STC2-G-BT
OPERATING INSTRUCTION

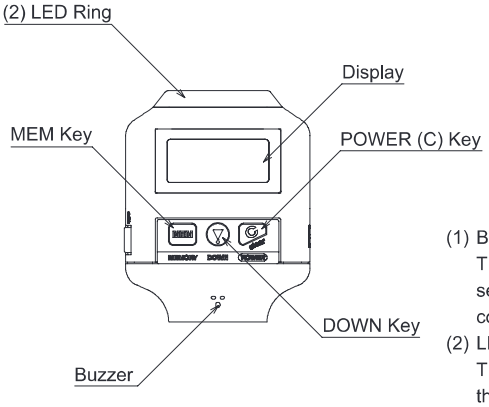
Your Torque Partner TOHNICHI

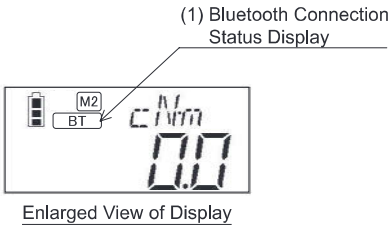
1. Features

(1) Adoption of Bluetooth, or international wireless communication standards, for the communication function of the standard model STC2-G allows wireless data communication between the product and the PC or PLC of the Bluetooth-based device (SPP).

(2) Because the upper- and lower-limit values can be changed through Bluetooth communication, the product alone is capable of responding to different tightening torques. Optimum for tightening work in the cell production line and small-lot assembly line.

2. Names of Parts





Enlarged View of Display

(1) Bluetooth connection status display
This display is turned on when Bluetooth output is selected, lit up while Bluetooth communication is being connected, and blinks when disconnected.

(2) LED ring
The LED ring is lit up in blue if the STC2-G-BT enters the sleep mode while Bluetooth communication is being connected.

3. How to Use

(1) Setting the communication mode
Seeing “5. Setting Methods” on Page 4 of STC2-G Operating Instruction, select data output setting “bt” or “USb”, which is displayed next to “(7) Setting the auto power off”.
bt: Bluetooth output
USb: USB output*
* Select when the Bluetooth function is not used. Bluetooth power is turned off, reducing power consumption.

(2) Power-on/-off
Liquid crystal display “BT” is turned on when Bluetooth output is selected, it is lit up while Bluetooth communication is being connected, and blinks when disconnected.
If the POWER (C) key is held down for 2 seconds while Bluetooth communication is being connected, liquid crystal display is turned off, resulting in the sleep mode (Bluetooth power remains turned on), but the LED ring is lit up in blue to indicate that Bluetooth communication is being connected. If the POWER (C) key is held down for another 2 seconds, the STC2-G-BT is completely turned off, disconnecting Bluetooth communication.

(3) Connection to a Bluetooth device
With the STC2-G-BT turned on, connect to a Bluetooth device according to its Instruction Manual.

(4) Measuring method
See “6. Measuring Methods” on Page 6 of STC2-G Operating Instruction.

4. Operation Examples

(1) Measured data automatic transfer by the auto memory/reset function (for each data)

Set the auto memory/reset function to other than 0.0 second, and set the counter to 0001, etc. to measure in the maximum value display (peak mode) state. Every time tightening is done, measured data is transferred one by one.

* To set the auto memory/reset function, see “5. Setting Methods” on Page 4 of STC2-G Operating Instruction.

(2) Measured data batch output

As with the standard model STC2-G, measured data can be collectively output. For the operating method, see “9. Measured Data Batch Output” on Page 10 of STC2-G Operating Instruction.

(3) Setting the upper- and lower-limit values by Bluetooth communication

Change the upper- and lower-limit values of the STC2-G-BT body in the following procedures.

If a communication error occurs, retransmit the set values.

■ At normal time

Step (1): Bluetooth device ⇨ STC2-G-BT Transmission of set values (W12□□□□CRLF or W13□□□□CRLF)

Step (2): STC2-G ⇨ Bluetooth device Completion of setting (E00CRLF)

■ At communication error time

Step (1): Bluetooth device ⇨ STC2-G-BT Transmission of set values (garbled data, etc.)

Step (2): STC2-G ⇨ Bluetooth device Communication error (E10CRLF)

Step (3): Bluetooth device ⇨ STC2-G-BT Retransmission of set values (W12□□□□CRLF or W13□□□□CRLF)

Step (4): STC2-G ⇨ Bluetooth device Completion of setting (E00CRLF)

5. External Output Specifications

(1) Bluetooth output specifications

Bluetooth Version	V30
Transmission System	AFE
Modulation System	GFSK
Wireless Output	4 dBm
Transmission Power Class	Class 2
Profile	SPP
Communication Distance	Estimated to be approx. 10 m*
Certification	TELEC, FCC, IC, CE

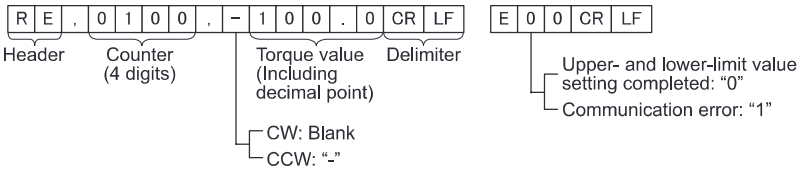
(2) Communication conditions

Baud Rate	Dependent on the host device side
Parity	None
Data Length	8 bits
Stop Bit	1 bit
Flow Control	Hardware (RTS/CTS)

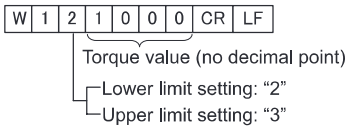
* The communication distance differs depending on the electric wave environment and the performance of the connected communication device at the other end.

(3) I/O format

• STC2-G-BT ⇨ Bluetooth device



• Bluetooth device ⇨ STC2-G-BT



■ Transmission examples

Model	Decimal Point Position (Torque Range [cN·m])	Transmission Example
STC50CN2-G-BT	10.00 to 50.00	For upper-limit value 32.50 cN·m: W133250CRLF
STC200CN2-G-BT	40.0 to 200.0	For lower-limit value 56.7 cN·m: W120567CRLF
STC400CN2-G-BT	80.0 to 400.0	For upper-limit value 234.0 cN·m: W132340CRLF

6. Specifications

Model	STC50CN2-G-BT	STC200CN2-G-BT	STC400CN2-G-BT
Torque Range [cN·m]	10 to 50	40 to 200	80 to 400
1 digit	0.05	0.2	0.5
Accuracy	±1 %+1 digit		
Measurement Mode	Tightening mode/Inspection mode		
Data Memory	1000		
Remaining Battery Capacity Display	4 steps		
OK/NG Judgment	Buzzer and LED when the upper and lower limits have been set		
Other Functions	Auto power off, auto memory/reset, auto zero		
Power Source	Lithium ion battery		
Data Output	Bluetooth, USB		
Continuous Operation Hours	Bluetooth: Approx. 15 hours, USB: Approx. 30 hours		
Battery Charge	AC adapter: Approx. 5 hours, PC (via USB): Approx. 10 hours		
Standard Accessories	AC adaptor, USB cable, lithium ion battery		