2016 - 2017
Product Guide

Gilderfluke & Co.
ROBOTICS & SOUND SYSTEMS

Digital Audio Repeaters, Solid State Video Players & Show Control Systems

www.gilderfluke.com • info@gilderfluke.com

Quality, Affordable, Reliable and Innovative Products From a Company You Can Trust!

For over 30 years, Gilderfluke & Company has designed and manufactured Animation Control Systems, and CD-Quality Digital Audio Repeaters which are used worldwide by theme parks, museums, fountains, waterparks, parade floats, haunt attractions, miniature golf courses, houses of worship and other attractions throughout the world.

As the world leader in the field of entertainment electronics, we are the only company which can provide the entire electronic package for your project. All of our systems are modular, so off-the-shelf components can be plugged together to fit any job. Animation Control Systems are available with anywhere from four to thousands of outputs. We can provide Digital Audio Playback Systems with a single audio track, or as many outputs as needed.

Our Main office is located in Burbank, California. We provide products (custom and off the shelf), training (telephone, on-site or at our facility) and consultation to our customers. We appreciate you, our customers, for without you there would not be a Gilderfluke*.

GilderHeadquarters
205 South Flower Street
Burbank, CA 91502 USA

Sales: info@gilderfluke.com
Toll Free: 1.800.776.5972
Fax Line: 1.818.840.9485
URL: www.gilderfluke.com

How To Order

GilderProduct Ordering:

Online:
The most effective way to place your order with Gilderfluke & Company, is to visit our website and process your order online at: www.gilderfluke.com.

By Telephone:

Dial toll free 800.776.5972

On the West Coast:
Dial 818.840.9484 and ask for Sales.

On the East Coast:
Dial 407.354.5954 and ask for Sales.

Our friendly sales representatives are available to serve you Monday through Friday until 6:00pm (PST). For most efficient service, please have ready a list of quantities and part numbers and, if paying by credit card, have your MasterCard, VISA, American Express or Discover ready. If paying via purchase order and you have established terms, please have your purchase order number at hand and be ready to fax a hard copy to 818.840.9485 once your order has been placed.

By Fax: Send your purchase order to 818.840.9485, attention Sales.

By Email: Send your purchase order to Sales at info@gilderfluke.com.

GilderTraining:

For GilderTraining by phone, on-site or at GilderHeadquarters, contact Carolyn Rowley by phone or email Carolyn at info@gilderfluke.com.

GilderConsultation:

For GilderConsultation contact Doug Mobley by email at doug@gilderfluke.com.

GilderCustom Design:

If you are interested in custom designed equipment, contact Doug Mobley at doug@gilderfluke.com.

Worldwide Field Installation & Service:

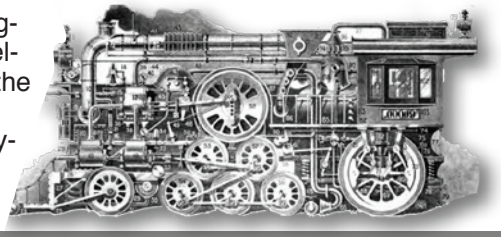
Gilderfluke technicians are available for installations worldwide. You will need to pay all the usual transportation expenses (business class or better airfare, hotel, food, and per diem) in addition to the fee for the technician.

If you are interested in field support and installation of Gilderfluke & Company equipment, contact Carolyn Rowley at info@gilderfluke.com.

Custom Product GilderGear Labeling:

If you are using a larger quantity of GilderGear, you can order the equipment with your own custom labeling. In this way, you can 'brand' the GilderGear as your own. For more information, contact Doug Mobley by email at doug@gilderfluke.com.

* Eli Gilderfluke was an 'inventor' whose illustrations appeared in railroading trade magazines in the 19th Century. A precursor of Rube Goldberg in the 20th Century, he developed strange inventions for steam trains. These were things like a big scoop to catch the exhaust coming out of the smoke stack and feed it back into the engine's firebox. The verb "to Gilderfluke" something eventually came to mean improvised repairs (i.e.: "Jury-Rigging") on a piece of machinery. To the right is 'Gilderfluke's Perfected Locomotive' from the December 1897 issue of Railway and Locomotive Engineering Magazine.

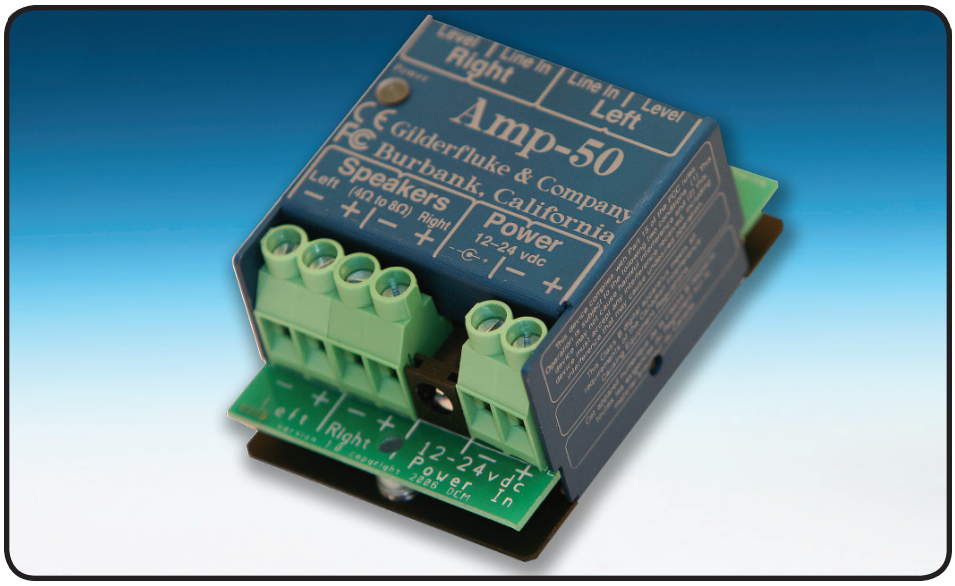


Cover Photo: Sonic Bloom art installation at the Pacific Science Center in Seattle, Washington. Commissioned by the Pacific Science Center and Seattle City Light's Green Up Program. Designed by artist Dan Corson (www.dancorson.com).

Amp-50

Class-D Stereo Audio Amplifier

(200-250 Watt Equivalent)



The **Amp-50** is a Class-D stereo audio amplifier. It can be used in Store-Casting, conference rooms, home theaters, car audio, museum, safety, haunt, industrial or entertainment applications. Anywhere you need a solid state, high quality audio amplifier that puts out an amazing amount of power, but barely gets warm.

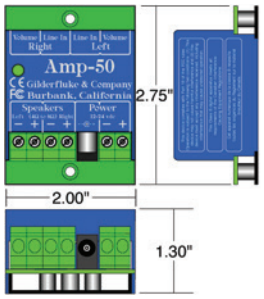
The **Amp-50** Class-D amplifier efficiency is near 90%. If you feed fifty Watts of 24 vdc into an **Amp-50**, you will get nearly fifty Watts into your eight ohm speakers. The supply current into a Class-D amplifier modulates to follow the sound exactly. If the sound is quiet, the supply current drops almost to zero. At full volume, it draws about two amps of 24 vdc, equal to the 50 Watt rating of the amplifier (power = voltage x current).

Typical 'Linear' amplifiers have only about 20% efficiency. Fully 80% of the power you put into them goes into the heatsink as waste heat. A fifty Watt linear amplifier only feeds about ten Watts of power into your speakers, and forty Watts into the heatsink, whether or not there is any sound being fed to the speakers!

This makes the **Amp-50** power output roughly equivalent to what would be a 200-250 Watt linear amplifier!

Features of the Amp-50 include:

- An amazing fifty Watt Class-D stereo amplifier packs the power of a 200-250 Watt linear amp!
- Low 0.1% THD+N distortion.
- Integral Current Limit and Thermal Protection. Amp turns back on a moment after the fault is removed.
- Works with most four to eight ohm speakers.
- The amplifier can be bridged for a single fifty watt mono output into a four ohm speaker load.
- Two RCA inputs for feeding in line level audio signals.
- Amp-50b has balanced line level inputs. Screw terminals for feeding in line level signals (Amp-50b only).
- Runs on any voltage from 12 to 24 vdc. Use a 60 Watt power supply (24 vdc at 2.5 amps) for maximum output. Universal input (90 to 240 vac input) power supplies are available from Gilderfluke & Company.
- Low current draw makes the **Amp-50** ideal for batteries or solar cells where line power is unavailable.
- If you are going to turn it up, use speakers that are rated for at least 150-250 Watts of continuous power.
- As with any linear amplifier, speakers can be connected series/parallel to drive more speakers.
- Sturdy aluminum enclosure. Mounts in **Snap-Track**, **DinAdapt**, or just Velcro or screw it down.



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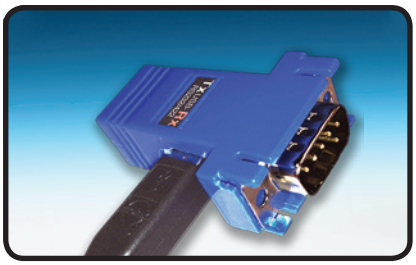
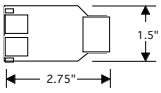
USB-RS232/422 & C-USB-RS232 Converters





USB-RS232/422

The **USB-RS232/422** is used to convert the USB ports found on most computers for use with the RS-232 or RS-422 serial standards.

Most of the Systems from Gilderfluke & Company use the standard known as RS-422. RS-422 allows a PC to network many pieces equipment, from a distance of up to a mile.

These converters are optimized for use with Macs, PCs and Gilderfluke & Company systems. The RS-422 serial connection is the RJ-12 connector used by most of our equipment. A short RJ-12 cable is included with the **USB-RS232/422** converter.

Some of our systems use the serial standard known as RS-232 which was the standard for all serial ports on PCs for years (before USB). RS-232 ports are limited to just a few feet of wire and a single piece equipment on each serial port. The RS-232 serial connection is the male DE-09 on the **C-USB-RS232**. It will plug right into a **BR-MiniBrick8** or **Sd-50** serial cable.

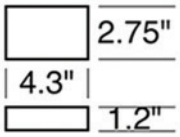
Features of the USB-RS232/422 Converter include:

- Converts the USB ports found on most computers to RS-422 or RS-232.
- RJ-12 connector for direct connection to all Gilderfluke & Company RS-422 ports.
- DE-09 connector for direct connection to all RS-232 devices.
- Green and Red LEDs shows data sent and received.
- Powered by the USB port. No external power supply is needed.
- Drivers available for both PCs and Macs (and most other OS's as well).

Features of the C-USB-RS232 include:

- Converts the USB ports found on most computers to RS-232.
- DE-09 connector for direct connection to all RS-232 devices.
- Green LED shows data transmitted by PC.
- Red LED shows data received by PC.
- Powered by the USB port. No external power supply is needed.
- Drivers available for both PCs and Macs (and most other OS's as well).

Modem-Internet (10/100 Ethernet)



With the **Modem-Internet** you can use your computer to connect to the GilderGear, whether it is around the corner or on the other side of the world. Once connected, you can control the system, check its status, update shows and do anything else you can do through the GilderGear's serial port.

The **Modem-Internet** is used for attaching any Gilderfluke & Company system to the local wired ethernet network.

If the **Modem-Internet** is assigned a fixed IP address, it allows connections via the internet.

Features of the Modem-Internet include:

- Ethernet:
  - RJ-45 Connector
  - Lan: 10 /100 M bps (Auto Detecting)
- Protocols supported: ARP, IP, ICMP, UDP,TCP, HTTP, DHCP, PPPoE, FTP, PPPoM, SNMP
- Modes: TCP Server/Client ; UDP Client
- Serial Ports: 1) RS-232 / 1) RS-422/RS-485

Built-in RS-422/RS-485 Terminal Register

- Speed: 300 bps to 230.4k bps
- Setup via web browser (Safari, IE, Firefox, etc.), or via RS-232 Console.
- Security: Setup Password & Connect Password
- Protection:
  - 1.5KV Magnetic Isolation on LAN port
  - 15KV ESD protection for all signals
- CPU:
  - 32-bits ARM-7, 33 MHz
  - RAM: 2 Mbytes
  - ROM: 128 Kbytes
- Firmware upgradable via Ethernet
- Power: DC 9~12V, 500 mA. Power supply included

Sd-10

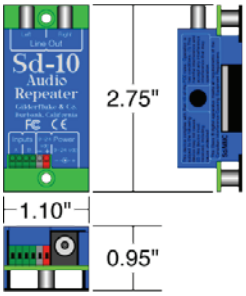
Stereo Audio Playback System

The **Sd-10** is a complete stereo audio repeater. It can be used in Store-Casting, Music-On-Hold, Museum, Haunted Attraction, Safety, Industrial or Entertainment applications. Anywhere you need a solid state, high quality audio system that will play for years. The **Sd-10** can be dropped right into an audio system in place of a CD player.

Features of the Sd-10 include:

- Stand alone stereo playback of standard Mp3 (all data rates) or .WAV audio files (up to 48 K/16 bit).
- Up to 255 different AudioFiles can be stored in most modes. 32,767 AudioFiles in some modes.
- Capacity is limited only by the size of your flash card. It can literally hold weeks of Cd-Quality sound!
- Two unbalanced -6 dBv RCA line level outputs to feed external amplifiers.
- Audio stored on standard Secure Digital (Sd or SdHC) flash cards.
- All configuration is done using a dipswitch. No software is needed!
- Two non-polarized optically isolated trigger inputs with LED indicators. Easily attached to PLCs, pushbuttons, motion detectors, foot pads, IR sensors, alarm systems and other controllers. These inputs can be configured to ramp audio to preset levels or to select and play specific sounds round-robin or randomly. Store-Casting and Music-On-Hold modes can play an announcement between each music track. Triggered SoundFiles can be set to accept or ignore additional requests once started.
- A Sturdy aluminum enclosure. Mounts in **Snap-Track**, **DinAdapt**, or just Velcro or screw it down. It is small enough to mount right on the back of an amplified speaker.
- Up to two PlayLists available, depending on mode.
- Runs on any voltage from 9 to 24 vdc. The low current draw allows **Sd-10s** to run from batteries or solar cells where line power is unavailable.
- Optional **Sd-10/STL** function with one of the operating modes optimized for use as a backup audio source for radio and television Studio Transmission Links (STLs).
- Optional **Sd-RS/232** serial port can be used to control the volume, call up sounds and monitor the **Sd-10**.
- Optional **Sd-IR/Rx IR** receiver, allows the Sd-10 to be triggered by a **IR-Tx** (requires IR firmware).
- Optional '**Starter Kit**' Includes the necessary accessories (USB flash card reader/writer, power supply, MC-Sd Flash Card, GilderTweaker Small Screwdriver Set and GilderCD with software) to operate the **Sd-10**.

The **Sd-25-w/DMX** is similar to the **Sd-10**, but with more configuration options and an amazing 200-250 Watt equivalent Class-D amplifier built in. The **Amp-50** is the same amp as in the **Sd-25-w/DMX**, but without the audio repeater. For a system that combines an Audio Player, Amplifier, Show and Lighting Control in a single package, consider our **Sd-50** line of repeaters. If you need to schedule when sounds and shows play, a **Sd-50** with GPS clock option allows 365-day scheduling for fountains, clock towers, carillons, churches and school bells.



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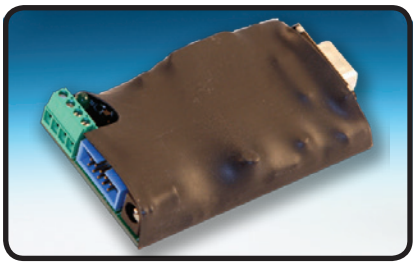
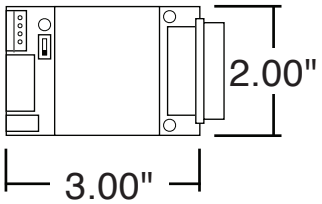
Br-SDC

Serial Device Controller





The **Br-SDC** is a complete, stand-alone Serial Output Controller. It is used whenever you need to control any device that needs strings of RS-232 serial data (RS-422 optional). It can be used with almost any serial controlled device. The **Br-SDCs** can be controlled from Gilderfluke & Company's Show Control Systems, PLCs or any other control systems. Just attach some buttons, and you can make your own interactive video kiosk.

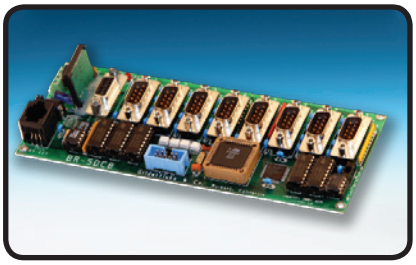
The **Br-SDC** can be set to send out strings on power up or in response to any of its ten optoisolated inputs. Different actions can be taken on the opening or closing edges of any inputs. The **Br-SDC** can then branch to a different serial string or completely different 'show' if the response to the string is correct or in error.

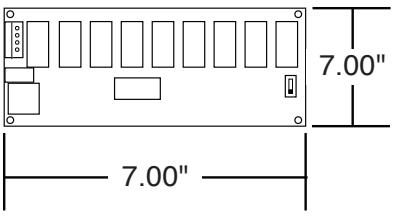
Features of the Br-SDC include:

- Fifteen different serial strings of up to 127 characters each.
- Plug it into the serial port on a PC to configure.
- 'Write Protect' switch protects against accidental configuration changes.
- Ten optoisolated inputs to synchronize **Br-SDCs** with pushbuttons, realtime events and other control systems. Two of the inputs use screw terminals. The other eight use a standard 1/4-J6 connector. These can be used in 'binary' mode to connect a binary coded keypad.
- Different actions can take place on opening and closing edges of inputs.
- Strings can include 'delays' of one frame to over nine hours.
- The **Br-SDC** can send a different string, or play a different show if any string gets an incorrect serial response from the device it is controlling.
- Built in commands for Pioneer LaserDisc & DVD players, or Sony LaserDiscs.
- Available with DE-09 female, DB-15 male (for Pioneer LaserDiscs and DVDs).
- The **Br-SDC** runs on anything from 9 to 24 vdc. It includes a small 'wallwart' power supply. 110 vac standard, 240 vac on request.
- **Br-SDCs** are often mounted by their connectors or by the Velcro on their backs. Typically they are mounted right on whatever they are controlling.

Br-SDC8

Multiplexed Serial Device Controller





The **Br-SDC** is a complete, stand-alone Serial Output Controller. The **Br-SDC8** adds eight multiplexed RS-232 serial ports. It is used whenever you need to control eight devices that need strings of RS-232 serial data. It can be used with nearly any RS-232 serial controlled devices. The **Br-SDC8** can be controlled from Gilderfluke & Company's Show Control Systems, PLCs or any other control systems. Just attach some buttons, and you can make your own interactive video kiosk.

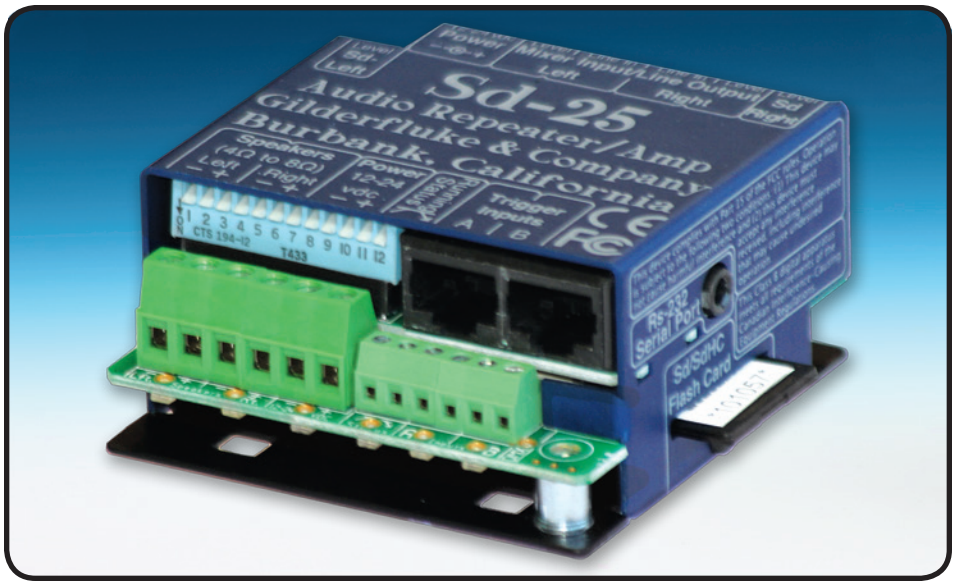
The **Br-SDC8** can be set to send strings on power up or in response to any of its ten optoisolated inputs. Different actions can be taken on the opening or closing edges of any inputs. The **Br-SDC8** can then branch to a different serial string or 'show' in response to the string.

Features of the Br-SDC8 include:

- Expands a **Br-Brain4**'s one RS-422 serial port to eight RS-232 serial ports.
- Fifteen different serial strings of up to 127 characters each.
- Plug it into the RS-232 serial port on a PC to configure.
- 'Write Protect' switch protects against accidental configuration changes.
- Ten optoisolated inputs to synchronize **Br-SDC8s** with pushbuttons, realtime events and other control systems. Two of the inputs use screw terminals. The other eight use a standard 1/4-J6 connector. These can be used in 'binary' mode to connect a binary coded keypad.
- Different actions can take place on opening and closing edges of inputs.
- Strings can include 'delays' of one frame to over nine hours.
- The **Br-SDC8** can send a different string, or play a different show if any string gets an incorrect serial response from the device it is controlling.
- Built in commands for Pioneer LaserDisc & DVD players, or Sony LaserDiscs.
- Also acts as single RS-232/422 to eight RS-232 serial port multiplexer.
- Uses 'AT+++' commands to select which ports are routed in and out.
- The **Br-SDC8** runs on anything from 9 to 24 vdc. It includes a small 'wallwart' power supply. 110 vac standard, 240 vac on request.
- Mount **Br-SDC8**s by screw standoffs, or in 2-3/4" Augat 'Snap Track'.

Sd-25 w/DMX

Stereo Audio Playback System with Amplifier & DMX-512

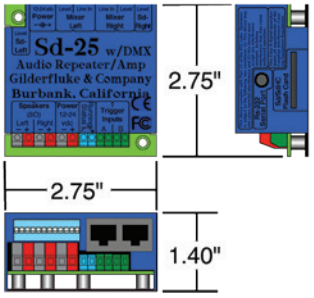


The **Sd-25 w/DMX** is a complete stereo audio playback system. It can be used in Store-Casting, Music-On-Hold, Museum, Safety, Haunt, Industrial or Entertainment applications. Anywhere you need a solid state, high quality audio system that will play for years.

Features of the Sd-25 w/DMX include:

- DMX-512 input can be used to select and play 255 SoundFiles using just one DMX-512 channel. Using two addresses, you also get live volume control via DMX-512. Two RJ-45 jacks to make networking easy.
- RS-232 and IR ports, which were options on the earlier **Sd-25s**, are now standard on the **Sd-25 w/DMX**.
- Stand alone stereo playback of standard Mp3 (all data rates) or .WAV audio files (up to 48K/16 bit) stored on standard Secure Digital (Sd or SdHC) cards. Up to 255 Files in most modes, 32,737 in some.
- Use an Apple remote to play sounds and adjust volume levels. Use **IR-Tx's** for ride vehicle audio triggers.
- An amazing 50 Watt Class-D stereo amplifier packs the power of most 200-250 Watt linear amps! It draws only a fraction of the power of a typical amplifier, and only when it is pumping sound. Works with most 8 ohm speakers. The amplifier can be bridged for 50 watt mono output into a 4 ohm load.
- Two RCA jacks for input or output of line level audio signals. Works with external amps or audio sources.
- All configuration is through externally accessible switches. No PC software or drivers are ever needed.
- LEDs show triggers, DMX-512, heart and Sd card activity. Modulation LEDs show audio as it is played.
- Two non-polarized optically isolated triggers. Attaches to PLCs, switches, motion detectors, IR sensors, alarm systems or other controllers. Inputs can be set to ramp audio or to select and play specific sounds round-robin or randomly. Store-Casting and Music-On-Hold modes can play an announcement between each music track. Triggered SoundFiles can be set to accept or ignore additional requests once started.
- Mounts in Snap Track, DIN rail (optional), or just Velcro or screw it down. Mounts nicely in a 4x4 J-Box.
- Optically isolated 'running' relay output can be used to turn on lights, relays, audio ducking, etc.
- Built in RS-232 serial port can be used to control volume, call up sounds and monitor the **Sd-25 w/DMX**.
- Runs on any voltage from 12 to 24 vdc. Draws 2.5 Amps at 24 volts (50 Watts) at max amplifier output.
- Low current draw makes the **Sd-25 w/DMX** ideal for batteries or solar cells where power is unavailable.
- Optional '**Starter Kit**' includes the necessary accesories (USB flash card reader/writer, power supply, MC-Sd Flash Card, GilderTweaker Small Screwdriver and GilderCD with software) to operate the **Sd-25 w/DMX**.

The **Sd-10** is similar to the **Sd-25**, but without the onboard amplifier. The **Amp-50** is the **Sd-25's** amplifier without the audio player. For a system that combines an Audio Player, Amplifier, 365-day Scheduling, Show and DMX-512 Lighting Control in a single package, please consider our **Sd-50** controllers. An optional GPS antenna keeps the **Sd-50s** clock accurate to 1/1000 second of Universal Standard time for bell towers, school and business bells, parades, fountains, etc.



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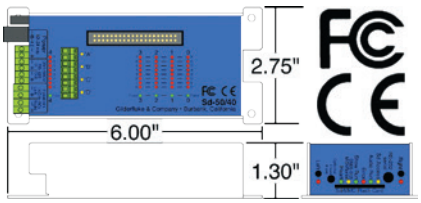
Sd-50/GPS

GPS Locked Stereo Audio Playback, Show Control, Scheduling, Lighting Control & Amplifier SystemSystem



The **Sd-50/GPS8** and **Sd-50/GPS40** are complete Audio and Show Control solutions. The Satellite Synchronized GPS clock option allows sounds and shows to be scheduled to play at any time of the day or night with phenomenal accuracy (1/1000 second). They are used in school and factory bell systems, audience recall systems for theaters, automated fountains, and animated shows, and church and municipal bell and clock towers. Since these are true audio playback devices and not synthesizers, you are not limited to playing back just 'bell' sounds. Any sound that can be recorded can be put onto them. Schools have used them to play back their 'fight' songs and churches have recorded their choir or a favorite hymn. Mosques can use them for calls to prayer.

Features of the Sd-50/GPS8 and Sd-50/GPS40 include:

- GPS can be used anywhere on the planet where the antenna can see the sky. Accurate to 1/1000 sec.
- Synchronized with all other units on the planet. This allows you to run shows in perfect sync, even when there is no connection between them. This has been used on parade floats to synchronize sound, animation and lights, and for fountains where the cost of running a wire under a street is impractical.
- Stand alone stereo playback of standard Mp3 or .WAV audio files. Up to 255 different AudioFiles can be selected and played. Sound capacity is limited only by the size of your MMC/Sd flash card.
- Two line level outputs (RCA Jacks) and 100 Watt Class-D amp (equivalent to 400-500 Watt linear amp).
- 'Drag-n-drop' downloading of SoundFiles to your Sd flash card from your computer.
- All configuration is done through a user friendly Windows-based program. Calendar-style scheduling lets you set the schedule for sounds and shows for a specific day, day of the week, or range of dates. Can automatically switch to seasonal schedules or play specific sounds and shows on specific dates.
- Optically isolated 'switch' inputs can be used to disable automatic playbacks during other events, to call up specific sounds when needed, or lower or raise the volume level.

Starter Kits

for Sd-10, Sd-25-w/DMX, Sd-50/0, Sd-50/8 & Sd-50/40

Gilderfluke Sd-Series Starter Kits include the necessary accessories to operate your GilderGear.

Sd-10 / Sd-10/stl Starter Kit includes:

- USB flash card reader/writer, power supply, MC-Sd Flash Card, GilderTweaker Small Screwdriver Set and GilderCD with all Gilderfluke software manuals, application notes, drivers and sample files.

Sd-25-w/DMX Starter Kit includes:

- USB flash card reader/writer, power supply, MC-Sd Flash Card, GilderTweaker Small Screwdriver and GilderCD with all Gilderfluke software manuals, application notes, drivers and sample files.

Sd-50/0 Starter Kit includes:

- USB flash card reader/writer, power supply, MC-Sd Flash Card, **C-10F** (10 conducter ribbon cable for 1/4-J6 output cables), **C-10IDS** (10 position female ribbon connector) **C-10Trans** (10 position adapter to transition between ribbon cable & screw terminals), RS-232 serial cable, GilderTweaker Small Screwdriver & GilderCD with all Gilderfluke software manuals, application notes, drivers and sample files.

Sd-50/8 Starter Kit includes:

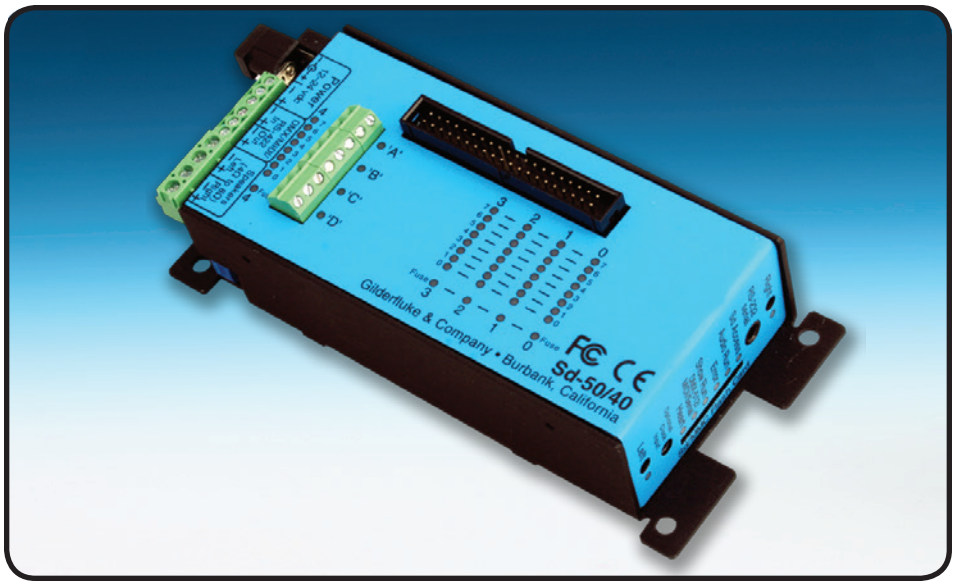
- USB flash card reader/writer, power supply, MC-Sd Flash Card, **C-10F** (10 conducter ribbon cable for 1/4-J6 output cables), **C-10IDS** (10 position female ribbon connector) **C-10Trans** (10 position adapter to transition between ribbon cable & screw terminals), RS-232 serial cable, GilderTweaker Small Screwdriver & GilderCD with all Gilderfluke software manuals, application notes, drivers and sample files.

Sd-50/40 Starter Kit includes:

- USB flash card reader/writer, power supply, MC-Sd Flash Card, C-50Trans (adds screw terminal and Servomotor outputs and connectors), RS-232 serial cable, GilderTweaker Small Screwdriver & GilderCD with all Gilderfluke software manuals, application notes, drivers and sample files.

Sd-50

Stereo Audio Playback, Show Control, Scheduling, Lighting Control and Amplifier System



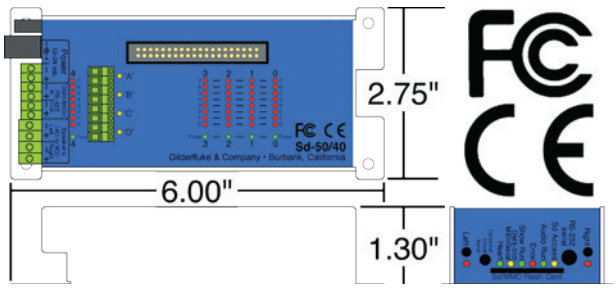
The **Sd-50** is a complete stand alone stereo audio playback system. The show control and DMX-512 output options make it into a complete Audio and Show Control solution.

Features of the Sd-50 include:

- Stereo playback of standard Mp3 or .WAV audio files. Up to 255 different SoundFiles can be selected and played. Sound capacity limited only by the size of your Sd flash card.
- Two line level outputs (RCA Jacks) and 100 Watt stereo Class-D amp with the power of 400-500 Watts.
- All configuration is done through a user-friendly Windows-based program. You can set the volume and what each of eight optically isolated inputs do. Switch inputs can be used to ramp audio to preset levels, select and play specific sounds or select sounds from a preset list or randomizer.
- Mounts in **Snap-Track**, **DinAdapt**, or Velcro or screw it down.
- Runs on any voltage from 12 to 24 vdc. Use 24 vdc for maximum output if using onboard amp.

Features of the Sd-50/8 and Sd-50/40 include:

- Adds eight (**Sd-50/8**) or forty (**Sd-50/40**) digital (on/off) Show Control outputs to a **Sd-50.** Eight of the outputs can be used for controlling eight model airplane-style PCM ServoMotors or used as inputs.
- Optional GPS clock for triggering using a 365 day schedule by time or date.
- Optional '**Starter Kit**' Includes the necessary accesories (USB flash card reader/writer, power supply, MC-Sd Flash Card, appropriate cables and connectors, GilderTweaker Small Screwdriver & GilderCD with software) to operate the **Sd-50**.
- DMX-512 inputs for controlling Animation & Audio. DMX-512 outputs for up to 512 channels.
- Automatic 'program in place' download through your PC's serial port or the Sd flash card. Draw the sequence you need on your computer using our easy-to-use free **Pc•MACs** software, or with 'Hardwareless RealTime' mode, program using the PC's mouse, keyboard and joystick. **Pc•MACs** will remember exactly what you do and precisely when you did it. Once programed, the PC can then go away.
- Four (optionally eight) MBytes of nonvolatile Show Control memory. Using all forty **Sd-50/40** Show Control outputs, this gives a show capacity of about eight hours at thirty updates per second! About 40 hours for the **Sd-50/8**! Once downloaded, show data is retained for approximately forty years, with or without power applied. Up to 255 individual shows can be loaded onto a **Sd-50/8** or **Sd-50/40** at one time.
- Networkable! Four optoisolated inputs can be used to start, stop, pause, continue, or access shows. They can also be controlled through the RS-232 or networked RS-422 serial ports, MIDI, or IR Triggers.
- Show Control outputs are each rated for 150 ma. continuous, or 500 ma. peak. This can drive small solenoid valves, relays, LEDs, lights and other similar loads. Use solid state relays for larger loads or higher voltages (**DRV-05**, **SSR-FS**, **LC-8SP**). A **Br-ANA** or **DAC-Quad** can be used if you need analog control signals.



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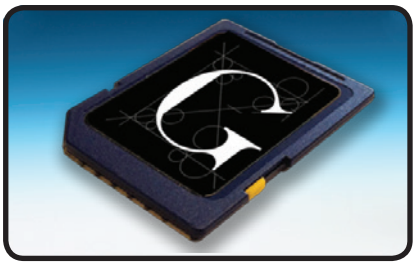
v-HdGilderscript & v-Hd-to-1/4J6

Optoisolated 1/4J6 Cable Adapter



Delivered on an Sd card, the **v-HdGilderScript** is a ready-to-go script that eliminates the need to write custom scripts for most applications.

It allows you to configure your video player by just dropping your media files into file folders on the Sd card. The **v-HdGilderScript** also lets you set what will play between triggered events, whether another video can 'step on' what is already playing, and whether you want your media to play in a random or sequential order.

Video formats supported by **v-HdGilderScript**: .mpg, .vob, .mov, .mp4 and .ts.

v-HdGilderScript works with the **v-Hd120**, **v-Hd1020**, **v-Xd1030**, **v-Xd1230**, **v-4K242**, **v-4K1042** or **v-4K1142** video players using the **v-Hd-to-1/4J6** or **v-Hd-to-DMX** Adapters.

The **v-Hd-to-1/4J6** isolates the delicate, logic level inputs of the video players from the hazards of the outside world. Each input is optically isolated as it passes through the **v-Hd-to-1/4J6.** The input signals turn on and off Light Emitting Diodes (LEDs) and these illuminate photosensitive transistors through an electrically insulating, but optically transparent barrier.

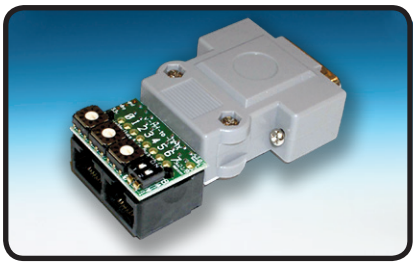
Eight visible LEDs show the status of the eight inputs, making it easy to diagnose wiring or switch problems when using the **v-Hd-to-1/4J6**.

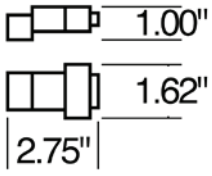
The input to the **v-Hd-to-1/4J6** is a Gilderfluke standard 1/4-J6 connector. This allows it to be easily attached to the the outputs of any of Gilderfluke's digital output controllers using a ten wire IDS connector and ribbon cable (**C-10IDS** and **C-10F**). If you are connecting discrete switches and pushbuttons to the **v-Hd-to-1/4J6**, you will need to provide isolated power to run the **v-Hd-to-1/4J6**.

The **v-Hd-to-1/4J6** should also be used when controlling a video player from a Gilderfluke & Company Show Control System, PLC or other external control system, especially if that controller runs at a higher voltage.

v-Hd-to-DMX

Optoisolated DMX-512 to Video Adapter





DMX-512 is the network used throughout the world to control theatrical lighting. Every theater from the local high school, to the largest house on Broadway, control their lighting using DMX-512 networks. The **v-Hd-to-DMX** is used to trigger audio, video and still image files stored on a video player from any source of DMX-512. The DMX-512 can come from an existing light board or another piece of GilderGear. Since it is trigged by the same DMX-512 as everything else in the theater, everything will always be in sync.

Anyone who can run a light board can use the **v-Hd-to-DMX**, **v-HdGilderScript** and a video player to add audio, video and still image playback to a presentation. The **v-HdGilderScript** allows you to use most standard media files on a video player without any manual 'scripting'. Just drop your media files into appropriately named folders on a standard Sd (or SdHC or SdXC) flash memory card and shove it into the video player. If you send a value of '123' to the DMX-512 address of the **v-Hd-to-DMX**, any file(s) you have placed in a folder named 'playlist123' will be played.

Features of the v-Hd-to-DMX include:

- Plugs into and is powered by any video player with a 15 pin GPIO port including the **v-Hd120**, **v-Hd1020**, **v-Xd1030**, **v-Xd1230**, **v-4K242**, **v-4K1042** and **v-4K1142**.
- The **v-HdGilderScript** allows you to have up to 255 'playlist' folders on each video player. Each playlist folder can hold one or more media files. If more than one media file is in a playlist folder, you can select whether files will be played sequentially or in random order each time the playlist is cued. The files can also be set for 'steppable' (interruptible) or 'non-steppable' (non-interruptible) playback.
- The DMX-512 connection is galvanically isolated. This eliminates the possibility of ground loops and other noise problems in installations with many video players. The high impedance DMX-512 input allows up to 256 **v-Hd-to-DMX**s on a single DMX-512 line.
- Occupies just a single DMX-512 'dimmer' address, or can be addressed on eight consecutive DMX-512 addresses to appear on your lighting board as eight 'relay' outputs (each output turns on above 50%).

v-4K
v-Xd
v-Hd

Solid State Video Players

We prefer to store video on solid state flash memory, as opposed to any form of rotating memory (hard drive, CD-ROM, or DVD). Anything with moving parts (even a fan) will eventually fail. With no moving parts, these video players are designed to run 24/7 year after year.

v-4K Ultra High Definition	v-Xd 1080p High Definition	v-Hd 1080p High Definition
v-4K1142 w/Video In, GPIOs, USB 3.0, RS-232, Ethernet, S/PDIF, IR	**v-Xd1132** w/Video in, GPIOs, USB, Ethernet, RS-232, S/PDIF, IR out	**v-Hd1022** w/GPIOs, USB, RS-232, Ethernet
v-4K1042 w/GPIOs, USB 3.0, RS-232, Ethernet, S/PDIF, Optical out	**v-Xd1032** w/GPIOs, USB, RS-232, Ethernet, S/PDIF, IR Optical out	**v-Hd222** w/GPIOs, Ethernet
v-4K242 w/GPIOs, Ethernet	**v-Xd232** w/GPIOS, Ethernet	**v-LS422** w/GPIOs, Ethernet

- **v-4K** Ultra High Definition video players can decode two simultaneous H.265 native 4K resolution (3840x2160x-24/25/30/50/60p) videos plus a simultaneous H.264 1080p (1920x1080@60p) video. MultiView Codec (MVC) and HDMI v2.0 output for frame packing, top-over-bottom or side-by-side 3-D video.
- **v-Xd** players can simultaneously decode two 25mb/s 1920x1080@60p videos. MultiView Codec (MVC) for 3-D. Can upscale 1080p to 4K. HDMI v1.4a and VGA for 1920x1080x24/25/29.92/30/50/59.94/60p.
- **v-Hd1022** and **v-Hd222** players decode 1920x1080@60p video at 25mb/s. Supports top-over-bottom or side-by-side 3-D video. HDMI v1.4a and VGA for resolutions up to 1920x1080x24/25/29.92/30/50/59.94/60p. **v-LS422** decodes 1920x1080@30p video at 25mb/s. HDMI v1.4a and VGA for resolutions up to 1920x1080x24/25/29.92/30p.

Shared features of the v-4K, v-Xd and v-Hd High Definition Video Players include:

- Video is loaded via Ethernet or by moving files onto the Sd card (all) or internal μSd card (**v-4K, v-Xd**).
- Supports screen layouts with multiple zones of HTML5 (**v-Xd, v-4K, v-Hd**), video, images and text tickers.
- 10/100 Ethernet Network enabled for:
  - Live Text, Twitter feeds, networked databases and RSS content feeds.
  - Remote content updates using either Free, Enterprise or hosted network management solutions.
  - Synchronization support via Ethernet (or optional WiFi) for creating video wall displays of any size.
  - Scheduling and day-parting using internal clock or networked time server.
- Eight GPIOs can be used to select and play videos.
- Optional **v-Xd-to-WiFi** module adds WiFi wireless networking to any **v-Xd** or **v-4K** video player.
- **v-GilderScript** allows you to set up triggered video files, background looping videos and playlists by dropping media files into appropriately named folders. Eliminates all script writing for most applications.
- **v-Hd-to-1/4J6** optoisolated GPIO to ¼-J6 adapter eases wiring to other GilderGear or buttons/switches.
- **v-Hd-to-DMX** isolated GPIO to DMX-512 adapter allows triggering video from any source of DMX-512.

See each video players' cut sheet for details about their individual features.

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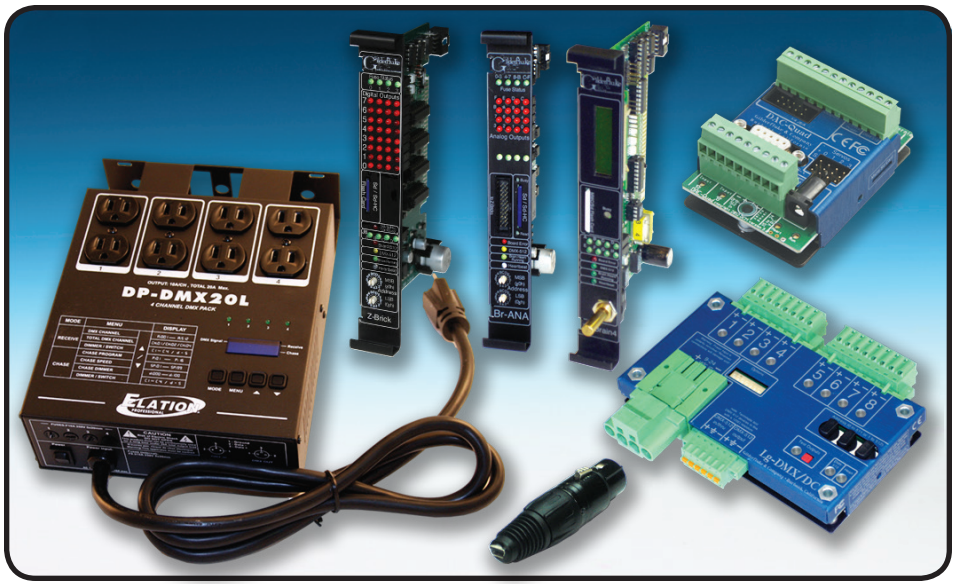
Lighting Control

Br-Brain4
Br-ANA
Z-Brick
USB-DMX-512
DAC-QUAD
Lg-DMX-DC
DP-DMX20L

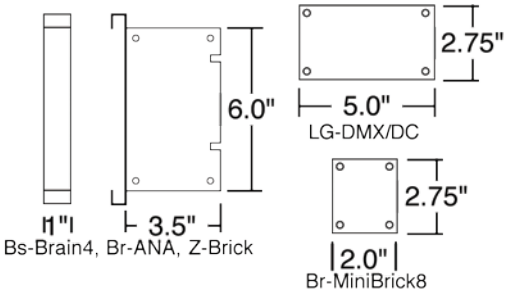


DMX-512 is the standard network used for connecting most professional lighting equipment. Since all the Animation Control Systems made by Gilderfluke & Company use DMX-512 as the standard method of networking, it makes adding lighting control to most systems very easy. DMX-512 can be used to control dimmers, moving lights, fans, rigging, strobes, smoke machines or any other DMX-512 compatible equipment.

A lighting sequence can be programmed using **Pc•MACs** or any lighting board. If using a lighting board, the DMX-512 can be sampled into a **Pc•MACs** system through the **USB-DMX-512**. The data can be edited and programmed into the 'Bricks' that are to stay with the show. Any GilderGear from a **Br-miniBrick8** or larger can then play back the sequence. Multiple cards can be used for more channels, with no limits to the number of channels!

Lighting Control Products Include:

- **Br-Brain4:** The **Br-Brain4** is the fourth generation Smart Brick Brain. Along with locking to Smpte, LaserDisc and DVD players, the **Br-Brain4** can output up to 2048 channels DMX-512 data on four separate DMX-512 universes. It can be programmed using our easy-to-use free **Pc•MACs** software, or it can record a DMX-512 universe right off your favorite lighting board. Once data is stored on the removable Sd flash card, it can be played back forever and your lighting board can be moved on to the next programming project. The **Br-Brain4** can control eight simultaneous independent sequences, or operates as a 'Smart' or 'Dumb' Brick. A secondary serial port can be used to send user-defined serial strings, control MIDI or other devices. Custom serial drivers can be written if needed.
- **USB-DMX-512** is an 'open' USB to DMX converter in a Neutric 5 pin XLR connector. Galvanically isolated.
- **DAC-QUAD:** DMX-512, Analog & ServoMotor Output miniBrick.
- **Lg-DMX/DC:** This is a small Direct Current (DC) dimmer pack. Outputs rated for 5-10 amps, 24 vdc.
- **DP-DMX20L** or **DP-DMX640:** Four channel (600 Watts) or six channel (1000 Watts) DMX-512 dimmer packs.
- **PB-DMX:** Controller for **PB-08** through **PB-32**. Uses DMX-512 input, RS-232 serial input, or onboard memory.
- **Br-ANA:** Sixteen 0-10 volt analog outputs (plus DMX-512 output) Brick. The **Br-ANA** can be used as a 'Smart' or 'Dumb' Brick. RealTime data is sent to the **Br-ANA** through its RS-422 serial port or DMX-512. Shows can be downloaded and stored in the **Br-ANA's** Sd/SdHC flash card.
- **Z-Brick:** DMX-512 In/Out digital output brick. With removable Sd/SdHC flash card for onboard show storage.
- **Br-miniBrick8:** DMX-512 In/Out, Eight Digital Output (plus two airplane-style ServoMotors) Brick.
- **Sd-50/8** & **Sd-50/40:** Up to forty digital outputs, solid state Mp3/.wav audio playback from a Sd flash card, 400-500 Watt equiv. amp, ServoMotor control, and DMX-512 input and outputs. All in one little box.



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Programming Consoles for Show Control Systems

Programming Consoles are used to control the movements for an animated show in RealTime†. You move the controls, and **Pc•MACs** will remember exactly what you do.

Universal Pro and Expansion: The top-of-the-line Pc•MACs Programming Console:

- Each **Universal Pro** and **Expansion** has eight 100mm motorized digital sliders for programming.
- The **Universal Pro** can have up to three expansions added to it, for up to 32 analog or digital inputs.
- Motorized sliders move to follow the programmed data. Recording starts the instant you touch a slider.
- An LCD 'Scribble Bar' shows the names of all the movements right above each slider.
- **Pc•MACs** transport controls right on the console. Large LED for displaying timecode of your shows.
- Auto selecting 100 to 240 vac supply for operations anywhere in the world.
- Plug-n-Play USB connection to your PC using included cable. **Expansions** attach to the **Universal Pro**.

USB-Sliders:

- Eight 100mm long throw slide pots.
- Eight Digital button inputs. These can also be assigned to control **Pc•MAC's** basic transport functions.
- Four additional Digital inputs for expansion.
- Twelve bit native analog resolution. Supports eight through sixteen bit resolution channels
- Plug-n-Play USB connection to your PC using the included cable.

USB-MbJoystick:

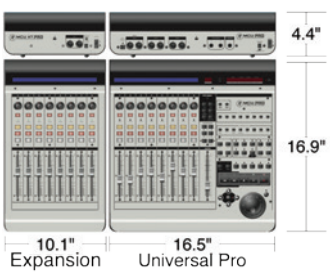
- For programming 3-DOF or 6-DOF motion bases by simply 'flying' them.
- Two extra 100mm long throw slide pots. Use these for controlling lighting or other 4-D effects
- Eight Digital buttons for programming digital functions and 4-D effects or for controlling **Pc•MACs**.
- Four additional Digital inputs for expansion.
- Twelve bit native analog resolution. Supports eight through sixteen bit resolution channels
- Plug-n-Play USB connection to your PC using the included cable.

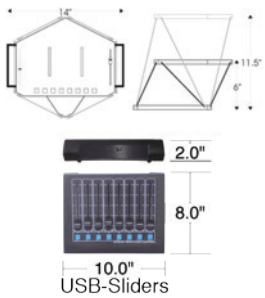
USB-AtoD:

- 2" x 1.25" PCB with Analog and Digital inputs and USB output.
- Use the **USB-AtoD** for making your own custom consoles and Waldos‡.
- Eight 0-5 volt analog inputs. Just attach potentiometers.
- Twelve discrete button inputs. Can be wired for up to 36 buttons using diodes in a 6x6 matrix.
- Twelve bit native analog resolution. Supports eight through sixteen bit resolution channels.
- Plug-n-Play USB connection to your PC using the included cable.

† RealTime operation requires a **MACs-License** for more than 16 channels of data.

‡ A 'Waldo' is a model of the thing you are controlling. Move the Waldo and the real thing follows.





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Pc•MACs

Performance Capture & Editing Software

Pc•MACs turns a PC into a performance capture, editing and programming tool for animatronics, fountains, museums, special effects, pyrotechnics, puppetry, and more.

Using our free **Pc•MACs** software, shows can be programmed by just 'drawing' it on the OffLine Editing screen, or you can use performance capture and playback for up to sixteen eight bit wide channels (128 digitals) using just the PC's keyboard, mouse, joystick, **USB-Slider Console** or **USB-AtoD**.

With a **MACs-License** on your PC you can program up to 16,384 channels (131,072 digitals) on up to 32 DMX-512 universes. The dozens of powerful editing tools allow you to easily make your show 'perfect'. While programming, the GilderGear that will form the permanent control system is used as an output for **Pc•MACs**, receiving data through the serial, DMX-512 or other ports from the PC. Once programmed, shows are downloaded to these cards. The PC can then be removed and the GilderGear will run all by itself.

Advanced Programming features include:

- Standard 'Cut', 'Copy' and 'Paste' functions make editing movements as easy as editing a letter.
- Movements are shown and edited graphically. You can zoom in to view a few frames, or zoom out to look at the whole show. Use your mouse to 'mush' movements around (Eight 'mushing tool' options!).
- Manual or automatic 'inbetweening' when analogs are punched in or out (or when editing).
- Real time programming of up to 16,384 analogs and/or 131,072 digital functions.
- Program with your PC, or add a **Universal Pro**, **USB-Sliders**, **USB-AtoD**, **USB-MbJoystick** console.
- Output through DMX-512 (isolated USB-DMX512 in a XLR-5), serial ports, or via ethernet (ArtNet).
- Analog output resolutions of 8, 12, 16, 24, or 32 bits are supported. Eight digitals fit in one DMX address!
- Synchronizes with DVDs, LaserDiscs, Smpte, SoundFiles, Video, Internal or External clocks.
- Movements, figures and console presets can all be 'named'. Names are then displayed on consoles.
- 'Yak' pastes audio from a sound or video into an analog or digital function to 'rough in' a mouth move.
- 'Mixer' to combine movements in RealTime, create soft limits, and easily setup custom kinematics.
- 'Skew' function automatically shifts data forward in time to compensate for response delays.
- 'Ease-In' keeps analog functions from moving quickly when they shouldn't. Start/stop without jumping.
- 'Splined' (curve matching), 'linear' (straight line) or 'curved' (simple curve) when editing.
- Filtering lets you smooth the 'roughness' out of analog functions which are programmed in RealTime.
- Time can be added, removed, compressed or stretched to move actions into line.
- Single Step allows you to review or program your show one frame at a time, or at a lower frame rate.

System Requirements: **Pc•MACs** will run on most flavors of Windows. Your PC needs to be reasonably fast, especially if you will be using many channels. A large screen is always a help for editing. Your PC must have ports available for connecting consoles, USB-to-serial converters, USB-to-DMX converters, etc. as needed. If you have a Mac, you can run **Pc•MACs** using Boot Camp, Parallels, or other Windows-enabling software.

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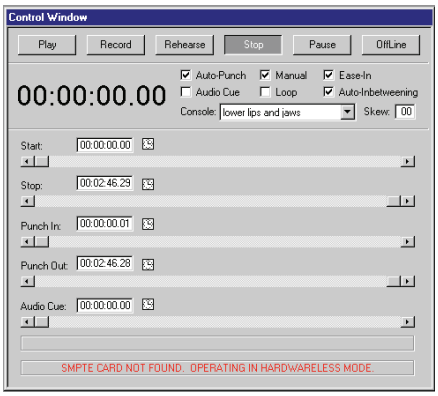
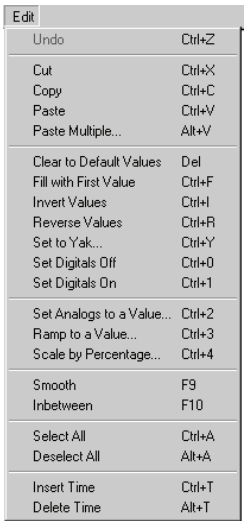
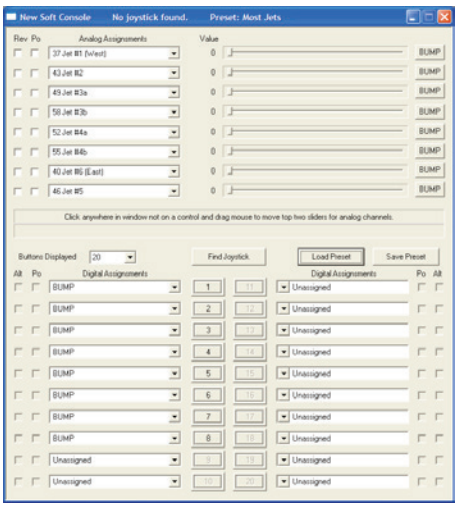
Pc•MACs Show Performance Capture and Editing Software



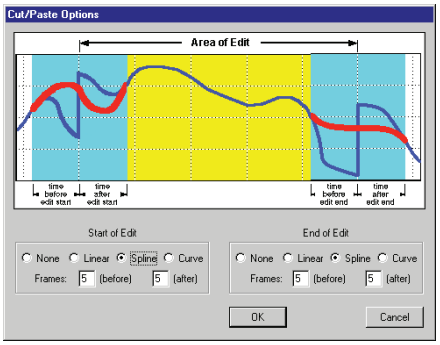
What could be more straight forward than 'record', 'play' and 'stop'? You want to see only a part of your show? Just move the sliders.



Just how many editing functions do you need? These are just some of them!

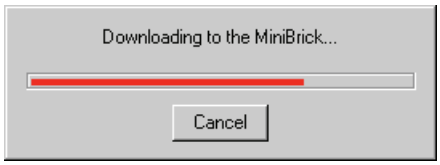


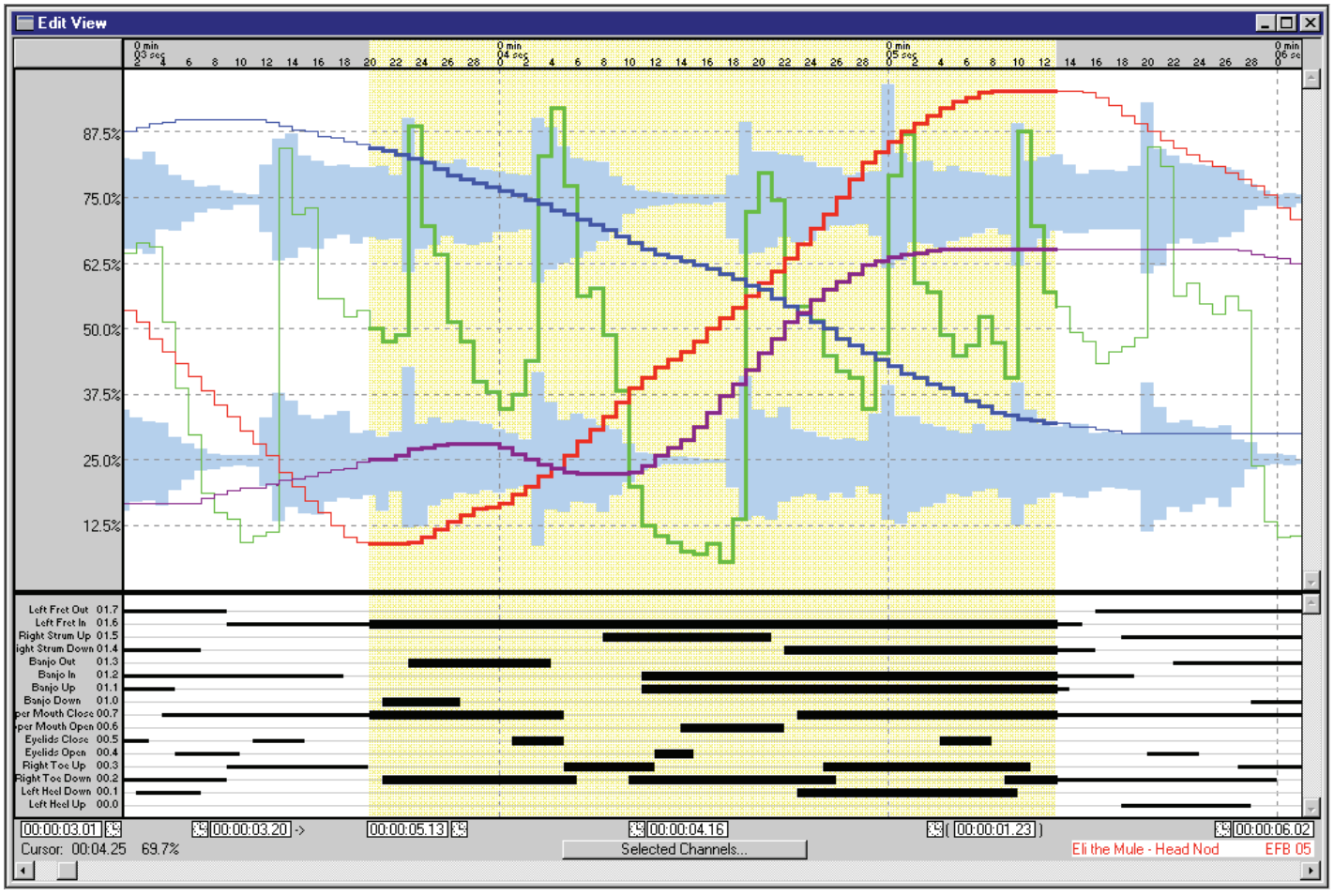
With the 'Hardwareless RealTime' mode you can program shows using just your PC's mouse, keyboard and (optionally) joystick. You will see the animation moving as you program it, and **Pc•MACs** will remember exactly what you did and precisely when you did it.



When you do anything that might cause a jump in the data, **Pc•MACs** can automatically clean it up for you.

Once programmed, just send your shows to the output cards.





The OffLine editing screen lets you see and edit your show. Time scale is at the top. Analog moves and audio are in the upper window, digitals in the lower. If you are locking to a video, there will be a window to show that too. You can 'draw', smooth, cut, copy, paste, ramp, inbetween, fill, stretch, compress, reverse or invert movements. You can even program mouth moves by transferring the audio into them.

Br-miniBrick4

Four Output Stand-Alone Show Control System

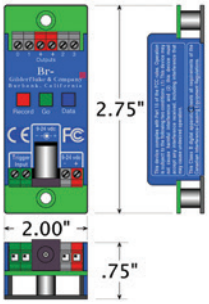
The **Br-miniBrick4** is a complete stand-alone Show Control System. It features a single 'trigger' input, and four high current outputs for driving solenoids, lights and relays.

To program the **Br-miniBrick4**, simply press and hold the red '**Record**' button until the first output starts flashing. Press again to step to the output you want to record. When you are ready to record, tap the green '**Go**' button. Any previously recorded data will play back. If you press AND HOLD the '**Record**' button, anything you do on the blue '**Data**' button is recorded on this one output while the other outputs continue to play back. The **Br-miniBrick4** will remember exactly what you do and precisely when you did it. You repeat this until you have all four outputs programmed just the way you want them.

Features of the Br-miniBrick4 include:

- Each **Br-miniBrick4** has a show capacity of over four minutes at thirty updates per second! Once programmed, shows are retained for approximately forty years, with or without power applied.
- One isolated input is used to trigger from push buttons, motion sensors, or any other kind of switch.
- Each of the four outputs is rated for a continuous load of 250 ma., or one amp peak at 24 vdc. This is enough to drive small solenoid valves, relays, lights, and similar loads. The LEDs show all output activity.
- High quality cage clamp-style screw terminals for all power, trigger, and output connections.
- Runs on anything from 9 to 24 vdc, including batteries or solar cells.
- Sturdy metal case mounts in **Snap-Track**, with Velcro, double face tape or a pair of screws.
- Optional **Ser-Adapt2** allows RealTime programming and 'downloading in place' through our easy-to-use free **Pc•MACs** software. This lets you program with greater accuracy, or program lots of **Br-miniBrick4s** identically! When downloaded, a **Br-miniBrick4** can hold more than one show at one time and supports update rates from one frame per second to a maximum of 100 frames per second. This allows you to program 'delay' shows that tick along at low frame rates between your main shows. The 'Next' show can be set for the end of any show, allowing you to build 'chains' of shows. Shows can be accessed sequentially or directly using the single input. The input can also be set to start, stop, pause, continue, or directly select a specific show.

To add sound, use an **Sd-10** or **Sd-25-w/DMX** Audio Repeater. If you need a few more inputs and outputs, consider our **Br-miniBrick8** or **Br-ZBrick**. For built in animation control, audio repeaters, amplification, and lighting control, use our **Sd-50** series controllers.



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Br-miniBrick8

Two ServoMotor & Eight Digital Output Stand-Alone Show Control System

The **Br-miniBrick8** is a complete stand-alone Show Control System. It features two 'trigger' inputs, DMX-512 input or output, two airplane-style servo motor control outputs and eight high current outputs for driving solenoids, lights and relays.

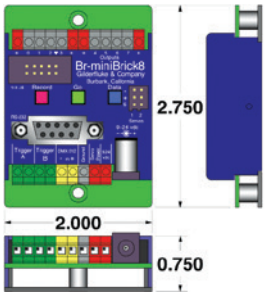
You can program the digital outputs without a computer. Press and hold the red '**Record**' button until the first output flashes. Press again to step to the output you want to record. When you are ready to record, tap the green '**Go**' button. Any previously recorded data will play back. While you press AND HOLD the '**Record**' button, anything you do on the blue '**Data**' button is recorded on this one output while the other outputs continue to play back. The **Br-miniBrick8** will remember exactly what you do and precisely when you did it. You repeat this until you have all eight outputs programmed just the way you want them.

To program the **Br-miniBrick8** using a computer, you can draw the sequence you need on the screen of your computer using our free **Pc•MACs** software. You can also program in Real-Time using the PC's mouse, keyboard and (optionally) a Joystick or other console. **Pc•MACs** will remember exactly what you do and precisely when you did it. When you have all your shows completed, you can send them to the **Br-miniBrick8** through the serial port. The PC can then go away. The **Br-miniBrick8** will run by itself.

Features of the Br-miniBrick8 include:

- Automatic 'program in place' download through the standard serial port on your PC and the free **Pc•MACs** software. It takes about twenty seconds to download a fifteen minute show.
- Each **Br-miniBrick8** has a single channel show capacity of over thirty-six minutes at thirty updates per second! Once programmed, shows are saved for approximately forty years, with or without power applied.
- Two optoisolated inputs are used to trigger from push buttons, motion sensors, or any other type of switch.
- Supports up to 255 shows at a time (from serial). You can loop a single show or build 'chains' of shows.
- Each of the four outputs is rated for a continuous load of 150 ma., or 500 ma. peak at 24 vdc. This is enough to drive small solenoid valves, relays, lights, and similar loads. The LEDs show all output activity.
- Runs on anything from 9 to 24 vdc, including batteries. Mounts in **Snap-Track**, **DinAdapt**, or just Velcro or screw it down.

To add sound, use an **Sd-10** or **Sd-25-w/DMX** Audio Repeaters. If you need less outputs, consider our **Br-miniBrick4**. For more i/o, use the **Br-ZBrick**. For built in animation and lighting control, audio repeaters, and amplification, use our **Sd-50** series of controllers.



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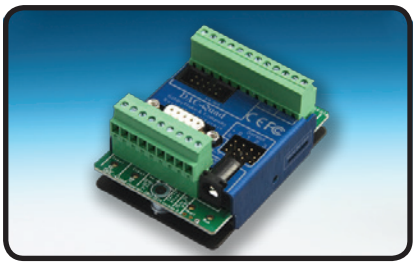
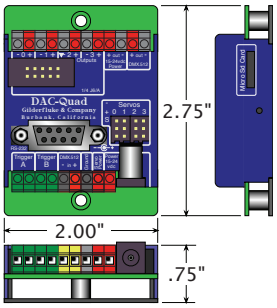
DAC-Quad

DMX-512, 4 Analog & ServoMotor Output miniBrick





The **DAC-Quad** is used when you need to control anything that needs up to four 0-10 vdc analog outputs. These include animated shows, lighting, motion base simulators, pneumatic and hydraulic systems, special effects, signs, fountains, and more.

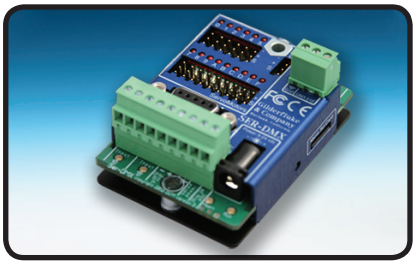
A Digital device is either on or off, like a light switch. An Analog device is on, off, or at any point between. A common example of an analog device is a lamp dimmer. In animation, analog movements give the fluid, lifelike movements that are needed to bring an animated figure to life. Analog movements can be moved as quickly or slowly as you desire, and stopped at any point within their range of movement.

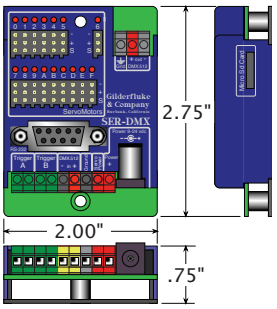
Features of the DAC-Quad include:

- The **DAC-Quad** controls four 0-10 vdc outputs or four PCM outputs for controlling model airplane-style servomotors. These mirror the analog outputs. Analog outputs are oversampled to four times the incoming frame rate using a 16 bit DAC. This makes the outputs smooth enough to run a large motion base. Analog endpoints can be set anywhere within the 0-10 vdc range, or even reversed. Each ServoMotor output can be adjusted anywhere between 0.5 and 2.5 milliseconds to give you a greater than 90º ServoMotor rotation.
- Accepts eight or twelve bit resolution commands from your **Pc•MACs** Animation Programming System.
- Built-in Ease-In when shows or DMX-512 starts or stops. These keep the outputs from jumping.
- Networkable! The **DAC-Quad** can act as a 'master', sending up to 512 channels of DMX-512 data to other GilderGear and DMX-512-compatible equipment that act as a 'slaves', or the **DAC-Quad** can receive DMX-512 from an external source, and itself be a 'slave'. Error checking prevents any updates from bad DMX-512 data. As a 'Master', the **DAC-Quad** has the DMX-512 output capacity to run most shows.
- Micro Sd flash card for a virtually unlimited show capacity. Up to 255 shows can be loaded onto a **DAC-Quad** at one time. In many installations, the **DAC-Quad** can take the place of a lighting board.
- Runs on anything from 12 to 24 vdc, including batteries. Mounts in **Snap-Track**, **Din-Adapt**, or just Velcro or screw it down

SER-DMX

DMX-512 ServoMotor Controller





The **SER-DMX** is used for controlling remote control-style ServoMotors from its micro Sd card, or from any Gilderfluke Animation Control System or other DMX-512 source. ServoMotors are an inexpensive way to add analog movements to animated figures.

A Digital device is either on or off, like a light switch. An Analog device is on, off, or at any point between. A common example of an analog device is a lamp dimmer. In animation, analog movements give the fluid, lifelike movements that are needed to bring an animated figure to life. Analog movements can be moved as quickly or slowly as you desire, and stopped at any point within their range of movement.

Features of the SER-DMX include:

- The **SER-DMX** controls up to sixteen remote control-style ServoMotors. These use a Pulse Code Modulated (PCM) command signal with pulses that typically vary between 1.0 and 2.0 milliseconds to give you a greater than 90º ServoMotor shaft rotation. Each ServoMotor output can be adjusted anywhere between 0.5 and 2.5 milliseconds, or even reversed. Depending on your ServoMotor, this can give you up to 180º of movement. The ServoMotor endpoints do not interact during adjustment.
- Accepts eight or twelve bit resolution commands from your **Pc•MACs** Animation Programming System.
- Built-in Ease-In when shows or DMX-512 starts or stops. These keep the ServoMotors from jumping.
- Networkable! The **SER-DMX** can act as a 'master', sending up to 512 channels of DMX-512 data to other GilderGear and DMX-512-compatible equipment that act as a 'slaves', or the **SER-DMX** can receive DMX-512 from an external source, and itself be a 'slave'. Error checking prevents any updates from bad DMX-512 data. As a 'Master', the **SER-DMX** has the DMX-512 output capacity to run most shows.
- Micro Sd flash card for a virtually unlimited show capacity. Up to 255 shows can be loaded onto a **SER-DMX** at one time. In many installations, the **SER-DMX** can take the place of a lighting board.
- Indicator LEDs for heartbeat, trigger inputs, ServoMotor outputs, and DMX-512 status.
- Runs on anything from 9 to 24 vdc, including batteries. Mounts in **Snap-Track**, **DinAdapt**, or just Velcro or screw it down

Z-Brick (Br-ZBR)

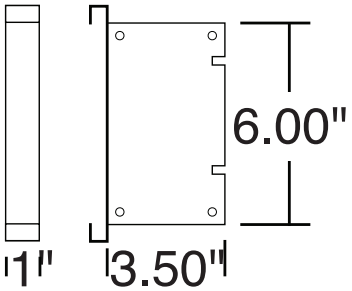
Thirty-Two Digital Outputs & DMX-512 Input and Output

The **Z-Brick** is a complete thirty-two digital output Show Control System. The **Z-Brick** runs stand-alone, or as a 'master' or a 'slave' on a DMX-512 network. When running standalone or as a DMX-512 'master', it is just like a big **Br-MiniBrick8**, with four times the outputs and virtually unlimited memory capacity. It accepts data through its RS-422 or DMX-512 ports for RealTime programming, and stores shows on standard Sd/SdHC flash cards.

To program the **Z-Brick**, you can draw the sequence you need on your computer using our free **Pc•MACs** software. For smaller shows, or by using the optional 'RealTime' license for shows larger than 16 channels (the equivalent of four Z-Bricks), you can program using your PC's mouse, keyboard and joystick. **Pc•MACs** will remember exactly what you do and precisely when you did it. When your shows are completed, they can be sent to the **Z-Brick** through the serial port, or you can drag-n-drop the completed files onto a standard Sd or SdHC flash card, and insert it in the front of the **Z-Brick**. The PC can then go away and the **Z-Brick** can run by itself.

Features of the Z-Brick include:

- The 32 digital (on/off) outputs are rated for 150 ma. continuous, or 500 ma. peak. These can drive small solenoid valves, relays, LEDs and similar devices. Outputs are protected against most short-circuits.
- Shows are stored on standard Sd/SdHC flash cards for a virtually unlimited capacity (up to 32 GBytes). The Sd card's 'Write Protect' switch can protect show data from accidental changes. Like all GilderGear, up to 255 shows can be loaded onto a **Z-Brick** at one time.
- The **Z-Brick** supports update rates from one frame per second to a maximum of 100 frames per second. Different shows can each be programmed at different frame rates.
- Networkable! Transmits a full 512 channel DMX-512 universe to act as a network 'master', or receives a full 512 channel DMX-512 universe to use as a 'slave'.
- Triggerable! Four optoisolated inputs or the RS-422 serial port can be used to start, stop, pause, continue, or access shows. Rising or falling edges can trigger different actions. Supports both random and sequential playlist commands.
- Fits any 'Brick' card cage. These are available with one to sixteen slots, rack mounted or freestanding.
- The **Z-Brick** runs on any voltage from 9 to 24 vdc.
- Fits any 'Brick' card cage. These are available with from one to sixteen slots, rack mounted or not.



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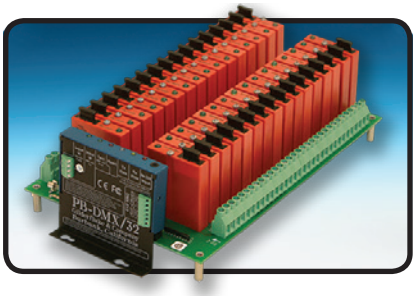
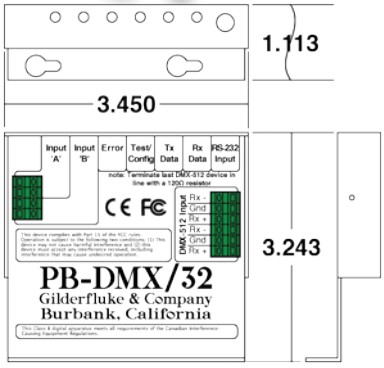
Pb-DMX/32
Relay Controller





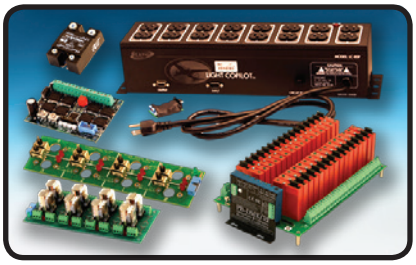
The **Pb-DMX/32** plugs right onto **Pb-8**, **Pb-16**, **Pb-24**, or **Pb-32** relay modules. The **Pb-DMX/32** receives DMX-512 data, RealTime serial data through its RS-232 serial port, or show data from its onboard data storage to control up to thirty-two AC or DC output relays. Using DMX-512 networking, 4096 relays can be controlled using just a pair of wires!

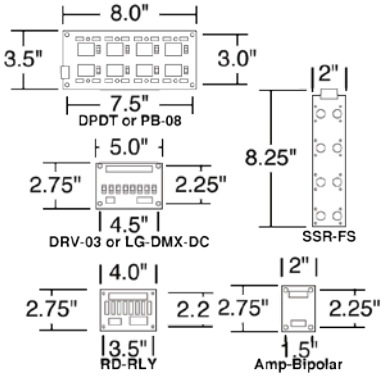
To program the **Pb-DMX/32**'s onboard memory, you can draw the sequence you need on the screen of your computer using our free **Pc•MACs** software. You can also program in RealTime using the PC's mouse, keyboard and (optionally) a Joystick or other console. **Pc•MACs** will remember exactly what you do and precisely when you did it. When you have all your shows completed, you can send them to the **Pb-DMX/32** through the serial port. The PC can then go away. The **Pb-DMX/32** will run by itself.

Features of the Pb-DMX/32 include:

- Plugs onto a Grayhill 8, 16, 24, or 32 position 'G5' relay mounting boards.
- Accepts standard DMX-512 data. Outputs up to 300 DMX-512 channels.
- Automatic 'program in place' download through the RS-232 serial port on your PC and the free **Pc•MACs** software. It takes about thirty seconds to download a ten minute show.
- RS-232 port is connected using a 1⁄8" mini plug. Compatible cable included.
- 'Test' button allows outputs to be manually turned on one at a time.
- Four (optionally eight) MBytes of nonvolatile Show Control memory.
- Each **Pb-DMX/32** has a show capacity of about 9.5 (optionally 19.0) hours at thirty updates per second! Once programmed, shows are saved for approximately forty years, with or without power applied. Supports up to 255 shows.
- Two optoisolated inputs are used to trigger from push buttons, motion sensors, or any other kind of switch.
- Runs on anything from 7 to 24 vdc. Use 5 volt modules for supply voltages up to 9 volts. Use 15 volt modules with supply voltages from 11 to 21 volts. Use 24 volt modules for supply voltages from 18 to 24 volts. AC and DC output modules are available. Typical current capacity is 3.5 amps each.

Relays, Fanning Strips, Terminal Blocks, Output Modules and High Current Drivers





The outputs from Gilderfluke and Company's Animation Control Systems are designed to directly drive the majority of loads. These 'relays' can be used where you need to control a higher current or voltage than the Animation Systems can provide directly, or when you need a completely isolated 'contact closure' output.

Output Modules, Relay Boards, and High Current Drivers include:

- **DRV-05:** Eight Channel Bipolar Bridge Driver. For PEM leapfrog fountains.
- **LC-8SP:** Eight solid state relays in a 3U 19" rack mountable metal enclosure. Single line cord in, eight duplex outlets for plugging in loads. 115 vac 10 Amps/channel, 2400 Watts/20 Amps Max.
- **SSR-FS:** Fanning Strip for eight **SSR-25A** hockey puck-style relays.
- **SSR-25A:** 240 vac, 25 amp Solid State 'Hockey Puck' Relays.
- **Pb-xx:** Relay Mounting Boards available with 8, 16, 24 or 32 relay spaces. Includes **Pb-CBL-xx**. You can mix and match AC and DC output relays.
- **Pb-DMX/32:** DMX-512 input adapter for 8, 16, 24, or 32 position **Pb-xx** mounting boards. Also has storage for about nine hours worth of shows (at 32 outputs, 30 FPS). Saves installation wiring by networking relays.
- **Pb-CBL-xx:** I/O Module Adapters. Available for 8, 16, 24, or 32 position.
- **ODC:** 3.5 Amp, 60 vdc Solid State Relays for mounting on a **Pb-xx**.
- **OAC:** 3.5 Amp, 24-280 vac Solid State Relays for mounting on a **Pb-xx**.
- **RD-RLY:** Eight small Electromechanical relays. 500 ma. 200 volts.
- **DPDT:** Eight Double Pole/Double Throw (DPDT) relays. 5 Amp contacts.
- **C-10trans** and **C-40trans:** Ribbon cable to screw terminal adapters.

Analog Drivers, Relays and Adapters include:

- **Lg-DMX/DC:** Eight Channel Pulse Width Modulated Dimmer for DC loads. DMX- 512 in. Outputs conservatively rated at 8-24 vdc, 9 Amps each.
- **DP-DMX20L:** Four channel DMX-512 dimmer. 115 vac 600 Watts/channel, 2400 Watts/ 20 Amps Max.. Six and twelve output dimmers are also available.
- **Amp-Bipolar:** Four channel 0-10 vdc in, +/- 10 Volt DC out. 1⁄4-J6/A in, screw terminal outputs.

Br-ANA

Sixteen Analog Output Smart or Dumb Brick

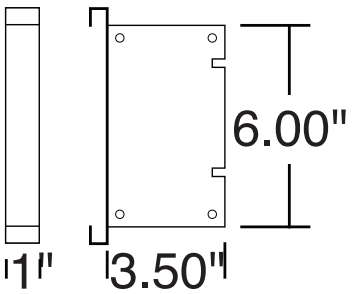
The **Br-ANA** is used when you need to control anything that needs a 0-10 vdc analog control voltage. These include animated shows, lighting, motion base simulators, pneumatic and hydraulic systems, special effects, signs, fountains, and more.

A Digital device is either on or off, like a light switch. An Analog device is on, off, or at any point between. A common example of an analog device is a lamp dimmer. In animation, analog movements give the fluid, lifelike movements needed to bring an animated figure to life.

Features of the Br-ANA include:

- Sixteen 0-10 vdc outputs with eight or twelve bits of resolution.
- Outputs are oversampled to 120 Hz, no matter what the data input rate is. This makes the outputs smooth enough to run even the largest motion bases.
- Analog endpoints can be adjusted anywhere within the 0-10 vdc range, and even reversed.
- Stores and transmits up to 512 channels of DMX-512 data.
- Accepts DMX-512 or serial RealTime data from a **Pc·MACs** system during programming. Can be used as a part of a permanent **Pc·MACs** system. Error checking prevents glitches from bad data.
- Operates as a 'Smart' Brick or 'Dumb' Brick. Use 'Smart' Brick Mode when you are using a 'Smart' Brick Brain as a time code reader to synchronize with an external source of time code (LaserDisc, DVD, Smpte, etc.). Use 'Dumb' Brick mode when you just need it to trigger and play a prerecorded show.
- Sd/SdHC flash card for a virtually unlimited show capacity. Up to 255 shows can be loaded onto a **Br-ANA** at one time.
- Indicator LEDs for outputs, Heartbeat, DMX-512 and Brick Net status, Sd flash card read and write, J8 inputs and errors on front of card.
- Networkable! In 'Dumb' Brick mode, four optoisolated inputs can be used to start, stop, pause, continue, or access shows. Can be controlled and Configured through the networked RS-422 port.
- Cards can be mounted in 'inaccessible' locations since they are adjusted through the serial port.
- Analog outputs are compatible with most Variable Frequency Drives (VFDs) and intelligent motor controllers, **EFB-QUAD**, **PID-QUAD**, **AMP-Bipolar**, etc.
- Fits any 'Brick' card cage. These are available with from one to sixteen slots, rack mounted or not.
- Runs on any voltage from 17 to 24 vdc.

If you don't need the sixteen analog outputs of the **Br-ANA**, you may want to choose the four output **DAC-Quad** instead.



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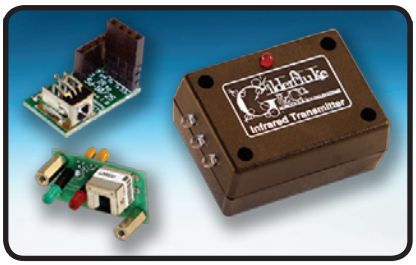
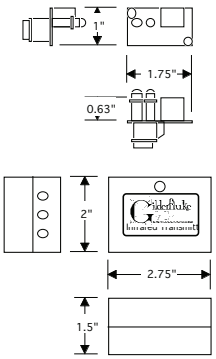
IR-Tx, IR-Rx & Sd-IR/Rx

IR Transmitter & Receivers





On applications where a **Sd-10**, **Sd-25-w/DMX**, **Sd-50/08**, **Sd-50/40**, or **Br-Brain4** is mounted on a vehicle, wiring control signals to them is usually impractical. An InfraRed link can be used to request and play specific shows and messages through the serial port without any wires. It can be used on trains, dark rides, mono-rails, trams, subways, rollercoasters, and a variety of mass transit systems. When used on vehicles which are used on different routes, the appropriate messages will be selected and played automatically.

Our **Sd-10**, **Sd-25-w/DMX**, **Sd-50/08**, **Sd-50/40**, or **Br-Brain4** have settings to support the IR Link. These filter the data from the IR link before it actually starts a show or plays a sound to avoid false triggers.

In applications where all you need to do is trigger messages sequentially the IR Link would be overkill. Standard rollover switches, pressure mats or optical sensors should be used: Our **IR-Passive** is a passive infrared motion detector. The **IR-Thru** and **IR-Retro** are through beam and retro reflective infrared beam-break sensors.

Features of the IR-Tx Transmitter include:

- Each transmitter can be set to send requests for a specific show or message.
- Transmitters are placed along the path of the vehicle at each point where a message is to be played. When the vehicle enters the range of the IR transmission, it will select and play the appropriate show or message. Transmitters can be placed along both sides of a track where different messages are needed for vehicles traveling in each direction.
- Three high output IR diodes give the transmitter a line of sight range of approximately 20 feet indoors.
- Dipswitch settings allow you to transmit requests for any one of 255 different messages.

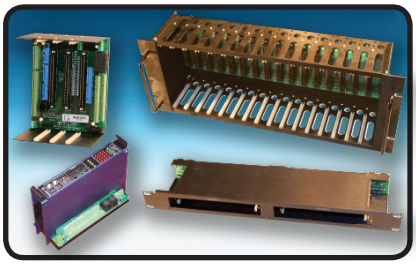
Features of the IR-Rx Receiver include:

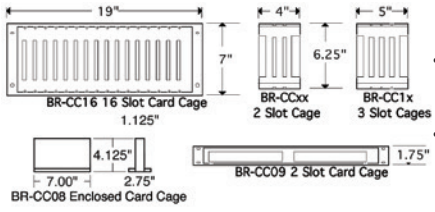
- RJ-12 for direct connection to all Gilderfluke & Company RS-422 serial ports.

Features of the Sd-IR/Rx Receiver include:

- Mounts inside a **Sd-10** or **Sd-25-w/DMX** for triggering SoundFiles from an **IR-Tx**.

Card Cages for all 'Brick' Show Control Systems





These card cages can be used to mount many of the show control products manufactured by Gilderfluke and Company.

The **Br-CC08** Card Cage is a single slot card cage which is used to enclose and protect a single 'Brick' card. It provides better physical protection for the card for a more 'industrial' look than our other open frame single card cages.

The **Br-CC16** cage uses seven inches of a 19" equipment rack to hold sixteen cards. The **Br-CC09** holds two cards, and takes up 1-3/4" of rack space. All rack mount card cages have standard 'J6' cable connectors on their backs which are compatible with all our animation control products. A **C-40Trans** can be used for attaching discrete wires.

The one, two and three slot cages are used to mount Brick cards. The three slot card cage can hold a **Br-Brain4** and two Bricks. All these small Brick Card Cages are available with connectors for discrete wires or standard 'J6' cables.

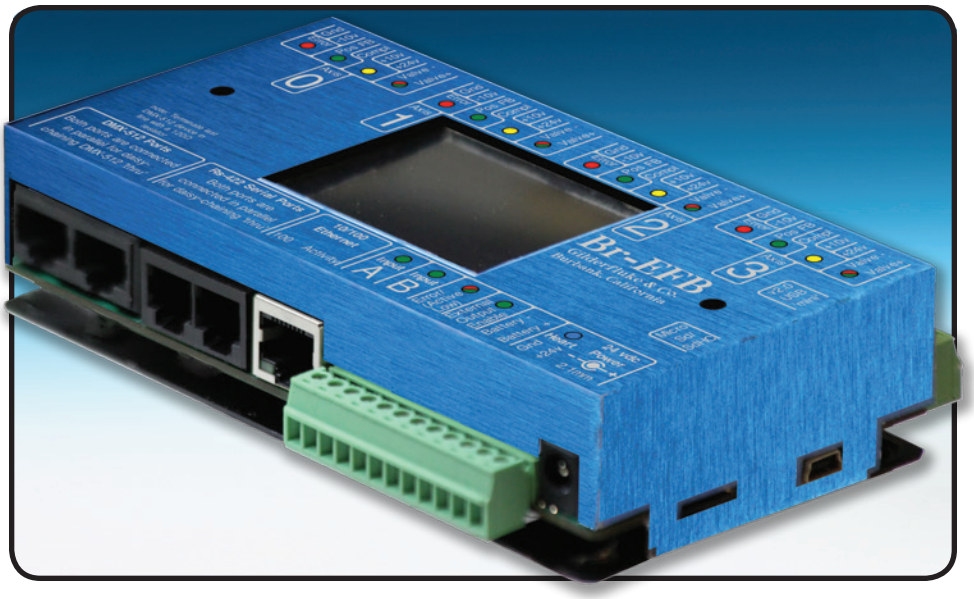
Animation equipment which can be mounted in these cages include:

- **Br-Brain4:** Smart Brick Brain that can control and synchronize any number of Smart Bricks. Synchronizes with Smpte, LaserDisc and Pioneer DVD players. Stores and outputs show data for up to four full DMX-512 universes. Removable Sd/SdHC flash card for show data storage. Within the DMX-512 there can be eight independent show sequences running.
- **Br-ANA:** Sixteen 0-10 volt analog outputs plus DMX-512 output Brick. Shows can be permanently downloaded and stored on the **Br-ANA's** Sd/SdHC flash card.
- **Z-Brick:** DMX-512 In, Digital Output Brick. Thirty-two 150 ma. continuous, 500 ma. peak outputs. With removable Sd/SdHC flash card for onboard show storage.

Br-EFB

Electronic FeedBack Brick

Preliminary Data:
Specifications subject to change

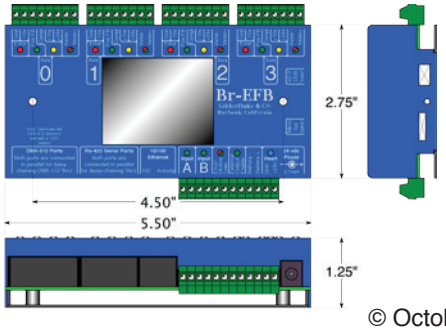


The **Br-EFB** is used when you need to close a servo loop to control analog pneumatic and hydraulic cylinders, DC motors, or stepper motors. These are used in animated shows, motion bases, industrial systems, special effects, fountains, and more.

An EFB card measures the position of a movement, compares this with the position it is being told to be at, and opens or closes the valve (or turns on or off the motor) to get the movement to where it should be. The **Br-EFB** does this thousands of times each second. The **Br-EFB** also supports 'compliance', which adds force feedback to the loop.

Features of the Br-EFB include:

- Up to four independent axis of PID (Position, Integral and Differential) Electronic Feedback.
- Resolution of eight or twelve bits for each axis being controlled. Sixteen bit resolution A/D for feedback.
- Twelve bit resolution +/- 10 vdc outputs can run most servo valves, VFDs and motor drivers.
- Highly oversampled PID loop for outputs smooth enough to run even the largest motion bases.
- Self adjusting initial setup, and automatic adjustment while running. You can also set it up manually.
- Actuator endpoints can be limited anywhere within the range of movement, and even reversed.
- Each axis has a removable screw terminal block for connections to the actuator: Ground and 24 VDC for powering the valve and feedback sensors (PTC fused at 1.1 Amp), Position Feedback Input (0-5, +/-5, 0-10 or +/-10 dc), Compliance feedback input (0-5, +/-5, 0-10 or +/-10 dc), -10/+10 vdc reference for using potentiometers for position feedback, and positive and negative outputs for controlling the valve/motor.
- 'Enable' input disconnects the valve outputs from the Br-EFB and connects them to 'Battery' input.
- Shows are stored on standard micro Sd/SdHC flash cards for a virtually unlimited capacity (up to 32 GBytes). Like all GilderGear, up to 255 shows can be loaded onto a **Br-EFB** at one time.
- Networkable! Transmits a full 512 channel DMX-512 universe to act as a network 'master', or receives a full 512 channel DMX-512 universe to use as a 'slave'. Uses USITT-standard pinout for DMX-512 through RJ-45 cables. DMX-512 input/output/thru to daisy-chain using standard Ethernet patch cords.
- Ethernet (10/100) for monitoring and communicating with the **Br-EFB**.
- Triggerable! Two non-polarized optoisolated inputs or the networkable RS-422 serial port can be used to start, stop, pause, continue, or access shows. Rising or falling edges can trigger different actions, including random and sequential playlist commands.
  RS-422 serial port input/output/thru for easy daisy-chaining of networkable configuration and control port.
- One quarter VGA color touchscreen can be used to adjust settings, or monitor each axis.
- Sturdy aluminum enclosure. Mounts in **Snap-Track**, **DinAdapt**, or just Velcro or screw it down.
- The **Br-EFB** is designed to run on 24 vdc.



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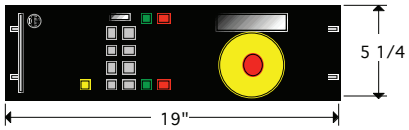
Kp-300

Control Panel for Motion Bases and other Smart Brick Installations



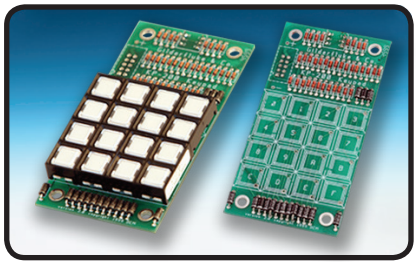
The **Kp-300** is an operator panel which can be used in a MotionBase or other **Br-Brain4** application. With the addition of a card cage on its back, the **Kp-300** can become a complete motion base control system in just 5-1/4" of 19" rack space.

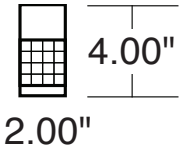
Features of the Kp-300 include:

- Because many features of the **Kp-300** are safety related, it has no microcontroller. With no microcontroller, there is no possibility of a 'crash'.
- Membrane-style keypad to select and play up to eight different shows, start and stop the Hydraulic Power Unit (if there is one), log unoccupied seats, and pause or 'un-pause' shows.
- Mushroom E-Stop button can be used to stop any show at any time.
- Fifteen optoisolated fail safe inputs. Each can be configured to E-Stop the system, pause a show, or force the HPU off as long as the error condition persists. If an input is used to monitor a seat belt, it can be logged to temporarily ignore an unoccupied seat. More inputs & outputs can be added.
- LEDs show the condition of each of the inputs or if they are set to be ignored by the seat belt logging feature. If an input triggers an error condition (E-Stop or show pause), a flashing red LED indicates the offending input. This allows you to catch the source of short lived errors.
- Counter records shows completed. Count is retained with power off.
- Two input bypass busses can be used to temporarily disable error inputs from software. An example of this feature's use would be on inputs used for door sensors. While these should trigger errors while the motion base is running, they must be disabled during the load/unload times.
- Blocking valve output forced off during any E-Stop or if the HPU is off.
- Shows can be paused either manually or by an error condition on a safety input. When a show is paused, the motion base will freeze. The operator can then continue the show once the error condition has cleared, call up a show to park the motion base, or do an E-Stop to bring it home.
- Optional **Kp-300-EXP** is an Input Expansion for **KP-300**. Adds up to 52 optically isolated inputs and 14 outputs.

Kp-200

Control Panel for Motion Bases and other Smart Brick Installations





The **Kp-200** Single Entry Keypads are used with our Show Control Systems and Digital Audio Repeaters when you need select and play a single show or AudioFile.

An application note is available from us if you need to wire your own buttons into a custom 'single entry keypad' for up to 255 buttons.

Kp-200 Single Entry Keypad features include:

- Each keypad has sixteen buttons, with each dedicated to a single show or AudioFile number. Just a single key press is needed to start.
- The first **Kp-200** can access shows/SoundFiles 1-15 (there is no show/SoundFile 'zero'). The second can be used to access shows/SoundFiles 16-31. Each additional **Kp-200** can be used to access the next sixteen shows or SoundFiles. Up to sixteen **Kp-200s** can be stacked together to allow access to all 255 possible SoundFiles or show numbers.
- Each keypad's address is set using a rotary dipswitch on the back.
- One piece unit ready to be mounted in your console or panel. Multiple units can be stacked side by side on two inch centers.
- 1/4-J6 works with **Br-Brain4** or any **Sd-50** Digital Audio Repeater.
- 1⁄2" square buttons. Key caps can be removed for inserting your own legends or numbers.
- Multiple **Kp-200s** can be powered by any low current 9 to 24 vdc power supply. Often this comes from the device being controlled.

Kp-200/wo Single Entry Keypad features include:

- This is the **Kp-200** keypad, but without the switches. It is used when you need to use your own switches to generate a binary show or SoundFile selection.

Br-Brain4

Time Code Reader, Smart Brick, Synchronizer, & DMX-512 Player

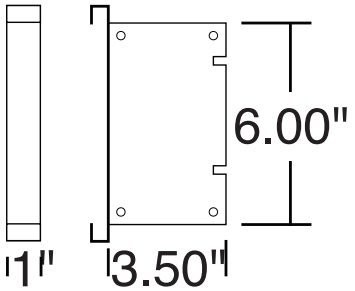
The **Br-Brain4** combines the functions of earlier Smart Brick Brains with the DMX-512 storage and output features of the Br-SmartMedia. With the appropriate output cards, it can control anything that can be manipulated with an electronic signal. These include animated shows and displays, fountains, fireworks, lighting, sound systems, simulators, slide and movie projectors, fiber optics, window displays, motors, pneumatic and hydraulic systems, special effects, signs, machines and machine tools in process control, etc.

You use a 'Smart' Brick System when you need to lock a number of 'Smart' Bricks together, and especially if you need to lock to an external time code. The 'Smart' Brick Brain acts as the time code reader. Any number of 'Smart' Bricks, and even other **Br-Brain4s** can be synced to another **Br-Brain4** through the 'Smart Brick Network'.

The DMX-512 output of the **Br-Brain4** can control up to 2048 channels on four full DMX-512 universes. Within the DMX-512 streams, eight separate 'sequencers' can be run independently of all the others, each with their own triggers. This means that some of the outputs can be used to control one show while the other outputs are divided among the seven other sequencers, each independently running their own shows.

Features of the Br-Brain4 include:

- Locks to Smpte, Pioneer LaserDisc and DVD time codes, or runs from internal clock.
- RealTime Clock for scheduling when shows will be played. Can be 'GPS' clock synchronized.
- LCD display and encoder for monitoring and setting minor adjustments. Configured through serial port.
- Modes allow it to control Moog motion bases, MIDI devices, and other serially controlled devices.
- Individual channels, or even bits within a single eight bit channel, can be run from separate sequencers.
- DMX-512 data from any source can be recorded into **Pc•MACs**, edited and loaded onto an Sd flash card for use on any GilderGear. The GilderGear can replace an expensive lighting board for your permanent installation.
- Supports up to 255 shows at one time. You can set any show to loop or play through just once.
- Shows can be selected and played using the networkable RS-422 serial port, or ten optoisolated inputs.
- Ease-In functions will generate a smooth cross fade when any sequencer is told to do something that might otherwise generate a jump in an analog channel.
- Can be used to control any DMX-512 compatible devices. These include most Gilderfluke & Company equipment, and virtually all moving lights, dimmers, smoke machines and strobes.
- Show data is stored on standard Sd or SdHC flash cards. These can hold days of DMX-512 show data.



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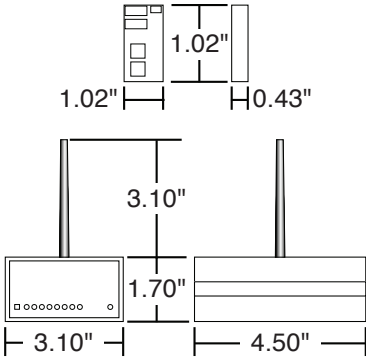
Bt-DMX
Bt-Servo
Wireless Servos



The **Bt-DMX** and **Bt-Servo** are used for wireless control of remote control-style ServoMotors from a **Pc•MACs** Animation Control System, **Br-Brain4**, **Sd-50** or any other source of DMX-512 data.

The **Bt-DMX** and **Bt-Servo** use a bidirectional 900 MHz link. You can wirelessly configure the **Bt-Servo cards**, or check on temperature, battery levels and the **Bt-Servo** card status from any PC or Mac.

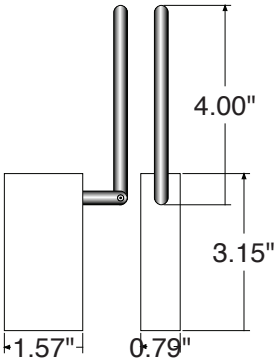
Features of the Bt-DMX include:

- Configured through USB serial port from any PC or Mac. Once talking to **Bt-DMX**, you can talk wirelessly to the **Bt-Servo** cards to configure them.
- 900 MHz frequency band. 49 software selectable, noninterfering channels.
- Five pin XLR for DMX-512 input.
- Each **Bt-DMX** transmits data for up to 128 ServoMotors.
- Range of up to 500 feet outdoors.
- Nine indicator LEDs show data updates, power, configuration status, etc.
- 3.1" x 4.5" x 1.7". Small enough to be placed close to the set.
- Includes 12 vdc power supply. 110 vac standard, 240 vac on request.

Features of the Bt-Servo include:

- Control up to sixteen remote control-style ServoMotors from each **Bt-Servo**.
- Accepts eight or twelve bit resolution position commands. ServoMotor positions are oversampled and calculated in sixteen bits for smoothness.
- Automatic Ease-In when DMX-512 or RF update signals start or stop.
- 900 MHz frequency band. 49 software selectable, noninterfering channels.
- Up to 128 servos (at 8 bits of resolution) on each frequency spread across eight or more **Bt-Servo** cards. Up to 85 servos per frequency at 12 bits.
- Each ServoMotor's ends of travel can be set anywhere between 0.759 and 2.241 milliseconds. Endpoints do not interact during adjustment.
- All settings are stored in nonvolatile memory.
- Two indicator LEDs show data updates, errors in received data, etc.
- Runs from 5 to 12 vdc servo power. Automatic servo shutoff if voltage drops below a user-preset level, or when Rf updates are not received.
- 2.025" tall x 1.025" wide x 0.425" thick. About the same size as a 9 volt battery!

Linx-Rx
Short Range
Wireless Link



The **Linx-Rx** and **Linx-Tx5** or **Linx-Tx8** form an eight channel short range wireless link. The 1⁄4-J6 output from the **Linx-Rx** can be used directly to run small relays and solenoids, or fed into any of Gilderfluke's relay modules to control higher current/voltage loads. Most commonly, the output of the **Linx-Rx** is used to start a sound or show playing on a Gilderfluke audio repeater or show controller.

Features of the Linx-Rx include:

- 433 MHz band short range wireless reception from pocket-sized transmitters
- Up to eight outputs can be used to control relays directly, or plug into the 1⁄4-J6 input of a **v-Hd-to-1/4J6**, **Br-Brain4** or **Sd-50**. Can be used to trigger any other Gilderfluke equipment through their optoisolated inputs.
- Draws power through the 1⁄4-J6 output.
- Indicator LEDs show data being received.
- Plastic enclosure can be mounted remotely, to optimize radio reception.
- Uniquely addressable to one of millions of addresses using a dipswitch.
- Runs on any voltage from 9 to 24 vdc.

Features of the Linx-Fob5 include:

- Five button keyfob transmitter.
- FCC Part 15, Canadian, and CE certified.
- Allows access to five of the outputs of the **Linx-Rx**.
- 2.37" x 1.37" x 0.47". Slightly shorter range than the **Linx-Tx8**.
- Uniquely addressable to one of millions of addresses using a dipswitch.
- Uses a standard 'watch' battery for power.

Features of the Linx-Tx8 include:

- Eight button pocket-sized transmitter.
- FCC Part 15, Canadian, and CE certified.
- Allows access to all eight of the outputs of the **Linx-Rx**.
- 2.81" x 1.62" x 0.60" (+1.37" antenna). Longer range than the **Linx-Tx5**.
- Uniquely addressable to one of millions of addresses using a dipswitch.
- Uses a standard 'watch' battery for power.

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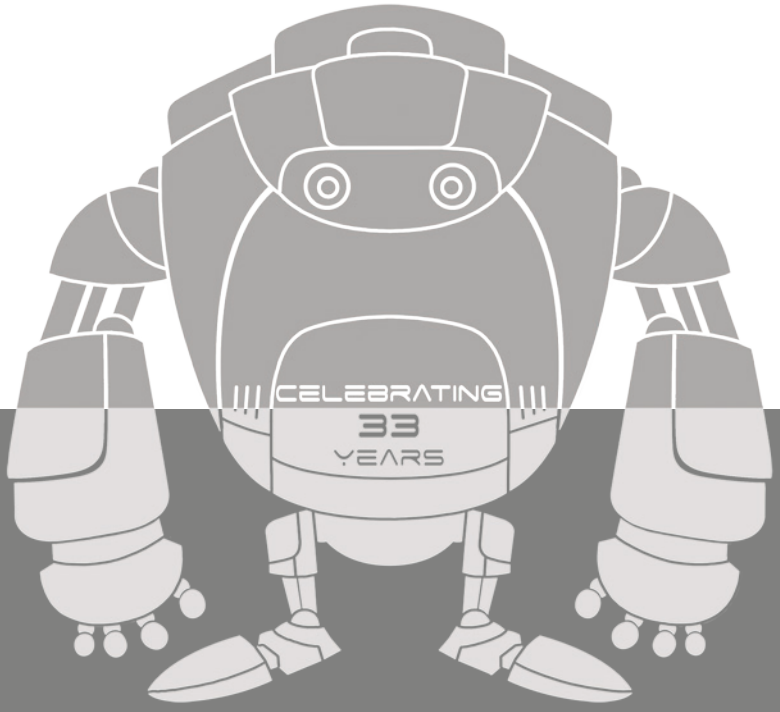

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