

# **OWNER'S MANUAL**

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## **Bluetooth Digital Torque Wrench**

**CP Series**



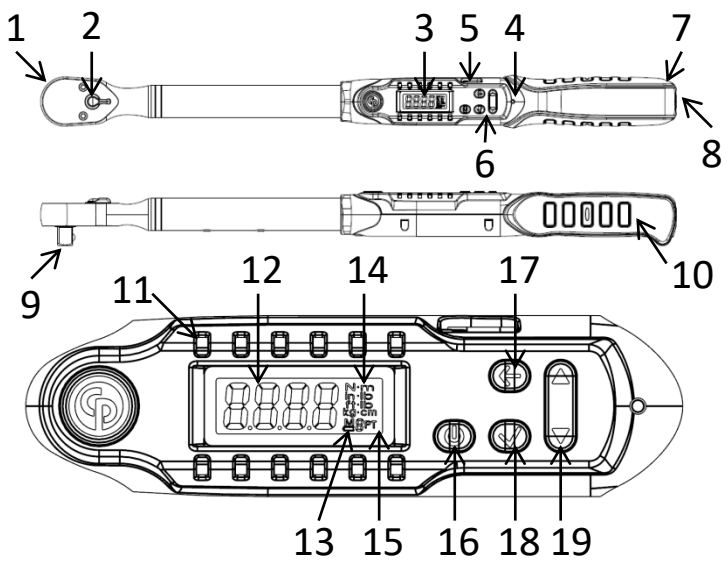
**Dear Customers,**

Thank you for purchasing the digital torque wrench. This manual will help you to use the rich features of this new digital torque wrench. **Before operating the torque wrench, please read this manual completely**, and keep it nearby for future reference.

**MAIN FEATURES**

- Digital torque value display
- The torque accuracy guaranteed range is  $\pm 3\%$  from 20 to 100% of max torque
- Four Torque units(N-m, ft-lb, in-lb, kg-cm) selectable
- 2000 data memory for recall and joint torque auditing
- Bluetooth 5.0 Communication functions
- Auto Idle after about 1 minutes without action
- Auto Off after about 30 minutes without action
- Powered by Two AA batteries

**NAME AND FUNCTION OF PARTS**



- |                            |                                  |
|----------------------------|----------------------------------|
| 1. Reversible Ratchet Head | 11. LED Indicator                |
| 2. Direction Lever         | 12. Torque Value                 |
| 3. LCD Display             | 13. Pre-setting Index            |
| 4. Buzzer                  | 14. Units                        |
| 5. Communication Port      | (N-m, ft-lb, in-lb, kg-cm)       |
| 6. Buttons                 | 11. [T]:Torque Installation mode |
| 7. Battery Compartment     | [ ]:Torque Audit mode            |
| 8. Battery Cap             | 16. Power On/Clear Button        |
| 9. Ratchet Drive           | 17. Return Button                |
| 10. Anti-slip Handle       | 18. Enter/Setting Button         |
|                            | 19. Up / Down Button             |

# SELECTION GUIDE

	①	②
MODEL NO:	CP8916 CP8918	TC

①

Model	Square drive (inches)	Max. Torque
CP8916	1/2	200 N-m / 147.5 ft-lb
CP8918	1/2	340 N-m / 250.7 ft-lb

②

Communication	
	No Bluetooth
TC	Bluetooth 5.0

## SPECIFICATIONS

Model No.	Max. Torque (N-m)	Square Drive (inches)	Torque Measuring Range (N-m)	Length (mm)
CP8916	200	1/2	10~200	530
CP8918	340	1/2	17~340	650
All Models				
Accuracy *1	AB		BB	
	±3%		±3%	
Data memory size	2000			
PC Connectivity *2	Yes			
Bright LED	12LED (2 Blue/Red+10 Green)			
Operation Mode	Installation / Audit			
Unit Selection	N-m, ft-lb			
Head Type	Lever Type Ratchet			
Gear Teeth	72			
Button	5			
Battery	AA x 2			
Operating Temperature	-10℃ ~40℃			
Storage Temperature	-20℃ ~70℃			
Humidity	Up to 90% non-condensing			
Drop Test	1 m			
Vibration Test *4	10G			
Environmental test *5	Pass			
Electromagnetic compatibility test *6	Pass			

**NOTE: Accuracy is guaranteed from 20% to 100% full scale.**

**\* : See note on page 4**

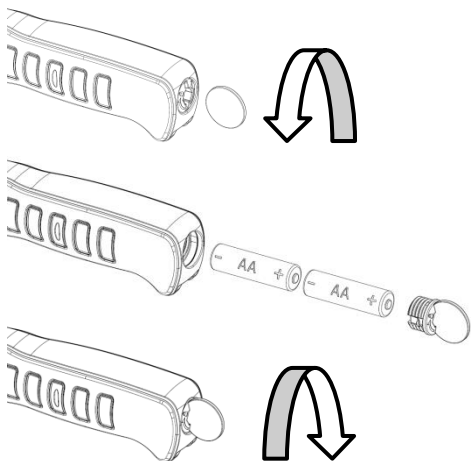
## Note:

1. The accuracy of the readout is guaranteed from 20% to 100% of maximum range + /- 1 increment. The torque accuracy is a typical value. For keeping the accuracy, calibrate the wrench for a constant period time (1 year). And the accuracy is based on the zero degree of offset from perpendicular drive.
2. Use a special designed cable (accessory) to upload record data to PC. Supports Bluetooth 5.2 wireless connection.
3. Two AA batteries (Toshiba carbon-zinc battery)
4. Horizontal and vertical test
5. Environmental test:
  - a. Dry heat
  - b. Cold
  - c. Damp heat
  - d. Change of temperature
  - e. Impact (shock)
  - f. Vibration
  - g. Drop
6. Electromagnetic compatibility test:
  - a. Electrostatic discharge immunity (ESD)
  - b. Radiated susceptibility
  - c. Radiated emission


# BEFORE USING THE WRENCH

## BATTERY INSTALLATION

- Remove the battery cap.
- Insert two AA batteries matching the -/+ polarities of the battery to the battery compartment.
- Put on the battery cap and rotate it tightly according to the following figures.




## POWER ON AND AUTO ZERO RESET


- To power on the digital torque wrench, please keep the ratchet head force free, and then press  to power it on.
- During power on, a zero-reset for torque will be proceeds.
- In Torque Installation mode , a default target value will show on LCD.



### ATTENTION:

1. If  appeared, it means torque ZERO RESET failed, Please do torque Zero Reset again.



## AUTO POWER OFF

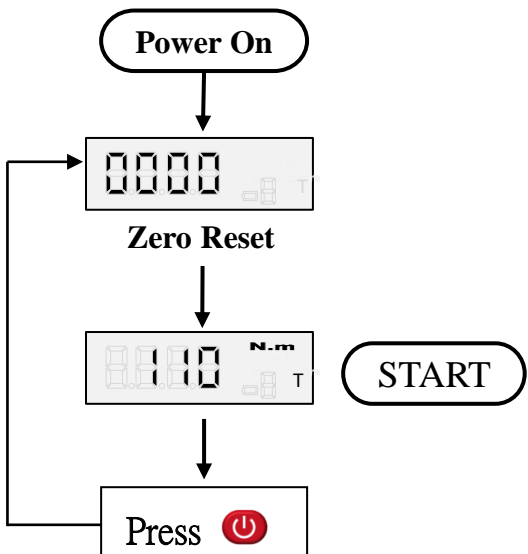
- Auto Idle after about 1 minutes without action
- Auto Off after about 30 minutes without action
- Press  to power on the wrench again.

### CAUTIONS:


During communication period, the auto power-off function is disabled.

## ZERO RESET

- Better Zero-reset improves the measuring accuracy. To get higher accuracy, please do Zero-reset carefully before each measuring.
- After power on,  button used for zero reset.
- Usually press  to zero reset the digital torque wrench before measuring.
- In Torque Installation mode, if an external force is applied to the torque wrench during zero-reset period, an initial torque offset error will occur.



## RESET THE WRENCH

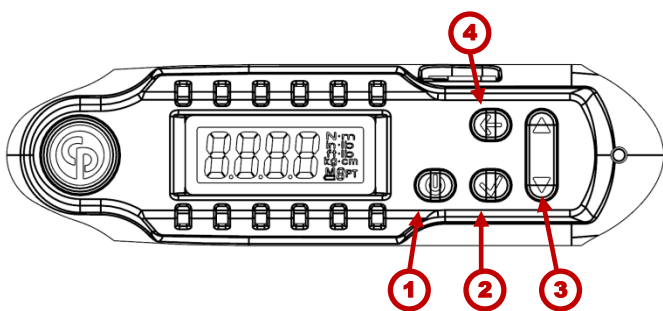
- If the wrench does not function normally, please go through the reset process to reset the wrench.
- To reset the wrench, loosen the battery cap then tighten it to re-start. After reset, remember to press  to power it up again.





## LOW VOLTAGE INDICATOR

- If the battery voltage is too low, the wrench will display a battery symbol. Please replace batteries immediately.



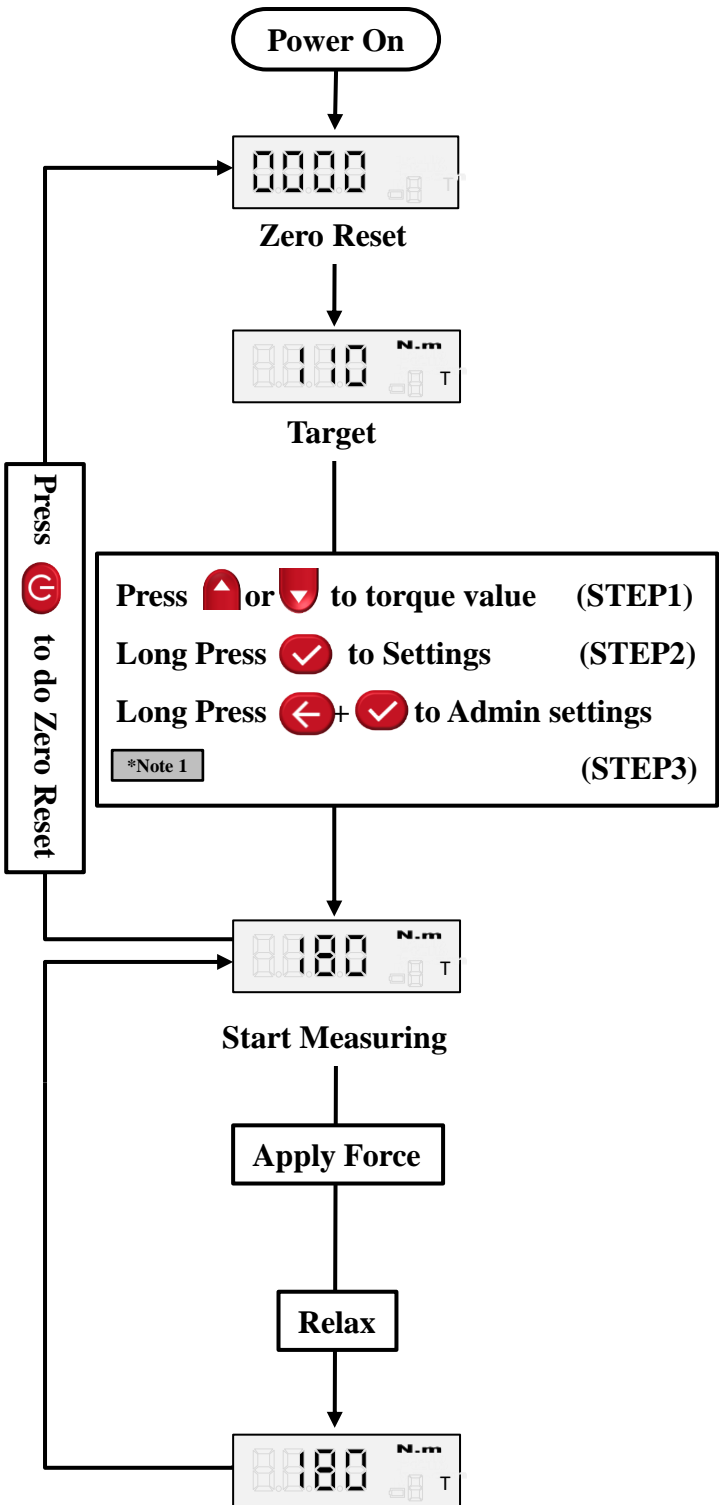
# BUTTONS



- 1**  **Power On/Clear**
- 2**  **Enter/Setting**
- 3**  **Up/Down Button**
- 4**  **Return**



## MAIN OPERATION FLOW



### Note:


1. Long Press to enter wrench setup.
2. Only Peak Mode keep peak torque for save.

## STEP1: SET TORQUE VALUE



Pre-setting torque Value

Press  to increase torque value

Press  to decrease torque value



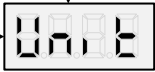
Pre-setting torque Value

## STEP2: WRENCH SETTINGS



After Power on Zero Reset

Long Press to enter Wrench Setup



Press to Unit selection



Press to Change unit  
Press to Cancel change  
Press to record change



Press to Tightening strategy



Press to Change tightening strategy  
Press to Cancel change  
Press to record change



Press to set Tolerance min %



Press to Change unit  
Press to Cancel change  
Press to record change



Press to set Tolerance max %



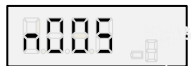
Press to Change unit  
Press to Cancel change  
Press to record change



Press to Display recordings



Press to Change record



Press Don't delet  
Press delete current record



**Note:**

1. After Power on Zero Reset.
2. During measuring and before apply force.

### STEP3: WRENCH SETUP



After Power on Zero Reset

Long Press  +  to enter Admin settings



Software version



Press  to Mode selection

Press   to Change mode

Mode 1 : normal mode

Mode 2 : no LED

Mode 3 : no sound

Press  to Cancel change

Press  to record change

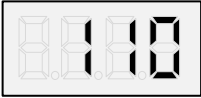


Tightening counter

Display number of tightening



## STEP4: OPEN SETUP



**Default home display:**  
**Targeted value**



**single press:** increase value to upper decade  
(if 120 then go to 130,  
if 127 then go to 130)

**continuous press:** wait 1s then +1 every 0,25s



**single press:** decrease value to lower decade  
(if 120 then go to 110,  
if 127 then go to 120)

**continuous press:** wait 1s then -1 every 0,25s

## STEP5: P-SET MODE

### 1 . OPEN SETUP MODE

- **Target is defined from the torque wrench:**
  - \*. Torque value selection as described by Spec 8.x
  - \*. Unit, tightening mode, min tolerance and max tolerance can be selected as described by Spec 9.x
- **OPEN SETUP MODE is available by default:**
  - \*. when the wrench is used for the first time
  - \*. When no P-set is in the memory
- **OPEN SETUP MODE can be enabled or disabled from CPLinQ**  
(using Tightening SPEC / preset packet)
- **Last mode used is kept in memory when tool is restarted**

### 2 . P-SET MODE

A selection of P-sets are defined from CPLinQ:

- \*. a pack of 1 to 9 P-sets are sent by CPLinQ  
(using Tightening SPEC / preset packet)
- \*. Each P-set contains: Torque value, Unit, tightening mode, min tolerance, max tolerance, a P-set ID and a number for allocation in torque wrench memory
- \*. When a pack of P-set is received from CPLinQ:
  - \*. all previous P-sets in memory are deleted from the wrench
  - \*. Each P-set received is stored in the memory (from 1 to 9) according to the number allocation received

**Display:**

- \*. The active P-set is identified through the numerical digit:

**Selection:**

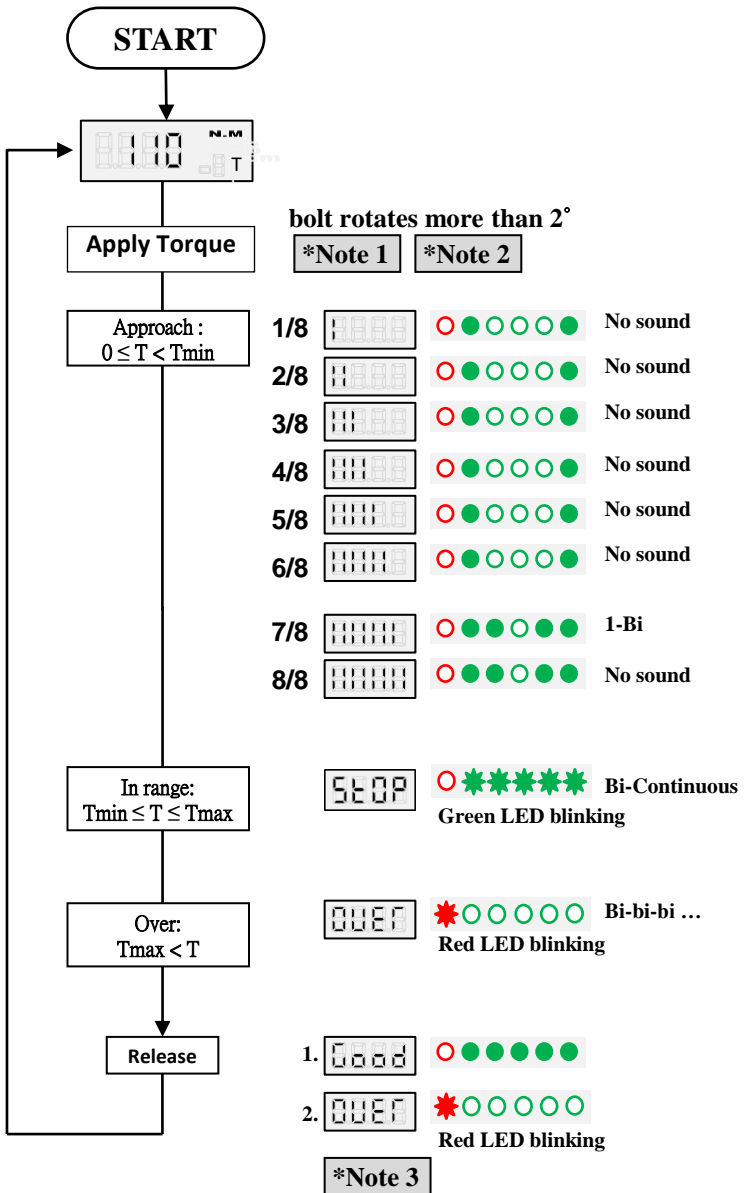


- \*. single press: increase value +1 / continuous press: wait 1s then +1 every 0,25s



- \*. Single press: decrease value -1 / continuous press: wait 1s then -1 every 0,25s

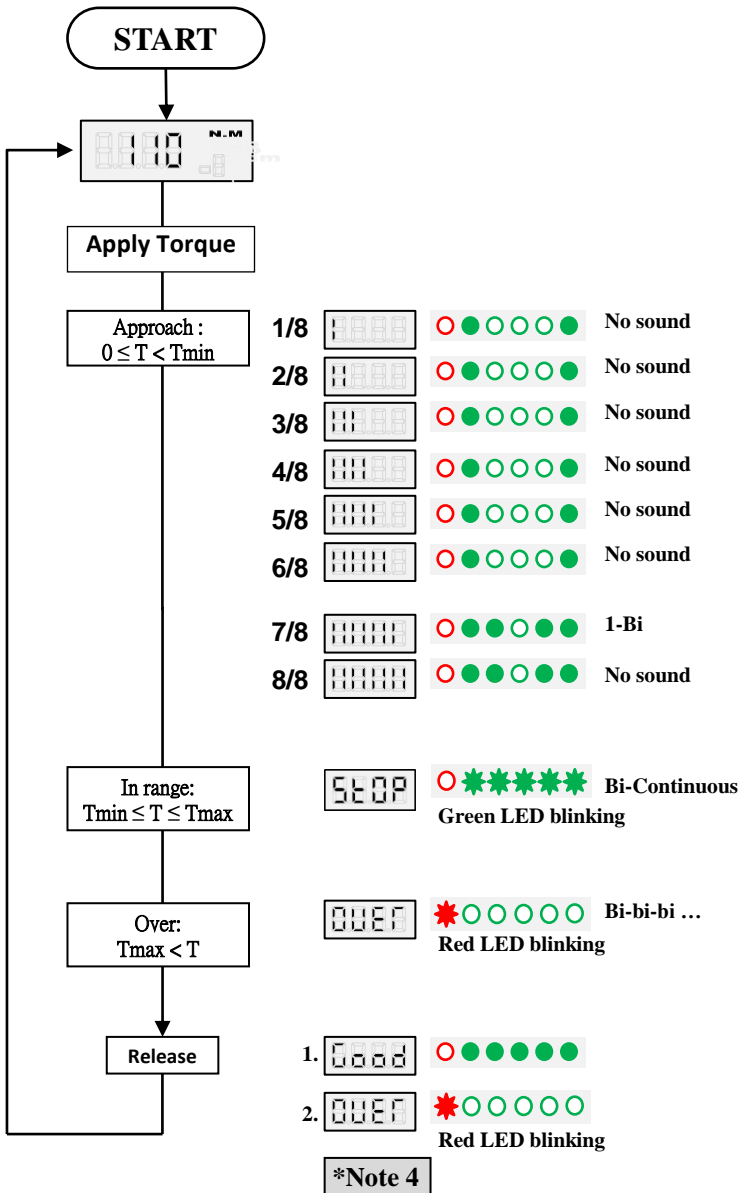
# TORQUE INSTALLATION Strategy



## Note:

1. If bolt rotates more than 2°, back in normal mode .
2. If bolt has not moved (less than 2°) an alert is given to operator .
3. When tightening is finished:
  1. If result is too low :  
No recording .
  2. If result is “Good” (in target range):  
Result is automatically recorded .
  3. If result is “OVER”:  
Result is automatically recorded .

# TORQUE AUDIT Strategy



## Note:

- When tightening is finished:
  - If result is too low :  
No recording .
  - If result is “Good” (in target range):  
Result is automatically recorded .
  - If result is “OVER”:  
Result is automatically recorded .



## COMMUNICATION

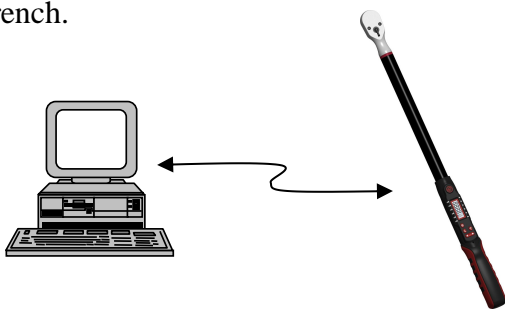


### **Precaution:**

1. **Communication function is only supported on some models. Check the model no. and its specification before using communication function.**
2. **Do not insert the plug of communication cable into torque wrench that does not support communication function.**

## CONNECTING COMMUNICATION CABLE

- Turn off power and then connect the accessory cable between the COM port of PC and torque wrench.



## UPLOADING RECORD DATA

1. Make sure the Wrench is well connected to the PC with USB Cable.
2. Launch “Uploader” program in PC.
3. In “Uploader” program, check “Auto Upload” will upload records automatically if wrench well connected. The records uploaded will stored in database file.
4. The records already uploaded will not be upload again.
5. User can export the uploaded/queried records to MS Excel using “Export Excel” function in Uploader program.



### **CAUTIONS:**

1. **Refer to the uploader program user guide for the detail operations.**

## MAINTENANCE AND STORAGE

### ATTENTION:

**One-year** periodic recalibration is necessary to maintain accuracy.

**Please contact your local dealer for calibration.**



1. **Over-torque (110% of Max. torque range) could cause breakage or lose accuracy.**
2. Do not shake violently or drop wrench.
3. Do not use this wrench as a hammer.
4. Do not leave this wrench in any place exposed to excessive heat, humidity, or direct sunlight.
5. Do not use this apparatus in water.(not waterproof)
6. If the wrench gets wet, wipe it with a dry towel as soon as possible. The salt in seawater can be especially damaging.
7. Do not use organic solvents, such as alcohol or paint thinner when cleaning the wrench.
8. Keep this wrench away from magnets.
9. Do not expose this wrench to dust or sand as this could cause serious damage.
10. Do not apply excessive force to the LCD panel.
11. Apply torque slowly and grasp the center of the handle. Do not apply load to the end of handle

## BATTERY MAINTENANCE

1. When the wrench is not used for an extended period of time, remove the battery.
2. Keep a spare battery on hand when going on a long trip or to cold areas.
3. Do not mix battery types or combine used batteries with new ones.
4. Sweat, oil and water can prevent a battery's terminal from making electrical contact. To avoid this, wipe both terminals before loading a battery.
5. Dispose of batteries in a designated disposal area. Do not throw batteries into a fire.

Class B: (Section 15.105)

## FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

(Section 15.21)

### CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

### RF exposure warning

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment. The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canada, Industry Canada (IC) Notices

This device complies with Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Canada, avis d'Industry Canada (IC)

Cet appareil est conforme avec Industrie Canada exemptes de licence RSS standard(s).

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has also been evaluated and shown compliant with the IC RF Exposure limits under portable exposure conditions. (antennas are less than 20 cm of a person's body).

Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils portables. (les antennes sont moins de 20 cm du corps d'une personne).