



User Settings v1.2.1

- **Gameplay (Feature):**

- Annihilation After Reactor
 - This setting will determine after which reactor the end of the game "Total Nuclear Annihilation" happens.
 - options: [1,2,3,4,5,6,7,8,9]
 - default: 9
- Ball Save On Destroy Reactor
 - This will award the player a ball save when a reactor gets destroyed. This is started as soon as the destroy lightshow starts.
 - options: ['Yes','No']
 - default: 'Yes'
- Ball Save On Scoop Exit
 - If a ball gets thrown directly down the middle after a scoop exit, this setting will enable a quick ball save when set to Yes. Note: This feature does not function during multiball as it can be used as a tournament exploit.
 - options: ['Yes','No']
 - default: 'Yes'
- Ball Save Timer
 - The number of seconds the ball save is active for. 0 will disable ball save.
 - options: [0,90]
 - increments: 1
 - default: 12
- Ball Save Timer For Add-a-Ball
 - The number of seconds the ball save is active after an add-a-ball is achieved by hitting the first super jackpot. 0 will disable ball save.
 - options: [0,90]
 - increments: 1
 - default: 6
- Ball Save Timer For Multiball Start
 - The number of seconds the ball save is active after multiball is started. 0 will disable ball save.
 - options: [0,90]
 - increments: 1
 - default: 12
- Co-Op Mode Available
 - Allows the operator to make available or disable co-op mode in the system.
 - options: ['Yes','No']
 - default: 'Yes'

- Critical Target Miss Threshold
 - This setting will ensure that if a critical target is broken on the game, the game can continue. It does this by watching the unlit critical targets and if the other targets are hit X times without a lit one being hit, it will regenerate the location of the lit critical targets to ones that register. This can happen multiple times if needed. At this time, it does not throw an operator alert since this can be a false positive.
 - options: [0,40]
 - increments: 1
 - default: 20
- Extra Ball 1 Reactor
 - The first extra ball will be awarded after starting the reactor in this setting. 0 to disable.
 - options: [0,1,2,3,4,5,6,7,8,9]
 - default: 3
- Extra Ball 2 Reactor
 - The second extra ball will be awarded after starting the reactor in this setting. 0 to disable.
 - options: [0,1,2,3,4,5,6,7,8,9]
 - default: 6
- Extra Ball Kicker Enabled
 - This option lets you turn on and off the kicker when an extra ball is awarded.
 - options: ['Yes','No']
 - default: 'Yes'
- Jackpot Drop Reset Seconds
 - During multiball the jackpot drop targets will cascade back up at X seconds. This setting allows control over the amount of seconds. Higher makes the jackpots easier to get through.
 - options: [2,15]
 - increments: '1'
 - default: '5'
- Left Scoop Processing Speed
 - This option lets you decide how quickly the left scoop ejects the ball after entry.
 - options: ['Lame','Medium','Fast']
 - default: 'Fast'
- Reactor Difficulty
 - This setting sets the overall difficulty of the reactors. The settings that are modified by this are number of spotted keypad lights, number of hits to bring a reactor critical, and number of shots needed to destroy each reactor. Brutal is not recommended.
 - options: ['Easy','Medium','Hard','Brutal']
 - default: 'Medium'
- Save Mystery Lit
 - If the player lights mystery and does not collect it, it will carry over to the next ball.
 - options: ['Yes','No']
 - default: 'Yes'

- Save Player Lane Data
 - Lane save data will be carried over from ball to ball if this setting is set to Yes.
 - options: ['Yes','No']
 - default: 'Yes'
- Shaker Intensity
 - Just in case you want to back down the overall intensity of the shaker motor.
 - options: ['Low','Normal']
 - default: 'Normal'
- Shaker Motor
 - This setting will determine if the shaker motor is used during game play.
 - options: ['On','Off']
 - default: 'On'
- Super Spinner Seed Hits
 - The number of spins required to qualify Super Spinner. This is a seed value and will automatically increase each time super spinner is qualified.
 - options: [20,400]
 - increments: 10
 - default: 50

- **Machine (Coils):**

The settings below control the amount of milliseconds that each coil is pulsed for. These can be adjusted up to increase coil power or adjusted down to reduce the power.

- Auto-Fire
 - options: [24,63]
 - increments: 1
 - default: 32
- Drop Target 1 - Knockdown
 - options: [10,40]
 - increments: 1
 - default: 30
- Drop Target 2 - Knockdown
 - options: [10,40]
 - increments: 1
 - default: 30
- Drop Target 3 - Knockdown
 - options: [10,40]
 - increments: 1
 - default: 30
- Flipper - Lower Left Main
 - options: [20,50]
 - increments: 1
 - default: 29
- Flipper - Lower Right Main
 - options: [20,50]
 - increments: 1
 - default: 29
- Flipper - Upper Main
 - options: [10,30]
 - increments: 1
 - default: 20
- Kicker
 - options: [10,50]
 - increments: 1
 - default: 25
- Pop Bumper
 - options: [8,30]
 - increments: 1
 - default: 15
- Scoop - Left
 - options: [15,40]
 - increments: 1
 - default: 25
- Scoop - Right
 - options: [15,40]
 - increments: 1
 - default: 32

- Sling - Core Left
 - options: [5,20]
 - increments: 1
 - default: 6
- Sling - Core Right
 - options: [5,20]
 - increments: 1
 - default: 6
- Sling - Core Top
 - options: [5,20]
 - increments: 1
 - default: 6
- Sling - Left
 - options: [5,20]
 - increments: 1
 - default: 6
- Sling - Right
 - options: [5,20]
 - increments: 1
 - default: 6
- Trough Kickout
 - options: [15,40]
 - increments: 1
 - default: 25

- **Machine (Pricing):**

- Bonus Credit After
 - This setting will give a free credit after the specified number of credits are put on the machine before starting a game.
 - options: [0,10]
 - increments: 1
 - default: 0
- Coins Per Credit
 - This is how many coins are needed to earn a credit. For instance if you have your game setup for \$1 per play, you would need 4 coins per credit. See Left and Right Coin Value below for the value of each coin slot.
 - options: [1,2,3,4,5,6,7,8]
 - default: 1
- Free Play
 - If Free Play is set to Yes, players do not need to pay for games. This is recommended for home environments and locations where coin operation is not allowed or needed. Free Play can be set to No which will essentially force players to purchase credits by inserting coins into the coin slots of the pinball machine. This option will avoid the need to drill a hole in your cabinet and install a doorbell button on the outside that is wired to the coin switch on the coin door. Free Play was introduced to pinball machines in the 1980's and still used as a setting to this day.
 - options: ['Yes','No']
 - default: 'Yes'
- Left Coin Value
 - This sets the value of the left coin slot. For example, if you have this set up with a quarter mech, the value would be 1. If it was set to accept Sacagawea Dollar Coins, it would be set to 4. This can be set independently from the right coin slot which enables the ability to accept different coin values like Loonies and Toonies in Canada.
 - options: [1,2,3,4,5,6,7,8]
 - default: 1
- Right Coin Value
 - This sets the value of the right coin slot. For example, if you have this set up with a quarter mech, the value would be 1. If it was set to accept Sacagawea Dollar Coins, it would be set to 4. This can be set independently from the left coin slot which enables the ability to accept different coin values like Loonies and Toonies in Canada.
 - options: [1,2,3,4,5,6,7,8]
 - default: 1

- **Machine (Replay):**

- **Replay Award**
 - The replay logic has the ability to award an extra ball or a free game. Selectable here.
 - options: ['Credit','Extra Ball']
 - default: 'Credit'
- **Replay Backdown Amount**
 - This is the value that the replay score will drop down if the replay is not hit after the amount of times specified in the Replay Losing Streak Threshold setting. For example if the Losing Threshold was set to 3, after 3 games the replay target score will drop down by this backdown amount.
 - options: [20000,200000]
 - increments: 20000
 - default: 20000
- **Replay Increase Amount**
 - This is the amount that the replay score will increase by when a replay is hit.
 - options: [10000,500000]
 - increments: 10000
 - default: 100000
- **Replay Losing Streak Thresh.**
 - This is the number of times if a replay is not hit that the replay score is adjusted down using the Backdown Amount above.
 - options: [0,30]
 - increments: 1
 - default: 3
- **Replay Minimum Score**
 - An auto-adjusting replay value will never go below the value set in this setting.
 - options: [100000,5000000]
 - increments: 10000
 - default: 300000
- **Replay Score**
 - This is the current replay score of the machine. This can be set manually or set by the playing habits of the players using the auto-adjust setting.
 - options: [500000,10000000]
 - increments: 20000
 - default: 800000
- **Replay Score Enabled**
 - This gives the operator the ability to disable replay completely.
 - options: ['Yes','No']
 - default: 'Yes'
- **Replay Type**
 - If set to fixed, this will keep the replay value static as specified in the Replay Score above. If set to auto-adjust, the replay value is adjusted up and down using the settings above to adapt to player skill levels.
 - options: ['Fixed','Auto-Adjust']
 - default: 'Auto-Adjust'

- **Machine (Standard):**

- Attract Beacon
 - If set to On, the beacon light will turn on briefly every 120 seconds when the machine is sitting idle in attract mode. This is an old school technique for getting potential players attention in an arcade setting.
 - options: ['On','Off']
 - default: 'Off'
- Award Free Game On Leaderboard
 - This will award a free credit for achieving a leaderboard score.
 - options: [Yes,No]
 - default: Yes
- Balls Per Game
 - Number of balls per game. Anything over 3 is cheating.
 - options: [1,10]
 - increments: 1
 - default: 3
- Debug Mode
 - Debug mode, will display debug info directly on the LCD of the game. This is useful if there are intermittent issues with switches or other game logic.
 - options: ['On','Off']
 - default: 'Off'
- Flipper Hold Boost Level
 - If a pinball is ejecting very quickly out of the left scoop, there is a potential to slightly knock the hold of the coil down a bit when the ball hits a flipper in eh upright position. If that is an issue, this level can be increased to stop that from happening.
 - options: [0,1,2,3]
 - increments: 1
 - default: 2
- Match Enabled
 - Some people do not want to give out free games randomly, so this is for them.
 - options: ['Yes','No']
 - default: 'Yes'
- Prototype Core Rollovers
 - Don't turn this to Yes, or your core slings will not score and you will not be able to progress through the game. This is a setting for the Whitewood version of this game only.
 - options: ['Yes','No']
 - default: 'No'
- Start Button Restart Enabled
 - Holding the start button for 2 seconds on Ball 2 or greater of a game will exit the current game back to attract mode if this setting is set to Yes. You will lose your credits...
 - options: ['Yes','No']
 - default: 'Yes'

- Target Free Game Percent
 - This setting will tell the machine what your target free game percent should be and it will adjust the match awards to be as close to this percentage as possible. This also takes in account free credits due to replay and high scores.
 - options: [0,50]
 - increments: 1
 - default: 8
- Tilt Warnings
 - Number of times you hear a public domain missile siren before you Tilt.
 - options: [0,10]
 - increments: 1
 - default: 2
- Tilt Bob Settle Time ms
 - The number of milliseconds that the game allows the tilt bob to settle before issuing another warning.
 - options: [1000,10000]
 - increments: 500
 - default: 1500
- Tilt Switch Sensitivity ms
 - The number of milliseconds that the tilt plumb bob must be in contact with the tilt ring to trigger a tilt warning event.
 - options: [0,30]
 - increments: 1
 - default: 10