

### Features

- Interfaces to contact closures
- Programmable engineering units
- Real time operation
- Miniature size
- Reusable
- User-friendly
- Low cost
- CE compliant

### Applications

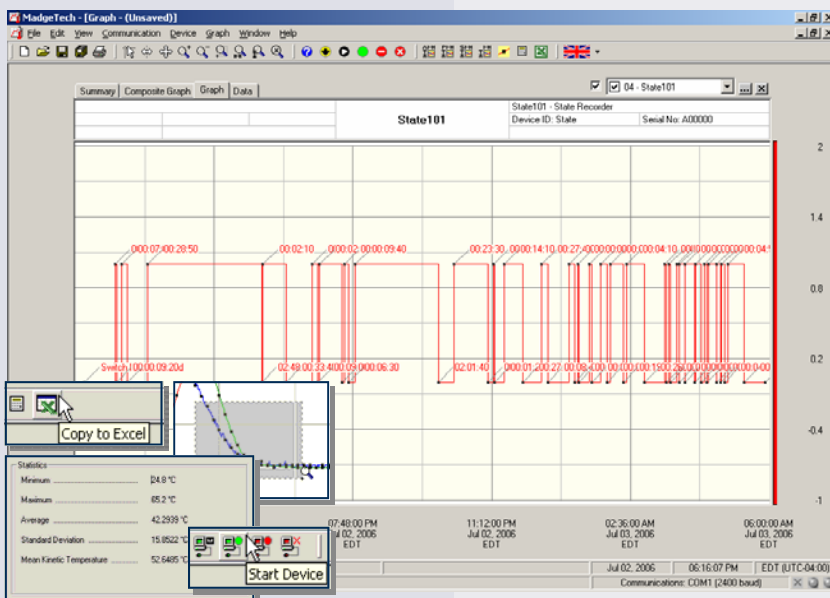
- Heating and cooling systems
- Security systems
- Power supply on/off
- Relay or dry contact closure
- TTL high/low
- Monitoring gas, water or electric pumps
- Time studies
- Status or state recording
- Replace costly strip chart recorders



State recorders are useful for collecting data on the duration of an event. The State101 can capture any event that lasts longer than one second. Some typical applications for state recorders include the monitoring of a furnace, air conditioner or pump turning on and off, or even how long a door is left open/closed.

The State101 records a time-stamped value whenever a state of the input signal changes. It samples the input at a user specified time interval and records to memory only if the state had changed from the previous sample. This efficient method of writing to memory maximizes the length of time the device can record.

The State101 can store up to 13,107 time stamped state changes. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere.



### Madgetech Data Recorder Software

displays status change in an easy to use graph.

The Windows®-based software package allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.

Click [Madgetech Software](#) for more information or to download the software.

## STATE101 SPECIFICATIONS\*

**Input Connection:** Removable screw terminal  
**Input Range:** 0 to 12VDC continuous; (0 to 30VDC peak)  
**Input Low:** <0.4V  
**Input High:** >2.7V  
**Internal Weak Pull-Up:** <500 $\mu$ A  
**Recommended Duty Cycle** 18V: <50%  
for inputs greater than 24V: <25%  
12VDC (over 1 min. interval): 30V: <10%

**Input Impedance:** >1k $\Omega$   
**Time Resolution:** 1 second (reading rate dependent)  
**Engineering Units:** User may define units up to 10 characters in length. This value is stored within the device.  
**Scale Factor:** User may program any desired scaling factor from  $\pm 1.0000\text{E}-31$  to  $\pm 9.999\text{E}+31$ . The scaling factor is stored within the device.  
**Offset Value:** User may program any desired offset value from  $\pm 1.0000\text{E}-31$  to  $\pm 9.9999\text{E}+31$ . The offset is stored in the device.

**Real Time Recording:** May be used with PC to monitor and record data in real time

**Memory:** 13,107 states; software configurable memory wrap  
**Reading Rate:** 1 reading every second to 1 every 12 hours  
**Start Modes:** Software programmable immediate start or delay start up to six months in advance

**Visual Indicator:** LED flashes at selected reading rate.

**Battery Type:** 3.6V lithium battery, included; **user replaceable**

**Battery Life:** 1 year typical life at 25°C

**Data Format:** Date and time stamped state changes (on/off), user defined engineering units

**Time Accuracy:**  $\pm 1$  minute/month at 20 °C (RS232 cable not in use)

**Computer Interface:** PC serial or USB (interface cable required); 2,400 baud

**Software:** Windows 95/98/ME/NT/2000/XP based software

**Operating Environment:** -40 to +80°C, 0 to 95%RH non-condensing

**Dimensions:** 1.4" x 2.5" x 0.6" (36mm x 64mm x 16mm)

**Weight:** 0.9 oz (24 g)

**Material:** ABS plastic

**Approvals:** CE

BATTERY WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD.  
DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 212°F,  
INCINERATE OR EXPOSE CONTENTS TO WATER.

## SOFTWARE FEATURES

**Multiple Graphs:** Simultaneously analyze data from several units or deployments; easily switch to a single data series

**Statistics:** Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button

**Graphical Cursor:** One click displays readings by time, value, parameter or sample number

**Export Data:** Export data in a variety of common formats, or switch to Excel® with a single click

**Data Table:** Instantly access tabular view for detailed dates, times, values, and annotations

**Calibration:** Automatically calculate and store calibration parameters

**Scaling Options:** Autoscale function fits data to the screen, or allows user to manually enter their own values

**Logger Configuration:** Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID

**Formatting Options:** Change colors, line styles, plotting options, show or hide channels quickly

**Communications:** Automatically sets up communications port, or lets user select configuration

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.  
SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.  
CALL 1-603-456-2011 OR GO TO [WWW.MADGETECH.COM](http://WWW.MADGETECH.COM) FOR DETAILS.

## ORDERING INFORMATION

Model	Description	Price (U.S.)
STATE101	State Recorder	\$99.00
IFC110	Software, manual and RS232 interface cable	\$99.00
IFC200	Software, manual and USB interface cable	\$119.00
LTC-7PN	Replacement battery for State101	\$10.00

For Quantity Discounts call 603-456-2011 or email [sales@madgetech.com](mailto:sales@madgetech.com)

### ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Pulse/Event/State
Humidity	Low Level Current
Pressure	Low Level Voltage
pH	RF Transmitters
Level	Intrinsically Safe
Shock	Spectral Vibration

