

TSN00904 | FORCE GAUGE MFR: MARK-10

Purpose:

This tool is used to measure push or pull force in lbF, kgF, N up to 510N limit.

*10N past 500N spec.

Labor Codes: Non-specific

General Principles:

MFR P/N: (Series 3) M3-100

Series 3 digital force gauges are designed for tension and compression force testing in numerous applications. The gauges feature a sampling rate of 2,000 Hz, producing accurate results under a wide range of test conditions. A backlit graphic LCD displays large characters, and a menu is available to access the gauges' features and configurable parameters. USB output is provided for data collection purposes.

Set point indicators are provided for pass-fail testing. The gauges are overload protected to 200% of capacity, and an analog load bar is shown on the display for graphical representation of applied force.

An ergonomic, reversible aluminum housing allows for handheld use or test stand mounting for more sophisticated testing requirements. Series 3 digital force gauges are directly compatible with Mark-10 [test-stands](#), [grips](#), and [software](#).

The gauges include [MESUR[®] Lite](#) data acquisition software. [MESUR[®] Lite](#) tabulates continuous or single point data. One-click export to Excel allows for further data manipulation.

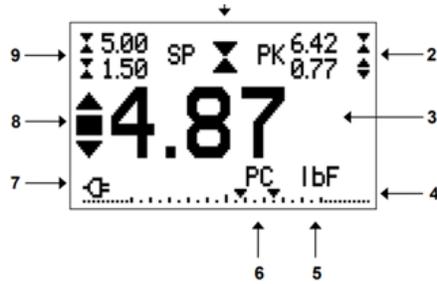
Setting Peak Mode for Measuring Pulling Tension:

Three operating modes are possible with Series 3 gauges.

To cycle between the modes, press MODE while in the home screen.

Select Peak Tension (PT) for tension readings.

PK is displayed in No. 2 below.

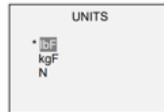


No.	Name	Description
1	Tension / compression indicator	<p>▲ - indicates a compression (push) direction</p> <p>▼ - indicates a tension (pull) direction</p> <p>These indicators are used throughout the display and menu.</p>
2	Peaks	The measured compression and tension readings. These readings are reset by pressing ZERO or by powering the gauge off and on.
3	Primary reading	The current displayed force reading. See Operating Modes section for details.
4	Load bar	Analog indicator to help identify when an overload condition is imminent. The bar increases either to the right or to the left from the midpoint of the graph. Increasing to the right indicates compression load, increasing to the left indicates tension load. If set points are enabled, triangular markers are displayed for visual convenience. This indicator reflects the actual load, which may not correspond to the primary reading (depends on operating mode). The ZERO key does not reset the load bar. See Operating Modes section for details.
5	Units	The current unit of measurement. Abbreviations are as follows: lbF – Pound-force

Setting Unit of Measurement (lbF, kgF, N):

6 CHANGING THE UNITS

Series 3 gauges display one of three measurement units. To change the unit, select **Units** from the menu. The display appears as follows:



The gauge will always power on with the unit selected.

Tool Position Setup:

Attach force gauge to area where pull/push force measurement is desired.

Adjust meter to desired function (EG: Peak reading) and desired unit of measurement (EG: N).

For additional information refer to manufactures website below.

[M Digital Force Gauges: Series 3 | Mark-10 Force & Torque Measurement](#)

