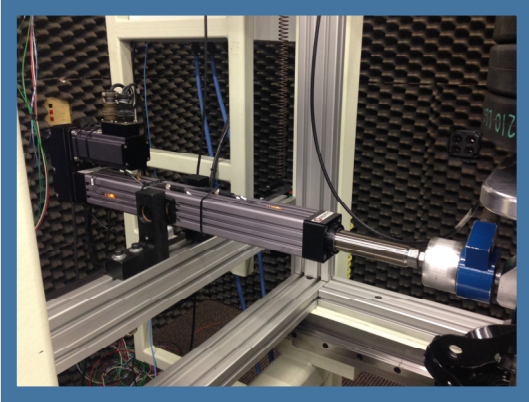


PRODUCT SPECIFICATION SHEET

UC37 Universal Cycler - Seat Tester



FEATURES

Lightweight and Easy to use

Implementing this simple system will not take an army of technicians and engineers. Field tested software allows us to provide shorter delivery schedules.

Power Loss Recovery

The system automatically recovers from power loss scenarios and allows a resume of the testing process from where you left off.

Interface any transducer

The Universal Cycler will communicate with nearly any transducer. (+/- 10v output 4 to 20ma). System includes high quality power supplies to ensure the best results.

Fixture Flexibility

Create your own custom fixture or allow our skilled designers and machinists to professionally deliver the tools you need to get the job done.

Reduce Capital Investment

Excel with low volume high mix testing requirements. Interface multiple transducers with test specs and formatted data output. Use a barcode scanner to trigger workflow templates.

AFFORDABLE SOLUTIONS FOR TODAY'S PRODUCTION

UC37—Universal Cycler - Seat Tester

One Tester does it all! Machine control with data acquisition. The JDS Universal Cycler system is the platform of choice for easy to use, affordable and highly flexible automated testing. The system is a combination of efficient hardware design combined with powerful software that is sure to increase the accuracy and through put of your automated testing operations.

Highly sophisticated algorithms are used to program and control the hardware and to give clarity to the collected data.

The system is customizable and stores multiple configurations to support all your automated testing needs.

FLEXIBLE AND EASY TO SET UP

Our easy to use configuration environment will allow your staff to set up the programs for one or more fixtures. The software has built in test types where variables can be saved and recalled by user defined names. Test logic template files can be loaded by barcode scan.

ONE CONTROLLER MULTIPLE FIXTURES

Save capital dollars by allowing one controller to manage multiple fixtures. Our easy change-over process makes this not only possible but practical. A perfect solution for *low volume—high mix* operations.

DURABILITY TESTING

Use the Universal Cycler to precisely control the actions of your test equipment and to collect a constant stream of data points.

- ◆ Simple to use
- ◆ Easy to configure
- ◆ Automatic status logging
- ◆ Professional results

ADDITIONAL APPLICATIONS

The flexibility of the system allows for a wide range of potential applications. Once you have used this tool you will never want to be without one in your shop again.

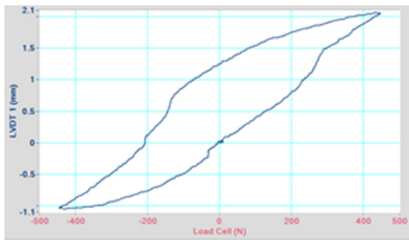
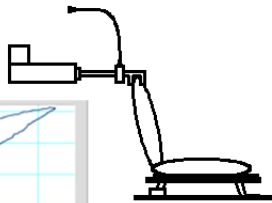
Improve productivity and customer satisfaction with our world-class solutions. For more information visit, www.jdstc.com

UC37—Available Test Types

Let our sales staff help you decide the setup that best fits your work space and budget. Test types are integrated into the software where analog and digital hardware channels are mapped to test logic variables. Test logic actuation can be performed manually for lower budget applications or automated with servo motors and programmable power supplies. Our man focus the last few years has been testing of automobile seats. We can use the same Test builder structure for other products as well.

Stability / Chunk and Deflection

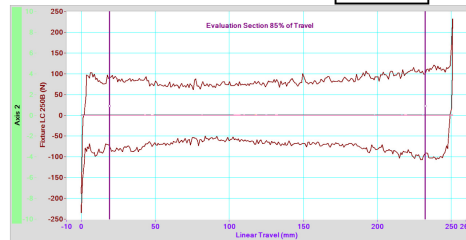
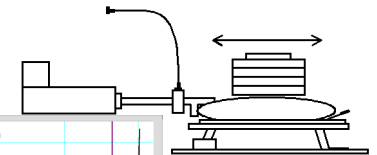
Push and pull using a linear servo motor running at constant speed.



Load vs Deflection

Slide Efforts / Actuating Force

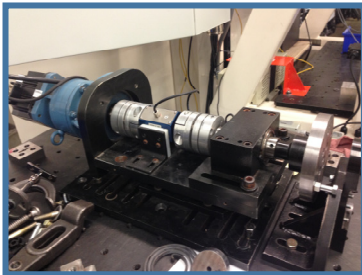
Test manual seats for restrictions to motion.



Load vs Travel

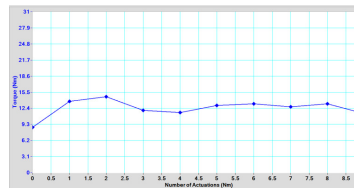
Rotary servo motor

Recliner springs, move to a distance or to a torque.



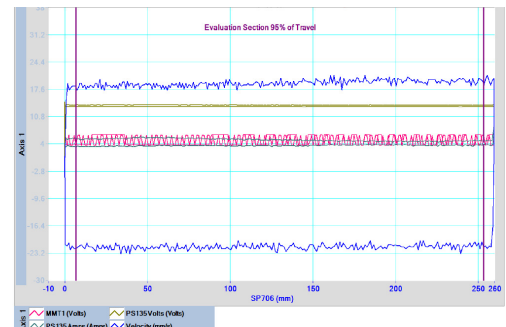
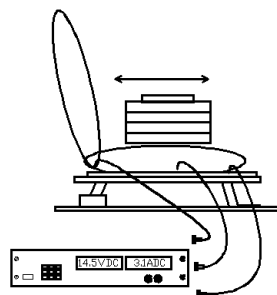
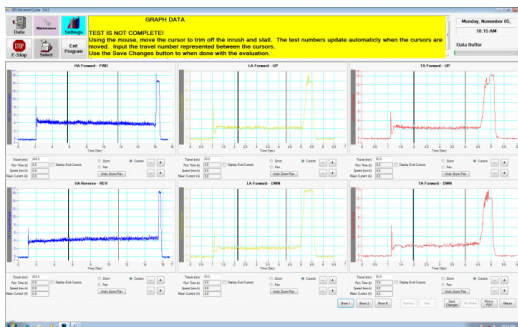
Manual Height Adjuster

Use a torque tool to actuate the manual height adjuster.



Speed of Operation - Power Seats

Current draw plotted against travel. Add transducers for angle, acceleration or logic for velocity and memory motor detection.



Improve productivity and customer satisfaction with our world-class solutions. For more information visit, www.jdstc.com

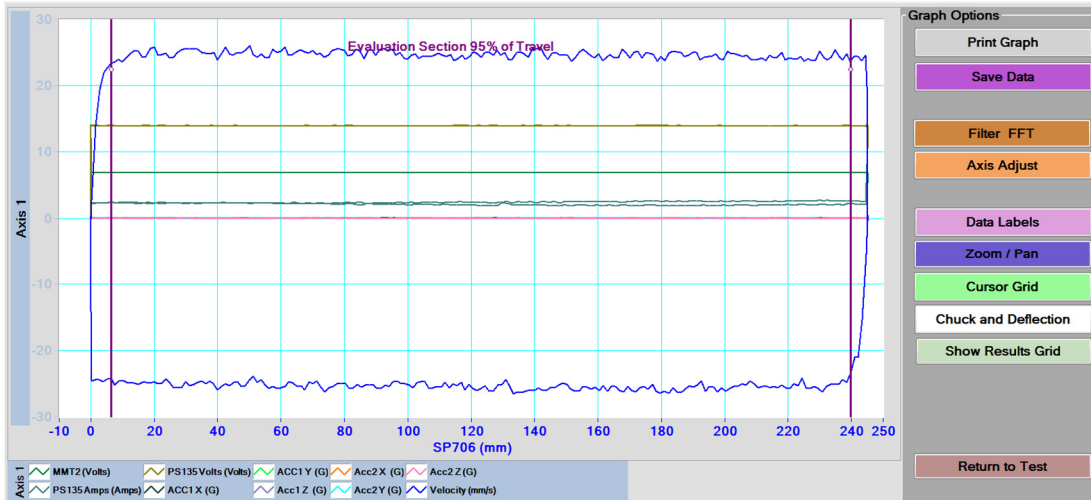
PRODUCT SPECIFICATION SHEET

UC37 Universal Cycler - Seat Tester



UC37—Manual Test Type

At the heart of the Universal Cycler software is a digital storage oscilloscope. The data acquisition hardware has its own memory and will pass acquired data to the software at specified intervals. The software keeps a buffer of the data at the specified scan rate and uses an averaging method to provide process numbers to the machine control logic. Once data has been collected, the graphing tool is used to perform engineering analysis or produce report quality diagrams.



Print Graph

Print the graph to an attached printer or create a pdf file.

Save Data

Raw data files are saved as .csv, this format is recognized by many software analysis programs such as MS Excel.

Filter FFT

Analyze data collected from accelerometers. Use different filter algorithms to post process collected data.

Data Labels

Add cursors to the graph that can be moved to display individual data points. Inspect collected data and highlight points of interest before printing.

Cursor Grid

Move 2 cursors on the graph to change numbers in a grid. For all channels in the buffer the grid shows the data points of each cursor and the delta between them.

Axis Adjust

Tell graph to be full scale to transducer ranges, auto scale or set a user scale for multi part comparison studies.

Zoom / Pan

Tools to move around the graphical representation of the stored data buffer.

Chuck and Deflection / Free Play

Settings for doing an Arc Tangent calculation for seat backs or direct measurement for tracks.

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PRODUCT SPECIFICATION SHEET

UC37 Universal Cycler - Seat Tester



UC37

Test Type	UC37	
Servo Motor - Linear		
Travel	400	mm. Different lengths available
Max Speed	30	mm/sec.
Min Speed	0.08	mm/sec or slower
Max Force	1000	Newton's. Scalable
Force Control	Yes	Any +/-10V signal. Typically a load cell.
Position Control	Yes	Differential quadrature encoder input
Over Travel Limits	Yes	Adjustable switches
Analog Position Signal	Yes	0-10 volts scaled to travel limits.
Servo Motor - Rotary		
Travel	unlimited	
Speed	200	Degrees / Sec Configurable
Torque	100	Nm Configurable
Force Control	Yes	Any +/-10V signal. Typically a torque cell.
Position Control	Yes	Differential quadrature encoder input
Over Travel Limits		Not applicable
Analog Position Signal	Yes	+/-10 volts scaled by user
Speed of Operation		
Number of Channels	4	Configurable
Remote programmable power supply	Yes	0-20 Volts, 0-38 Amps. Remote sense, Current measurement by analog output
Memory motor detection	Yes	Configurable
Manual Height Adjuster	Yes	Configurable, requires torque tool
Torque Test		
Communication	Ethernet	
Protocol	ACOP	Atlas Copco Open Protocol
Tool Manufacturer	Any that support ACOP	Currently have Atlas Copco, Cleco, Stanley, ASG, Desoutter



PRODUCT SPECIFICATION SHEET

UC37 Universal Cyclor - Seat Tester



UC37

Model	UC37	
Enclosure		
Dimensions / Weight		112cm W x 154cm L x 202cm H / 256 Kg
Fixture Connectors	Multi Turn	Amphenol
Safety	Watchdog	Fixture Disable and Safety Interlock
Electrical Service		
Standard 120v Service	included	120v 15A 60Hz—Fused, Grounded, GFCI
DC Power Supplies		
Digital IO Power	24V, 3A	Switcher
Analog IO	24V, 2A	Linear
Analog Secondary	+/-15V, 1A	Linear
Data Acquisition Controller		National Instruments cDAQ
Rack Slots	4	Configurable
Digital Inputs	16	24V, Configurable
Digital Outputs	16	24V, Configurable
Digital Outputs Sourcing Current	750	mA per channel
Analog Inputs	32	Single ended, Configurable
Analog Input Resolution	16 bit	12 bit available
Analog Outputs	0	Configurable
Onboard Processor		Windows 7 System—2G memory—DVI video
CPU	Intel i5	Or higher (w/ KB, Mouse and Monitor)
LAN / Wireless	1 included	802.11 b/g wireless— 10/100 mhz
USB Ports	4	Minimum
Software		
JDS Universal Cyclor	V3.7	
Resolution	1600 x 900	Requires 19" or Larger monitor (included)
Users	unlimited	
Fixtures Supported	unlimited	Selectable—can only run one fixture at a time
Power Loss Recovery	included	
Barcode scanner	Optional	1D and 2D bar codes. Load test templates

