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# **MB-RTC**

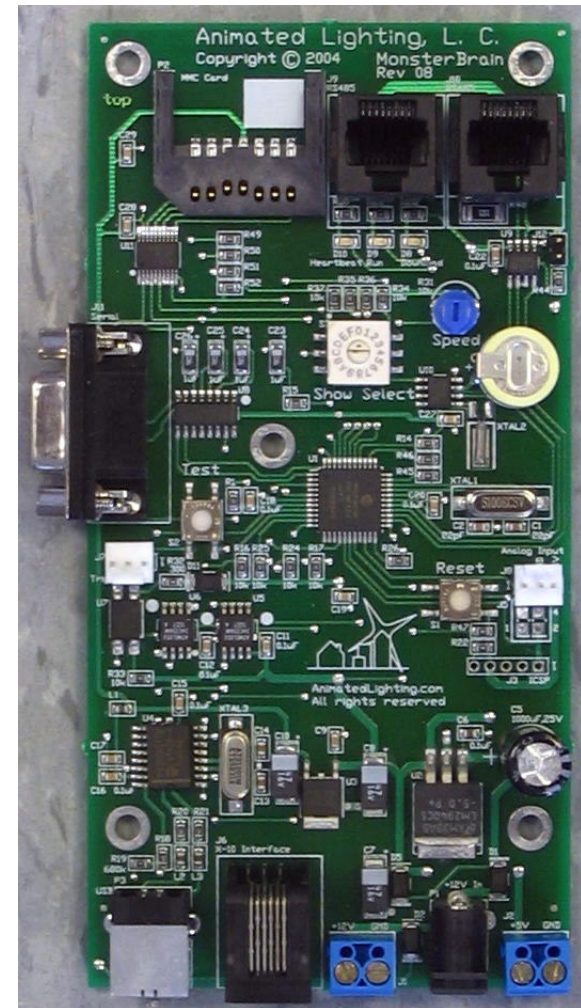
## **Monster Brain RTC Animation Processor w/ Real Time Clock**

**Technical Overview**  
March 20, 2005

# Introduction

**The Monster Brain Animation Processor is the main show controller for networked devices designed by Animated Lighting. One Monster Brain can control up to 256 networked controllers such as:**

- **Light Controllers**
- **MP3 Players**
- **Digital Input Controllers**
- **Digital Output Controllers**
- **DMX Interface Controllers**
- **Servo Controllers**
- **X10 Devices**



# MB-RTC Features

## 1. Indicator LEDs

- Used to indicate status of the MB-RTC

### **H** Heartbeat - **Red LED**

- **Blinking** - Indicates MB-RTC is operating correctly.
- **Off** - No Power or MB-RTC needs a firmware update.
  - Update firmware using Animation Director software.

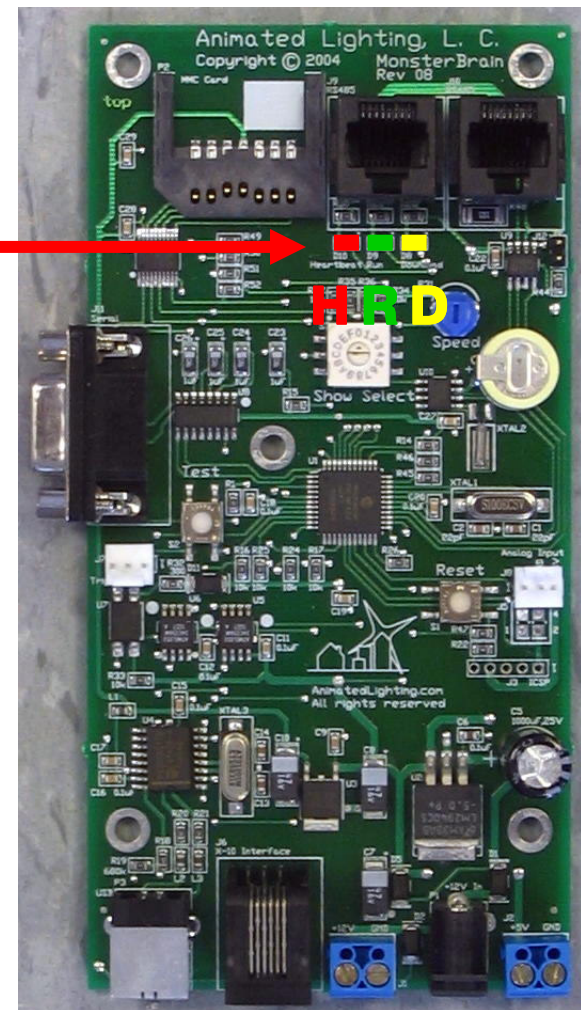
### **R** Run - **Green LED**

- **Solid** - Indicates MB-RTC is running a show from memory.

### **D** Download - **Yellow LED**

- **Flashing** - Indicates MB-RTC is receiving new show data.
- **Solid** - Indicates current show running has an error or has been corrupted

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# MB-RTC - Troubleshooting

## Troubleshooting LEDs

### Heart

#### Beat      Run      Download

Off	Off	Off	MB-RTC is not powered. Plug into power source.
Blink	Off	Off	MB-RTC is ready to run a show, download a show, or run tests.
Blink	On	Off	MB-RTC is running a show from memory.
Blink	Off	Flash	MB-RTC is receiving show download from PC.
Blink	Off	On	MB-RTC has a corrupted show in memory. Reset MB-RTC. If problem persists, erase the show and download a new show to MB-RTC's memory.
Off	On	Off	MB-RTC needs firmware update from PC. Connect MB-RTC to the computer and update firmware using Animation Director.

For other scenarios or problems, please contact Animated Lighting for additional help.

# MB-RTC Features

## 2. PC Serial Interface

- Connects your Animated Lighting control system to your computer to program new shows or update firmware.

## 3. RS485 Network Connectors

- Used to connect your Light Controller to other Animated Lighting controllers.

## 4. Memory Expansion Slot

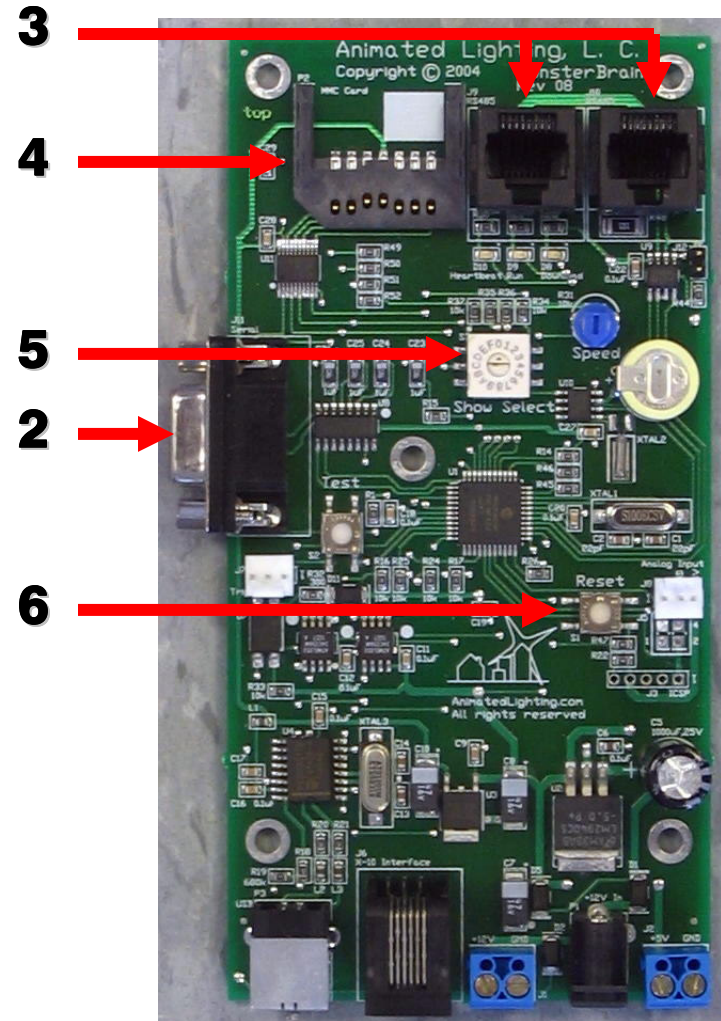
- Use a MMC-type memory card to expand the MB-RTC's show storage capacity.
- Reset MB-RTC to access inserted memory.
- Use Animated Lighting's pre-programmed "Just Add Power®" show cards.
- Easily change shows by swapping memory cards.

## 5. Show Selection Dial

- Used to select up to 16 different shows stored in the Monster Brains internal memory or MMC expansion memory.
- Press the Reset button to point to the new show directory indicated by the Show Selection Dial.

## 6. Reset Button

- Used to point to new show set by show selection dial. New show will automatically run if Auto-Run Flag is turned on.



# MB-RTC Features

## 7. Trigger Input

- Used to connect to MP3 player synch output connector for MP3 synchronized shows.

## 8. Speed Dial

- Used to change the speed of shows programmed to use the Speed Dial feature.

## 9. X10 Interface

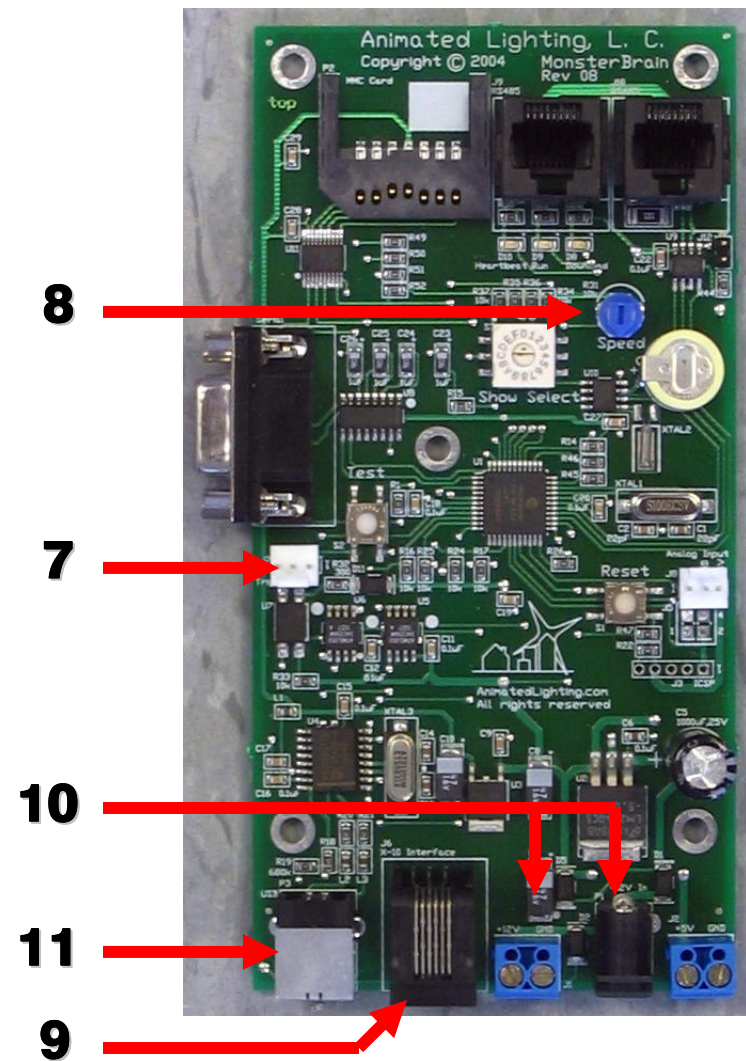
- Communicates with X-10 device when using the PL-X10 X10 interface.

## 10. Power Connectors

- Used to connect power the Monster Brain.
- Uses +12VDC, 500mA wall transformer.

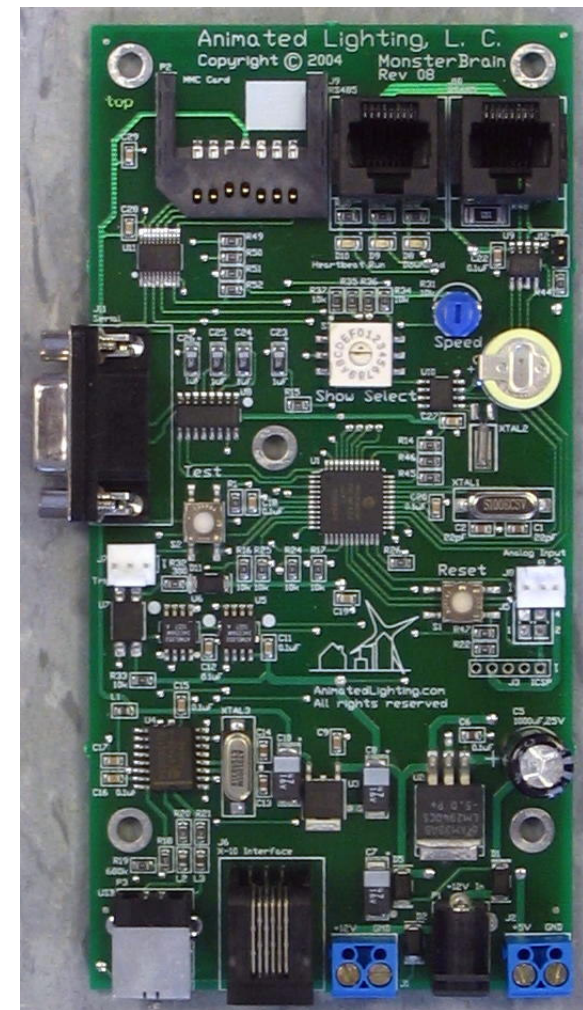
## 11. USB Port

- Used for future expansion.



# Additional MB-RTC Features

- **Real Time Clock (RTC)**
  - Retains time and date information in case of power loss.
  - Built in back-up battery; no batteries needed.
- **64K Onboard Flash Memory**
  - Non-volatile memory retains show information even in case of power loss.
- **Analog Input**
  - Allows you to connect an analog device (such as a photocell or temperature sensor) for use with your show.
- **Digital Input**
  - Allows you to connect a digital device (such as a motion detector or switch) for use with your show.
- **EEPROM Storage**
  - Can be used to store data used for your show (data logging, storing settings, etc).
  - Only available via ACL programming.





# MB-RTC

**For sales or support please contact Animated Lighting at:**

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