

SPECIFICATION

REPLACEMENT 4505 SYSTEM:

- 1 Model 5982 Materials Testing System, Capacity 100 kN (10000 kg, 22500 lb)
Dual column floor mounted electromechanical testing system including:
- Integrated digital closed-loop control and data acquisition electronics including crosshead extension and load measurement channels
 - Test control panel with two softkeys, results display, start, stop and return functions, programmable function keys, test status indicators, variable speed jog and specimen protection.
 - Testing speed range: 0.00005 to 1016 mm/min (0.000002 in/min to 40 in/min).
 - Crosshead return speed: 1016 mm/min (40 in/min)
 - Base fitting: Type If LH (M30 x 2 threaded hole)
 - Base adapter: Type D female fitting (0.5 in clevis pin).
- 1 English language option
- 1 Voltage option 200/208 V
- 1 Crosshead travel 1330 mm (52.4 in)

<i>Qty</i>	<i>Description</i>	<i>Price</i>
1	Horizontal test space 575 mm (22.6 in)	
1	Single test space (below moving crosshead)	
1	Static Load Cell: 100 kN (10000 kg, 22500 lb) - Type Df Tension/Compression Type D female fitting (0.5 in diameter clevis pin)	
1	Model 5900/5500A Sensor Conditioner Card. Provides closed loop control and data acquisition capability for optional transducers. Up to two may be added per system. For use with Instron Rationalized Transducers. Also accepts +/- 10 V DC input. For use with all 5500A and 5900 systems.	

Software:

1	Bluehill 3 Testing Software for NEW 3300, 5900, 59 Series, IS02, 8800 and ElectroPuls Systems and 3300, 5500, 5900, 59 Series, 8800 and ElectroPuls EXTEND Retrofits	
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Bluehill 3 is Instron's premier materials and components testing software package meeting the needs of a wide variety of applications including plastics, composites, metals, elastomers, biomedical, adhesives, textiles, components and others. Each application module provides the capability for tension, compression, flexure, stress-relaxation, creep, peel, tear and friction testing and test control based off of extension, load or strain. Also included is Instron's complete calculation library with hundreds of different calculations including user-defined calculations. Professionalism is guaranteed with Bluehill's one-of-a-kind report generator that allows the ultimate flexibility in creating customized report templates that can be linked with test methods and used to export test results via email or save as HTML, Word or PDF. Options for advanced test control, such as block loading, and data analysis, such as web camera recording, are also available.

For Windows® 7 (32 & 64 bit) and XP (Service Pack 3) operating systems.

For information on latest features and other resources, please visit the Bluehill 3 page on instron.com:
<http://www.instron.com/wa/product/Bluehill-3-Materials-Testing-Software.aspx>

<i>Qty</i>	<i>Description</i>	<i>Price</i>
1	English language option.	
1	For 5900 controller series.	
1	Metals Application Module	
	The Metals Application Module includes the following pre-configured test methods: ASTM E8-11, A370(2009ae1), E21-09, A615-09b, ISO 6892(2009), ISO 10113(2006).	
1	TestProfiler	
	TestProfiler allows you to create custom test control sequences (profiles) with a simple, user friendly interface. Complex cyclic test sequences are readily created by using TestProfiler's waveform building blocks (triangles, ramps and holds). Your test method is graphically displayed as you create it and standard Window's tools (cut, paste, copy, delete, etc.) can be used to quickly create or modify virtually any complex test sequence. Test results can be independently assigned to individual test blocks and the graphical display of test results can be filtered to show only the blocks (cycles) of interest.	
1	The 5900 Advanced Performance option extends the Instron 5900 load measurement accuracy to 0.5% of reading down to 1/1000th of a load cell's capacity (2580 Series load cells only), reducing the total number of load cells needed for a given range of applications and associated maintenance costs as well as improving overall lab efficiency in switching between load cells. Option also provides for higher data acquisition rates from 1.0kHz up to 2.5kHz, for capturing critical test information, such as fast changing events.	
	1/1000 load accuracy function requires appropriate 5900 Load Sensor board.	
	Not available on IPG static hydraulic systems.	

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Installation:

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System Installation

Installation performed by an Instron trained Service Engineer / Representative. Some or all of the following activities will be performed subject to the system quoted and system configuration:

- Set up of system.
- Make all physical and electrical connections, except 3 phase power and water.
- Mount and test all peripheral fixtures and transducers, install environmental chambers, major accessories, etc, that are supplied with the system.
- Check correct operation of the system.
- Check correct operation of all electrical components and mechanical assemblies and transducers (where fitted).
- Configure controller and test for correct operation including all adjustments and tuning.
- Calibration & verification services are quoted separately.

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On Site Integration of a customer supplied computer

Integration will include installation of software, connecting of interface cabling, verification of computer performance, and verification of communication between the computer and test system.

Instron strongly recommends Dell or hp models approved for use with Instron equipment. Instron cannot guarantee compatibility of computers not approved for use with Instron Systems.

Computer to be integrated must comply with minimum Instron specifications. The computer must include one integrated Ethernet port which will be DEDICATED to tester communications and control. This port must be available in the PC prior to the arrival of the installation engineer. Customer-supplied computers must also grant administrator privileges to the Instron Installation Engineer during installation.

If you require communication between the test cell and your network (e.g. file backup restore during a PC upgrade) you will need to have a SECOND communications port installed in the PC prior to arrival of the Instron installation engineer.

Computer integration does not include verification or installation

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of drivers for peripheral devices or networking.

Minimum required computer configuration for new IMT system purchases:

***** DELL, HP, Lenovo, and Gateway PCs MAY BE USED as well as some Laptops.**

Base Requirements:

- Intel Pentium (Dual Core or Single Core) Processor: 2 GHz or faster clock speed
- 1 GB RAM
- Microsoft Windows 7 Professional (32 & 64 bit)
- Microsoft Internet Explorer 7 or later
- DVD Drive
- Hard Drive: 1 GB Free Space
- Display: 1024 x 768 High Color
- 1 Unused Serial Port (for ASMD only)
- 2 Ethernet ports if network accessibility is required
- Full Tower compatible with full size PCI boards (No Small Form Factor Towers)

*** To ensure compatibility, it is strongly recommended that the PC is purchased through Instron.**

On-Site Calibration:

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|---|--|
| 1 | Force Verification, 0-67 Kip, Tension & Compression, At Installation. This verification will be performed to 0.5% accuracy down to 1/100th (1%) of capacity. ASTM E4 conforming |
| 2 | 0-67 Kip Verification Option, extends range of load cell verification (tension OR compression) to 1/1000th of range if supported by configuration specifications for an ordered ASTM E4 conforming force verification service at installation. Not available for 3300 systems. Accuracy .5%. Order with standard tension or compression service. For a tension AND compression service order quantity 2. |
| 1 | No Load Crosshead Speed (ASTM E2658) and No Load Displacement Verification (ASTM E2309): Includes verification of up to three crosshead speeds between 1mm/min and 1250 mm/min and no load displacement verification over a range specified by the user (minimum 20mm, maximum 1016mm). |

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	Speed and displacement are verified to an accuracy of 0.5% of reading. Note: ASTM E2309 and ASTM E2658 require verification in all directions used. Order 1460-019 for opposite direction verification.	
	If displacement verification is to begin below 10% of user specified range add 1460-012. Order 1460-002 per additional verified speed.	
1	Opposite Direction No Load Crosshead Speed (ASTM E2658) and No Load Opposite Direction Displacement Verification (ASTM E2309). Is only to be ordered with 1460-018.	
	If displacement verification is to extend below 10% of user specified range add 1460-014. Order 1460-015 per additional opposite direction verified speed.	
1	Strain Verification Static Extensometer, Transverse, or Deflectometer per ASTM E83 OR ISO 9513 ; For bi-axial order quantity 2 of service	
	On-Site Training:	
1	Basic System and Software Introduction	
	This Introduction provides a brief overview for up to 3 operators on the supplied system. Included in this item are:	
	- Safety Awareness	
	- General testing safety precautions and system safety features	
	- Test instrument overview including:	
	- Integration and set-up of load frame and computer	
	- Mounting and testing of all peripheral fixtures and transducers	
	- Setup of hardware to the users immediate requirement	
	- Review of the major system components	
	- Powering on/off of instrument and software (if appropriate)	
	- Console and software console controls	
	- User Calibration procedures	
	- Review basic operation manual and related documentation	
	- If necessary, to support system & software introduction, creation of 1 user defined test method.	
	- Testing of specimens to confirm or verify test method.	
	- Viewing of test method results	
	- Review of default/standard report format	

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Note:

On-Site introductions are not intended to replace formal training. Instron strongly recommends formal training in software operation and hardware, where necessary, at either the customers site, a regional training center or an Instron faculty.

Note:

- This introduction is expected to take a maximum of 4 hours
- Training for The Bluehill Reports and Graphs Pack is covered in our Bluehill training courses.
- With purchase of our onsite Introduction to Bluehill fundamentals and Test Method Development training course (1450-055), training for up to 3 operators is included on up to 5 pre-defined customer methods.

1

Onsite Bluehill Upgrade Training

Appropriate for experienced Bluehill users upgrading from a previous Bluehill version to a newer version of Bluehill
Up to 4 hour onsite training session for up to 3 operators.

Typically Includes:

- Review of user's application needs
- Training Regarding Version Differences
- Review of Set-up of Sample and Specimen Parameters
- Review of Set-up of Test Control Parameters
- Review of Results Calculations setup for applications
- Review and set-up of report templates
- Test method development up to 5 using customer supplied equipment and pre-defined customer test methods within the 4 hour period.
- Instruction on simple modifications to migrate Test Methods and Report Templates (if applicable)
- Testing customer supplied specimens to validate/verify developed test methods

Notes:

1. Travel time is included if training is ordered with a new system, system upgrade, or system retrofit (which includes installation) and training is delivered at time of installation.
2. If delivered separately, local travel zone charges will apply
3. Onsite 4 hour Advanced Bluehill Training and Consultancy 1450-057 is available for additional test method migration and development assistance and/or training on advance test method system capabilities.

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Warranty:

1

System Warranty Services

The service and support agreement for this system while under warranty includes the following services during the first year of system ownership (see Instron Terms and Conditions for exact details, limitations and restrictions):

Technical Support:

- Priority telephone support during normal business hours at our Norwood MA headquarters.
- All software updates, but not upgrades, during the warranty period
- Damaged CD replacement on warranted software
- FAQ and literature access at www.instron.com

Web Support Agreement (WSA), includes the following:

- Access to a secure website under one user log-in
- Priority support web based help desk
- Access to scheduled Webinars, application & product information (English)
- On-line access to calibration certificates, not currently available for CEAST systems and Instruments
- E-mail notifications of software update availability
- Software updates available via internet download

On-site Support:

- Parts, labor and travel for repair and replacement for items that are covered under the Warranty as defined by the Instron Terms and Conditions document

SubTotal for 4505 Replacement System:

<i>Qty</i>	<i>Description</i>	<i>Price</i>
	For Instron Model 5567P7058:	
1	Bluehill 3 Testing Software Updates and Upgrades	
	<p>Bluehill 3 is Instron's premier materials and components testing software package meeting the needs of a wide variety of applications including plastics, composites, metals, elastomers, biomedical, adhesives, textiles, components and others. Each application module provides the capability for tension, compression, flexure, stress-relation, creep, peel, tear and friction testing and test control based off of extension, load or strain. Also included is Instron's complete calculation library with hundreds of different calculations including user-defined calculations. Professionalism is guaranteed with Bluehill's one-of-a-kind report generator that allows the ultimate flexibility in creating customized report templates that can be linked with test methods and used to export test results via email or save as HTML, Word or PDF. Options for advanced test control, such as block loading, and data analysis, such as web camera recording, are also available.</p> <p>For Windows® 7 (32 & 64 bit) and XP (Service Pack 3) operating systems. (Please supply original software's serial number.)</p>	
1	English language option.	
1	<p>Bluehill 3 for 3300, 5500, 8800 and ElectroPuls systems without existing Bluehill software. New CD shipped. Must choose one application module.</p>	
1	For 5500 controller series.	
1	Metals Application Module	
	<p>The Metals Application Module includes the following pre-configured test methods: ASTM E8-08, A370(2009ae1), E517-00; E646-00, E345-93, E21-09, A615-09b, F2516-07e2*, EN 10002-1(2001), ISO 6892-1(2009), ISO 10113(2006).</p>	
	*ASTM F2516 requires TestProfiler.	
1	TestProfiler	
	<p>TestProfiler allows you to create custom test control sequences (profiles) with a simple, user friendly interface. Complex cyclic test sequences are readily created by using TestProfiler's waveform building blocks (triangles, ramps and holds). Your test</p>	

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1	Firmware Upgrade.	
1	Ethernet Frame Interface (EFI). - Includes Ethernet Frame Interface, Ethernet Card and Cables. - For all 3300, and 5500. - Connects to PC Ethernet port	
	EFI software compatibility : Bluehill 3 (all versions) Bluehill 2 version 2.15 or above BH Lite version 2.15 or above Partner version 8.2a or above	
1	PCI Network Interface card	
	<i>OR:</i>	
1	PCIe Express Network Interface card	
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WARRANTY: All Instron testing instruments are warranted against defects in material and workmanship for a period of one (1) year from the date of delivery or fifteen (15) months from the date of shipment, whichever comes first. All equipment purchased from Instron but not installed by Instron Service Personnel or Instron authorized representative shall be warranted against defects in material and workmanship for a period of one (1) year from the date of delivery.