

MESUR Lite data acquisition software is included with the WT-205M

Measure wire crimp pull forces up to 200 lbf [1 kN] accurately and efficiently with the WT-205M motorized pull tester. Portable and customizable, the tester conforms to numerous UL, ISO, ASTM, SAE, MIL, and other requirements for destructive and non-destructive testing. Pull to break, pull to load, or maintain a load for a specified period of time (optional functions), as per the requirements of UL 486A/B. Programmable pass/fail limits with red and green indicators and audio alerts help identify non-conforming samples.

The tester's standard adjustable terminal fixture contains multiple slots for diameters up to AWG 3 (0.25 in [6.3 mm]), while the self-tightening wedge grip securely clamps the free end of the cable. To accommodate a wide range of materials, optional and interchangeable alternative grips are available. Samples can be sent to Mark-10 for evaluation and recommendation prior to purchase.

The WT-205M stores and calculates statistics for up to 2,000 readings, with available date and time stamps for each saved data point. Data can be transferred to a PC or other data collector via USB, RS-232, Mitutoyo (Digimatic), or analog outputs.

Upon sample break, the tester can auto-reverse, save and output the peak force, and auto-zero in preparation for the next test, increasing testing efficiency. The available Profiles function allows the user to create and save test setups for quick recall.

Use free MESUR® Lite data acquisition software to tabulate continuous or single point data. Data stored in the tester's memory can also be downloaded in bulk. One-click export to Excel allows for further data manipulation.

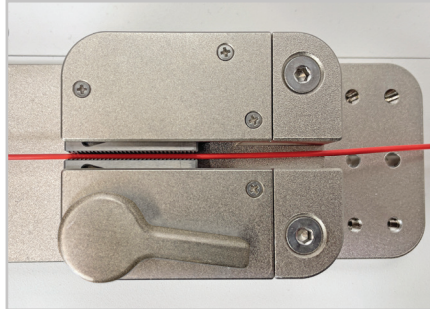
## Features

- Measures live and peak force values up to 200 lbf [1 kN]
- Selectable test speed, w/high speed approach and reverse
- Accommodates cables up to  $\varnothing 0.25$  in [6.3 mm]
- Selection of grips accommodate a wide range of materials
- Auto-reverse at sample break or load
- USB, RS-232, Mitutoyo (Digimatic), and analog outputs
- Automatic reverse / output / data storage / zeroing upon sample break helps automate testing processes
- 2,000-point data memory with statistics, output, and date and time stamp (optional function)
- Password protection prevents unauthorized changes
- Pass / fail indicators, audio alerts, and outputs
- Save and recall up to 500 profiles for various test requirements (optional function)
- Pull to a specified load or maintain load for a specified period of time, as per UL 486A/B (optional functions)
- Date / time stamp for all saved data (optional function)

## Key Features



▲ The standard adjustable wire terminal fixture accommodates wire diameter sizes up to AWG 3 (0.25 in [6.3 mm]).



▲ The standard self-tightening wedge grip secures and pulls the loose end of the cable.



▲ Save and recall multiple profiles, for quick and accurate switchover to different test methods.

## Controls & Indicators

The control panel features a digital display and several function buttons. Callouts point to the following elements:

- Status:** Indicated by the 'STOPPED' text on the display.
- Peak measurement:** Indicated by 'PEAK:129.1' on the display.
- Real time or peak reading:** Indicated by the large '59.1' on the display.
- Save up to 2,000 readings:** Indicated by '0003' on the display.
- Save up to 500 test profiles:** Indicated by 'PROFILE 3' on the display.
- Measurement mode (real time or peak):** Indicated by 'PEAK' on the display.
- Easily access all settings:** Indicated by the 'MENU' button.
- Output to a PC, printer, etc. (auto-output also possible):** Indicated by the 'DATA' button.
- Toggle between real time and peak display modes:** Indicated by the 'MODE' button.
- Upper force limit:** Indicated by '168.0 PL' on the display.
- Pass / fail indicators:** Indicated by green checkmarks and red X's on the display.
- Unit of measurement:** Indicated by 'lbf' and '40.0' on the display.
- Lower force limit:** Indicated by '40.0' on the display.
- Start the test:** Indicated by the green 'START' button.
- Stop / reverse the test:** Indicated by the red 'STOP' button.
- Zero the reading (auto-zero at sample break also possible):** Indicated by the 'ZERO' button.

At the bottom of the panel, it reads: **Wire Crimp Pull Tester WT-205M**  
 200 x 0.1 lbf | 3200 x 2 ozF | 100 x 0.05 kgF  
 1,000 x 0.5 N | 1 x 0.0005 kN

## Optional Functions

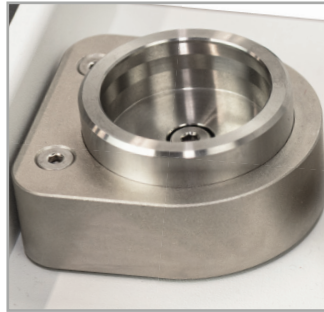
Any of these optional functions may be purchased at time of order or may be enabled in the field at a later date through a simple activation process. A complete options package is also available, including all of the listed features at a discounted price. The tester is shipped in Demo Mode, during which time all available functions are enabled for 160 hours of operation.

Feature	Part No.	Description
<b>Profiles</b>	WF010	Save and recall up to 500 sets of test parameters, including pass/fail limits, measurement unit, etc.
<b>Pull to load</b>	WF011	The tester will stop when the specified load has been reached.
<b>Load holding</b>	WF012	The tester will stop and maintain a specified load for a specified period of time.
<b>Date and time stamp</b>	WF013	A date and time stamp is applied to each saved data point.
<b>Complete options package</b>	WFCOMP-205M	Includes all functions listed above.

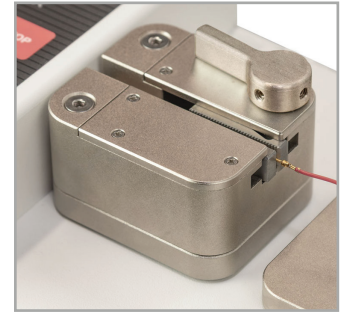
## Optional Accessories



**AC1135**  
**Ring terminal fixture**  
Secures ring terminations. Pin diameter sizes from 1/8 to 3/8 in [3.2 to 9.5 mm]. Replaces the standard turret fixture.



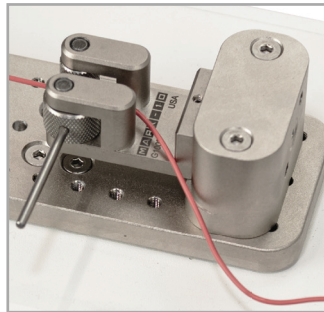
**AC1136**  
**Machinable blank terminal fixture**  
For unique sample shapes and sizes. Replaces the standard turret fixture.



**AC1132**  
**Wedge grip assembly**  
Self-tightening jaws effectively secure the sample. This type of grip is standard on the actuator end, but may also replace the standard turret fixture.



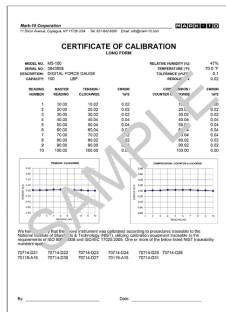
**AC1134**  
**Bollard grip assembly**  
Secures the free end of the sample via a bollard and vise. Based on the model G1102 grip.



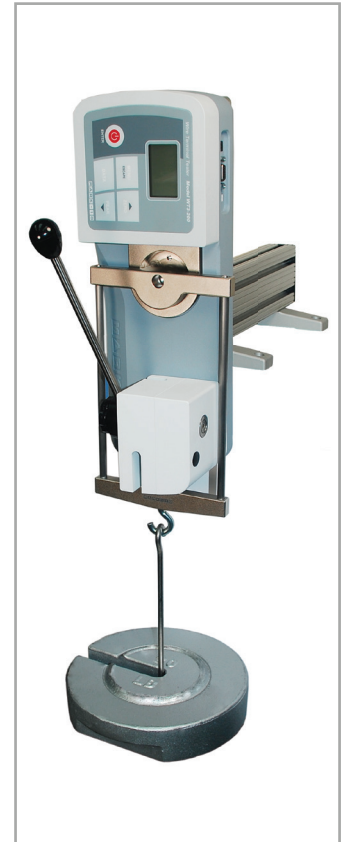
**AC1133**  
**Dual roller grip assembly**  
Cam-action knurled rollers secure the free end of the wire. Replaces the standard wedge grip. Based on the model G1002 grip.



**AC1137-2**  
**Carrying case**  
Provides a cushioned storage space for the tester and accessories.



**CERT**  
**Calibration certificate w/data**  
Includes 10 data points (short form certificate without data is included).

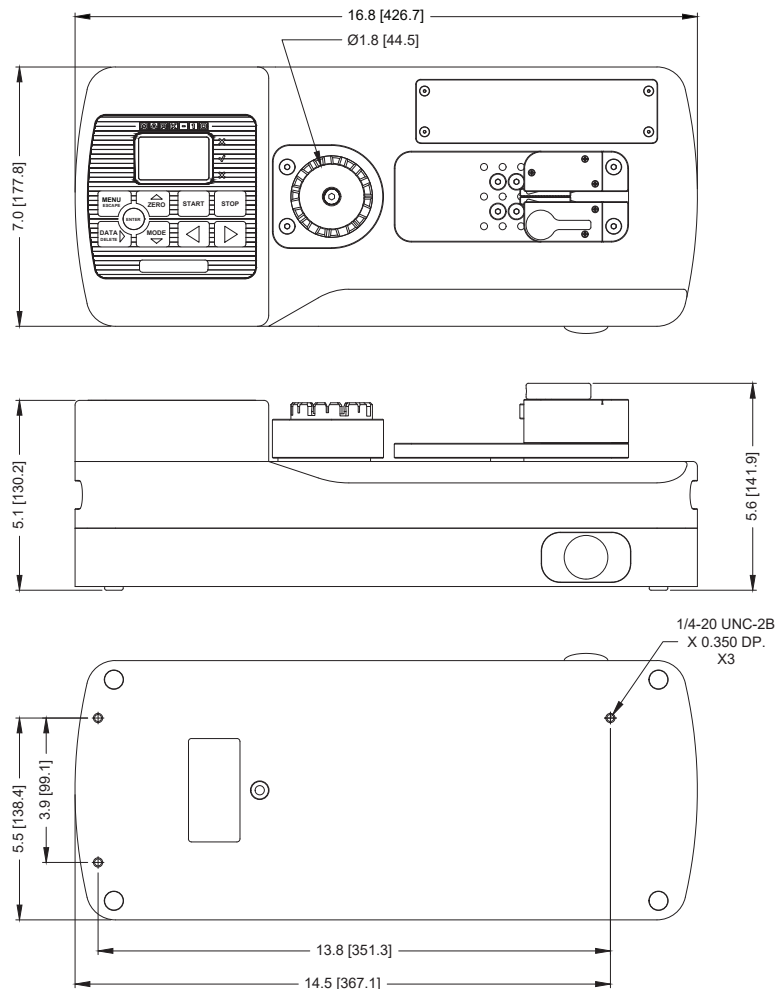


**AC1049**  
**Calibration fixture**  
Complete set of brackets and hardware for calibration of WT-205 or WT-205M. Also compatible with legacy models WT3-201, WT3-201M, and WT3-200. Weights not available from Mark-10.

## Specifications

<b>Force capacity:</b>	200 x 0.1 lbf   3200 x 2 ozF   100 x 0.05 kgF   1,000 x 0.5 N   1 x 0.0005 kN
<b>Accuracy:</b>	±0.2% of full scale
<b>Wire diameter range:</b>	AWG30 - AWG 3 [0.01 - 0.25 in (0.3 - 6.3 mm)]
<b>Minimum sample length:</b>	2.1 in (53.3 mm), excluding termination
<b>Maximum elongation:</b>	2.3 in (58.4 mm)
<b>Speed range:</b>	<b>Approach speed (until the sample preload):</b> 12.0 - 25.0 in/min [300 - 625 mm/min] <b>Test speed (between the preload and end of travel):</b> 0.4 - 12.0 in/min [10 - 300 mm/min] <b>Return speed:</b> 12.0 - 45.0 in/min [300 - 1,125 mm/min]
<b>Speed accuracy:</b>	±0.2%, virtually no variation with load
<b>Force sampling rate:</b>	7000 Hz
<b>Outputs:</b>	<b>USB / RS-232:</b> Configurable up to 115,200 baud. <b>Mitutoyo:</b> Serial BCD suitable for all Mitutoyo SPC-compatible devices. <b>Analog:</b> ±1 VDC at capacity, ±0.25% of full scale. <b>General purpose:</b> Three open drain outputs, one input. <b>Set points:</b> Three open drain lines, 40 VDC max., 100 mA DC max.
<b>Overload protection:</b>	Motor stops at 120% of force capacity (display shows "OVER" at 110% and above)
<b>Weight:</b>	28 lb [12.7kg]
<b>Environmental requirements:</b>	40 - 100°F, max. 96% humidity, non-condensating
<b>Warranty:</b>	3 years (see individual statement for further details)

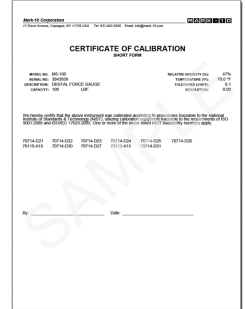
## Dimensions in [mm]



## In The Box

The tester is shipped as shown at right and includes the following accessories:

- (1) Turret-style terminal fixture (installed)
- (1) Wedge grip assembly (installed)
- (1) USB cable
- (1) 110V US power cord
- (1) Certificate of calibration without data (data is optional)



## Ordering Information

Model	Description
WT-205M	Motorized wire crimp pull tester
<b>Optional Functions</b>	
WF010	Profiles
WF011	Pull to load limit
WF012	Load holding
WF013	Date and time stamp
WFCOMP-205M	Complete options package for WT-205M
<b>Additional Items to Consider</b>	
AC1135	Ring terminal fixture
AC1136	Machinable blank terminal fixture
AC1132	Wedge grip assembly
AC1134	Bollard grip assembly
AC1133	Dual roller grip assembly
AC1137-2	Carrying case
AC1049	Calibration kit
CERT	Certificate of calibration with data

## Alternative Power Cables

The WT-205M contains a universal power supply (80 - 240V) and power cable with US prong style. Select alternative power cords from the table below.

Model	Description
AC1139	Power cable, EUR
AC1140	Power cable, UK
AC1141	Power cable, AUS



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