

Bust-a-Move Frenzy™ Operator's Manual



BUST-A-MOVE FRENZY



Table of Contents

Safety	5
Operation	5
Transporting.....	5
Handling Components	5
Disconnect Power	5
Grounding	5
Electrical Shocks.....	5
Power Selector	5
Power Cord	5
Surge Suppressor	5
Water and Other Liquid Sources.....	6
Connectors	6
Computer	6
Tempered Glass Warning.....	Error! Bookmark not defined.
Hazard to Epileptics	6
Manual	6
Specifications	6
Product Specifications	7
Electrical Power	7
Temperature	7
Humidity.....	7
Dimensions.....	7
Fuse Replacement Guide	8
12V Power Distribution.....	8
Setup	9
Unpack Materials.....	9
LED Display Quick Set-up Guide.....	9
Required Tools:	10
Parts Note:	10
Frame Components (Not to Scale):.....	10
Quadrants and Marquee Components (Not to Scale):.....	12

Marquee Power Supply:	14
Network Cable Connections: Deluxe (P7)	15
Cabinet Assembly.....	16
Card Reader Installation and Setup	18
Check Electrical Settings	19
Startup Game	19
Diagnostic and Adjustments	20
Basic Functional Test on Initial Power Up.....	21
Test Menus.....	22
Main Menu.....	22
Diagnostics	23
Pricing and Payout Adjustments (Cash)	24
Pricing and Payout Adjustments (Tokens)	25
Pricing and Payout Adjustments (Swipes)	26
Game Settings	27
System Settings.....	28
Audits	29
Resets Menu	30
Volume.....	31
Calibration.....	32
Utilities	33
Advertising	34
System Information.....	35
Choosing the Right Pricing Adjustments for Your Location	36
Advertising Menu User Guide.....	37
PC Hardware	39
Fujitsu Mini BIOS.....	40
PC Hard Drive Recovery	41
Troubleshooting	42
Technical Support	49
Electrical and Mechanical Illustrations	51

Safety

Operation

Before operating game, read this manual. Failure to properly install and operate this game could result in malfunction or accident. Operate the game in accordance with the manual.

Transporting

The cabinet is very heavy. Because the monitor is high, the cabinet is also very top-heavy. Use appropriate care when moving or transporting cabinet. It contains fragile glass and electronic components. Avoid rough handling.

Handling Components

Many components are extremely sensitive to handling, environmental and Electrostatic Discharge (ESD) events—especially the computer. Do not handle it roughly. Before servicing, call your distributor and inquire about the PC warranty. Use proper ESD procedures when servicing. Protect components from harmful environmental conditions, such as extreme temperatures, excessive moisture or other damaging effects.

Disconnect Power

Always turn the power off and unplug the unit before servicing or making adjustments unless otherwise instructed. Installing or repairing components while power is on can damage the components and void the warranty.

Grounding

Avoid electrical shock. Do not plug in AC power until you have inspected and properly grounded the unit. Only plug into a grounded, three-wire outlet. Do not use a “cheater” plug or cut off the ground pin on the line cord.

Electrical Shocks

There is no isolation transformer in the cabinet. Disconnect AC power before servicing. However, be aware that lethal voltages can remain in the electronic components even when AC power is disconnected. Use extreme caution when servicing. Verify that there is a working ground connection. If the unit sustains water damage, cease using it immediately and unplug AC power.

Power Selector

Before installing game, ensure the voltage on the PC and power supply is set properly. There is a 115/230 VAC selector switch that must be set for the correct voltage for your site. The setting must match the line voltage at the installation site.

Power Cord

If the power cord is damaged or lost, replace it with an identical cord as supplied by the manufacturer or an authorized service agent.

Surge Suppressor

It is recommended that you plug your game’s power cord into a surge suppressor to help protect from power surges that may damage sensitive electronic components.

Water and Other Liquid Sources

Do not install game near sprinkler or other water jet sources. Do not use water jet to clean game. Keep minimum clearance behind game and wall for proper ventilation but also prevent access of liquid from spills and sprays from entering ventilation holes.

Connectors

When servicing machine, ensure all connectors mate properly. If connectors do not slip in easily, do not force them. Connectors are often keyed and only connect one way. Check for correct orientation.

Computer

The computer contains sensitive components, including a hard drive. Do not handle it roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC. Cycle AC power on or off with the cabinet power switch.

A dongle has been inserted into one of the USB ports. This is required for game play.

Do not remove the dongle except for troubleshooting purposes.

Hazard to Epileptics

A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizure while watching some television pictures or playing certain video games. People who have not had seizures may still have an undetected epileptic condition. If anyone in your family has experienced epilepsy symptoms (seizures or loss of awareness), consult your physical before using video games. While children play video games, a parent should observe. Be alert to the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation or convulsions. If you or your child experiences these symptoms, discontinue use immediately and consult your physician.

Manual

Keep this manual available and ready for use. If the game fails to function properly, turn off the machine and unplug the AC line cord. Contact your local distributor. You may not reproduce this document or any of its contents without written authorization from Raw Thrills, Inc.

Specifications

For reasons such as performance, this product's specifications may change without notice. Federal patent, copyright and other intellectual property laws protect the content, devices and design of the game and its equipment.

Product Specifications

Electrical Power

United States, International and Japan
Operating AC Current: 5/2.5 Amps
Voltage: 115/230~ VAC 50/60Hz
Inrush AC Current: 5 Amps

Temperature

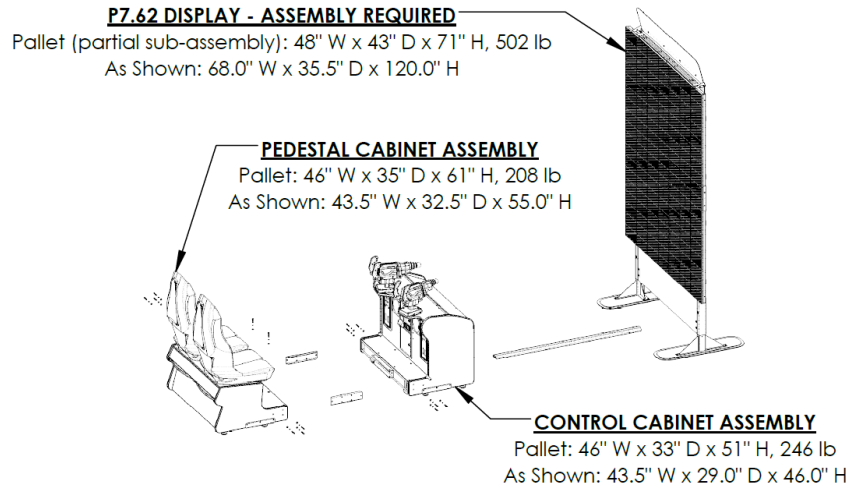
50° F to 104° F
(10° C to 40° C)

Humidity

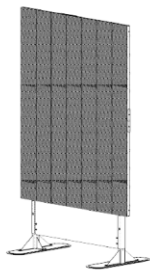
Must not exceed 95% relative humidity

Dimensions

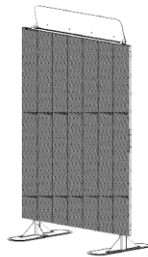
BUST-A-MOVE FRENZY
FINAL ASSEMBLY DIMENSIONS:
68.0" W x 100.0" D (min.) x 120.0" H



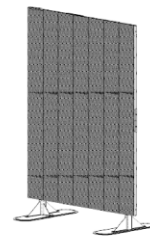
FOR LOCATIONS WITH HEIGHT RESTRICTIONS
(3) Alternative height-reducing configurations are available



Removal of Marquee Assembly
reduces Height by 10"
Effective Height => 110"



Removal of (2) Tube Extensions
reduces Height by 15"
Effective Height => 105"



Removal of Marquee Assembly
and Extensions reduces Height by 25"
Effective Height => 95"

Fuse Replacement Guide

NOTE: FOR CONTINUED PROTECTION AGAINST FIRE AND ELECTRICAL DAMAGE, USE ONLY SPECIFIED FUSE TYPE AND VALUE.

12V Power Distribution

Please see unit for specified fuse labeling.

Cabinet:

6x 5A 250V 3AG Slo-Blo Fuse (Littelfuse 0313005)

Gun Harness (each):

2x 2A 250V 3AG Slo-Blo Fuse (Littelfuse 0313002)

Setup

Unpack Materials

1. Place the shipping crate(s) on a flat, stable surface.
2. Cut the banding straps and remove the cardboard lids.
3. Lift off the large cardboard containers surrounding the cabinet assembly and remove any shipping cleats.
4. Remove the coin door key from the coin return slot.
5. Open the top coin door.
6. Locate the keys for the back door and the cash box door.
7. Open the cash box door and remove the cash box.
8. Check for shipping damage to the following:
 - Marquee and monitor
 - Cabinet decals
9. Check the AC line cord for visible signs of damage.

Pay particular attention to the plug and line cord insulation.

LED Display Quick Set-up Guide

Important Note: This manual is accompanied by a separate document: “P7.62 LED Wall Assembly and Service Document.” Please refer to this document when installing, servicing and troubleshooting the LED display. It is a more comprehensive guide and provides more detail than the quick setup guide listed below. Keep this and other documentation for future reference. Additional information regarding the latest version of software and documents can also be found on our web site:

www.rawthrills.com

Bust-a-Move Frenzy™

Listed below is a step by step process to assemble the LED Display for *Bust-a-Move Frenzy™*. For additional assistance, reference the full Assembly and Service Procedure included with the game. **2 people are required to do the assembly. Ladders are recommended when assembling the top quadrants of the LED screen. Refer to the “LED Wall Assembly and Service Document” for details.**

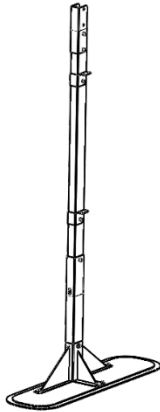
Required Tools:

M6 Allen Key, #2 Phillips Screwdriver, and a Level

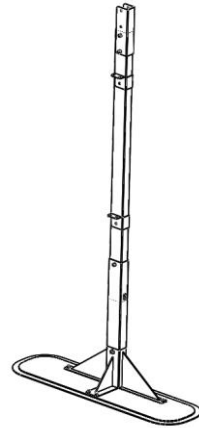
Parts Note:

All parts are labeled with decals. Refer to these decals when assembling the screen.

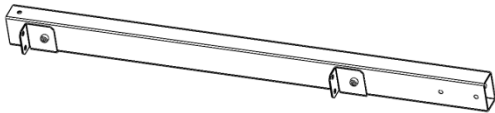
Frame Components (Not to Scale):



1 – Left Base Assembly (x1)



2 – Right Base Assembly (x1)



3 – Left Upper Tube Assembly (x1)



4 – Right Upper Tube Assembly (x1)

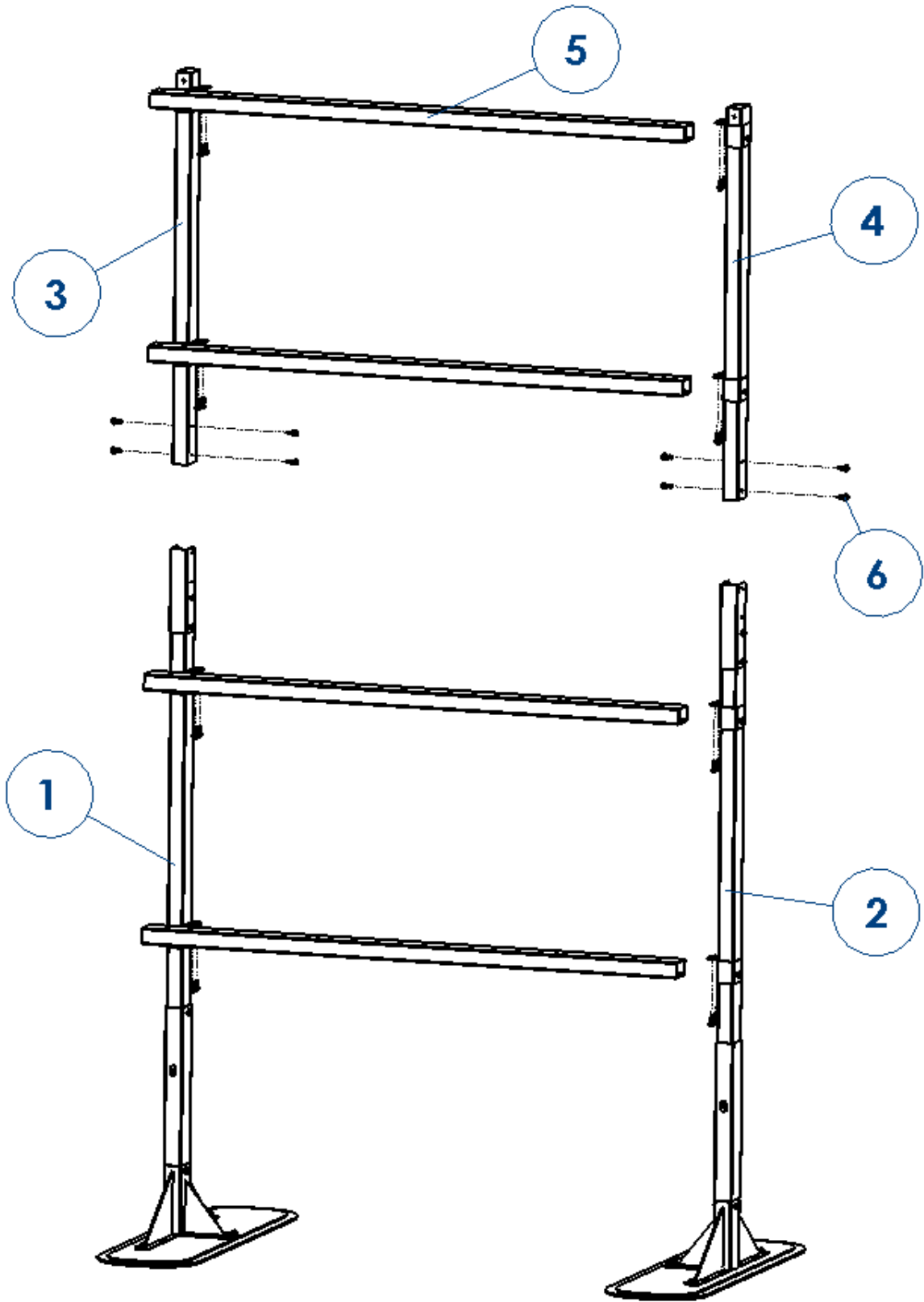


5 – Cross Tube (x4)



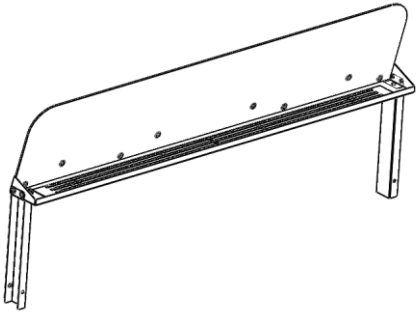
6 – M8x16mm Socket Head Cap Screw (x24)

Bust-a-Move Frenzy™



VIEW FROM BACK

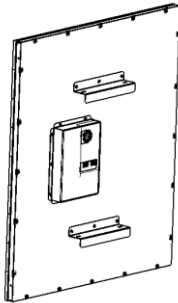
Quadrants and Marquee Components (Not to Scale):



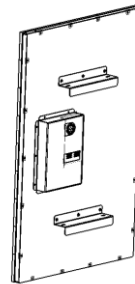
7: Marquee Assembly (x1)



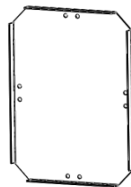
8: Marquee Power Supply (x1)



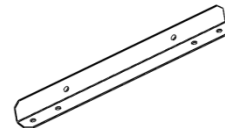
9: 4x9 Display Quadrant (x2)



10: 3x9 Display Quadrant (x2)



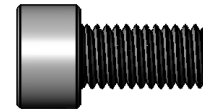
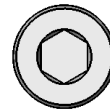
11: Center Planar Bracket (x1)



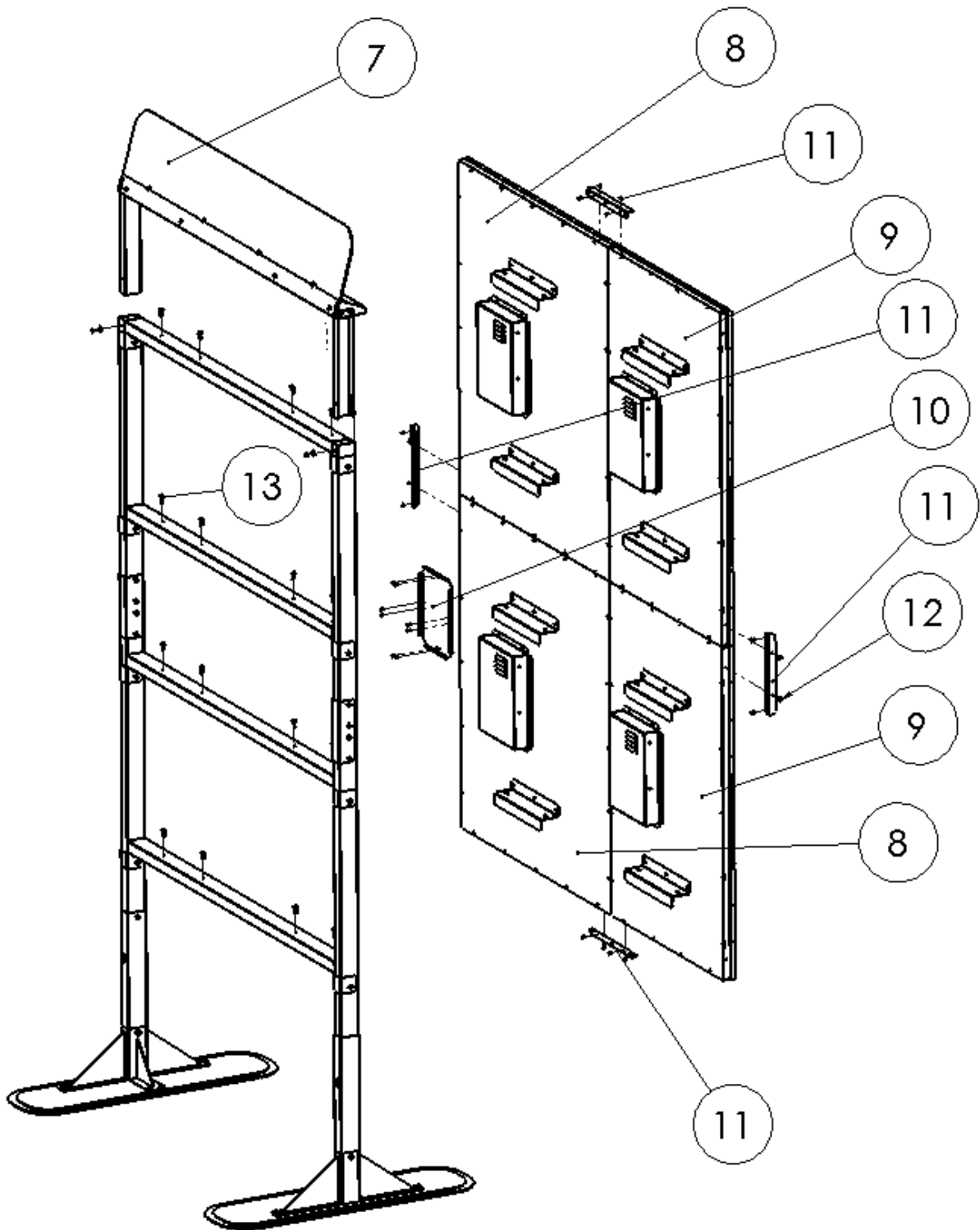
12: Side Planar Bracket (x4)



13: M5x8mm Phillips Head Screws (x8)

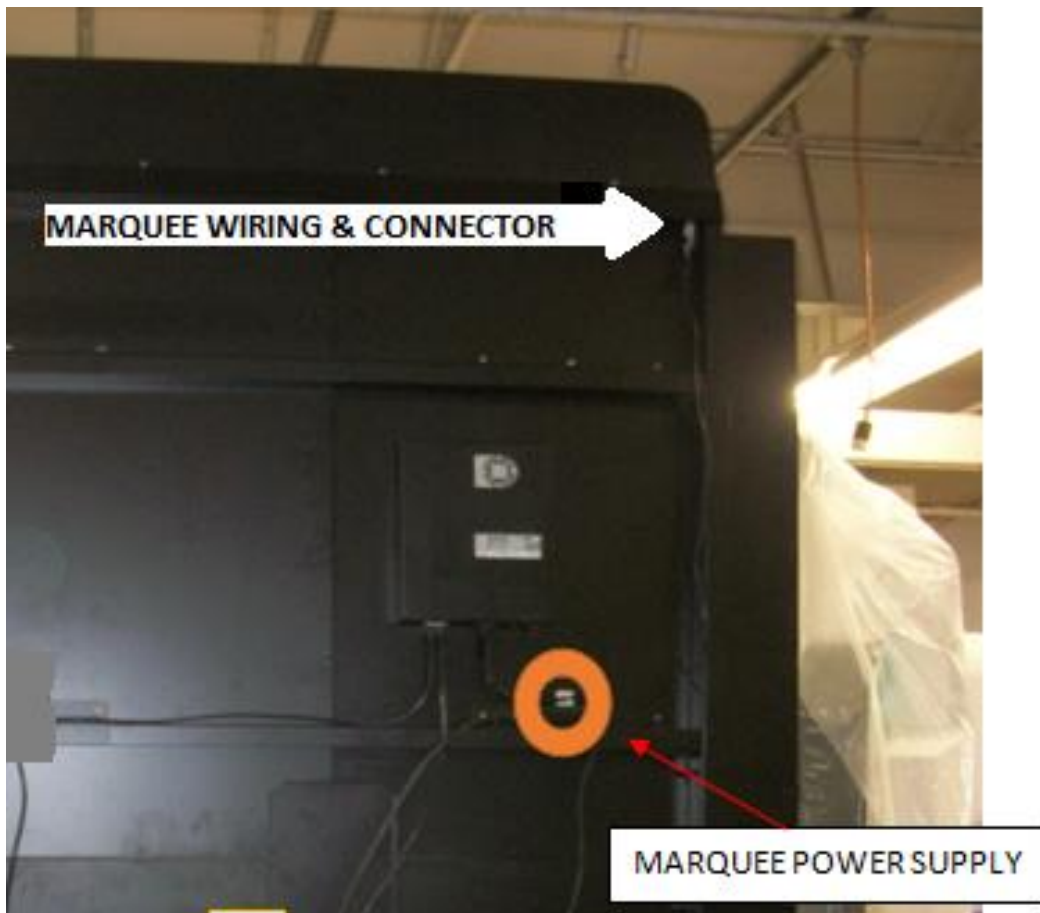


14: M8x16mm Socket Head Cap Screw (x16)

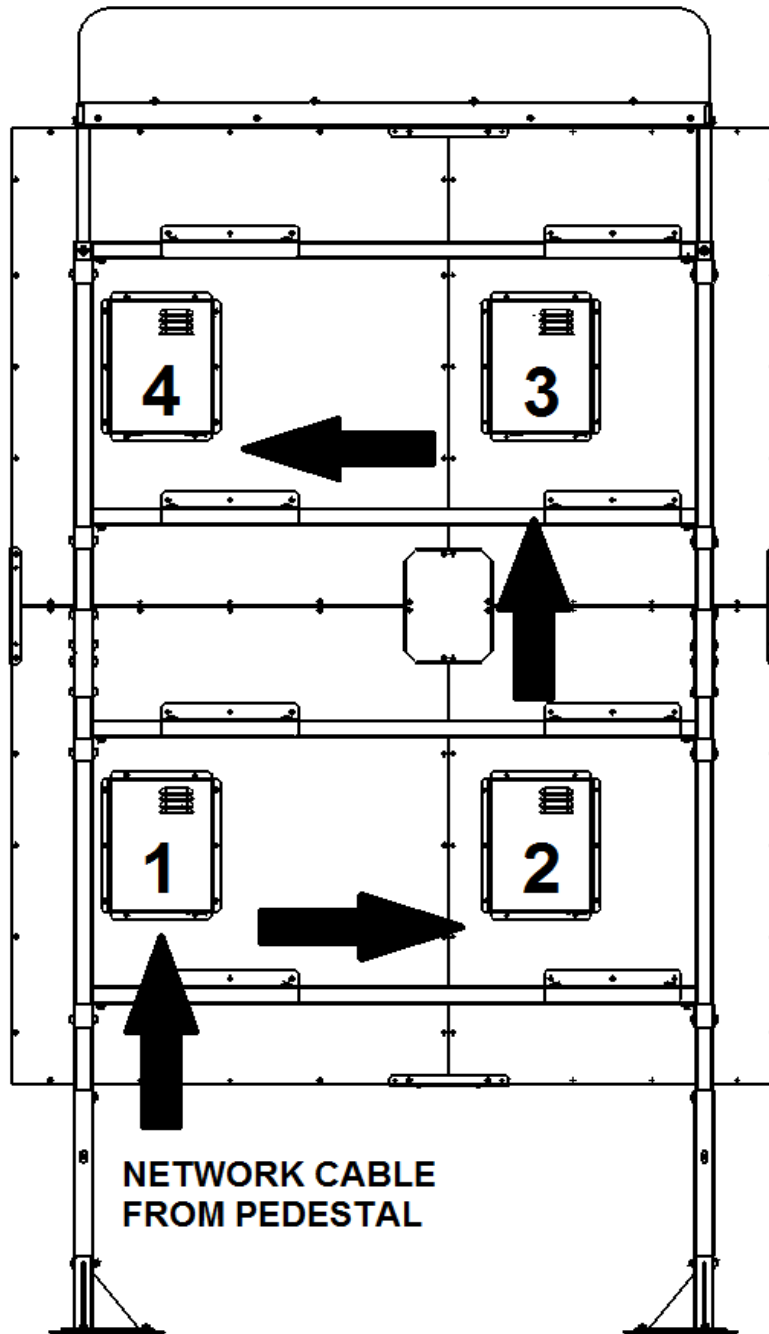


(Note- Install screen quadrants individually)

Marquee Power Supply:

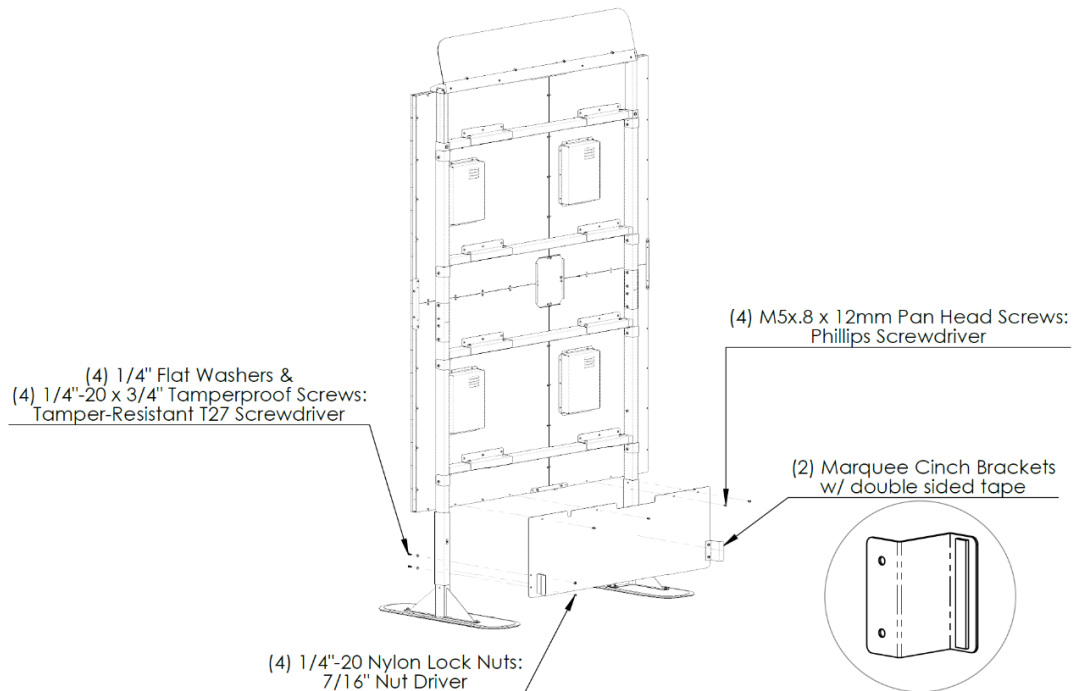


Network Cable Connections: Deluxe (P7)



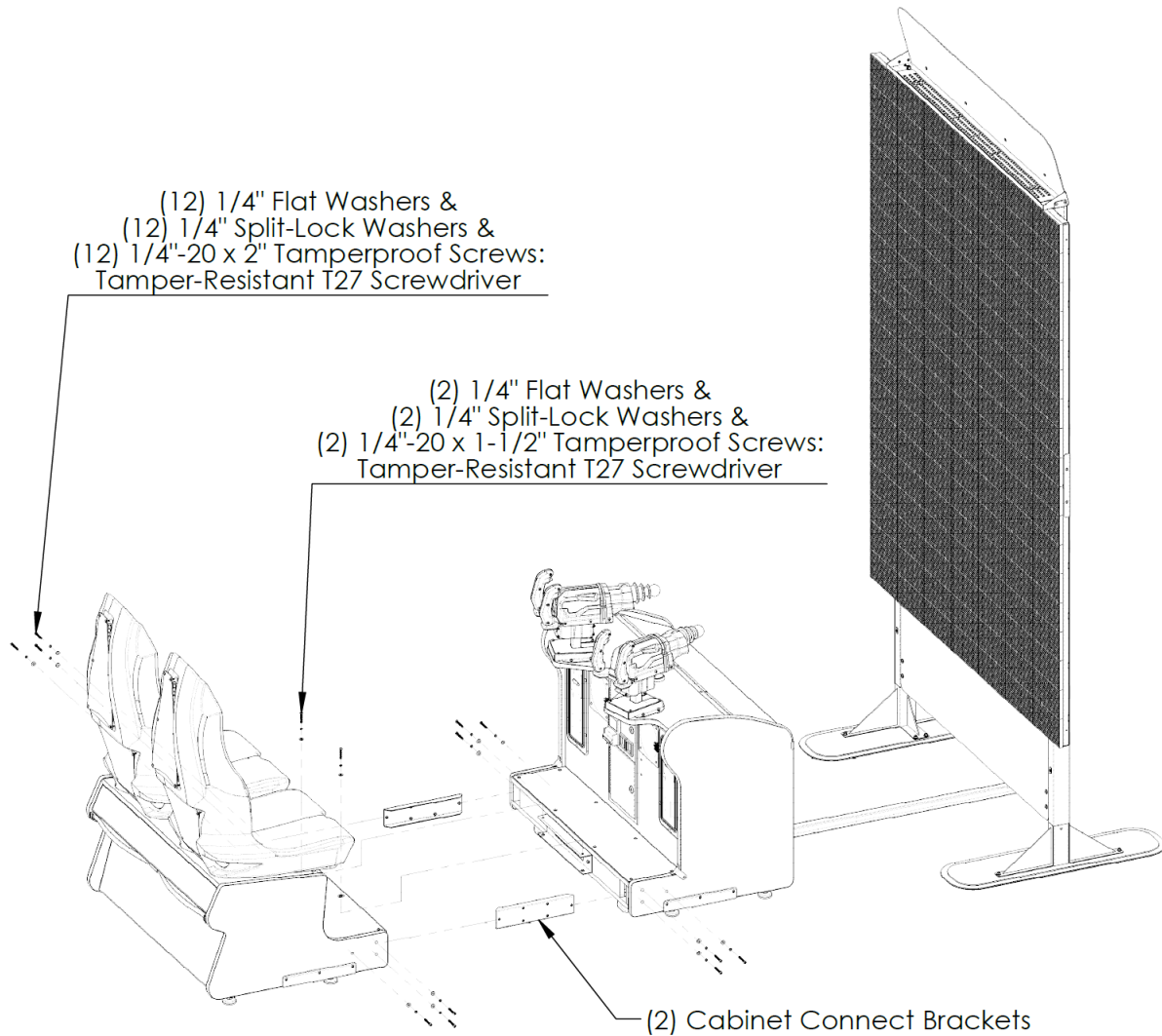
NETWORK CABLE CONNECTIONS
*NETWORK CABLES MUST BE CONNECTED
IN THE ORDER SHOWN ABOVE.*

Cabinet Assembly



1. Using above diagram as a guide install lower sign using Phillips bit with supplied (4) M5 X 12mm screws. To secure cinch brackets to tubes, be sure to remove protective backing from double sided foam tape.
2. Place control (gun) cabinet in front of LED display.
3. Locate the two connecting brackets and the following hardware: (6) black tamper proof Torx machine screws, ¼-20 thread, 2" long, and (6) ¼" black split lock washers, and (6) ¼" black flat washers. Using a T-27 bit, attach these connecting brackets to the inside of each cabinet side as shown in the cabinet assembly setup diagram.
4. Move pedestal assembly in front of control (gun) cabinet and connect harness. Locate the following hardware: (6) black tamper proof Torx machine screws, ¼-20 thread, 2" long, and (6) ¼" black split lock washers, and (6) ¼" black flat washers. Push cabinet halves (seat and gun section) completely together and be sure not to pinch wire harness. Using T-27 bit, connect the two cabinet halves with the hardware as shown in the cabinet assembly setup diagram.
5. Locate the following hardware: (2) black tamper proof Torx machine screws, ¼-20 thread, 1 ½" long, and (2) ¼" black split lock washers, and (2) ¼" black flat washers. Install screws through pedestal floor to center connecting bracket.
6. Move the completed cabinet assembly into the desired position in front of the display. Raw Thrills recommends a *minimum* distance of 100 inches total depth from back of LED wall base legs to the back of the seats.

Bust-a-Move Frenzy™



7. Connect the provided network cable between the back of the completed cabinet at the terminal near the on/off switch and the back of the LED wall assembly. Use supplied D-channel sleeve and carpet tape to properly dress the network cable on the floor.
8. Attach Marque Power Supply to frame and plug in the connector from marquee to marquee power supply.

Card Reader Installation and Setup

Due to the rising popularity of aftermarket debit card systems for cashless or coinless operation of amusement machines (i.e. Embed, Intercard, Semnox), this NERF™ Arcade cabinet is equipped with UCL compatible harnessing to ensure that the installation process is easier and less prone to miswiring.

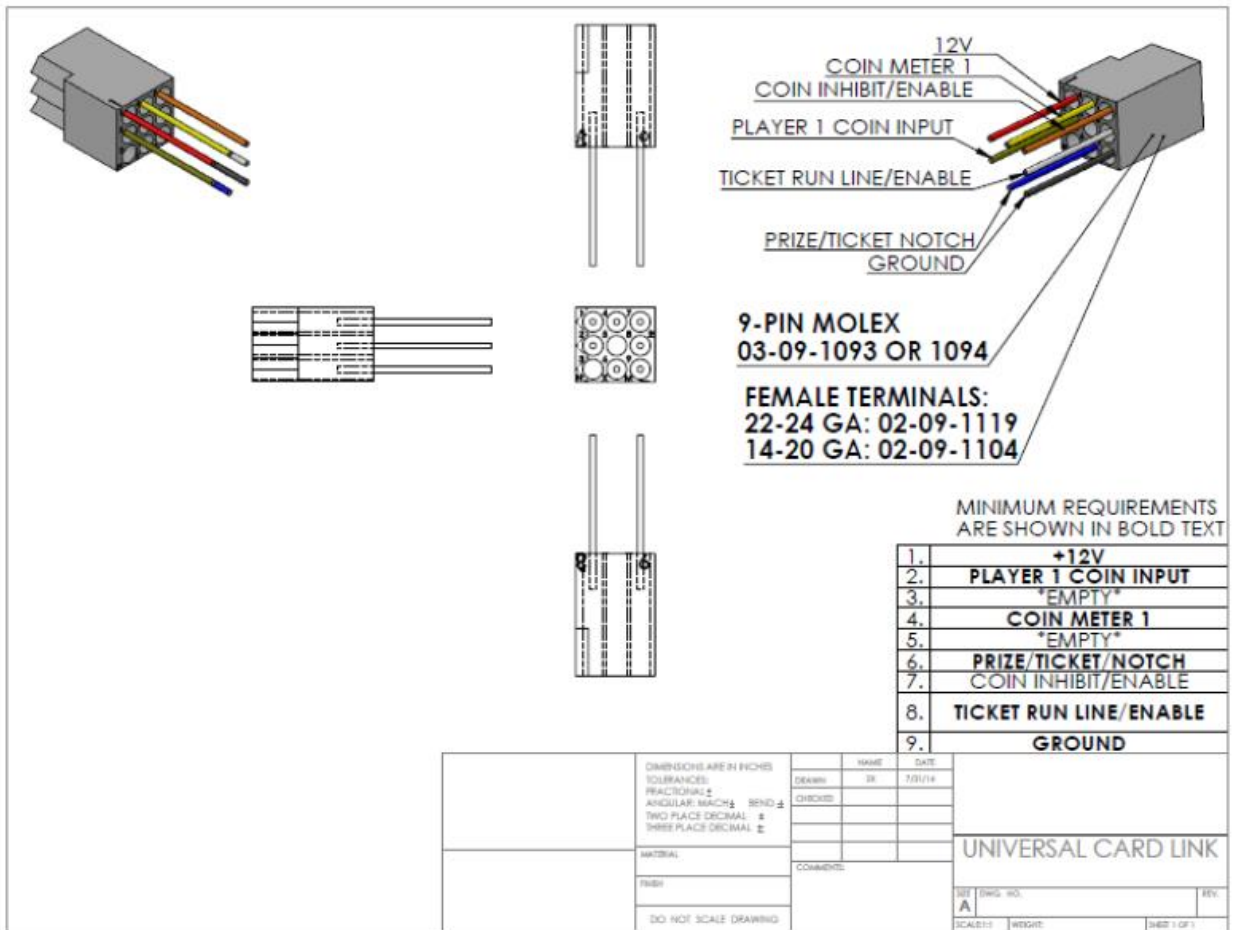
You can choose to use 1 or 2 card readers in the pricing adjustments section of the test menu. It is recommended to use 2 card readers for best results and player access.

There are (2) supplied connections, each located under the control panel near the player positions. There is enough slack to accommodate mounting (2) card readers on the control panel, or on the front panels, as each operator desires.

If only (1) card reader will be used, it is recommended that the card reader be mounted to the coin door using either the provided UCL connector.

UCL, or Universal Card Link, is a debit card standard established by the American Amusement Machine Association. Visit <https://coin-op.org/standardization/> for the latest UCL standard and manual information.

The UCL connections on the game use pins 1, 2, 6, 8, and 9. The other pins are unused. Each UCL connector can supply up to 1A at 12VDC.



Check Electrical Settings

1. Verify the voltage in the nearest AC outlet.
2. Verify the AC outlet ground connection is present and working.

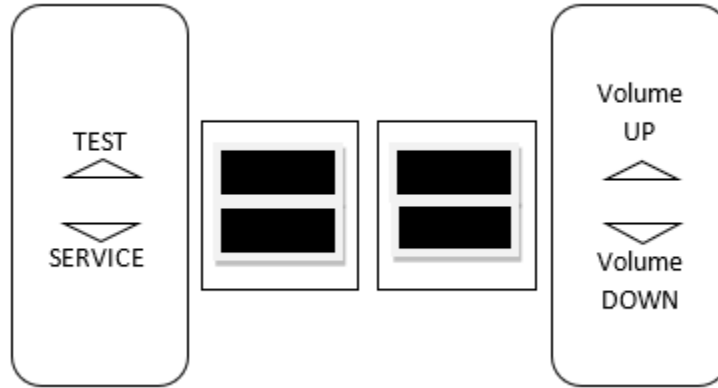
Startup Game

1. Plug the line cord into an AC outlet.
2. Turn the main cabinet power switch on.
3. Verify the game and all components are operating normally. See *Basic Functional Test on Initial Power Up* in the *Diagnostics and Adjustments* section for the recommended procedure.

Diagnostic and Adjustments

The Service Button Panel has four buttons, three of which can navigate the menu system.

The control panel buttons and joysticks/guns can also advance through test menu screens.



Navigating the Test Menu	
Button	Action
TEST (Not in Test Menu)	Enters Test Menu
TEST (In Test Menu)	Selects Highlighted Option
SERVICE (On Main Menu)	Exits Test Menu
SERVICE (Not on Main Menu)	Cancel Selection
VOLUME UP	Move Up
VOLUME DOWN	Move Down
Start Buttons	Selects Highlighted Option

An on-screen message acknowledges changes or when you exit a selection without making a change.

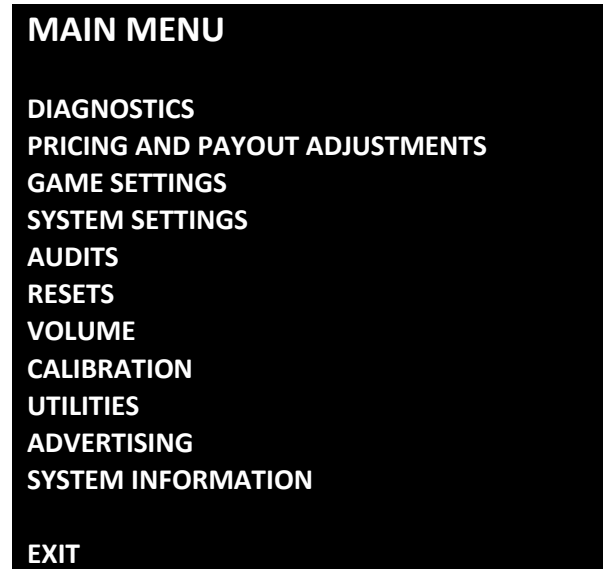
Basic Functional Test on Initial Power Up

1. Enter the Input Test and verify all switch inputs are working.
2. Enter the Sound Test and verify the audio works and is not distorted.
3. Enter the Light Test and verify that all the lights are working properly.
4. Enter the Coin Meter Test and verify the coin meter is working properly.
5. Enter the Watchdog Test and verify the game reboots.
6. Upon a successful reboot, you are ready to adjust pricing, volume and other functions.

Test Menu

Main Menu

Choose from all available operator settings and menus here. You can use the test menu bracket and volume buttons to navigate. The guns/gun triggers are also available to use for easier navigation through these menus.



Diagnostics

Verify or diagnose the operations of all game functions.

DIAGNOSTICS

INPUT TEST

GUN SOLENOID TEST

AUDIO TEST

CABINET LIGHTS TEST

METER TEST

TICKET TEST

WATCHDOG TEST

EXIT

- **Input Test**: Test input hardware such as switches.
- **Gun Solenoid Test**: Test the gun vibrations of the solenoids.
- **Audio Test**: Test audio using 100Hz and 1000Hz.
- **Cabinet Lights Test**: Tests all LED cabinet lighting together and individually.
- **Meter Test**: Test the functionality of the mechanical coin and ticket meters inside the cabinet.
- **Ticket Test**: Test the functionality of the ticket mech.
- **Watchdog Test**: Test the functionality of the watchdog reset.

Pricing and Payout Adjustments (Cash)

Set pricing and payout adjustments for game operation.

PRICING AND PAYOUT ADJUSTMENTS

(CASH)

CURRENCY INPUT

CURRENCY TYPE

COIN VALUE

COINS TO PLAY

PAYOUT PERCENT

TICKET VALUE

JACKPOT

FIXED TICKETS

FREE PLAY

MERCY TICKETS

TWO POINT TICKETS

EXPRESS PAYOUT

EXIT

- **Currency Input**: Change the currency input.
- **Currency Type**: Change the currency type.
- **Coin Value**: Change the money value of the coin.
- **Coins to Play**: Adjust the amount of coins to start a game.
- **Payout Percent**: Set targeted payout percentage.
- **Ticket Value**: Set the value of your tickets.
- **Jackpot**: Set the value of the jackpot award.
- **Fixed Tickets**: Award a fixed amount of tickets per play. No jackpot ticket options available when this mode is active.
- **Free Play**: Turn free play mode on or off.
- **Mercy Tickets**: Set the minimum number of tickets awarded on every play.
- **Two Point Tickets**: Allows a single ticket to be worth 2 points in the game.
- **Express Payouts**: Turn on or off. ON – tickets dispense as they are earned (recommended). OFF – ticket payout is dispensed at the end of the game.

Pricing and Payout Adjustments (Tokens)

Set pricing and payout adjustments for game operation.

PRICING AND PAYOUT ADJUSTMENTS

(TOKENS)

CURRENCY INPUT

CURRENCY TYPE

TOKEN VALUE

TOKENS TO PLAY

PAYOUT PERCENT

TICKET VALUE

JACKPOT

FIXED TICKETS

FREE PLAY

MERCY TICKETS

TWO POINT TICKETS

EXPRESS PAYOUT

EXIT

- **Currency Input**: Change the currency input.
- **Currency Type**: Change the currency type.
- **Token Value**: Change the money value of the token.
- **Tokens to Play**: Adjust the number of tokens to start a game.
- **Payout Percent**: Set targeted payout percentage.
- **Ticket Value**: Set the value of your tickets.
- **Jackpot**: Set the value of the jackpot award.
- **Fixed Tickets**: Award a fixed amount of tickets per play. No jackpot ticket options available when this mode is active.
- **Free Play**: Turn free play mode on or off.
- **Mercy Tickets**: Set the minimum number of tickets awarded on every play.
- **Two Point Tickets**: Allows a single ticket to be worth 2 points in the game.
- **Express Payouts**: Turn on or off. ON – tickets dispense as they are earned (recommended). OFF – ticket payout is dispensed at the end of the game.

Pricing and Payout Adjustments (Swipes)

Set pricing and payout adjustments for game operation.

PRICING AND PAYOUT ADJUSTMENTS

(SWIPES)

CURRENCY INPUT

CURRENCY TYPE

SWIPE VALUE (IMPORTANT SETTINGS)

NUMBER OF CARD READERS

PAYOUT PERCENT

TICKET VALUE

JACKPOT

FIXED TICKETS

FREE PLAY

MERCY TICKETS

TWO POINT TICKETS

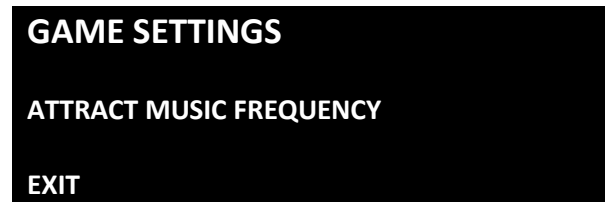
EXPRESS PAYOUT

EXIT

- **Currency Input**: Change the currency input.
- **Currency Type**: Change the currency type.
- **Swipe Value (IMPORTANT SETTING)**: Money value of the swipe. This important setting impacts payout.
- **Number of Card Readers**: Whether players share a cashbox, or each have their own. (DBV input is disabled when set to 2.)
- **Payout Percent**: Set targeted payout percentage.
- **Ticket Value**: Set the value of your tickets.
- **Jackpot**: Set the value of the jackpot award.
- **Fixed Tickets**: Award a fixed amount of tickets per play. No jackpot ticket options available when this mode is active.
- **Free Play**: Turn free play mode on or off.
- **Mercy Tickets**: Set the minimum number of tickets awarded on every play.
- **Two Point Tickets**: Allows a single ticket to be worth 2 points in the game.
- **Express Payouts**: Turn on or off. ON – tickets dispense as they are earned (recommended). OFF – ticket payout is dispensed at the end of the game.

Game Settings

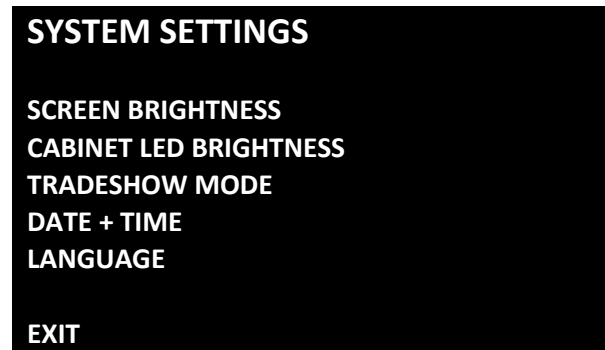
Adjust game settings for operation.



- **Attract Music Frequency**: Set how often music should be played in attract mode. (Attract mode is a pre-recorded demonstration of the gameplay that is displayed when the game is not being played. Additionally, the attract mode cycles through the title screen, epilepsy warning screen, various hint screens, and user loaded advertisements)

System Settings

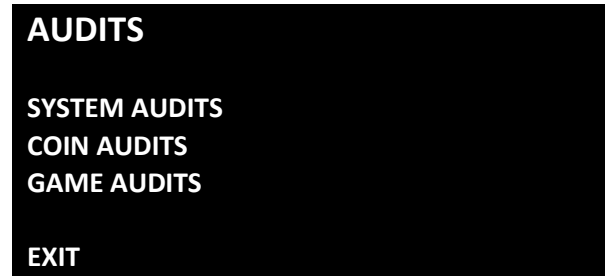
Adjust system settings for operation.



- **Screen Brightness**: Adjust the brightness of the screen.
- **Cabinet LED Brightness**: Adjust the brightness of the cabinet lighting.
- **Tradeshow Mode**: Turn this mode on when operating on a trade show, sales, or demo floor. The game runs on free play and also simulates ticket payouts without a ticket error appearing on the screen.
- **Date + Time**: Set the date and time.
- **Language**: Set language.

Audits

View machine statistics such as games played, money, earned, etc.



- **System Audits**: View system audits.
- **Coin Audits**: View coin audits.
- **Game Audits**: View game audits.

*****Changes to pricing and payout adjustments will reset any existing audits back to zero*****

Resets Menu

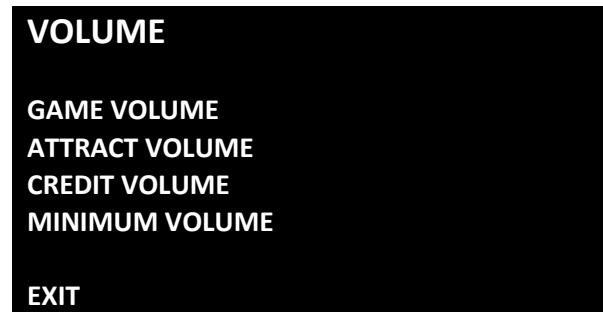
Reset various machine settings and audits.



- **Reset Credits:** Reset all credits to zero.
- **Reset Player 1 Tickets:** Clears out all tickets owed to player 1.
- **Reset Player 2 Tickets:** Clears out all tickets owed to player 2.
- **Reset Pricing Adjustments:** Reset all pricing settings to default.
- **Reset Game Audits:** Reset all game related audits.
- **Reset System Audits:** Reset all system audits.
- **Reset Coin Audits:** Reset all coin audits.
- **Reset All Audits:** Reset all audits.
- **Factory Restore:** Restore game to all factory settings.

Volume

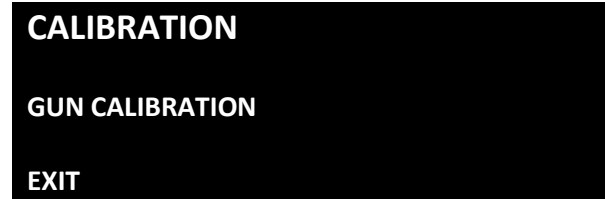
Adjust all volume settings.



- **Game Volume**: Adjust the volume during gameplay.
- **Attract Volume**: Adjust the volume during the attract mode sequences.
- **Credit Volume**: Adjust the volume of the credit chime.
- **Minimum Volume**: Adjust the minimum volume.

Calibration

Calibrate the guns. If the guns aren't calibrated the game will not be playable and earnings will be affected. It is important to calibrate the guns on initial setup as well as anytime the game is moved or the guns are repaired, replaced, or swapped.

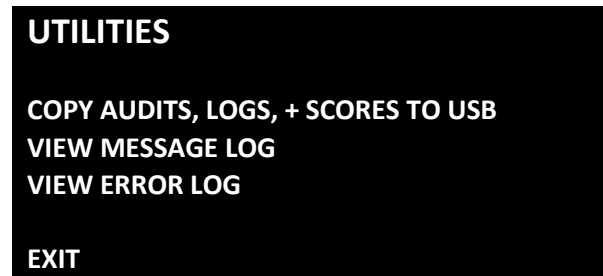


- **Gun Calibration:** Follow on screen prompts to calibrate guns.

NOTE: *Bust-a-Move Frenzy™* only uses the "X" axis potentiometer L/R movement for calibration.

Utilities

Miscellaneous operator tools.



- **Copy Audits, Logs, + Scores to USB**: Copy all audits and diagnostics to USB drive.
- **View Message Log**: Examine logged messages from the game.
- **View Error Log**: Examine error messages from the game.

Advertising

Advertising feature that allows the operator to upload images which will be displayed during the attract mode of the game. **Desired resolution: 224px x 288px. Formats: TGA, PNG, JPG, JPEG, and GIF**



- **Ad Slot 1**: First of 4 available advertising file slots.
- **Ad Slot 2**: Second of 4 available advertising file slots.
- **Ad Slot 3**: Third of 4 available advertising file slots.
- **Ad Slot 4**: Fourth of 4 available advertising file slots.
- **Ad Length**: Adjusts the time duration that the advertising image appears.

System Information

View hardware and software information.

- Serial Number
- Software REV
- Build Date
- RIO PCB
- RIO Firmware
- Dongle Version
- Cabinet Type
- Game Template

Choosing the Right Pricing Adjustments for Your Location

Card Swipe Locations

- Make Sure Your Game is Set to **Swipes Mode**:
 1. Hold the Test Button for 2 seconds to enter the Test Menu.
 2. Select “Pricing Adjustments” from the menu.
 3. Select “Currency Input” from the menu.
 4. Select “Card Swipes” from the menu.
 5. Exit out of “Currency Input” menu.
 6. While back in “Pricing Adjustments” menu, set “Swipe Value” to the currency equivalent of your swipe, or the payout will be incorrect. **THIS SETTING IS EXTREMELY IMPORTANT!** (Example: If the card swipe is worth \$1.50 in your card system, set the swipe value to \$1.50 as well).

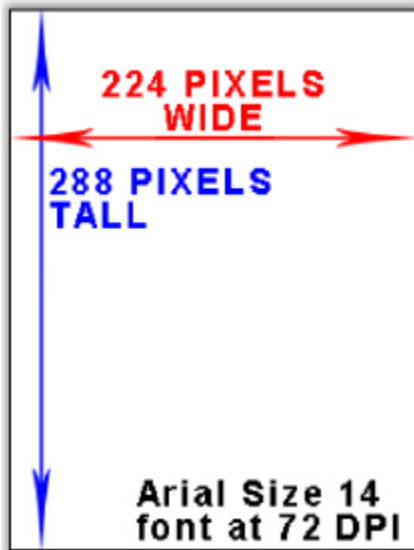
Coin Locations

- Make Sure Your **Pricing & Coin Value** are Correct:
 1. Hold the Test Button for 2 seconds to enter the Test Menu.
 2. Select “Pricing Adjustments” from the menu.
 3. Select “Currency Input” from the menu.
 4. Select “Cash” or “Tokens” from the menu.
 5. Exit out of “Currency Input” menu.
 6. While back in “Pricing Adjustments” menu
 - a. Select “Coins to Play” and set the desired amount of coins per game of *Bust-a-Move Frenzy™*.
 - b. After setting the coins per play, set “Coin Value” to the currency equivalent of your coin, or the payout will be incorrect. **THIS SETTING IS EXTREMELY IMPORTANT!** (Example: If your coin is worth \$0.25, set “Coin Value” to \$0.25 as well).

Advertising Menu User Guide

- 1) Identify and select advertising image files you would like to have displayed on the screen during the game's attract mode. On your personal computer or laptop, upload the advertising images to a USB flash drive. **Image files should be .TGA, .PNG, .JPG, JPEG or .GIF format type.**

Sizing:



Note: The resolution of images should be 224 x 288 pixels (224 x 288). Larger resolution files or different file types can cause an error or won't appear correctly on your *Bust-a-Move Frenzy™* screen. (To be able to clearly read text and images, we recommend making your image 72 DPI, 224 x 288 resolution). Game can hold up to 4 images. **Images may be resized using your preferred photo editing program.**

- 2) After you have your images picked out, sized and copied to your USB flash drive, you are now ready to upload the images into *Bust-a-Move Frenzy™*. Open the coin door and find the service bracket that has the test menu and service buttons. On this bracket, you will find a USB slot to insert your flash drive.

*****Important*** Make sure to only insert your flash drive while the game is in attract mode. Never insert a flash drive while the game is booting up or in the Test Menu.**



Bust-a-Move Frenzy™

- 3) Once your USB flash drive is inserted into the USB slot on the service control panel, you can then press the “TEST” button to access the main menu.
- 4) Select “ADVERTISING” from the main menu to access the upload feature. From this menu you then select an ad slot for your image.



- 5) After you are in the “AD SLOT MENU” you can select “LOAD IMAGE” which generates a list of the file names of the image files that are on your USB drive. Navigate to the file name you would like to upload and select it. (See below)



- 6) When you select the image you would like to upload, you will be presented with a preview of the image, which you can accept or decline. If you accept the image you will be taken back to “AD SLOT MENU” which will allow you to load a different image, adjust the ad brightness, rotate the image, preview the image again, delete the image or exit the menu.

Please Note: If you have lighter colors or lots of white areas in your advertisement, we recommend that you adjust the ad brightness to a lower level. The default ad brightness is 6 but many advertisements have a better appearance at 3-5 brightness.

PC Hardware

Your *Bust-a-Move Frenzy*™ game uses a **Fujitsu IMP-3313-S4-4G-HD Mini PC computer** ("Fujitsu Mini PC").

NOTICE

WARNING: DO NOT ENTER THE BIOS SETTINGS MENU! Modifying the BIOS settings will cause your game to stop functioning. In order to boot, new security features verify the BIOS settings against factory settings, including timestamp.



(Above: Fujitsu Mini PC)

Fujitsu Mini BIOS

To Access BIOS Settings:

With the computer powered off, plug a USB keyboard into an open USB slot. Hold the 'F2' key and turn the computer on. Continue holding the F2 key until the BIOS Setup screen appears.

Note: All settings not listed should remain their default values.

Advanced

- + Graphics Configuration
 - Internal Graphics [Enabled]
 - Primary Display [IGD]
 - IGD MEMORY [512M]

Power

- Power Failure Recover [Always ON]

Boot

- Prefer USB Boot [Enable]

Note: After exiting BIOS settings screen, power cycle the cabinet by using the cabinet's main power switch.

PC Hard Drive Recovery

Symptoms requiring a PC hard drive recovery include:

- File test reports bad or missing files.
- Game fails to finish loading during setup.
- After resetting the AC power, an error is reported.
- Erratic Game or Attract Mode behavior.

The only way to repair corrupt files is to reinstall the software as described below:

COMPUTER

The computer contains sensitive components. Do not handle roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC.

Do **not** use the PC on/off switch. Turn AC power on or off with the cabinet power switch.

Steps to Re-install the software:

(NO DVD Restoration. USB Thumb Drive is used on the *Fujitsu Mini*)

1. With game and PC on, verify that the RIO board has power. If not, see Troubleshooting.
2. Open the coin door
3. Insert the recovery USB thumb drive (included in your game) into the USB port on the Test button bracket inside the coin door.
4. Turn cabinet power switch to OFF. Wait 30 seconds.
5. Turn cabinet power switch to ON.
6. Select the *Bust-a-Move Frenzy™* restore version from the menu and follow on screen instructions
7. If recovery does not begin, check to ensure USB Drive is inserted correctly and is not damaged.
8. Initial software loading may take several minutes. Check progress periodically.
Do not interrupt power or reset the game during recovery.
9. When software has been loaded, a message indicates that restore is complete. When instructed to remove USB Drive, wait 15 seconds to remove the drive from the PC.
10. Turn cabinet power switch off and then turn the cabinet on again. Your game will now be restored.

Troubleshooting

Warning: Review the Safety section before making any adjustments to the game.

Problem	Possible Cause	Solution
Game will not power up.	Game not plugged in.	Plug game into AC outlet.
	Game not turned on.	Turn on main power switch.
	Game fuse is blown.	Check and replace fuse. See Specification section for fuse values.
	No power to receptacle.	Test AC outlet and plug game into powered outlet.
	PC BIOS set incorrectly.	See BIOS Settings section.
	Flash Drive Installer is left connected to PC.	Disconnect Flash Drive Installer and power cycle the game.
Buttons do not work.	Faulty micro switch.	Replace the micro switch on the joystick/button and re-test. Verify that the wires are connected to the correct spades on the micro switch.
	Faulty wiring.	Disconnect the cabinet from AC power. Verify that all wires are firmly connected to each joystick/button and the PCB. Verify that no wires are frayed or improperly shorting to ground. Verify that wires are connected to the correct spades on the micro switches.
	Faulty PCB.	Ensure all connections to PCB are secure. Replace PCB if faulty.

Problem	Possible Cause	Solution
<p>Neither buttons nor audio work.</p>	<p>PCB connected to faulty USB port (boot message may indicate not detected)</p>	<p>To test a USB port, turn off the game, disconnect the device from the port, and then connect the game dongle to the port. Reboot the game. A No Dongle message indicates the port is bad. If the game starts, the port is working. After the test, reconnect all devices to the correct USB ports and reboot.</p>
<p>No sound or bad sound.</p>	<p>Bad connection.</p>	<p>Check connection to speakers.</p>
	<p>Volume set too low.</p>	<p>Use VOL UP button on Test panel to raise volume</p>
	<p>Faulty wiring.</p>	<p>Verify all wires are firmly connected to the speakers, PCB, and green computer audio port. Verify that each wire is connected to the correct port and no wires are frayed or improperly shorting to ground.</p>
	<p>Blown speakers.</p>	<p>Remove the grill and inspect each speaker for visible damage. Run the Sound Test from System Tests in the Operator Menu to verify each speaker is working.</p>
	<p>Reversed wires.</p>	<p>A weak or low muffled sound is a sign of reversed speaker wires. Check for reversed wires on each speaker.</p>
<p>Faulty PCB.</p>	<p>To verify audio is working at the computer, connect stereo headphones to the green computer audio port.</p>	

Problem	Possible Cause	Solution
Constant low audio hum.	Faulty power supply.	Check external DC supply and the PC supply.
	Open ground.	Check all ground wires in cabinet. Ensure AC wall outlet is properly grounded
Game does not load.	PC hard drive failure.	Recover hard drive. See Flash Installer Document or contact your distributor for the latest software revision.
PC Drive test reports “bad” or “missing” files.		
Game fails to finish loading.		
After resetting, game still reports an error.		
Erratic game mode or attract mode.		
WARNING! Data files Corrupted. (Game Operation May Become Unstable.) Use “Test” Switch to Enter Test Mode and Run “File Test.”		
Game Resets	Bad file.	Run Flash Installer.
No Video	PC not turned on.	Turn PC power switch on. Ensure IEC cable tightly plugged in. Trace cable back to source to ensure continuity.
	Video cable not secure.	Check and secure DVI or HDMI connector to Monitor. Check and secure DVI or HDMI connector to PC.
	Network cable missing or not secure between LED controller card and RJ45 Network jack.	With the cabinet AC power, off and the line cord removed, check the Ethernet cable between the LED controller card (Port “U”) and the RJ45 Network jack on the inside of the cabinet.
	Faulty RJ45 pass-through Network jack.	Replace jack.

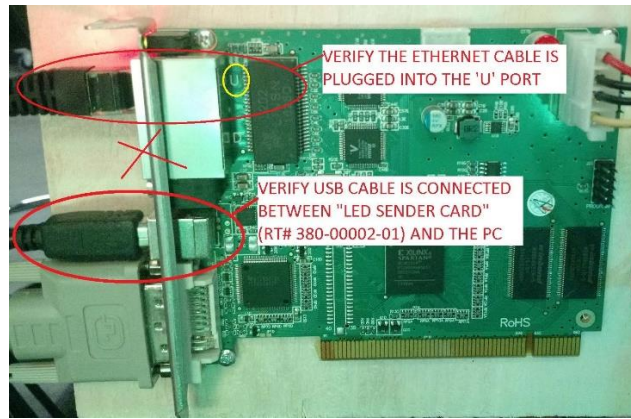
Problem	Possible Cause	Solution
Coin meter does not click during test.	No pulse to meter.	Check wiring from meter to PCB board.
	Faulty meter.	Replace coin meter.
	Blown fuse(s) on PCB	Replace 12vdc 5A fuse(s) on PCB.
Dongle Not Present	Dongle missing or disconnected.	Find dongle cable and reseal in USB port.
	Faulty USB port.	Insert dongle cable in different USB port.
Improper number of credits given when coins or bills are inserted.	Incorrect setting in Pricing Adjustments.	Adjust pricing settings.
	Faulty wiring.	Disconnect cabinet from AC power. Verify wires are firmly connected to coin mech and bill validator and ground wires are properly connected. Verify no wires are frayed or shorting to ground.
	Faulty coin mech.	Verify coin mech is not jammed. Ensure coin mech is properly aligned and latched to coin door.
Exits Test Mode every 3 seconds.	Test button stuck in ON position.	Slide or toggle button off after Test Menu appears
Connect RIO Board or RIO Board Missing.	USB cable disconnected.	Check USB connection from PC to RIO board.
	No Power to RIO board.	Check for proper voltage (+5V, +12V) at RIO P1 connector.
Defective single pixel.	Defective LED module.	Tap gently on defective pixel.
		Replace LED module.
Several Defective pixels, but not all in same row or column.	Defective LED module.	Replace LED module.

Problem	Possible Cause	Solution
<p>Entire row or column of defective pixels.</p>	<p>Faulty data transmission.</p>	<p>Check ribbon cable between malfunctioning module and module to the left (from the back).</p>
		<p>Check/replace module to the left (from the back).</p>
		<p>If module is left-most in quadrant (from the back):</p> <ul style="list-style-type: none"> • Check ribbon cable between module and LED display controller. • Check quadrant LED display controller.
	<p>Defective LED module.</p>	<p>Replace LED module.</p>
<p>Entire module malfunctioning.</p>	<p>Faulty data transmission.</p>	<p>Check ribbon cable between malfunctioning module and module to the left (from the back).</p>
		<p>Check/replace module to the left (from the back).</p>
		<p>If module is left-most in quadrant (from the back):</p> <ul style="list-style-type: none"> • Check ribbon cable between module and LED display controller. • Check quadrant LED display controller.
	<p>Bad power.</p>	<p>Check power connection to LED module.</p>
		<p>Check quadrant fuse block for blown fuse.</p>
	<p>Defective LED module.</p>	<p>Replace LED module.</p>

Screen Note 1: *Bust-a-Move Frenzy™* uses over 65,000 LEDs on its giant screen. It is normal for a few LEDs to fail over the course of operating the game. This will not affect normal operation or viewing of the game and most will not be noticeable to the eye.

Screen Note 2: This manual is accompanied by a separate document: "LED Display (P7.62 Version) Full Assembly and Service Procedure". Please refer to this document when servicing and troubleshooting the LED display. Additional information regarding the latest version of software and documents can also be found on our website: www.rawthrills.com

Screen Note 3: If the ethernet cable is plugged into the incorrect port, it can cause errors to occur. Make sure that the USB cable is plugged in and the ethernet cable is plugged into the "U" port. See diagram below:



Advertising Image Troubleshooting

Error	Solution
USB device not connected.	Check your USB drive to ensure it is properly connected. Also, check to make sure your USB drive can be read on other devices. Ensure the coin door USB connection able to the PC inside the cabinet did not become disconnected or dislodged.
Incorrect resolution detected	Please check the resolution of the image that you are trying to upload. Recommended image size is 224 x288 pixels.
No images on flash drive in Ad Select screen	Check to make sure your files have properly loaded on to your flash drive and ensure that they are in the proper .PNG, .TGA, .JPG, JPEG, or .GIF format.
Files missing from Ad Select screen when the Ad Select screen has more than 1 page	Please remove some files on your flash drive and check to make sure you do not have more than 1500 image files on the USB flash drive.

FAQ

Q: What exactly is attract mode?

A: Attract mode is a pre-recorded demonstration of the gameplay that is displayed when the game is not being played. Additionally, the attract mode cycles through the title screen, epilepsy warning screen, various hint screens, and user loaded advertisements.

Q: Why do the guns need to be calibrated?

A: If the guns aren't calibrated the game will not be playable and earnings will be affected. It is important to calibrate the guns on initial setup as well as anytime the game is moved or the guns are repaired, replaced, or swapped.

Q: Do I need to download updates?

A: At present we do not offer software updates via download. Please visit www.rawthrills.com/media/ or contact your local distributor for more information regarding software updates.

Q: Where can I get software updates?

A: Please visit www.rawthrills.com/media/ or contact your local distributor for more information.

Q: Does this game come with a Ticket Dispenser?

A: *Bust-a-Move Frenzy™* does come equipped with ticket dispensers.

Q: Can I advertise on the screen?

A: You can advertise on the screen. Ad files can be loaded via the test menu and should be 224px x288px (acceptable formats: TGA, PNG, JPG, JPEG, and GIF). There are 4 available slots for ads.

Q: What is an E-Ticket?

A: An e-ticket, or electronic ticket, is a digital ticket that is captured via an electronic card system. As tickets are awarded during gameplay, they are added directly to the players card account in lieu of dispensing paper tickets.

Q: How do I pull an earnings report?

A: You are able to view the earnings from the Audits menu. Additionally, you may copy the audits to a USB drive from the Utilities menu.

Q: How do I register my game?

A: A registration postcard is provided that can be filled out and dropped in the mail. Additionally, you may visit www.rawthrills.com/gameregistration/ to fill out the online registration form.

Q: Does this game use QR codes and what do they do?

A: *Bust-a-Move Frenzy™* does not use QR codes.

Technical Support

For an authorized distributor near you, check the Raw Thrills website at www.rawthrills.com

Betson's Raw Thrills Technical Support Hotline

Phone: 1-800-753-2513

FAX: 1-201-438-5019

Email: rtsupport@betson.com

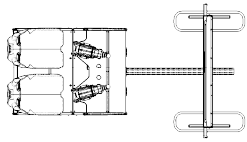


Assembly and service videos:

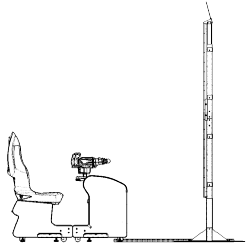


rawthrills.com/assembly-and-service-videos/

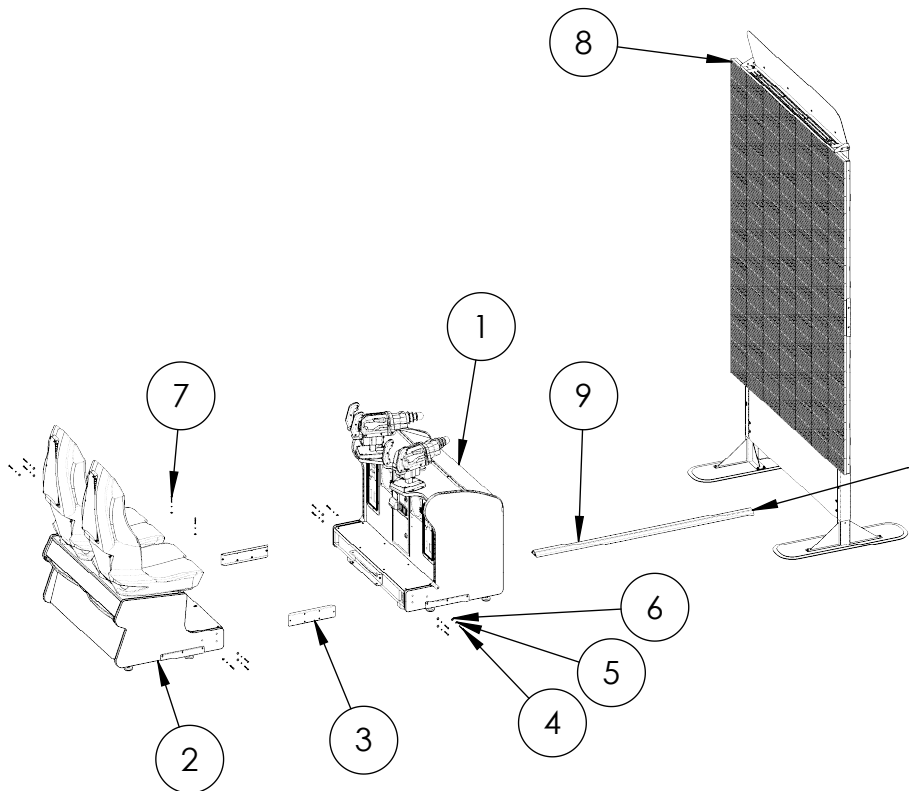
Electrical and Mechanical Illustrations



ASSEMBLED DIMENSIONS:
 120.0" H x 68.0" W x 100.0" D (min.)
 -120" D shown-



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Bust-A-Move_Control_Assembly	Control Cabinet Assembly	1
2	Bust-A-Move_Pedestal_Assembly	Pedestal Cabinet Assembly	1
3	600-01457-01	Cabinet Connect Bracket	2
4	Partec - 31-TP250-03-004	Black-Oxide Alloy Steel Tamper-Resistant Button Head Torx Screws, 1/4"-20 Thread, 2" Long	12
5	McMaster-Carr - 93711A500	Black-Oxide 18-8 Stainless Steel Split Lock Washer for 1/4" Socket Head Screws, 0.26" ID, 0.363" OD	14
6	McMaster-Carr - 97416A119	Black-Oxide Steel SAE Washer for 1/4" Screw Size, 0.281" ID, 0.625" OD	14
7	McMaster-Carr - 96075A231	Black-Oxide Alloy Steel Tamper-Resistant Button Head Torx Screws, 1/4"-20 Thread, 1-1/2" Long	2
8	Bust-A-Move_P7.62_LED_Wall_Assy	LED Wall Display Assembly w/ Marquee and Lower Sign	1
9	Partec - 7-250	Cord Protector Channel, Split, 5 ft Long	1



Install network cable for LED wall display into cord protector and secure with supplied carpet tape. Channel may be cut to shorter length as needed. Additional or alternative tape may be needed to properly secure to floor, depending on location.

Bust-A-Move Frenzy Game Assembly



NOT SHOWN:

> SELECTIVE HARDWARE

> P1 & P2 GUN DECALS

>> PART NUMBERS ON NEXT PAGE

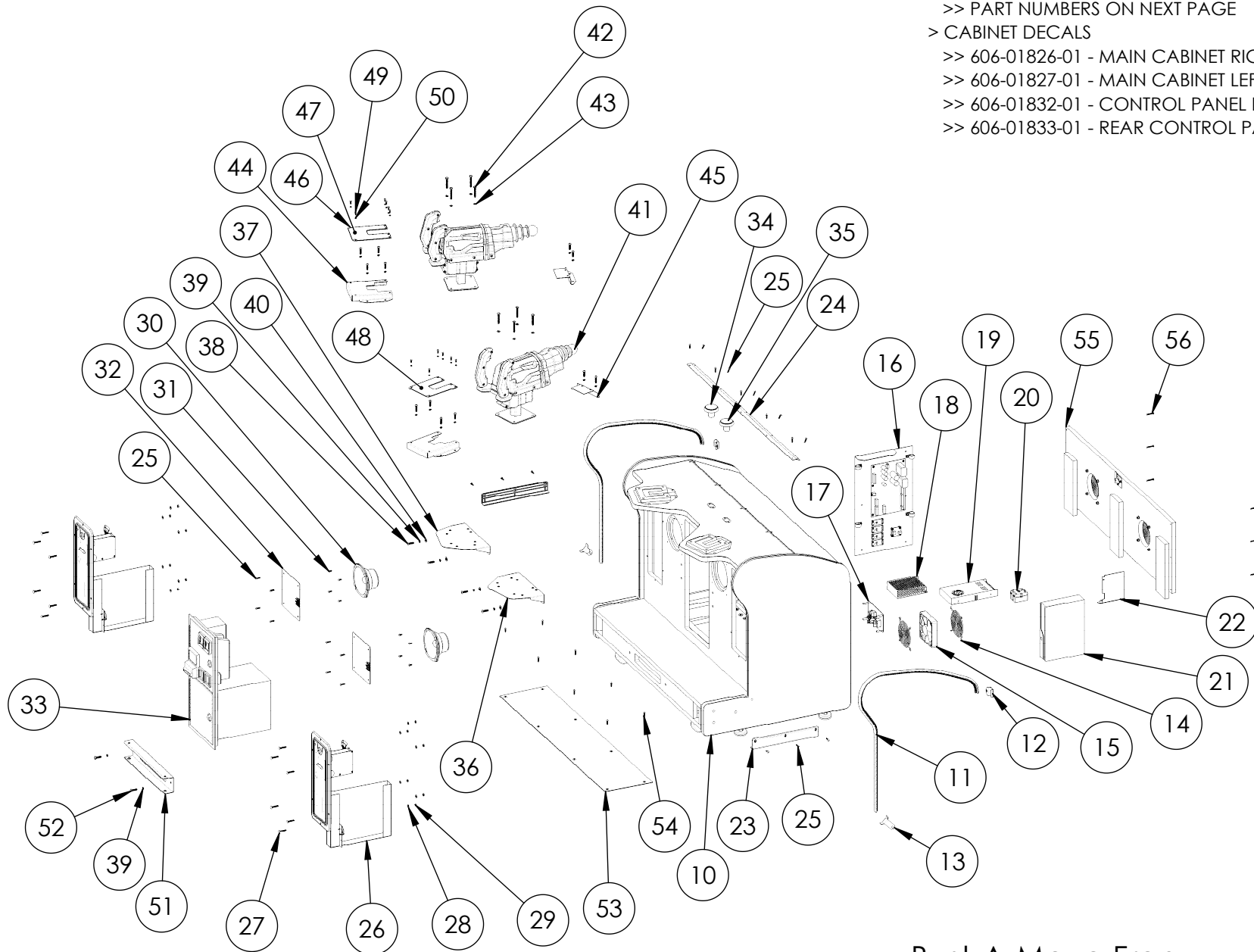
> CABINET DECALS

>> 606-01826-01 - MAIN CABINET RIGHT DECAL

>> 606-01827-01 - MAIN CABINET LEFT DECAL

>> 606-01832-01 - CONTROL PANEL DECAL

>> 606-01833-01 - REAR CONTROL PANEL DECAL



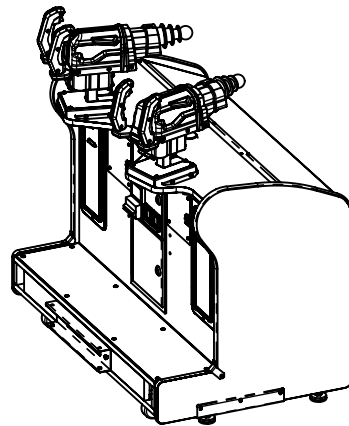
Bust-A-Move Frenzy
Control Cabinet Assembly
(BOM on next page)



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
10	601-00908-01	Main Cabinet	1
11	603-00718-01 (47.5in)	LEDE T-Molding Extrusion - 47.5" (& CA-4231 - 500-00131-01: 1x 120CM)	2
12	600-01938-01	LED T-Molding Clip	2
13	600-01939-01	Flanged LED T-Molding Clip	2
14	800-00001-00	120mm Wire Fan Guard	2
15	Partec - CA-3277	Cooling Fan (standard size): 12VDC, 3W, 80CFM (820-00012-00)	1
16	Bust-A-Move_RIO_Assy	RIO Assembly w/ Mounting Plate	1
17	AC_Plate_Assy	AC Power Plate Sub-Assembly inc. RJ45F coupler	1
18	330-00002-01	LRS-150F-24: 150W, 24V Low Leakage Power Supply	1
19	500-00193-01	RSP-320-12: 320W, 12V PFC Dual Voltage Power Supply	1
20	800-00040-01	6210AXXSZS-DC3 / 6210DSX-1: Solid State Relay	1
21	850-00024-01	Fujitsu PC (IMP-3313-S4-4G-HD)	1
22	380-00002-01	LED Control Card	1
23	603-01002-01	12" Clear T-Molding Clip	2
24	600-01944-01	Cabinet Seam Plate	1
25	Partec - 31-TP008-03-003	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, Black Oxide Steel, Number 8 Size, 3/4" Long	24
26	800-00043-01	Single Ticket Dispenser Door Assembly	2
27	Partec - 31-CB010-03-002	Black Oxide Steel Square-Neck Carriage Bolt, Low-Strength, 10-24 Thread Size, 1-1/4" Long	12
28	McMaster-Carr - 91090A103	Zinc-Plated Steel Oversized Washer for Number 10 Screw Size, 0.203" ID, 0.5" OD	12
29	McMaster-Carr - 90675A011	Steel Locknut with External-Tooth Lock Washer, Zinc-Plated, 10-24 Thread Size	12

PLAYER 1 GUN DECALS:

- > 606-01809-01 - P1 Gun Upper Left Decal
- > 606-01810-01 - P1 Gun Lower Left Decal
- > 606-01811-01 - P1 Gun Small Lower Left Decal
- > 606-01812-01 - P1 Gun Upper Right Decal
- > 606-01813-01 - P1 Gun Lower Right Decal
- > 606-01814-01 - P1 Gun Small Lower Right Decal
- > 606-01815-01 - P1 Gun Grip Plate Decal



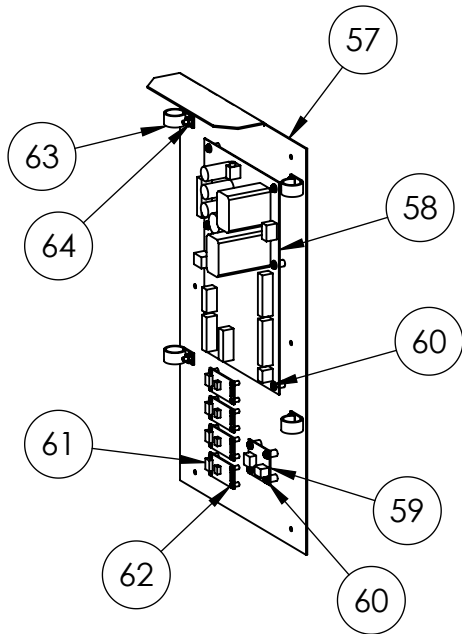
PLAYER 2 GUN DECALS:

- > 606-01816-01 - P2 Gun Upper Left Decal
- > 606-01817-01 - P2 Gun Lower Left Decal
- > 606-01818-01 - P2 Gun Small Lower Left Decal
- > 606-01819-01 - P2 Gun Upper Right Decal
- > 606-01820-01 - P2 Gun Lower Right Decal
- > 606-01821-01 - P2 Gun Small Lower Right Decal
- > 606-01822-01 - P2 Gun Grip Plate Decal

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
30	2-1-10-00-00-000	5.25" Speaker, 8 Ohm Full Range (Goldwood)	2
31	McMaster-Carr - 90935A194	Phillips Rounded Head Screws for Sheet Metal, Black-Oxide Steel, Number 8 Size, 1/2" Long	8
32	600-01464-01	Speaker Grill	2
33	Partec - AS-2565	Mid-Width Coin Door (800-00005-01) Assembly w/ Test Switches and Ticket Meter	1
34	702-00007-01	Large Round Green IPB (.187 Gold MS, 6V White LED)	1
35	702-00019-01	Large Round Blue IPB (.187 Gold MS, 6V White LED)	1
36	600-01912-01	Gun Gusset Bracket R	1
37	600-01913-01	Gun Gusset Bracket L	1
38	McMaster-Carr - 96075A223	Black-Oxide Alloy Steel Tamper-Resistant Button Head Torx Screws, 1/4"-20 Thread, 1" Long	16
39	McMaster-Carr - 93711A500	Black-Oxide 18-8 Stainless Steel Split Lock Washer for 1/4" Socket Head Screws, 0.26" ID, 0.363" OD	18
40	McMaster-Carr - 97416A119	Black-Oxide Steel SAE Washer for 1/4" Screw Size, 0.281" ID, 0.625" OD	4
41	Bust-A-Move_Gun Mech Assy (Partec - AS-3078)	Bust-A-Move Gun Mech	2
42	McMaster-Carr - 92865A548	Medium-Strength Grade 5 Steel Hex Head Screw, Zinc-Plated, 1/4"-20 Thread Size, 1-3/4" Long, Fully Threaded	8
43	McMaster-Carr - 91102A750	Zinc-Plated Steel Split Lock Washer for 1/4" Screw Size, 0.26" ID, 0.487" OD	8
44	600-01936-01	Gun Plate Rear	2
45	600-01937-01	Gun Plate Front	2
46	600-01486-01	Dash Gun Cover Plate	2
47	606-01807-01	Player 1 Gun Plate Decal	1
48	606-01808-01	Player 2 Gun Plate Decal	1
49	McMaster-Carr - 96075A139	Black-Oxide Alloy Steel Tamper-Resistant Button Head Torx Screws, 8-32 Thread, 1/2" Long	12
50	McMaster-Carr - 93711A300	Black-Oxide 18-8 Stainless Steel Split Lock Washer for Number 8 Socket Head Screws, 0.174" ID, 0.267" OD	12
51	600-01458-01	Center Connect Bracket	1
52	McMaster-Carr - 92865A542	Medium-Strength Grade 5 Steel Hex Head Screw, Zinc-Plated, 1/4"-20 Thread Size, 1" Long	2
53	600-01992-01	Main Cabinet Tread Plate	1
54	McMaster-Carr - 95638A197	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, 18-8 Stainless Steel, Number 8 Size, 3/4" Long	8
55	Bust-A-Move_Back_Door_Assy	Back Door Assembly	1
56	McMaster-Carr - 90190A201	Phillips Rounded Head Screws for Sheet Metal, Zinc-Plated Steel, Number 8 Size, 1-1/4" Long	6

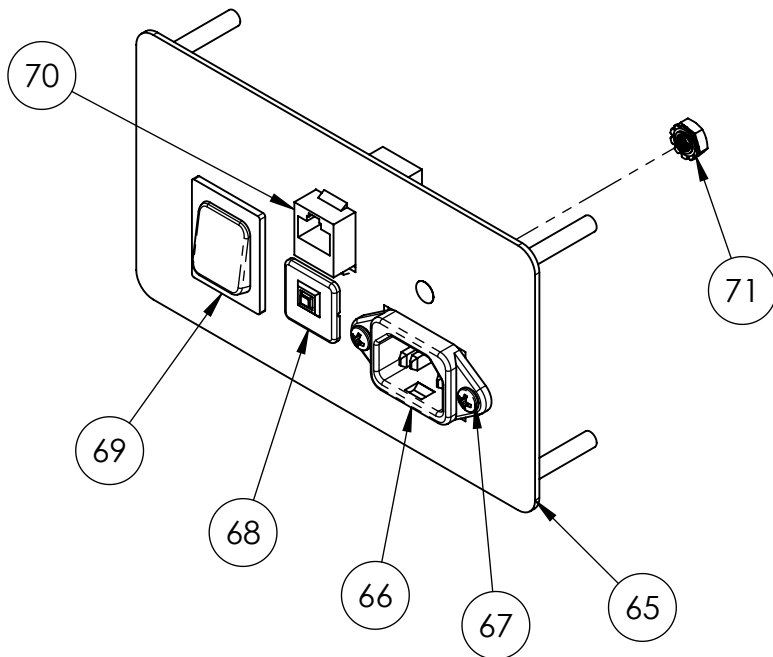
Bust-A-Move Frenzy Control Cabinet Assembly BOM





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
57	600-01914-01	RIO Mounting Plate	1
58	500-00040-02	RIO PCB	1
59	500-00194-01	5V, 5A Switching Regulator PCB (12V input)	1
60	McMaster-Carr - 90316A192	Stainless Steel Flanged Hex Head Screws with Slotted Drive, 8-32 Thread Size, 3/8" Long	10
61	520-00024-01	Aliens / Terminator Deluxe Gun Kickboard	4
62	McMaster-Carr - 90272A106	Steel Pan Head Phillips Screws, 4-40 Thread, 1/4" Long	16
63	AEH - 04-12-750	Wire Harness Clip (for 3/4" Bundle Diameter)	4
64	McMaster-Carr - 90675A009	Steel Locknut with External-Tooth Lock Washer, Zinc-Plated, 8-32 Thread Size, 1 1/32" Wide	4

Bust-A-Move Frenzy RIO Assembly w/ Mounting Plate

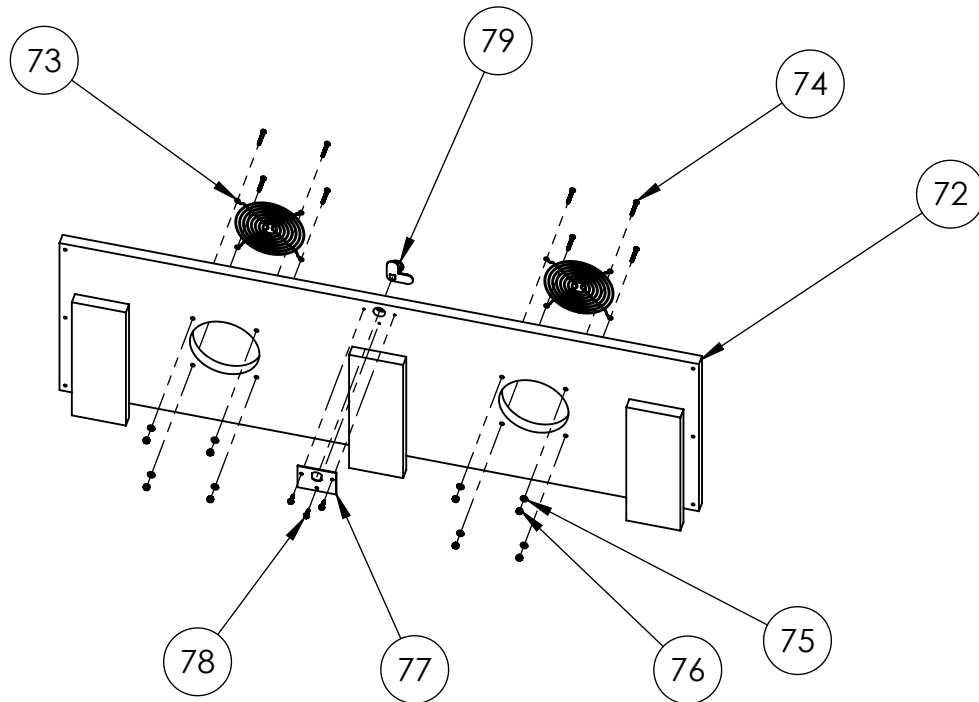


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
65	600-01754-01	AC Electronics Plate	1
66	Qualtek - 703W-00/08	AC Receptacle: 250V, 15A	1
67	McMaster-Carr - 90272A146	Steel Pan Head Phillips Screws, 6-32 Thread, 3/8" Long	2
68	Schurter - T9-611P-A	Thermal Circuit Breaker: 240VAC, 6A, Snap-in, Fuseholder, 1 Pole	1
69	Marquardt - 1832.3312	Rocker Switch (DPST): 250VAC, 16A	1
70	Cable Matters - 180030x5-BLK	Cat6 RJ45 Keystone Jack, In-Line Coupler	1
71	McMaster-Carr - 90675A195	Steel Locknut with External-Tooth Lock Washer, Zinc-Plated, 10-32 Thread Size	1

Bust-A-Move Frenzy AC Power Plate Sub-Assembly inc. RJ45 couple



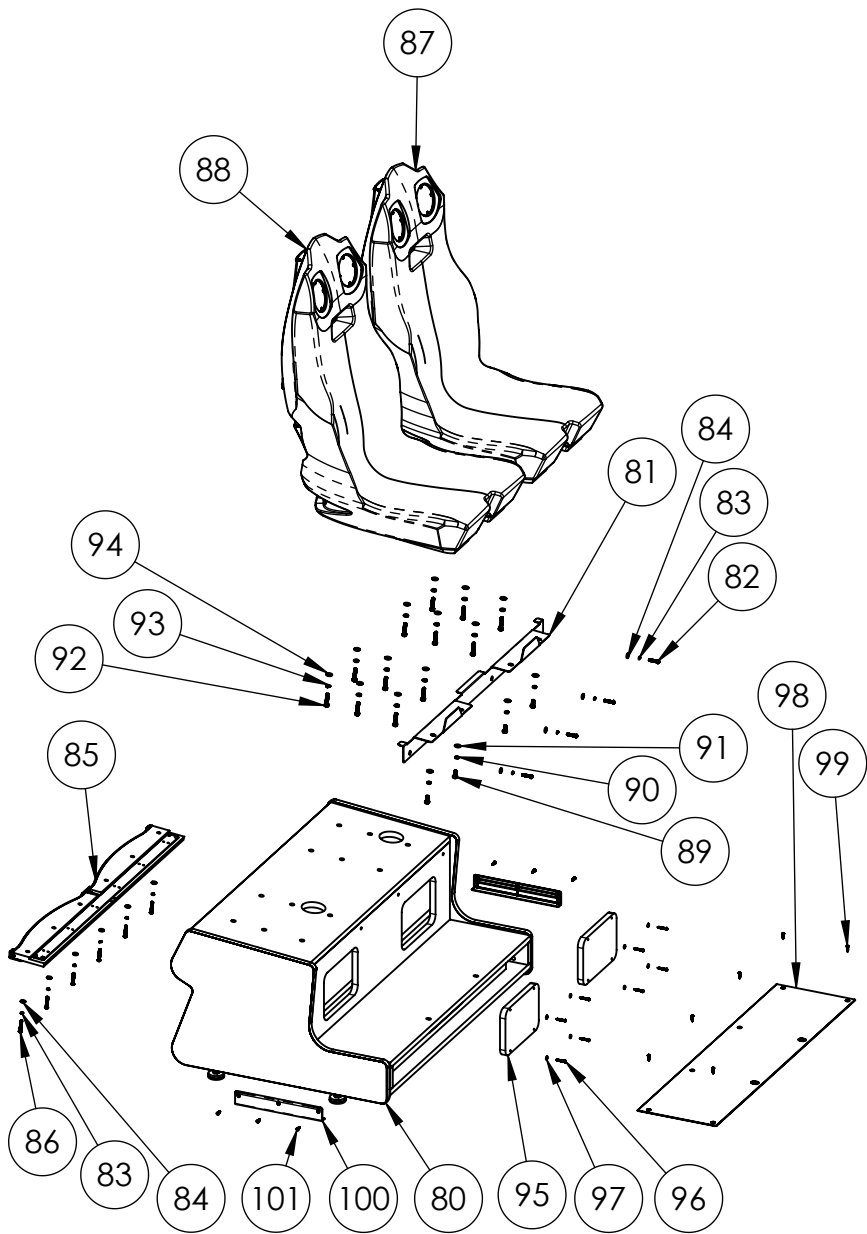
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
72	601-00780-01	Back Door	1
73	800-00001-00	120mm Wire Fan Guard	2
74	Partec - 31-MS008-01-009	Zinc Plated Steel Pan Head Phillips Screw, 8-32 Thread, 1-1/8" Long	8
75	McMaster-Carr - 90126A512	Zinc-Plated Steel SAE Washer for Number 8 Screw Size, 0.188" ID, 0.438" OD	8
76	McMaster-Carr - 90631A009	Low-Strength Steel Nylon-Insert Locknut, Zinc-Plated, 8-32 Thread Size	8
77	600-00043-01	Lock Retainer Plate	1
78	McMaster-Carr - 90054A196	Flanged Hex Head Screws for Sheet Metal, Zinc-Plated Steel, Number 8 Size, 5/8" Long	3
79	150-00001-00	Standard Door Lock Assembly (for 3/4" Panels)	1



Bust-A-Move Frenzy
Back Door Assembly

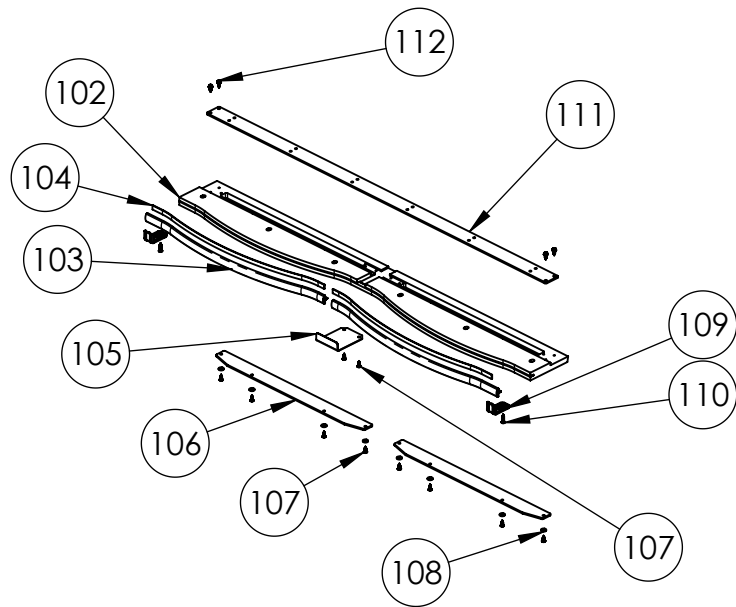


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
80	601-00909-01	Seat Cabinet	1
81	600-01915-01	Seat Mount Bracket	1
82	Partec - 31-TP250-03-001	Black Oxide Steel Tamper-Resistant Button Head Torx Screws, 1/4"-20 Thread Size, 1-1/4" Long	4
83	McMaster-Carr - 93711A500	Black-Oxide 18-8 Stainless Steel Split Lock Washer for 1/4" Socket Head Screws, 0.26" ID, 0.363" OD	10
84	McMaster-Carr - 97416A119	Black-Oxide Steel SAE Washer for 1/4" Screw Size, 0.281" ID, 0.625" OD	10
85	Bust-A-Move_Rear_Seat_LED_Cap_Assy	Rear Seat LED Cap Assembly	1
86	Partec - 31-TP250-03-005	Black-Oxide Alloy Steel Tamper-Resistant Button Head Torx Screws, 1/4"-20 Thread, 1-1/2" Long	6
87	Bust-A-Move_Seat_Assy_P1	Player 1 Seat Assembly	1
88	Bust-A-Move_Seat_Assy_P2	Player 2 Seat Assembly	1
89	McMaster-Carr - 92965A581	Black-Oxide Grade 5 Steel Hex Head Screws, Medium-Strength, 5/16"-18 Thread Size, 3/4" Long	4
90	McMaster-Carr - 93711A600	Black-Oxide 18-8 Stainless Steel Split Lock Washer for 5/16" Socket Head Screws, 0.322" ID, 0.457" OD	4
91	McMaster-Carr - 96765A145	Black-Oxide 18-8 Stainless Steel Washer for 5/16" Screw Size, 0.344" ID, 0.75" OD	4
92	McMaster-Carr - 92865A587	Medium-Strength Grade 5 Steel Hex Head Screw, Zinc-Plated, 5/16"-18 Thread Size, 1-1/2" Long, Fully Threaded	12
93	McMaster-Carr - 91102A755	Zinc-Plated Steel Split Lock Washer for 5/16" Screw Size, 0.322" ID, 0.583" OD	12
94	McMaster-Carr - 92141A030	18-8 Stainless Steel Washer for 5/16" Screw Size, 0.344" ID, 0.75" OD	12
95	601-00783-01	Seat Access Panel	2
96	Partec - 31-TP008-03-002	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, Black Oxide Steel, Number 8 Size, 1-1/4" Long	8
97	McMaster-Carr - 97416A113	Black-Oxide Steel SAE Washer for Number 8 Screw Size, 0.188" ID, 0.438" OD	8
98	600-01993-01	Seat Cabinet Tread Plate	1
99	McMaster-Carr - 95638A197	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, 18-8 Stainless Steel, Number 8 Size, 3/4" Long	6
100	603-01002-01	12" Clear T-Molding Clip	2
101	Partec - 31-TP008-03-003	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, Black Oxide Steel, Number 8 Size, 3/4" Long	6



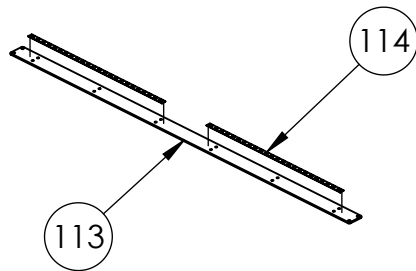
Bust-A-Move Frenzy Pedestal Cabinet Assembly





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
102	601-00782-01	LED Cap Panel	1
103	603-00718-01 (20.5in)	LED T-Molding Extrusion - 20.5"	2
104	Partec - CA-4514	LED Cap T-Molding Cable (500-00131-01: 2x 50cm)	1
105	600-01744-01	LED Cap Bracket	1
106	603-00805-01	LED Cap Lens	2
107	Partec - 31-TP008-03-010	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, Black Oxide Steel, Number 8 Size, 1/2" Long	10
108	McMaster-Carr - 97416A113	Black-Oxide Steel SAE Washer for Number 8 Screw Size, 0.188" ID, 0.438" OD	8
109	603-01001-01	1" Clear T-Molding Clip	2
110	Partec - 31-TP008-03-003	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, Black Oxide Steel, Number 8 Size, 3/4" Long	2
111	Bust-A-Move_Rear_Seat_LED_Assy	Rear Seat LED Assembly	1
112	McMaster-Carr - 90054A194	Flanged Hex Head Screws for Sheet Metal, Zinc-Plated Steel, Number 8 Size, 1/2" Long	4

Bust-A-Move Frenzy Rear Seat LED Cap Assembly

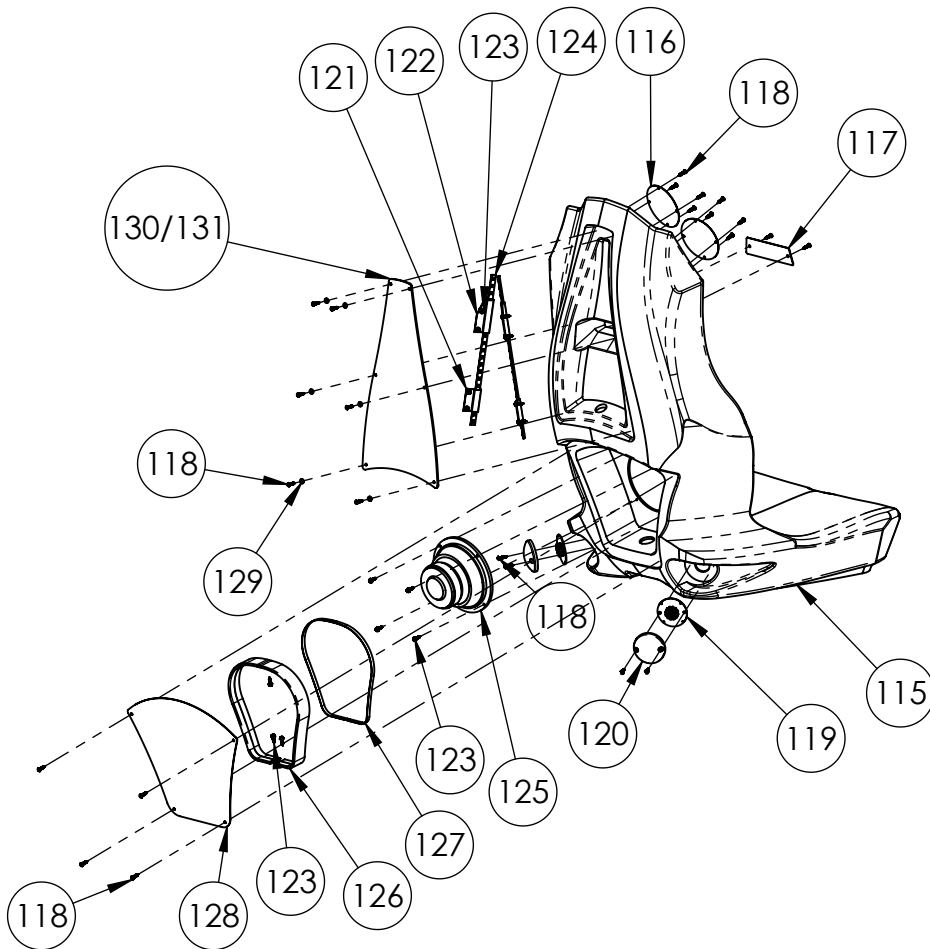


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
113	603-00806-01	LED Cap Back	1
114	Partec - CA-4515	LED Cap Down Lighting Cable (500-00162-01: 2x 40cm)	1

Bust-A-Move Frenzy Rear Seat LED Assembly



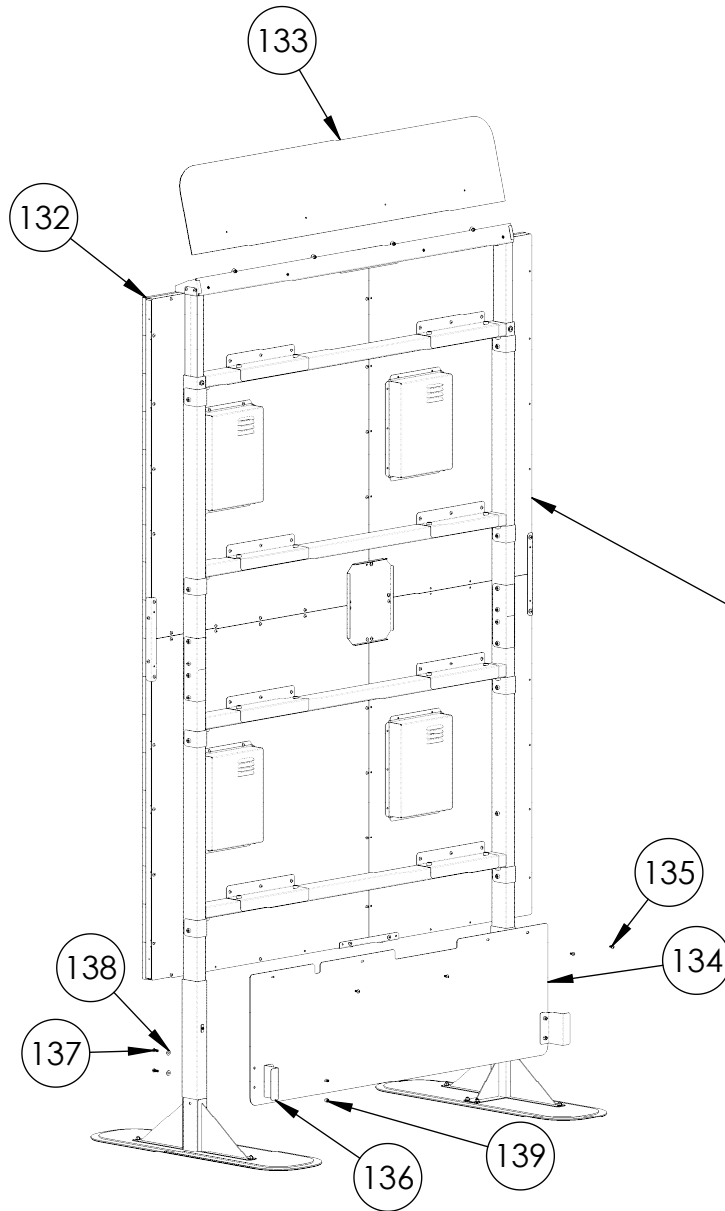
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
115	603-01008-01	Green Plastic Seat	1
116	600-00105-01	Seat Headrest Grill	2
117	600-00620-01	Middle Seat Plate	1
118	Partec - 31-TP008-03-003	Tamper-Resistant Torx Rounded Head Screws for Sheet Metal, Black Oxide Steel, Number 8 Size, 3/4" Long	24
119	500-00065-01	LED Puck Light Red w/ Black Face	2
120	603-00540-01	LED Spotlight Lens - Red Tint	2
121	603-00762-01 (2in)	LED Strip Holder Extrusion - 2"	2
122	603-00762-01 (3in)	LED Strip Holder Extrusion - 3"	2
123	McMaster-Carr - 90054A196	Flanged Hex Head Screws for Sheet Metal, Zinc-Plated Steel, Number 8 Size, 5/8" Long	15
124	Partec - CA-4455	Seatback LED Cable (500-00093-01: 2x 35cm)	1
125	807-00003-00	6.5" Woofer, 4 Ohm (Goldwood)	1
126	603-00762-01 (28in)	LED Strip Holder Extrusion - 28"	1
127	Partec - CA-4510	Seatback Woofer LED Cable (500-00219-01: 1x 70cm)	1
128	600-00106-01	Woofer Grill	1
129	McMaster-Carr - 90133A013	Oil-Resistant Neoprene Rubber Sealing Washer for Number 10 Screw Size, 0.17" ID, 0.375" OD	6
P1 Seat Marquee - GREEN "Bub"			
130	606-01823-01	P1 Seat Marquee PETG	1
P2 Seat Marquee - BLUE "Bob"			
131	606-01824-01	P2 Seat Marquee PETG	1



Bust-A-Move Frenzy
Seat Assembly
(unique seat marquee for P1 & P2)



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
132	Extended_Height_P7.62_LED_Wall_Assy	Full LED Wall Assembly inc. P7.62 Panels & Height Extensions & Marquee	1
133	606-01825-01	Printed Marquee Panel	1
134	606-01834-01	Printed Lower Sign	1
135	McMaster-Carr - 95836A451	Black-Oxide 18-8 Stainless Steel Pan Head Phillips Screws, M5 x 0.80 mm Thread, 12mm Long	4
136	600-02420-01	Marquee Cinch Bracket (w/ 3M 4959 VHB Tape, 1/2" Wide x 3.75")	2
137	McMaster-Carr - 96075A219	Black-Oxide Alloy Steel Tamper-Resistant Torx Rounded Head Screws, 1/4"-20 Thread Size, 3/4" Long	4
138	McMaster-Carr - 97416A119	Black-Oxide Steel SAE Washer for 1/4" Screw Size, 0.281" ID, 0.625" OD	4
139	McMaster-Carr - 91333A150	Low-Strength Steel Nylon-Insert Locknut, Black Ultra-Corrosion-Resistant Coated, 1/4"-20 Thread Size	4



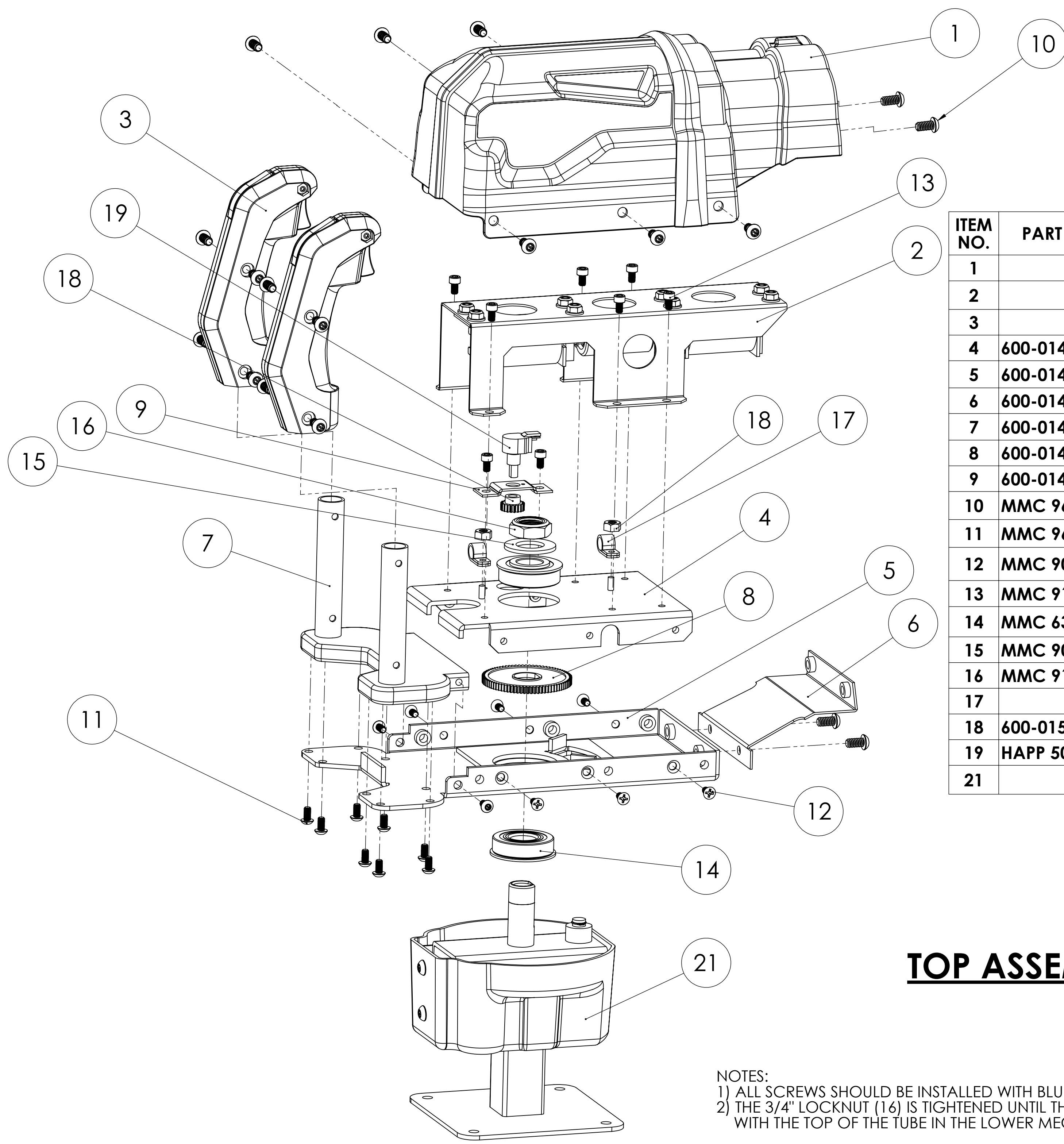
For more information on P7.62 LED Wall Assembly and Service, reference "LED Display Quick Set-up Guide" earlier in this manual as well as separate manual "P7.62 LED Wall Assembly and Service Document" that was included with this game.

Both of these manuals can also be found on Raw Thrills' website: www.rawthrills.com

Bust-A-Move Frenzy LED Wall Display Assembly



REV.	DESCRIPTION	DATE
A	RELEASED	10/18/14
B	REVISED	1/9/15
C	NO CHANGE THIS SHEET	12/14/16



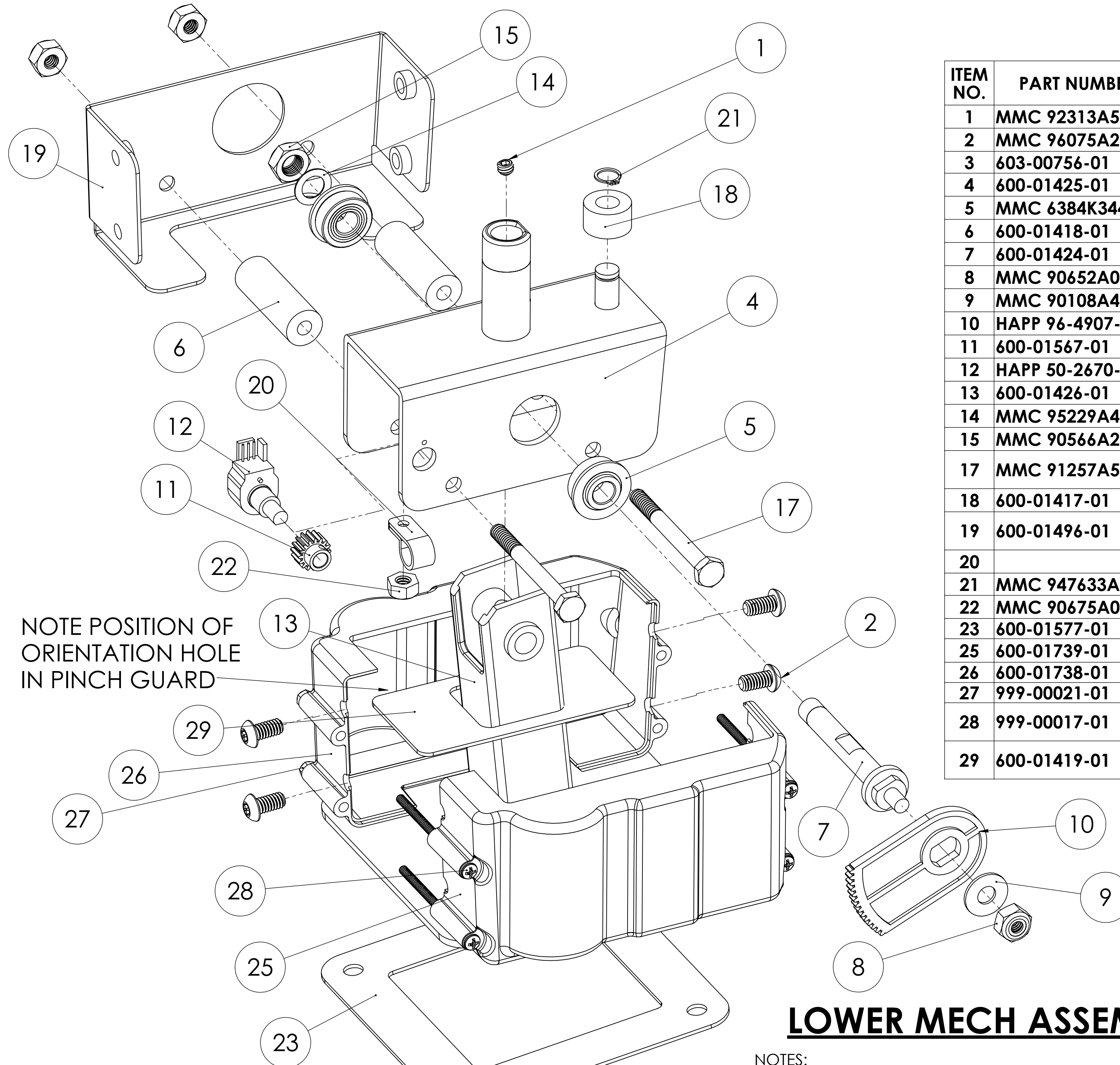
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1		UPPER VACFORM ASSEMBLY	1
2		SHAKER ASSEMBLY	1
3		GRIP ASSEMBLY	2
4	600-01422-01	PIN PLATE	1
5	600-01423-01	COVER BRACKET	1
6	600-01495-01	FRONT VACFORM BRACKET	1
7	600-01411-01	GRIP PLATE WELDMENT	1
8	600-01420-01	LARGE GEAR	1
9	600-01491-01	POT BRACKET	1
10	MMC 96075A211	1/4-20 X 1/2" BLK TP SCREW	18
11	MMC 96075A183	10-32 X 3/8" BLK TP SCREW	10
12	MMC 90273A827	10-32 X 3/8" FLAT HEAD SCREW	6
13	MMC 91251A337	10-32 X 5/16" CAP SCREW	8
14	MMC 6384K369	3/4" FLANGED BEARING	2
15	MMC 90126A036	3/4" WASHER	1
16	MMC 91342A240	3/4" LOCKNUT	1
17		CABLE CLAMP	2
18	600-01567-01	SMALL POT GEAR	1
19	HAPP 50-2670-01	POT - 5K	1
21		LOWER MECH ASSEMBLY	1

TOP ASSEMBLY

NOTES:
 1) ALL SCREWS SHOULD BE INSTALLED WITH BLUE LOCTITE 242 or 243.
 2) THE 3/4" LOCKNUT (16) IS TIGHTENED UNTIL THE TOP IS FLUSH WITH THE TOP OF THE TUBE IN THE LOWER MECH ASSEMBLY (21).

RAW THRILLS INC.	
TITLE:	GUN MAIN ASSEMBLY
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL:
Holes: +.002/-0.000 Angles: ±0.5°	FINISH: SEE NOTES
SHEET 1 of 1	PART NO. _____
	REV. C

REV.	DESCRIPTION	DATE
A	RELEASED	10/18/14
B	REVISED	1/9/15
C	CHANGED TO MOLDED LOWER COVER	12/14/16



NOTE POSITION OF ORIENTATION HOLE IN PINCH GUARD

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MMC 92313A532	1/4-20 x 3/16" SET SCREW	1
2	MMC 96075A211	1/4-20 X 1/2" BLK TP SCREW	4
3	603-00756-01	LOWER VACFORM	1
4	600-01425-01	ROCKER BRACKET	1
5	MMC 6384K344	3/8" FLANGED BEARING	2
6	600-01418-01	TUBE STOP BUMPER - 5/8" OD	2
7	600-01424-01	SIDE PIN	1
8	MMC 90652A029	1/4-20 THIN LOCKNUT	3
9	MMC 90108A413	1/4-20 WASHER	1
10	HAPP 96-4907-00	SEGMENT GEAR	1
11	600-01567-01	POT GEAR	1
12	HAPP 50-2670-01	POT - 5K	1
13	600-01426-01	LOWER TUBE WELDMENT	1
14	MMC 95229A480	3/8" WASHER	1
15	MMC 90566A220	3/8" THIN LOCKNUT	1
17	MMC 91257A552	1/4-20 x 2 1/2 HEX HEAD - GRADE 8	2
18	600-01417-01	SHORT STOP BUMPER - 3/4" OD	1
19	600-01496-01	LOWER VACFORM MOUNTING BRACKET	1
20		CABLE CLAMP	1
21	MMC 947633A170	RETAINING CLIP	1
22	MMC 90675A009	8/32" KEPS NUT	1
23	600-01577-01	GUN ISOLATOR	1
25	600-01739-01	BOTTOM COVER - RIGHT	1
26	600-01738-01	BOTTOM COVER - LEFT	1
27	999-00021-01	6-32 HEX LOCKNUT - BLACK	4
28	999-00017-01	6-32 X 2.5" PHILLIPS HEAD SCREW - BLACK	4
29	600-01419-01	PINCH COVER	1

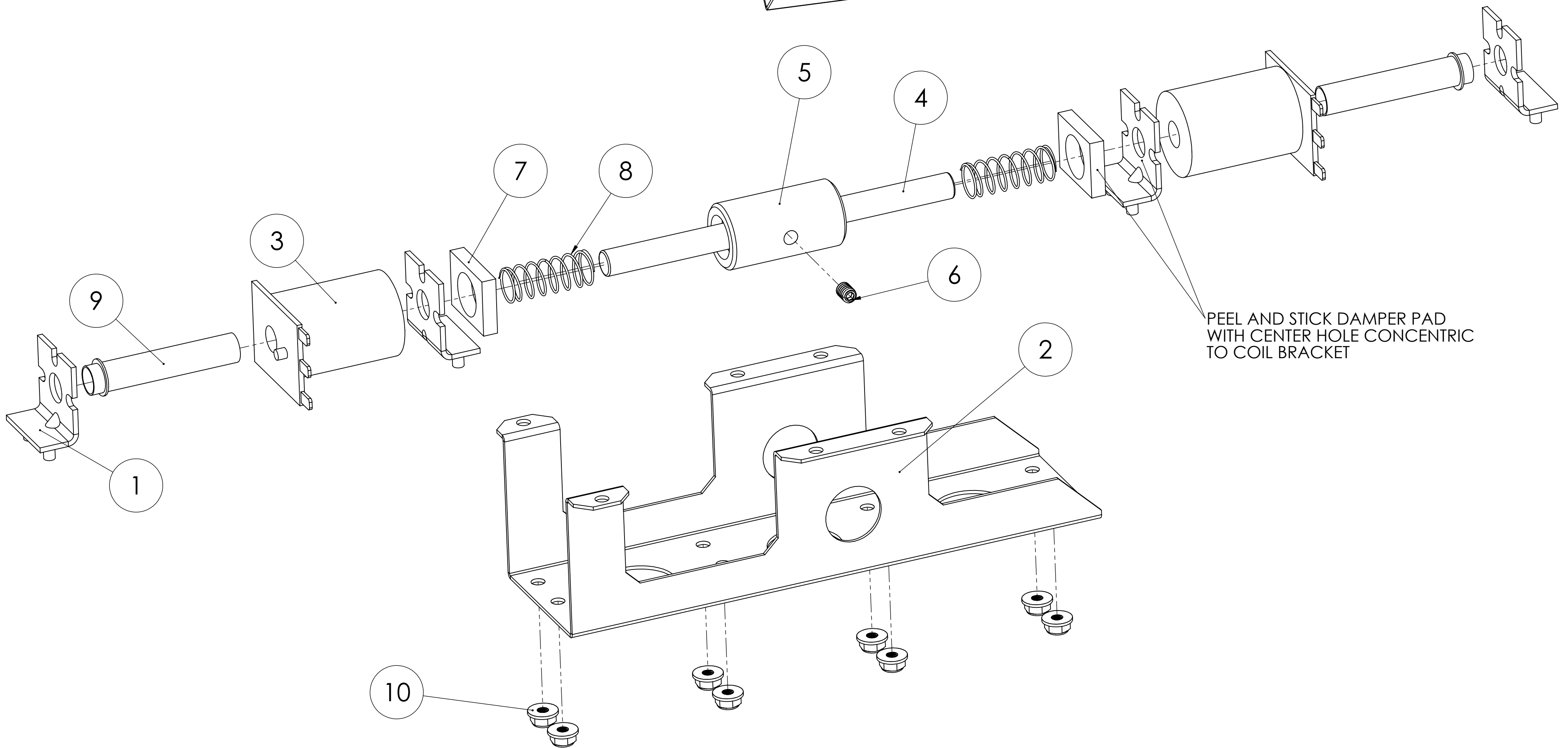
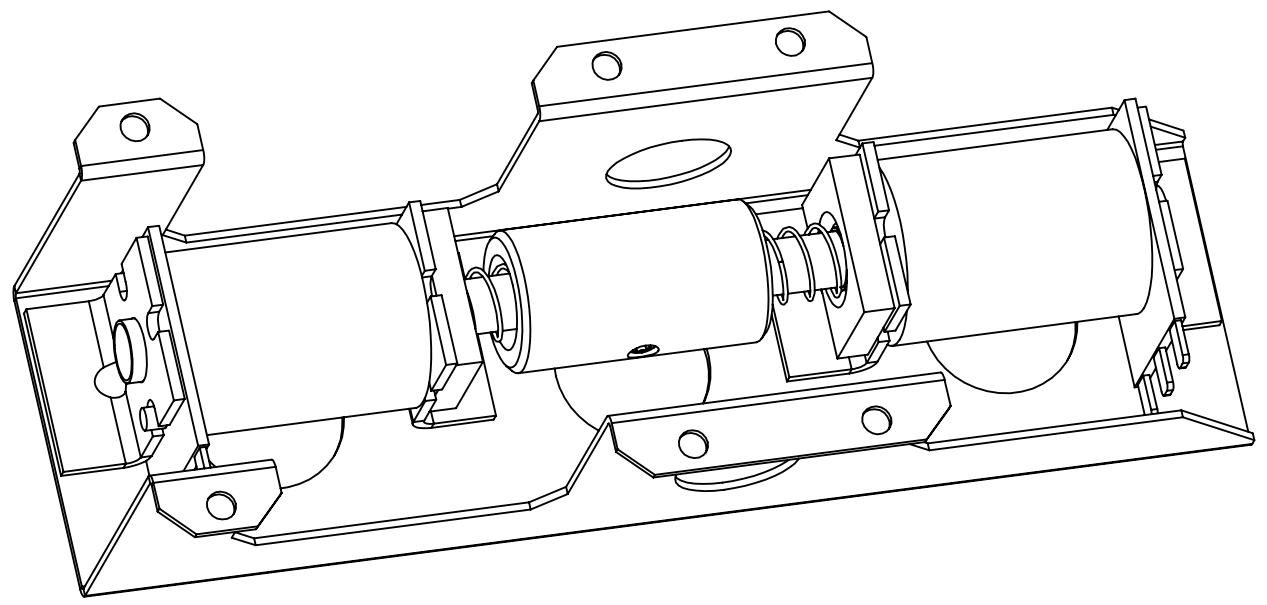
LOWER MECH ASSEMBLY

- NOTES:
 1) ALL SCREWS SHOULD BE INSTALLED WITH BLUE LOCTITE 242 or 243.
 2) PEEL AND STICK GUN ISOLATOR (#23) TO BOTTOM OF LOWER TUBE WELDMENT (#14)

RAW THRILLS INC.	
TITLE: GUN MAIN ASSEMBLY	
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL:
HOLES: +.002/-0.00	FINISH: SEE NOTES
ANGLES: ±0.5°	PART NO.
SHEET 1 of 1	REV. C

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01576-01	COIL MOUNT BRACKET	4
2	600-01412-01	COIL BRACKET	1
3	HAPP FL11629	COIL	2
4	600-01413-01	COIL ROD	1
5	600-01414-01	COIL WEIGHT	1
6	MMC 91375A535	1/4-20 x 3/8" SET SCREW	1
7	680-00214-01	BLUE DAMPER PAD	2
8	608-00210-01	COIL SPRING	2
9	HAPP #95-0637-00	COIL SLEEVE	2
10	MMC 93298A109	10-32 FLANGED LOCKNUT	8

REV.	DESCRIPTION	DATE
A	RELEASED	10/18/14
B	REVISED	1/9/15
C	NO CHANGE THIS SHEET	12/14/16

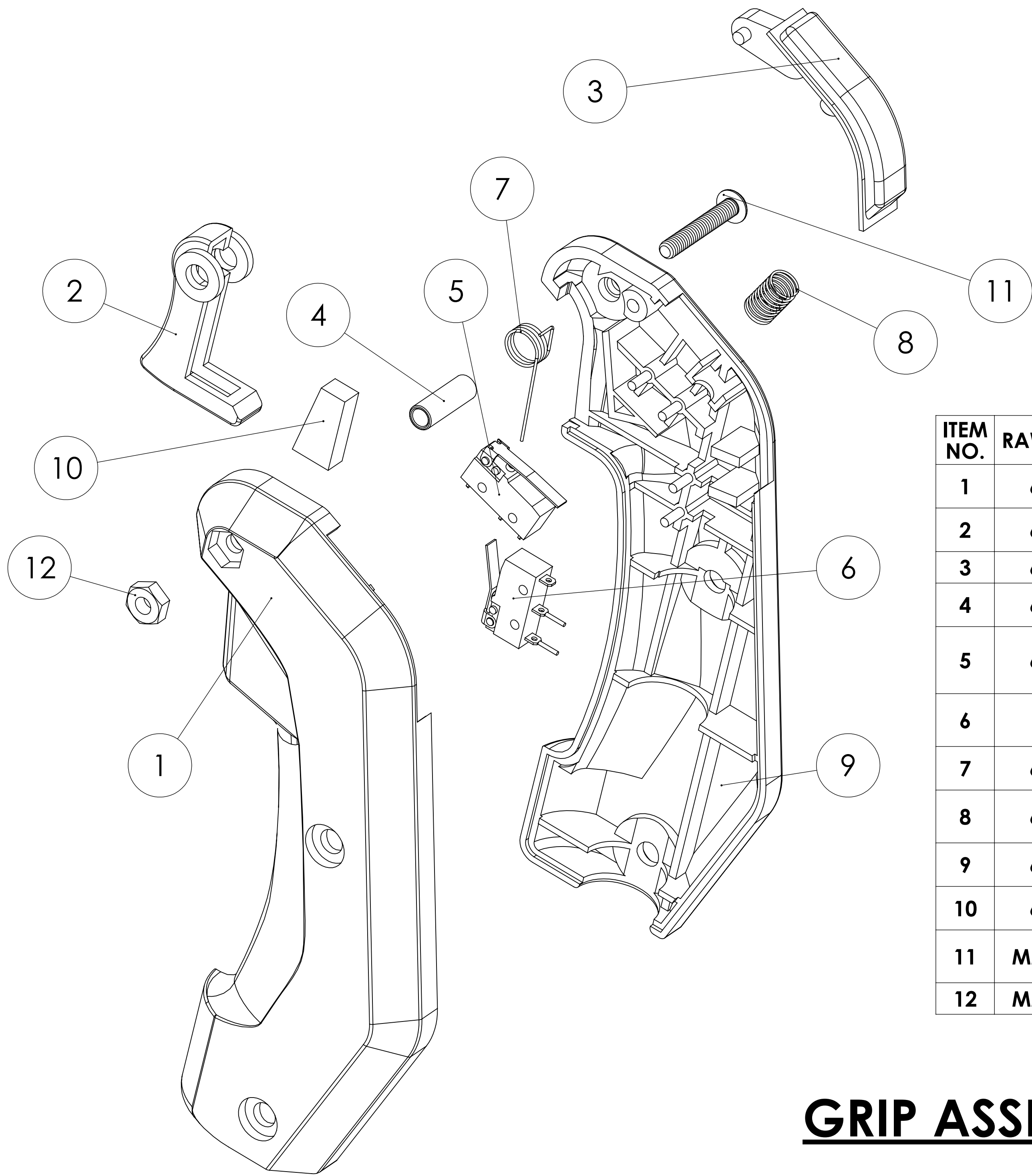


SHAKER ASSEMBLY

NOTES:
 1) SET SCREW AND LOCKNUTS SHOULD BE INSTALLED WITH RED LOCTITE 262.

RAW THRILLS INC.	
TITLE: GUN MAIN ASSEMBLY	
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL:
HOLES: +.002/-0.000	FINISH: SEE NOTES
ANGLES: ±0.5°	PART NO.
SHEET 1 of 1	REV C

REV.	DESCRIPTION	DATE
A	RELEASED	11/17/10



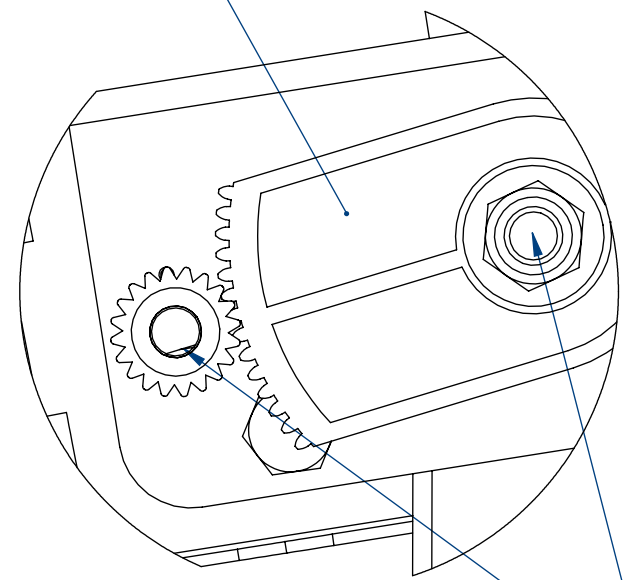
ITEM NO.	RAW PART NUMBER	HAPP NUMBER	DESCRIPTION	QTY.
1	608-00201-01	95-1294-00	GRIP, LEFT HALF	1
2	608-00204-01	95-1295-00	TRIGGER, RED	1
3	608-00203-01	95-1439-00	LARGE THUMB BUTTON	1
4	608-00205-01	95-1315-00	SHAFT, TRIGGER	1
5	608-00216-01	95-0259-00	SWITCH ASSY FOR THUMB SWITCH	1
6	608-00215-01	95-0028-00	SWITCH ASSY. FOR TRIGGER	1
7	608-00206-01	95-1297-00	SPRING, TORSION	1
8	608-00207-01	95-1298-00	SPRING, COMPRESSION	1
9	608-00202-01	95-1293-00	GRIP, RIGHT HALF	1
10	608-00218-01	96-0110-00	TRIGGER BUMPER	1
11	MMC 96075A147	43-0378-00	SCREW, #8-32 x 1 TP BLACK	1
12	MMC 86537A140	43-1124-00	HEX NUT #8-32 BLACK	1

GRIP ASSEMBLY

RAW THRILLS INC.	
TITLE:	GRIP ASSEMBLY
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL:
HOLE: +.002/-0.000	FINISH: SEE NOTES
ANGLE: ±0.5°	PART NO.
SHEET 1 of 1	REV A

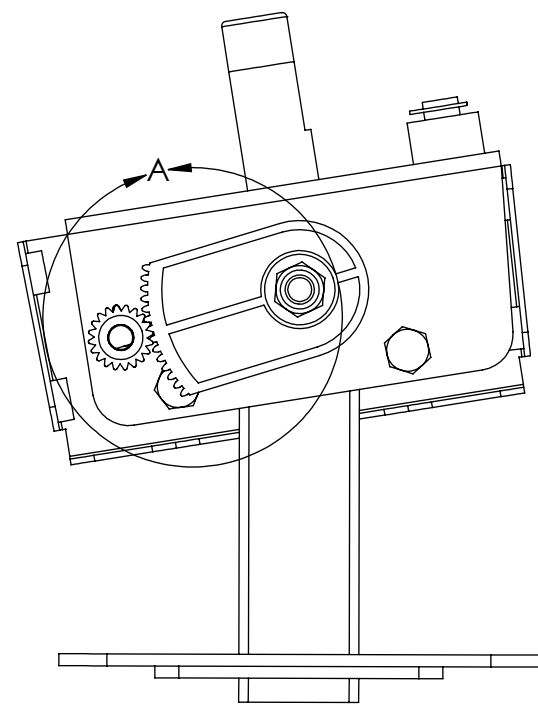
REV.	DESCRIPTION	DATE
A	RELEASED	1/15/15

2) INSTALL SEGMENT GEAR AFTER POT IS ALIGNED FOR EASIER ACCESS TO GEAR SET SCREW



DETAIL A
SCALE 1 : 1

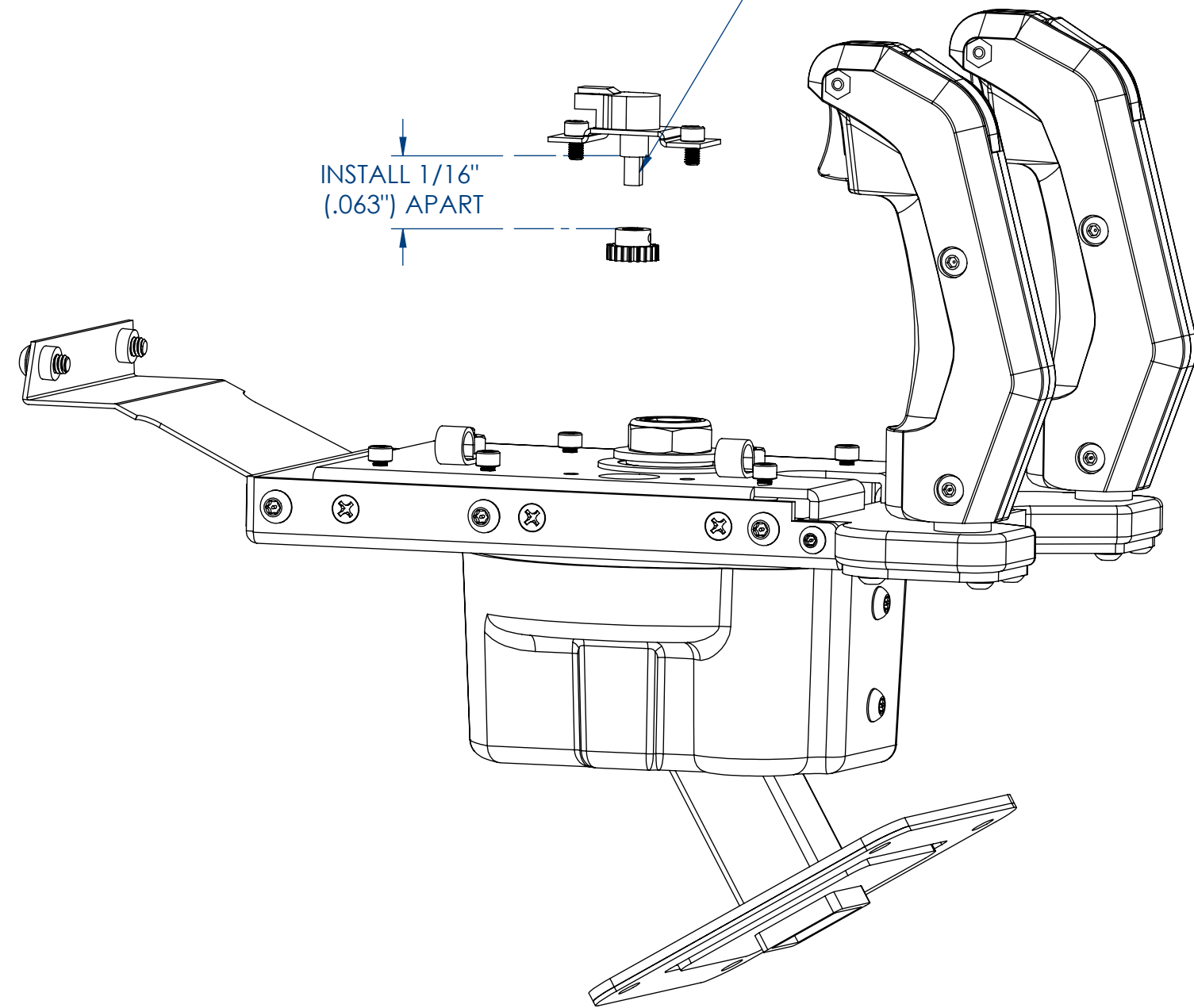
1) ALIGN FLAT ON POT DOWNWARD AND POINTING TOWARD CENTER OF SEGMENT GEAR



UP AND DOWN POT ALIGNMENT

INSTALL WITH GEAR INSTALLED AND POT FLAT POINTING TOWARD HANDLES

INSTALL 1/16"
(.063") APART

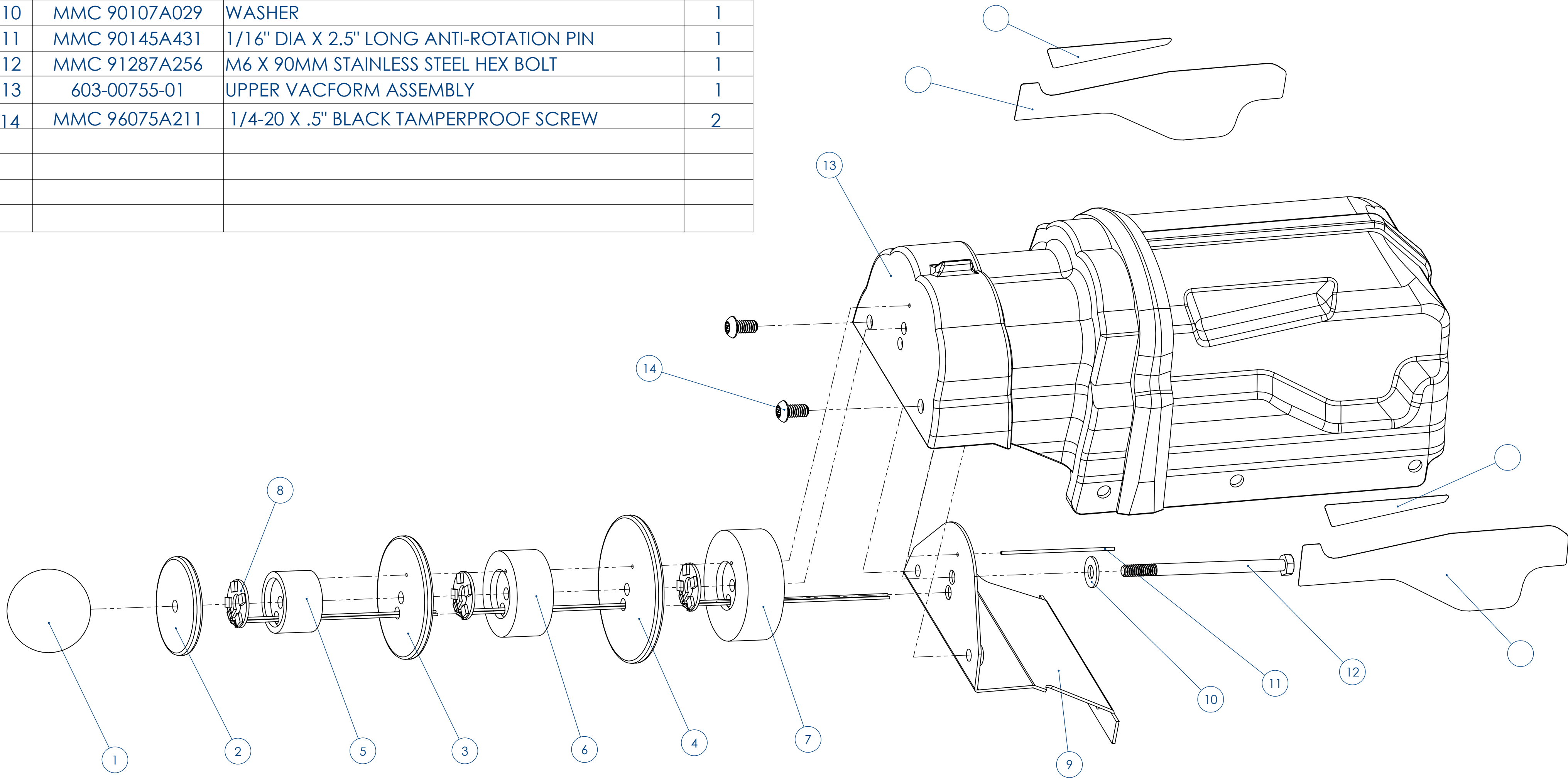


LEFT TO RIGHT POT ALIGNMENT

RAW THRILLS INC.	
TITLE: POT ALIGNMENT DRAWING	
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL: SEE NOTES
HOLES: +.002/-0.000	FINISH: SEE NOTES
ANGLES: ±0.5°	PART NO.
SHEET 1 of 1	REV A

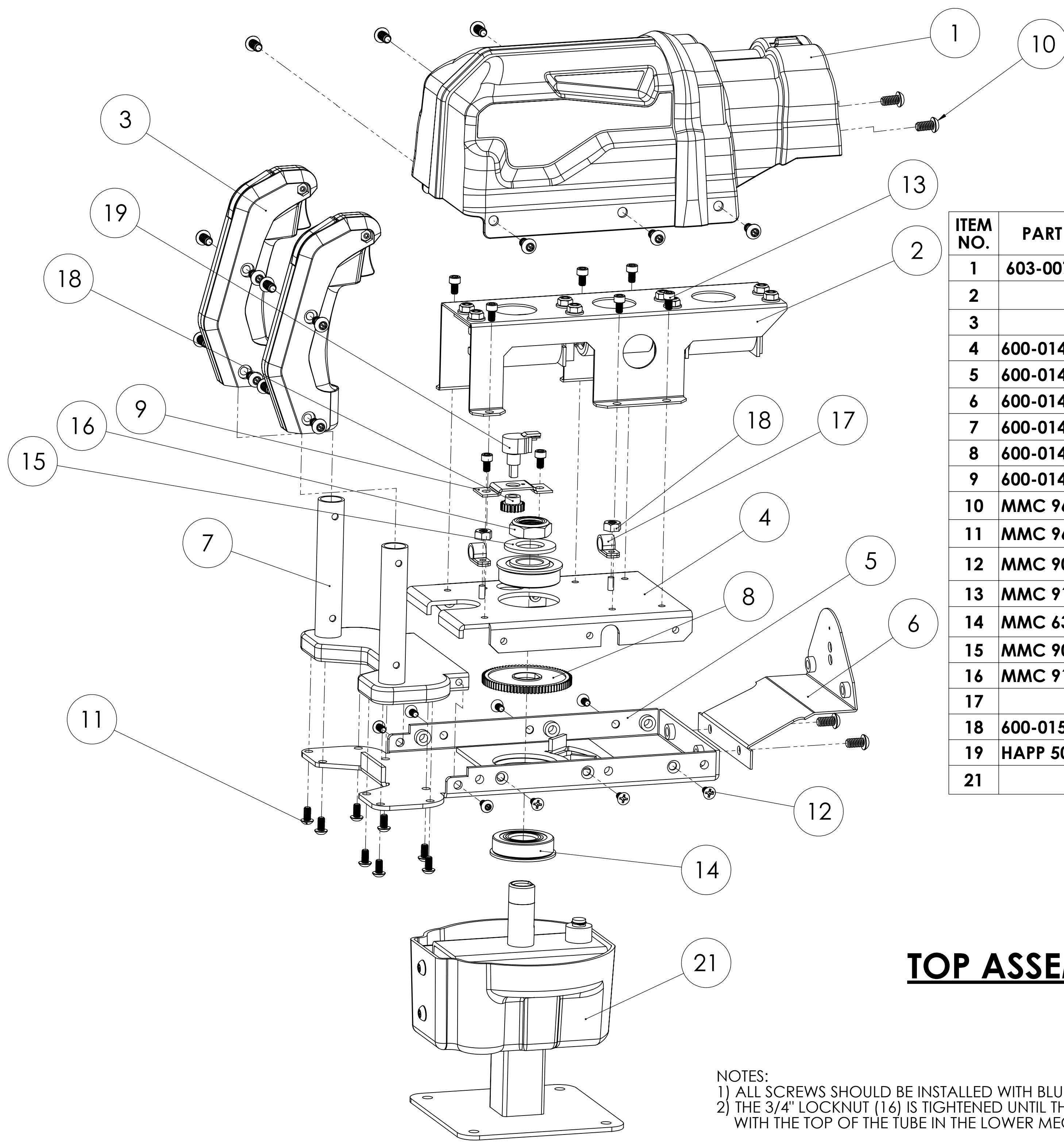
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	608-00224-01	GREEN BUBBLE BALL	1
2	600-01922-01	GREEN GUN ACRYLIC - SMALL	1
3	600-01922-01	GREEN GUN ACRYLIC - MEDIUM	1
4	600-01922-01	GREEN GUN ACRYLIC - LARGE	1
5	600-01923-01	BLACK GUN DISCS - SMALL	1
6	600-01923-01	BLACK GUN DISCS - MEDIUM	1
7	600-01923-01	BLACK GUN DISCS - LARGE	1
8	500-00223-01	GUN TIP PCB	3
9	600-01924-01	GUN TIP BRACKET	1
10	MMC 90107A029	WASHER	1
11	MMC 90145A431	1/16" DIA X 2.5" LONG ANTI-ROTATION PIN	1
12	MMC 91287A256	M6 X 90MM STAINLESS STEEL HEX BOLT	1
13	603-00755-01	UPPER VACFORM ASSEMBLY	1
14	MMC 96075A211	1/4-20 X .5" BLACK TAMPERPROOF SCREW	2

REV.	DESCRIPTION	DATE
A	RELEASED	11/8/16



NOTES:
1) APPLY LOCTITE RED 271 TO HEX BOLT (ITEM 12) THREADS TO SECURE BUBBLE BALL (ITEM 1)
2) APPLY A RAW THRILLS APPROVED ADHESIVE TO THE END OF PIN (ITEM 11) AND INSERT IT INTO SMALL BLACK GUN DISC (ITEM #5)

RAW THRILLS INC.	
TITLE: BUST A MOVE FRENZY GUN TIP ASSY	
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL: SEE NOTES
HOLES: +.002/-0.000	FINISH: SEE NOTES
ANGLES: ±0.5°	PART NO.
SHEET 1 of 1	REV A



REV.	DESCRIPTION	DATE
A	RELEASED	10/18/14
B	REVISED	1/9/15
C	NO CHANGE THIS SHEET	12/14/16
D	ADDED UPPER VACFORM PART NUMBER AND CORRECTED FRONT VACFORM BRACKET IMAGE	5/10/19
E	NO CHANGES THIS SHEET	3/17/20

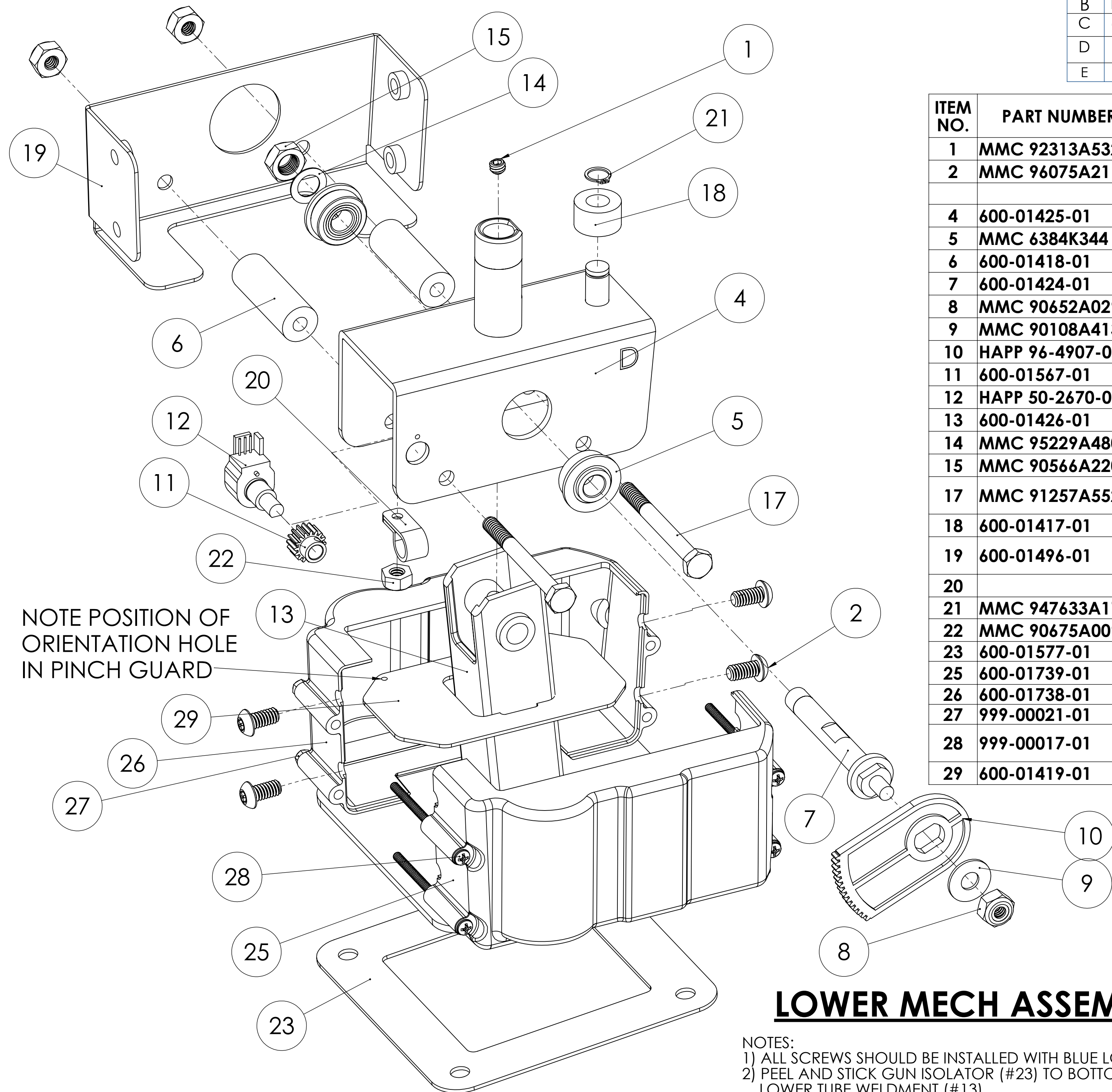
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00755-01	UPPER VACFORM	1
2		SHAKER ASSEMBLY	1
3		GRIP ASSEMBLY	2
4	600-01422-01	PIN PLATE	1
5	600-01423-01	COVER BRACKET	1
6	600-01495-01	FRONT VACFORM BRACKET	1
7	600-01411-01	GRIP PLATE WELDMENT	1
8	600-01420-01	LARGE GEAR	1
9	600-01491-01	POT BRACKET	1
10	MMC 96075A211	1/4-20 X 1/2" BLK TP SCREW	18
11	MMC 96075A183	10-32 X 3/8" BLK TP SCREW	10
12	MMC 90273A827	10-32 X 3/8" FLAT HEAD SCREW	6
13	MMC 91251A337	10-32 X 5/16" CAP SCREW	8
14	MMC 6384K369	3/4" FLANGED BEARING	2
15	MMC 90126A036	3/4" WASHER	1
16	MMC 91342A240	3/4" LOCKNUT	1
17		CABLE CLAMP	2
18	600-01567-01	SMALL POT GEAR	1
19	HAPP 50-2670-01	POT - 5K	1
21		LOWER MECH ASSEMBLY	1

TOP ASSEMBLY

NOTES:
 1) ALL SCREWS SHOULD BE INSTALLED WITH BLUE LOCTITE 242 or 243.
 2) THE 3/4" LOCKNUT (16) IS TIGHTENED UNTIL THE TOP IS FLUSH WITH THE TOP OF THE TUBE IN THE LOWER MECH ASSEMBLY (21).

RAW THRILLS INC.	
TITLE: GUN MAIN ASSEMBLY	
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL:
HOLES: +.002/-0.000	FINISH: SEE NOTES
ANGLES: ±0.5°	PART NO.
SHEET 1 of 3	REV E

REV.	DESCRIPTION	DATE
A	RELEASED	10/18/14
B	REVISED	1/9/15
C	CHANGED TO MOLDED LOWER COVER	12/14/16
D	CORRECTED NOTE #2	5/10/19
E	DELETED ITEM #3	3/17/20



NOTE POSITION OF ORIENTATION HOLE IN PINCH GUARD

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MMC 92313A532	1/4-20 x 3/16" SET SCREW	1
2	MMC 96075A211	1/4-20 X 1/2" BLK TP SCREW	4
4	600-01425-01	ROCKER BRACKET	1
5	MMC 6384K344	3/8" FLANGED BEARING	2
6	600-01418-01	TUBE STOP BUMPER - 5/8" OD	2
7	600-01424-01	SIDE PIN	1
8	MMC 90652A029	1/4-20 THIN LOCKNUT	3
9	MMC 90108A413	1/4-20 WASHER	1
10	HAPP 96-4907-00	SEGMENT GEAR	1
11	600-01567-01	POT GEAR	1
12	HAPP 50-2670-01	POT - 5K	1
13	600-01426-01	LOWER TUBE WELDMENT	1
14	MMC 95229A480	3/8" WASHER	1
15	MMC 90566A220	3/8" THIN LOCKNUT	1
17	MMC 91257A552	1/4-20 x 2 1/2 HEX HEAD - GRADE 8	2
18	600-01417-01	SHORT STOP BUMPER - 3/4" OD	1
19	600-01496-01	LOWER VACFORM MOUNTING BRACKET	1
20		CABLE CLAMP	1
21	MMC 947633A170	RETAINING CLIP	1
22	MMC 90675A009	8/32" KEPS NUT	1
23	600-01577-01	GUN ISOLATOR	1
25	600-01739-01	BOTTOM COVER - RIGHT	1
26	600-01738-01	BOTTOM COVER - LEFT	1
27	999-00021-01	6-32 HEX LOCKNUT - BLACK	4
28	999-00017-01	6-32 X 2.5" PHILLIPS HEAD SCREW - BLACK	4
29	600-01419-01	PINCH COVER	1

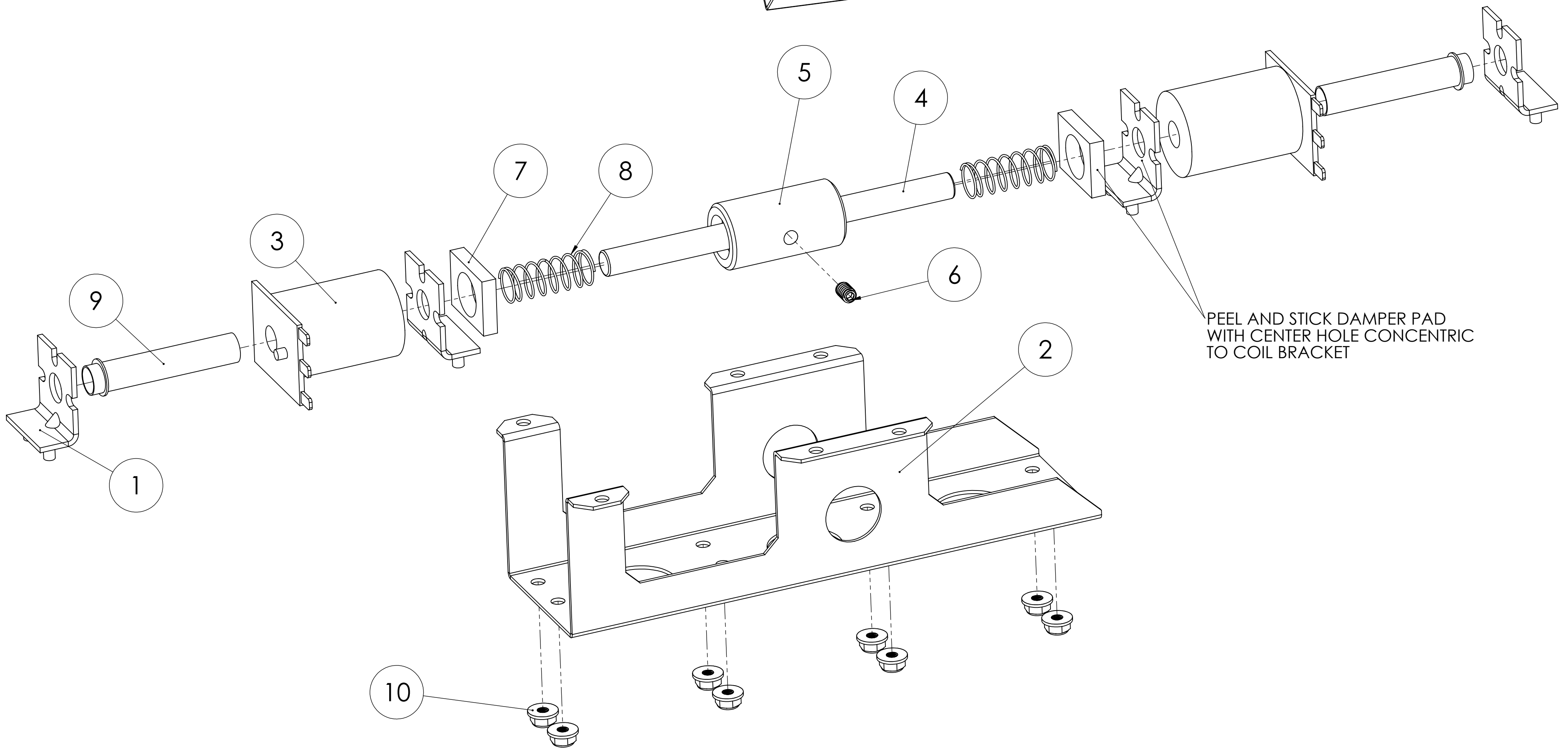
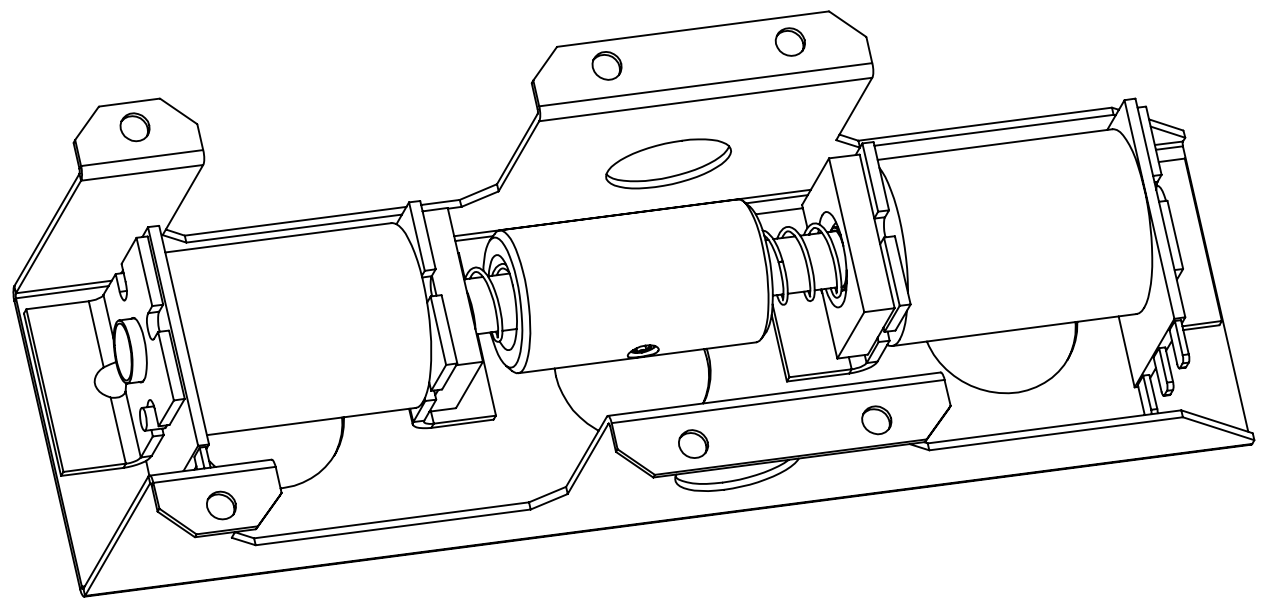
LOWER MECH ASSEMBLY

- NOTES:
 1) ALL SCREWS SHOULD BE INSTALLED WITH BLUE LOCTITE 242 or 243.
 2) PEEL AND STICK GUN ISOLATOR (#23) TO BOTTOM OF LOWER TUBE WELDMENT (#13)

RAW THRILLS INC.	
TITLE:	GUN MAIN ASSEMBLY
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL:
HOLES: +.002/-0.00	FINISH: SEE NOTES
ANGLES: ±0.5°	PART NO.
SHEET 2 of 3	REV E

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01576-01	COIL MOUNT BRACKET	4
2	600-01412-01	COIL BRACKET	1
3	608-00216-01	COIL FL11629	2
4	600-01413-01	COIL ROD	1
5	600-01414-01	COIL WEIGHT	1
6	MMC 91375A535	1/4-20 x 3/8" SET SCREW	1
7	680-00214-01	BLUE DAMPER PAD	2
8	608-00210-01	COIL SPRING	2
9	608-00218-01	COIL SLEEVE	2
10	MMC 93298A109	10-32 FLANGED LOCKNUT	8

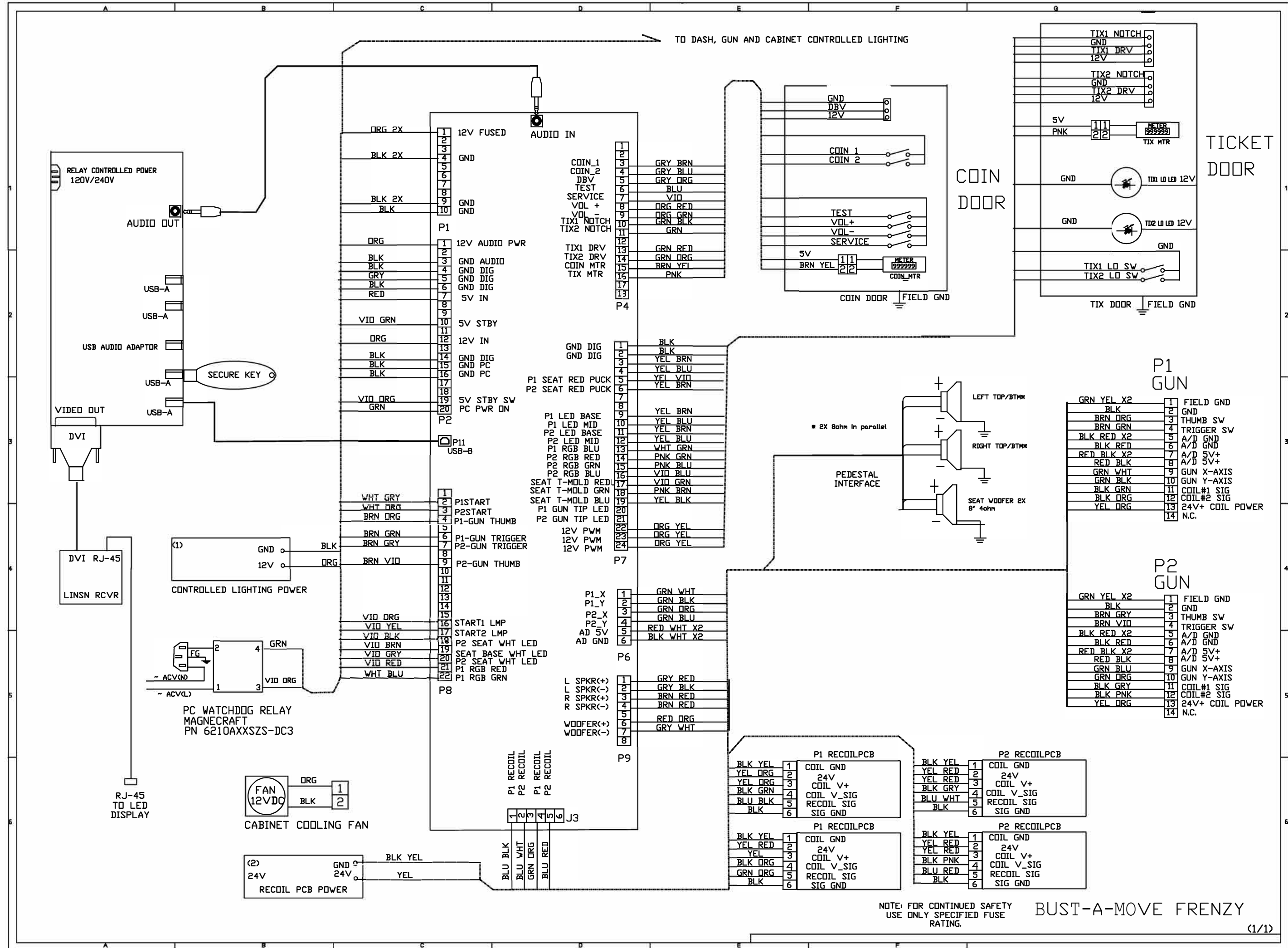
REV.	DESCRIPTION	DATE
A	RELEASED	10/18/14
B	REVISED	1/9/15
C	NO CHANGE THIS SHEET	12/14/16
D	NO CHANGE THIS SHEET	5/10/19
E	ADDED RAW THRILLS PART NUMBER TO ITEM #9	3/17/20



SHAKER ASSEMBLY

NOTES:
 1) SET SCREW AND LOCKNUTS SHOULD BE INSTALLED WITH RED LOCTITE 262.

RAW THRILLS INC.	
TITLE: GUN MAIN ASSEMBLY	
TOL: .X ±.030 .XX ±.015 .XXX ±.005	MATERIAL:
HOLES: +.002/-0.000	FINISH: SEE NOTES
ANGLES: ±0.5°	PART NO.
SHEET 3 of 3	REV E



NOTE: FOR CONTINUED SAFETY USE ONLY SPECIFIED FUSE RATING. BUST-A-MOVE FRENZY (1/1)