



**Valley Panther Coin and DBA
(Panther ZD-11, ZD-11X, Top Cat, ZD-X)
Service Manual and Instructions**



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See the full Valley Dynamo product line at
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Valley-Dynamo warrants its new products to be free from defects resulting from faulty manufacture or faulty components under the following terms and conditions:

WARRANTY LENGTH

One year on Valley® Pool Tables

90 days on Batteries, Battery Chargers and Replacement Parts

TOURNAMENT USED products receive identical coverage regarding manufacturing defects and faults. As used equipment they may be damaged from shipping or use and are discounted accordingly.

FOR WARRANTY SERVICE

Valley-Dynamo will, at its sole option, repair, upgrade or replace this product in the event of any defect in materials or workmanship during the warranty period. This shall be Valley-Dynamo's sole obligation, and the customer's sole remedy, for any warranty claim.

Valley-Dynamo will request and you must provide the **complete Model Number & Serial Number of the unit** (not just the last 5 digits), or other proof of purchase such as an invoice or receipt.

OPERATORS AND END USERS – While our Tech Support staff is available to assist with diagnosis and troubleshooting of your problem, contact your Distributor for Warranty Service on your equipment.

DEALERS AND DISTRIBUTORS – To obtain replacement and an RMA number, contact Valley-Dynamo referencing the Model number and Serial number of the unit and the nature of the problem. Valley-Dynamo will, at its discretion, send replacement parts and/or issue an RMA for the return of failed parts. To avoid billing issues, request an RMA when the failed part is present or readily available. Credit will be issued only upon receipt and inspection of the RMA. Valley-Dynamo may send replacement parts or issue an account credit. **NO REFUNDS.** Valley-Dynamo reserves the right to cancel outstanding RMAs 30 days after issue. Items returned without an RMA will not be inspected or credited and may be refused, discarded, or returned at Customer Expense.

REPLACEMENT PARTS COVERAGE – Valley-Dynamo warrants replacement parts for 90 days from the date of purchase. To obtain a replacement and an RMA number, contact Valley-Dynamo referencing the nature of the problem and provide proof of purchase. Valley-Dynamo will, at its discretion, send replacement parts and/or issue an RMA for the return of failed parts. To avoid billing issues, request an RMA when the failed part is present or readily available. Upon receipt and inspection of the RMA, Valley-Dynamo may send replacement parts or issue an account credit. **NO REFUNDS.** Valley-Dynamo reserves the right to cancel outstanding RMAs 30 days after issue. Items returned without an RMA will not be inspected or credited and may be refused or returned at Customer Expense.

SCOPE OF COVERAGE

Specific note regarding batteries – *the lead acid batteries in our Bill Acceptor tables must be charged periodically or they will fail prematurely. Proper maintenance is crucial. Please consult this manual or valleydynamoparts.com for complete details on proper battery care and maintenance*

Note that our warranty is not an unconditional guarantee for the duration. Valley products are made to our exacting standards and known for their durability but are not indestructible and may require periodic maintenance in order to function properly. The following are not covered by the warranty.

- 1) Shipping or transport damage

- 2) Normal wear and tear
- 3) Damage or deterioration resulting from neglect, misuse, accident, liquid spills, improper installation (*review page 10: do not overtighten cushion rails*), abuse, pets or mishandling
- 4) Incidental or consequential damage (except at Valley-Dynamo's discretion).
- 5) Removal or installation charges.
- 6) Shipping charges except at Valley-Dynamo's discretion.
- 7) Unauthorized modification of the product.
- 8) Subjective performance claims due to variations in materials beyond Valley-Dynamo's control (rubber, felt, wood)
- 9) Use of this product with unapproved parts, conversion kits or accessories
- 10) Damage from fire, flood, lightning or other acts of nature – Valley-Dynamo always recommends using surge-protected outlets

EXCLUSION OF DAMAGES

Valley-Dynamo's sole obligation and liability under this warranty is limited to the repair or replacement of a defective product at our option. Valley-Dynamo shall not, in any event, be liable for any incidental or consequential damages resulting from interruption of service, loss of business or revenue, or for liability in tort relating to this product or resulting from its use or possession.

LIMITATIONS OF IMPLIED WARRANTIES

There are no other warranties, expressed or implied, including but not limited to those of merchantability, revenue generation, or fitness for a particular purpose. The duration of implied warranties is limited to the period specified in the Warranty Length section above.

As technology improves, upgrades to Valley DBA table software and hardware may be made available at Valley-Dynamo's discretion for a nominal fee. Purchase or ownership of a Valley table does not entitle the bearer to free upgrades.

TO OBTAIN TECHNICAL SUPPORT

Please check the resources at www.valleydynamoparts.com, e-mail TECHHELP@valley-dynamo.com, or call 800.248.2837.



The Valley-Dynamo rechargeable battery system on the Panther ZD-11X is now 12 volts, 18 amps, and a new 3amp charger is added to allow for faster charges. The battery and charging point are relocated to the end of the table, away from the secure area of the cash boxes, and accessed by an enlarged Clean Out Door. If your locations are involved in the battery charging process, this eliminates the need for them to have access to the cash box area while maintaining the battery.

Battery Voltage Quick Check

Table should be in the Normal Pricing mode.
Press and hold down the Start button for 10 seconds.
Display will show

- current time
- version of software
- current voltage

To Exit Press and release the Start Button.

**To get a true voltage reading the table charger cannot be plugged in.
The Quick Check function will not work on a table currently in Happy Hour.**



BATTERY QUICK CHECK
Display shows time, software version
Battery voltage
At 13.12v this table's battery is sufficiently charged

Note battery on the floor of the table, charger to the left, Clean Out Access panel wing nut at upper right



Charging the battery:

Make sure your battery has a full charge prior to placing it into service. Even though your battery is fully charged when it leaves our facility, just sitting in the table on the way to you will allow some discharge from the battery.

Please be sure to FULLY charge a new battery prior to installing it in the table. This process takes at least 6 hours (in conjunction with the Panther 3amp charger) if the battery is not hooked up to the table,

- WE RECOMMEND A 6 HOUR INITIAL CHARGE.
- If the table is in play mode, we recommend a 7-hour initial charge.
(figures based on use of the Panther ZD-X 3-amp charger)

You cannot “top off” your battery if it is a volt or two low. Plugging it in for a quick one-hour charge will not do the job. Your battery performs best with a full charge.

Make the time!!

Not charging your battery completely will eventually damage the battery. Maybe not today, maybe not next week, but a lot sooner than you’d like. By not charging the battery completely, eventually you will **never** be able to charge it completely no matter how long you leave it plugged in. Your battery will be damaged if significantly discharged—imagine if running your car down to $\frac{1}{4}$ tank caused **permanent damage** to your engine. A lead-acid battery cannot be overcharged. Don’t worry that you have left it plugged in for too long. **It doesn’t care.**

**IF YOU RECHARGE THE TABLE’S BATTERY – DO SO EVERY TWO WEEKS
IF THE LOCATION CHARGES THE BATTERY – HAVE IT DONE WEEKLY**

Low Battery Warning and Battery Protect mode:

When the voltage on your battery drops to 12.3 volts or lower, you will see a “Low Battery – Please Charge” warning on the table’s LCD Display. Have your locations notify you immediately if this warning appears so that you may take action to prevent permanent damage.

At 12 volts, the message changes to “Low Battery – DBA Off.” Your Bill Acceptor will not function at this point and games can be vended only by using coins.

At 11.8 volts, the display shuts off completely and will not return until the battery is charged, or replaced with a charged battery. Games can only be vended using the manual push chute.

If the battery charge drops below 10.5 volts, **it will become damaged** and will no longer hold a full charge. Never. Not even if you plug it in for a month. It may even show 12+ volts, but will no longer be capable of generating enough amps to keep your system going for more than a couple days before going dead again.

A battery that will “no longer hold a charge” was usually not the battery’s problem. It was not charged regularly, or sufficiently, or at all.

Battery Warranty Reminder

Your table is covered by a one-year Warranty to be free of defects, but the Warranty coverage on the Battery is limited to 90 days. Proper battery care is *critical* to guarantee a long life for your battery. Not charging the battery completely or regularly is guaranteed to shorten battery life.

Defective batteries almost always happen within the first few months. Battery failures after six months or more into a pool table’s service life are rarely a result of a manufacturing defect.

When we receive a call right about three months after tables are put into a location that suddenly, not a single table’s battery will hold a charge, it definitely looks like a charging issue.

**DO YOU TRUST YOUR LOCATIONS TO COLLECT FOR YOU?
WHY WOULD YOU TRUST THEM TO CHARGE YOUR BATTERY?**

BATTERY DISPOSAL:

Lead-acid batteries should not be disposed of by just tossing them in the trash. Make sure your batteries are disposed of properly and safely. For more information, call 888-USA-4001 or visit www.interstatebatteries.com (check the “Recycling” link) to learn about Battery Recycling





Astrosys® Bill Acceptor

GBA-ST1-C

This unit takes \$1- \$100 and is standard equipment on the Valley Panther ZD-11X.

Model : Su8-0111-113-00

Config : 01-3VD-L00

The VD at the end of the Astrosys part number signifies That this DBA works in Valley-Dynamo pool tables

A unit lacking the V will require installation of a new Harness from Astrosys (Valley-Dynamo does not sell this harness or modify existing harnesses to match Valley-Dynamo requirements)

Discontinued DBAs that have been used in the ZD-X

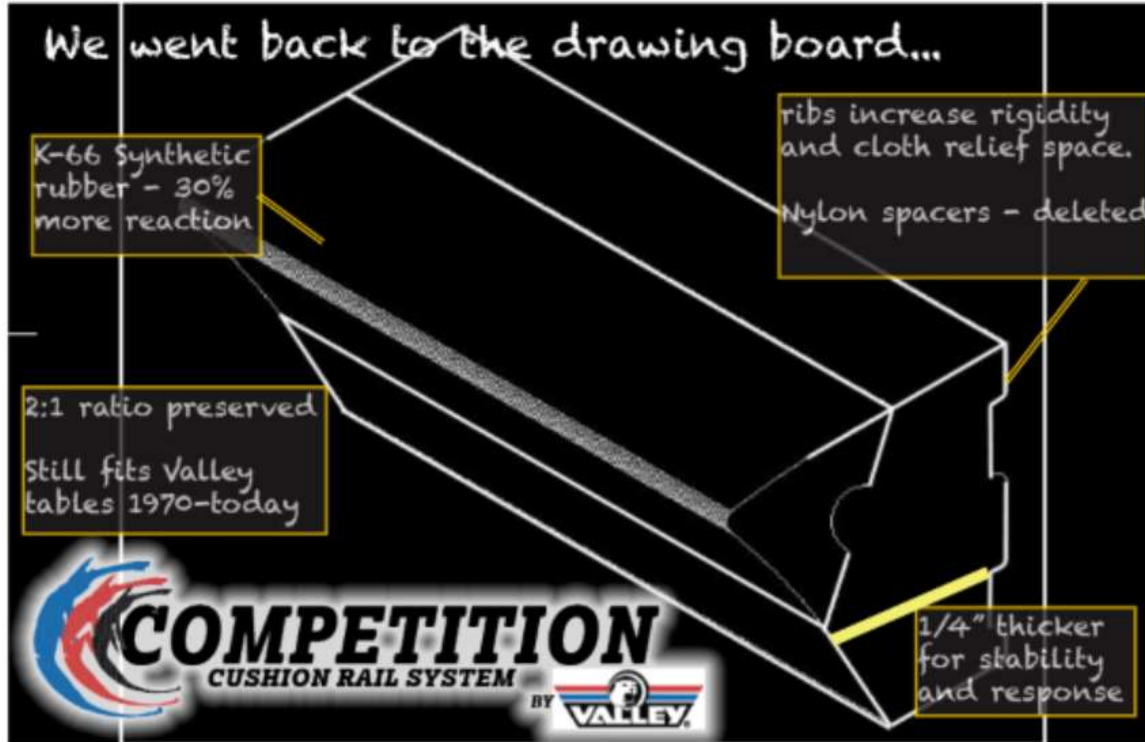
- **MEI AE 2655 U5V**
- **MEI AE 2455 U5V**
- **ICT S7A-II**
- **ICT S6**



Astrosys tech support – 702-643-1600



Besides having 5 attachment points, cushion rails are now secured with threaded inserts instead of T-nuts. This eliminates the small dead spots some players noticed at the rail bolt attachment points, makes the rails less susceptible to breakage and cross-threading, makes the rails easier to repair if an insert should require replacement – and they still fit 3-bolt tables 1970-1999



Use a flathead screwdriver or 3/8" wrench to remove or install the rails
The recommended torque spec is 65 inch pounds.



RACK COST – The base price per game for your Valley Panther ZD-X. This dollar amount should match the table’s push chute value.

CREDIT LEVEL OPTIONS – Up to 3 bonus pricing options available. Use these options to award extra games for a larger buy in. If the normal Rack Cost is \$2.00/game, use a Credit Level option to offer 5 games for \$5.00.

TIME PLAY – Use the **TIME COST** and **TIME MINUTES** settings to charge based on a time period rather than per game. The clock and Speedpool functions of the Panther ZD-X can give you more promotional options in a location.

TIME BONUS – Just as with Credit Level bonus pricing, you have the option to award extra time for a larger buy in. If the normal Time Play rate is \$5.00 for 30 minutes, you can offer 70 minutes for a \$10.00 buy in.

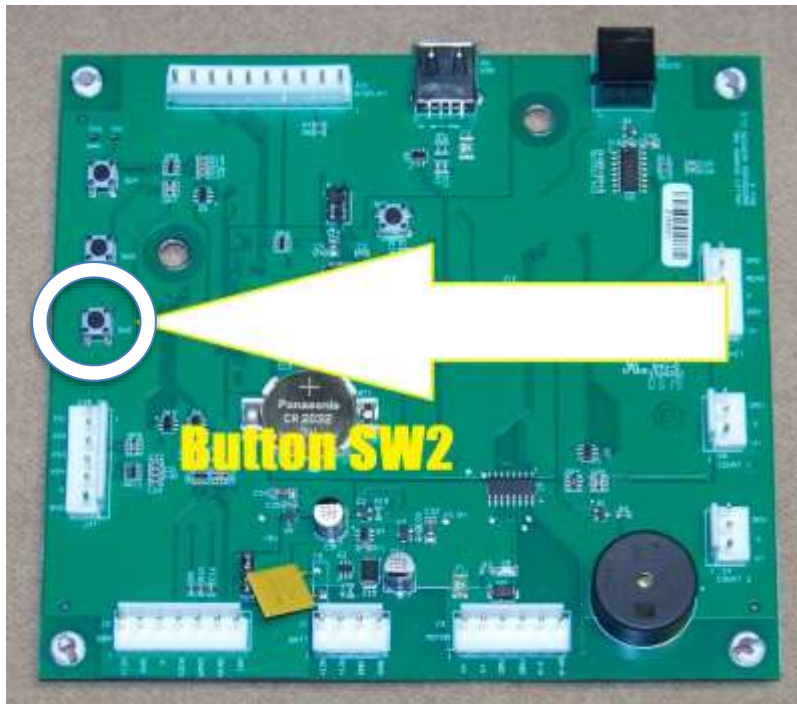
If Time Play is not appropriate for your location, this feature can be turned off.

HAPPY HOUR/LEAGUE – The Valley Panther ZD-X can offer as many as 3 “Happy Hours” daily. You can program the table’s internal clock to offer reduced pricing to stimulate additional business at slow times, or increase pricing during peak hours, or even schedule free play during league hours and avoid leaving a key to the table with that location. Happy Hour pricing is available for both Rack Play and Time Play



The Valley Panther ZD-11X was designed for Operator flexibility. The League Accounting features, additional Happy Hours and auditing features were added at the request of many Operators. Happy Hour pricing can be used either as a tool to stimulate sales during slow times at the location, or schedule free or reduced-price pool for League Play at a location – eliminating the need to leave a key with the location for them to provide free play for the league (and maybe not be all that quick to end free play and re-lock the table)

At the same time, those Operators who might not require so much versatility in programming can still benefit from the battery-conserving sleep mode, the time and date powered separately from the table battery, and the ability to use the program for a quick battery voltage reading. In addition, the Base Coin settings now allow the same PCB to be used worldwide. Whether you want a detailed accounting beyond the capabilities of earlier DBA tables, or simply a few small wishlist details brought to life to make your life easier, the Valley Panther ZD-11X offers more for you



To begin programming, open the table's DBA Coin door and locate button "SW2" on the main PCB

To go into program mode hold down the SW2 switch as the display counts down from 5, release after your display shows



After entering program mode, most of your programming will be done using the buttons mounted on the coin door.



Use the **Start** button (top) to enter a program group or increase the option.

Use the **Speed Pool** button (bottom) to decrease the option.

Use the **Select** button (middle) to navigate to the next option.

When the "No" option is selected on any "Yes/No" choice, the program skips forward to the next Sub Group or program

Programs Available

- Day and Time:** Sets the day and current time (in 24hr/military format) on your logic board.
- Default** Resets all settings to factory setting and should be done if updating the program.
- Master Setting** Use to
- A. Set the base coin
 - B. USB Updating
 - C. DBA Clicks
 - D. International DBA On/Off
 - E. Ignore Battery Voltage
 - F. DBA After Vend
 - G. Awake Forever
 - H. Turn Speed Pool On/Off
 - I. Turn Tickets On/Off
 - J. Credit Clears Hours
 - K. Clear all Accounting
 - L. Clear all League Accounting
 - M. Set Sleep times
 - N. Set logic serial number
- Battery Voltage** Check your battery's voltage – no meter needed.
- Accounting** See all of your accounting for
- A. Life time total
 - B. Running Total
 - C. Racks purchased
 - D. Time Play Purchased
 - E. Bonus games issued
 - F. Happy Hours broken down by day by number
 - G. Free Games issued
 - H. Any Program errors
 - I. Reset any group to zero
- League Set Up** Use this program to select
- A. What leagues to turn On/Off
 - B. How many Teams per League
 - C. The League Fee amount
- League Audits** For leagues that have been set up:
- A. View each league total
 - B. View each team total
 - C. Reset any group to Zero

Prints Report Use with the Serial output to print all Accounting and League dues

Sunday Set options for Sunday, the weekend, or the complete week.

Monday - Sat Set options for each individual Day of the week

Daily Options Available

- A. Rack On/ Off
- B. 3 Groups of Rack bonus pricing and games earned
- C. Time Play On/Off
- D. Time Bonus price and amount of minutes
- E. 3 Happy Hour/League settings
 - a. Start Time
 - b. Length of Happy Hour
 - o *setting both Rack and Time "Off" equals Free Play*
 - c. Rack Play On/Off
 - d. Rack Cost
 - e. Time On/Off
 - f. Time Cost
 - g. Time Length
- F. You can copy Sunday settings for the Week, Weekend, or not at all

Exit Exits programming mode

**The daily programs are last on the menu
It is assumed that once you set them, there is no need to
regularly access them, and the Accounting and League
features will be used more often.**

Program Instructions – Time and Day:

After you have entered program mode, use the **Speed Pool** and **Select** buttons to scroll to the Time-Day program group. (although Time-Day” should be the first option to appear when entering program mode).



Press the **Start** button to enter this Program Group.

SET HOUR - Press the **Start** button to advance to the correct hour or the **Speed Pool** button to go backwards.

The clock is on 24H/Military time. 4 PM would be 16



Once the Hour is set correctly, press the **Select** button

SET MINUTE - Press the **Start** button to advance the minutes or the **Speed Pool** button to go backwards.



Once the Minutes are set correctly, press the **Select** button

SET DAY - Press the **Start** button to advance the day. Once the Day has been set correctly, press the **Select** button to exit this Program Group.



At this point you may continue with additional programming by selecting another group, or use the **Speed Pool** and **Select** buttons to scroll to the EXIT PROGRAM option.

The PCB has a battery dedicated to clock function.
A loss of power won't mean resetting the clock.

Program Instructions – Print Report:

Use this program group in conjunction with the convenient AP1300 hand held thermal printer to print out all accounting data.

To order the AP1300 Printer visit Current Components website (curcomp.com)

e-mail sales@curcomp.com

or call 800.342.9798 or 301.473.5333

Part number AP1300KIT1 shown below: includes the Thermal Printer, battery pack, battery charger, serial cable, belt clip and sample roll of paper.



After you have entered program mode, use the **Speed Pool** and **Select** buttons to scroll to the Print Report program group (second option to appear when entering program mode).

Connect the printer cable to the Serial printer port on the logic board (it looks like a phone jack).

Press the **Start** button to print the report. Press the **Start** button again for an additional copy.

Press the **Select** button to exit this Program Group. At this point you may continue with additional programming options by selecting another group, or use the **Speed Pool** and **Select** buttons to scroll to the EXIT PROGRAM option.

Program Instructions – League Audits:

After you have entered program mode, use the **Speed Pool** and **Select** buttons to scroll to the League Audits program group (third option to appear when entering program mode).

Press the **Start** button to enter this option.



League 1, Team 01 is the first total to display. By pressing the door-mounted **Select** button you will advance to the next total. After the last league total, you will return automatically to program mode.

The **Speed Pool** button will not allow you to reverse through the league totals.

To reset a total

Display that league and team's total on screen

Press the **Start** button.

The display will prompt you "Clear Total"

Press the **Start** button to choose "Yes" or "No"

Press the **Select** button to confirm your choice

You will return to the league totals listing

Repeat this process for each group you want to reset.

Program Instructions – League Setup:

This option allows you to set up and delete leagues from the program. After you have entered program mode, use the **Speed Pool** and **Select** buttons to scroll to the League Setup program group (fourth option to appear when entering program mode).

Press the **Start** button to enter this option.

Refer to the chart below for options.

Use the **Start** button to scroll through settings options

Use the **Select** button to confirm your choice and go to the next option.

League Settings	Min	Max	Default
League 1 On / Off	Off	On	Off
League 1 Teams	2	100	2
League 1 Cost	\$1.00	\$200.00	\$10.00
League 2 On / Off	Off	On	Off
League 2 Teams	2	100	2
League 2 Cost	\$1.00	\$200.00	\$10.00
League 3 On / Off	Off	On	Off
League 3 Teams	2	100	2
League 3 Cost	\$1.00	\$200.00	\$10.00
League 4 On / Off	Off	On	Off
League 4 Teams	2	100	2
League 4 Cost	\$1.00	\$200.00	\$10.00
League 5 On / Off	Off	On	Off
League 5 Teams	2	100	2
League 5 Cost	\$1.00	\$200.00	\$10.00
League 6 On / Off	Off	On	Off
League 6 Teams	2	100	2
League 6 Cost	\$1.00	\$200.00	\$10.00
League 7 On / Off	Off	On	Off
League 7 Teams	2	100	2
League 7 Cost	\$1.00	\$200.00	\$10.00
League 8 On / Off	Off	On	Off
League 8 Teams	2	100	2
League 8 Cost	\$1.00	\$200.00	\$10.00
League 9 On / Off	Off	On	Off
League 9 Teams	2	100	2
League 9 Cost	\$1.00	\$200.00	\$10.00
League 10 On / Off	Off	On	Off
League 10 Teams	2	100	2
League 10 Cost	\$1.00	\$200.00	\$10.00

Program Instructions – Check Battery:

This option allows you to check your Battery Voltage without a meter. After you have entered program mode, use the **Speed Pool** and **Select** buttons to scroll to the Check Battery program group (fifth option to appear when entering program mode).

Press the **Start** button and the voltage will be displayed

The **Select** button will exit and return you to program mode.

Program Instructions – Restore Defaults:

Press the **Start** button to enter the program

Reset Defaults

No is the first option, press **Start** to change the option to Yes / No

RESTORE DEFAULT?
YES

Press the **Select** button twice to confirm your choice and exit the program group.

FACTORY DEFAULTS
RESTORED

“Restore Defaults” can be very handy when moving a table to an all new location with new pricing, bonus and happy hour settings – just be absolutely certain you want to restore everything.

There is no “unrestore” function if you didn’t mean to do this – your settings are *gone forever*

Program Instructions – Master Settings:

Many of these will be set-and-forget values rarely requiring change so long as a table remains in one location.

Enter a program group by pressing the **Start** button. Use the **Select** button to navigate to option you want to change.

SET THE BASE COIN - in the USA keep this set at \$0.25.

Press the **Start** button to enter this option

Use the **Start** button to choose the base coin. (\$0.05, \$0.10, \$0.25, \$0.50 or \$1.00)

USA setting should remain at \$0.25.

Press the **Select** button to save your choice.

Confirm your change of the Base Coin Yes / No

Use the **Start** button to select yes or no.

Press the **Select** button to save and proceed to the next program Option.

If the Base Coin has been changed, you must clear all Accounting and Leagues AND reset the Defaults. Avoid changing the Base Coin!

USB UPDATING – no longer used

DBA CLICKS – in the USA keep this set to 04

This option adjusts the number of clicks the coin counter registers per bill.

Press the **Start** button to enter this option

Use the **Start** button to choose between 1 – 10 pulses.

Press the **Select** button to save your settings and move to the next option.

INTERNATIONAL DBA *Default Off. Lets you choose between an Astro or ICT DBA and MEI (MARS) DBA.*

Press the **Start** button to enter this option

Use the **Start** button to choose between On/Off

On for Astro or ICT use

Off for MEI use

Press the **Select** button to save your Settings and move to the next option.

IF YOU CHANGE THIS SETTING: After you exit the program, press the Reset button to put the change into effect.

IGNORE BATTERY ON/OFF *The default is OFF – use ON only when the table has a power supply system.*

Press the **Start** button to enter this option

Use the **Start** button to choose On or Off

Press the **Select** button to confirm and proceed to the next option.

DBA AFTER VEND *The default is OFF and prevents the system from accepting additional bills until existing credits have been used.*

Press the **Start** button to enter this option

Use the **Start** button to choose On or Off

Press the **Select** button to confirm and proceed to the next option.

AWAKE FOREVER *The default is OFF – use ON only for tables with a power supply.*

Press the **Start** button to enter this option

Use the **Start** button to choose On or Off

Press the **Select** button to confirm and proceed to the next option.

TURN SPEED POOL ON/OFF -

Press the **Start** button to enter this option

Use the **Start** button to choose On or Off

Press the **Select** button to confirm and proceed to the next option.

TURN TICKETS POOL ON/OFF – set OFF for tables without ticket dispensers

Press the **Start** button to enter this option

Use the **Start** button to choose On or Off

Press the **Select** button to confirm and proceed to the next option.

CLEAR CREDIT HOURS – After a set time interval, the table will clear unplayed credits

Press the **Start** button to enter this option

Use the **Start** button to select from 00 to 09 hours

- **The default is 04 (4-hours) – setting 00 means credits are never deleted**

Press the **Select** button to confirm

Press **Select** again to proceed to the next option.

CLEAR ALL ACCOUNTING -

Press the **Start** button to enter this option

Use the **Start** button to choose Yes or No

- **BE SURE – YOU CANNOT RESTORE THE TOTALS ONCE CLEARED**

Press the **Select** button to confirm

Press **Select** again to proceed to the next option.

CLEAR ALL LEAGUE ACCOUNTING

Press the **Start** button to enter this option

Use the **Start** button to choose Yes or No

- **BE SURE – YOU CANNOT RESTORE THE TOTALS ONCE CLEARED**

Press the **Select** button to confirm

Press **Select** again to proceed to the next option.

SET SLEEP HOURS – for battery conservation.**Should the table be “awake” and drawing power when the location is closed?**

Press the **Start** button to enter this option

Use the **Start** button to choose Yes or No (default is no)

If yes, choose the sleep time using the **Start** button

Program scrolls in 15-minute increments and uses 24-hour time.

11:30pm is “23:30”

Press the **Select** button to confirm your setting

Now use the **Start** button to set the wake up time

Program scrolls in 15-minute increments and uses 24-hour time.

11:30pm is “23:30”

Press the **Select** button to confirm and proceed to the next set of options

SET LOGIC SERIAL NUMBER - user programmable value to track a particular table or board for accounting purposes.

Press the **Start** button to enter this option

Use the **Start** button to choose Yes or No (default is no)

Press the **Select** button to confirm your setting

Use the **Start** button to scroll to your desired serial number.

Press the **Select** button to confirm your setting and return to the Program Group.

Program Instructions – Accounting:

Press the **Start** button to enter this option. You can find detailed information here on not only how much money your table made, but what pricing options were most popular with your customers.

You can navigate forward through the totals by pressing the **Select** button. This option will display totals since the most recent reset for the following:

- Total earnings
- Racks played
- Time Play
- Bonus Rack 1
- Bonus Rack 2
- Bonus Rack 3
- Bonus Time
- Sunday Happy Hour 1
- Sunday Happy Hour 2
- Sunday Happy Hour 3

(the next 18 values are displays for the 3 Happy Hours for each day of the week)

- Free play games
- RTC OSC errors

Press **Select** again after viewing or resetting RTC OSC errors and you will automatically exit the group

To reset a value to 0,

Navigate to that value

Press the **Start** button

The display will prompt you “Clear Total” Yes or No

WARNING: THERE IS NO RESTORE FUNCTION BE SURE YOU WANT TO PROCEED

Press the **Start** button to choose.

Press the **Select** button to confirm your choice

Program will advance to the next option group.

Repeat this process for each group you want to reset.

Program Instructions – Daily Programs:

This table lists the programming options available for each day of the week, and the range of values allowed

Sub Groups	Min	Max	Default	New Setting
DAILY Rack Play	Off	On	On	
DAILY Rack Cost	0.25	\$20.00	\$2.00	
DAILY Group 1 Bonus Pricing	Off	On	On	
DAILY Group 1 Bonus Cost	\$1.00	\$20.00	\$5.00	
DAILY Group 1 Bonus Games Awarded	2	40	5	
DAILY Group 2 Bonus Pricing	Off	On	Off	
DAILY Group 2 Bonus Cost	\$1.00	\$20.00	-	
DAILY Group 2 Bonus Games Awarded	2	40	-	
DAILY Group 3 Bonus Pricing	Off	On	Off	
DAILY Group 3 Bonus Cost	\$1.00	\$20.00	-	
DAILY Group 3 Bonus Games Awarded	2	40	-	
DAILY Time Play	Off	On	Off	
DAILY Time Cost	\$0.25	\$60.00	-	
DAILY Play Minutes	5	120	-	
DAILY Time Bonus	Off	On	Off	
DAILY Time Bonus Cost	\$0.25	\$60.00	-	
DAILY Time Bonus Minutes	5	120	-	
DAILY Happy Hour 1	Off	On	Off	
DAILY Happy Hour Start Time	0:00	0:00	-	
DAILY Happy Hour 1 Duration	0:15	0:00	-	
DAILY Happy Hour 1 Rack	Off	On	Off	
DAILY Happy Hour 1 Rack Cost	\$1.00	\$20.00	-	
DAILY Happy Hour 1 Time	Off	On	Off	
DAILY Happy Hour 1 Time Cost	\$0.25	\$20.00	-	
DAILY Happy Hour 1 Time Minutes	5	120	-	
DAILY Happy Hour 2	Off	On	Off	
DAILY Happy Hour Start Time	0:00	23:45	-	
DAILY Happy Hour 2 Duration	0:15	24:00:00	-	
DAILY Happy Hour 2 Rack	Off	On	Off	
DAILY Happy Hour 2 Rack Cost	\$0.25	\$20.00	-	
DAILY Happy Hour 2 Time	Off	On	Off	
DAILY Happy Hour 2 Time Cost	\$0.25	\$20.00	-	
DAILY Happy Hour 2 Time Minutes	5	120	-	
DAILY Happy Hour 3	Off	On	Off	
DAILY Happy Hour Start Time	0:00	23:45	-	
DAILY Happy Hour 3 Duration	0:15	120	-	
DAILY Happy Hour 3 Rack	Off	On	Off	
DAILY Happy Hour 3 Rack Cost	\$0.25	\$20.00	-	
DAILY Happy Hour 3 Time	Off	On	Off	
DAILY Happy Hour 3 Time Cost	\$0.25	\$20.00	-	
DAILY Happy Hour 3 Time Minutes	5	120	-	

You can navigate through the seven days of the week for individual programming. Sunday is listed first because the software has been engineered to allow the user to copy Sunday settings to all seven days, or just for the weekend. This way, there is no need to enter and re-enter the *same settings seven times* if you want them the same throughout the week.

BEFORE YOU BEGIN PROGRAMMING REMEMBER THE BUTTON FUNCTIONS



Use the **Start** button (top) to enter a program group

Within the group, use the **Start** button (top) to increase the option.

Use the **Speed Pool** button (bottom) to decrease the option.

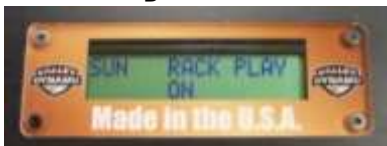
Use the **Select** button (middle) to navigate to the next option.

When the “No” option is selected on any “Yes/No” choice, the program skips forward to the next Sub Group or program group.



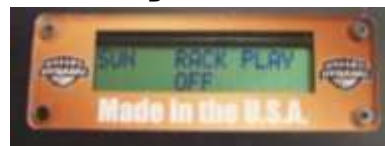
This program group enables setting of all game and pricing options for Sunday. Sunday programming was engineered for copying. You have the option after navigating through the Sunday programs to copy Sunday’s programming to cover the complete week or weekend if desired.

Rack Play ON



Rack Play On - proceed to Rack cost

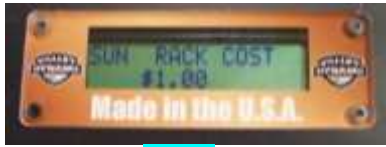
or Rack Play OFF



Rack Play Off will skip to Time Play On/Off

Note: Turning Rack Play and Time Play Off will set the game to Free Play and will advance you to the Happy Hour Options.

Rack Cost



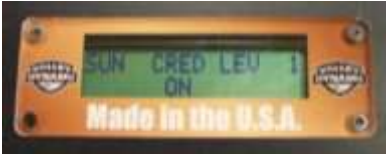
Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is from \$0.25 - \$20.00

Press the **Select** button to confirm your choice and advance to the next option.

Credit Level 1

This sets the base amount to earn bonus games.

Credit Level ON or Credit Level OFF



Credit On, proceed to credit Cost

Credit Off will skip to Time Play on/off

Choose between Credit 1 On or Off by pressing the **Start** Button.

Press the **Select** button to confirm your choice and advance to the next option.

Credit 1 Cost

This sets the base dollar amount to earn bonus (extra) racks.



Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value in \$0.25 increments. The option range is from \$0.25 - \$20.00

Press the **Select** button to confirm your choice and advance to the next option.

Bonus - 1

Total games earned for credit level amount.

Set the number of games purchased for the base dollar amount just set.



This setting overrides the normal price per game settings.

Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value between 2 and 27 games.

Press the **Select** button to confirm your choice and advance to the next option.

You may repeat settings for Credit Level 2 and 3 using the same steps, if desired
Otherwise, select OFF (or leave OFF unchanged to continue navigating)

Time Play:

on this level you will turn Time play On or Off. If Time Play is not appropriate for your location or customers, is easier if this option is simply turned off

Time Play ON or OFF



Time Play On, proceed to Time Cost

Time Play Off, you will skip ahead to Happy Hour 1

Choose between Time Play On or Off by pressing the **Start** Button.
Press the **Select** button to confirm your choice and advance to the next option.

Time Cost

Sets the base dollar amount that must be paid for Time Play.



Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is in \$0.25 increments from \$0.25 - \$60.00
Press the **Select** button to confirm your choice and advance to the next option.

Time Minutes

Sets the number of minutes purchased for the base dollar amount just set.



Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is from 5 minutes – 120 minutes.
Press the **Select** button to confirm your choice and advance to the next option.

Time Bonus

Used to offer additional play time as incentive for a larger purchase

Time Bonus ON or OFF



Time Bonus On, proceed to Bonus Cost

Time Bonus Off, skip ahead to Happy Hour 1

Choose between Time Bonus On or Off by pressing the **Start** Button.
Press the **Select** button to confirm your choice and advance to the next option.

Time Bonus Cost

Sets the base dollar amount to earn bonus (extra) time play.



Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is in \$0.25 increments from \$0.25 - \$60.00
Press the **Select** button to confirm your choice and advance to the next option.

Amount of time Purchased

Sets the number of minutes purchased for the amount you set in the step above.
This setting overrides the base time play settings.



Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is from 5 minutes – 120 minutes.
Press the **Select** button to confirm your choice and advance to the next option.

HAPPY HOUR SETTINGS: Happy Hour can be a very effective tool for stimulating pool business during otherwise slow times. Better to have the table vending pool and earning a little less, than not earning at all. This may also help to increase the location's business when word spreads (and it will) that a location is offering discounted pool. The operator wins when collecting, the location wins with business, the players win with a price break.

There are 3 happy hour groups, each group has the same options and is programmed in the exact same manner.

IMPORTANT – The Panther ZD-X software has protection to prevent Happy Hour start times from overlapping. If you overlap the hours you will get the following message



**and be returned to the start time.
If so, adjust the start time to correct the overlap**

A reminder, any programming steps will be virtually identical for Happy Hour 2 or 3. If you decide to turn off a Happy Hour you will skip ahead to the end of that day's programming.

If you want to vend FREE POOL during Happy Hour (such as for a League Night), set both Rack Play and Time Play to off when programming.

Happy Hour Programming

Happy Hour 1 ON



Happy Hour 1 On, proceed to Start time

Or

Happy Hour 1 OFF



Off, skip forward to the advance to the end

Choose between Happy Hour On or Off by pressing the **Start** Button.
Press the **Select** button to confirm your choice and advance to the next option.

Happy Hour 1 Start**Set the start time for Happy Hour 1**

Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is in :15 minute increments from 0:00A.M. to 23:45 P.M.

Press the **Select** button to confirm your choice and advance to the next option.

Happy Hour 1 Length**Set the amount of time Happy Hour 1 will last**

On this option you are setting how long the Happy Hour will last - the image above shows the Happy Hour lasting for 45 minutes.

Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is in :15 minute increments until the end of the day.

Happy Hours are based on a 24 hour clock and cannot pass 24:00 (Midnight)

Press the **Select** button to confirm your choice and advance to the next option.

Happy Hour 1 Rack**Use this option if your Happy Hour will offer special pricing on Rack Play****Happy Hour 1 Rack Play OFF of ON**

Rack Off, skip to Time Play
Rack on, proceed to Rack Cost

Choose between Rack Play On or Off by pressing the **Start** Button.

Press the **Select** button to confirm your choice and advance to the next option.

Happy Hour 1 Rack \$**Set the special Rack Play pricing for Happy Hour 1**

Use the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option ranges in \$0.25 increments from \$0.25 - \$20.00

Press the **Select** button to confirm your choice and advance to the next option.

Happy Hour 1 Time

Use this option if your Happy Hour will offer special pricing on Time Play

HH 1 Time Play OFF or ON

HH1 Time On, proceed to Time Cost

HH1 Time Off, skips to the end

Choose between Time Bonus On or Off by pressing the **Start** Button.

Press the **Select** button to confirm your choice and advance to the next option.

HH1 Time \$

Set the special Time Play pricing for Happy Hour 1



Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is in \$0.25 increments from \$0.25 - \$60.00

Press the **Select** button to confirm your choice and advance to the next option.

HH1 Time Min

Sets the number of minutes purchased for the amount set in the step above.



Press the **Start** button to increase the value and the **Speed Pool** button to decrease the value. The option range is from 5 minutes – 120 minutes.

Press the **Select** button to confirm your choice and advance to the next option.

At this point you will advance to the setting for Happy Hour 2, procedure and available settings are virtually identical to those for HH1.

If you set values for Happy Hour 2, you will then advance to the settings for Happy Hour 3.

Copy Settings –

To save time and effort, the Sunday programming has the ability to copy the daily settings. There are three available options:



ALL WEEK copies the Sunday settings to all seven days of the week



WEEKEND copies Sunday's settings to FRIDAY and SATURDAY only



Or choose not to copy the settings at all, leaving them SUNDAY only.

Use the **Start** button to select from the available choices and **Select** to confirm.

The Copy option is the last available programming setting available for Sunday. After confirming whether to copy the Sunday settings, the system returns to the Program Group menu. Press the door-mounted **Start** button to enter the Monday program group or **Select** to forward to each day of the week. Program the days of your choice, skip those days where you only want to use the base pricing.

For each day of the week, the same programming options are offered, and they are programmed in the same way. The only difference from the Sunday instructions is in the day of the week.

The expanded accounting capabilities of the Panther ZD-X can give you a clear understanding of your most successful pricing and options.

Successful operators review their accounting periodically to maximize collections.

Build on successful strategies. Replace or change unsuccessful options.

Do not view the programming options as “set once and forget it until you move the table.” **The Panther ZD-11X wants to help you increase your earnings!** It just needs a little help from you to make it happen.

The following chart details all sub groups and options available.

Sub Groups	Min	Max	Default	Sun	Mo	Tu	W	Th	Fri	Sat
DAILY Rack Play	Off	On	On							
DAILY Rack Cost	0.25	\$20.00	20							
DAILY Group 1 Bonus Pricing	Off	On	On							
DAILY Group 1 Bonus Cost	\$1.00	\$20.00	\$5.00							
DAILY Group 1 Bonus Games	2	40	6							
DAILY Group 2 Bonus Pricing	Off	On	Off							
DAILY Group 2 Bonus Cost	\$1.00	\$20.00	\$10.00							
DAILY Group 2 Bonus Games	2	40	13							
DAILY Group 3 Bonus Pricing	Off	On	Off							
DAILY Group 3 Bonus Cost	\$1.00	\$20.00	\$20.00							
DAILY Group 3 Bonus Games	2	40	27							
DAILY Time Play	Off	On	On							
DAILY Time Cost	\$0.25	\$60.00	\$5.00							
DAILY Play Minutes	5	120	30							
DAILY Time Bonus	Off	On	Off							
DAILY Time Bonus Cost	\$0.25	\$60.00	\$10.00							
DAILY Time Bonus Minutes	5	120	70							
DAILY Happy Hour 1	Off	On	Off							
DAILY Happy Hour Start Time	0:00	0:00	12:00							
DAILY Happy Hour 1 Duration	0:15	0:00	1:00							
DAILY Happy Hour 1 Rack	Off	On	Off							
DAILY Happy Hour 1 Rack Cost	\$1.00	\$20.00	\$1.00							
DAILY Happy Hour 1 Time	Off	On	Off							
DAILY Happy Hour 1 Time Cost	\$0.25	\$20.00	\$5.00							
DAILY Happy Hour 1 Time Minutes	5	120	20							
DAILY Happy Hour 2	Off	On	Off							
DAILY Happy Hour Start Time	0:00	23:45	12:00							
DAILY Happy Hour 2 Duration	0:15	24:00:00	1:00							
DAILY Happy Hour 2 Rack	Off	On	Off							
DAILY Happy Hour 2 Rack Cost	\$0.25	\$20.00	\$1.00							
DAILY Happy Hour 2 Time	Off	On	Off							
DAILY Happy Hour 2 Time Cost	\$0.25	\$20.00	\$5.00							
DAILY Happy Hour 2 Time Minutes	5	120	20							
DAILY Happy Hour 3	Off	On	Off							
DAILY Happy Hour Start Time	0:00	23:45	12:00							
DAILY Happy Hour 3 Duration	0:15	120	1:00							
DAILY Happy Hour 3 Rack	Off	On	Off							
DAILY Happy Hour 3 Rack Cost	\$0.25	\$20.00	100							
DAILY Happy Hour 3 Time	Off	On	Off							
DAILY Happy Hour 3 Time Cost	\$0.25	\$20.00	\$5.00							
DAILY Happy Hour 3 Time Minutes	5	120	20							

Use this chart to help plan your weekly programming



Tables built with LED Lighting, Card Readers or Credit Card acceptance are equipped with a power supply and on/off switch instead of a battery and charger.

LED-lighting equipped pool tables come with an RGA controller and remote. To change the color of the LED's, open the clean out door and aim the remote at the controller.

You may be able to make changes from the nearest corner pockets, but use the clean out door for more effective and reliable results.

Power supply : part # 880405035 – set to 12.5 – 12.9 volts

Use the Master Settings ON for “Ignore Battery” and “Awake Forever”

For power-supply equipped tables, an internal 12v connection is available by the coin door frame. Valley-Dynamo Tech Support will do their best to assist but check with the manufacturer of the equipment you choose to install for further assistance.



Your Panther ZD-11X™ wants badly to let you know what's wrong. For each code, just address the issue and press your table's reset button.

Clock Battery Low

The on-board battery needs to be replaced
Use a CR2032 3v Lithium battery

Motor Error

The motor is Stuck or bad

Coin Error

The coin switch is bad or stuck

Select Error

The select button is bad or Stuck

Speed Error

One of the 2 speed clock buttons near the cue ball return or the coin door are bad or stuck

Start Error

The start button is bad or stuck

DBA error

The bill acceptor is sending a constant signal that a bill is in the face plate.

Low Battery please charge.

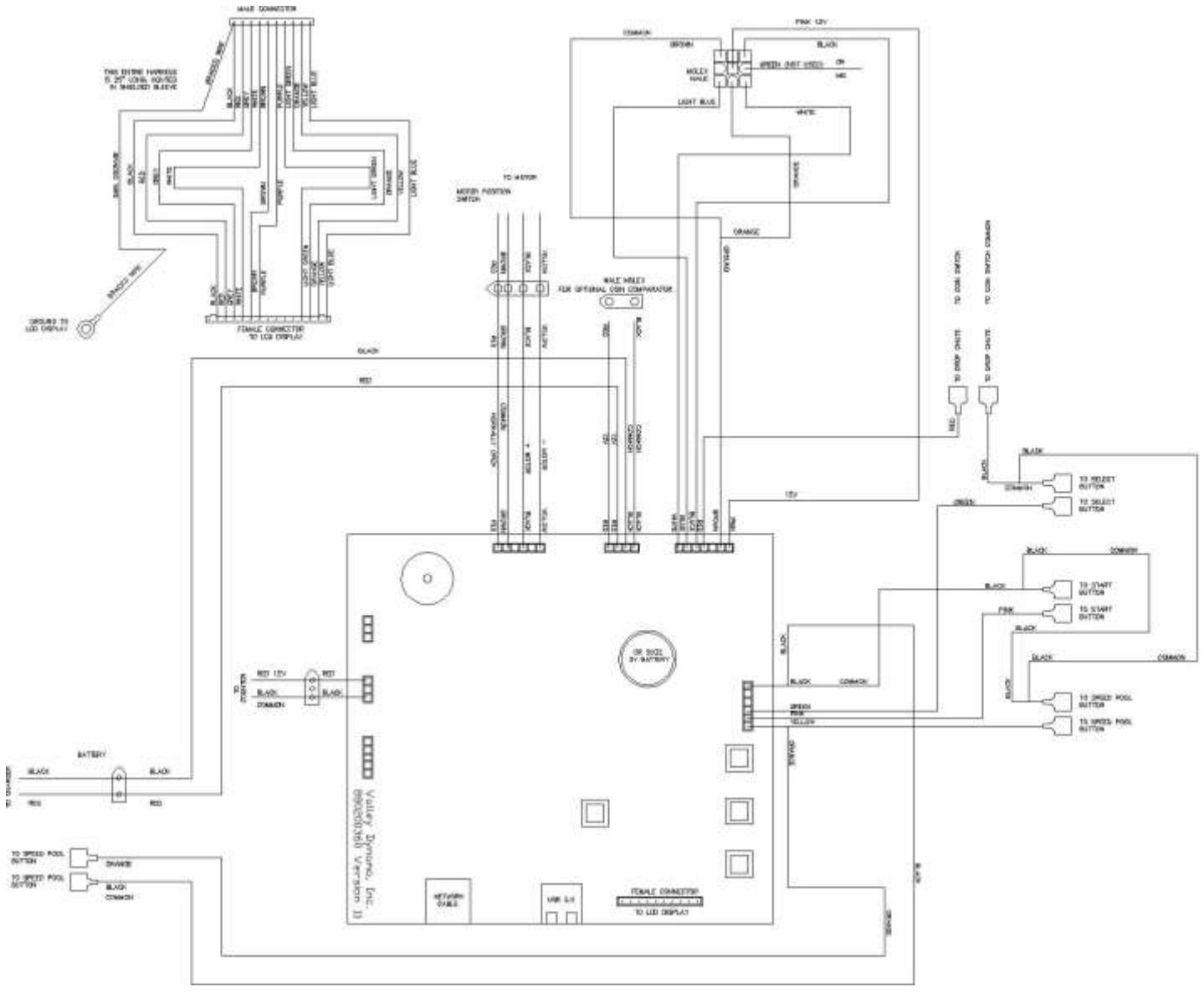
The main power source is lower than 12.5 volts, for battery powered tables, charge the main battery.

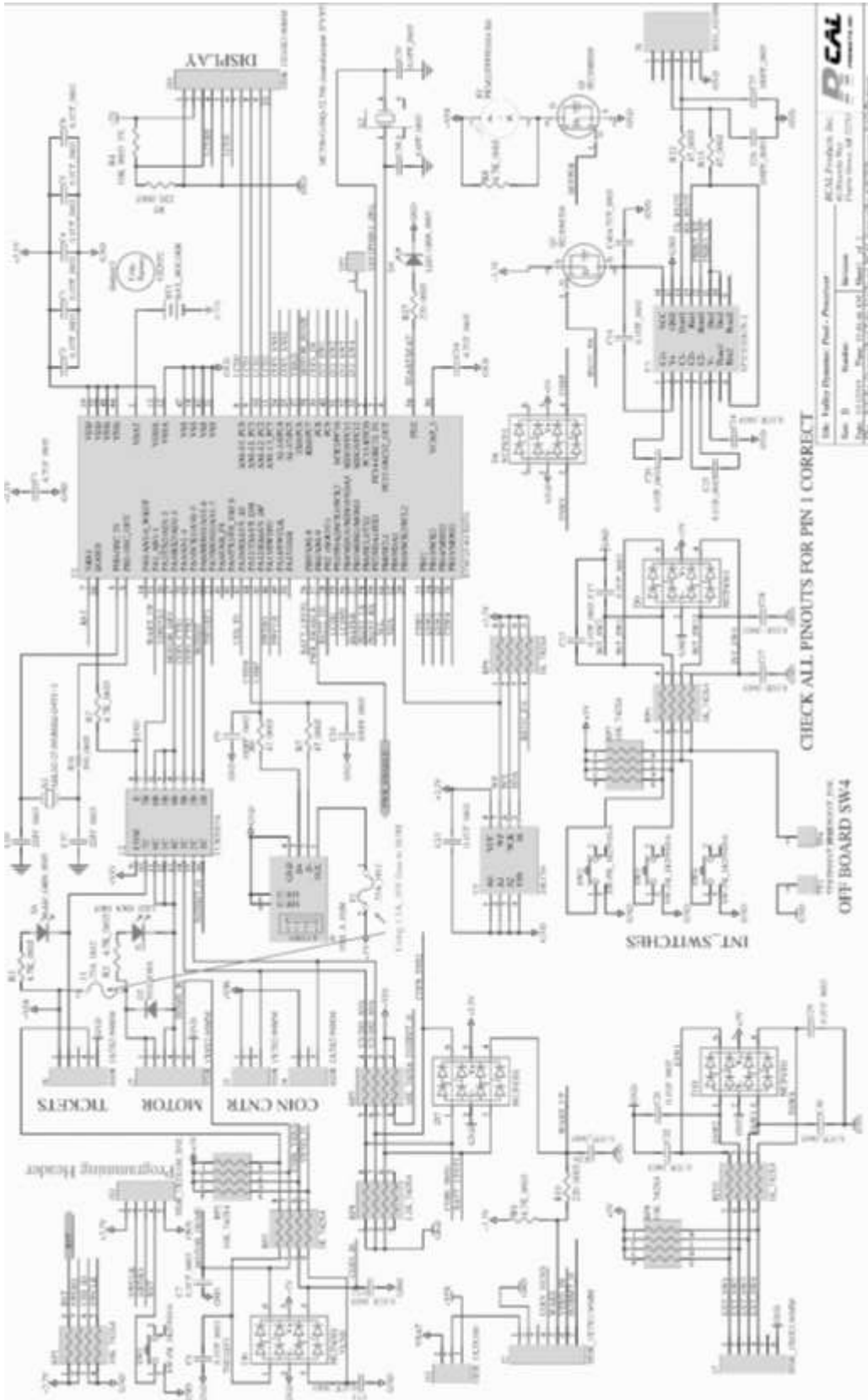


**Valley-Dynamo Tech Support –
800.248.2837 and 'follow the menu prompts'**



ZD-X Wiring Schematic





PCAL Products Inc.
P.O. Box 100
Plymouth, MA 01969
Tel: 508-833-1111
Fax: 508-833-1112

ZD-X PCB Schematic



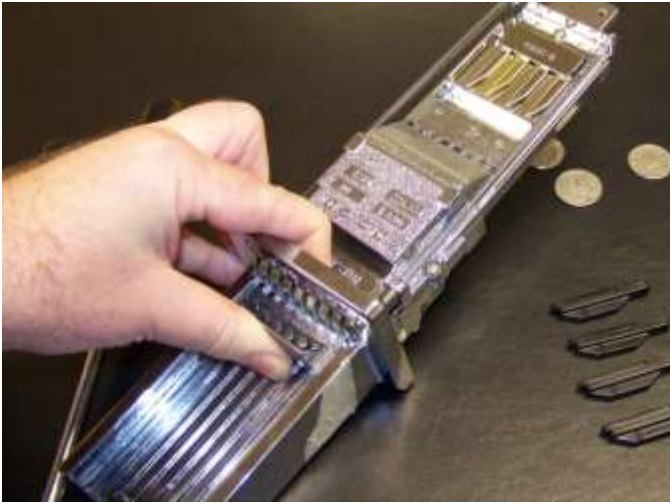
The Panther ZD-11X is equipped with a push chute so that if all the battery protection measures and reminders to keep the battery charged still result in a dead battery, your Panther ZD-11X can still be used. Setting the dollar value of your table is not fully complete unless you set the push chute to match.



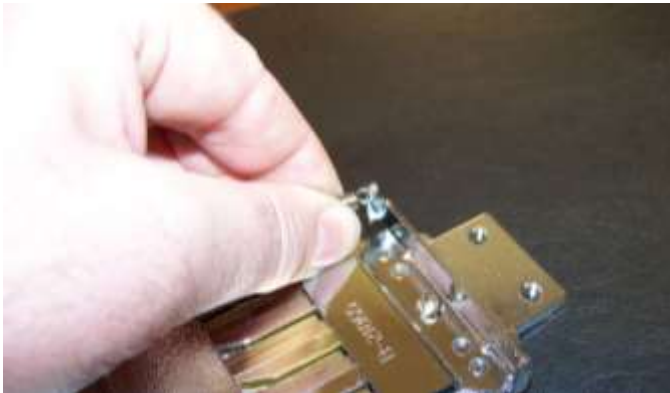
1) Remove the Push Chute from the coin door and – for easier access- remove the push chute end or anything bolted to the end. You will need the Push Chute (of course), enough coins or tokens to make it work in its current setting, the inserts for the desired setting, and a Phillips screwdriver.



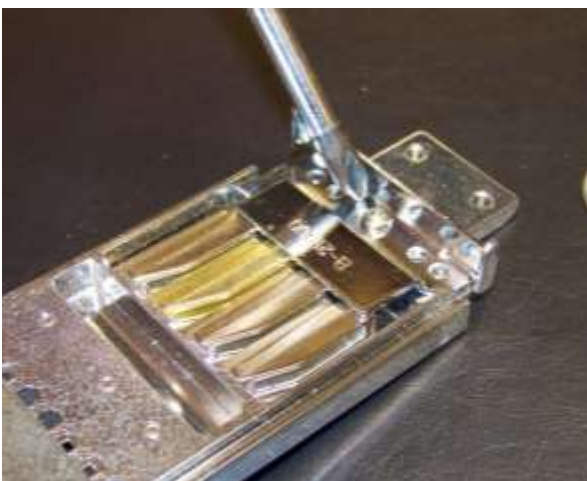
2) To gain access to the inserts, put your coins into the correct slots and then push in the handle.



3) After pushing in the chute and your coins drop out, you will be able to access the inserts, and a section that may contain spare inserts. Continue to hold the handle in as shown...



4) and unhook the two large return springs from the small hooks on the spring bracket.



5) you can remove the single Phillips screw holding the spring bracket to access the spare inserts (if any). This will also be a very good place to store any inserts you remove during this process so you will easily be able to find them for future adjustments, and aren't having to dig in your workbench, toolbox, desk drawer, etc.. BE SURE TO RETIGHTEN THIS SCREW ONCE YOU ARE DONE, if it is sticking up just a little the unit will not move freely. No need to use Olympic-caliber strength, just make sure it is snug. Now turn the unit over.



6) Remove the Phillips screw or screws holding the insert retainer plate and you will have access to all the inserts.



7) With the Insert Retainer Plate removed, you have ready access to make whatever changes you see fit. Switch coin inserts with blanks or switch blank inserts for coins. When finished, it is important that the Insert retainer Plate is attached snugly so the unit will move freely and not catch on the plate or screws. Once the Insert Retainer Plate and Spring Bracket are snugly attached, reconnect the return springs, and test that the handle moves smoothly. If you've installed blanks, just give it a push. If you've set your Push Chute for coin use, you'll need the correct coins so it will work.

Reinstall the unit in the coin door, replace the coin door, and enjoy a game on your table.



NI20100020	Trim Screw
NI20200020	Cushion bolt
NI20200030	Leg Bolt
20607560	Leg Leveler
20700042	Valley Panther Pocket Liner Corner
890200400	Pocket Liner Push Lock
20700043	Valley Panther Pocket Liner Side
20900016	Saluc Duramith Ball Set
20900046	Duramith Cue ball
720203088	Valley Panther Side Trim MDL 88
720203093	Valley Panther Side Trim MDL 93
720203101	Valley Panther Side Trim MDL 101
720203188	Valley Panther End Trim MDL 88
720203193	Valley Panther End Trim MDL 93
720203201	Valley Panther End Trim MDL 101
CPYOOTRA40301	Valley Panther Corner Casting

ELECTRONICS

880200105	ASTROSYS DOLLAR BILL ACCEPTOR
880200136	Ball Drop Motor
880200365	Logic Board Panther Ver 11.2
880200520	Battery 18Amp Interstate
880200551	Charger 3 Amp
880200620	Display LCD
730200430	Cabinet Wire Harness
730200558	Battery Wire Harness

Parts can be purchased at valleydynamoparts.com



**Don't mean to brag, but we make
some seriously nice shuffleboard tables too**

**See the Champion lineup at championshuffleboard.com
all tables crafted in the USA**

