

# Rain101A

## Rainfall Data Logging System



The Rain101A is a complete system to accurately measure and record rainfall over long periods of time. It comes complete with an Event101A data logger, weatherproof enclosure, tipping bucket rain gauge, 50 feet of cable and the IFC200 interface cable and software package.

It can record up to 6 inch of rainfall every hour and 338 feet of rainfall total. The Rain101A only records to memory when rainfall is present, maximizing the amount of time the system can record. Using the logger's built-in Engineering Units, the data can be offloaded and displayed in user-specified units (eg. inches, centimeters). The software can "totalize" the rain bucket tips, allowing easy viewing of the accumulated rainfall over the time period of interest.

The Rain101A features a 10 year battery life, 4Hz reading rate, a multiple start/stop function, ultra-high speed download capability, 838,041 reading storage capacity, optional memory wrap, battery life indicator, optional password protection and more.

### Features

- Water Resistant Housing for Logger
- High-Precision Tipping Bucket
- Records 0 to 338 feet of Rainfall
- Self-Emptying
- 10 Year Battery Life
- Multiple Start/Stop Function
- Rugged Construction
- Ultra High Speed Download
- Battery Life Indicator
- Optional Password Protection
- Field Upgradeable

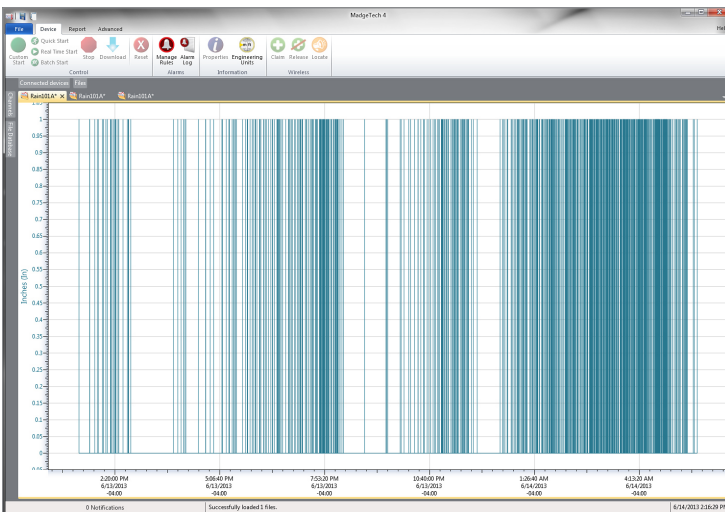
### Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

### Applications

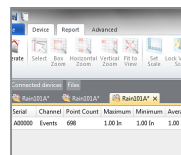
- Seasonal Rainfall Data Logging
- Irrigation Studies
- Precipitation Studies

## MadgeTech 4 Software Features

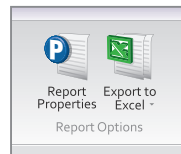


Graph View

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view



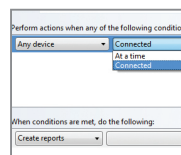
Statistics



Export to Excel

Time	Time Zone	Delta
1 1:33:37 PM	-0400	-00:00:00
1 1:43:37 PM	-0400	+00:01:00
1 1:53:37 PM	-0400	+00:02:00
1 2:03:37 PM	-0400	+00:03:00
1 2:13:37 PM	-0400	+00:04:00
1 2:23:37 PM	-0400	+00:05:00
1 2:33:37 PM	-0400	+00:06:00
1 2:43:37 PM	-0400	+00:07:00
1 2:53:37 PM	-0400	+00:08:00
1 3:03:37 PM	-0400	+00:09:00
1 3:13:37 PM	-0400	+00:10:00
1 3:23:37 PM	-0400	+00:11:00
1 3:33:37 PM	-0400	+00:12:00
1 3:43:37 PM	-0400	+00:13:00
1 3:53:37 PM	-0400	+00:14:00
1 4:03:37 PM	-0400	+00:15:00

Tabular Data View



Automation

## SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call (603) 456-2011 or go to [madgetech.com](http://madgetech.com) for details.

MEASUREMENT	
<b>Accuracy</b>	±4% over range of 1 inch to 6 inch per hour
<b>Orifice</b>	8 in dia (204 mm dia)
<b>Reed Switch Contact Rating</b>	3 W, 28 VAC
<b>Rainfall Per Bucket Tip</b>	0.01 in (0.254 mm)
<b>Mounting</b>	(3) 1/4 in dia holes on 9.5 in dia. circle

GENERAL	
<b>Start Modes</b>	Immediate start Delay start up to 18 months Multiple pushbutton start/stop
<b>Stop Modes</b>	Manual through software Timed (specific date and time)
<b>Multiple Start/Stop Mode</b>	Start and stop the device multiple times without having to download data or communicate with a PC
<b>Real Time Recording</b>	May be used with PC to monitor and record data in real time
<b>Password Protection</b>	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
<b>Memory</b>	838,041 readings; software configurable memory wrap
<b>Wrap Around</b>	Yes
<b>LEDs</b>	2 status LEDs
<b>Reading Rate*</b>	4Hz to 1 every 24 hours

\*Device will record 1 event per reading interval.

<b>Battery Type</b>	3.6V lithium battery included; user replaceable
<b>Battery Life</b>	10 years typical, dependent upon frequency and duty cycle
<b>Time Accuracy</b>	±1 minute/month at 25 °C (77 °F) (Stand alone mode)
<b>Computer Interface</b>	USB (interface cable required); 115,200 baud
<b>Operating System Compatibility</b>	Windows XP SP3 or later
<b>Software Compatibility</b>	Standard Software version 2.04.06 or later Secure Software version 4.1.6.0 or later
<b>Operating Environment</b>	-20 °C to +80 °C (-4 °F to +176 °F) 0 %RH to 100 %RH
<b>IP Rating</b>	IP65
<b>Dimensions</b>	<b>Rain Gauge:</b> 8.4" Diameter x 15.0" Height <b>Weatherproof Enclosure:</b> 3.5 in x 2.9 in x 1.1 in (87 mm x 73 mm x 27 mm)
<b>Construction Materials</b>	304 Stainless Steel, Aluminum, ABS Engineering Resin
<b>Material</b>	Polycarbonate
<b>Weight</b>	<b>Rain Gauge:</b> 8 lbs (3.5 kg) <b>Enclosure and data logger:</b> 9 oz (254 g)
<b>Approvals</b>	CE

**BATTERY WARNING:** FIRE, EXPLOSION AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 100 °C (212 °F), INCINERATE, CRUSH, OR EXPOSE CONTENTS TO WATER.

## Ordering Information

<b>Rain101A</b>	PN 901377-00	Rainfall data logging system, includes a tipping-bucket rain gauge, data logger, weather-proof enclosure, 250 feet of cable and the IFC200 interface cable
<b>LTC-7PN</b>	PN 900352-00	Replacement battery for the Rain101A