BLACK BOX DATA LOGGER

The Zeitronix Black Box Data Logger is a flash memory data logger for use with Zeitronix Zt-2 or Zt-3 Wideband systems using 1GB or 2GB Micro SD flash memory cards formatted with a "FAT" (FAT16) file system. Power and data are supplied through a single 5 ft (1.5m) cable plugging directly into the Zt-2 or Zt-3 DATA port. The Black Box Data Logger can record Zt-2 or Zt-3 data for hours at a time.

FEATURES

- Large button for easy activation when wearing driving/racing/motorcycle/ATV gloves
- LED activity indicator
- Long 5 ft (1.5m) cable for accessing remote Zt-2 or Zt-3 Wideband controllers
- Plug and play installation, no wiring required
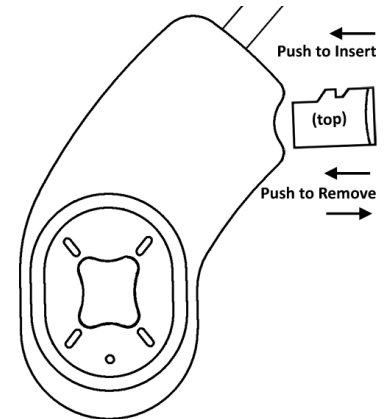- Supports 1 GB or 2 GB Micro SD cards for 100's of hours of logging

INSTALLATION INSTRUCTIONS

The Micro SD card must be formatted with a "FAT" (FAT16) file system.
Plug the Zeitronix Black Box Data Logger connector into the Zt-2 or Zt-3 DATA port. A data splitter may be used if connecting alongside one or more Zeitronix displays such as the ZR-2 Multi-Gauge, ZR-1 AFR/Lambda Gauge, or LCD screen.

Micro SD cards are inserted into the logger face up, as shown to the right. The Micro SD connector slot is spring loaded. Push to insert and the card will lock in. Push again to remove and card will spring outward.
Inserting the Micro SD card upside down or backwards may result in connector damage.

OPERATION

Press the center of the button to start and stop logging sessions. The Zeitronix Black Box Data Logger will display a steady LED light when initially powered. Press the button one time to begin logging. The LED will flash quickly while logging data. Press the button again to end the log and the LED will become a steady light. The Micro SD card will now contain a file with the name "**log001.sdl**". Pressing the button again will begin a new log with the name "**log002.sdl**".

Increasing values are used for each new log file name. A total of 255 logs can be created. Log file names will use the highest number available on the SD card until "**log255.sdl**" is reached. Logs will then be created using the lowest log file number available. If no file names are available the LED will blink two times to indicate an error.

Files can be accessed by removing the micro SD card from the Black Box Data Logger. A micro SD card reader can be used to copy files from the card. The files have fixed created and accessed dates, for best results you may wish to copy the logs into a folder (directory) with a date matching when the logs were generated.
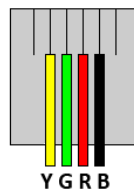Files are viewed with the Zeitronix Data Logger program available at: http://www.zeitronix.com/zdl/

LED INDICATOR

Condition	LED	Action
Ready	On	Press the button to begin logging
Logging	Fast Blink	Press the button to end logging
No Micro SD Card Present	Slow Double Blink	Insert a Micro SD card into the slot (face up, gold connectors facing down)
All log files are in use	Slow Double Blink	Delete one or more files from the Micro SD card
Main directory is full	Slow Double Blink	The main (root) directory may be full if it contains many additional files not created by the logger. Delete files from the Micro SD card root directory.
Micro SD Card is full	Slow Double Blink	Delete one or more files if no free space is left on the Micro SD card.
Micro SD Card not formatted or not "FAT" (FAT16) formatted	Slow Double Blink	Using a PC double click "My Computer", right click on the Micro SD card drive, choose "Format…", choose File System "FAT" and press "Start". Warning: All card contents will be deleted!
No data is being received	Slow Single Blink	Plug the logger directly into the Zt-2 or Zt-3. If using a custom cable verify the connections using the wire specification given below.

WIRING CONNECTOR

Pin	Wire Color	Purpose
1	Yellow	Serial Data Signal
2	Green	Not Used
3	Red	Power (5 volt)
4	Black	Ground

Y G R B

Warning!

For automotive use only. This product is for off road use only.
This product is not water proof. To be used with Zeitronix Zt-2 or Zt-3 Wideband AFR Meter only.
Never place in a location, which obstructs the view. Never tune the car while driving.
Tune responsibly. Zeitronix Inc. is not responsible for any damages.

www.zeitronix.com