FX

GAME ZONE

Installation Manual

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Welcome

We recommend reading this entire manual to familiarize yourself with the FX capsule prior to performing the installation. The capsule can be mounted to any type of ceiling and project onto a table, floor, or wall. The capsule is specifically designed to fit snugly in a standard drop ceiling tile grid, but for European installations, it may rest on top of the grid frame. While it's designed to fit in a drop ceiling grid, it can also be mounted to a drywall ceiling, as well as an open beam ceiling. Please take caution when handling the equipment, any damage occuring from misuse, mishandling, or improper installation will not be covered by the warranty.
If you have any questions about the installation process, please feel free to contact our support team at: support@fxgamezone.com

What's in the Box

The FX capsule uses a wireless keyboard, hand-held remote to control the projector, and a power cord that attaches to the rear of the capsule. A USA style power cord is included with the system and is designed for 120-240 volt power. Should you require a different style power cord than the supplied version, you can purchase a C14 style plug to fit into the C13 female receptacle on the unit.

Description

FX employs a projector that is positioned horizontally next to a mirror, so that it reflects down onto a table or floor. On the bottom of the capsule is a panel that is opened by pushing two sliding locks inward, whereby the panel opens to allow for wall projections. There is a flexible arm on each side of the panel that can be pushed inward to control the level of the panel, and when opened completely, there is access to the projector as well as the inside of the capsule. By pushing the two flexible arms inward, the panel can be closed and locked back in place. Make certain that each lock is closed by pushing gently against the panel.
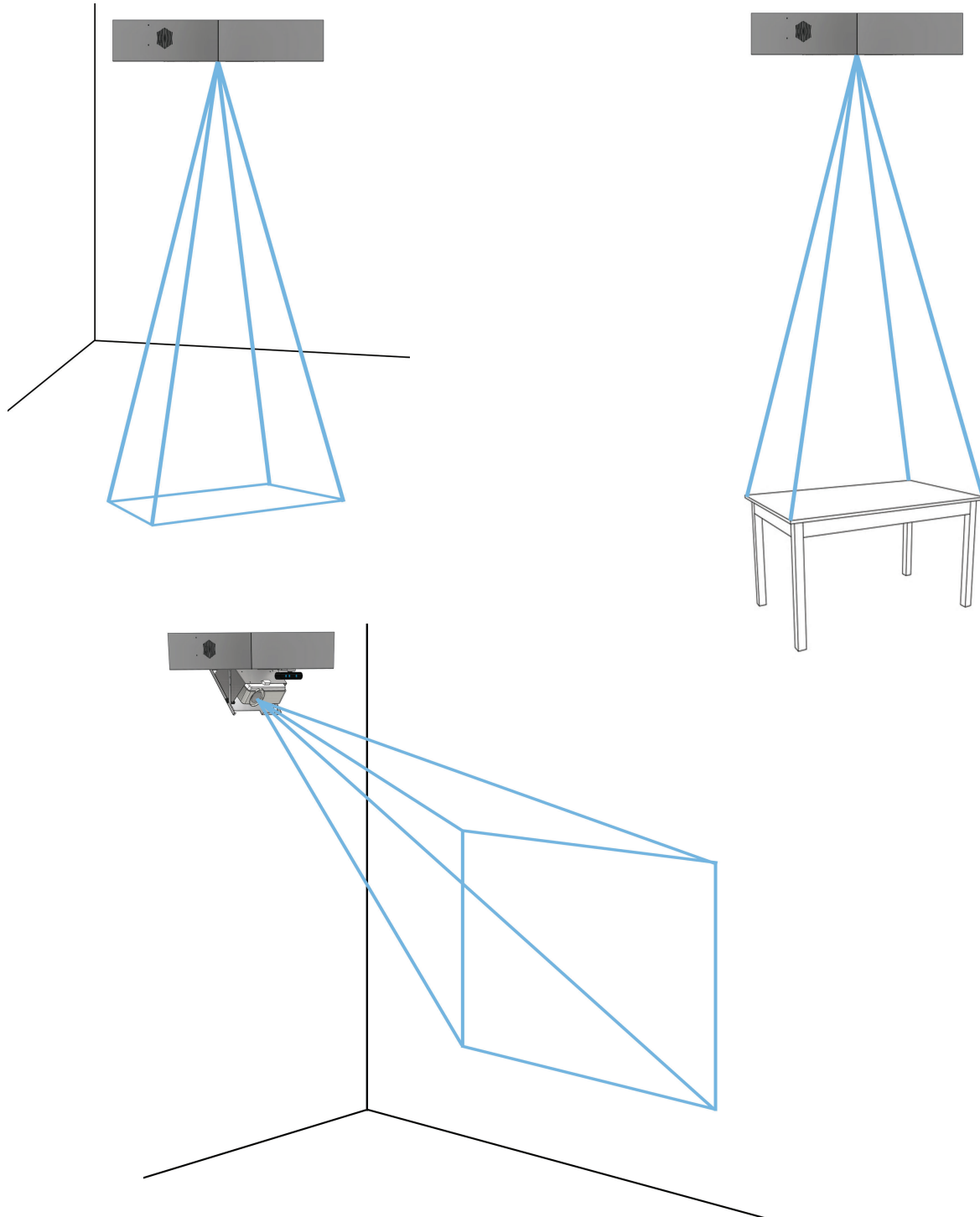
Specifications

WEIGHT: 26 lbs (11.8 kg)

DIMENSIONS: 23.75" x 23.75" x 6" H (603mm x 603mm x 152mm H)
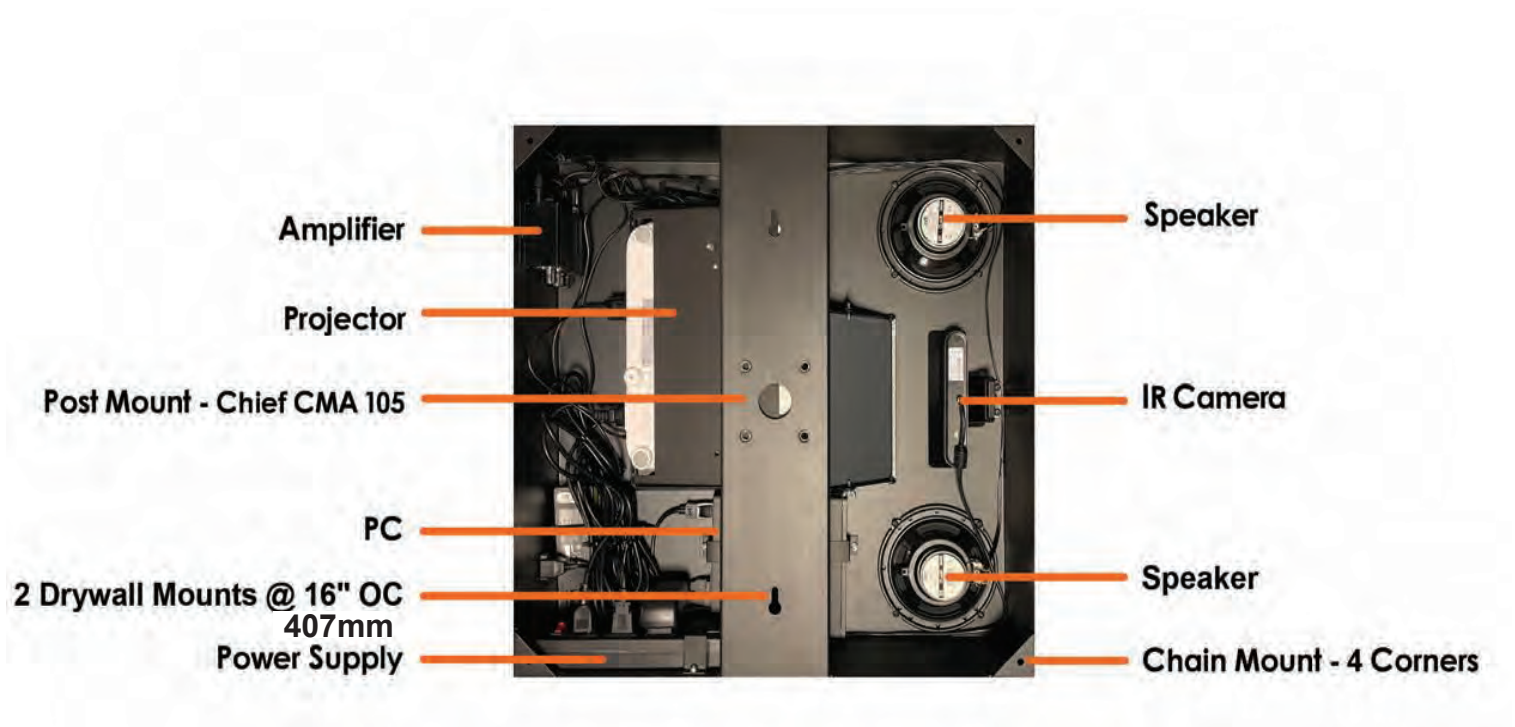
POWER SUPPLY: 120-240 Volts (15 amp circuit is preferable)

WATT USAGE: 600

PROJECTOR BULB HOURS: 4400 Normal / 10,000 Eco / 10,000 Smart Eco / 15,000 Lamp Save

NETWORK CONNECTIVITY: Wifi or a male RJ45 connector on a cat 5/6 cable.
Note: FX does not require internet access to operate, but it is necessary for updating software, games, and technical support.

Wiring Schematic

It is possible that during shipment some connections may have come loose. Prior to installation, it's critical to check that all electrical and USB connections are inserted firmly. After checking all the connections, we recommend that the unit be placed on its side and powered on, facing a wall, so that it can be determined if it's projecting a picture and emitting sound.

The computer will turn on when it's plugged in but the projector will need to be turned with the white remote. If you see games playing and sound coming out, press Escape on the keyboard, exit the game software, and shut down the computer. The projector will need to be shut off with the remote. If the games do not react to movement, that is okay, it operates by depth perception and that will be programmed after the installation.

1. PC (Computer)-power (there is also a power block connection on the cord)
2. Projector-power
3. Amplifier-power
4. IR Camera-USB
5. RCA cable-Amplifier to Projector (audio out)
6. Projector control to PC-USB

7. Video-HDMI/Display cable from Projector to PC

There are also two USB drives inserted in the rear of the PC for the keyboard and wifi.
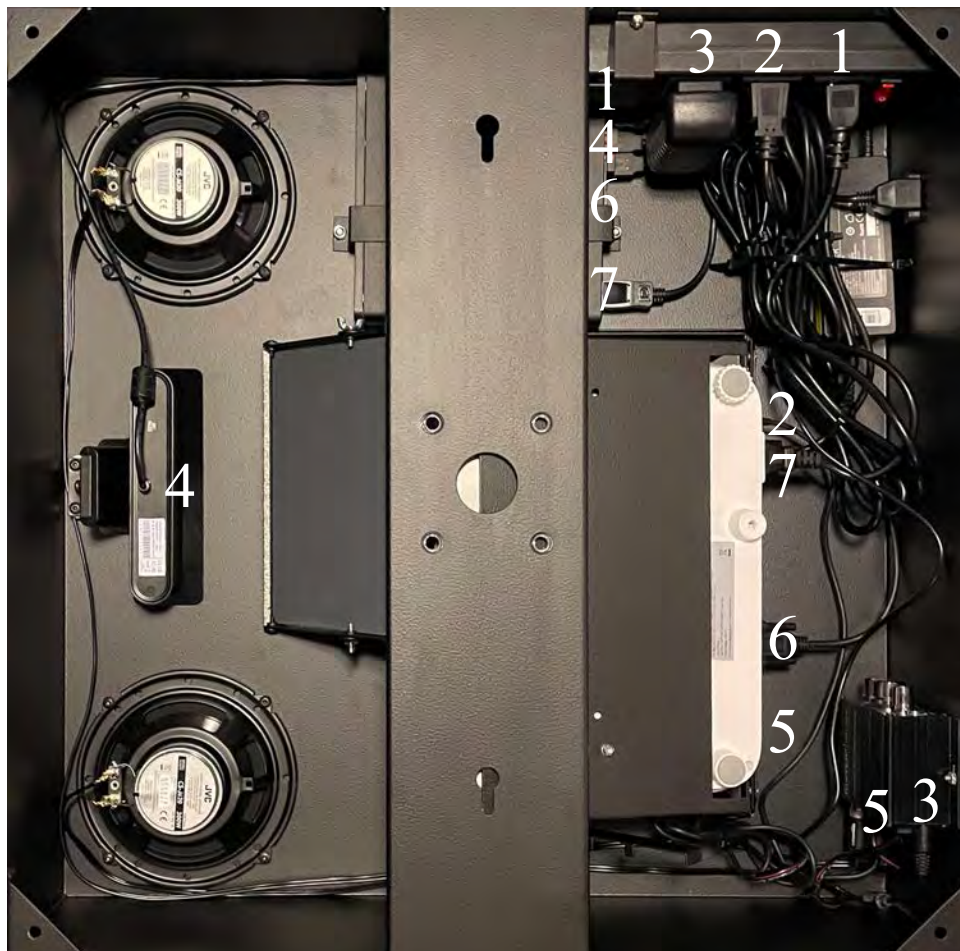
Installation Location

The projection size is dictated by the distance of the capsule from the table, floor, or wall. The greater the distance, the larger the projection. The projector allows for slight adjustments to the size of the projection, but we suggest adhering to the following recommendations for each style of installation and making minor adjustments to the projector after the installation is complete.

* The maximum distance that the capsule can be mounted from the projection surface is 15' (4.5m). Any further than that, the IR camera will have difficulty recognizing movement.

* The projection is rectangular, with the horizontal axis running parallel to the speakers.

* The adjustable mirror allows for slight vertical movement of the projected image, and the ideal setup will have the image centered directly beneath the IR camera.

* Table installations should not have the mounting height any greater than 10' (3m) above the floor. This will allow for a 5' x 6' (1.5m x 1.8m) table to be used as a play surface. The easiest method to achieve this table size is to put two 30" x 6' (76cm x 1.8m) tables together.

* Recommended mounting height for a floor projection is 9' to 15' (3m to 4.5M), but it can also be mounted lower if dictated by ceiling height.

* The surface for the projection should optimally be white, and non-reflective.

* The projector performs exceptionally well in a wide range of lighting conditions, but direct sunlight is to be avoided. If the installation is close to windows that lets in ambient light, it may be necessary to install blinds.

* No light fixtures, ventilation ductwork, sprinklers, or electrical lines should interfere with the capsule installation or service access.

| Mounting Height to the Floor | Minimum Size | | Maximum Size | |
	Height	Width	Height	Width
10 Feet - 3m	5' 10" - 176cm	9' 4" - 286cm	6' 9" - 210cm	10' 6" - 320cm
11 Feet - 3.35m	6' 5" - 198cm	10' - 304cm	7' 3" - 222cm	11' 6" - 350cm
12 Feet - 3.7m	7' - 213cm	10' 4" - 317cm	7' 10" - 238cm	12' 7" - 386cm
13 Feet - 4m	7' 9" - 236cm	10' 10" - 329cm	8' 5" - 258cm	13' 7" - 417cm
14 Feet - 4.25m	8' 3" - 252cm	12' 7" - 386cm	9' 3" - 283cm	14' 5" - 440cm
15 Feet - 4.5m	8' 11" - 273cm	13' 7" - 417cm	10' - 304cm	16' - 487cm

Installation Tools and Equipment

Shown below is the equipment that may be required for your installation. Each installation style is different, so you may not need all of these items, but you will require a ladder or lift to perform the installation. Hardware and installation must comply with local building codes.

It's important that when installing the capsule to use components that will support three times the weight of the capsule. Example: The 26 pound (11.8kg) capsule will require chain, wire, screws, clamps, and anchors that are capable of supporting at least 78 pounds (35kg).
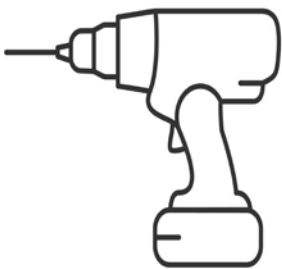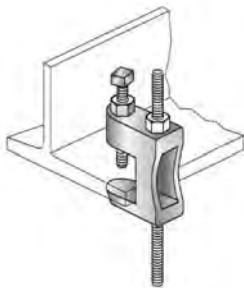
Drill	Concrete Drill Bit	Drill Bit	Chain

Beam Clamp	Concrete Anchor	Drywall Anchor	Turnbuckle

| Eyelet Screw	Wood Screw Eyelet	Caribiner Hook	Drop Ceiling Wire

Drop/Suspended Ceiling Installation

While the metal gridwork can likely support the capsule, it's necessary to affix the unit to a structural component above the grid, so that if the grid were to fall, the capsule would still be suspended. The type of ceiling above the grid will dictate the method of attachment.

CONCRETE ATTACHMENT

1. Draw a 24" (603mm) square on the concrete directly above where the unit will be placed. Using a drill with a concrete bit, drill a hole in each corner. Insert a concrete anchor with a threaded eyelet into each corner hole, and tighten firmly.

2. There are two methods of securing the capsule. Option A being the simplest.

    A. Run drop ceiling wire through each eyelet and twist it around 3 full turns within a 3"(76mm) span.
        Place the capsule in the grid framework, and run the wire through each corner support hole.
        Pull the wire tight, and twist it around itself 3 full turns within a 3" (76mm) span.

Screw Eye — Twisted Wire

3 full turns within a maximum of 3" (76 mm)
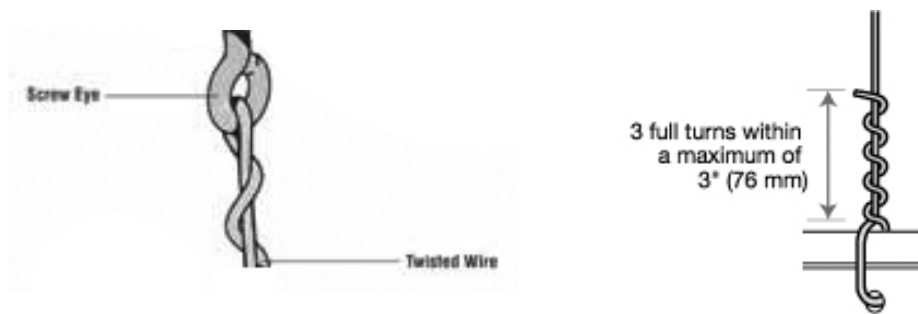
    B. Connect a caribiner hook to each eyelet and attach a piece of chain that reaches the grid.
        Attach a caribiner hook to each end of a turnbuckle, and connect one end to a corner of the capsule.
        Repeat for each corner, then place the capsule in the grid framework.
        Connect the caribiner from each turnbuckle to the chain, so that it's supporting the capsule. It will most likely take adjusting of the turnbuckles to pull the chain tight.
        Cut off any excess chain.

DRYWALL ANCHOR ATTACHMENT

1. Draw a 24" (603mm) square on the drywall directly above where the unit will be placed. Drill a hole in each corner and install a drywall anchor, and screw in an eyelet.

2. Perform option A or B, as shown above.

BAR JOIST OR STRUCTURAL ATTACHMENT

1. There are two methods of securing the capsule. Option A being the simplest.

   A. Run drop ceiling wire around the joist and twist it around itself 3 full turns within a 3"(76mm) span.
      Place the capsule in the grid framework, and run the wire through each corner hole.
      Pull the wire tight, and twist it around itself 3 full turns within a 3"(76mm) span.

   B. Attach 4 beam clamps to the beam, and screw an eyelet into each one, then tighten.
      Connect a caribiner hook to each eyelet and attach a piece of chain that reaches the grid.
      Attach a caribiner hook to each end of a turnbuckle, and connect one end to a corner of the capsule.
      Repeat for each corner, then place the capsule in the grid framework.
      Connect the caribiner from each turnbuckle to the chain, so that it's supporting the capsule. It will
      most likely take adjusting of the turnbuckles to pull the chain tight. Cut off any excess chain.

Drywall Ceiling Installation

The capsule will mount flush to the drywall and be secured by either drywall anchors or screws going into a
joist. The capsule has two cutouts in the main crossbar that are spaced 16" (407mm) apart, the distance of most
ceiling joists. If you can't find joists to attach to, you will be using the drywall anchor method. The screws
you will be using must have a head size small enough to fit through the large hole, yet large enough to hold
the capsule when slid into the channel.
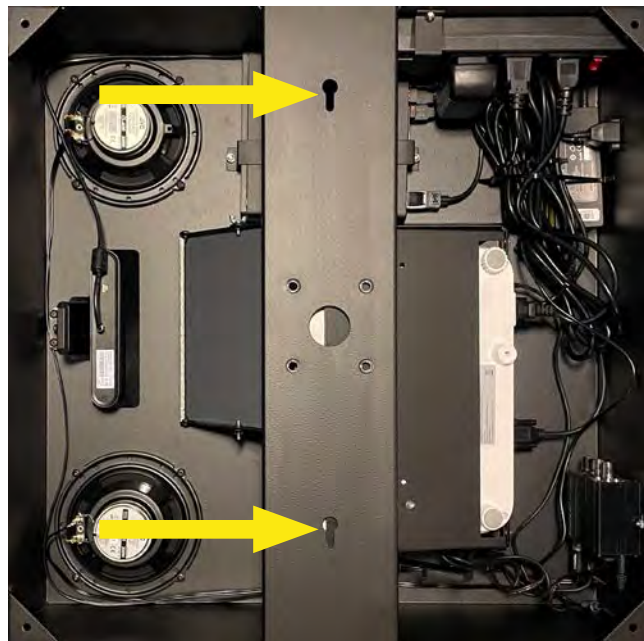
JOIST ATTACHMENT

1. Mark the joist(s) at a distance of 16" (407mm).
2. Drill holes that are appropriate for the screw thread size, and install the screws until they're about 1/2" (12mm) from the drywall. Place a tapered rubber spacer into each corner hole of the capsule.
3. Open the panel on the capsule so that the mounting holes of the capsule are visible from underneath.
4. Place the capsule over the screw heads and slide it to the side so that the screw heads are supporting the capsule.
5. Place a U washer over each screw head and tighten the unit in place.

DRYWALL ANCHOR ATTACHMENT

1. Mark the ceiling at a distance of 16" (407mm).
2. Drill the appropriate hole size for the anchor, the anchor must be able to hold at least 78 pounds (35kg).
3. Insert the anchor and install the screws until they're about 1/2" (12mm) from the drywall. Place a tapered rubber spacer into each corner hole of the capsule.
4. Open the panel on the capsule so that the mounting holes of the capsule are visible from underneath.
5. Place the capsule over the screw heads and slide it to the side so that the screw heads are supporting the capsule.
6. Place a U washer over each screw head and tighten the unit in place. Do not overtighten.

Open Beam Ceiling Installation

There are two methods of attachment to an open beam ceiling. One is by post mount, the other is by chain.

POST MOUNT

Should you choose to use a post mount, you will need to purchase the Chief brand mounting plate, CMA 105 to attach to the capsule. It employs a 1.5" threaded opening to attach to your choice of post mount.
Note: The screw size to attach the plate to the capsule is M10 - 1.5 x 16mm length. Anything longer than that, it may interfere with the projector. A lock washer is recommended.

Chief CMA 105

CHAIN MOUNT

Wood beam: Drill four holes into the beam, and insert wood screw eyelets. Depending on the size of the beam, the width between holes may not be very far apart, but the distance between the pairs of holes should be 24"(603mm).

Metal beam: Attach four clamps to the beam. If possible, install a clamp evenly on each side of beam, then repeat 24" (603mm) away. If the beam is one-sided, place two clamps next to each other, then repeat 24" (603mm) away. Install the eyelet screws into the clamps and tighten.

1. Connect a caribiner hook to each eyelet and attach a piece of chain that reaches to your preferred mounting height. Note: The capsule must not be mounted higher than 15' (4.5m) above the floor, 10' (3m) for table projections.

2. Attach a caribiner hook to each end of a turnbuckle, and connect one end to a corner of the capsule. Repeat for each corner.

3. Connect the caribiner from each turnbuckle to the chain, so that it's supporting the capsule. It will most likely take adjusting of the turnbuckles to level the capsule. Place the level on the main crossbar and check for level, turn the level 90 degrees, and check for level again.

Powering On

Connect the unit to a power source and make certain that there is no tension on the power cord. This system operates on 120-240 volt power.

The computer and amplifier will start automatically but the projector will need to be turned on with the white hand-held remote.

The image will most likely not be square, so it will be necessary to use the keystone function on the remote to square it. Press the Keystone button followed by the up or down arrows to make the image square.

Volume may be adjusted by using the Volume Control buttons.
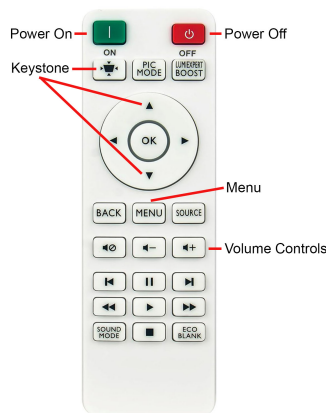
FLIPPING THE PROJECTED IMAGE

If you would like to flip the projection, making the top appear at the bottom, this can be accomplished by using the white hand-held remote.

* Press the Menu button.
* Use the left-right arrow buttons to navigate to SYSTEM SETUP : Basic
* Arrow down to Projector Position.
* Use the left-right arrow buttons to change your layout as desired.
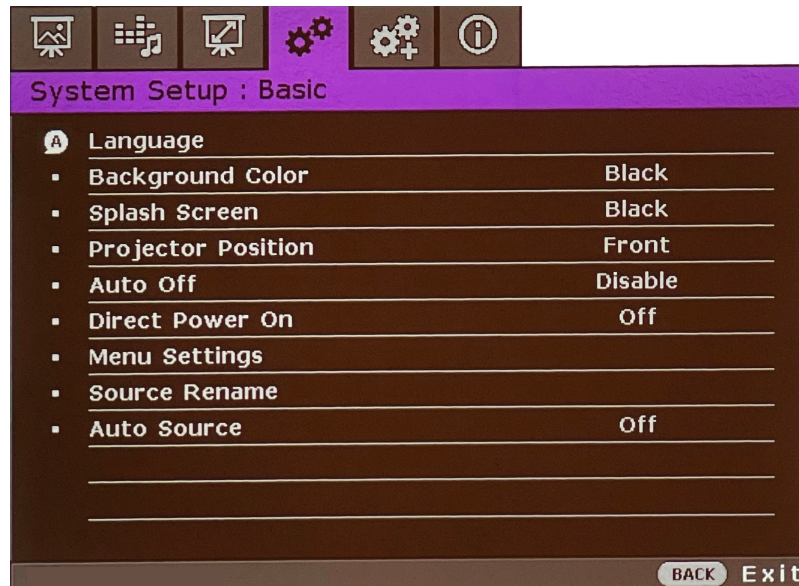
FOCUS AND IMAGE SIZE

To make changes to the projection size and/or focus of your play area, simply move the two rotating rings on the projector. These are located right behind the projector lens and can easily be reached through the projection opening.

The projected image should be centered directly under the IR camera. If it is not, there are wing nuts on each side of the mirror that can be loosened, and the mirror moved back and forth to adjust the image location.

Calibrating the Software

If the software is requesting an activation code, please contact support@lucynt.com

If the system is operating normally and you are satisfied with the reaction of a person's touch to the images, you may skip this section. Otherwise, press Escape on the keyboard to access the Administration menu.

1. Click on the Calibration icon.
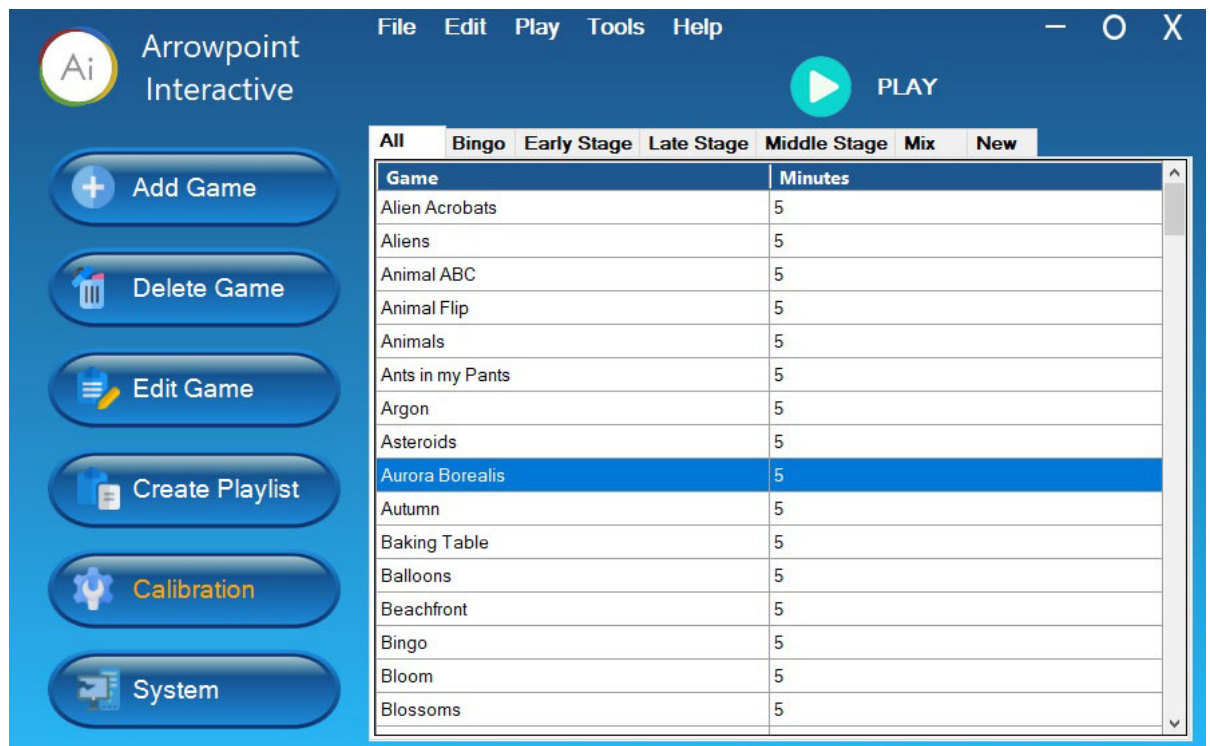
If the projected image is not completely contained within the upper left window, it will be necessary to physically move the IR camera so that it sees the projected image on the floor, wall, or table. If the image is backwards or upside down, check or uncheck the Horizontal Mirror and Vertical Mirror boxes until it appears correctly.
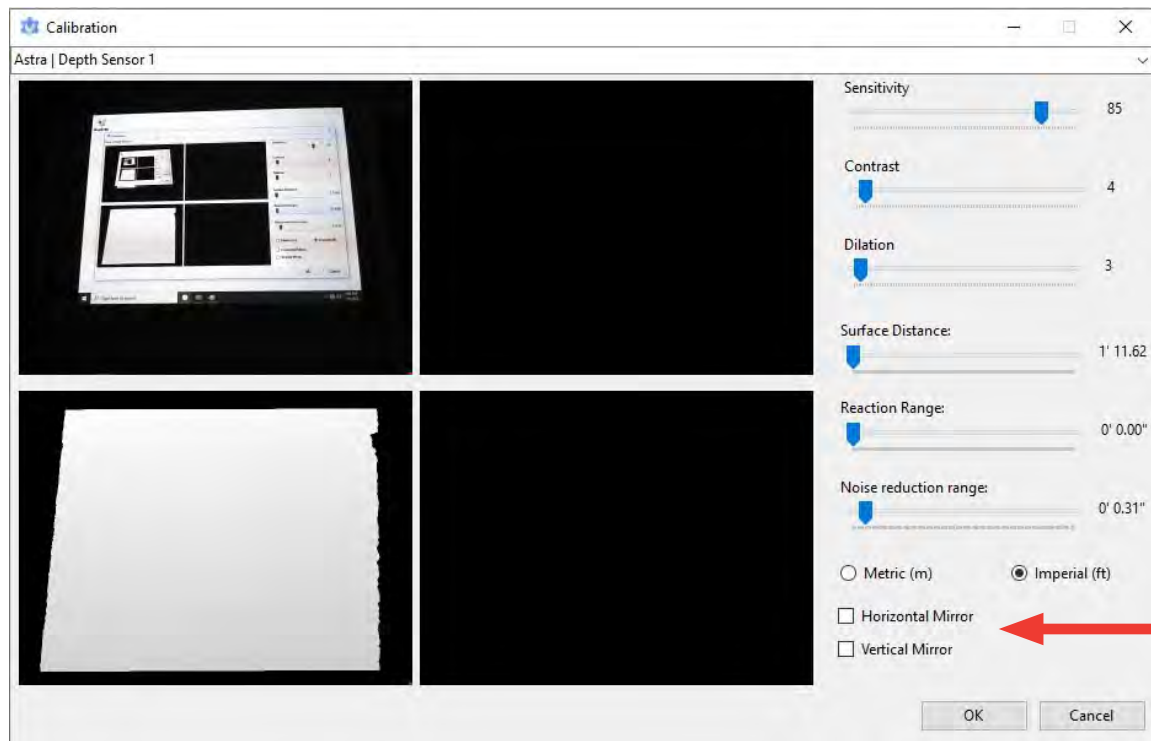
2. In the upper left window, use the mousepad to form a box around the projection. This will be done by left-clicking outside each corner of the image. When complete, there should be a red-lined box around the projected image. The box can be larger than the image, but not smaller.

3. Slide the Reaction Range tab slider to the middle of the bar.
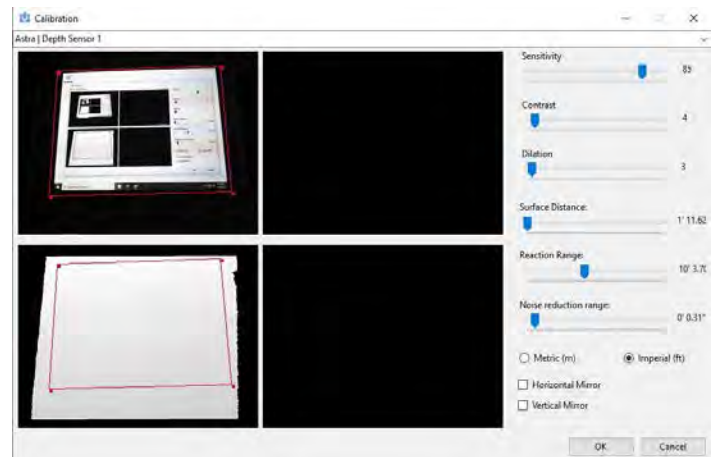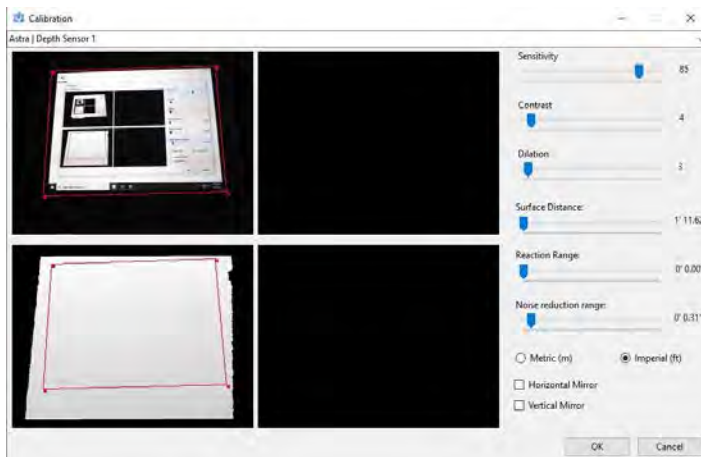
4. Slide the Surface Distance tab to the left, the lower right screen will turn black. Slowly move the tab to the right, until the lower right screen turns white, then stop. If a small corner remains black, that is okay. The important thing is to have the projected area white.
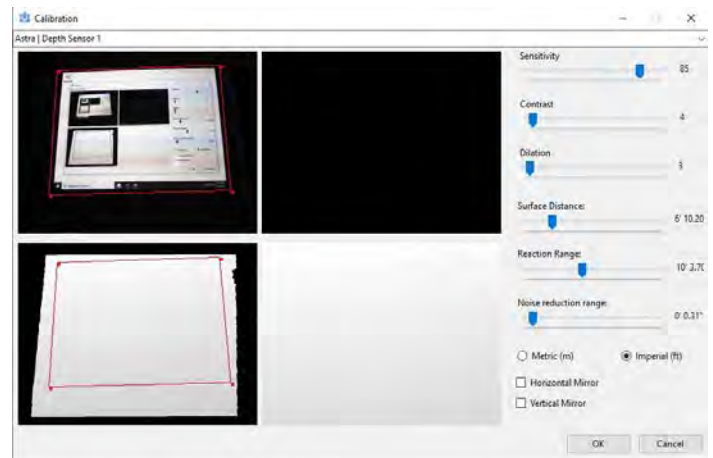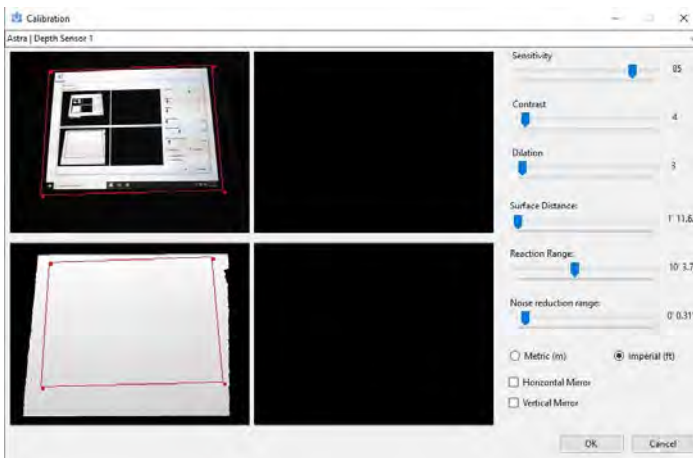
5. Slide the Reaction Range tab to the left, the lower right screen will turn black. Slowly move the tab to the right, until the lower right screen turns white. If a small corner remains black, that is okay. The important thing is to have the projected area entirely white.
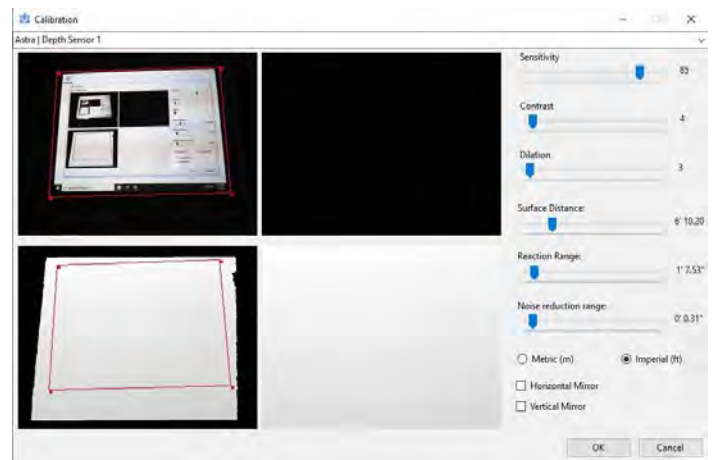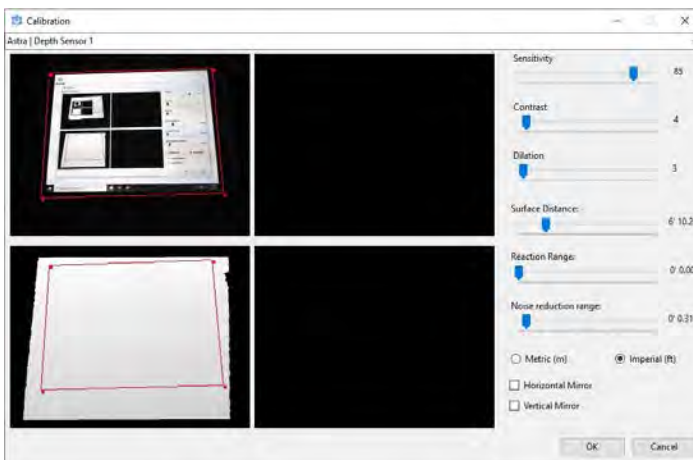
6. The Sensitivity, Contrast, and Dilation adjustments need never be touched and are preset at Sensitivity 85, Contrast 4, and Dilation 3.

7. Noise Reduction Range is an advanced setting for fine tuning reactions. It is preset at .31 imperial (.008 metric). If this number is set too low, it may cause games to react without touch.

Wall Projection

Pulling down on the clips will open the projector panel and lower the projector. By pressing in on the flexible metal arms on either side of the panel, the panel will lower to the next tab. After achieving the desired level, pull the IR camera down to view the projection.

Perform the calibration process.

Internet Connection

If the system is not connected to a hardline ethernet cable for internet service, it will need to be connected to wifi. This is performed by clicking on the globe icon in the lower right of the Windows toolbar. If you are unfamiliar with this operation, please perform an online search for Microsoft Windows wifi setup.

For additional programming options please read the User Manual, located under the Help tab on the Administration menu.

Safety Instructions

* All precautions must be made to perform the installation in accordance with the instructions.
* Any deviations from the instructions will put the installer at risk for liability issues and voiding of warranty.
* Risk of fire and/or electric shock, do not get the system wet or install in a location where water is present.
* Never expose the capsule to water, rain, or exterior environments.
* Do not stare into the projected light, or the IR camera.
* Never block the ventilation ducts of the capsule.
* Do not place objects on, or hang objects from the capsule.
* Do not use the system near an open flame, or where explosive gases are present.
* Never black the projection lens. This may cause damage to the unit or fire.
* Prevent the power cord from being strained or pinched. Discontinue use if the cord is damaged or frayed.
* Unplug the system during lightning storms to prevent damage to the unit.
* Replace leaking and/or cracked batteries in the hand-held remote and wireless keyboard.
* Use only batteries that are of the proper size and voltage for the equipment.
* Do not use this system in any manner that is not intended, prescribed, or authorized.

Cleaning and Maintenance

The unit does not require maintenance but should you decide to clean it, please disconnect it from power and use a soft, dry cloth, making certain not to leave fingerprints on the projector lens. Do not use any polishes, cleaning solutions, or abrasives on any part of the system.

Legal Information

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Contact Us

Questions about installation or any part if this manual should be directed to: support@fxgamezone.com

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