Arcade Collection LIVE
Commercial Non-Showpiece Full Kit Instructions

IMPORTANT – PLEASE READ

This Full Kit Conversion is for CABINETS NOT MANUFACTURED BY INCREDIBLE TECHNOLOGIES. The full kit process requires replacing: System Box, I/O Board, CID and Marquee.

Kit Contents

- Arcade Collection System Box
- I/O Board Assembly
- Cabinet Identification Device (CID)
- Trackball cable
- Input/Output Connections Cable
- I/O Power Cable
- 3' USB Cable (2 pieces)
- 15' HDMI Cable
- AC Power Cable
- 3" Trackball Assembly, White
- Trackball Plate for 3" Assy.
- Pushbutton Assy., Red (ROHS) w/Nut
- Pushbutton Assy., White (ROHS) w/Nut
- Pushbutton Assy., Blue w/Nut
- Pushbutton Assy., Yellow w/Nut
- Pushbutton Assy., Green w/Nut
- Microswitch, SPDT, .1A (5 pieces
- Marquee, Arcade Collection
- Control Panel Graphics Overlay,
- Parts bag containing miscellaneous hardware
- Setup & Operations Guide

Overview

Section 1: System Box Replacement
Section 2: Cabinet Identification Device (CID) Replacement
Section 3: I/O Board Replacement
Section 4: Prepare Switches/Control Panel
Section 5: Install Control Panel Overlay
Section 6: Attach and Connect Switches/Push Button Assemblies
Section 7: Final Connections

RECOMMENDED TOOLS
Have the following tools ready before you begin to install this kit:

- ¼-inch Hex Nut Driver (Less than 9 inches)
- 11/32-inch Nut Driver
- Standard/Flat Head Screwdriver
- Phillips Head #2 Screwdriver
- 3/16", 7/32" and 9/32", or 5/16", 3/8", and ¾" Drill Bits
- 1 1/8" Hole Saw or Drill Bit
- Small Flat Blade Screwdriver
- Push Button Nut Socket or Large Adjustable Pliers
- X-acto® Knife/Sharp Knife/Razor Blade
- Wire Cutters
- Scissors
- Tape Measure
- Decal Roller/Squeegee
- Liquid Window Cleaner & Cleaning Cloth

WARNINGS AND NOTICES – PLEASE READ BEFORE STARTING PROCEDURE

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions
- Keep these instructions
- Heed all warnings
- Follow all instructions
- Do not use this apparatus near water
- Clean only with dry cloth
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- DO NOT expose the apparatus to dripping and splashing. DO NOT put objects filled with liquids, such as vases on the apparatus.
- WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION

The motherboard is provided with a replaceable lithium battery. There is a danger of explosion if a battery is incorrectly replaced. Replace the battery only with the same or equivalent type.

WARNING

The apparatus shall be connected to a mains socket outlet with a protective earthing connection. Substitute cords may not provide adequate fault protection. Only use the power cord supplied with this product or an Incredible Technologies, Inc. authorized replacement.

Section 1 – System Box Replacement

Tools/equipment required to remove and open System Box:

- ¼-inch Hex Nut Driver (Less than 9 inches)
- Standard/Flat Head Screwdriver
- Good lighting

> **Note:** Take a photo of the System Box wiring before removal. Be sure to have the System Box secured BEFORE removing the final screws holding the System Box in place.

1. Turn OFF game using the switch at the base of the cabinet.

2. Disconnect all connections to the System Box.

3. Loosen the six ¼" hex-head screws that secure the System Box.

4. Carefully lift the System Box off the screws and up out of the cabinet.

5. Attach new Titan System Box to the cabinet in the exact position it was in before removal. Make sure the peripheral outputs on the rear of System Box are facing upwards. The connections to System Box will be completed later in the procedure.
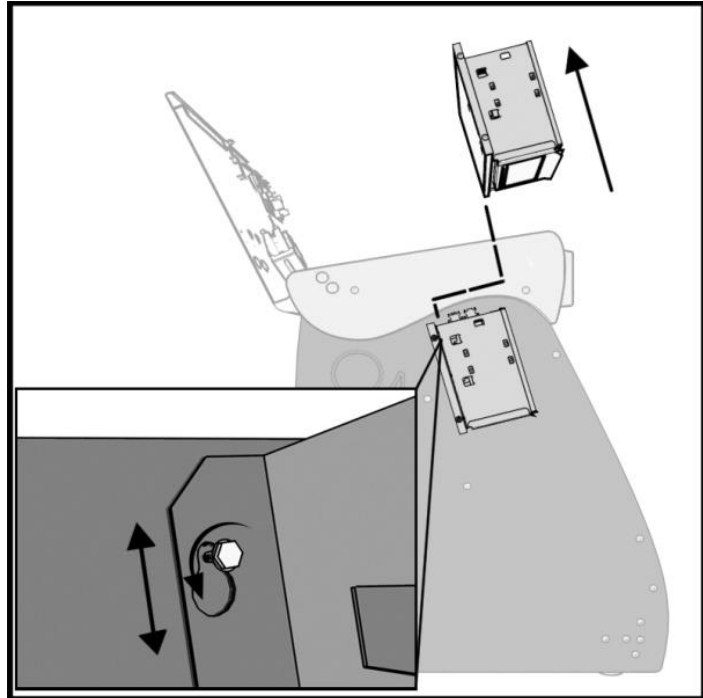
Please see following page for detailed instructions and a hyperlink to a video on removing the System Box.

Helpful YouTube Video

For a YouTube video, see [How to Remove and Install Your Nighthawk System Box](https://www.youtube.com/watch?v=e0Ej1QS_ld0&feature=youtu.be)
(https://www.youtube.com/watch?v=e0Ej1QS_ld0&feature=youtu.be)
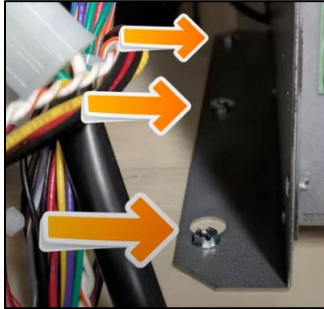

Hex Screw Loosening

System Box Location

WARNING: Electrostatic discharge (ESD) can damage components. Discharge yourself by touching the metal system box while your feet are flat on the ground before touching any components.

Section 2 - Cabinet Identification Device (CID) Replacement

> **Note:** The CID creates a new serial number for your cabinet. A serial number sticker is included in the Full Kit. Cover or remove the old serial number and attach the new serial number sticker to the back of the cabinet for easy reference during any future service needs.

1. Disconnect the USB cable from the current game CID and remove.

2. Loosen the 4 screws that attach the CID to the cabinet and remove CID.

3. Attach the new 5-pin USB cable (included with the Full Kit) to the new CID

4. Install the new CID to the cabinet using the 4 screws from the old CID.
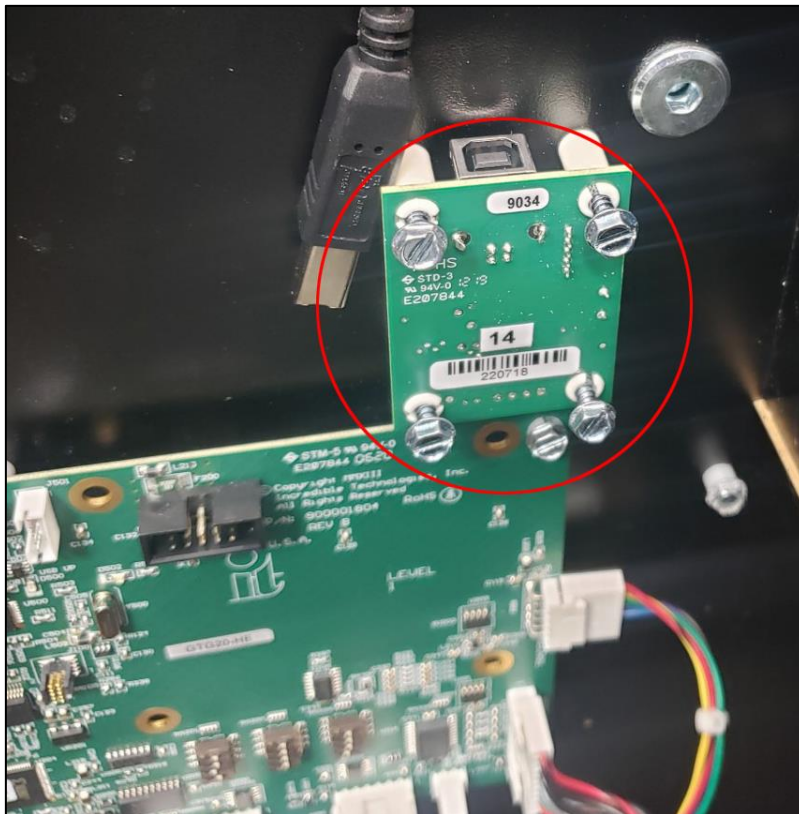

Cabinet Identification Device (CID)
Four screws attach the CID to the wall of the cabinet.

Section 3 – I/O Board Replacement

1. Disconnect all connections to the I/O Board. Occasionally it may be necessary to wiggle the connectors to disengage. Do not tug on the wires.

   Note: Arcade Collection is an offline experience. Peripherals for online games, such as keypads, antennas, etc., are not supported. Be sure to remove all connections to these peripherals.

A Card Reader blanking plate can be ordered using part number 752304802R *Blanking Plate, Security Door Card Reader.*
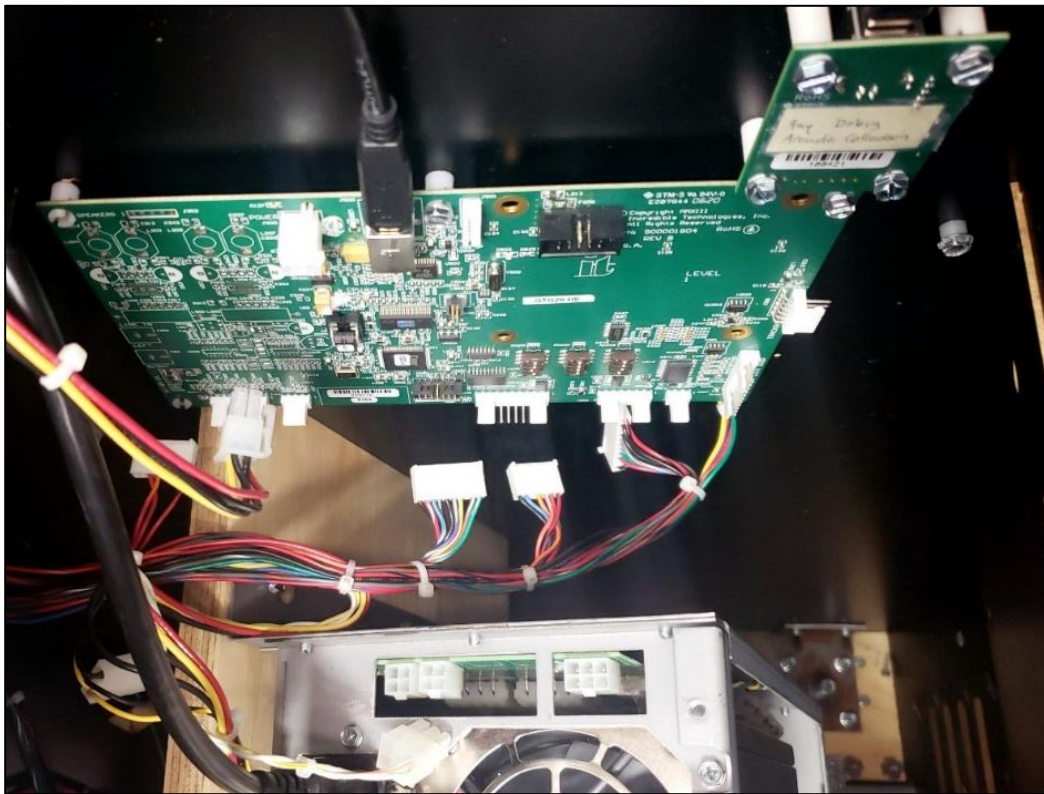
I/O Board – Disconnect all connectors.

2. Position the I/O Board over the same mounting holes as the previous I/O Board. Use the Slotted Hex wood screws to attach the board to the side of the cabinet.

    Note: Be careful not to damage the board or flex it to any degree.

3. Connect the supplied 3' USB 5-pin connector to the I/O Board.

4. Connect the I/O 4-pin Power Cable to the I/O Board

5. Connect the remaining Inline connectors to the I/O Board: 6-pin Trackball, 11-pin Coin Door, 7-pin Service Panel, 10-pin Control Panel.

    Note: See page 15 for a drawing of the I/O Board with connectors marked.
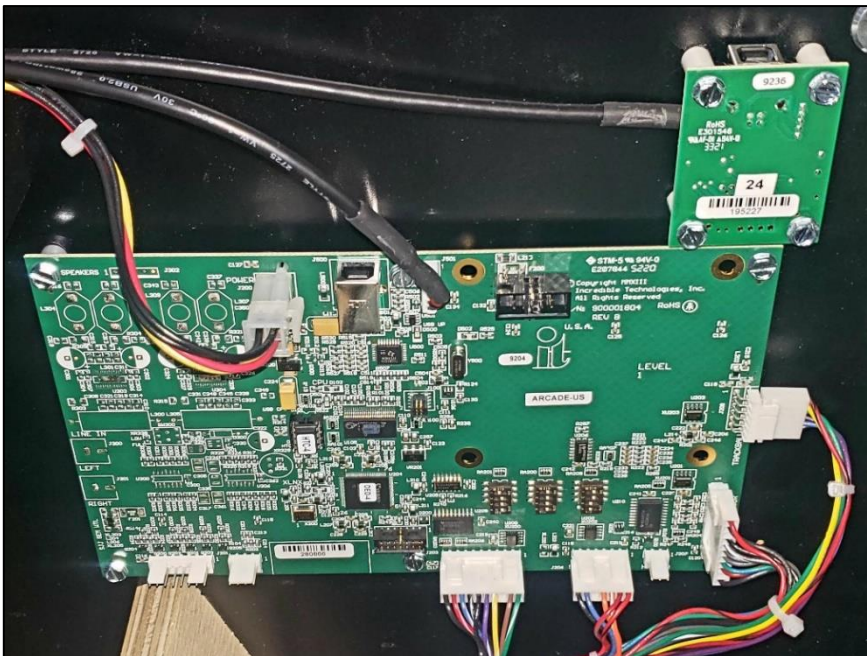
I/O Board – Make sure all connectors are attached to the board.

4-pin Power Cable (red/black/yellow wires) at upper left

Clockwise (lower right)

6-pin Trackball
11-pin Coin Door
7-pin Service Panel
10-pin Control Panel

Section 4 – Prepare Switches/Control Panel

Tools/equipment required:

- ¼-inch Hex Nut Driver
- 11/32-inch Nut Driver
- Push Button Nut Socket or Large Adjustable Pliers

1. Release the micro switches from the Push Button Assembly leaving the wires connected to the micro switch.

    o Slightly pull the upper peg on the push button to rotate the micro switch away from the assembly

   o Release the micro switch from the lower peg

- If there is a soft power switch, disconnect the wires from the soft power micro switch (the normally open and common connector posts). An external soft power is not used on the Titan System. See image at right.

- Remove any Push Buttons from the Control Panel.

SOFT POWER SWITCH

2. If a Trackball is installed, remove the Trackball:

- Disconnect the field ground wires at the trackball plate. See image at right.

- Remove two 11/32" nuts

- Remove the first nut to remove the trackball ground giving access to the 11/32" nut securing the main field ground wire (the green/yellow wire).
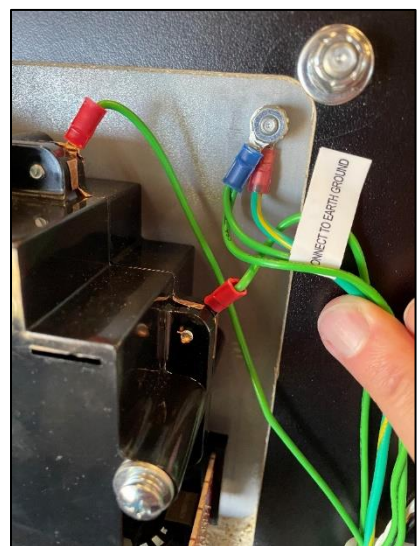
Section 5 – Install Control Panel Overlay

Note: The Control Panel is not replaced on Non-Showpiece Cabinets. An oversized Control Panel Overlay accommodates a variety of existing control panels that are configured with previous Incredible Technologies games, such as Golden Tee, Silver Strike Bowling, Target Toss Pro and Power Putt.

The Kit includes a new Trackball Plate if you decide to replace it.

1. Remove the existing Control Panel Overlay and prepare the surface for the new Control Panel Overlay.

2. Remove the protective backing from the new Control Panel Overlay. Make sure to apply the Control Panel Overlay so that it is properly centered and orientated. Smooth out any wrinkles and air bubbles with a squeegee or decal roller.

3. Trim any excess of the Control Panel Overlay around the perimeter of the Control Panel.

4. Using the Control Panel Overlay image below for reference:
    - Trim out the Push Button locations for the 5 player Push Buttons. See page 16.
    - If your existing Control Panel does not have the correct hole position for buttons, they will need to be drilled using a 1 1/8" Hole Saw or Drill Bit.

Section 6 – Attach and Connect Switches/Push Button Assemblies

1. Install the Push Button Assemblies and tighten, making sure not to over tighten. Follow the layout in the image below:
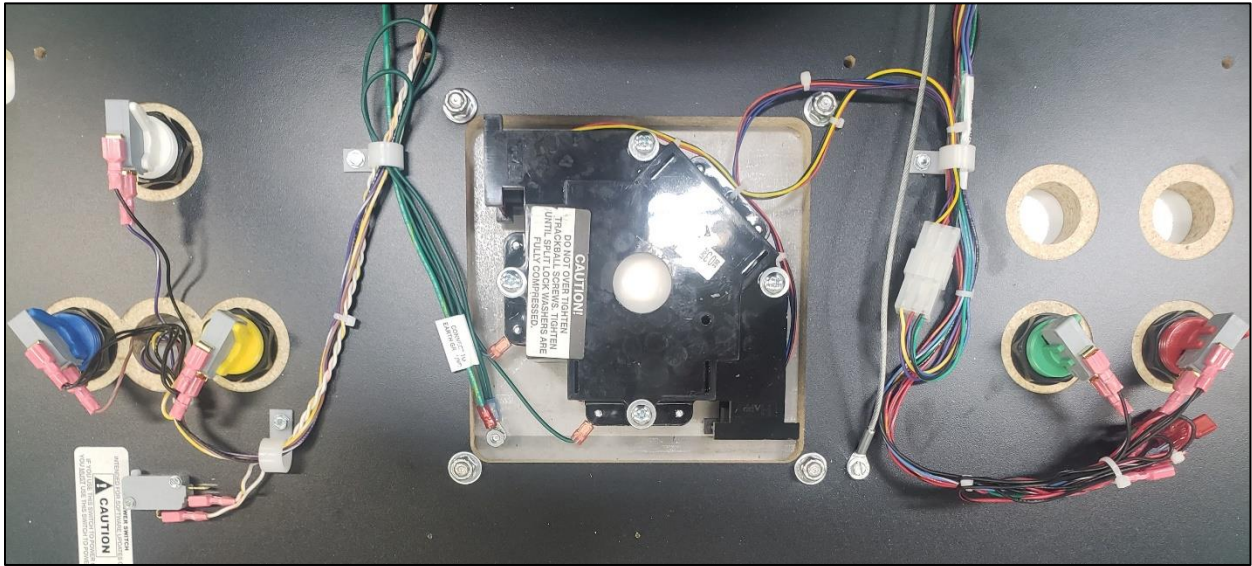
2. Connect the micro switches to the correct Push Buttons:

- **Red/White** wire connects to the **Red** button assembly

- **Black/White** wired switch connects to the **Green** button assembly

- **Yellow/White** wired switch connects to the **Yellow** button assembly

- **Brown/White** connects to the **Blue** button assembly (see images at right)

- **Purple/White** connects to other **White** button assembly

  Note: The soft power on the Titan system box is connected internally and is the red button on the system box. *Do not connect the White/Orange and White/Yellow wires to the Soft Power Micro Switch.*

3. Install the Trackball. Make sure that it is oriented with the monitor arrow pointing to the monitor.

4. Reconnect the green/yellow field ground wire to the trackball plate and secure with the 11/32" nut. Attach the solid green wire from the trackball to the stud on the trackball plate and secure with the 11/32" nut.

   Note: It is very important that field ground is reconnected to the Control Panel Trackball plate.

Trackball Ground Wires

5. Connect the 6-pin connector to the Trackball Connector. See image at right.

6. Dress the cable neatly. Extra Cable Clips and hardware are provided in the parts bag.
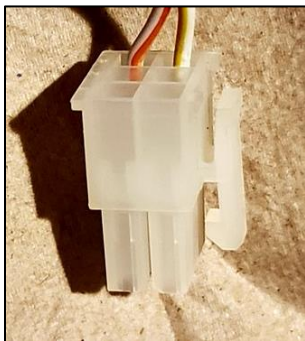

Note: If your cabinet configuration has an external Soft Power Cable, it is not used on the Titan hardware. **Do not connect the 6 pin Soft Power Connector** to the side of the System Box. It can be left unconnected or completely removed.

Section 7 - Final Connections to the System Box

Use the diagram below to make the following connections:

- Connect the AC Power Cable to the System Box
- Connect 4-pin I/O Power Cable to the side of the System Box.
- Connect two USB Cables, one from I/O Board and one from CID to the System Box.
- Connect the included HDMI cable to the HDMI Main Monitor Port on the System Box. See following page for details.

   Note: Ignore any connections to card readers, keypads or antennas. These are not necessary for the Arcade Collection.
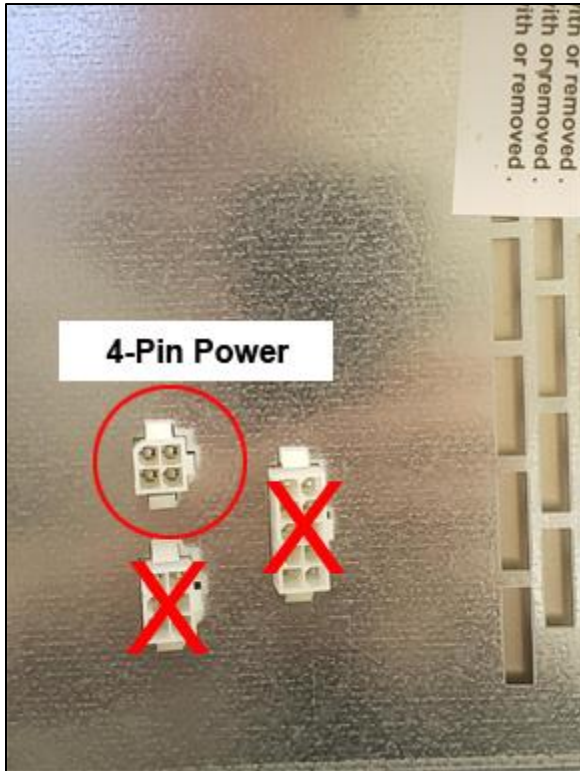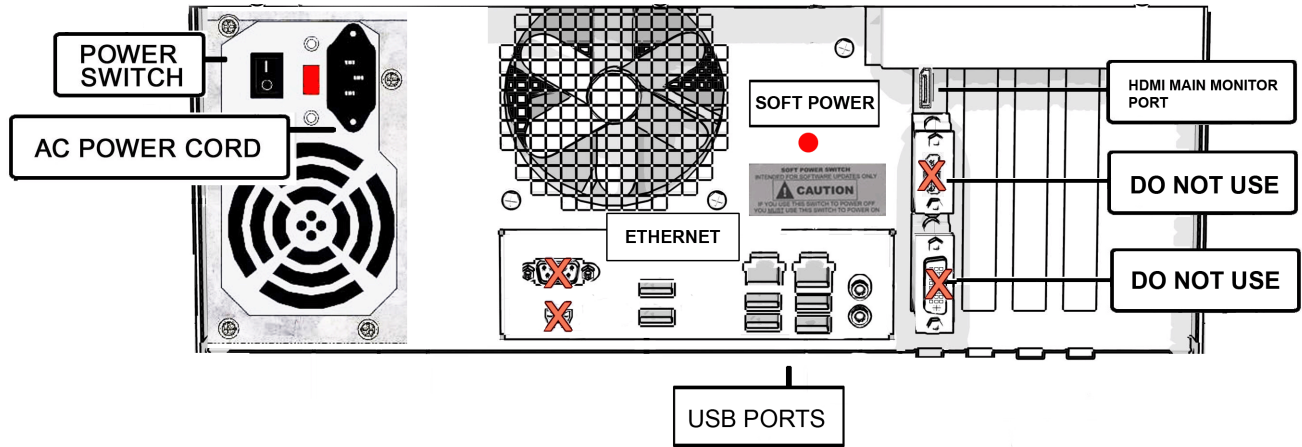

4-Pin I/O Power Cable
Connect the 4-pin Power Cable from the I/O Board to the side of the System Box.
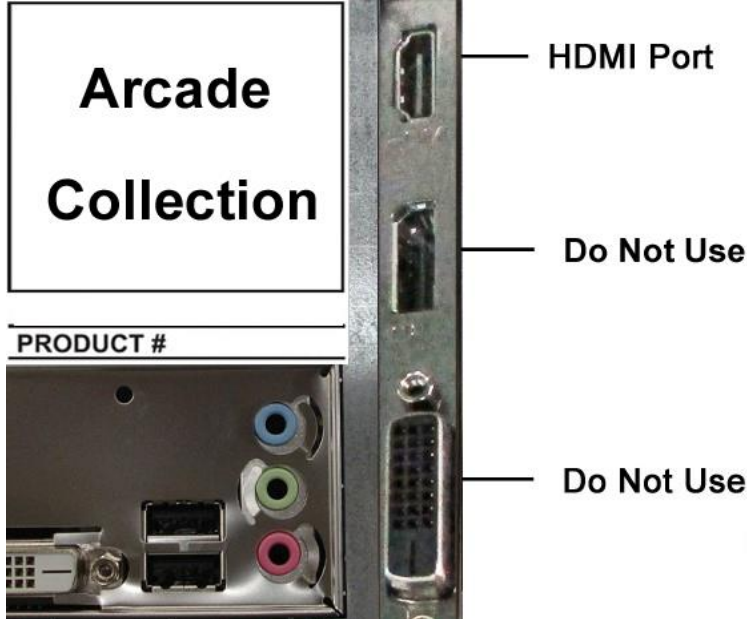
System Box Connections
Attach the AC Plug to the rear of the Pedestal cabinet and plug in to power source.
Power ON Arcade Collection.

Titan System Box

| POWER SWITCH | SOFT POWER | HDMI MAIN MONITOR PORT |
AC POWER CORD		DO NOT USE
ETHERNET		DO NOT USE
USB PORTS		

Video Connections for HDTV

Arcade Collection with a Titan System Box only supports an HDTV with 1080p or 720p resolution. Do not attempt to connect a monitor with less than 720p resolution to the Full Kit System Box. The default settings for the DIP switches are 1080p. If using a 720p HDTV you will need to change the DIP switch settings. See following page. For best results IT recommends a 55" HDTV.

Arcade Collection

PRODUCT #

HDMI Port

Do Not Use

Do Not Use

Connect the HDMI cable (supplied) to the HDMI Port on the Titan System Box.

DIP Switches and Security Chip on I/O Board
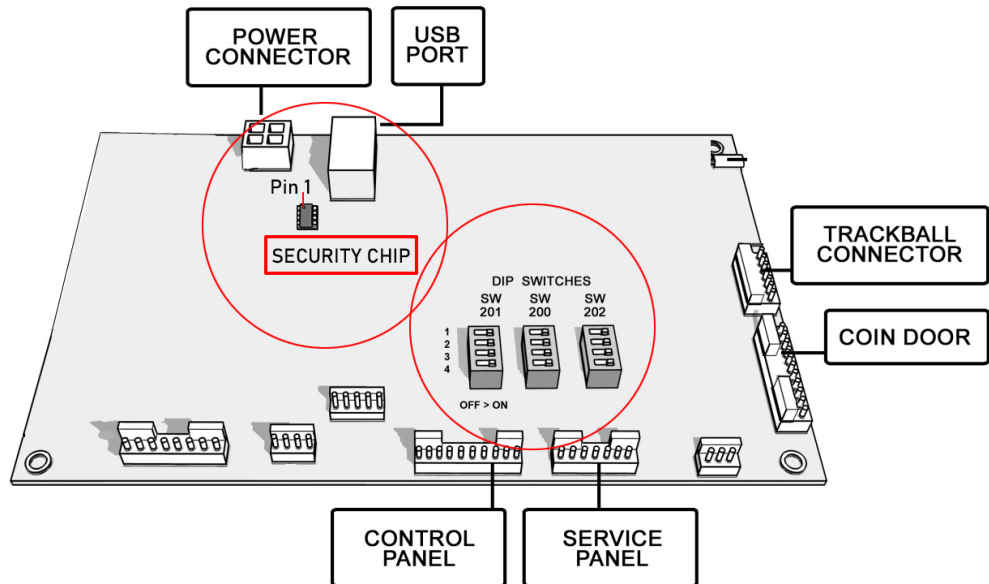
The three DIP switch boxes are located above the Control Panel and Service Panel connections.

DIP Switch Settings for HDTVs

The DIP switch settings in your Showpiece cabinet have been factory set to accommodate a 1080p HDTV connected through HDMI cables. DIP switch bank Sw201 on the I/O Board controls the video resolution for the main monitor. If using a 720p resolution, use the chart below.
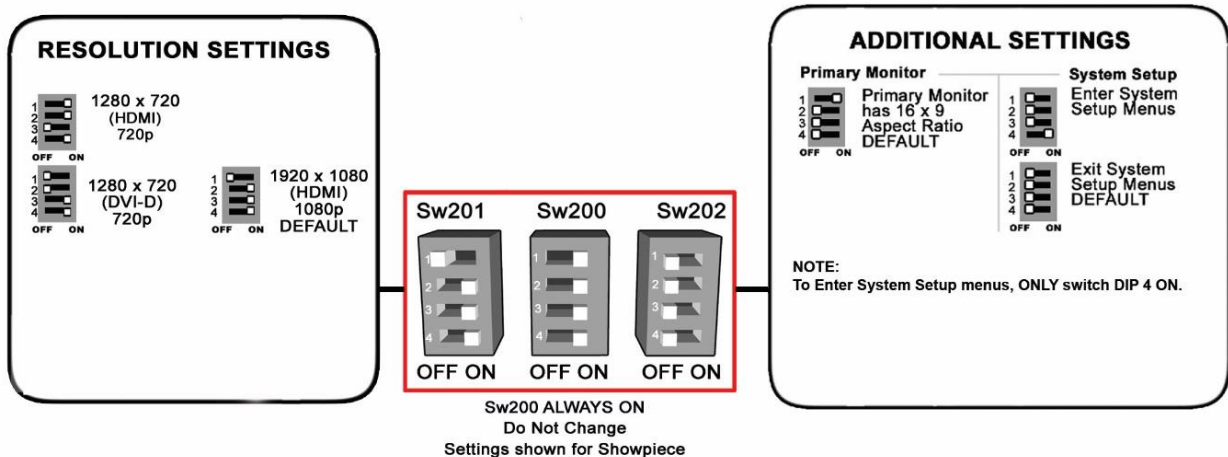
Check All Connections

Go over your entire cabinet again and double-check all the connections. Make sure that all connectors are tight and secure and in their proper place. Look for frayed, broken or exposed wiring and repair as needed. Bundle and cable-tie wiring and secure it to the inside of the cabinet. A thorough and neat job now will save you a lot of time and trouble in the future.

- Close Control Panel. Be careful not to pinch any fingers.
- Reattach power cable at the back of the cabinet and power ON the cabinet.

Getting Online for the Ultimate Player Experience

To take full advantage of all the incredible content in Arcade Collection LIVE, connect your game to the location's network and self-register your game using your ITNET Operator Account information. This will unleash the online features and increase earnings!

Scan for detailed instructions to bring your game online: Arcade Collection LIVE Commercial Online Configuration Guide (PDF 628 KB)

https://amusement.itsgames.com/ac_live_commercial_online_config

Troubleshooting and Frequently Asked Questions (FAQ) Guide

Scan for the Arcade Collection Troubleshooting and FAQ (PDF 405 KB)

https://amusement.itsgames.com/ac_troubleshooting_guide

Additional Resources

Operator Menus and Game Operation Guide

Scan for questions about the Operator Menus, Collections and Game Operation: Arcade Collection Operator Menus and Game Operation Guide (PDF 4.2 MB)

https://amusement.itsgames.com/ac_commercial_op_menu_guide

Additional Service Questions

For help with any additional questions, visit the Resources area of the Arcae Collection website:

https://amusement.itsgames.com/games

Arcade Collection® Non-Showpiece Full Kit   www.itsgames.com ● 847.870.7027   6/13/24

Input/Output Connections (I/O Power, Trackball, etc.)

For Standard Online Kit and Deluxe Retrofit Kit

Trackball Harness Connector Pin Outs

I/O Board Connector	Trackball Connector
PIN WIRE #6 – Black	PIN WIRE #1 – Black
PIN WIRE #1 – Red	PIN WIRE #2 – Red
PIN WIRE #2 – Yellow	PIN WIRE #3 – Yellow
PIN WIRE #3 – Green	PIN WIRE #4 – Green
PIN WIRE #5 – Blue	PIN WIRE #5 – Blue
PIN WIRE #4 – Purple	PIN WIRE #6 – Purple

I/O Power Cable Pin Outs

Pin Number	Wire Color	Function
1	Yellow	+ 12 Volts DC
2	Black	Ground
3	Red	+ 5 Volts DC
4	Black	Ground

Control Panel J203 Connector Pin Outs

Pin	Color	Function
1	Green-White	Options (Not Used)
2	Brown-White	Left/High toss (Blue Button)
3		No Connection
4	Yellow-White	Right/Low Toss (Yellow Button)
5	Violet-White	Overhead View (White Button)
6	Black	Volume GND
7	Black-White	Arcade Menu (Green Button)
8	Blue-White	Help (Not Used)
9	Red-White	Options Start (Red Button)
10	Black	Ground

Service Panel J206

Color	Function
Red-Black	Meter Power
Red-Green	Coin Meter
Orange-White	Volume Up
Orange-Yellow	Volume Down
	No Connection
Blue	Test
Black	Test Ground

Input/Output Connections (I/O Power, Trackball, etc.)

Coin Door J205

Pin	Color	Function
1	Red-Black	Lamp Power (Not Used)
2	Black	Lamp Ground (Not Used)
3		No Connection
4	Black	Bill Ground
5	Grey-White	Bill
6		No Connection
7		No Connection
8	Green-Blue	Coin 2
9	Red-Blue	Coin 1
10		No Connection
11	Black	Coin Ground