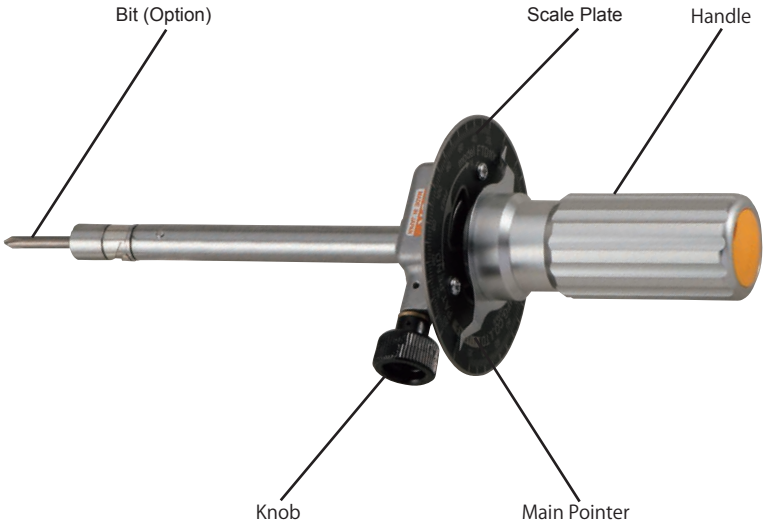
Your Torque Partner
TOHNICHI

TOHNICHI TORQUE DRIVERS
FTD SERIES

OPERETING INSTRUCTION



To use this product properly and safety, please read this manual carefully before use. If you have any question about the product and its operations, please contact your nearest distributor or TOHNICHI MFG. CO., LTD.

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1 Warnings ⚠

● **Make sure there is no oil, or grease on the grip.**

A slip of the hand while tightening, may cause an accident or injury.

● **Check for cracks, scratches and rust.**

These will cause damage to the driver and may result in an injuly. If such conditions exist, have a functional test performed and repair if necessary.

2 Precautions ⚠

● **Don't use the torque driver beyond the maximum torque setting.**

This will cause damage or injury.

● **Don't use the torque driver if it is missing a pin or scale plate, etc.**

Ask a repair shop or our company to inspect the torque driver and repair it before using.

● **Don't modify the torque driver.**

Modifications will weaken the torque driver. This may cause errors in accuracy, as well as, cause an accident or injury.

● **Don't drop the torque driver or apply a strong shock of jolt.**

This will cause damage or deformation as well as decrease the accuracy and durability, which may cause an accident or injury.

● **Use only parts designated by Tohnichi for repair of the torque driver.**
Ask the place of purchase or our campany for assistance when you repair, and use only Tohnichi parts.

3 Precautions for use

● **Confirm that the driver is set according to the correct unit of mesure before using. (kgf･cm, kgf･m, N･m, etc.)**

● **Don't use torque driver in fresh water or sea water.**
The inside machanism will go bad and cause an accident or injury. If you drop in water or sea water, ger it cheched out or repaired.

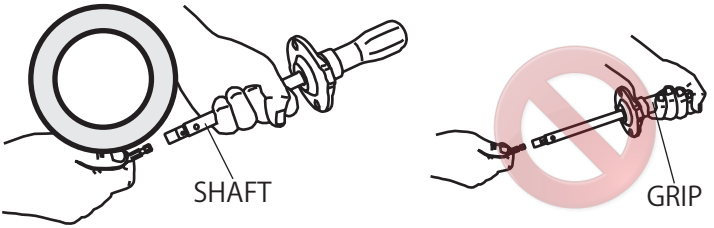
● **Use the correct bit that fits the screw, you are using.**
Select the bit from the table for bits.

● **Perform regular inspections for function and accuracy.**
Periodical inspections are essential to insure the torque driver is in optimal condition thus preventing injury.

● **Remove any dirt such as dust, mud, oil and water, ets. after each use and before storing torque drivers.**

● **When storing the torque drivers for a long time, keep in a dry place.**
If improperly stored, the accuracy and durability will decrease rapidly.

● **Note the following point when you attach or detach a bit or a socket.**
Hold the shaft as shown, when you attach or detach a bit or a socket.



※ **If you hold the grip when you attach or detach a bit or a socket, FTD might be broken.**

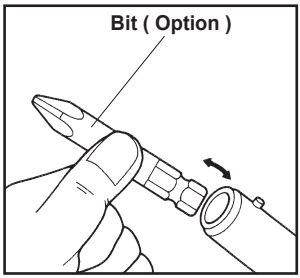
4 Operating Procedure

① Insert the bit into the bit holder.

② Make sure FTD needle points Zero of FTD scale plate.

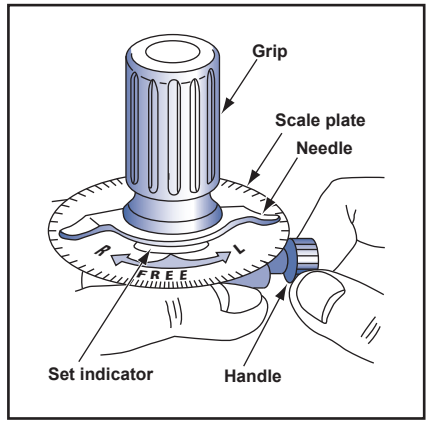
※ If the needle does not point Zero, it's required to adjust.

③ Start measuring or tightening operation.



● Method of preloading FTD

The preload function is a thet uses the handle to apply a preloading torque close to that of the measuring point to minimize the twisting angle during measurement. In FTD torque driver, a preload function is provided to prevent your wrist from becoming difficult to read when operating close to the maximum torque.

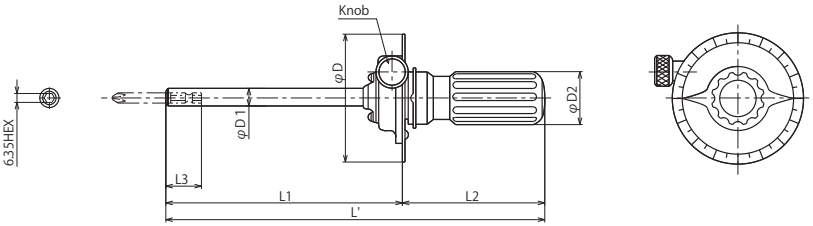


1.Hold FTD with your left hand, turn the preload handle in the counterclockwise direction using the fingers of your right hand (in case of clockwise measuring).

2.After some slipping turns, the needle will begin to move, and it will be easy to set an optional torque value.

3.If you do not wish to use the preload function, turn the preload handle until there is no tension and the central set indicator (red mark) points to the FREE mark.

5 Specifications



Accuracy ±3%

S.I. MODEL			FTD50CN	FTD100CN	FTD200CN	FTD400CN
TORQUE RANGE [cN·m]	MIN. ~ MAX.		10 ~ 50	20 ~ 100	40 ~ 200	80 ~ 400
	GRAD.		1	2	5	10
METRIC MODEL			5FTD	10FTD	20FTD	40FTD
TORQUE RANGE [kgf·cm]	MIN. ~ MAX.		1 ~ 5	2 ~ 10	4 ~ 20	8 ~ 40
	GRAD.		0.1	0.2	0.5	1.0
AMERICAN MODEL			5FTD-A	10FTD-A	20FTD-A	40FTD-A
TORQUE RANGE [lbf·in]	MIN. ~ MAX.		1 ~ 5	1 ~ 10	3 ~ 20	5 ~ 40
	GRAD.		0.1	0.2	0.5	1
APPLICABLE SCREW	SMALL SCREW		M2.5	M3 (M3.5)	M4	M5
	TAPPING SCREW		(M2.2)	M2.5 , M3	(M3.5)	M4
DIMENSION [mm]	OVERALL LENGTH	L'	215.5		263.5	
	SCALE PLATE OUTSIDE DIA.	D	75		78	
	TUBE DIA.	D1	11		13	
	BODY	D2	30		33	
		L1	130.5		158.5	
		L2	85		105	
		L3	24			
WEIGHT [kg]			0.3		0.5	
ACCESSORY BIT	+		#1	#2		
	- thickness x width		0.7 × 7		0.9 × 7	

Introduction of related products

Digital Torque Screwdriver Tester TDT3-G

Measurement Direction

RoHS

High-accuracy digital torque driver tester with loading device eliminates measurment errors.

Optional TDTLA is used when calibrating small range torque wrenchs.

Accuracy ± 1%+1digit

MODEL		TDT60CN3-G	TDT600CN3-G
TORQUE RANGE [cN·m]	MIN. ～ MAX.	2 ～ 60	20 ～ 600
	1 DIGIT	0.005	0.05
TORQUE RANGE [kgf·cm]	MIN. ～ MAX.	0.2 ～ 6	2 ～ 60
	1 DIGIT	0.0005	0.005
TORQUE RANGE [ozf·in]	MIN. ～ MAX.	3 ～ 80	30 ～ 800
	1 DIGIT	0.005	0.05
TORQUE RANGE [lbf·in]	MIN. ～ MAX.	0.2 ～ 5	2 ～ 50
	1 DIGIT	0.0005	0.005

Digital Torque Screwdriver STC2-G

Measurement Direction

RoHS

IEC 61340-5-1:2007

Operator can visibly and audibly check the torque status and judgment.

STC200CN2

Check torque drivers to confirm torque setting.

Accuracy ±1%

MODEL		STC50CN2-G	STC200CN2-G	STC400CN2-G
TORQUE RANGE [cN·m]	MIN. ~ MAX.	10 ～ 50	40 ～ 200	80 ～ 400
	1 DIGIT	0.05	0.2	0.5
TORQUE RANGE [kgf·cm]	MIN. ~ MAX.	1 ～ 5	4 ～ 20	8 ～ 40
	1 DIGIT	0.005	0.02	0.05
TORQUE RANGE [lbf·in]	MIN. ~ MAX.	1 ～ 4.4	4 ～ 17	8 ～ 35
	1 DIGIT	0.005	0.02	0.05

Dial Indicating Torque Screwdriver with Memory Pointer FTD-S

Measurement Direction

RoHS

Direct-reading style torque screwdriver for inspection with memory pointer.

FTD200CN2-S

FTD8N2-S

Accuracy ± 3%

S.I. MODEL		FTD2CN-S	FTD5CN-S	FTD10CN-S	FTD20CN-S	FTD50CN2-S	–	FTD100CN2-S	FTD200CN2-S	FTD400CN2-S	FTD8N2-S	FTD16N2-S
TORQUE RANGE [cN·m / N·m]	MIN. ～ MAX.	0.3 ～ 2	0.5 ～ 5	1 ～ 10	3 ～ 20	5 ～ 50	–	10 ～ 100	30 ～ 200	50 ～ 400	1 ～ 8	3 ～ 16
	1 DIGIT	0.05	0.1	0.2	0.5	1	–	2	5	10	0.2	0.5
METRIC MODEL		02FTD2-S	05FTD2-S	1FTD2-S	2FTD2-S	5FTD2-S	–	10FTD2-S	20FTD2-S	40FTD2-S	80FTD2-S	160FTD2-S
TORQUE RANGE [gf·cm / kgf·cm]	MIN. ～ MAX.	30 ～ 200	50 ～ 500	0.1 ～ 1	0.3 ～ 2	0.5 ～ 5	–	1 ～ 10	3 ～ 20	5 ～ 40	10 ～ 80	30 ～ 160
	1 DIGIT	5	10	0.02	0.05	0.1	–	0.2	0.5	1	2	5
AMERICAN MODEL		FTD3Z2-S	FTD7Z2-S	FTD15Z2-S	FTD30Z2-S	FTD70Z2-S	5FTD2-A-S	10FTD2-A-S	20FTD2-A-S	40FTD2-A-S	80FTD2-A-S	160FTD2-A-S
TORQUE RANGE [ozf·in / lbf·in]	MIN. ～ MAX.	0.5 ～ 3	1 ～ 7	2 ～ 15	5 ～ 30	10 ～ 70	0.5 ～ 5	1 ～ 10	3 ～ 20	5 ～ 40	10 ～ 70	20 ～ 140
	1 DIGIT	0.1	0.2	0.5	1	2	0.1	0.2	0.5	1	2	5

Dial Indicating Torque Screwdriver for Small Screws MTD

Measurement Direction

RoHS

Direct-reading style torque screwdriver for very small torque inspection.

Accuracy ± 3%

S.I. MODEL		MTD1MN	MTD2MN	MTD5MN	MTD10MN
TORQUE RANGE [mN·m]	MIN. ～ MAX.	0.1 ～ 1	0.3 ～ 2	0.5 ～ 5	1 ～ 10
	1 DIGIT	0.02	0.05	0.1	0.2
METRIC MODEL		10MTD	20MTD	50MTD	100MTD
TORQUE RANGE [gf·cm]	MIN. ～ MAX.	1 ～ 10	3 ～ 20	5 ～ 50	10 ～ 100
	1 DIGIT	0.2	0.5	1	2
AMERICAN MODEL		–	–	MTD07Z	MTD1.4Z
TORQUE RANGE [ozf·in]	MIN. ～ MAX.	–	–	0.1 ～ 0.7	0.2 ～ 1.4
	1 DIGIT	–	–	0.02	0.02

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