SOLUTION

TRASAS

Bring "work traceability" into the processes to achieve safety, quality, and productivity.

TRASAS is a next-generation work traceability system based on our expertise as a tool manufacturer with IoT technology. Analyzing and managing work data acquired from tools, TRASAS provide the safety of products and the safety of workers and work sites, as well as overall quality, enhancing corporate value.

"TRASAS" stands for "TRAceable Sensing and Analysis System".

Achieve required work results without the individual experiences

TRASAS

Visualization of work records

Improve the efficiency of operations and management

This product is recommended under below issues.

☐ Errors in reading/transcribing of measured values
☐ Less accuracy for work result recording.
☐ Taking long time to make reports for customers.
☐ Need to reduce the duplicated works of operators and checkers.
☐ Depending only on skilled workers.
☐ Delayed response to diversification of workers
☐ Insufficient countermeasures against the risk of falsification of work data

Information on TRASAS seminars, case studies, and the implementation process!

We will introduce the voices of customers who have introduced TRASAS and the "Smart Fitting" 3-step introduction study process advocated by KTC.

ktc.jp/trasas/

TRASAS provide the solutions!

Software

Provide the solution for on-site and management issues by recording, managing, and analyzing work data.

Our systems

Next Generation Work Traceability System
TRASAS IM/EM

Connects the work site and the management site to support proper operation of procedure manuals. Labor saving in work result recording, to make work instructions and management flow, and improves safety, quality, and productivity.

● P.030

`Operations and Quality Control` `Improve productivity`
`Data analysis` `Technic and Skills` `Traceability`

e-SEIBI

Software specialized for automobile maintenance, automatically inputting measured results by the tools. Hard copy out put is available.

● P.031

`Operations and Quality Control` `Improve productivity` `Traceability`

Connectable with other systems* and applications

Any other brand of measuring equipment can be used together.

Values from measuring instruments other than TRASAS tools can also be received and displayed by TRASAS Admin PRO. *Not available at KTC.
*Some items cannot be connected. `Improve productivity`

TRASAS Admin PRO
TRASAS Admin PRO AO

Measured values from the device (IoT tool) are displayed on a PC or other screen in real time and recorded automatically. "Visualization" of accurate work result data eliminate dependance on the experienced operator.
TRASAS Admin PRO AO automatically records measured values on your own forms (Excel, etc.). This reduces human errors in recording of work result and improve the accuracy and productivity.
* Your own browser application or electronic sheet can be used.

10.6 N·m

`Operations and Quality Control` `Data analysis`

Software Integration
Smart Sensing Devices

Digital visualization of numerical values and data output functions are provided.

DIGITAL RATCHET [MEMORQ]

Digital display, sound and light enable torque measurement without individual measuring gap.

● P.037 `Improve productivity`

TORQULE

Easy and accurate torque measuring by simply attaching to the tools.

● P.032 `Improve productivity`

TRASAS for AUTO

Tools for inspection and maintenance of automobiles.

● P.034 `Improve productivity`

The system can be built up applicable to on-site issues!

* TRASAS IM/EM only

Good for offline environments
Stand-alone

Worker

Manager

TRASAS EM
Connection
TRASAS IM
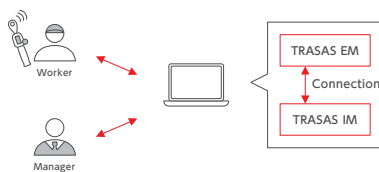
The system for administrators and workers can be integrated into one computer. This system is good for the environments with less/no network connection such as high locations. Quickly to be introduced.

Good for in-house operation management
On-premise server

Worker

TRASAS EM

Worker

Manager

Connection
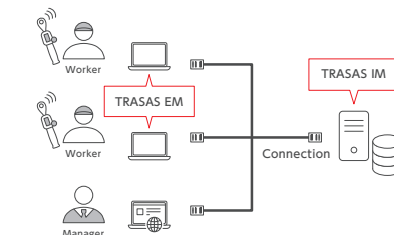
TRASAS IM

A physical server dedicated to integrated management software (IM) and multiple work/management system are connected via a local network. This system achieve to avoid data leakage and the security for no internet connection.

Good for the multiple domestic and international locations
Cloud server

TRASAS IM
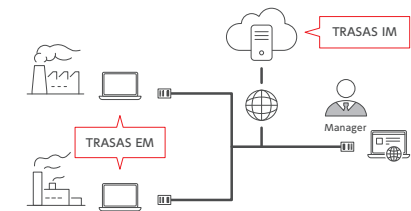
TRASAS EM

Manager

Integrated Management Software (IM) is installed on a cloud server. Connected via a global network, possible to manage at multiple domestic and overseas locations. We support on new server contracts and backup system.
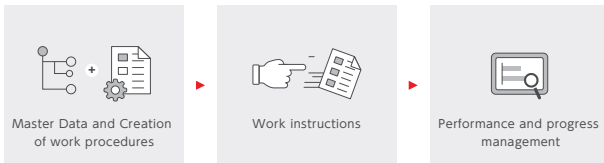
KTC

Software

TRASAS IM/EM

EM
Work records and management

IM
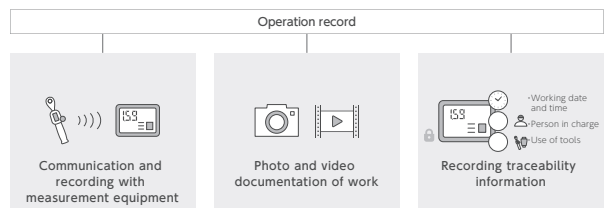Procedure manual creation and management

Connects the work site and the management site to support proper operation of procedure manuals. It saves labor in work performance recording, procedure creation, and management flow, and improves safety, quality, and productivity.

Procedures and quality records are in place, but paper-based... Worried about whether they are working with the latest procedures

| quality improvement | man-hour reduction |

Electronic data of procedure manuals facilitates management and distribution of the latest version. The procedure manuals and work records are linked and managed, increasing efficiency and reliability in the creation of quality records.

There are concerns about the reliability of work records that rely on workers.

| quality improvement | man-hour reduction |

Linked to IoT tools, measurement results are automatically saved. Prevents recording errors due to transcription and input, and improves reliability and work efficiency.

In work procedures and work records, it is difficult to communicate by text alone.

| Safety and Secure | quality improvement |

The work procedure provides easy-to-understand work instructions with video and audio in addition to text and photographs. In addition to automatic input of measured values, work records can also be recorded with photos, video, and audio, making a significant contribution to confirming and reducing work errors and variations.

Integrated Management Software TRASAS IM
- Procedure manual creation and management -

Master Data and Creation of work procedures → Work instructions → Performance and progress management

Connect work procedures and work records to manage them with data. Eliminates paper-based management and supports the operation of work traceability.

No.	Operating environment
GNZX-006-01	Depending on system configuration. Please contact us for details.

· Electronic data of procedure manuals facilitates management and distribution of the latest version. The procedure manuals and work records are linked and managed, increasing efficiency and reliability in the creation of quality records.
· The measurement results are automatically saved in conjunction with the IoT tool. Prevents recording errors due to transcription or inputting data, thereby improving reliability and work efficiency.
· The work procedure manual provides easy-to-understand work instructions with video and audio, in addition to text and photographs. In addition to automatic input of measured values, work records can also be recorded with photos, video, and sound, which greatly contributes to confirming and reducing work errors and variations.

Worker software TRASAS EM
- Work records and management -

Operation record

Communication and recording with measurement equipment

Photo and video documentation of work

Recording traceability information
·Working date and time
·Person in charge
·Use of tools

Manage with work procedures created on the IM side. Error-free work is achieved through adherence to work procedures and work records.

No.	Operating environment	
GNZM-005-01	OS	: Windows 10 Pro
	Framework	: .NET Framework4.8
	Wireless communication	: Bluetooth® 4.1

· Digitalization of target values enables accurate result management. Not only target values, but also upper/lower limits can be set. Pass/fail decisions can be made based on the set range.
· Real-time display of measurement status. "Visualization" of accuracy ensures quality. Free from relying on workers' intuition and experiences. Real-time display of work status allows workers to proceed accurately with visual checking.
· Automatic storage of measurement results improves accuracy and efficiency of work records. Automatic storage of work date, time, and measurement results. Reliable evidence base without double-checking.
* The Bluetooth® word mark and logo are trademarks owned by Bluetooth SIG,Inc, Kyoto Tool Co., Ltd. is authorized to use these trademarks.
* Prices depending on specifications. Please contact our sales representative for details.

TRASAS Admin

No.	Supported OS	Price
GNZA-001	IOS(16.0.3 or later), iPadOS(16.1 or later)	Free
GNZG-001	Android (13.0 or later recommended)	Free

· This application allows data measured by TRASAS devices (TORQULE, Tire Depth Gage, Brake Pad Gage) to be received, displayed, and recorded on a smartphone or tablet using Bluetooth® functionality.

Feature · Measurement results can be easily recorded by one click. Recorded data can be easily shared with PCs and other smartphones.
· The measurement results can be easily checked on the lap display.
· Nickname functionality allows for easy identification and management of multiple devices.
· Receives various measurements such as torque value, length, etc.
· Multiple models and units can be connected.
· Quick check torque values with on-screen color, sound, and vibration.

* This app is applicable for Android 13.0 or later, though, Operation is not guaranteed on all Android devices.

Download on the App Store | GET IT ON Google Play

· Computer or other devise is required to install the software.

MEASURED VALUE RECORDING SOFTWARE
TRASAS Admin PRO

No.	Operating environment	
GNZM-001-01	OS :Windows 10 Pro Framework :.NET Framework4.8 Wireless communication :Bluetooth® 4.1	

· Real-time display and automatic storage of IoT tool measurements.
· "Visualization" of work accuracy using digital data will help eliminate management depending on workers.

Real-time display and automatic storage of IoT tool measurements. "Visualization" of work accuracy through digital data breaks away from management that is left to the operator.

視認性が高いユーザーインターフェース
シンプルで分かりやすく、高コントラストな操作画面で、測定値をしっかり確認。作業に迷いが生じず、スピーディーな測定作業をサポートします。

"画面表示"と"音"の2つの報知で作業ミスをしっかり防止
画面全体の測定レベル表示や警告/適正音で、測定判定をリアルタイムに報知。エラーや作業ミスを防止し、作業品質を維持・向上させます。

REAL TIME ACTIVE OUTPUT OPTIONAL SOFTWARE
TRASAS Admin PRO AO

No.	Operating environment	
GNZM-007-01	OS :Windows 10 Pro Framework :.NET Framework4.8 Wireless communication :Bluetooth® 4.1	

· TRASAS Admin PRO can be combined with optional software exporting to Excel files.
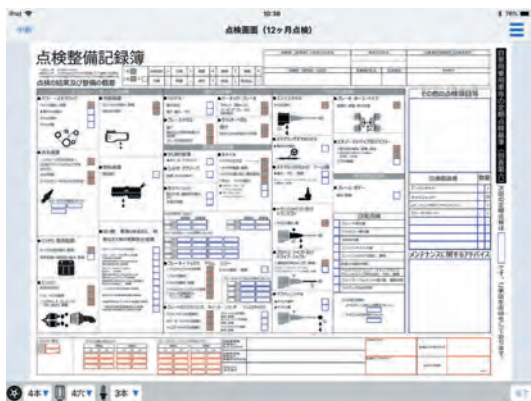* TRASAS Admin PRO is required for use.

TRASAS Admin PRO option automatically records measurements on your forms. Reduces errors and man-hours associated with recording and improves reliability and productivity.

AUTOMOBILE MAINTENANCE CHECK LIST (SOFTWARE)
"e-SEIBI"

OS	
iOS (11.0 to 12.0), Android (5.0 to 9.0)	Free *In-app purchases are available.

· Data measured by a TORQULE, tire depth gauge, brake pad gauge, etc. can be automatically entered, created, and printed in inspection records for daily inspections and private passenger vehicles using Bluetooth® functionality.

Feature · Inspection list can be created quickly and easily by simply tapping on the list screen.
· Automatic and direct input of remaining tire groove volume, remaining brake pad volume, wheel nut tightening value (torque), etc., into the record book is possible through linkage with the KTC TRASAS series.
· The 12-month and 24-month periodic inspection record books are available in three different formats in Japan.
· The QR code reading function enables easy entry of information on vehicles to be serviced*.

* Additional fee is required.
* Functions and displays are subject to change without notice.
* This application is applicable for Android OS 5.0 or later, but is not guaranteed to work on all Android devices.

Download on the App Store   GET IT ON Google Play

How to use

· Please visit our website for more information.
  https://ktc.jp/trasas/

KTC

1/4"sq. TORQULE 10N•m

1/4"
sq.

Repairable

No.	Torque measurement range (N•m)	D	L	Weight(g)	⊐	
GNA010-02	2〜10	42	71.5	130	1	

· Measurement accuracy / ±4% +1digit
· Measuring direction/right hand thread
· Power source/rechargeable lithium polymer battery
· Communication method/Bluetooth® 4.1
· Accessories / Charging cable
* Measured torque value display needs additional app or software. ➲ P.030-031
* Charger is not included. Please prepare available USB charger near to you.
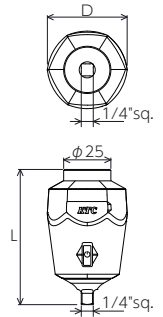* Please use a charger with the PSE mark.
* Optional case is available. ➲ P.034
* The repair will be a unit replacement.
* Batteries cannot be replaced.

Example
(Hexagonal bit socket
and sliding head handle
are sold separately.)

3/8"sq. TORQULE 80N•m

3/8"
sq.

Repairable

No.	Torque measurement range (N•m)	D	L	Weight(g)	⊐	
GNA080-03	8〜80	42	75	160	1	

· Measurement accuracy / ±4% +1digit
· Measuring direction/right hand thread
· Power source/rechargeable lithium polymer battery
· Communication method/Bluetooth® 4.1
· Accessories / Charging cable
* Measured torque value display needs additional app or software. ➲ P.030-031
* Charger is not included. Please prepare available USB charger near to you.
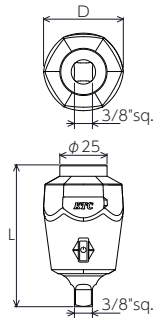* Please use a charger with the PSE mark.
* Optional case is available. ➲ P.034
* The repair will be a unit replacement.
* Batteries cannot be replaced.

Example
(Sockets and ratchet handles
are sold separately.)

1/2"sq. TORQULE 200N•m

1/2"
sq.

Repairable

No.	Torque measurement range (N•m)	D	L	Weight(g)	⊐	
GNA200-04	40〜200	42	83	210	1	

· Measurement accuracy / ±4% +1digit
· Measuring direction/right hand thread
· Power source/rechargeable lithium polymer battery
· Communication method/Bluetooth® 4.1
· Accessories / Charging cable
* Measured torque value display needs additional app or software. ➲ P.030-031
* Charger is not included. Please prepare available USB charger near to you.
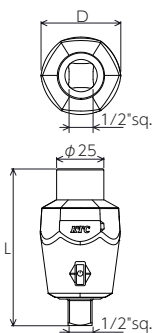* Please use a charger with the PSE mark.
* Optional case is available. ➲ P.034
* The repair will be a unit replacement.
* Batteries cannot be replaced.

Example
(Hexagonal bit socket and
ratchet handle are sold
separately.)

· Measurement instruments should be calibrated once a year. For details, ➲ P.025.
· Do not disassemble or modify the product.

3/4"sq. TORQULE

No.	Torque measurement range (N·m)	D	L	Weight(kg)	⏣	
GNA1000-06	200～1,000	96	122	1.4	1	

・Measurement accuracy / ±3% + 1 digit (digit = minimum display unit)
・Measuring direction/right hand thread, left hand thread
・Minimum display unit: 1N·m
・Power source/rechargeable lithium polymer battery
・Communication method/Bluetooth® 4.1
・Accessories / Charging cable
* Computer and application (free of charge) are needed for use.
  (Download from our home page: URL=https://ktc.jp/download)
  Application name [GNA1000/2000 application]
  Supported OS: Windows 10 recommended (as of June 2022)
* This application is applicable for Windows 10, but we do not
  guarantee that it will work on all Windows 10 devices.
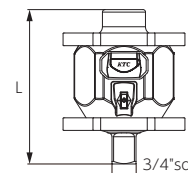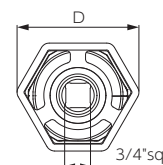* Charger is not included. Please prepare available USB charger
  near to you.
* Please use a charger with the PSE mark.
* The included charging cable is USB Type-A×micro USB.
* The repair will be a unit replacement.
* Batteries cannot be replaced.
* Batteries are not replaceable. It is not a repairable item.

1"sq. TORQULE

GNA1000-08

GNA2000-08

No.	Torque measurement range (N·m)	D	L	Weight(kg)	⏣	
GNA1000-08	200～1,000	96	135	1.6	1	
GNA2000-08	400～2,000	96	135	1.6	1	

・Measurement accuracy / ±3% + 1 digit (digit = minimum display unit)
・Measuring direction/right hand thread, left hand thread
・Minimum display unit: 1N·m
・Power source/rechargeable lithium polymer battery
・Communication method/Bluetooth® 4.1
・Accessories / Charging cable
* Computer and application (free of charge) are needed for use.
  (Download from home page: URL=https://ktc.jp/download)
  Application name [GNA1000/2000 dedicated application]
  Compatible OS: Windows 10 recommended (as of June 2022)
* This application is applicable for Windows 10, but we do not
  guarantee that it will work on all Windows 10 devices.
* Charger is not included. Please prepare available USB charger
  near to you.
* Please use a charger with the PSE mark.
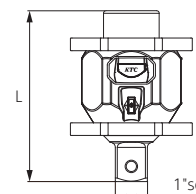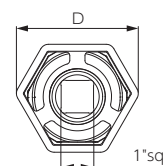* The included charging cable is USB Type-A×micro USB.
* The repair will be a unit replacement.
* Batteries cannot be replaced.
* Batteries are not replaceable. It is not a repairable item.

・Function mark is indicated under the product name. For the details, please refer to ➡ P.004-005.
・Products marked with 🗲 should be ordered after checking stock.

Repair
Spare parts   Repairable

KTC

TORQULE PLASTIC CASE

No.	Size	◻	
GNA-K	W297×D135×H58	1	

· This case is for GNA010-02, GNA080-03, and GNA200-04.

Example
* Case does not come with a charger or charging cable.
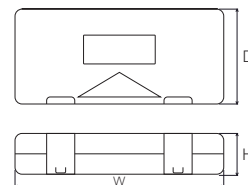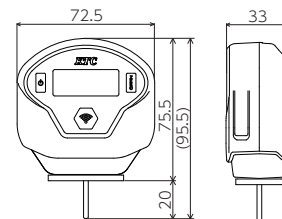
TIRE DEPTH GAUGE

Repairable

No.	Measuring range (mm)	Minimum memory (mm)	Weight (g)	◻	
GNDA020	0～20	0.1	185	1	

· Power source/rechargeable lithium polymer battery
· Communication method/Bluetooth®4.0
· Accessories/AC adapter, USB cable, strap
· Storage case / W297×D135×H58

Feature · Work traceability such as recording measurement results, data transfer by using Bluetooth® functionality can be achieved by free application【TRASAS Admin】on a smartphone or tablet.
· Can be used as a stand-alone unit (measurement only).
· Large display and backlight for easy reading of measured values.
· Symmetrical design for easy operation and compact design that can be used inside the tire house.
* Calibration certificates cannot be issued.

Features

With storage case

72.5   33   75.5 (95.5)   20

BRAKE PAD GAUGE

Repairable

No.	Measuring range (mm)	Minimum memory (mm)	Weight (g)	◻	
GNNA025	0～25	0.1	200	1	

· Power source/rechargeable lithium polymer battery
· Communication method/Bluetooth®4.0
· Accessories/AC adapter, USB cable, strap
· Storage case / W297×D135×H58

Feature · Work traceability such as recording measurement results, data transfer by using Bluetooth® functionality can be achieved by free application【TRASAS Admin】on a smartphone or tablet.
· Can also be used as a stand-alone unit (measurement only).
· The three measuring points (inside, thickness, and outside) can be measured.
· The system can be used for various types of vehicles and tasks, such as measuring from the caliper service hole, as well as during vehicle inspections and overhauls.
* Calibration certificates cannot be issued.

With storage case
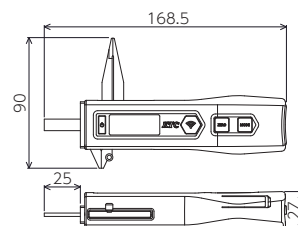
168.5   90   25

· Measurement instruments should be calibrated once a year. For details, ◐ P.025.
· Do not disassemble or modify the product.

Examples of TRASAS solutions

TRASAS

Variety of installation packages are available to meet your requirements.
Establish support environment by KTC's various devices and partner network.

Case 01 Tire replacement for a heavy-duty vehicle (truck/bus)

Issue

Many serious accidents have occurred due to screw fastening failures.

Loosening or over-tightening of screws cannot be visually found and tends to rely on the intuition and experience of the operator. However, it is difficult to guarantee safety unless fastening is done with the correct torque value.
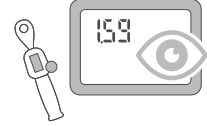
Tightening of bolts and nuts

Solution

Supports accurate work

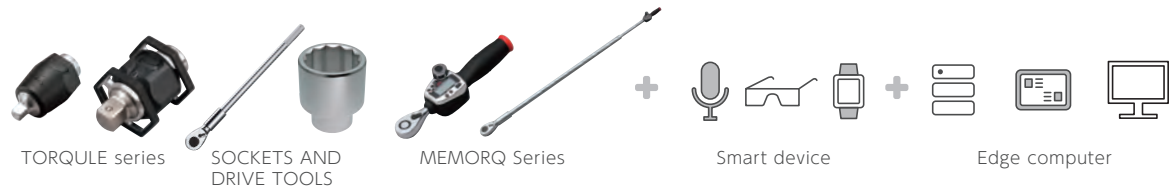Accurate data output for fastening torque values for all bolts — Connect

Poka-Yoke function," which prevent from proceeding to next process until all required conditions are completed. — Safety and Security

Visualization of tightening management — Visualization

[Proposal Package]

TORQULE series | SOCKETS AND DRIVE TOOLS | MEMORQ Series + Smart device + Edge computer

Case 02 Quality Improvement of Assembly Work

Issue

Work instructions are not correctly used.

When changes occur in the processes or work instructions, it takes time to ensure all sites know it. Wrong operation may cause a loss of trust from customers and, in the worst case scenario, even lose business......

Work management on production lines

Solution

Centralized management of work instructions

Master management of work procedures allows immediate sharing of revisions — Safety and Security

Rich expressions using photos and videos are possible. — Visualization
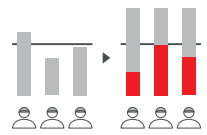
Stabilizing the quality of work throughout the site by enforcing correct procedures — Skill

[Proposal Package]

TORQULE | MEMORQ series | SOCKETS AND DRIVE TOOLS | Measuring equipment + Smart device + Edge computer + Cloud Server
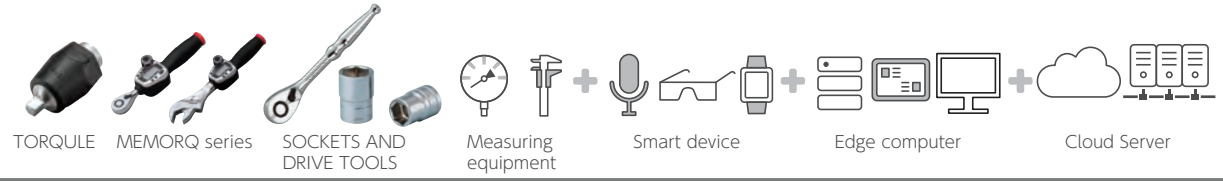
ktc.jp/trasas/

· Function mark is indicated under the product name. For the details, please refer to ➡ P.004-005.
· Products marked with ⬆ should be ordered after checking stock.

Repair Spare parts | Repairable

SOLUTION

DIGITAL TORQUE WRENCH

Advanced digital torque tool

DIGITAL RATCHET [MEMORQ]

デジラチェ® [メモルク]™

Transfer measurement records to a computer or tablet. Work records are managed and reliable torque management is achieved.

Keep record

Easy to use
Measurement results are easily recorded with the REC button operation*[1].
*1 ・ Auto record mode available
    ・ 200 data can be recorded in the main unit

Recorded data can be exported to CSV file
Measurement results sent to a computer can be exported in CSV format*[2]. Data can be used as quality control records or maintenance records.

Check torque by sound and light!

Ring-shaped LED lamps
360° degrees view. Notifies torque status with sound and light.

LED lamps change to 3 colors for easy identification

LOW   OK   OVER

Transfer measurement records to your computer!

Meet international standards (ISO)
Measurement accuracy is within ±3% of right and left hand threads, meeting ISO standards. (Excluding some products)

Two output ways

Wireless model.
Data can be recorded on the devices.

USB model
Can be connected to computer via USB cable.

*2 Excluding iOS

3 head type

RATCHET HEAD   Adjustable wrench head   Head exchange type   Head Variations

Using power sensor Fixed grips applied
Enables more accurate torque measurement regardless of working posture or skill level.

DIGITAL RATCHET [MEMORQ] Line up

		Torque setting range (N·m)	Wireless Host Module Set ▶P.038-040	Wireless Model for Win ▶P.041-043	Wireless Models for iOS ▶P.044-047	USB Model for Win ▶P.048-050
			This is a set of the main unit and host module (GED-Z) of DIGITAL RATCHET [MEMORQ] Wireless Model for Win that transfers data to a Windows device. Wireless communication with a device can be done with this set.	This is the main unit of DIGITAL RATCHET [MEMORQ] Wireless Model for Win, which transfers data to Windows devices. To communicate with a device, a host module (GED-Z) (sold separately) is required.	This is a DIGITAL RATCHET [MEMORQ] wireless model that transfers data to iOS devices. Wireless communication is possible only with the main unit by installing a dedicated application on the device.	Information recorded in the main unit is transferred to a Windows device via USB. This type is useful when a device is not available nearby, for work on the road, or for on-site installation.
1/4" sq.	DIGITAL RATCHET [MEMORQ]	6～30	No.TGED030R2Z	No.GED030-R2-Z	No.GED030-R2-B	No.GED030-R2-U
3/8" sq.	SMALL TORQUE, COMPACT HEAD TYPE	2～30	No.TGED030C3AZ	No.GED030-C3A-Z	No.GED030-C3A-B	No.GED030-C3A-U
3/8" sq.	COMPACT HEAD TYPE	6～30	No.TGED030C3Z	No.GED030-C3-Z	No.GED030-C3-B	No.GED030-C3-U
3/8" sq.	DIGITAL RATCHET [MEMORQ]	12～60	No.TGED060R3Z	No.GED060-R3-Z	No.GED060-R3-B	No.GED060-R3-U
3/8" sq.	DIGITAL RATCHET [MEMORQ]	17～85	No.TGED085R3Z	No.GED085-R3-Z	No.GED085-R3-B	No.GED085-R3-U
1/2" sq.	DIGITAL RATCHET [MEMORQ]	17～85	No.TGED085R4Z	No.GED085-R4-Z	No.GED085-R4-B	No.GED085-R4-U
1/2" sq.	DIGITAL RATCHET [MEMORQ]	27～135	No.TGED135R4Z	No.GED135-R4-Z	No.GED135-R4-B	No.GED135-R4-U
1/2" sq.	DIGITAL RATCHET [MEMORQ]	40～200	No.TGED200R4Z	No.GED200-R4-Z	No.GED200-R4-B	No.GED200-R4-U
3/4" sq.	DIGITAL RATCHET [MEMORQ]	72～360	No.TGED360R6Z	No.GED360-R6-Z	No.GED360-R6-B	—
3/4" sq.	DIGITAL RATCHET [MEMORQ]	112～560	No.TGED560R6Z	No.GED560-R6-Z	No.GED560-R6-B	—
	ADJUSTABLE WRENCH TYPE	17～85	No.TGED085W36Z	No.GED085-W36-Z	No.GED085-W36-B	No.GED085-W36-U
	ADJUSTABLE WRENCH TYPE	27～135	No.TGED135W36Z	No.GED135-W36-Z	No.GED135-W36-B	No.GED135-W36-U
	ADJUSTABLE WRENCH TYPE	40～200	No.TGED200W36Z	No.GED200-W36-Z	No.GED200-W36-B	No.GED200-W36-U
	INTERCHANGEABLE HEAD TYPE	8～40	No.TGED040X13Z	No.GED040-X13-Z	No.GED040-X13-B	No.GED040-X13-U
	INTERCHANGEABLE HEAD TYPE	17～85	No.TGED085X13Z	No.GED085-X13-Z	No.GED085-X13-B	No.GED085-X13-U

DIGITAL RATCHET [MEMORQ] WIRELESS HOST MODULE SET
No.GED-Z ▶P.041

DIGITAL RATCHET [MEMORQ] Specifications

Head type Ratchet head type
Measuring accuracy:Within torque measuring range
Right-hand thread, left-hand thread ±3% + 1 digit
(digit = minimum display unit)
GED030-R2-Z(-U,-B) and GED030-C3-Z(-U,-B)
Within torque measurement range
Right-hand thread, left-hand thread ±4% + 1 digit
GED030-C3A-Z(-U,-B)
Within torque measurement range
2 to 2.99N·m: Right-hand thread, left-hand thread ±12% + 1 digit
3 to 5.99 N·m: Right-hand thread, left-hand thread ±8% + 1 digit
6 to 30N·m: Right-hand thread, left-hand thread ±4% + 1 digit
Measuring direction:Right-hand thread, left-hand thread

Head type Adjustable wrench type
Measurement accuracy:±3% + 1 digit within torque measurement range
(digit = minimum display unit)
* Accuracy is guaranteed only in the direction of the lower jaw and for hexagonal tightening.
Measuring direction:Lower jaw direction only (Turn over for left-hand thread measurement)

Head type Interchangeable head
Measuring accuracy:Right hand thread, left hand thread within torque measuring range ±4% + 1 digit
(digit = minimum display unit)
Measuring direction:Right-hand thread, left-hand thread

Specifications for all types
Unit of measurement:N·m(Convertible by switching kgf·m, lbf·in, lbf·ft)
Power source:Lithium battery CR123A x 1
Number of torque settings:5 in pre-set mode, 1 in pass/fail mode
Number of records:200 on main unit (excluding for iOS)
Auto Off:Power turns off automatically if no operation is performed for a certain period of time.
Time until power off can be set (1 to 10 minutes).

Host Module for Win Wireless Communication Specifications
Number of connected units:Max. 10 units (USB models cannot be connected)
Communication method:proprietary protocol
Radio frequency: 2.4GHz
Wireless distance: up to 20 m (depends on working environment)

Wireless Model for iOS Wireless Communication Specifications
Number of connected units:Up to 3 units
Communication method:Bluetooth® Radio frequency: 2.4GHz
Wireless distance: up to 3m (depends on working environment)

KTC

DIGITAL RATCHET [MEMORQ] WIRELESS HOST MODULE SET

- This is a set of DIGITAL RATCHET [MEMORQ] wireless model for Win and host module for wireless (GED-Z ● P.041).
- Wireless communication with Windows device can be done with this set.
- Includes a special aluminum case.
  * TGED360R6Z and TGED560R6Z are not included. The case is sold separately.

Wireless type
Measurement results can be recorded in real time on a Windows device.

Easy recording by one button
Up to 200 measurement results can be recorded on the main unit by operating the REC button. Automatic recording is also possible by switching modes.

Data is exported to CSV
In conjunction with the application, measurement results transferred to the device can be used for quality control and maintenance records.
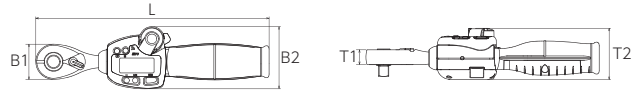
1/4"sq. DIGITAL RATCHET [MEMORQ]

No.	Weight(g)	🗄	
TGED030R2Z	400	1	

Set contents	
1/4"sq. Digital ratchet [MEMORQ] wireless model for Win	GED030-R2-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗄
GED030-R2-Z	6〜30N・m	22	58.4	211	10	48	350	1

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. SMALL TORQUE, COMPACT HEAD TYPE

No.	Weight(g)	🗄	
TGED030C3AZ	400	1	

Set contents	
3/8"sq. Digital ratchet [MEMORQ] small torque type wireless model for Win	GED030-C3A-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗄
GED030-C3A-Z	2〜30N・m	22	58.4	211	10	48	350	1

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. COMPACT HEAD TYPE

No.	Weight(g)	🗄	
TGED030C3Z	400	1	

Set contents	
3/8"sq. Digital ratchet [MEMORQ] compact head type wireless model for Win	GED030-C3-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗄
GED030-C3-Z	6〜30N・m	22	58.4	211	10	48	350	1

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. DIGITAL RATCHET [MEMORQ]

No.	Weight(g)	🗄	
TGED060R3Z	470	1	

Set contents	
3/8"sq. Digital ratchet [MEMORQ] wireless model for Win	GED060-R3-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗄
GED060-R3-Z	12〜60N・m	33	58.4	217	13.5	48	420	1

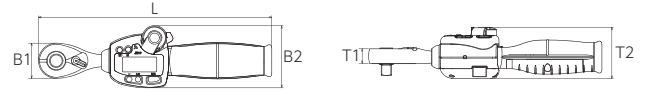With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

- Measurement instruments should be calibrated once a year. For details, ● P.025.
- Do not disassemble or modify the product.

3/8"sq. DIGITAL RATCHET [MEMORQ]

No.				Weight(g)			⬜	
TGED085R3Z				510			1	

Set contents	
3/8"sq. Digital ratchet [MEMORQ] wireless model for Win	GED085-R3-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜
GED085-R3-Z	17~85N·m	33	58.4	271	13.5	48	460	1

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]

No.				Weight(g)			⬜	
TGED085R4Z				660			1	

Set contents	
1/2"sq. Digital ratchet [MEMORQ] wireless model for Win	GED085-R4-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜
GED085-R4-Z	17~85N·m	39.5	58.4	274	18	48	610	1
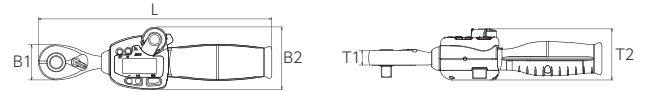
With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]

No.				Weight(g)			⬜	
TGED135R4Z				770			1	

Set contents	
1/2"sq. Digital ratchet [MEMORQ] wireless model for Win	GED135-R4-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜
GED135-R4-Z	27~135N·m	39.5	58.4	380	18	48	720	1
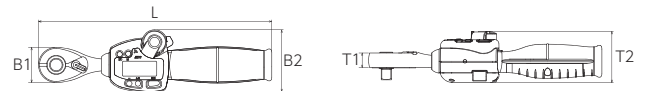
With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]

No.				Weight(g)			⬜	
TGED200R4Z				1,060			1	

Set contents	
1/2"sq. Digital ratchet [MEMORQ] wireless model for Win	GED200-R4-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜
GED200-R4-Z	40~200N·m	39.5	58.4	580	18	48	1,010	1

With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg
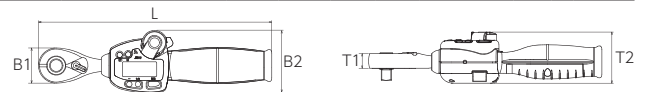
3/4"sq. DIGITAL RATCHET [MEMORQ]

No.				Weight(g)			⬜	
TGED360R6Z				4,460			1	

Set contents	
3/4"sq. Digital ratchet [MEMORQ] wireless model for Win	GED360-R6-Z
Host Module for Digital ratchet [MEMORQ] Wireless for Win	GED-Z

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜
GED360-R6-Z	72~360N·m	70.6	58.4	985.8	35.5	48	4,410	1

With storage tray
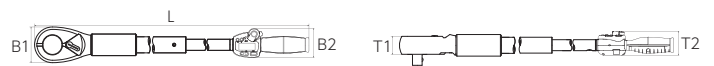
Example of storage in dedicated aluminum case
(sold separately)
Size: W1035×D170×H109
* The case (No.REKGED360) is made-to-order.
  Please contact the distributor.

· Function mark is indicated under the product name. For the details, please refer to ➡ P.004-005.
· Products marked with 🔧 should be ordered after checking stock.

Repair
Spare parts   Repairable

KTC

3/4"sq. DIGITAL RATCHET [MEMORQ]

3/4"sq.

40

Repair
Spare parts

Repairable

With storage tray

Example of storage in dedicated aluminum case
(sold separately)
Size: W1535×D170×H109
* The case (No.REKGED560) is made-to-order.
Please contact the distributor.

No.		Weight(g)	🔲	
TGED560R6Z		6,650	1	
Set contents				
3/4"sq. Digital ratchet [MEMORQ] wireless model for Win			GED560-R6-Z	
Host Module for Digital ratchet [MEMORQ] Wireless for Win			GED-Z	

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🔲	
GED560-R6-Z	112~560N·m	70.6	58.4	1486	35.5	48	6,600	1	
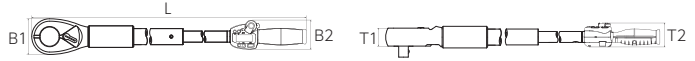
ADJUSTABLE WRENCH TYPE

Repairable

TGED085W36Z

TGED135W36Z

TGED200W36Z

With aluminum case
TGED085W36Z Size:W325×D190×H95
Case weight: 1.1 kg
TGED135W36Z Size: W630×D190×H95
Case weight: 1.6 kg
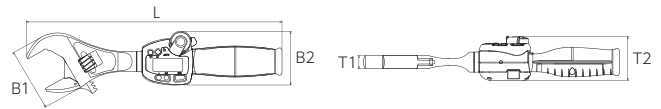TGED200W36Z Size:W630×D190×H95
Case weight: 1.6 kg

No.		Weight(g)	🔲	
TGED085W36Z		630	1	
Set contents				
Digital ratchet [MEMORQ] Monki Type Wireless Model for Win			GED085-W36-Z	
Host Module for Digital ratchet [MEMORQ] Wireless for Win			GED-Z	

No.		Weight(g)	🔲	
TGED135W36Z		750	1	
Set contents				
Digital ratchet [MEMORQ] Monki Type Wireless Model for Win			GED135-W36-Z	
Host Module for Digital ratchet [MEMORQ] Wireless for Win			GED-Z	

No.		Weight(g)	🔲	
TGED200W36Z		1,060	1	
Set contents				
Digital ratchet [MEMORQ] Monki Type Wireless Model for Win			GED200-W36-Z	
Host Module for Digital ratchet [MEMORQ] Wireless for Win			GED-Z	

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🔲	
GED085-W36-Z	17~ 85N·m	69	58.4	275	14.5	48	580	1	
GED135-W36-Z	27~135N·m	69	58.4	381	14.5	48	700	1	
GED200-W36-Z	40~200N·m	69	58.4	581	14.5	48	1,010	1	

INTERCHANGEABLE HEAD TYPE

Repairable

TGED040X13Z

TGED085X13Z

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

No.		Weight(g)	🔲	
TGED040X13Z		410	1	
Set contents				
Digital ratchet [MEMORQ] head interchangeable wireless model for Win			GED040-X13-Z	
Host Module for Digital ratchet [MEMORQ] Wireless for Win			GED-Z	

No.		Weight(g)	🔲	
TGED085X13Z		410	1	
Set contents				
Digital ratchet [MEMORQ] head interchangeable wireless model for Win			GED085-X13-Z	
Host Module for Digital ratchet [MEMORQ] Wireless for Win			GED-Z	

DIGITAL RATCHET [MEMORQ] Specifications

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🔲	
GED040-X13-Z	8~40N·m	20	58.4	213	13	48	360	1	
GED085-X13-Z	17~85N·m	20	58.4	213	13	48	360	1	

Interchangeable heads for a wide range of work scenarios
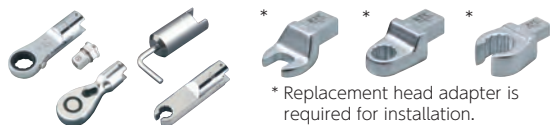
* Replacement head adapter is
required for installation.

Head Application
Chart

· Measurement instruments should be calibrated once a year. For details, ➡ P.025.
· Do not disassemble or modify the product.

DIGITAL RATCHET [MEMORQ] FOR WIRELESS COMMUNICATION

- This is the main unit only of DIGITAL RATCHET [MEMORQ] Wireless Model for Win, which enables wireless communication with Windows devices.
- A host module for wireless communication (GED-Z) is required for wireless communication.

- The use of an optional host module for wireless communication enables wireless communication with Windows devices.

Host Module for Wireless for Win

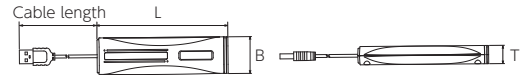| No.	L	B	T	Cable length	Weight (g)	⏢
GED-Z	32	114.5	16	380	50	1

Number of connected devices:Max. 10 devices (Wireless model for iOS and USB model USB models cannot be connected)
Communication method:Proprietary protocol
Radio frequency: 2.4GHz
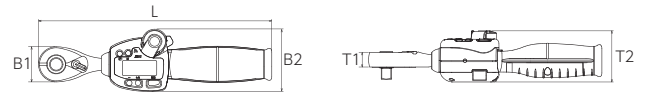Wireless distance: up to 20m (depends on working environment)
* Repair is not covered.

Cable length   L

B   T

1/4"sq. DIGITAL RATCHET [MEMORQ]

1/4" sq.   36   PUSH   Repair / Spare parts   Repairable

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⏢	
GED030-R2-Z	6〜30N·m	22	58.4	211	10	48	350	1	

- The minimum display unit is 0.01 N·m.
- A repair kit (BR2E-K ▶ P.219) is available for the ratchet head.
* Calibration is recommended after the repair.
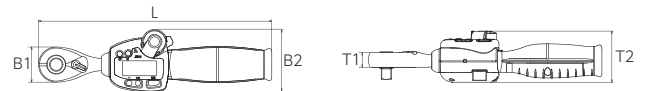* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. SMALL TORQUE, COMPACT HEAD TYPE

3/8" sq.   36   PUSH   Repair / Spare parts   Repairable

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⏢	
GED030-C3A-Z	2〜30N·m	22	58.4	211	10	48	350	1	

- The minimum display unit is 0.01 N·m.
- A repair kit (BRC3-K ▶ P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. COMPACT HEAD TYPE

3/8" sq.   36   PUSH   Repair / Spare parts   Repairable

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⏢	
GED030-C3-Z	6〜30N·m	22	58.4	211	10	48	350	1	

- The minimum display unit is 0.01 N·m.
- A repair kit (BRC3-K ▶ P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
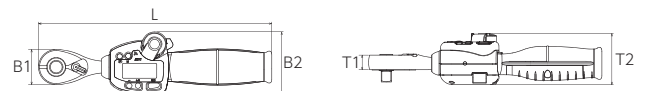* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. DIGITAL RATCHET [MEMORQ]

3/8" sq.   36   PUSH   Repair / Spare parts   Repairable

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⏢	
GED060-R3-Z	12〜60N·m	33	58.4	217	13.5	48	420	1	

- The minimum display unit is 0.01 N·m.
- A repair kit (BR3E-K ▶ P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

- Function mark is indicated under the product name. For the details, please refer to ▶ P.004-005.
- Products marked with ⚡ should be ordered after checking stock.

Repair / Spare parts   Repairable

KTC

3/8"sq. DIGITAL RATCHET [MEMORQ]

3/8" sq. | 36
PUSH | Repair — Spare parts
Repairable

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜	
GED085-R3-Z	17～85N・m	33	58.4	271	13.5	48	460	1	

· The minimum display unit is 0.1 N・m.
· A repair kit (BR3E-K ▶ P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

1/2"sq. DIGITAL RATCHET [MEMORQ]

1/2" sq. | 36
PUSH | Repair — Spare parts
Repairable

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜	
GED085-R4-Z	17～85N・m	39.5	58.4	274	18	48	610	1	

· The minimum display unit is 0.1 N・m.
· A repair kit (BR4E-K ▶ P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

1/2"sq. DIGITAL RATCHET [MEMORQ]

1/2" sq. | 36
PUSH | Repair — Spare parts
Repairable

With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜	
GED135-R4-Z	27～135N・m	39.5	58.4	380	18	48	720	1	

· The minimum display unit is 0.1 N・m.
· A repair kit (BR4E-K ▶ P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
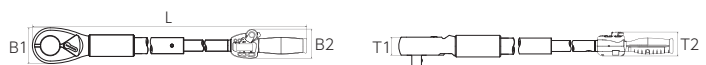* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

1/2"sq. DIGITAL RATCHET [MEMORQ]

1/2" sq. | 36
PUSH | Repair — Spare parts
Repairable

With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜	
GED200-R4-Z	40～200N・m	39.5	58.4	580	18	48	1,010	1	

· The minimum display unit is 0.1 N・m.
· A repair kit (BR4E-K ▶ P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

3/4"sq. DIGITAL RATCHET [MEMORQ]

3/4" sq. | 40
Repair — Spare parts
Repairable

With storage tray

Example of storage in dedicated aluminum case (sold separately)
Size: W1035×D170×H109
* The case (No.REKGED360) is made-to-order.
  Please contact the distributor.

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬜	
GED360-R6-Z	72～360N・m	70.6	58.4	985.8	35.5	48	4,410	1	

· The minimum display unit is 0.1 N・m.
· A repair kit (BR6A-K ▶ P.261) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

· Measurement instruments should be calibrated once a year. For details, ▶ P.025.
· Do not disassemble or modify the product.

3/4"sq. DIGITAL RATCHET [MEMORQ]

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⏚	
GED560-R6-Z	112～560N·m	70.6	58.4	1486	35.5	48	6,600	1	

· The minimum display unit is 0.1 N·m.
· A repair kit (BR6A-K ➡ P.261) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ➡ Refer to "Repairable List" from P.625.

With storage tray

Example of storage in dedicated aluminum case (sold separately)
Size: W1535×D170×H109
* The case (No.REKGED560) is made-to-order.
  Please contact the distributor.

ADJUSTABLE WRENCH TYPE

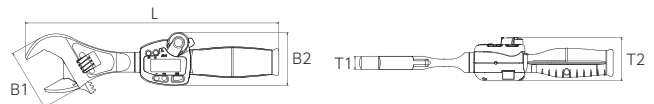| No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⏚	
GED085-W36-Z	17～ 85N·m	69	58.4	275	14.5	48	580	1	
GED135-W36-Z	27～135N·m	69	58.4	381	14.5	48	700	1	
GED200-W36-Z	40～200N·m	69	58.4	581	14.5	48	1,010	1	

· The minimum display unit is 0.1 N·m.
· Applicable two-face width is 10 to 36 mm.
* Accuracy is guaranteed only in the direction of the lower jaw and only for hexagonal
  tightening objects.

GED085-W36-Z

GED135-W36-Z

GED200-W36-Z

With aluminum case
GED085-W36-Z Size:W325×D190×H95
Case weight: 1.1 kg
GED135-W36-Z Size: W630×D190×H95
Case weight: 1.6 kg
GED200-W36-Z Size:W630×D190×H95
Case weight: 1.6 kg

Suitable for work on piping where a socket wrench or similar tool cannot be used.

Highly accurate measurement is possible due to the use of a dedicated head whose effective length remains almost the same even when the mouth opening dimension changes.
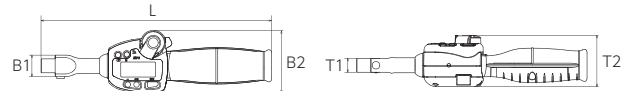
INTERCHANGEABLE HEAD TYPE

| No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⏚	
GED040-X13-Z	8～40N·m	20	58.4	213	13	48	360	1	
GED085-X13-Z	17～85N·m	20	58.4	213	13	48	360	1	

· This is an interchangeable head type DIGITAL RATCHET [MEMORQ] that further expands the
  range of use.
  Used in combination with various replacement heads.
· The minimum display unit is 0.01 N·m for GED040-X13-Z and 0.1 N·m for GED085-X13-Z.

GED040-X13-Z

GED085-X13-Z

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

Interchangeable heads for a wide range of work scenarios
➡ P.418-420,P.429-430
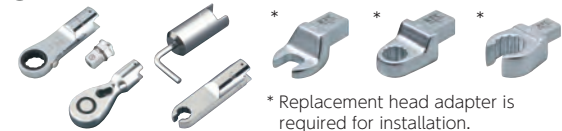
* Replacement head adapter is required for installation.
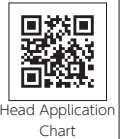
Head Application Chart

· Function mark is indicated under the product name. For the details, please refer to ➡ P.004-005.
· Products marked with ⏚ should be ordered after checking stock.

Repair
Spare parts

Repairable

KTC

DIGITAL RATCHET [MEMORQ] FOR iOS

- ・ This model is only DIGITAL RATCHET [MEMORQ] Wireless Model for iOS, which can communicate with iOS devices.
- ・ Includes a special aluminum case.
  * GED360-R6-B and GED560-R6-B do not come with a case. Cases are sold separately.
- ・ "KTC-Keyboard", a dedicated application, must be installed for wireless communication.
- ・ The dedicated application can be downloaded from the App Store.
- ・ The application can be linked with ConMas "i-Reporter", a report software.
  Details of ConMas "i-Reporter" ➡ P.047

KTC-Keybord

Number of connected units: Up to 3
Applicable standard:Bluetooth®
Radio frequency:2.4GHz
Wireless distance:up to 3m
(depends on working environment)

- ・ Bluetooth® is a registered trademark of Bluetooth SIG, Inc. ・ ConMas i-Reporter is a registered trademark of SimTops Corporation.
- ・ This product is not certified, sponsored, or otherwise approved by Apple Inc. ・ Apple Store is a service mark of Apple Inc.
- ・ iPhone, iPad, and iPod are trademarks of Apple Inc. registered in the United States and other countries.

1/4"sq. DIGITAL RATCHET [MEMORQ] (Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⊟	
GED030-R2-B	6~30N・m	22	58.4	211	10	48	350	1	

- ・ The minimum display unit is 0.01 N・m.
- ・ A repair kit (BR2E-K ➡ P.219) is available for the ratchet head.
- * Calibration is recommended after the repair.
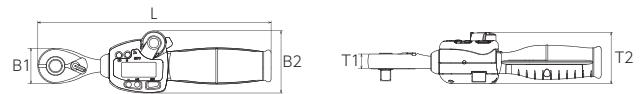- * Repair parts are set. ➡ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. SMALL TORQUE, COMPACT HEAD TYPE (Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⊟	
GED030-C3A-B	2~30N・m	22	58.4	211	10	48	350	1	

- ・ The minimum display unit is 0.01 N・m.
- ・ A repair kit (BRC3-K ➡ P.235) is available for the ratchet head.
- * Calibration is recommended after the repair.
- * Repair parts are set. ➡ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. COMPACT HEAD TYPE (Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⊟	
GED030-C3-B	6~30N・m	22	58.4	211	10	48	350	1	

- ・ The minimum display unit is 0.01 N・m.
- ・ A repair kit (BRC3-K ➡ P.235) is available for the ratchet head.
- * Calibration is recommended after the repair.
- * Repair parts are set. ➡ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. DIGITAL RATCHET [MEMORQ] (Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⊟	
GED060-R3-B	12~60N・m	33	58.4	217	13.5	48	420	1	

- ・ The minimum display unit is 0.01 N・m.
- ・ A repair kit (BR3E-K ➡ P.235) is available for the ratchet head.
- * Calibration is recommended after the repair.
- * Repair parts are set. ➡ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

- ・ Measurement instruments should be calibrated once a year. For details, ➡ P.025.
- ・ Do not disassemble or modify the product.

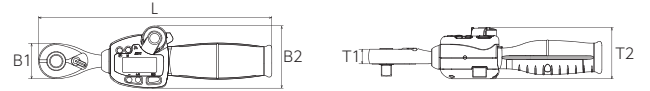## 3/8"sq. DIGITAL RATCHET [MEMORQ]
(Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌀	
GED085-R3-B	17～85N·m	33	58.4	271	13.5	48	460	1	

· The minimum display unit is 0.1 N·m.
· A repair kit (BR3E-K ➤ P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ➤ Refer to "Repairable List" from P.625.

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]
(Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌀	
GED085-R4-B	17～85N·m	39.5	58.4	274	18	48	610	1	

· The minimum display unit is 0.1 N·m.
· A repair kit (BR4E-K ➤ P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ➤ Refer to "Repairable List" from P.625.
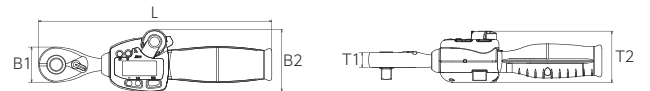
With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]
(Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌀	
GED135-R4-B	27～135N·m	39.5	58.4	380	18	48	720	1	

· The minimum display unit is 0.1 N·m.
· A repair kit (BR4E-K ➤ P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ➤ Refer to "Repairable List" from P.625.

With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]
(Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌀	
GED200-R4-B	40～200N·m	39.5	58.4	580	18	48	1,010	1	

· The minimum display unit is 0.1 N·m.
· A repair kit (BR4E-K ➤ P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ➤ Refer to "Repairable List" from P.625.

With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg

· Function mark is indicated under the product name. For the details, please refer to ➤ P.004-005.
· Products marked with ⚡ should be ordered after checking stock.

Repair
Spare parts   Repairable

KTC

3/4"sq. DIGITAL RATCHET [MEMORQ] (Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌓	
GED360-R6-B	72～360N·m	70.6	58.4	985.8	35.5	48	4,410	1	

- The minimum display unit is 0.1 N·m.
- A repair kit (BR6A-K ▶ P.261) is available for the ratchet head.
- * Calibration is recommended after the repair.
- * Repair parts are set. ▶ Refer to "Repairable List" from P.625.
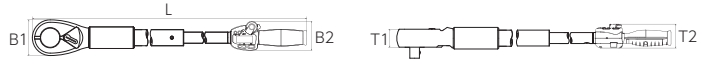
With storage tray

Example of storage in dedicated aluminum case (sold separately)
Size: W1035×D170×H109
* The case (No.REKGED360) is made-to-order. Please contact the distributor.

3/4"sq. DIGITAL RATCHET [MEMORQ] (Bluetooth®)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌓	
GED560-R6-B	112～560N·m	70.6	58.4	1486	35.5	48	6,600	1	

- The minimum display unit is 0.1 N·m.
- A repair kit (BR6A-K ▶ P.261) is available for the ratchet head.
- * Calibration is recommended after the repair.
- * Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With storage tray

Example of storage in dedicated aluminum case (sold separately)
Size: W1535×D170×H109
* The case (No.REKGED560) is made-to-order. Please contact the distributor.
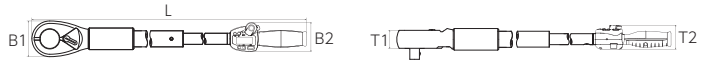
ADJUSTABLE WRENCH TYPE (Bluetooth®)

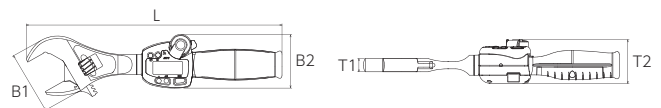| No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌓	
GED085-W36-B	17～ 85N·m	69	58.4	275	14.5	48	580	1	
GED135-W36-B	27～135N·m	69	58.4	381	14.5	48	700	1	
GED200-W36-B	40～200N·m	69	58.4	581	14.5	48	1,010	1	

- The minimum display unit is 0.1 N·m.
- Applicable two-face width is 10 to 36 mm.
- * Accuracy is guaranteed only in the direction of the lower jaw and only for hexagonal tightening objects.

GED085-W36-B

GED135-W36-B

GED200-W36-B

Suitable for work on piping where a socket wrench or similar tool cannot be used.

Highly accurate measurement is possible due to the use of a dedicated head whose effective length remains almost the same even when the mouth opening dimension changes.

With aluminum case
GED085-W36-B Size:W325 × D190 × H95
Case weight: 1.1 kg
GED135-W36-B Size: W630 × D190 × H95
Case weight: 1.6 kg
GED200-W36-B Size:W630 × D190 × H95
Case weight: 1.6 kg

- Measurement instruments should be calibrated once a year. For details, ▶ P.025.
- Do not disassemble or modify the product.

KTC

INTERCHANGEABLE HEAD TYPE (Bluetooth®)

Repairable

GED040-X13-B

GED085-X13-B

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🔧	
GED040-X13-B	8~40N·m	20	58.4	213	13	48	360	1	
GED085-X13-B	17~85N·m	20	58.4	213	13	48	360	1	

· This is an interchangeable head type DIGITAL RATCHET [MEMORQ] that further expands the range of use. Used in combination with various replacement heads.
· The minimum display unit is 0.01 N·m for GED040-X13-B and 0.1 N·m for GED085-X13-B.
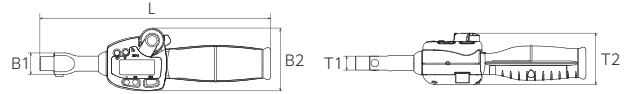
Interchangeable heads for a wide range of work scenarios
◐ P.418-420,P.429-430

* Replacement head adapter is required for installation.

Head Application Chart

DIGITAL RATCHET [MEMORQ] Wireless Model for iOS Application Examples

Digitization and paperless processing of "On-site forms"

iOS Native Apps
ConMas "i-Reporter"

"i-Reporter" is a field support tool that links DIGITAL RATCHET [MEMORQ] with tablet devices such as iPad and iPhone to digitize and paperless record and report field work. Digitization of handwritten work reduces recording errors and improves work efficiency, shortens the time required for tracking, and reduces printing and storage costs. In addition, since existing forms can be converted to electronic forms without modification, digital management solution can be achieved without changing the familiar work routine.

*ConMas "i-Reporter" has applications for both iOS and Windows, but please purchase the wireless model for iOS series when considering the linkage with DIGITAL RATCHET [MEMORQ].

Image of introduction

DIGITAL RATCHET [MEMORQ] Wireless Model for iOS series

i-Reporter Application

iPad iPhone Tablet device
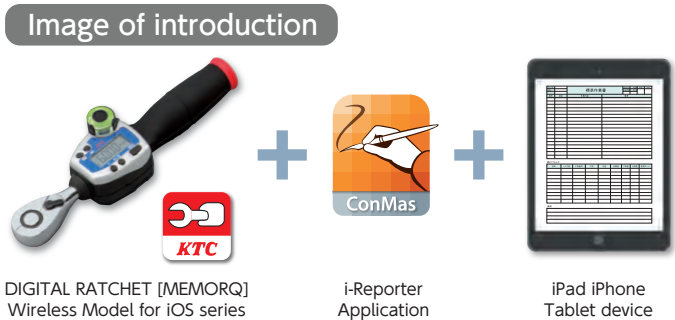
For more information about i-Reporter, please visit the SimTops Corporation website (https://i-reporter.jp).

· Function mark is indicated under the product name. For the details, please refer to ◐ P.004-005.
· Products marked with 🔧 should be ordered after checking stock.

Repair Spare parts   Repairable

KTC

DIGITAL RATCHET [MEMORQ] FOR USB

· This is a type that records data on the Digital ratchet handle main unit and transfers it to a Windows device via USB.

Convenient for business trips and on-site operations when a device is not available nearby.

· Comes with a special aluminum case.

USB type
Measurement results can be transferred to a device via USB.

Easy recording at the touch of a button
Up to 200 measurement results can be recorded on the main unit by operating the REC button. Automatic recording is also possible by switching modes.

Data is exported to CSV
In conjunction with the application, measurement results transferred to the device can be used for quality control and maintenance records.

1/4"sq. DIGITAL RATCHET [MEMORQ] (USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬒	
GED030-R2-U	6～30N·m	22	58.4	211	10	48	350	1	

· The minimum display unit is 0.01 N·m.
· A repair kit (BR2E-K ▶ P.219) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. SMALL TORQUE, COMPACT HEAD TYPE (USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬒	
GED030-C3A-U	2～30N·m	22	58.4	211	10	48	350	1	

· The minimum display unit is 0.01 N·m.
· A repair kit (BRC3-K ▶ P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. COMPACT HEAD TYPE (USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⬒	
GED030-C3-U	6～30N·m	22	58.4	211	10	48	350	1	

· The minimum display unit is 0.01 N·m.
· A repair kit (BRC3-K ▶ P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▶ Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

· Measurement instruments should be calibrated once a year. For details, ▶ P.025.
· Do not disassemble or modify the product.

3/8"sq. DIGITAL RATCHET [MEMORQ]
(USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗁	
GED060-R3-U	12～60N・m	33	58.4	217	13.5	48	420	1	

・ The minimum display unit is 0.01 N・m.
・ A repair kit (BR3E-K ● P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ● Refer to "Repairable List" from P.625.

With aluminum case
Size: W265×D190×H95
Case weight: 0.9kg

3/8"sq. DIGITAL RATCHET [MEMORQ]
(USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗁	
GED085-R3-U	17～85N・m	33	58.4	271	13.5	48	460	1	

・ The minimum display unit is 0.1 N・m.
・ A repair kit (BR3E-K ● P.235) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ● Refer to "Repairable List" from P.625.

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]
(USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗁	
GED085-R4-U	17～85N・m	39.5	58.4	274	18	48	610	1	

・ The minimum display unit is 0.1 N・m.
・ A repair kit (BR4E-K ● P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ● Refer to "Repairable List" from P.625.

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

1/2"sq. DIGITAL RATCHET [MEMORQ]
(USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	🗁	
GED135-R4-U	27～135N・m	39.5	58.4	380	18	48	720	1	

・ The minimum display unit is 0.1 N・m.
・ A repair kit (BR4E-K ● P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ● Refer to "Repairable List" from P.625.

With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg

・ Function mark is indicated under the product name. For the details, please refer to ● P.004-005.
・ Products marked with ⚡ should be ordered after checking stock.

KTC

1/2"sq. DIGITAL RATCHET [MEMORQ]
(USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌗	
GED200-R4-U	40~200N·m	39.5	58.4	580	18	48	1,010	1	

· The minimum display unit is 0.1 N·m.
· A repair kit (BR4E-K ▷ P.251) is available for the ratchet head.
* Calibration is recommended after the repair.
* Repair parts are set. ▷ Refer to "Repairable List" from P.625.

With aluminum case
Size: W630×D190×H95
Case weight: 1.6 kg
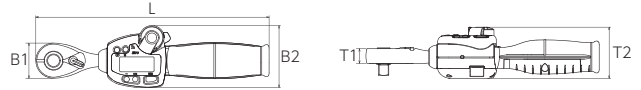
ADJUSTABLE WRENCH TYPE
(USB CONNECTION)

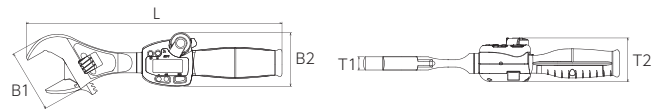| No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌗	
GED085-W36-U	17~ 85N·m	69	58.4	275	14.5	48	580	1	
GED135-W36-U	27~135N·m	69	58.4	381	14.5	48	700	1	
GED200-W36-U	40~200N·m	69	58.4	581	14.5	48	1,010	1	

· The minimum display unit is 0.1 N·m.
· Applicable two-face width is 10 to 36 mm.
* Accuracy is guaranteed only in the direction of the lower jaw and only for hexagonal tightening objects.

GED085-W36-U

GED135-W36-U

GED200-W36-U

Suitable for work on piping where a socket wrench or similar tool cannot be used.

Highly accurate measurement is possible due to the use of a dedicated head whose effective length remains almost the same even when the mouth opening dimension changes.

With aluminum case
GED085-W36-U Size:W325×D190×H95
Case weight: 1.1 kg
GED135-W36-U Size: W630×D190×H95
Case weight: 1.6 kg
GED200-W36-U Size:W630×D190×H95
Case weight: 1.6 kg

INTERCHANGEABLE HEAD TYPE
(USB CONNECTION)

No.	Torque measurement range	B1	B2	L	T1	T2	Weight(g)	⌗	
GED040-X13-U	8~40N·m	20	58.4	213	13	48	360	1	
GED085-X13-U	17~85N·m	20	58.4	213	13	48	360	1	

· This is an interchangeable head type DIGITAL RATCHET [MEMORQ] that further expands the range of use. Used in combination with various replacement heads.
· The minimum display unit is 0.01 N·m for GED040-X13-U and 0.1 N·m for GED085-X13-U.

GED040-X13-U

With aluminum case
Size: W325×D190×H95
Case weight: 1.1 kg

GED085-X13-U

Interchangeable heads for a wide range of work scenarios
▷ P.418-420,P.429-430

* Replacement head adapter is required for installation.

Head Application Chart

· Measurement instruments should be calibrated once a year. For details, ▷ P.025.
· Do not disassemble or modify the product.

# SOLUTION

CUSTOM-MADE FURNITURE

The 3S concept enforce the efficiency and effectiveness of all work sites.

Support the improvement of work efficiency and effectiveness by incorporating 3S concept from the automobile assembly process, which eliminates unreasonableness, waste, and irregularity, into automobile maintenance.
Provide the improvement by this know-how to all sites where tools are used, such as industrial equipment and construction sites.

Storage tray system for fixed location management
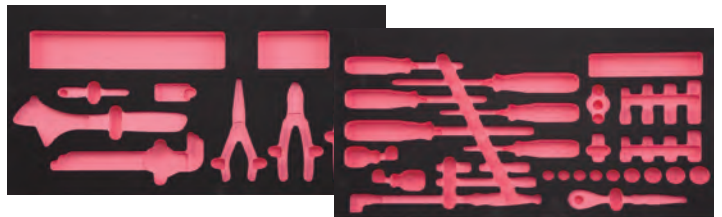
The storage tray system, which allows you to create custom-made special trays to match the tools and tool cases to be stored, makes it easy to manage them in place.
Since molds are not required, small-lot production is possible!
We create original trays according to your needs.
*Storage tray systems are to be quoted on each inquiry.

Before introduction

After introduction
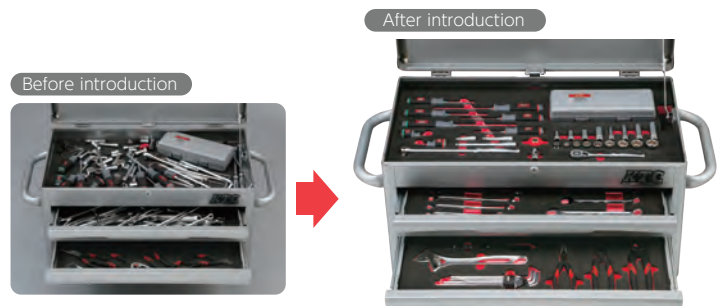
Benefits from fixed storage

Improve work efficiency!
By fixing where and how to place them, saving time to look for and retrieve the tools.

Cost reduction
Reduce the costs by preventing additional and duplicated purchases for the loss and damages.

Comfortable work
Keep necessary items clean and ready to use will increase motivation and comfortableness.

SOLUTION

ORDER-MADE TOOLS & PARTS

With our integrated production system and quality management We satisfy the various metalwork requirement.

KTC has accumulated over 70 years of tool-manufacturing technology and experience to developing high-quality tools, nepros, as our flagship brand. Acquired various metalworking technologies and a reliable integrated production system.

We provide metal technology solutions for a wide variety of metal processing and product development, including diverse plasticity processes, heat treatment, surface treatment, mold design, prototype evaluation, mass production, and quality inspection systems.

Based on the concept of "SAFETY SOLUTION," we offer optimal services to meet our customers' requirements.

Custom-made tools

Existing tools do not suit every task or application. We analyze the work and application and provide original tools that meet your requirements.

Custom-made parts

Capable of manufacturing parts with complex shapes, such as three-dimensional curved surfaces, as well as high-strength precision parts and all other types of metal parts on a made-to-order basis. We also meet the needs for small lot production and yield improvement.