Proper maintenance and calibration of your Universal Test Machine or Hardness Tester is a critical aspect of ownership to ensure it will perform as expected for many years to come.

United Testing Systems has made it easy for our customers to properly maintain their systems by offering a variety of preventative maintenance, calibration, and extended warranty options. Simply choose the plan that best suits your needs, budget and equipment from the options below.

### UTM Preventative Maintenance & Calibration
- 1-Year Option (CAL-1 YR SERVICE-UTM)
- 2-year Option (CAL-2 YR SERVICE-UTM)
- 3-year Option (CAL-3 YR SERVICE-UTM)
- 5-year Option (CAL-5 YR SERVICE-UTM)

### UTM Extended Warranty (Electromechanical)
- 3-year Option - Adds 1-year to warranty (EXTWAR-3YR-UTM ELECTROMECH)
- 4-year Option - Adds 2-year’s to warranty (EXTWAR-4YR-UTM ELECTROMECH)
- 5-year Option - Adds 3-year’s to warranty (EXTWAR-5YR-UTM ELECTROMECH)

### UTM Extended Warranty (Servo-Hydraulic)
- 3-year Option - Adds 1-year to warranty (EXTWAR-3YR-UTM HYDRAULIC)
- 4-year Option - Adds 2-year’s to warranty (EXTWAR-4YR-UTM HYDRAULIC)
- 5-year Option - Adds 3-year’s to warranty (EXTWAR-5YR-UTM HYDRAULIC)

### Hardness Preventative Maintenance & Calibration (Direct Verification)
- 1-year Option (CAL-1 YR CONT-DIRECT HARDNESS)
- 2-year Option (CAL-2 YR CONT-DIRECT HARDNESS)
- 3-year Option (CAL-3 YR CONT-DIRECT HARDNESS)
- 5-year Option (CAL-5 YR CONT-DIRECT HARDNESS)

### Hardness Preventative Maintenance & Calibration (Indirect Verification)
- 1-year Option (CAL-1YR CONT-INDIRECT HARDNESS)
- 2-year Option (CAL-2YR CONT-INDIRECT HARDNESS)
- 3-year Option (CAL-3YR CONT-INDIRECT HARDNESS)
- 5-year Option (CAL-5YR CONT-INDIRECT HARDNESS)

### Hardness Extended Warranty
- 3-year Option - Adds 1-year to warranty (EXTWAR-3YR-HARDNESS)
- 4-year Option - Adds 2-year’s to warranty (EXTWAR-4YR-HARDNESS)
- 5-year Option - Adds 3-year’s to warranty (EXTWAR-5YR-HARDNESS)

*For complete pricing and plan details, please contact your United Sales Engineer, or e-mail us at sales@unitedtesting.com*
Service, Calibration & Extended Warranty Options
Protect Your Investment

**UTM Preventative Maintenance & Calibration**

This option is for customers who purchase a new electromechanical or servo-hydraulic UTM, or already own a United UTM and would like to add this service for any electromechanical or servo-hydraulic test frame.

Models and systems covered include SSTM, STM, SFM, DSTM, DTM, and DFM models from 2.5 kN up to 600 kN. Servo-hydraulic systems of 300 kN, 600 kN, 1000 kN, and 2,000 kN capacities are also covered under this option.

If this option is selected yearly calibration and preventative maintenance costs are covered, including travel expenses. Price quoted is cost per machine.

**UTM Extended Warranty (Electromechanical & Servo-Hydraulic)**

The standard warranty on new United UTM’s is 2-years from date of shipment. This option allows customers to extend that warranty period beyond the initial 2-year period up to a maximum of 5-years.

The extended warranty covers all parts and service costs related to mechanical and electronic components on the test frame, including the hydraulic control unit on servo-hydraulic frames.

It does not cover the Windows PC, PC components, PC software, DATUM 5i software or accidental overloading of load cells or hydraulic equipment. Grips and fixtures are not covered under this option.
Hardness Preventative Maintenance & Calibration
(Direct Verification & Indirect Verification)

Two types of calibrations are available for hardness testers, Direct Verification and Indirect Verification. United has established service and calibration options for both services. If your system fails Indirect Verification and requires a Direct Verification this service is covered by your warranty.

ASTM E18 requirements for new testers

All new testers require a direct verification to insure that the tester’s measuring system operates within the parameters of E18. The indirect verification shows if the tester is performing to the latest specifications. Recently, NADCAP has been enforcing this process with all hardness testers.

Some industries require a direct verification while others allow indirect verification, so please check with your industry standard to ensure you choose the best option. A direct verification of the hardness testing system directly checks all measurement variables used for determining the hardness value. This includes test force, indenter geometry, depth measurement system, and test cycle parameters. During Indirect Verification the calibration technician runs a series of tests on certified hardness test blocks that represent the high, middle and low ranges of the scale being verified. This process is repeated for each scale the user needs to certify.

In some cases, if a tester fails an Indirect Verification it may need to be repaired. If the repair affects the force and or depth measuring devices performance, then it will need to go through a Direct Calibration/Verification process to complete the repair. An indirect certification is required after a Direct Verification is completed. The indirect certification can be done at the factory, or on-site depending on the customer’s quality control procedures.

Hardness Extended Warranty

The standard warranty of a hardness system is 2-years from date of shipment. This option allows customers to extend that warranty period beyond the initial 2-year period up to a maximum of 5-years. The warranty covers all mechanical and electronic components on the hardness tester including internal electronics, buttons, display screen, hand wheel, and elevating screw. Accessories such as indenters, anvils, printers, and foot switches are not covered.

*For complete pricing and plan details, please contact your United Sales Engineer, or e-mail us at sales@unitedtesting.com