AMUSEMENT CONNECT

2025

SmartMech™

INSTALLATION AND **USER INSTRUCTIONS**

WWW.AMUSEMENTCONNECT.COM

Contents

Definitions

WebApp - https://app.amusementconnect.com/

! Warning !

Power Game off before connecting readers

Reader Connection Basics

Wire Colors - Basics	
RED	Power Supply – 12V to reader from game power
WHITE	Ticket Motor On/Off Signal (Input to Reader)
BLACK	Ground
BLUE	Ticket Notch Output from Reader to Game Board
YELLOW	Coin Pulse Line (Connect to + of Coin Switch)

Card Reader Wire Breakdown

RED

This is the power for the reader and should be connected to 12V. Operating Range for the reader is 9 to 13.5V. If the power supply is less than 9V, WIFI modules will be very limited in range and function as the further away from 12V will mean less WIFI range.

The reader will draw a max of 3W of power, or 1/4A of 12V from the power supply. The power supply must be able to provide 3W of power for the reader. More than 13.5V has a significant risk of damaging the reader, be sure to check your supply voltage prior to connection!

WHITE

This is the ticket input to the reader. It detects the signal when the ticket dispenser motor is switched on/off. For most games, it is at or near zero when not paying tickets. We call this LOW TO HIGH. Some games will have “noise in the line” due to poor grounding of the game.

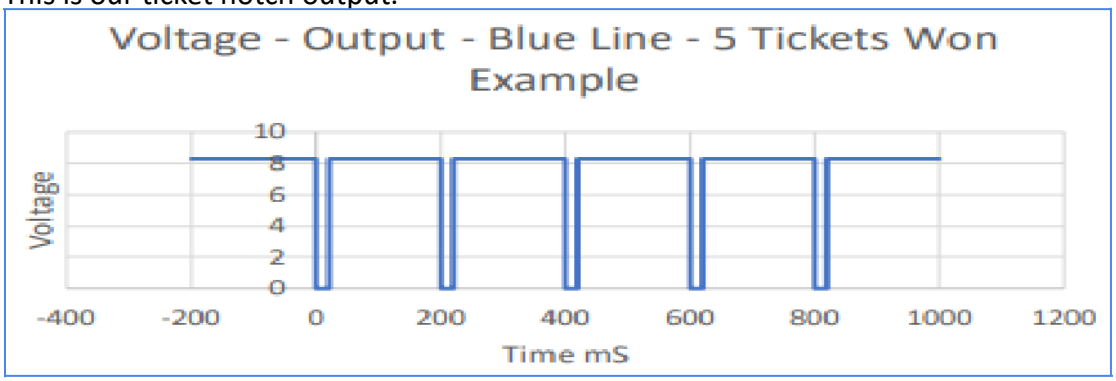
When the motor turns on (tickets are being paid), voltage will go up. We have seen it go up as little as 1V to 19V, but it does go up when tickets are trying to pay.
In rare cases a ticket dispenser is wired high on some games (like those manufactured in Asia). When at rest, there is a positive voltage on the dispenser, and voltage drops to zero when tickets are paid. We call this HIGH TO LOW, and the reader can be adjusted to accept it on the WebApp.

BLACK

This is the ground for the reader, and it's connected to the common ground in the game. The ticket dispenser shares common ground with the coin circuit nearly all the time.

BLUE

This is our ticket notch output.



In this example graph of the voltage in milliseconds, the notch is shown at 20ms, and the ticket length is shown at 180ms (or 5 tickets per second). On many of the newer games that pay a lot of tickets, we can speed up the ticket payout, so it is worth playing with. Most games work fine on 20 ms notch and 30ms ticket length (20 tickets/second).

In some cases, you will need to play with this timing to get to count properly. If struggling – Try 50 ms notch, and 100 ms ticket length in the WebApp, usually will yield good results.

YELLOW

This is the coin wire; it simulates a coin pulse by shorting the voltage to ground for the coin pulse duration. This will work on coin switch voltages of 12V or less.

By default, this is simulating a Normally Open, or positive voltage when idle, which is used for most games in the market. If the coin has no voltage at idle, the reader will need to be changed to Normally Closed on the WebApp.

For a 24V+ coin switch, an external relay will be required; there isn't enough safe resistance in the card reader to pull to zero from 24V.

!WARNING! Failure to use a relay will damage the reader.

Wiring Options

Redemption Games

Power off game, plug the 4-pin connector from the **reader** into the 4-pin connector ticket dispenser harness and plug the **YELLOW wire** into the positive side of the **coin circuit**.

Non-Redemption Games

Power off game, plug Red into 12V (often found in the coin lights) and **Black** into a game ground (ground to coin light) and **YELLOW** connector into the **positive side** of the coin circuit.

Relay Harness

For a **24V+** coin switch, an external relay will be required.

UCL Harness

If you have purchased readers with a UCL Harness, See UCL Harness Section. Works on all types of games (Redemption, Cranes, Video).

! Warning !

If you are unsure about the voltage, use your ***voltmeter*** *to confirm the* ***voltage*** *and* ***polarity****. Connecting to improper voltage (or backwards)* ***can damage the reader.*** *Operating Voltage is* ***9 to 13.5V.***

Additional Reader Harness and Wiring Additions

Non-Redemption Harness

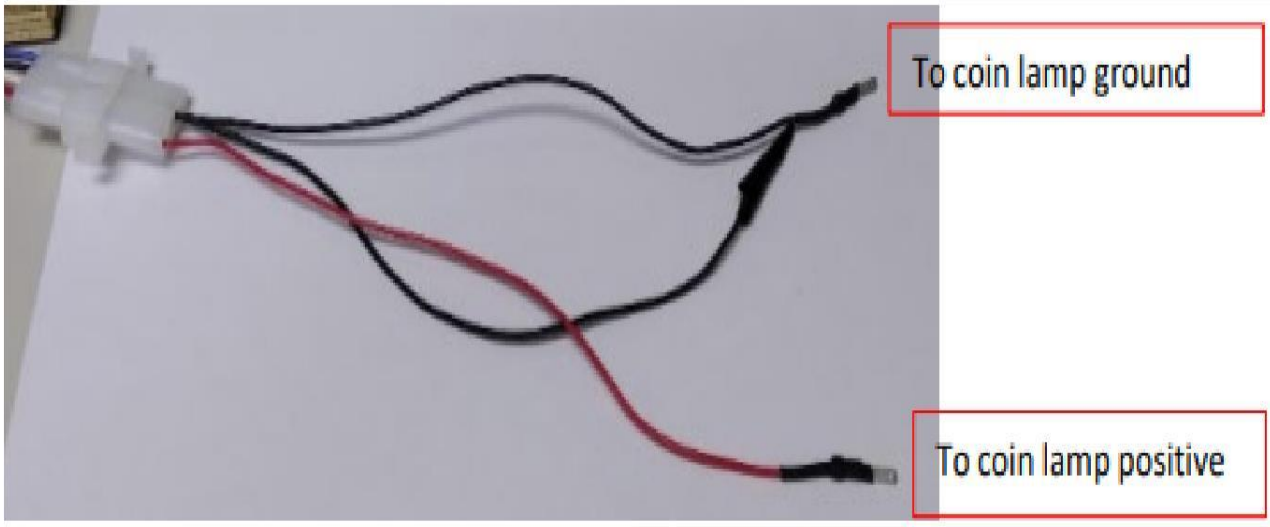
1. Often, you can find 12v from the coin lamp inside the game door. Confirm with multimeter the supply voltage is 12V.

2. After confirming voltage, **power off game** and insert the **RED** wire spade into the **positive** side of the lamp wire.

3. Insert one of the **BLACK** ground wire spades into the lamp ground.

    a. The other **BLACK** wire terminal can be taped off.

4. Plug the **YELLOW** wire from the reader into the positive side of the **coin circuit.**



12v power supply + Non-Redemption Harness

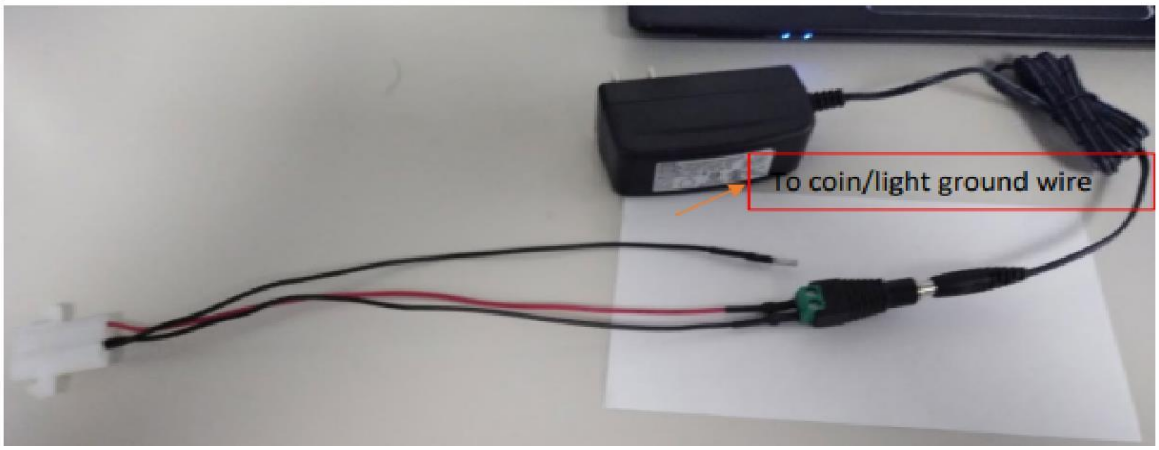
If 12v cannot be found inside the game, you can use a 12v power supply.

1. In this instance, you will connect the **RED** wire to the positive side of the barrel connector.

2. Plug one of the **BLACK** wires into the negative side.

3. Plug the **YELLOW** wire from the reader into the positive side of the **coin circuit.**

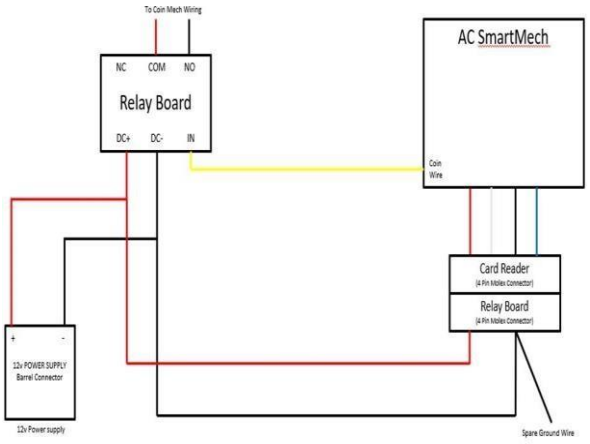
4. The second **BLACK** wire needs to be connected to any common DC Ground (ex: coin switch ground, light ground, etc).

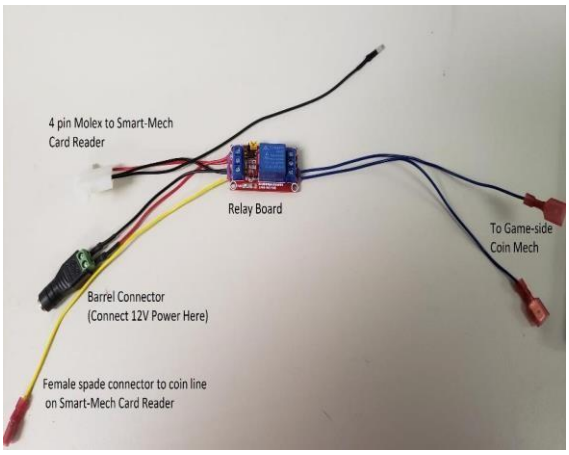


Relay Harness

Non-Redemption

1. The Relay Board has 2 sides.
    a. One side has **2** single **BLACK** wires.
    b. The other side has:
        i. A **BLACK** and **RED** wire pair that leads to a barrel connector.
        ii. A **BLACK** and **RED** wire pair that leads to a 4 pin Molex connector.
        iii. 1 single **YELLOW** wire iv. 1 single Black ground wire (this might not be needed)
2. The single **YELLOW** wire from the Relay Board will attach to the **YELLOW** wire on the card reader.
3. Connect the 4 pin Molex connector from the Relay Board to the 4 pin Molex connector on the Card Reader.
4. Connect the 2 single **BLACK** wires from the Relay Board to the positive and negative sides of the coin mech. (it shouldn't matter which).
5. Plug the barrel connector from the Relay Board onto the 12V power supply, then plug that power supply into a power outlet.

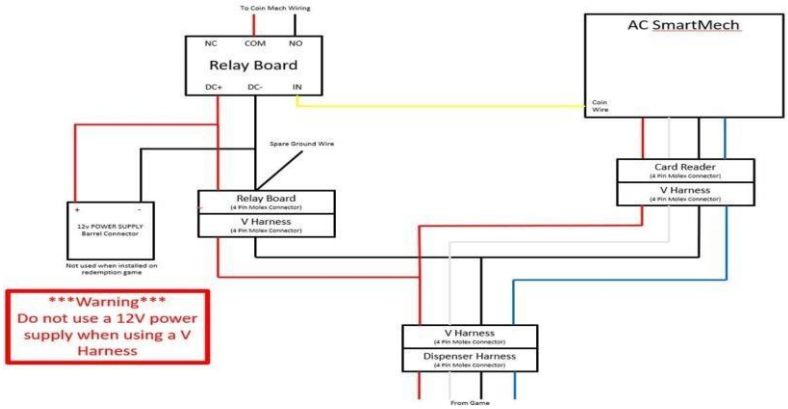


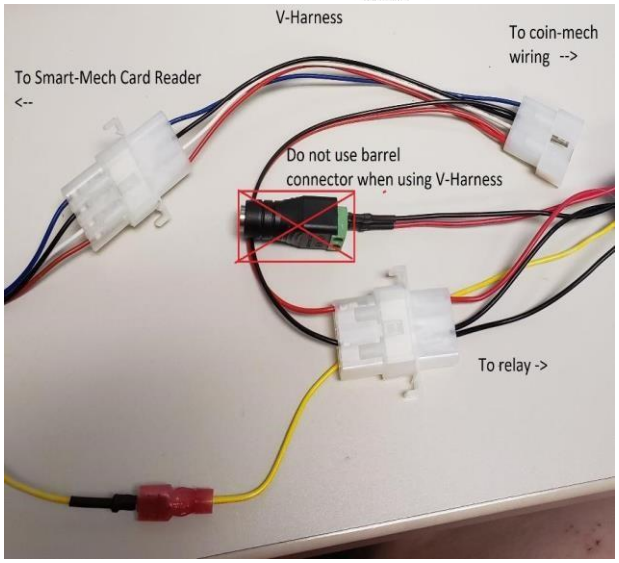


Redemption

The following is how to connect a Relay Board to a Redemption game, follow the above instructions except as follows.

1. Get a V harness, it has 3 sides with 4 pin Molex connectors.
    a. 2 connectors with 4 wires, Red, Blue, White, and Black leading to it
    b. 1 with just 2 wires, Red and Black connected to it.
2. Connect the 4 pin Molex connector from the Card Reader to a 4 pin Molex connector with 4 wires, on the V Hardness.
3. Connect the 4 pin Molex connector from the Relay Board to the 4 pin Molex connector with 2 wires on the V Hardness.
4. Connect the 4 pin Molex ticket connector from the Game Machine to the last available 4 pin Molex connector on the V Hardness.





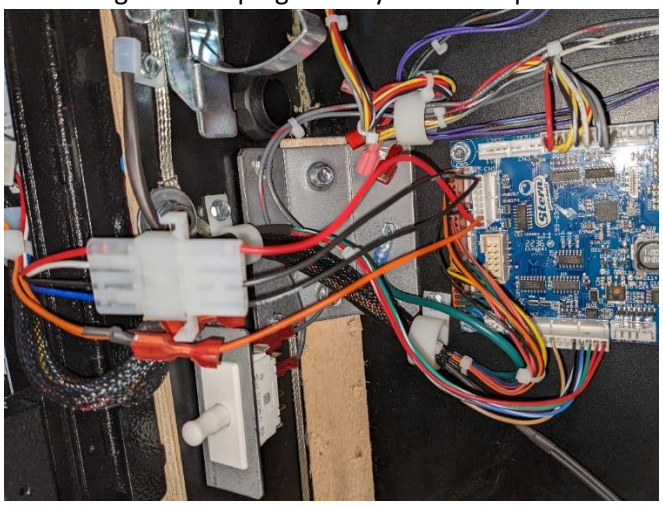
UCL Harness

In recent years, most manufacturers have adopted a common card reader connection harness called UCL. In these games, the voltages should be correct, and all wires are in a single connector, so power off game and plug in reader. **Before connecting, check the power/ground to confirm 12V is at the harness between pins 1 and 9 (RED / BLACK wires).**

Spike Harness

The following instructions are how to connect a spike harness.

1. Connect the .100 connector to the cabinet node board just inside the coin door to the left.
2. Connect the four pin connector to the harness of the AC reader.
3. Connect the orange female plug to the yellow coin pulse wire from the AC reader.

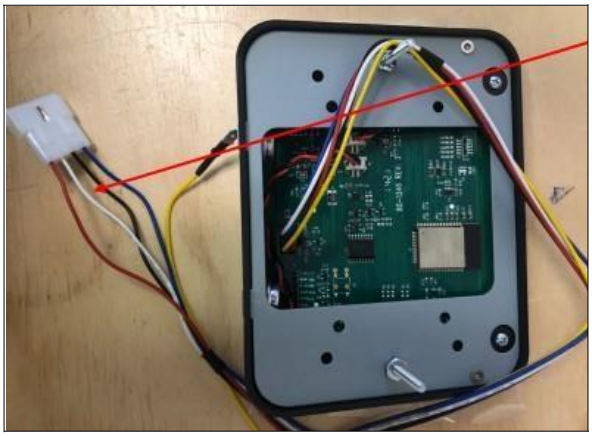


! Warning !

DO NOT power readers off during an update

Configuring reader To Record Instant Prize Payouts

1. Splice the **WHITE** wire from the AC Smart Mech reader harness into the **DISCRETE** wire (usually the ground, as it shares a common power usually) on the **Instant Prize Machine**. This is usually the **Black** wire, but not guaranteed.

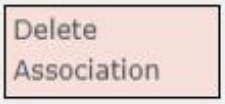


2. Game Machine Settings
    a. Go to **Location Wizard**>**Game Machines**.
    b. Click **Edit** on the game.
    c. Set the **Reader type** to ***Instant Prize***.
    d. Set **Ticket Field Name** to *Prize* or to match the kind of prize that it's one, such as Ball or *Duck.*
    e. If desired, enter the average value of the product being dispensed in the new **Instant prize avg dollar amount** field that pops up, so it shows you how much money in the product came out of the machine in your collection report.
    f. Check the Ticket Mech Type As High
    g. If the prize meter is 12V at idle, therefore, when the prize meter clicks, voltage goes to zero momentarily. Set this as ***HIGH TO LOW***. **ii** If the prize meter is 0V at idle, therefore, when the prize meter clicks, voltage goes up momentarily. Set this as ***LOW TO HIGH***.
    h. Change the Notch Length to 20
    i. Run a test vend and run a kiosk report to ensure vend was recorded.

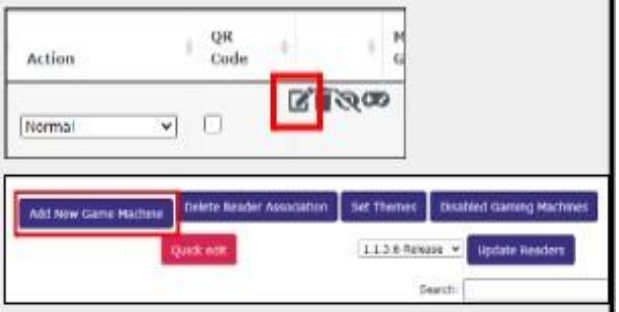
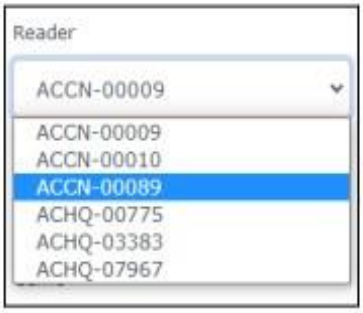
SMARTMECH Configuration Guide

Locating a reader in Location Wizard

<table>
<tr><th colspan="2">If your reader isn't in the drop down list, use these methods to find the reader within the system.</th></tr>
<tr><th colspan="2">Check in Unassigned Devices</th></tr>
<tr><td>Click on the UnAssigned Devices Tab</td><td> 
</td></tr>
<tr><td>Use the drop down to select the location the reader is from.</td><td> 
</td></tr>
<tr><td>Use the search bar for the reader. If the reader is not found here check at all your locations until the reader is found.
Once found Click Assign to this location

If you look through all locations and don't find the reader, it may still be assigned to another game.</td><td> 
</td></tr>
<tr><th colspan="2">See if it's already assigned to a game</th></tr>
<tr><td>For each location, go to Location Wizard, then click the Game Machines tab and click Delete Reader Association</td><td> 
</td></tr>
<tr><td>Use the search bar to look for the reader number</td><td>  </td></tr>
<tr><td>Click Delete Association on the right most column</td><td> 
</td></tr>
<tr><td>This will take you back to the list of games where you can see that the reader is removed</td><td> 
</td></tr>
<tr><th colspan="2">After this the reader should be available to assign to your game</th></tr>
</table>

Assigning a new reader to existing or new game in Location Wizard

Installing a new game, the process for getting you up and running is quick and simple, follow these steps from your PC, Laptop or even smartphone to save you more time.	
Once you have a reader that you plan to put on your game, look a white sticker. This will have a 9 digit ID **Reader Number**	
Login to https://app.amusementconnect.com, then go to the side panel and click **Location Wizard** Find the name of the site you're working on, click **Edit**	
Click on **Game Machines** tab near the center of the page	
Find the **Game** you want to assign the reader to and click **Edit** or click **Add New Game Machine.**	
In the **Reader** drop down Select the **Reader Number** Scroll to the bottom and click **Save**	

Game Machine Settings

1. **Reader**
    a. Select the reader number installed on the game.
    b. If you cannot find the reader you are working on, check the Locating a reader section.

2. **Machine Name**
    a. Give the game a name. If there's more than one of this same game, we recommend you differentiate it by putting an indicator like: Left, Right, 1, 2, etc.

3. **Machine Description**
    a. A more detailed description of the gaming machine.

4. **Asset ID**
    a. If desired, input your asset ID.

5. **Credit Required**
    a. Input the number of credits the reader will charge the player card.

6. **Game**
    a. Select the game that most closely relates to the game you are setting up. This categorizes the game for reporting and adds a manual to it if it's in our database.
    b. If there's no option that matches the new game, leave the game as 00 Other/Game not found, and send us an email at support@amusementconnect.com and we will get it put in for you.

7. **Happy Hour Cost Multiplier**
    a. This will show when happy hour is active what the multiplier will be. In normal operation without an active happy hour, this should be 1.00.

8. **Cost Multiplier**
    a. This will show when happy hour is active what the multiplier will be. In normal operation without an active happy hour, this should be 1.00.

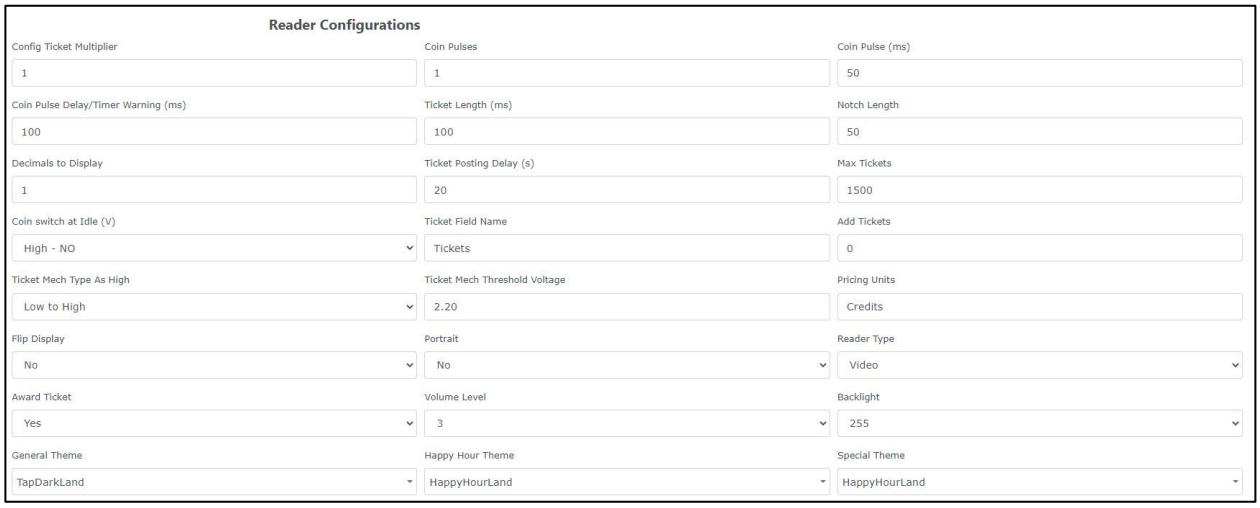
9. **Game Category Override**
    a. Custom field to enter a new game category. The category will be used for reporting, commission calculations, and for happy hour settings.
    b. By Default, games are grouped by category (Video, Redemption, Instant Prize, Pinball and Interactive).

10. **Mercy Tickets**
    a. Mercy tickets can be used to award tickets for playing any type of game (Note: the reader must be identified as a redemption game to post tickets). This is used to award ticket/loyalty points on a game. If placed on a redemption game, and mercy tickets are awarded, the count will start at the mercy ticket value.
    b. Example: 5 mercy tickets: 5 tickets will be added at coin up and the first ticket to pay out will be the 6^{th}.

11. **Game Group**
    a. Use for games with multiple readers.
    b. Example: Cyclone has 3 sides. Grouping the game allows for the reporting to show for Cyclone as one game in game reports.

12. **Free Play Allowed**
    a. Default is Yes, set this to “NO” to NOT allow a card with free play/timed play to coin up the game.

Reader Configuration Settings



1. **Config Ticket multiplier**
    a. Most of the time this will be 1. However, some games or applications require a multiplier as they give fewer pulses.
    b. Example: Smart Ticket Time Crane and ICE Tons of Tickets give 25 tickets per pulse therefore the Ticket Multiplier should be set to 25 so the reader would count 25, 50, 75, 100, 125, 150 (6 pulses).

2. **Coin Pulses**
    a. The amount of coin pulses the reader needs to give the game to start.
        i. ******For the best customer experience, change the setting on the game itself to 1 pulse or 1 coin to play******
    b. Some games have card swipe options, which will replace “Insert Coin” message with “Swipe Card”.

3. **Coin Pulse (ms)**
    a. This is the length of time for the coin pulse.
    b. On older games, the default (50ms) might be too fast if the game in not coining up and may need to be increased to provide a longer pulse.
    c. Setting this too long can cause a game error for the “stuck coin” switch.

4. **Coin Pulse Delay/Timer Warning (ms)**
    a. For games that need multiple coin pulses, this is the time between pulses. Recommend to keeping the Pulse Delay less than 100 ms.
    b. If used with the reader set to the timer mode – it is a warning time when to flash the LEDs as a warning of low time. Time is in ms, 1 sec = 1000ms
        i. Example: If you want to start flashing the light to indicate nearly out of time with 1 minute to go, input - 60000ms

5. **Ticket Length (ms)**
    a. This is the amount of time during a ticket payout the notch output is off between pulses. This simulates the ticket sensor being blocked or not on a ticket notch.
    b. Default = 100

6. **Notch Length**
    a. This is the time the notch output will stay on. This allows the reader to emulate the notch opto of a ticket dispenser.
    b. Default = 50

7. **Decimals to Display**
    a. This is the number of decimals to show on the screen for pricing.
    b. Example: 0 = 1 Credit, 1 = 1.0 Credits

8. **Ticket Posting Delay (s)**
    a. The number of seconds after tickets have finished counting before posting to the database.
    b. For games that pay tickets during gameplay, like quick coin games or multiround games, tickets are posted and if more tickets come, the reader will NOT count them for the player so the Ticket Posting Delay should be increased to be open long enough between pay. This could go up to 300 seconds.
        i. For these games, set the delay longer to count all the earned tickets before posting. If tickets always come at once, you can reduce the Ticket Posting Delay for faster turnover. Less than 5 is not recommended.

9. **Max Tickets**
    a. This is the maximum # of tickets the reader will count regardless of what the game board is doing. Set this to the maximum tickets that can be paid on the game. This is used to cap the game payout in the event the game has a stuck ticket output.
    b. For games that have a progressive jackpot, like Monster Drop, will need to have this value increased.

10. **Coin Switch at Idle (V)**
    a. Most (99%) games drop voltage at the coin switch when the coin switch is activated. When measuring voltage across the coin circuit, if you see any positive voltage at idle, this should be HIGH/NO.
    b. If you measure 0V on the coin circuit when the game is idle, change to LowNC.

11. **Ticket Field Name**
    a. Default = “Tickets”
    b. Enter desired name to display any redemption denomination that is paid out to reflect location redemption preferences.
        i. Example – “Points”

12. **Add Tickets**
    a. If ticket mech voltage threshold has been set correctly and tickets are paying a consistently lower number than what game is indicating, set this to the difference.
        i. Example - Reader consistently pays out 2 tickets less than what the game indicates, set this value to 2.
            1. This is a last resort adjustment. It is almost never used.

13. **Ticket Mech Type**
    a. Default is Low to High.
    b. Change too High to Low if ticket drive voltage at idle is higher than ticket drive voltage when paying out.
    c. For these dispenser types, installers have better results by leaving the ticket dispenser connected to the game to add enough additional load for the ticket drive threshold to have a greater range between off and on. A “v-harness” can be used to keep the dispenser connected to the game.

14. **Ticket Mech Threshold Voltage**
    a. If a game isn't paying tickets out, test voltage across **WHITE** and **BLACK** wire when the game is paying tickets then set the Threshold Voltage to 70% of the voltage peak when the game is paying out tickets.
    b. Some Raw Thrills games will report "out of tickets" – Try changing this setting to 1.5V, clear the ticket error on the game, and try again.
15. **Pricing Units**
    a. Default = "Credits"
    b. Enter desired name for denominations to reflect location preferences.
    c. Examples: Points, Units, Dollars, etc

16. **Flip Display / Portrait**
    a. Changes the way screen is displayed with respect to wide/sticker side edge Portrait – Default is No (Landscape), change to Yes when mounting reader vertically (Portrait)

If the sticker is on the	Flip	Portrait
Left	NO	YES
Right	YES	YES
Top	YES	NO
Bottom	NO	NO

17. **Reader Type**
    a. Redemption
        i. Reader counts and posts tickets.

    b. Instant Prize
        i. Allows for tracking number of prizes dispensed
    c. Video
        i. Can be used on video or redemption games (Skee-ball, etc) that will not pay out tickets, but still respond to the gameboard so no Ticket Error is shown
    d. Pool Table
        i. Used on readers with a SliderMech
    e. Timer
        i. Used on games like cornhole, where play is limited by time. Long coin pulse should be used (1800000 for 30 min, set warning flashing in coin pulse delay – 60000 for 1- minute warning flashes)
18. **Award Ticket**
    a. Default is Yes.
    b. Select no if no tickets are to be awarded during free/timed play.

19. **Volume Level**
    a. Default is 3, controls volume of reader sounds. 3 is the loudest, 0 is mute.
    b.
20. **Backlight**
    a. Default is 255, controls the intensity of the backlight of the reader screen. Recommended setting for a pool table reader is 8.

21. **General Theme**
    a. Theme that is displayed on reader under normal operation.
        i. Landscape Default is “TapDarkLand”. ii. Portrait Default is “TapDarkPort”.
22. **Happy Hour Theme**
    a. Theme that is displayed when the reader is in Happy Hour mode.
        i. Landscape Default is “HappyHourLand”
        ii. Portrait Default is “HappyHourPort”

23. **Special Theme**
    a. Not In Use – ***Cannot be Blank***

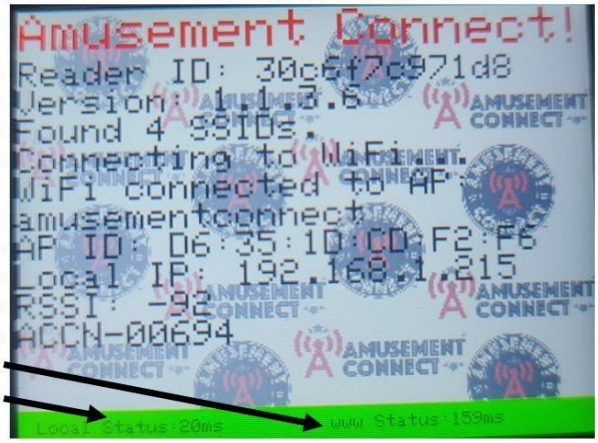
When all the settings are set, scroll down to the bottom, and click “Save”

Reader Boot Up

After the reader has been wired to the game and all settings have been completed, you can power on the reader. When powered on, the reader will show a boot screen with basic information about the reader and network connections. A successful boot up and network connection will show a solid green bar at the bottom of the screen.

Reader Boot Screen Definitions

- Reader ID – MAC Address
- Current Firmware Version on reader
- # of wifi networks found
- Connection Status
- Wifi network the reader connected to
- Access Point MAC address the reader is connected to
- IP address given to reader
- Wifi Signal Strength (-60 to -75 = Good)
- Unique Reader ID
- Internet Connection Status (Green = Connected)
- Network Connection Status (Green = Connected)



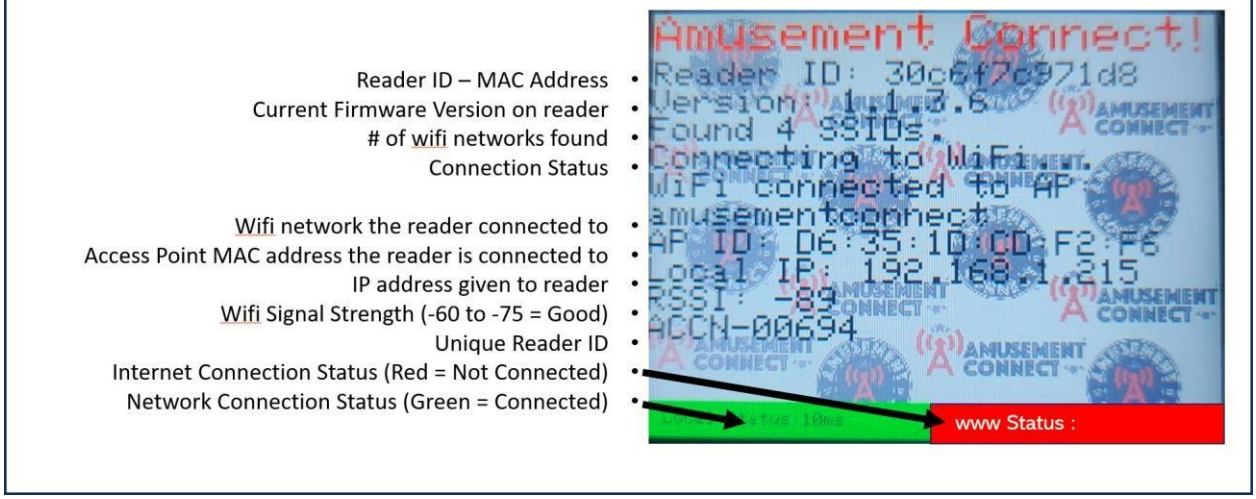
If the reader is unable to connect to the WIFI the boot screen will show an “Unable to connect to WIFI” message. In this case ensure that network and access points are powered on and broadcasting the amusementconnect SSID and password (L33V3nd1ng).

Reader Boot Screen when unable to connect to wifi network

- Reader ID – MAC Address
- Current Firmware Version on reader
- # of wifi networks found
- Connection Status (Reader Unable to connect to wifi)

If the reader connects to the WIFI but does not connect to the internet the status box in the lower right corner will be red. If this happens make sure the subnet router has internet from the main router, may require a reboot on the main router.

Reader Boot Screen when connected to WIFI but not connected to Internet



Troubleshooting and Quick Help Guide

Common issues when connecting Readers	
Configuration	
Locating a Reader	**Unassigned Devices** **1)** Get the reader number **2)** Go to Location Wizard>Unassigned Devices **3)** Select ALL **4)** Use the search bar to search the reader number **5)** Click Assign to this location from the location it says to the on selected for location wizard **6)** Refreshing should make be available for assigning **Already assigned to game** **1)** If you find that the reader is already assigned to a game at the location **2)** Go back Location Wizard>Game Machine and click Delete Reader Association **3)** Use the search bar to look for the reader number **4)** Click Delete Association on the right most column **5)** This will make the reader available for assigning *Find more on page: 14*
Moving a Game to a Different Location	**1)** Select desired location>location wizard>game machines **2)** Click Move next to desired game **3)** Select location from dropdown menu then click move **4)** Confirm game moved by going to location moved and checking game machines
	**Reader is Unassigned** **1)** Get the reader number **2)** Go to Location Wizard **3)** Make sure the reader is assigned to the game, if not set the reader accordingly **Game set to disabled** **1)** Restart reader using action tab or have location power cycle reader **2)** Go to actions and make sure its not set to "*Disabled*" if it is change it to "*Normal*" **Game is Archived** **1)** If the game and reader aren't found, check under the "*Archived Gaming Machines*" section of game machines. **2)** If found there click the eyeball symbol to re add it to the game machines list.
Reading 7777 Credits	**Reader is Unassigned** **1)** Confirm Reader Number Go to Location **2)** Confirm Reader is Assigned to the Location **3)** If reader is not assigned to location, search for reader **4)** Once reader is assigned to location, assign reader to the game
Takes multiple taps to coin up game	**1)** Confirm the game is set to 1 credit/play **2)** If not either set game to 1 credit/play or set coin pulses in Reader Config pulses to reflect credits/play **3)** If you don't know the amount it is set to, Scan 3 times and see how many credits are in the game. **4)** You should be able to divide the number of credits currently on the game by 3 to get the number of credits the game is set for.

Connection Issue	
	1) Run card scan report and ensure the card had been created at the location. 2) Make sure there is a good internet connection, if the entire game room has this issue contact your service provider 3) If only one game is having the issue, try rebooting and updating the game. 4) If it's a Free play card, make sure the game is allowed to work on free play or the location may have cool down enabled, and may just be scanning the card too soon since last scan (cool down forces them to wait around 30 seconds between successful card scans). 5) Check RSSI in arcade status by pressing on the troubleshoot button for the reader, if RSSI is below -75 then press the reconnect button for force the reader to reconnect to the wifi.
	**1)** Check that location is using amusementconnect/L33V3nd1ng as the WiFi **a)** If not, create a hotspot by pressing on link - Creating Hotspot **b)** Confirm reader connects to hotspot. **2)** Look at the arcade status, click Troubleshoot on the game and look at signal RSSI. We are looking for RSSI above -75, if -80 or worse, adjust the access point positioning. **3)** If RSSI is ok, but still failing to connect - connect to 12V power supply and try to connect sometimes low power is part of the issue. Elaut/Rainbow cranes are often suspected to lower WATTAGE on the power rail. **4)** Try to power cycle the WAP for 30 seconds to reset it, and confirm the WAP comes back on with solid blue **5)** Confirm there is no routers plugged into the subnet router
 Network 404/408	1) If only one game is having the issue, try rebooting the game. 2) Check RSSI in arcade status by pressing on the troubleshoot button for the reader, if RSSI is below -75 then press the reconnect button for force the reader to reconnect to the wifi. 3) Make sure there is a good internet connection and ensure power to both the main router and the subnet router is on. If the internet is not working in rest of the arcade, contact your service provider. 4) Reboot main location router (leave powered off for 30 second, then power on).
Display	
Assign new Theme	**1)** Go to Location Wizard > Game Machines. **2)** Click edit on the game you are changing. **3)** Change the theme according to preference ensuring that the proper theme is selected for the reader orientation (portrait / landscape)
Changing Orientation	**1)** Go to Location Wizard > Games Machines. **2)** Within the specific game(s) edit the configs as shown in the diagram **3)** If its portrait, set General theme to TapDarkPort, happy hour theme to HappyHourPort **4)** If its Not, set General theme to TapDarkLand, happy hour theme to HappyHourLand

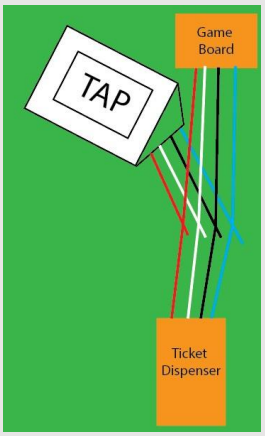
Label on the	Flip	Portrait
Left	NO	**YES**
Right	**YES**	**YES**
Top	**YES**	NO
Bottom	NO	NO

White Info Splash Screen Displayed	**1)** Have customer confirm/look for IP address displayed **2)** If no IP address Reboot location router or subnet router to clear the IP cache **3)** When router back up, power cycle reader and check for connection **4)** To ultimately get rid of recurrence, confirm there are not multiple routers and then suggest a subnet router or if there is a subnet router, increase the DHCP address pool. **5)** If IP address displayed, but reader will not advance to TAP screen: **a)** Measure voltage across black and red wire to assure reader is getting 12v **b)** Find 12v inside game or use an external 12v power supply
White Screen, no text	**<u>If happening on a game that it has been installed on for some time</u>** **1)** Check that there is an adequate 12v power supply to the reader **a)** check to see if the game's power supply has a potentiometer (adjustable voltage). Clockwise should turn it down and counterclockwise should turn it up. VERIFY WITH A MULTIMETER **2)** If yes, try unplugging coin wire to see if condition improves **3)** If possible, confirm that another reader will work in place of the current reader **4)** If the condition doesn't improve, recommend replacing it. ***If this happens after power is lost during an update, a replacement is recommended*** **<u>If happening during an install</u>** **5)** Check there is an adequate power supply Check that coin wire is plugged into appropriate coin wire, that it is not drawing too much power down
Happy Hour	
Games not showing happy hour	**<u>The reader isn't set in the happy hour</u>** **1)** In Web app check Config > Happy Hour for the location **2)** Make sure that the correct game categories are either selected or deselected for the Happy Hour time in question. **3)** If they are and still didn't work, go to Location wizard > Game Machines > Click Edit on the affected game. **4)** Go to the Game Category override field, make sure this area is blank or that the category set here is also checked in the Happy Hour Config area. **<u>Reader powered down or lost connection before happy hour started.</u>** **1)** Set a new happy hour with the same settings as the original to start a minute from now. This should send the appropriate commands to the readers to get them out of happy hour. Once that time has passed, check that the reader is correct.

Tickets	
Not paying out Tickets	**No tickets are paid** **1)** Make sure the correct wires are connected and are undamaged **2)** Check the game has ticket pay out turned on. **3)** If the ticket mech is available to hook up, see if it pays out while connected to that. **a)** If it doesn't the issue is on the game side **4)** Check voltage between white/black at idle and then at ticket payout **a)** Location wizard > Game Machines > Click Edit on the affected game. **b)** If voltage goes up during pay out, make sure ticket mech type is Low-High **c)** If voltage is goes down during pay out, make sure ticket mech type is High-Low **If using a free play card** Make sure the free play ticket multiplier is set to 1
Paying Out Max Tickets	**If reader starts paying out tickets upon coin-up or it pays max tickets every time:** **1)** Using a multimeter, get voltage across white and black wire on the reader harness when the game is idle. **2)** Then swipe a card on the reader and get voltage on those wires when the game is paying out tickets. **3)** Location wizard > Game Machines > Click Edit on the affected game **4)** Set ticket mech threshold voltage to 70% of difference, restart and test **5)** If voltage goes up during pay out, make sure ticket mech type is Low-High **6)** If voltage is goes down during pay out, make sure ticket mech type is High-Low **7)** Restart or power cycle reader and test **8)** If splicing the wires from the game to the reader, try swapping the wires tied to the blue and white ticket lines from our reader and test
Payout Not Matching Game	**1) If the game pays out more than once during gameplay** Try to increase the posting delay to around 40-120s depending on how long the game take to complete. **2) If it pays once at the end** Play the game 3 times and tell you the amount of tickets the game says they win Compare that to the amount the card scan reports they won. If there is a consistent payout difference every single time. It could be by a specific number or a multiple. **a)** If it's a specific number, such as it is always 1 ticket too low or 1 ticket too many, **b)** check that there are no mercy tickets for that amount. **c)** Use "Add Tickets" field to put the difference can be negative or positive number **d)** If the amount is a multiple, such as paying out 4 tickets when it should pay 100. Use "Config Ticket Multiplier" to set 25. **e)** check that there are no mercy tickets for that amount. **f)** Use "Add Tickets" field to put the difference can be negative or positive number. **3)** Restart and Test

Wiring	
Losing Power During Operation	**1)** If the reader is being powered from within the game (especially claw type) and it only loses power during operation **2)** Check if its happening at the same point in game play **a)** Lights or other components that the reader power is tied into may be turned off at regular intervals **b)** Check if its happening at the same point in game play **3)** If the reader is being powered from within the game (especially claw type) and it only loses power during operation **4)** Make sure the coin switch doesn't kill power – some electronic coin mechs do this
Not powering up	**Check the Reader is getting consistent 12v** If not, Check wire connections are secure, and are undamaged. Reseat wires or replace any that are damaged and test it. **Put on a new reader to see if the problem continues.** If so, It is most likely that the game or power supply itself is not functioning correctly.
Not Coining Up Game	**Confirm reader is assigned to game** **Confirm that game is set to 1 credit/play** **1)** If not either set game to 1 credit/play or set coin pulses in Reader Config to reflect credits/play **2)** Restart or power cycle game and test **Check power wires** **1)** Confirm reader is getting 12v power in **2)** Consider checking that reader's internal connections are seated **Check coin wires on the reader** **1)** If the reader is using an external 12v power supply, confirm the second black wire from the nonredemption harness is plugged into the coin switch ground. **2)** If disconnected, plug in to ground and test reader **3)** If connected, Unplug yellow coin wire, and Using multimeter, get voltage between yellow coin wire and black wire on harness **4)** If the values The voltage should drop to 0, if not reader will need to be replaced **Check coin wires on the game** **1)** If voltage is 0, set reader's Coin Switch at Idle(V) in Reader Configurations to "Low-NC" If voltage is any value other than 0, set Coin **2)** If voltage is any value other than 0, set Coin

Ticket Payout Troubleshooting Failure Mode 1	1) No tickets are counting when tickets are supposed to be paid: Default settings: 100 ticket length, 50 ticket, ticket mech type – LOW TO HIGH, 2.2V Voltage Follow along until success Step 1: • CLEAR OWED TICKETS • Lower ticket threshold Voltage to 1V, • Restart reader and try again Step 2: • CLEAR OWED TICKETS – • Put multimeter probes in white and black with game at idle not playing – get a reading – most likely will be zero • Play Game – when tickets are paying – get a reading on the multimeter – it should be a positive number • Set threshold ½ way between 1st reading and 2nd reading in game machines parameter voltage threshold setting • Restart reader and try again • NOTE: If 2nd reading is ZERO or didn't move go to step 3 before restart and threshold change Step 3: • CLEAR OWED TICKETS – • Put multimeter probes in white and black with game at idle not playing – get a reading – most likely will be zero • Play Game – when tickets are paying – get a reading on the multimeter – it should be a positive number • Set threshold ½ way between 1st reading and 2nd reading in game machines parameter voltage threshold setting • Restart reader and try again • NOTE: If 2nd reading is ZERO or didn't move go to step 3 before restart and threshold change Step 4: • CLEAR OWED TICKETS – • Re-install ticket dispenser • Put multimeter probes with the dispenser corresponding white and black wires with game at idle not playing – get a reading – most likely will be zero • Play Game – when tickets are paying – get a reading on the multimeter – it should be a positive number • If ticket dispenser doesn't pay tickets – fix the game with game manufacturer / manual advice, once it is paying tickets on dispenser proceed • Splice Wires (Use Quick splices or T-taps with 2 wires in quick splice spade) all 4 wires with ticket dispenser plugged in and reader now spliced to the 4 wires • CLEAR OWED TICKETS IF ANY • Put multimeter probes in white and black with game at idle not playing – get a reading – most likely will be zero • Play Game – when tickets are paying – get a reading on the multimeter – it should be a positive number • Set threshold ½ way between 1st reading and 2nd reading in game machines parameter voltage threshold setting

	• Restart reader and try again  Step 5: • Confirm splices are good with continuity test on the wires. the reader and repeat Step 3. • If no success – replace the reader and repeat Step 3 • If no success – escalate to VP of Operations of Amusement Connect
Ticket Payout Troubleshooting Failure Mode 2	2) Tickets are counting immediately after card scan, and won't stop until max ticket amount Step 1 – • CLEAR OWED TICKETS IF ANY • Measure voltage across white and black wire. It should be a number ABOVE threshold setting. • If so, change ticket mech type to HIGH to LOW. • Restart reader and try again. • Leave probes in and see voltage reading when tickets are supposed to be paid vs. idle • Pick a voltage threshold in between 1st and 2nd reading, update • Restart reader and try again Step 2 - • Unplug reader, plug in dispenser – measure voltage across white and black wire. It should be a number ABOVE threshold setting. Like in Failure mode #1, Step 4. See diagram. • Repeat CLEAR OWED TICKETS, measure idle and when tickets paying • Choose a voltage number between the 2 settings • Restart Reader and try again If no success, escalate to VP of Operations at Amusement Connect for further troubleshooting.
Ticket Payout Troubleshooting Failure Mode 3	3) Reader always pays the same amount of tickets • In this case, the issue is with the BLUE wire circuit. Step 1: Swap reader, try again. Step 2: Increase NOTCH setting to 100, restart reader, try again Step 3: If it continues, there is a break in the BLUE WIRE connectivity to the game board to receive the signal. Chase the wire to the game board and remedy. It likely won't work with a ticket dispenser in this case, try with ticket dispenser. Step 4: if dispenser works, escalate to VP of Operations for a relay solution on the ticket dispenser blue wire special harness.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

This product meets the applicable FCC Part 15 rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

To limit RF exposure, please ensure 8 inches (20 cm) of separation from the device at all times.

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1)This device may not cause interference; and

(2)This device must accept any interference, including interference that may cause undesired o peration of the device.

This equipment should be installed and operated with minimum distance **20cm** between the radiator & your body.

Cet appareil est conforme aux RSS sans licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:

(1) Cet appareil ne doit pas provoquer d'interférences; et

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles d'entraîner un fonctionnement indésirable de l'appareil.

Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.