

BatSlide

V2.15

Battery Powered DBA system

Important Safety Information Enclosed. Read entire manual before proceeding.

Features :

5 ½" X 5 ½ " PCB that incorporates all of the system functions.

A month of real world operation on a fully charged battery and an on board battery charging system.

A 2 line by 16 character LCD display with back light for credit, cost, and game status.

A power saving DBA that has built in sleep mode.

The ability to do both rack play and timed play.

4timed events that can be "Free Play", "League Play", or "Reduced Pricing".

Each event has its own type, day, start and stop times.

Soft books and the output for an optional 12VDC hard meter.

Soft books track both money in and number of league plays.

DBA and coin input. Both programmable to .25 or \$1.00.

Cost programmable from \$0.00 to \$100.00 per play in 5 cent increments.

Bonus credits can be issued to give players an incentive to insert larger denomination currency.

After 30 minutes of inactivity unit goes into super power save mode.

Reverse battery protection.

Low battery warning that is triggered at least 24 hrs before battery must be charged.

Dead Battery mode that shuts down the system until the unit is plugged in or the battery replaced.

Software watch dog and brownout/static shock monitor so unit can operate unattended for weeks or months at a time with no fear of random lockups or service calls.

Operation

The display and back light :

The display is active anytime an operation is in progress and will remain active as long as any event has occurred within 30 minutes. After 30 minutes the display will blank to conserve power. Doing anything will bring the display back online. The back light is lit for a period of 15 seconds after any operation has occurred. If the back light needs to be reactivated a tap on the start switch will cause it to come on for 15 more seconds. It takes a press and hold to cause a game start. Inserting money will also cause the unit to come back to life and will light the back light for 15 seconds. In normal play mode the top line of the display shows the current credit amount and the bottom line shows the cost to play. If there is a game status message like "LOW BATTERY" it will alternate with the cost display. In league mode the display will read "LEAGUE" on the top line and "PLAY" on the bottom line.

Start Button :

A tap on the button will cause the unit to reactivate the display if it were blanked, light the back light for 15 seconds, and reset the inactivity timer. The unit does not have to be awoken to operate. Any operation will cause the unit to respond and no loss of data or money will occur. If a player presses and holds the start button, and the unit has enough credits to play or is in League Play/Free Play, the unit will enter a play cycle, vending the balls.

Mode Switch Button (optional)

A tap on this button acts just like a tap on the start button. A press and hold will cause the unit to toggle between the "Rack Play" and "Timed Play" modes, unless the default mode has been locked into Rack Only or Timed Only modes. The display will reflect this change. The unit will revert to its' default mode when going to sleep and there is no more time or credits on the table (see programming below).

DBA and Coin inputs :

Either input can be programmed for 25 cent pulses or \$1.00 pulses. If the unit is used with a coin mechanism only the battery life is extended dramatically between battery charges, depending on the number of plays per month. With the recommended DBA the battery life is expected to be

approximately a month between charges.

IMPORTANT SAFETY INFORMATION

Battery care :

The on board charger should be used to ensure a long battery life. A charge cycle of 12 hours is normal, 16 hrs if the unit has gone into a “LOW BATTERY” warning and 24 hrs if the unit has gone into “DEAD BATTERY” shutdown. **If the battery has actually been drained to a completely dead status it must be replaced.** This can be checked by using the display. If the display is on or comes on when tapping the start button everything is fine. If the unit is displaying the dead battery message the battery can be charged also. If the display is blank and does not come on when the start button is pressed, the battery is completely discharged and must be replaced.

If you are swapping batteries instead of using the on board charger you should only disconnect a battery from the PCB when the unit is in the programming menu. That is, you should press the programming button once to get the unit into setup, then you can disconnect the battery without the risk of losing any of the unit’s data. **Sealed Lead Acid (SLA) batteries should only be charged with a SLA charger, automotive type chargers are unacceptable.** The use of incompatible chargers can be dangerous and can dramatically shorten the life of the battery.

During charging certain components on the PCB get hot. Do not place any material on the PCB.

Attempting to charge a completely dead battery is dangerous and may cause a ruptured battery or a fire. Damage to the charging circuit will also occur. Only use the supplied wall transformer to charge the battery through the BatSlide PCB. Do not connect it directly to the battery. Do not use chargers that are not designed to be used with sealed lead acid batteries. During charging there should be ventilation around the battery compartment.

Display Information:

The LCD display that came with the unit is the only one that should be used with the unit and the harness may be unidirectional. If the cable is marked PCB on one end it must be the end going to the PCB. The exchanging of displays is possible, but the harness and back light controls may need to be changed. If there is ever any need to replace the display with a part that does not EXACTLY match the original please contact the manufacturer for instruction.

Programming/Book keeping:

The unit has four buttons that allows access to the books and the programming of pricing options. Pressing the PROGRAM button while the unit is in the idle mode will cause it to enter programming mode. After that the PROGRAM button backs you out or exits you from where you are at.

| <u>Button Name</u> | <u>Function</u> |
|--------------------|----------------------------------|
| PROGRAM | EXIT |
| DOWN | Lower/change display value down |
| UP | Increase/change display value up |
| ENTER | Forward or save |

After entering the programming mode the up and down buttons step through the options. Pressing the PROGRAM button again will exit. Pressing the ENTER button will enter the function and PROGRAM will back you out.

Options :

Book Keeping :

The up and down buttons step through money in or League plays. Pressing the ENTER button will clear the currently displayed meter.

Default Mode :

Rack, Timed, Rack Only, and Timed Only.

The up and down buttons step through the options .

This is the mode the unit will power up in and will revert to when the credits or time to go reaches 0 and the unit goes to sleep. If the table is a single button table the default mode is the operation mode of the table. The Rack Only and Timed Only will stay in that mode, even if the mode switch button is pressed.

Press the ENTER button to lock in the value or use the

PROGRAM button to exit the mode.

Rack Pricing :

The up and down buttons will increase or decrease the cost to play from \$0.00 (free play) to \$100.00 in .05 increments.

You must press ENTER to save any changed value.

The default value is \$1.00. Note that setting the cost to \$0.00 effectively causes the unit to have a permanent credit and that credit will have to be played/cleared when the pricing is set back to a non zero value.

Timed Pricing :

The up and down buttons allow you to change the minutes per dollar for the timed play mode. Use the ENTER button to lock in and save any modified value or the PROGRAM button to exit out of this mode.

DBA Value :

The up and down buttons let you select the value of a DBA pulse. The options are \$1.00 or \$0.25.

You must press ENTER to save any changed value.

The default value is \$1.00.

Coin Value :

The up and down buttons let you select the value of a coin pulse. The options are \$1.00 or \$0.25.

You must press ENTER to save any changed value.

The default value is \$0.25.

Set Date :

The up down buttons increase and decrease the selected item.

Enter takes you to the next item and at the end saves the current date.

Set Time :

Same functions as the set date. The time is stored in 24 hour format, 00 : 00 to 23 : 59. The seconds are always saved as starting at 0. For maximum accuracy set the minutes ahead one minute and then wait for your watch to cross 0 seconds then press the ENTER button to save at that time.

Timed Events :

Press ENTER to highlight the event number. The UP and DOWN buttons will step through the 4 possible events. Pressing ENTER again steps to the selected event day. A day of 0 means a disabled event. 1 - 7 selects Sunday through Saturday, 8 selects week ends, and 9 selects week days.

Pressing ENTER then moves you to the event type. L means League Play, F is Free Play, and R is Reduced Cost.

Pressing ENTER again steps to the Price option. This is the cost for reduced pricing play only. League and Free play are defaulted to a cost of \$0.00.

Pressing ENTER again will allow you to set the start and end times for the event. It is done just like setting the time. The times are stored in 24 hour format.

If events overlap event one has top priority, two next, and three last. Some possible event scenarios may require the stacking of multiple events to accomplish. If you need a single day event to span midnight you will need to set up two events one for the time period leading up to midnight (23:59) and the other for the period after midnight (00:00) the next day. An event that needs to happen 7 days a week will need a week day event and a week end event.

Bonus Level :

The unit can issue bonus credits for the insertion of a programmable amount of money. The level at which the bonus credits are issued is programmable for \$1.00, \$5.00, \$10.00, or \$20.00. The number of bonus credits issued can be set from 1 to 9. The bonus levels only work for rack play.

Clear Credits and Money :

This allows you to dump the money and credits on the unit without having to re-initialize the entire programming. Pressing ENTER clears the unit, any other key exits.

Wiring :

The following is a pin out of the PCB with the standard wire colors.

J1 - Optional Inputs

| <u>Pin</u> | <u>Color</u> | <u>Function</u> |
|------------|--------------|------------------------|
| 1 | | Not Used |
| 2 | | Not Used |
| 3 | White | Free Play Switch Input |
| 4 | Black | Switch Ground |

J2 - Switch Inputs (some inputs are shared)

| <u>Pin</u> | <u>Color</u> | <u>Function</u> |
|------------|--------------|----------------------|
| 1 | None | DBA input (shared) |
| 2 | None | Ground |
| 3 | Blue | Coin Input |
| 4 | Black | Ground |
| 5 | Violet | League Switch |
| 6 | Black | Ground |
| 7 | Green | Start Button |
| 8 | Black | Ground |
| 9 | None | Motor Limit (shared) |
| 10 | None | Ground |

J3 - DBA Port

The wire colors are those supplied by the DBA Manufacturer.

| <u>Pin</u> | <u>Color</u> | <u>Function</u> |
|------------|--------------|-----------------|
| 1 | Red | +12VDC |
| 2 | Orange | Ground |
| 3 | None | KEY |
| 4 | Blue | Credit Pulse |
| 5 | Yellow | Inhibit+ |
| 6 | Green | Inhibit- |

J4 - Credit Meter

| <u>Pin</u> | <u>Color</u> | <u>Function</u> |
|------------|--------------|-----------------|
| 1 | None | Meter+ (+12VDC) |
| 2 | None | Meter- |

J5 - Not Used

J6 - Vend Motor

The limit Switch is using the N/C connection.

| <u>Pin</u> | <u>Color</u> | <u>Function</u> | |
|------------|--------------|--------------------|----------|
| 1 | Red | Motor+ (12VDC) | |
| 2 | None | KEY | |
| 3 | Brown | Motor- | |
| 4 | None | Motor- | |
| 5 | Black | Ground | (SW COM) |
| 6 | Grey | Motor Limit Switch | (SW N/C) |

J7 - LCD Display

The unit comes pre-wired to plug in here.

Wire colors may vary.

The plug will be marked.

J8 - Wall Transformer

The plug is a 2.5mm Center +

J9 - Battery Connector

| <u>Pin</u> | <u>Color</u> | <u>Function</u> |
|------------|--------------|-----------------|
| 1 | Orange | Battery + |
| 2 | None | Key |
| 3 | None | NC |
| 4 | Black | Battery- |