



## MTS ReNew™ Upgrades

Revitalize existing test systems with a controls upgrade

### Benefits

- » Proactively manage controller obsolescence and avoid unplanned downtime
- » Provide a low-cost, non-capital alternative or a complement to new capital equipment
- » Standardize lab operations on MTS TestSuite™ Software as a common platform
- » Upgrade system performance & functionality
- » Update safety

Infrequently used test systems can slow down your test program; yet it may be difficult to secure funding for new equipment. You now have a cost-effective way to improve the performance of your existing test systems and increase the productivity of your lab. MTS ReNew upgrades offer dependable, more capable electronics and software at minimal cost. With an MTS ReNew upgrade, you can leverage your existing test frame and accessories investment, and take advantage of modern controls and software.

To revitalize your existing test system with an MTS ReNew upgrade, MTS replaces the outdated controls of your existing test system with state-of-the-art MTS digital controls and a PC running best-in-class MTS TestSuite™ Software. You benefit from the latest in MTS controller and software innovation while maximizing

your current testing assets. You can also use your existing accessories or other MTS accessories, using connectors that are compatible with your system.

MTS offers several options for ReNew upgrades, each designed to meet your budget and unique requirements. We can update a wide variety of electromechanical load frames, and can even design custom solutions to meet your specific needs. ReNew upgrades will provide the common interface, software, and electronics you need for optimum test data collection and analysis.

With ReNew upgrades, you also receive unparalleled service and support from MTS. Our field service engineers have extensive material testing experience and knowledge, and work to bring you the best return on your upgrade investment.

## Upgrade Paths to Meet Your Specific Needs

### Electromechanical Upgrades

There are 32 off-the-shelf ReNew products that include upgrades to controllers, electronics and data acquisition systems for specific load frames. The standardized ReNew upgrades are available for the controls of several commonly used load frames, including:

- » \*MTS Alliance
- » \*MTS Sintech
- » \*MTS QTest
- » \*\*Instron® electromechanical systems and more

### Custom Solutions

These solutions integrate MTS materials load frames with 3rd party accessories, components or sub-systems. They include designing and building custom test fixtures for materials and universal testing machine (UTM) applications. They also encompass creating customer-specific accessories for MTS Criterion® load frames.

### MTS RENEW UPGRADE FOR \*INSTRON® 1351



\*MTS load frames are discontinued products

\*\*Trademark owned by their respective owners, not affiliated with MTS Systems Corporation.

## MTS ReNew Features

### Integrated Digital Controller

- » Multi-point device linearization for any sensor (load cells, extensometers, strain gages, etc.)
- » Load, Stress, or Strain-rate control available
- » Ability to run MTS TestSuite TW and/or MTS TestWorks 4 (for backwards compatibility)
- » Up to 1000 Hz DAQ rate
- » A 1000 Hz control rate
- » 20-bit resolution
- » Built-in USB 2.0 for PC communication
- » Self-ID capability for calibration and auto-ranging
- » Two optional strain inputs in addition to the system load cell
- » Three optically isolated digital inputs and outputs (two if a clutch system)
- » Two BNC monitor connectors
- » A test area enclosure interlock connector

### Convenient, Ergonomic Handset

The MTS handset allows the operator to perform standard functions such as start, stop, pause, and crosshead positioning while standing close to the test specimen. The handset can display test status messages, performance messages, and results. Two programmable function keys are set up in the software as digital inputs, allowing users to define test functions such as start test, pause and hold position. The handset features a small, ergonomic design for both right-handed and left-handed operators and a large display that provides information at a glance.



### System Safety

To help ensure operator safety, MTS testing systems integrate an array of safety features, including:

- » Mechanically adjustable limits to stop the crosshead at predetermined points
- » Motor overheat device on MTS replacement motors to automatically turn off the motor power supply
- » Ability to set limits for load, extension, strain, or any other data channel
- » Integrated test area enclosure interlock

### MTS TestSuite Software

Industry-leading MTS TestSuite software has the power to streamline your testing procedures by adapting to the way you work. You can readily configure MTS TestSuite software to handle your most demanding requirements, while maintaining an interface that is user-friendly – even for the novice operator. Intuitive menus and controls make initial test definition, test execution, and report generation easy for both simple and complex testing.



## Product Offerings

Brand Name & Model	Machine Requirements	Descriptions
MTS: Sintech, Alliance & QTest series test frames	<ul style="list-style-type: none"> <li>» CSM/Parker servo motor &amp; drive</li> <li>» Sable, ADC, GFCC, Mongoose controller</li> <li>» Built before April 1994</li> </ul>	
Instron: 33xx, 44xx, 55xx, 58xx & 59xx series test frames	Frame must be mechanically & electronically sound / functional. Contact MTS Rep with questions.	All ReNew capabilities including: computer-controlled testing, high data acquisition rates, electronic calibration, and a remote handset.
Instron: 1125/1127/1128, 1137, 4206, 4505/4507, 6027, 1361/1362, 8561/8562, 8861/8862	Frame must be mechanically sound / functional. Contact MTS with questions.	All electronics, servo motor and drive replaced with modern AC servos and controller, running latest MTS software.
Tinius Olsen: "Low-Cap" & "High-Cap" electromechanical test frames	Frame must be mechanically sound / functional. Contact MTS with questions.	All electronics, servo motor and drive replaced with modern AC servos and controller, running latest MTS software.
Other UTMs	Frame must be mechanically sound / functional. Contact MTS with questions.	Varies.

## ReNew System Specifications

Hardware	MTS controller; Windows 10 PC
Software	MTS TestSuite
Standard data channels	Load, Time, Strain, Extension
Optional analog output	2 available
Manual control handset	Yes (optional)
Emergency stop	On existing system or with ReNew electronics
Voltage requirements	110/220 for MTS controllers, 110/220 V (5 kip <), 220 V (10 kip >), Individual systems may vary



**MTS Systems Corporation**  
 14000 Technology Drive  
 Eden Prairie, MN 55344-2290 USA  
 Telephone: 1-952-937-4000  
 Toll Free: 1-800-328-2255  
 E-mail: [info@mts.com](mailto:info@mts.com)  
[www.mts.com](http://www.mts.com)  
 ISO 9001 Certified QMS

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