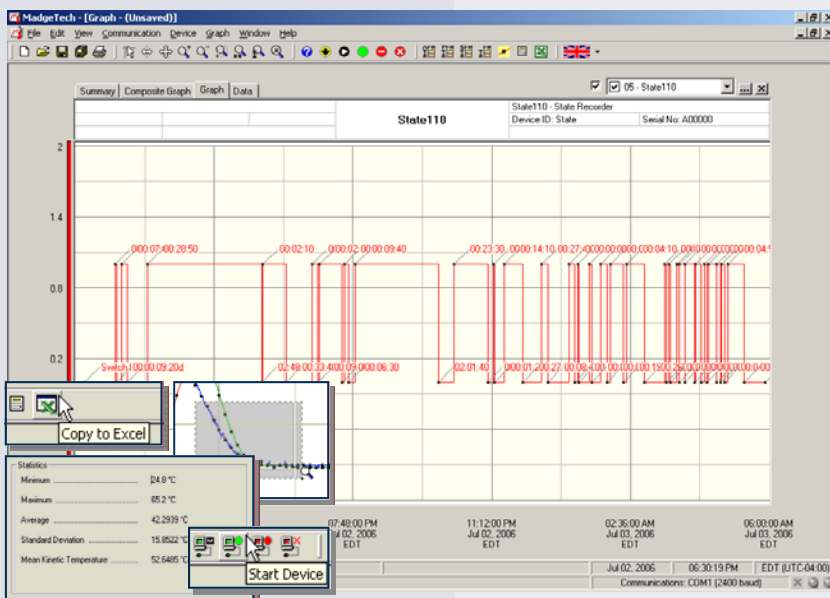# STATE110
STATE DATA LOGGER

Features

- 10 year battery life
- High speed download
- Miniature size
- Reusable
- Real time operation
- Programmable engineering units
- Interfaces to contact closures
- User-friendly
- Low cost

Applications

- 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

The State110 is a miniature, low-cost, recording device which senses input transitions or contact closures from external sources such as transducers and/or state initiators and records the time and input state of the device when a transition occurs. The State110 features a real-time clock module that extends the battery life to >10 years and allows for high speed downloads. The device can store up to 13,107 time stamped state changes. Once activated the State110 senses and records transition or state changes at the input. The devices real-time clock ensures that all data is time and date stamped. 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. The State110 makes data retrieval quick and easy. Simply plug it into an empty COM or USB port and our user-friendly software does the rest.

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.

STATE110 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:	<500µA
Recommended Duty Cycle for inputs greater than 12VDC (over 1 min. interval):	18V: <50% 24V: <25% 30V: <10%
Input Impedance:	>1kΩ
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 ±1.000E-31 to ±9.999E+31. The scaling factor is stored within the device.
Offset Value:	User may program any desired offset value from ±1.0000E-31 to ±9.9999E+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:	10 years typical life at 25°C
Data Format:	Date and time stamped state changes (on/off), user defined engineering units
Time Accuracy:	±1 minute/month at 20 °C (RS232 cable not in use)
Computer Interface:	PC serial or USB (interface cable required); 57,600baud
Software:	Windows 95/98/ME/NT/2000/XP/Vista based software
Operating Environment:	-40 to +80°C, 0 to 95%RH non-condensing
Dimensions:	1.7" x 2.7" x 0.8" (44mm x 69mm x 21mm)
Weight:	1.1 oz (30 g)
Material:	ABS plastic

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
Graphical Cursor:	One click displays readings by time, value, parameter or sample number
Data Table:	Instantly access tabular view for detailed dates, times, values, and annotations
Scaling Options:	Autoscale function fits data to the screen, or allows user to manually enter their own values
Formatting Options:	Change colors, line styles, plotting options, show or hide channels quickly

Statistics:	Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
Export Data:	Export data in a variety of common formats, or switch to Excel® with a single click
Calibration:	Automatically calculate and store calibration parameters
Logger Configuration:	Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
Communications:	Automatically sets up communications port, or lets user select configuration

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.

ORDERING INFORMATION

Model	Description	Price (U.S.)
STATE110	State Recorder with 10 year battery	
IFC110	Software, manual and RS232 interface cable	
IFC200	Software, manual and USB interface cable	
LTC-7PN	Replacement battery for State110	

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
LCD Display	

MadgeTech
WE BUILD DATA LOGGERS