best receive sensitivity.

DSS: In FM mode turn the knob counter-clockwise until you hear the click. The squelch level of your transceiver is dynamically adjusted.

Antenna Connector

ANTENNA

13) Antenna Connector

Insert the male connector of the antenna cable into this female antenna connector.

S-Meter

S-METER

14) S-Meter

Connect an external S-Meter (This is not supplied) to this port.

EXT Jack

EXT

15) EXT Jack

Connecting a loud speaker (This is not supplied) to this port makes the built-in speaker turned off.

Power 13.2V DC

POWER
13.2V DC

16) Power 13.2V DC

Connect the power supply cable to this port.

LCD Display & Microphone

5. LCD Display

- Scan Memory
- Scan
- Emergency Channel
- Dynamic Squelch System
- CTCSS Tone
- Selected Frequency Band
- Channel
- Frequency Read-outs
- VOX
- AM Mode
- FM Mode
- Transmit
- Dual Watch
- Compander
- Signal Strength Meter
- External Speaker
- External S-Meter
- Keypad Lock
- Channel Memory
- Speaker Mute (Using Microphone Lock Button)

M SCAN AM
DSS EMG VOX FM
TONE MEM COMP TX
EXT MUTE LOCK DW
S-MTR SIG PWR
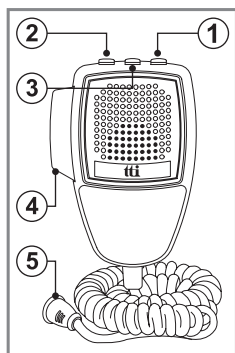
6. Microphone

1 Up Button : Use this button to change the channels upward.
2 Down Button : Use this button to change the channels downward.
3 Mute and Lock Button : Press and hold the button. This locks the up button and down button of the microphone. Also, this lock works same as the lock button on the transceiver front panel.
Momentarily press the button to make mute the speaker of the transceiver.
4 PTT Button : While pressing this button, you can transmit.
5 6 Pin Microphone Connector :
Connect this to the microphone jack on the front panel of the transceiver.

Band Selection

7. How to operate the Transceiver

1) Make sure the microphone is connected to the microphone jack.
2) Make sure the power cable is connected properly.
3) Make sure the antenna is connected to the antenna receptacle.
4) It is better to put the squelch control knob turned fully counter-clockwise.
5) Turn on the transceiver and control the volume level.
6) Adjust the squelch control knob to the optimum level.
7) Select your desired channel.
8) To transmit, press the PTT button and speak to the microphone.
9) Release the PTT button to receive.

8. Band Selection

Band Selection
M **MO/LCR** + **VOLUME**
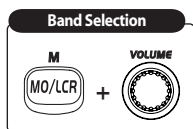
Pressing "MO/LCR" button of transceiver, turn on the transceiver. Using the channel selector, select the band that you are going to select. The LCD display offers you the band information. The band chart for each area is as follows.

Press the PTT button of "MO/LCR" button to confirm the selection and to return to the stand-by mode.

This transceiver has "EC" band setting when it is shipped out from the factory.

Setting	Display	Band
EC	EC	Europe 40 Ch FM 4W
E	E	Spain 40 Ch AM/FM 4W
F	F	France 40 Ch FM 4W, 40 Ch AM (W
PL	PL	Poland 40 Ch AM / FM 4W (Polish Frequencies : 5KHz)
UK	UK	UK 40 Ch FM 4W (British Frequencies)
UE(EU/UK)	UE	UK 40 Ch FM 4W (British Frequencies) +CEPT 40Ch FM 4W(EC) + CEPT 40Ch FM
I	I	Italy 40 Ch AM / FM 4W
I2	I2	Italy 34 Ch AM / FM 4W
D	d	Germany 80 Ch FM 4W, 12 Ch AM (W
D2	d2	Germany 40 Ch FM 4W, 12 Ch AM (W
EU	EU	Europe 40 Ch FM 4W, 40 Ch AM (W

Trouble Shooting

9. Trouble Shooting

If you experience problems with your TCB-1100 transceiver, first check the power supply source. Poor connection of the power supply source can cause problems such as no transmission, no reception or poor reception, and weak or no sound. Ensure that the microphone and antenna are also well connected.

If this does not solve the problem, reset your transceiver as follows.
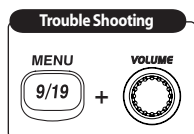
1) Switch off the transceiver.
2) Pressing "9/19" buttons and turn the volume knob clockwise.

This will reset the transceiver, so all the memories are erased and the parameters return to the initial factory setting.

This should fix most problems.

In case of further difficulty, Please consult your dealer or visit our website.

10. CE Declaration

CE0700 CE versions of the TCB-1100 which display the CE symbol on the product label, comply with the essential requirements of the European Radio and Telecommunication Terminal Directive 1999/5/CE.

This warning symbol indicates that this equipment operates in non-harmonised frequency bands and/or maybe subject to licensing conditions in the country of use.
Be sure to check that you have the correct version of this radio or the correct programming of this radio, to comply with your national licensing requirements.

This unit can be used without license and charges in; Austria, Belgium, Bulgaria,Cyprus, Czech, Denmark, Estonia, Finland, France,Germanay, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland,Portugal,Pomania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and U.K.

11. Safety Requirement

The power cable is for 13.2V DC only. Be sure the transceiver is off before connecting the leads of the power cable to the power supply. It is important to observe the polarity even if the unit is protected against the accidental inversion :

Specifications

* Red : Positive pole (+)
* Black : Negative pole (-)

The same colors are present on the battery and in the fuse box of the car.

The unit must be wired for the negative ground only.
To avoid damage, do not operate your CB radio without connecting a proper antenna.

12. Specifications

General	
Channel	40 (See the frequency band chart)
Frequency Range	26.96 MHz 27.99125 MHz
Operating mode	F3E (FM), A3E (AM)
Frequency Control	PLL Synthesizer
Frequency Tolerance	0.002%
Operating Temperature Range	-10 to + 55 ℃
Microphone	Plug-in Type
Input Voltage	13.2V DC ±15%
Size	190(W) x 165(L) x 58(H)
Weight	978.5 g
Antenna Connector	SO-239 type
Transmitter	
Power Output	Duty cycle 10% 4 Watts @13.8V DC
Modulation	AM:from 85% to 95%
	FM:1.8KHz to ±2.0KHz
Frequency Response	300Hz to 3000Hz
Output Impedance	50ohms, Unbalanced
Harmonic Suppression	Less than -36dBm
Current Drain	AM Full Mod. 1.6A Max.
Receiver	
Receiving System	Dual conversion superheterodyne
IF Frequencies	Double Conversion 1st 10.695MHz/ 2nd 455KHz
Sensitivity	0.7 µV for 10dB(S+N)/N in AM Mode
	0.7 µV for 20dB SINAD in FM Mode
Audio Output Power	2.0W @ 8 Ohm
Audio Distortion	Less then 8% @ 1KHz
Image Rejection	60 dB
Adjacent Channel Rejection	60 dB
Conducted Spurious	Less than -57dBm
Frequency Response	300 to 2500Hz
Built-in Speaker	8 Ohms, round
Squelch	Adjustable; Threshold less than 1 microvolt DSS; Less than 2 microvolt

13. Restrictions on the use

Country	Settings	Use restrictions and other comments
BELGIUM	EU F EC	40Ch -4W FM- Individual License is required
SWITSERLAND		40Ch - 4W AM- Individual License is required
DENMARK,NORWAY	EC	40Ch -4W FM- Free Use
LUXEMBOURG,CZECH		
FINLAND,PORTUGAL	EU F EC	40Ch -4W FM- Free Use
FRANCE,NETHERLANDS		40Ch -4W AM- Free Use
GERMANY	D	80Ch -4W FM- Individual License is required
		4$Ch - 4W AM- Individual License is required
	EU	40Ch - 4W AM- Use Ch 4-15 Only
	D2 EC	40Ch -4W FM- Free Use
		12Ch -4W AM- Individual License is required
	fx Allowed: from 26.960 to 27.410 MHz "BAPT 222 ZV 104"	
GREECE	E EU F I EC	40Ch -4W FM- Free Use
		40Ch -5W AM- Free Use
	T/R 20-02	
IRELAND	E EU F I EC	40Ch -4W FM- Free Use
		40Ch - 4W AM- Free Use
	S.I.No 436 of 1998. WIRELESS TELEGRAPHY ACT, 1926 (SECTIONS) (EXEMPTION OF CITIZEN'S BAND (CB) RADIOS) ORDERS, 1998	
ITALY	E EU F I EC	40Ch -4W FM- General authorisation is required
		40Ch -4W AM- General authorisation is required
	I2	34Ch -4W FM
		34Ch -4W AM(ERP) *AM mode allowed on ch1-23 only
	PNF issued on DM 08.07.02 NOTES 49 A-B-C-D-E-G	
SPAIN	E EU F EC	40Ch -4W FM- Individual License is required
		40Ch -4W AM- Individual License is required
	Art. 57 - Law 11/1998 dated 24th April	
SWEDEN	EU F EC	40Ch -4W FM- Free Use
		40Ch - 4W AM- Individual License is required
UK	UK EC	40Ch -4W FM- Individual License is required
	UK-RA-MPT 1382/MPT1320;UK-R&TTE - S.I.L. 2000:730	
POLAND	PL EU EC	40Ch -4W FM/AM- Free Use

Declaration of Conformity

Declaration of Conformity

We, TTI Tech Co.,Ltd (TTI house, 1163-4, Gaepo-dong, Gangnam-gu, Seoul, Korea) declare on our sole responsibility that this equipment complies with the essential requirements of the Radio and Telecommunications Terminal Equipment Directive, 1999/5/EC, and that any applicable Essential Test Suite measurements have been performed.

Kind of Equipment :   MOBILE CB TRANSCEIVER

Type-Designation :   **TCB-1100**

Version (where applicable):

This compliance is based on conformity with the following harmonized standards, specifications or documents:

ETSI EN 301 489-13 V1.2.1
ETSI EN 300 135-2 V 1.1.1,
ETSI EN 300 433-2 V 1.1.2
EN 60950-1 : 2001＋A11:2004

N. Y. Kim
Director

Seoul, Oct. 27, 2008

CE Marking

This radio is marked **CE 0700⊕** adjacent to the serial number.