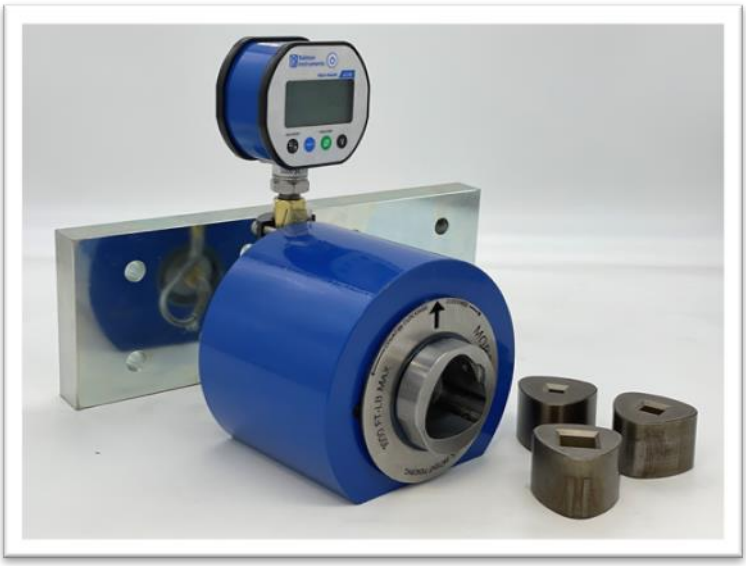
By Inertia Torque

L-1000 USER MANUAL



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Who we are!

We are Inertia Torque! We started the company to create products that accurately and repeatably measure the output torque of impact tools. Why is it important to measure the output torque of your impact tool?

- Track torque degradation and determine when to take a tool out of service for maintenance or replacement
- Know how much force each mode on an impact tool delivers and avoid over-torquing fasteners
- Implement testing protocols that inspire confidence in the tools you're using
- Save time and money by testing tools in-house

FAQ

How do I buy a tester?

Purchase from our website at www.inertiatorque.com.

What if I need to buy with a Purchase Order?

You can email us at info@inertiatorque.com and we will place your order via PO.

How often do I need to send the unit in for calibration? Where do I send the unit for repair or calibration?

We recommend once a year. You will get a certificate with the date it was calibrated last. Please send the unit to:

Attn: Inertia Torque Repair Dept.
30340 Solon Industrial Parkway
Solon, Ohio 44139

How long do the impact tool adapters last?

It is reliant on many factors, such as the number of "cycles" you put the tool on that specific adapter, type of tool, how much torque it is applying to the adapter and so on. It should, however, last thousands of cycles.

What makes this different that other products that are on the market?

The L-1000 duplicates tightening a bolted joint, but it does so by directly measuring the torque in a more accurate and repeatable way. There are only 2 points of contact internally as it rotates, as opposed to be many points of

contact in a bolted joint. All the areas where the threads mate and the face of the washer/nut/bolt meet the surface the hole the bolted joint is in. Those areas create a lot of variability in readings. This tester removes the variability and give you a true torque reading. Below is an explanation on how it works.

Will see different torque results as compared to the Skidmore-Wilhelm Models RL and J testers?

There is a possibility, and it is normal if the results are different. Those testers aren't truly measuring torque but are measuring tension of a bolt. Also, the RL and J require the test bolt assemblies to be relubricated. The L-1000 is lubricated like a gearbox as the lubrication does not need to be reapplied like the test bolt assemblies in our Skidmore Hydraulic load cells. The L-1000 removes many variables as it gives the end-user a more easy, accurate and repeatable option for measuring the performance of the impact tool.

—Explanation of how the L-1000 works—

As the torque is applied to the "Core" in either direction the "Pistons" (installed in the "Core") start to "compress" a small column of hydraulic oil between the "Pistons". This occurs due to the "Pistons" being forced closer to each other since there is a slope that mates against the "Piston" on each side directly across (always normal to) the axis the pistons maintain. The more torque is applied the greater the pressure builds that is converted to a unit of foot-pounds. This correlation of pounds per square inch to foot-pounds was developed in a dynamic test apparatus over thousands of cycles.

Contact Us:

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Email: info@inertiatorque.com
Phone: (440) 261-4042

Address:
Inertia Torque
30340 Solon Industrial Parkway
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Our Products

L-1000 (Analog Gauge Version)

P/N: L-1000

This unit has an analog (dial) style readout that reads Foot-Pounds and Newton-Meter.

L-1000-DG (Digital Gauge Version)

P/N: L-1000-DG

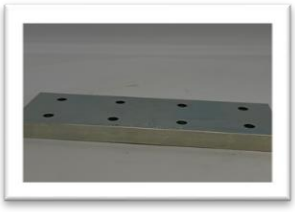
This unit has a high-quality Ralston Instruments digital gauge. We send the USB cord and manual with it to hook up to your computer.

Square Drive Adapters

P/N: L-1678

These are the different square drive adapters that are required to test your specific size impact tool. Each unit comes with your choice of (1) adapter. Each adapter sold separately are the following part numbers; *P/N: L-1000-6 for ¾", P/N: L-1000-7 for ½", & P/N: L-1000-8 for 3/8"*.

Mounting Plate



P/N: HT-4130

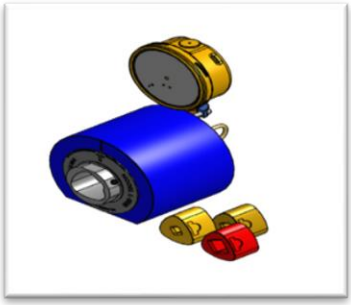
This mounting plate is an accessory that you can buy separately. It is to make mounting the L-1000 and L-1000-DG easier. It requires (4) ½-13 x 1-1/4" attach to the bottom of the unit.

Mounting Screws

P/N: L-1000-14

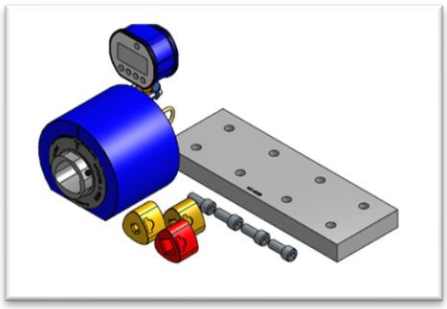
(4) Socket head cap screws (PART NUMBER L-1000-14) for the mounting plate that you can buy separately. They make mounting the L-1000 and L-1000-DG easier.

KIT OPTIONS



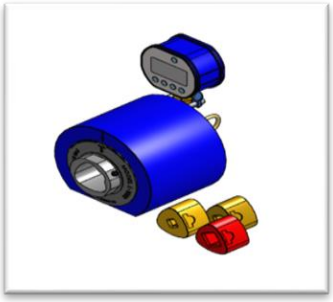
P/N: L-1000-678

This kit comes with the L-1000 (analog gauge) and 3/8", ½", & ¾" adapters.



P/N: L-1000-DG-X

This is the complete kit that comes with all three adapters (3/8", ½", & ¾"), mount, and screws to mount the L-1000-DG to the mount.



P/N: L-1000-DG-678

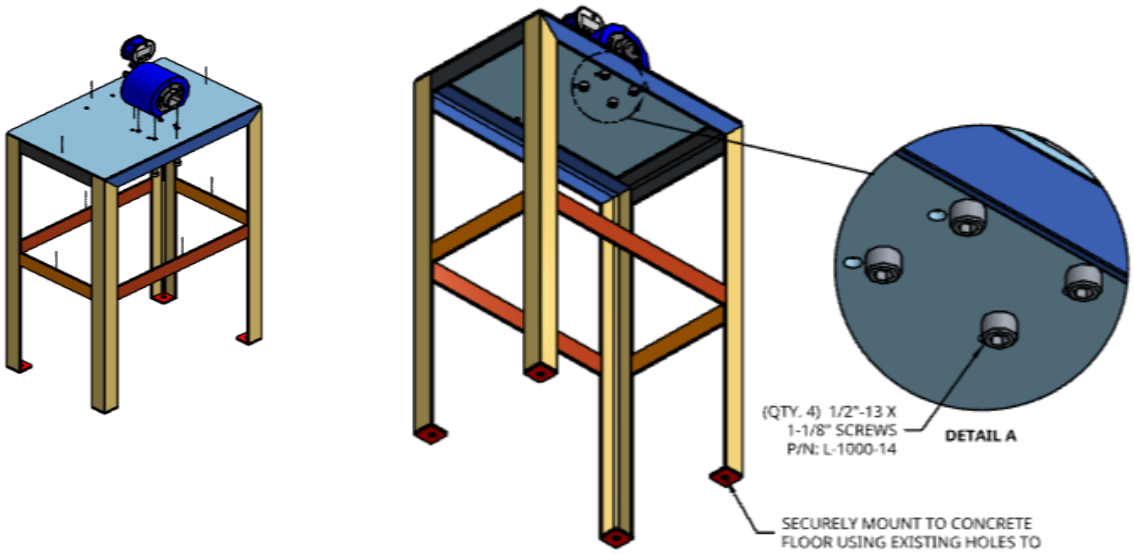
This is the kit that comes with L-1000-DG & all three adapters (3/8", ½", & ¾").

Getting Started

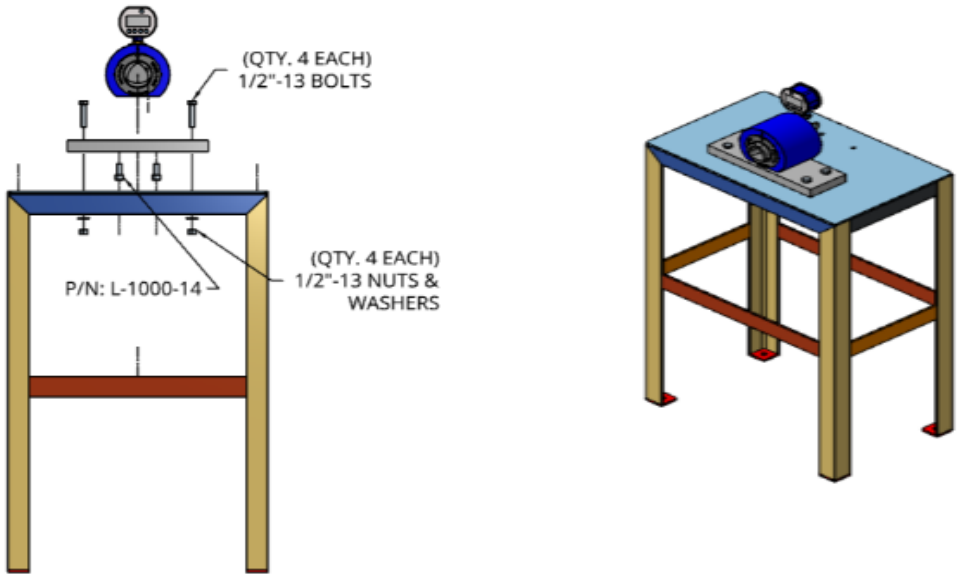
MOUNTING THE L-1000 OR L-1000-DG

Securely mount tester to stand or bench without mounting plate. ***NOTE: This can be purchased from us (P/N: TS-001). Otherwise mount to heavy bench or stand mad of steel, this wood, or concrete.***

OPTION 1 DIRECTLY MOUNTING TO BENCH OR STAND *(WITH NO MOUNTING PLATE)*.



OPTION 2 MOUNTING TO BENCH OR STAND *WITH MOUNTING PLATE*.



INSTALLING THE ADAPTER

STEP 1. Inserting Adapter

ALIGN ADAPTER RELIEF SLOT WITH SET SCREW WHEN INSERTING INTO TESTER AS SHOWN

STEP 2. Tightening Set

PUSH ADAPTER IN UNTIL IT IS FLUSH WITH THE FACE OF THE TESTER THEN TIGHTEN SET SCREW WITH 5/32" ALLEN WRENCH.

NOTE: THERE IS LOCTITE ON THE SET SCREW SO IT WILL ALREADY FEEL TIGHT AS YOU TIGHTEN IT. TIGHTEN UNTIL YOU FEEL IT BOTTOM OUT ON THE ADAPTER.

TESTING THE IMPACT TOOL

STEP 1. Inserting Impact Tool

ALIGN TOOL WITH SQUARE ADAPTER HOLE AND PUSH TOOL IN UNTIL INSERTED COMPLETELY IN

STEP 2. Testing Impact Tool

Run tool in forward or reverse for no more 10 seconds per test. You should reach the peak value at this time. Promptly bring the tool back to "Zero" torque. You will need to run the tool in the opposite direction. **DO NOT LEAVE THE TOOL UNDER TORQUE FOR NO MORE THAN 2 MINUTES AS THIS COULD CAUSE DAMAGE TO TESTER.**

NOTE: WE RECOMMEND APPLYING SLIGHT PRESSURE WITH YOUR HAND TO THE TOOL BODY AND TESTER (AS SHOWN IN THE PICTURE) TO MAKE IT EASIER TO BRING BACK TO CENTER.

OPERATING THE DIGITAL GAUGE

STEP 1. Power on

PUSH THE POWER BUTTON UNTIL YOU SEE THE GAUGE COME ON AS SHOWN. NOTE: YOU WILL HAVE TO HOLD IT DOWN FOR SEVERAL SECONDS.

STEP 2. Changing Units

IF THE TORQUE OR FT-LBS LABEL IS NOT SHOWING PUSH THIS BUTTON TO GO THROUGH THE DIFFERENT UNIT OPTIONS UNTIL THEY APPEAR.

STEP 3. Powering On Backlight

THE BACKLIGHT ON THE GAUGE WILL TURN OFF AUTOMATICALLY AFTER A 1 MINUTE. PUSH THIS BUTTON TO TURN IT BACK ON.