# X Games Snowboarder™ Operator's Manual











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# **Safety**

#### <u>Operation</u>

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.

# **Monitor**

The monitor contains no user serviceable parts. Do not attempt to service the monitor.

# **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. Do not turn the PC power switch on or off. It should remain permanently in the ON position.

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.

# **Tempered Glass Warning**

When handling the LCD display glass cover take especial care and set the glass down softly on a flat surface free of debris. The edge of the glass is sensitive to hard impact. Shattered glass from the can travel long distances and cause bodily injury. Use proper procedures when handling broken materials.

# **Hazard to Epileptics**

A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizures 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. Please check our website www.rawthrills.com for the latest information regarding this and other Raw Thrills products. If the game fails to function properly, turn off the machine and unplug the AC line cord. Contact your local distributor. Your warranty, when applicable, lasts 60 days from your purchase date. You may not reproduce this document or any of its contents without written authorization from Raw Thrills, Inc. or Play Mechanix™ 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: 7 Amps

#### **Dimensions**

Height with Marquee Topper: 104" (2.64 Meters) Height without Marquee Topper: 81" (2.06 Meters)

Width: 43.5" (1.10 Meters) Depth: 77" (1.96 Meters)

# **Operating Temperature**

50 °F to 104 °F (10 °C to 40 °C)

#### **Operating Humidity**

Must not exceed 95% relative humidity

# **Fuse Replacement Guide**

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

#### **RIO**

5VDC = 3A 250V SLO-BLO 12VDC = 5A 250V SLO-BLO

# **Game Lighting**

5A 250V SLO-BLO (x6)

# Setup

# **Cabinet Assembly**

Note: See foldout setup guide.

- 1. Begin assembly by aligning Snowboard pedestal up to the cabinet and connecting all electrical cables. Secure pedestal to cabinet with (2x) mounting brackets.
- 2. Identify the left and right side panel assemblies and place in position by aligning their bottoms with cutouts in pedestal. Secure the outside of each side panel to cabinet and pedestal.
- 3. Secure the inside of each side panel to the cabinet and control panel.
- 4. Slide marquee metal struts into holes in top of cabinet and connect all electrical cables. Secure marquee to cabinet.

# **Check Electrical Settings**

- 1. Verify the voltage of the AC outlet you will be plugging the game into.
- 2. Verify the AC outlet's ground connection is present and working.

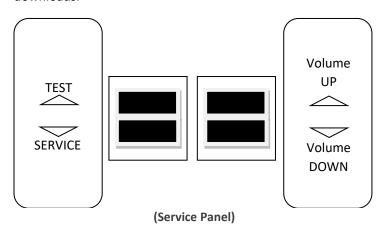
# Startup Game

- 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.
- 4. Authorize a set of cards. See Authorizing More Cards under the Cards and Card Dispensers section.

# **Diagnostics and Adjustments**

# Service Panel

The Service Panel is located behind the coin door and has four buttons that can be used to navigate the Test Menu system. There is a USB port on the Service Panel that can be used for software updates and audit downloads.



#### **Test Menu Navigation**

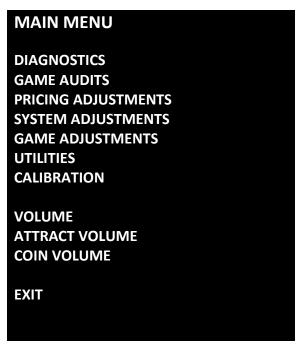
In addition to the buttons on the Service Panel, you can also us the Start and Gameplay buttons to navigate through the Test Menus.

Navigating the Test Menu			
Button	Action		
TEST/BACK (Not in Test Menu)	Enters Test Menu		
TEST/BACK (In Test Menu)	Selects Highlighted Option		
SERVICE (On Main Menu)	Exits Test Menu		
SERVICE (Not on Main Menu)	Cancels Selection		
VOLUME UP	Move Up		
VOLUME DOWN	Move Down		
START	Selects Highlighted Menu		
ARROWS	Move Up and Down		

# **Test Menus**

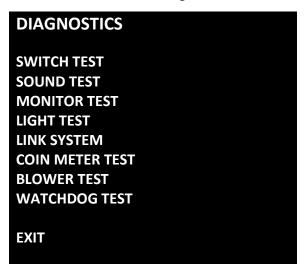
#### **Main Menu**

Choose from all available operator settings and menus here.



#### **Diagnostics Menu**

Choose from all available diagnostics here



- **Switch Test**: Tests all buttons, inputs, and switches
- Sound Test: Tests speakers and woofers (100Hz Test, 1000Hz Test)
- Monitor Test: Color purity tests
- Light Test: Tests all LED lights on the cabinets
- Link System: Tests whether the game is linked to another SnowBoarder and shows Game ID
- Coin Meter Test: Clicks the "Hard Coin Meter" inside the cabinet
- Blower Test: Tests the air blower motor function
- Watchdog Test: Tests the watchdog reset function

#### **Game Audits**

View all available stored audit data here



• <u>Audits Menu Description</u>: The audits menus above allow you to view a large amount of data about your Snowboarder game. Examples include tracks selected, number of linked games played, where players finished, average gameplay times, and many other categories.

#### **Pricing Adjustments**

Choose from all available pricing settings here

#### **PRICING ADJUSTMENTS**

FREEPLAY
MONEY UNIT
COINS/BILL PULSE
COINS/CREDIT
CREDITS TO START
CREDITS TO CONTINUE
MAX CREDITS
CREDITS FOR BONUS
BONUS CREDITS

1<sup>ST</sup> PLACE FREE GAME
1<sup>ST</sup> HUMAN FREE GAME
EXIT

- Free Play: Turn on/off free play
- Money Unit: Change between coins, tokens, or cards
- Coins/Bill Pulse: Adjust the amount of pulses for each coin
- Coins/Credit: Adjust the amount of coins per full credit
- Credits to Start: Adjust the amount of credits needed to start a game
- Max Credits: Adjust the maximum amount of credits a player can stack
- <u>Credits For Bonus</u>: Allows the operator to set a multiple credit purchase amount to award a bonus credit
- Bonus Credits: Set the amount of bonus credits awarded for multiple credit buys
- 1st Place Free Game: Allows the operator to award a free game for placing first in any game
- 1st Place Human Free Game: Allows the operator to award a free game for multiplayer first place

#### **System Adjustments**

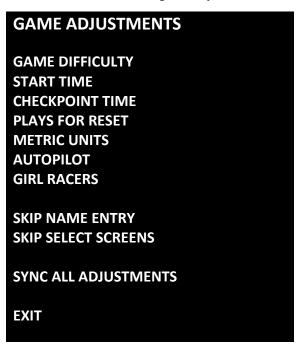
Choose from all available system adjustments here

# LANGUAGE MAX NAME LENGTH BLOWER POWER CURRENT MACHINE ID ATTRACT AUDIO AUTO VOLUME SYNC QR CODES GAME VENUE GAME LOCATION

- Language: Set your language setting here. (English is default)
- Max Name Length: Adjusts how long the high score name entry can be
- Blower Power: Adjust the strength of the air flow from the blower motor
- Current Machine ID: Sets the player ID number of the cabinet for linked play
- Attract Audio: Allows the operator to adjust frequency of attract audio. (On, Off, or Occasionally)
- Auto Volume Sync: Allows the operator to sync volume with other linked Snowboarder games
- **QR Codes**: Turns on the QR Code high score feature. Allows players to upload high scores to social media like Facebook and Twitter by scanning code with their cell phone.
- Game Venue: Set your location name so that it appears in QR code scans (Example: "Eugene's Arcade")
- Game Location: Set your city and state so that it appears in QR code scans (Example: Chicago, IL)

#### **Game Adjustments**

Choose from all available game adjustments here



- Game Difficulty: Adjusts the difficulty of the game and the CPU controlled racers
- **Start Time**: Adjust the amount of time the player starts the game with
- Checkpoint Time: Adjusts the amount of extra time the player gets for reaching a checkpoint
- Plays For Reset: The amount of total plays before the high scores reset
- Metric Units: Allows the operator to enable metric measurements in the game
- Autopilot: Allows the operator to disable the computer assisted steering for inactive players
- Girl Racers: Allows the operator to turn off female racers in the game
- **Skip Name Entry**: Enable or disable the name entry screen for high scores
- Skip Select Screens: Enable or disable player and track select screens
- Sync All Adjustments: Allows the operator to sync adjustments with all linked Snowboarder games

#### **Utilities Menu**

Choose from all available utilities here

# UTILITIES MENU RESET CREDITS RESET AUDITS RESET HIGH SCORES RESET PLAYER STATS RESET ADJUSTMENTS RESET LINK SYSTEM FACTORY RESTORE VIEW ERRORS VIEW MESSAGES COPY ERROR DUMPS COPY AUDITS/LOGS COPY MESSAGES COPY HIGH SCORES EXIT

- Reset Credits: Allows you to clear out any credits that are on the game
- Reset Audits: Allows you to clear out all audits data on the game
- Reset High Scores: Restores high scores back to the factory default
- Reset Player Stats: Clears out any stored player data
- Reset Adjustments: Restores all adjustments to factory default
- Reset Link System: Restores your linked game settings to factory default
- Factory Restore: Clears out and restores all game settings and adjustments to factory defaults
- <u>View Errors:</u> View any software errors
- **View Messages:** View misc. software and system messages (developer use)
- Copy Error Dumps: Allows you to copy any error records to a USB drive
- Copy Audits/Logs: Allows you to copy audit data and game logs to a USB drive
- Copy Messages: Allows you to copy the misc. software and system messages to a USB drive
- Copy High Scores: Allows you to copy high score data to a USB drive

#### **Calibration**

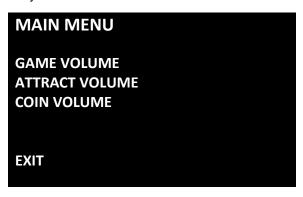
Calibrate the Snowboard here



- Swing Left/Right: Move the snowboard its full range to the left and right to calibrate and press start
- Edge: Edge (Tilt) the board left and right and then press start
- **Center:** When the first two calibrations are complete, press start

#### **Volume Description (Main Menu)**

Adjust all volume audio levels in the main menu



- **Game Volume**: Set the volume level during gameplay
- Attract Volume: Set the volume level during the attract mode
- Coin Volume: Adjusts the volume of the credit chime

# Basic Functional Test on Initial Power Up

- 1. Calibrate the Snowboard steering and edging following the on-screen instructions
- 2. Enter the Input Test and verify all switch inputs are working.
- 3. Enter the Monitor Test and verify the monitor is working properly.
- 4. Enter the Sound Test and verify the audio works and is not distorted.
- 5. Enter the Light Test and verify that all the lights are working properly.
- 6. Enter the Coin Meter Test and verify the coin meter is working properly.
- 7. Enter the Scanner Test and verify both Player 1 and Player 2 card scanners are working properly.
- 8. Enter the Dispenser 1 Test and verify the Player 1 dispenser is working properly.
- 9. Enter the Dispenser 2 Test and verify the Player 2 dispenser is working properly.
- 10. Enter the Watchdog Test and verify the game reboots.

  Upon a successful reboot, you are ready to adjust pricing, volume and other functions.

# **PC Hardware**

Your <u>SnowBoarder</u> game uses an <u>HP 705 G3</u> computer with a <u>GT1030</u> video card. Any brand of <u>GT1030</u> should work with your game. Listed below are the recommended BIOS settings for the computer.

#### NOTE

The computer shipped with the correct BIOS settings. Making changes to the BIOS different from the settings listed below may adversely affect the game's functionality.



# HP Elitedesk 705 G3 MT BIOS

#### **To Access BIOS Settings:**

With the computer powered off, plug a USB keyboard into an open USB slot. Hold the 'F10' key and turn the computer on. Continue holding the 'F10' key until the BIOS Setup screen appears.

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

#### **Advanced**

- + Boot Options
  - After Power Loss......[POWER ON]
  - UEFI Boot Order:......[DISABLE]
  - Legacy Boot Order (defaults):
    - USB
    - SATA CD
    - STAT0
    - NETWORK BOOT
- + Built-in Device Options
  - Integrated Video:......[DISABLE]

Note: After exiting BIOS settings screen, power-cycle the cabinet by using the cabinets 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:

- 1. Insert installation media into computer. (USB or DVD)
- 2. Turn cabinet power OFF and wait 30 seconds.
- 3. Turn cabinet power ON.
- 4. If using USB installation, select the desired game from the menu.
- 5. Follow all onscreen instructions.
- 6. Once installation is complete, remove the installation media and power-cycle the game.
- 7. Your game is now restored and ready to go.

# **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 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 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
Neither buttons nor audio work.	PCB connected to faulty USB port (boot message may indicate not detected)	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.
	Bad connection.	Check connection to speakers.
	Volume set too low.	Use VOL UP button on Test panel to raise volume
No sound or bad sound.	Faulty wiring.	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.
	Blown speakers.	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.
	Reversed wires.	A weak or low muffled sound is a sign of reversed speaker wires. Check for reversed wires on each speaker.
	Faulty PCB.	To verify audio is working at the computer, connect stereo headphones to the green computer audio port.
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

Problem	Possible Cause	Solution	
Game does not load.			
PC Drive test reports "bad" or "missing" files.			
Game fails to finish loading.			
After resetting, game still reports an error.		Recover hard drive. See Flash Installer Document or contact your distributor for the	
Erratic game mode or attract mode.	PC hard drive failure.		
WARNING! Data files Corrupted. (Game Operation May Become Unstable.) Use "Test" Switch to Enter Test Mode and Run "File Test."		latest software revision.	
Game Resets	Bad file.	Run Flash Installer.	
	No pulse to meter.	Check wiring from meter to RIO board.	
Coin meter does not click	Faulty meter.	Replace coin meter.	
during test.	Blown fuse(s) on PCB	Replace 12vdc 5A fuse(s) on PCB.	
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	

Problem	Possible Cause	Solution
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.
Dongle Not Present	Dongle missing or disconnected.	Find dongle cable and reseat in USB port.
	Faulty USB port.	Insert dongle cable in different USB port.
Steering or Edging of	Bad Potentiometer	Replace Potentiometer
Snowboard not working properly	Out of Calibration	Calibrate Snowboard
Blower Motor not working properly	Bad Blower Motor	Replace Motor
	Bad wiring or voltage	Check wiring connections and voltage levels
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.

# **Technical Support**

For an authorized distributor near you, check the Raw Thrills website at <a href="www.rawthrills.com">www.rawthrills.com</a>

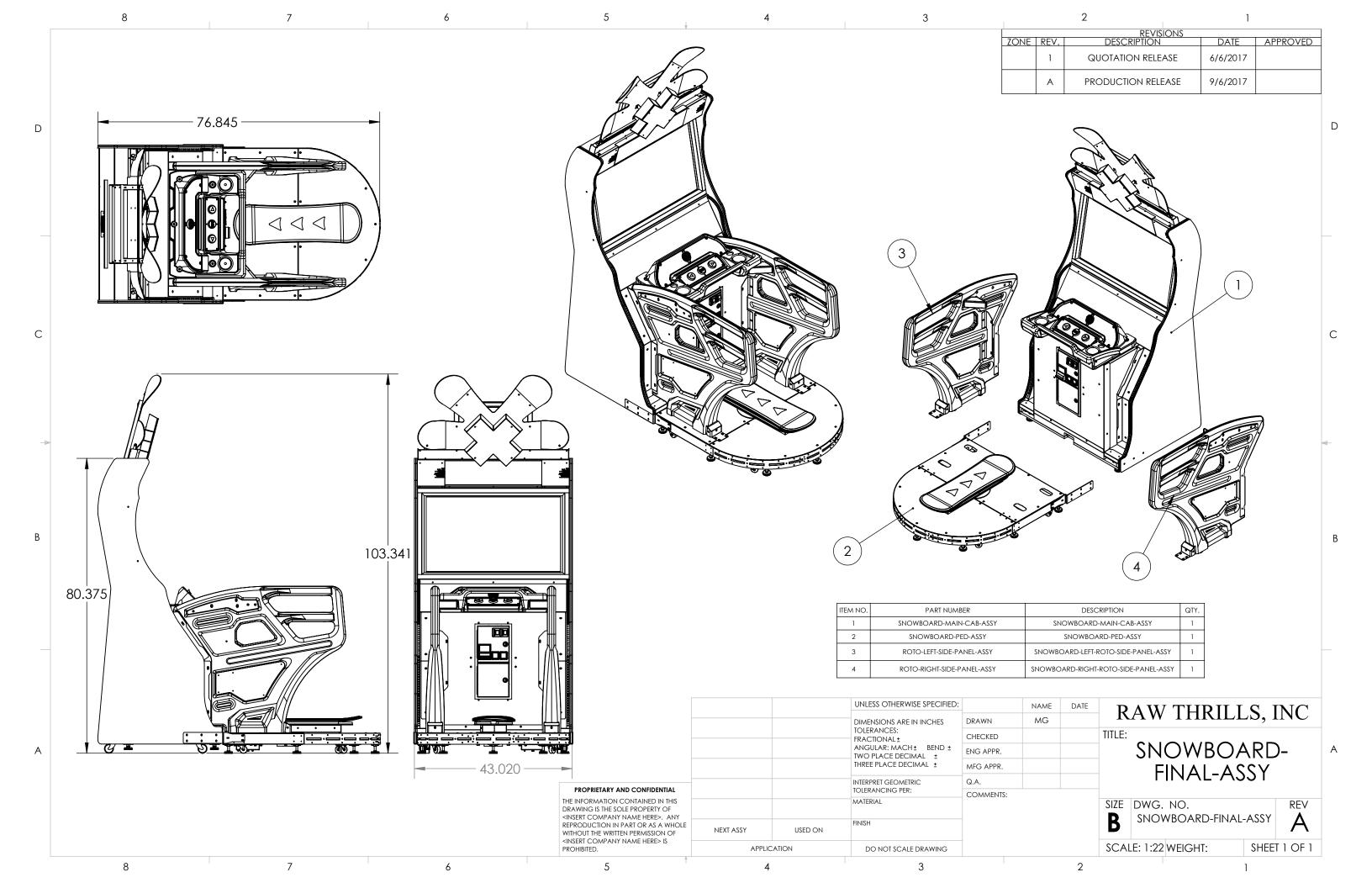
#### **Betson's Raw Thrills Technical Support Hotline**

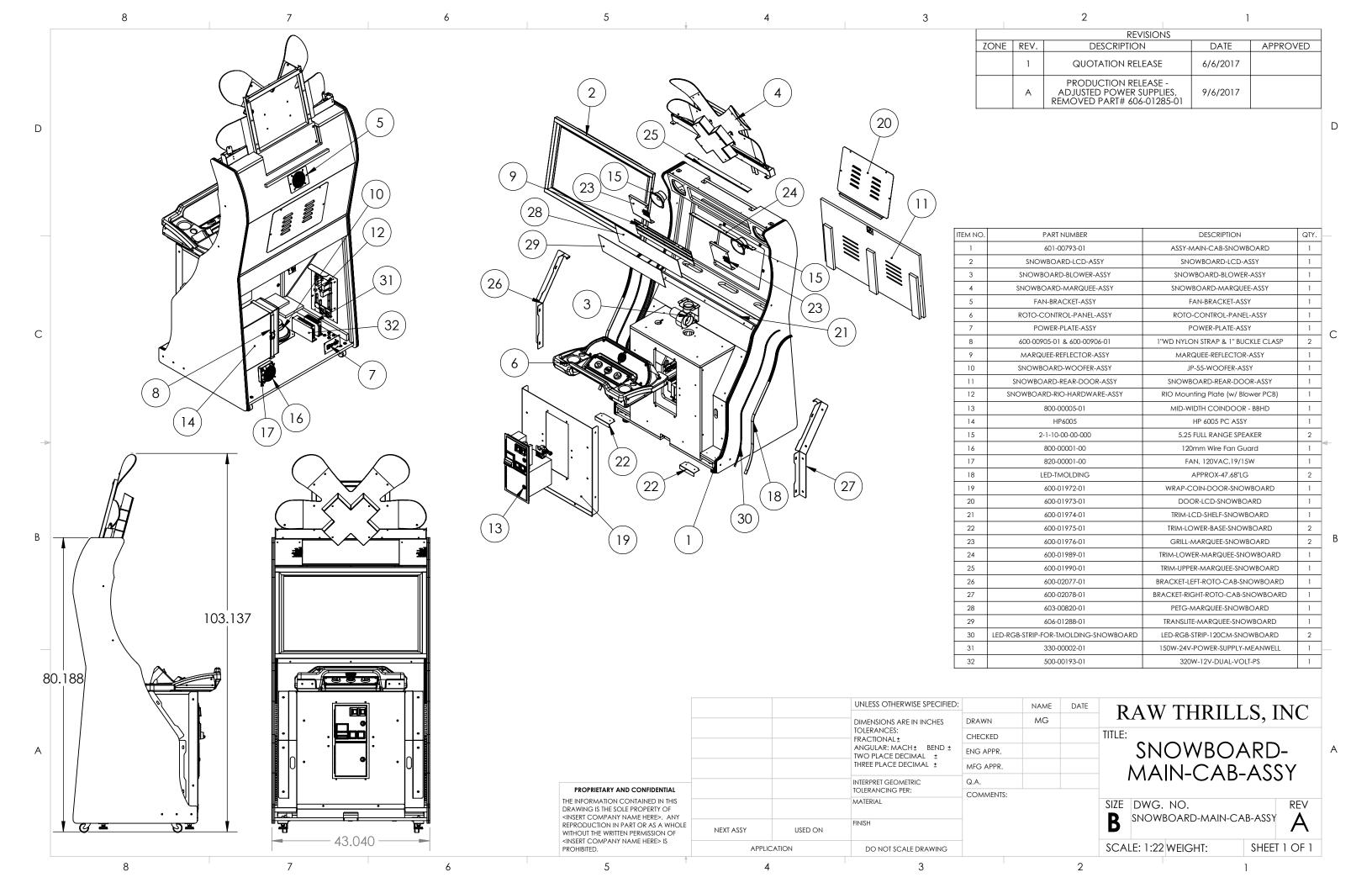
Phone: 1-800-753-2513 FAX: 1-201-438-5019

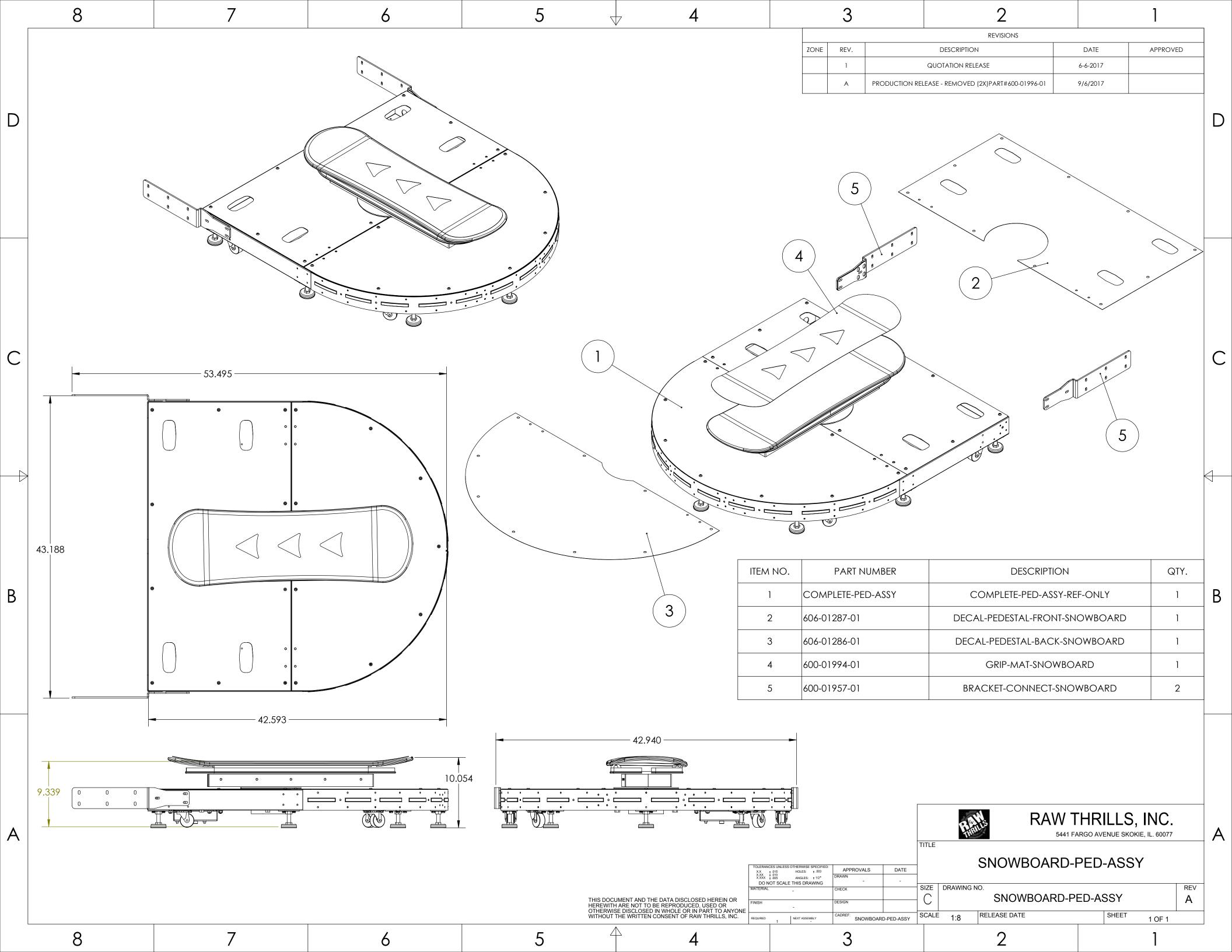
Email: <a href="mailto:rtsupport@betson.com">rtsupport@betson.com</a>

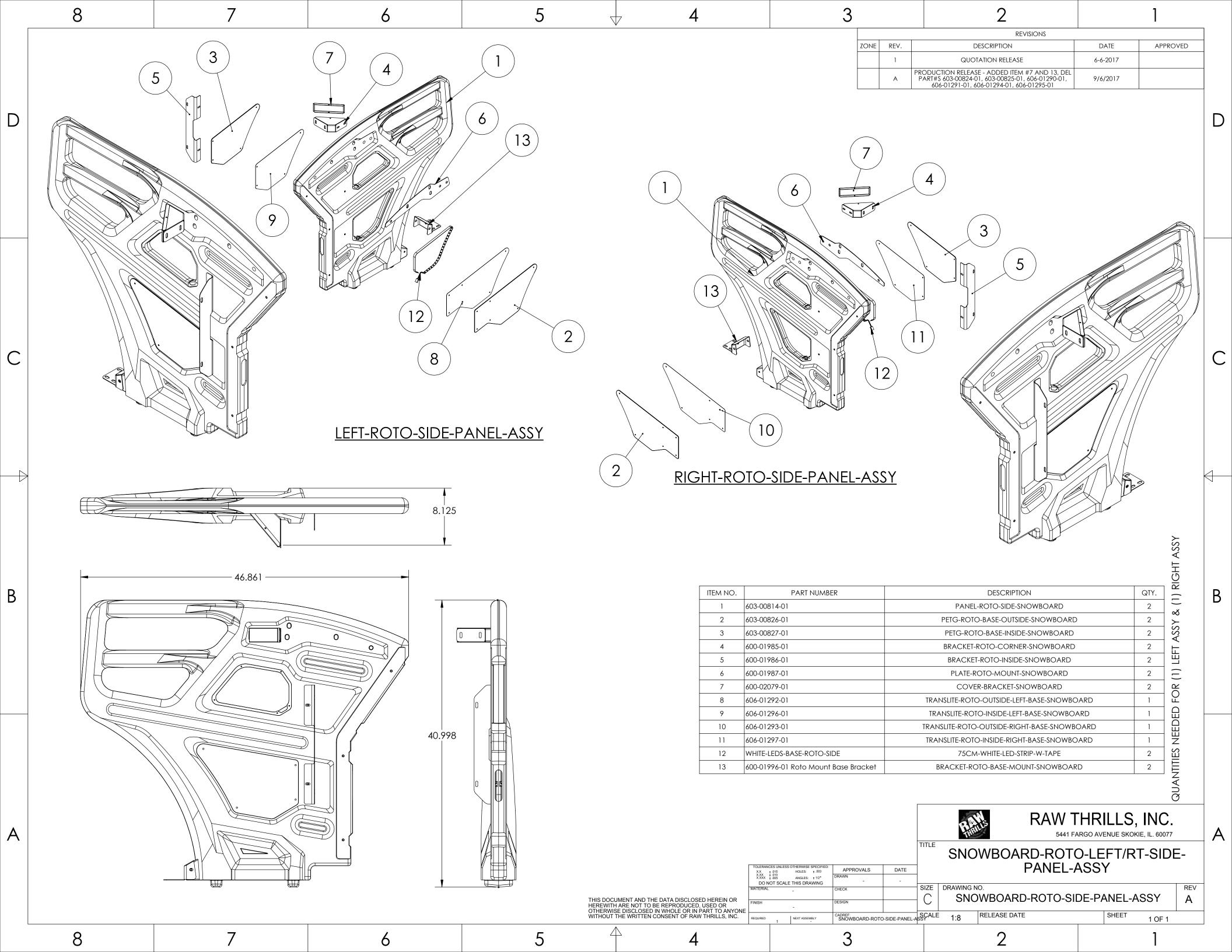


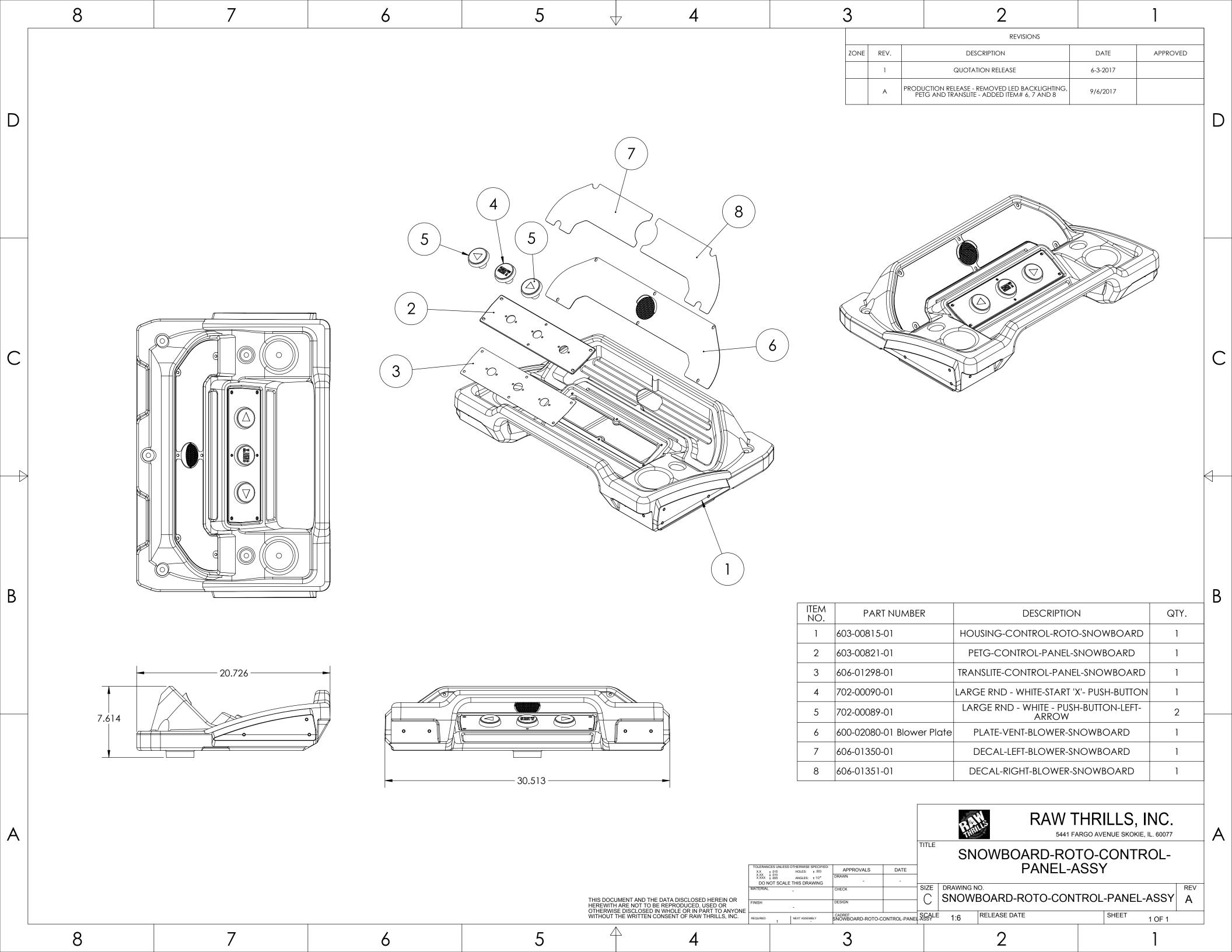
# **Electrical and Mechanical Illustrations**

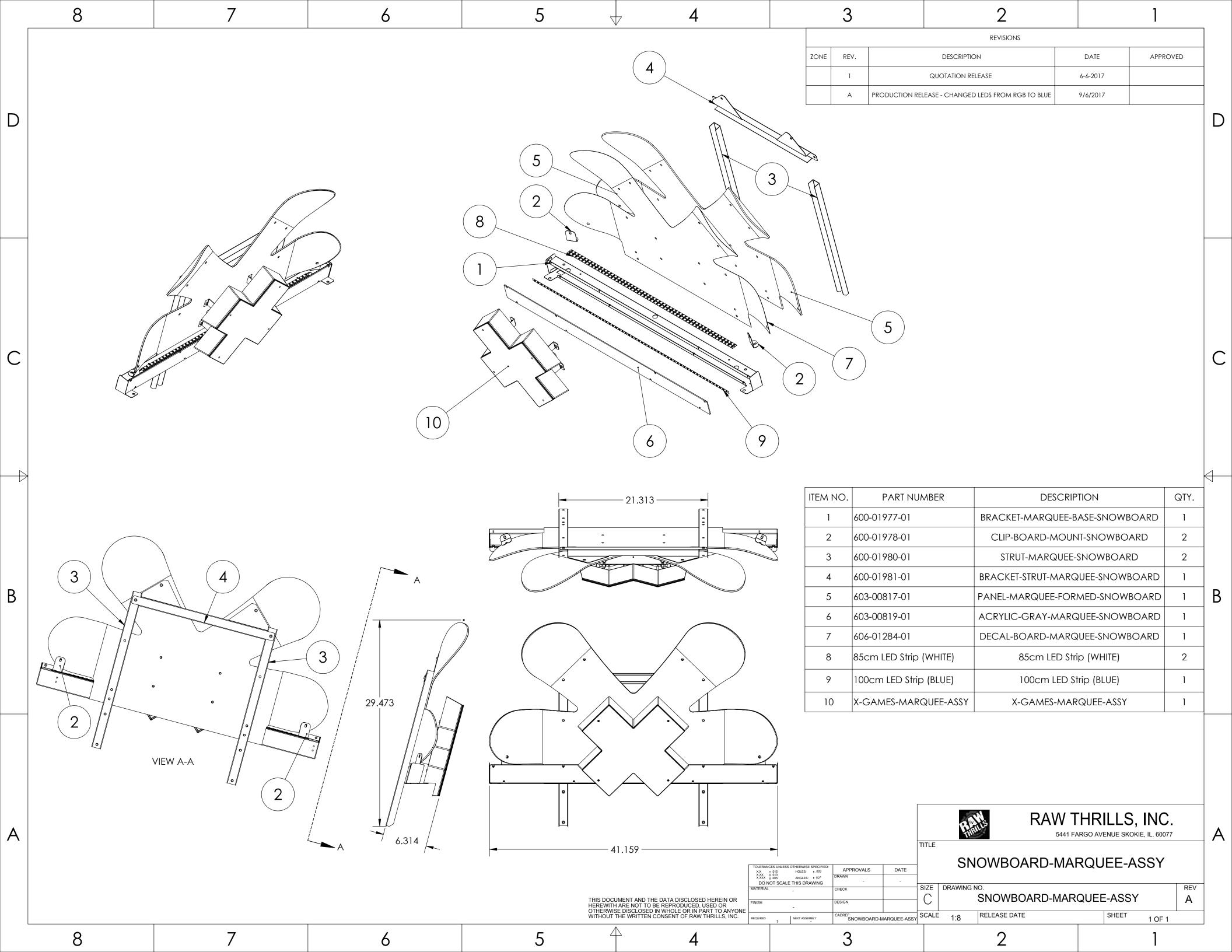


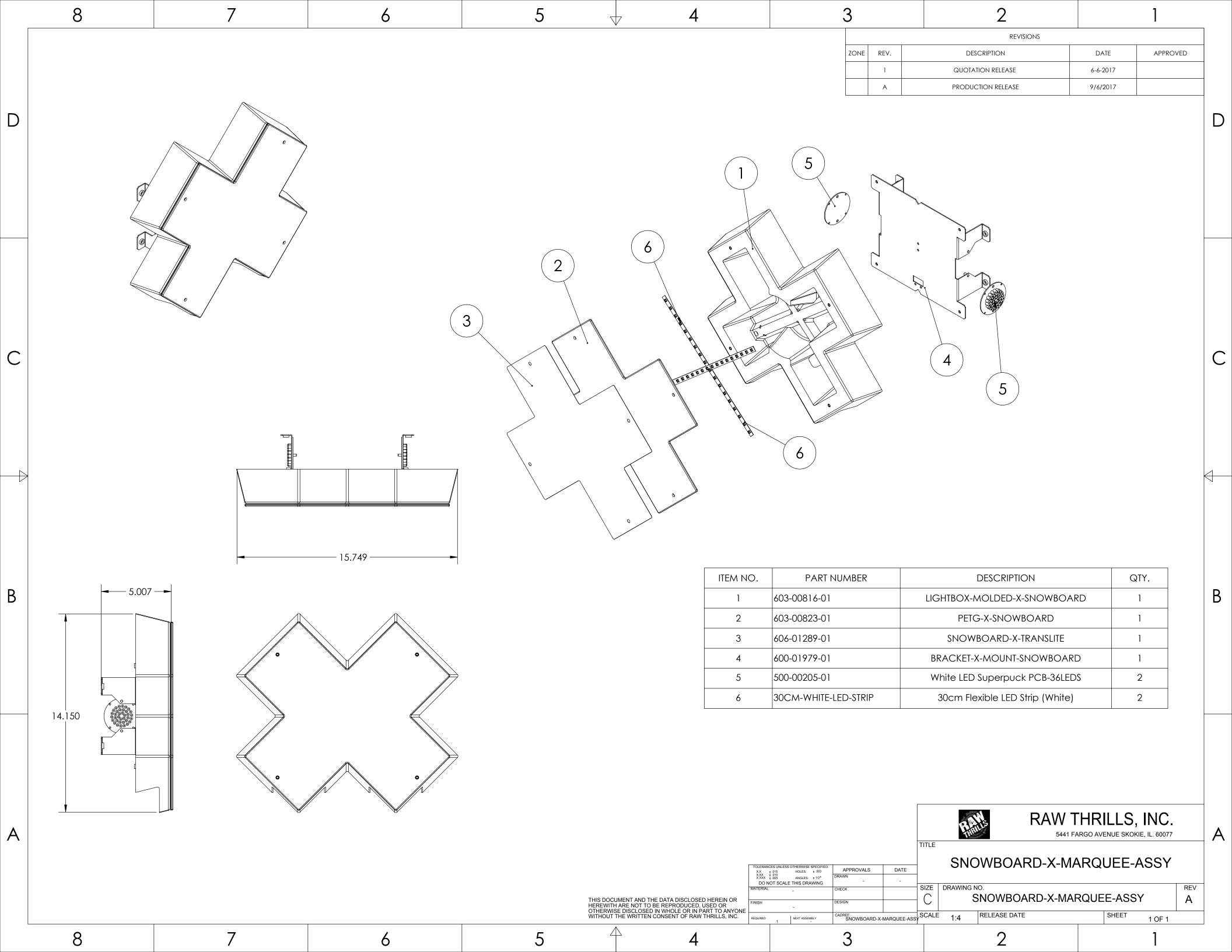


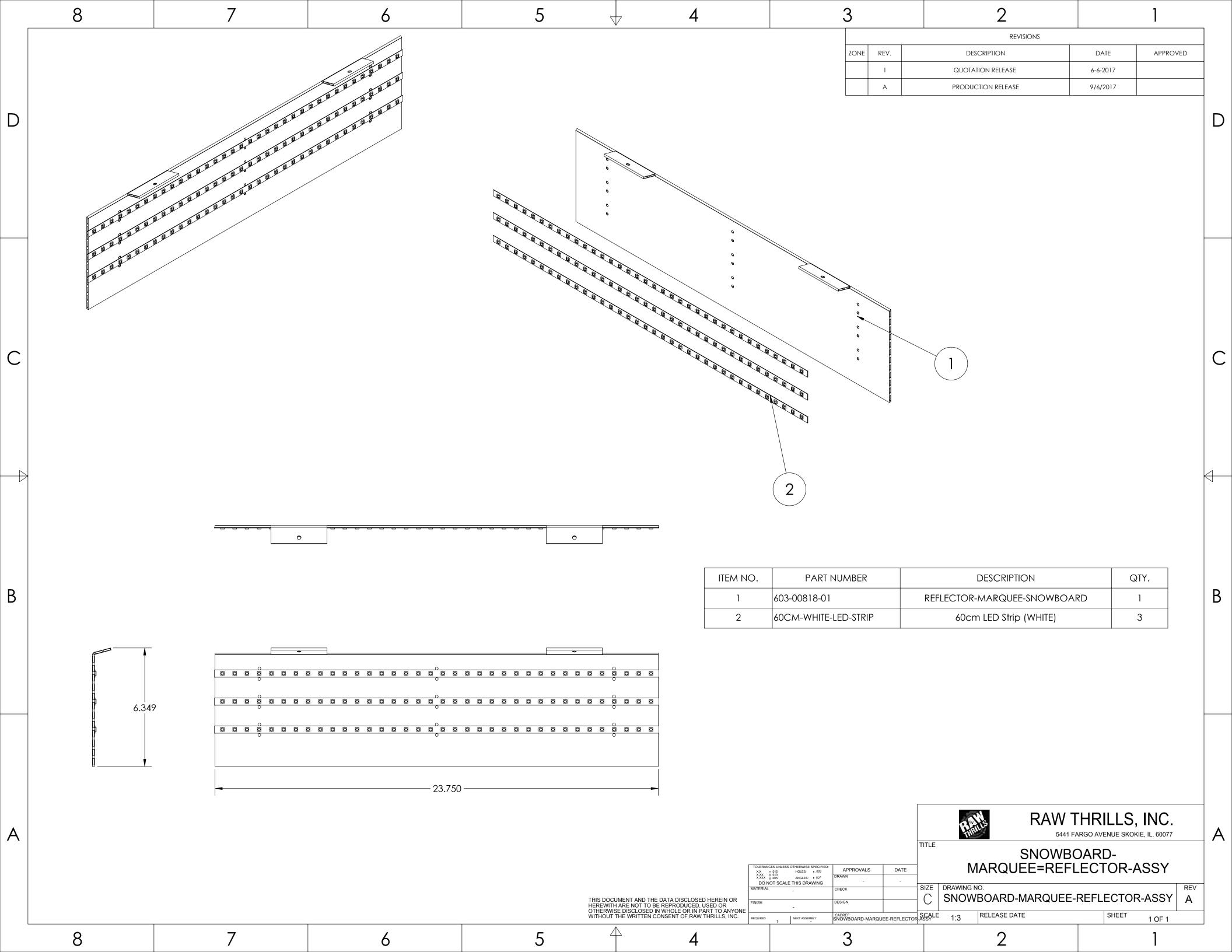


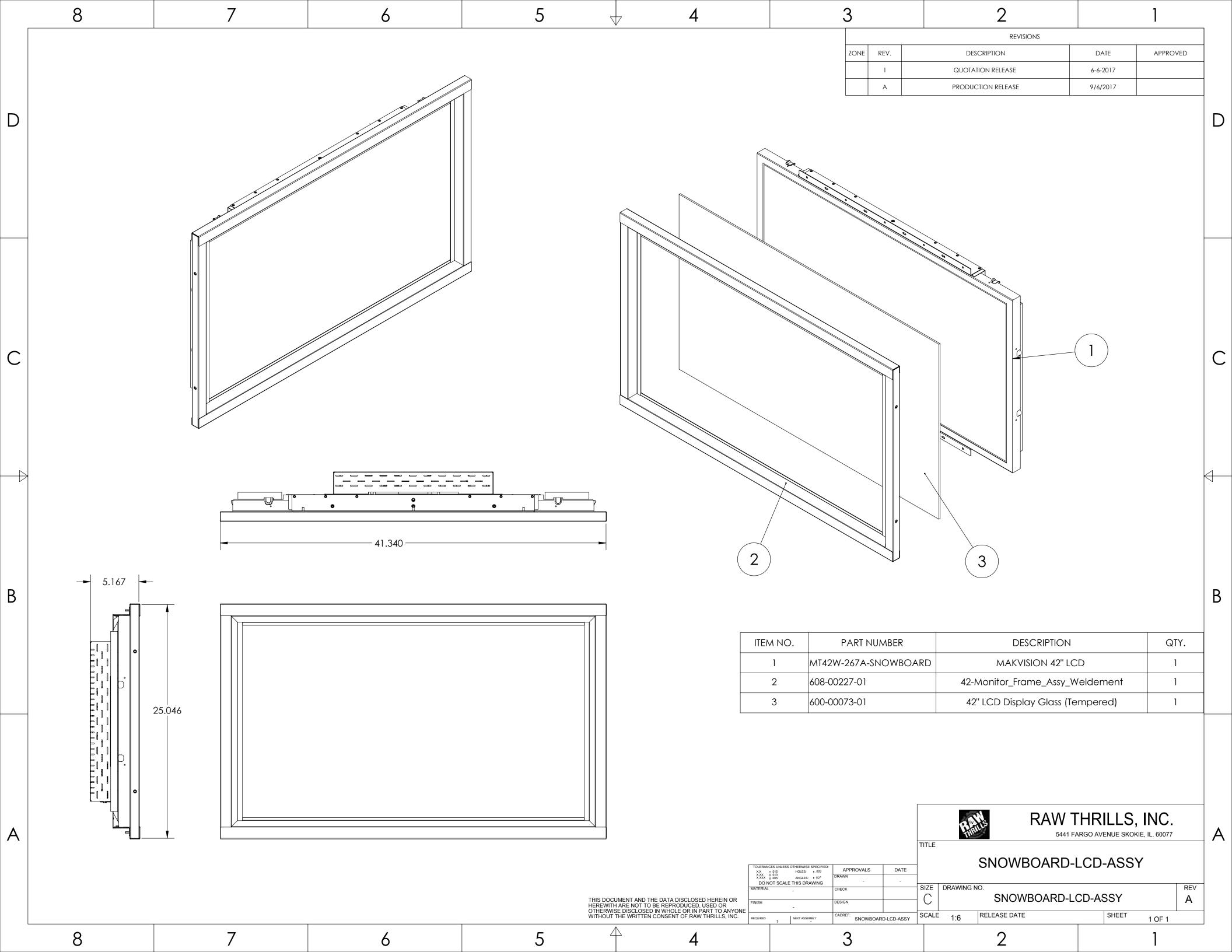


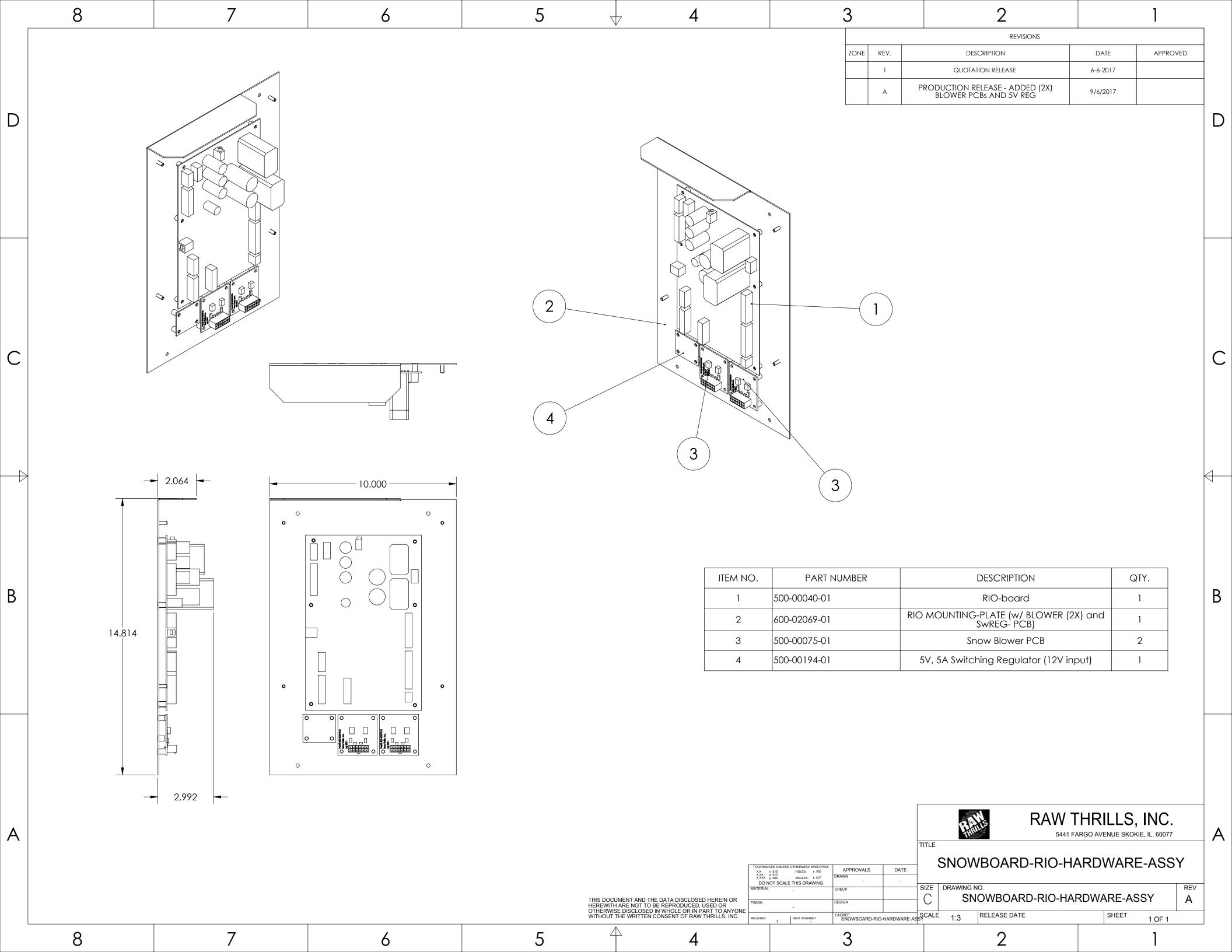


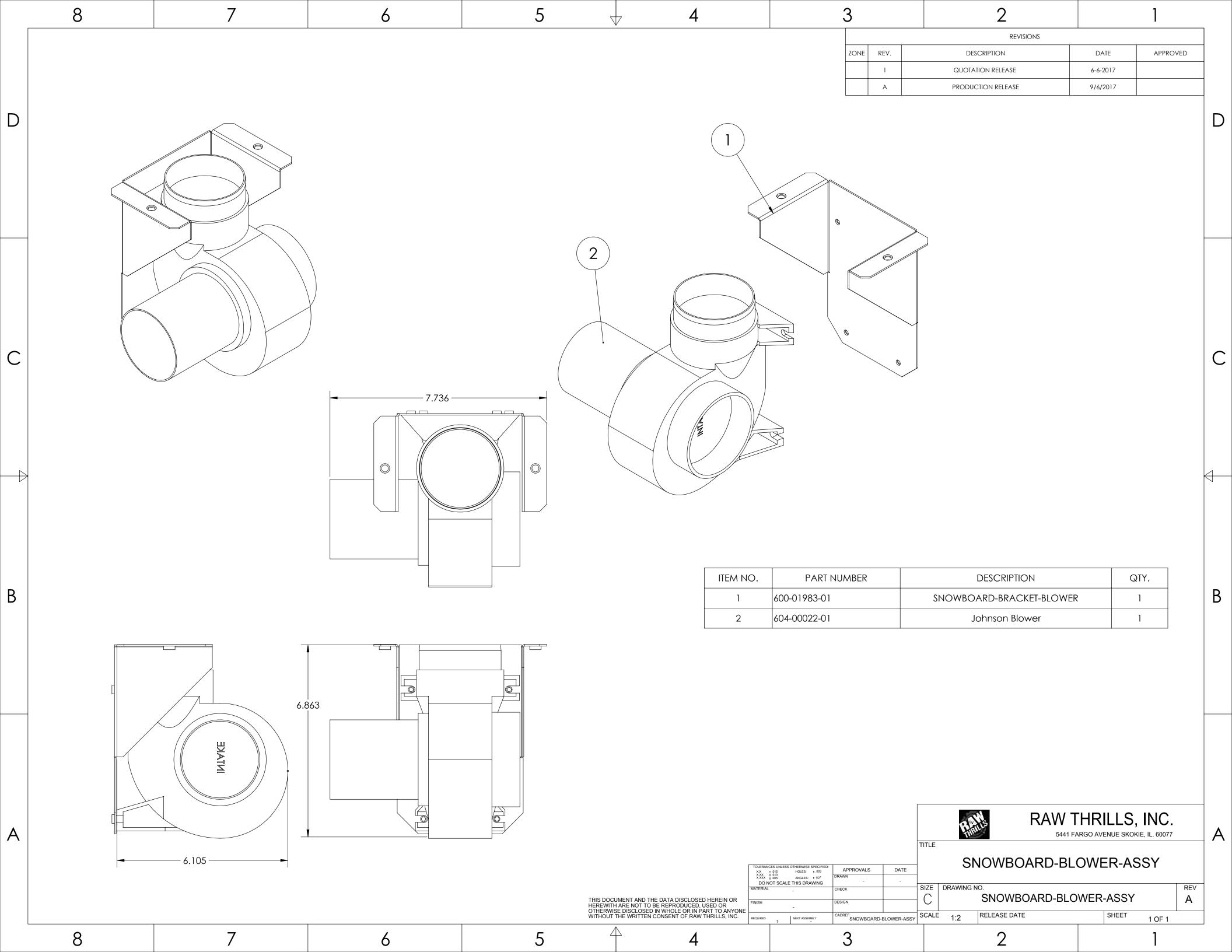


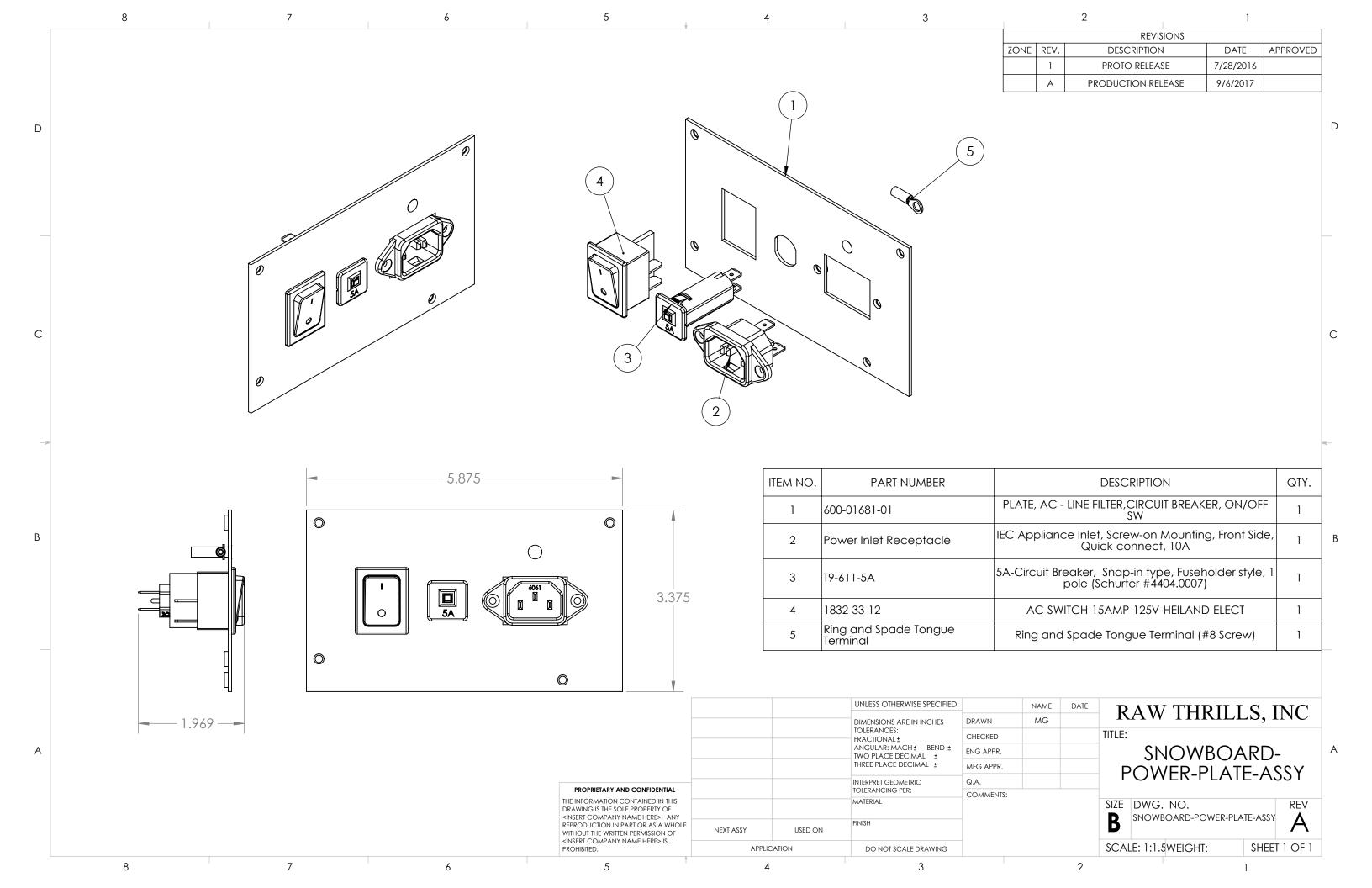


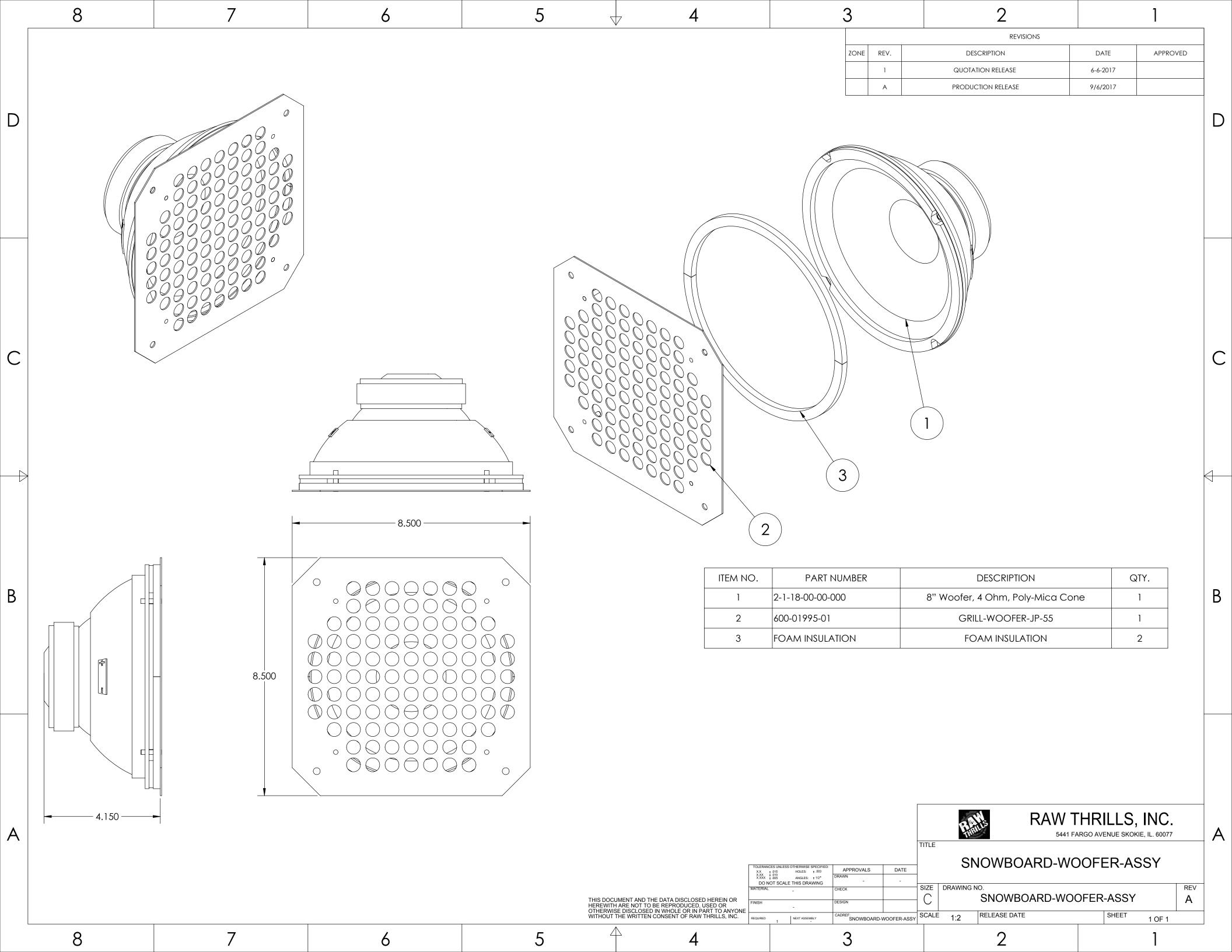


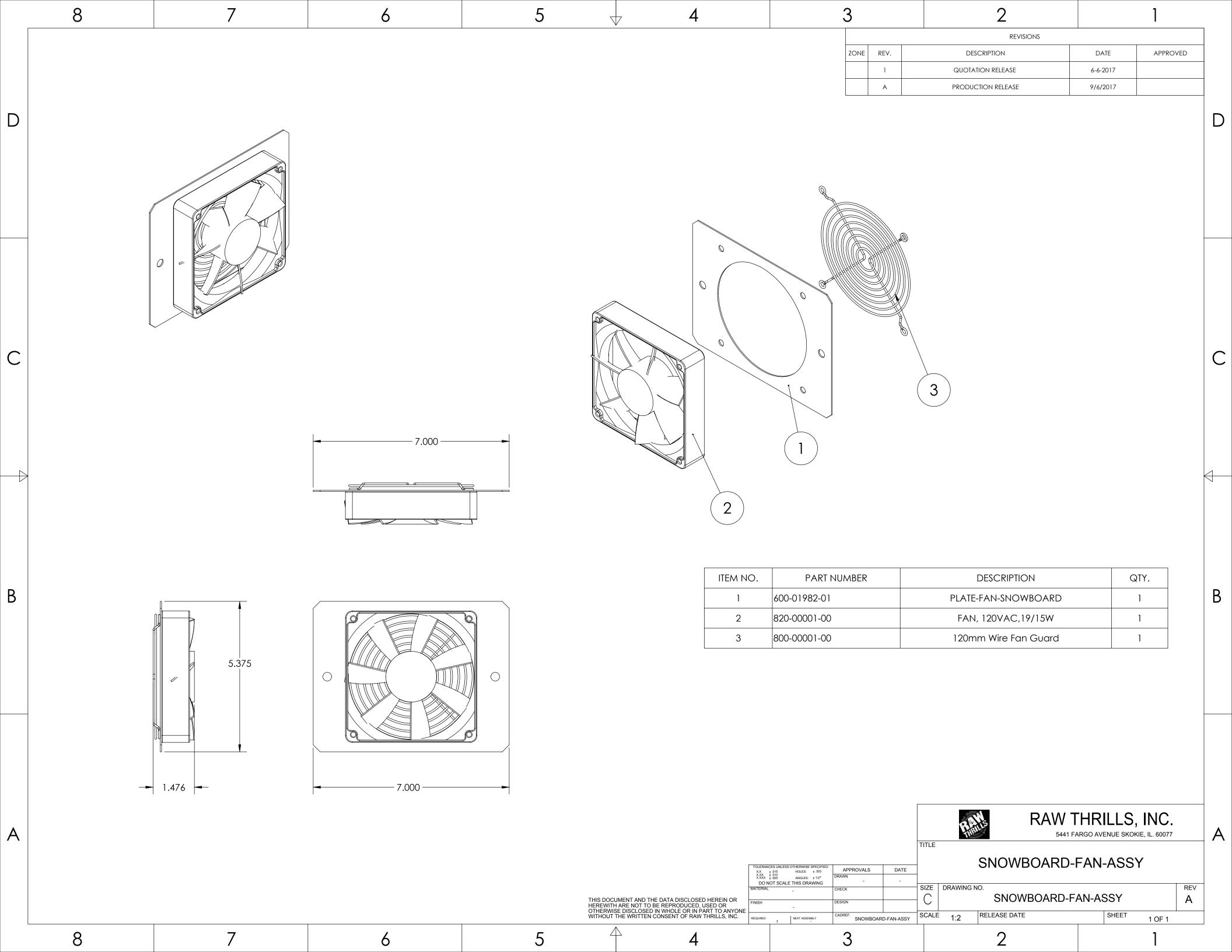




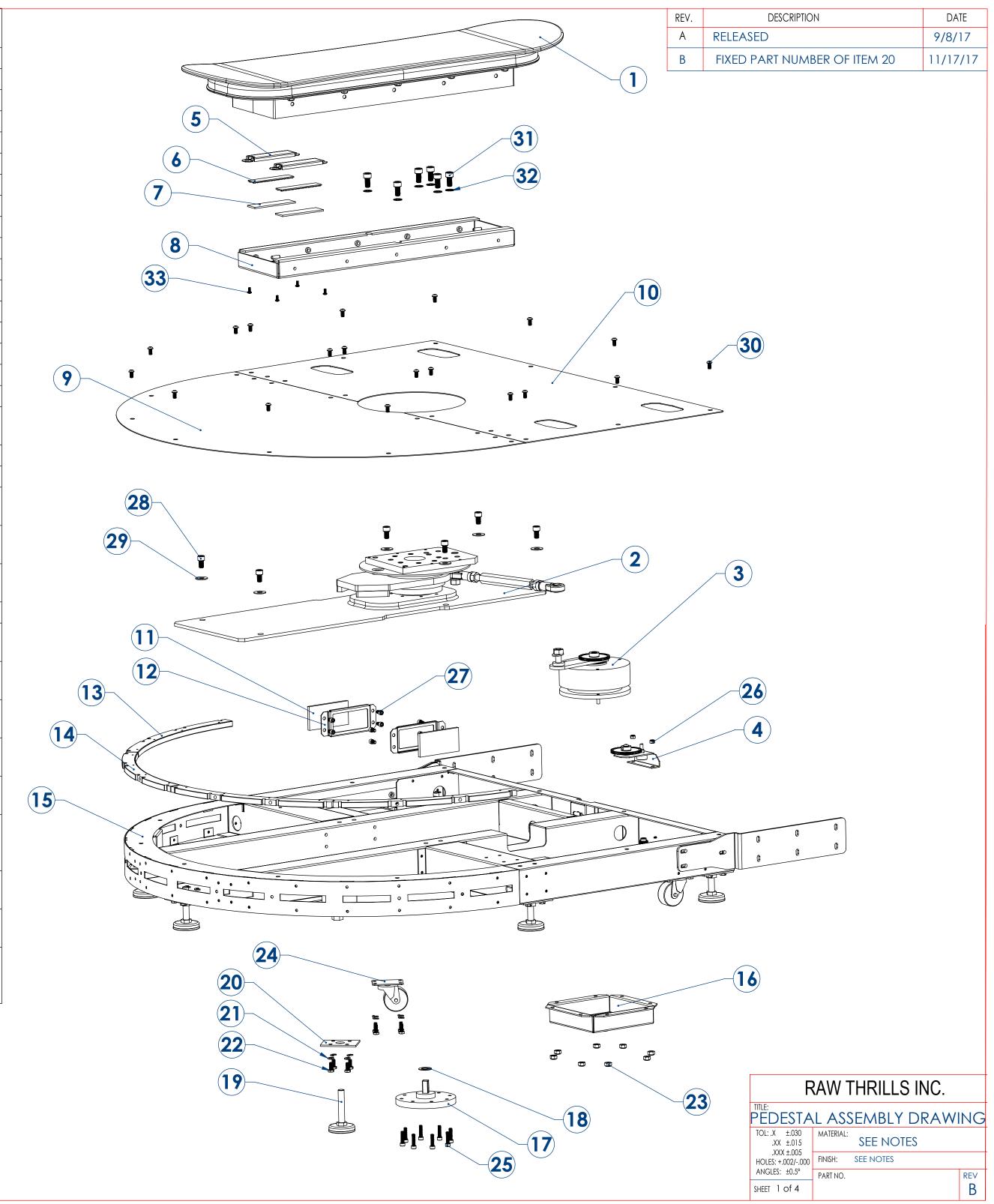






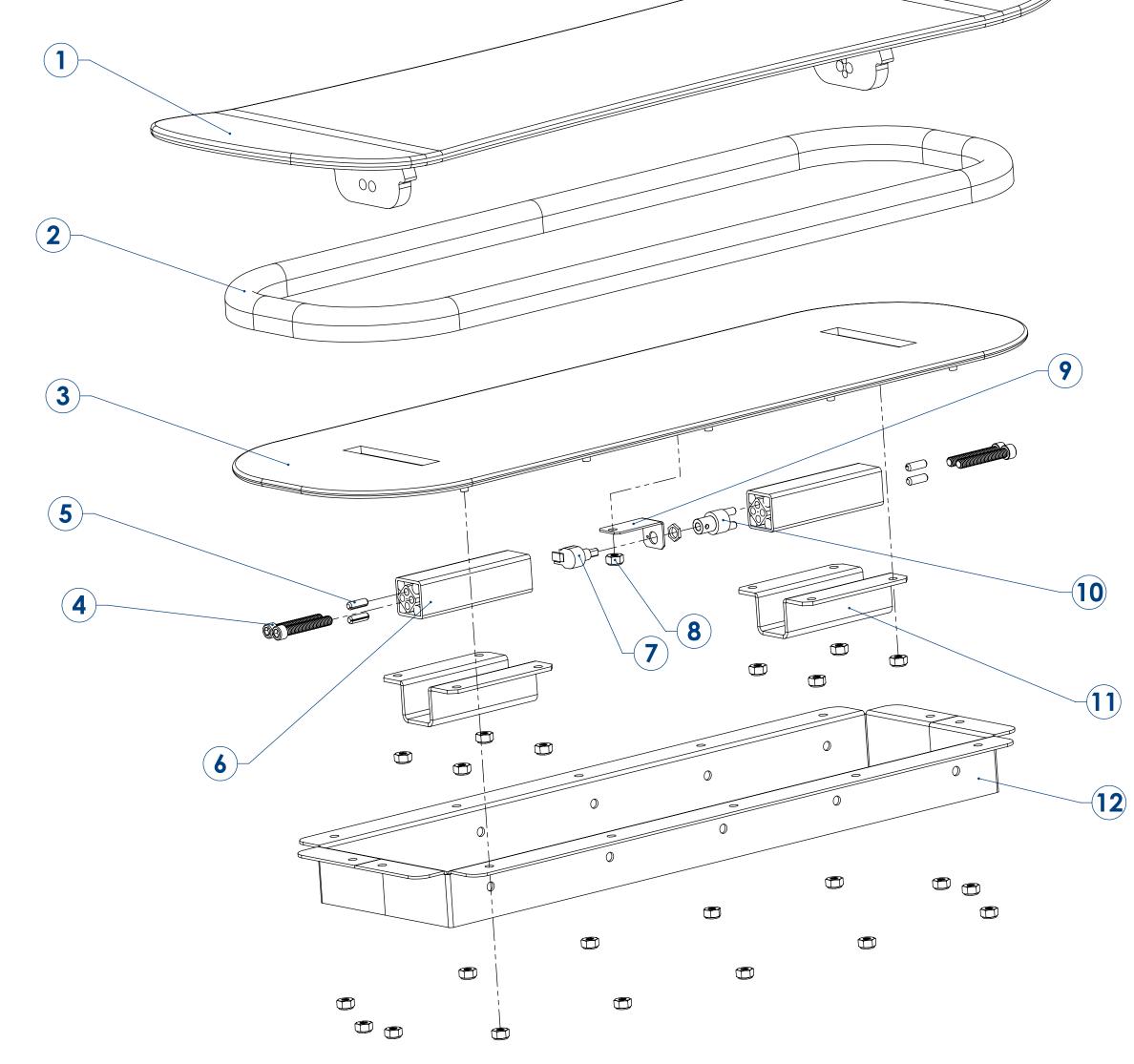


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1		BOARD ASSEMBLY	1
2		LOWER BOARD MECH	1
3		BRAKE ASSEMBLY	1
4	/00 010 /0 01	POT ASSEMBLY	1
5	600-01962-01	LED BRACKET	2
6 7	500-00217-01 600-01963-01	LED BOARD LED LENS	2
8	600-01961-01	FRAME BRACKET ASSEMBLY	1
9	600-01955-01	FRONT PEDESTAL COVER	1
10	600-01956-01	REAR PEDESTAL COVER	1
11	600-01348-01	STOP PAD	2
12	600-01349-01	STOP PAD HOLDER BRACKET	2
13	AS-3207	CURVED LIGHT ASSEMBLY A	2
14	AS-3171	CURVED LIGHT ASSEMBLY B	2
15	608-00226-01	PEDESTAL FRAME ASSEMBLY	1
16	600-01353-01	BRAKE PAN	1
17	600-01965-01	ROSTA PLATE	
18	MMC 95649A247	UHMW WASHER	1
19		4" LEG LEVELER 1/2-13 THREAD	7
20	600-01351-01	LEG LEVELER PLATE	7
21	MMC 91101A229	1/4" SPLIT WASHER	44
22	MMC 91257A544	1/4-20 x 1 1/4 GRADE 8 HEX BOLT	44
23	MMC 90648A029	1/4-20 NYLOK	8
24		CASTER	4
25	MMC 91290A336	M6 X 25MM CAP SCREW	8
26	MMC 90631A411	10-32 NYLOK NUT	2
27	MMC 90128A241	1/4-20 X 3/8" CAP SCREW	8
28	MMC 91251A621	3/8-16 X 5/8" CAP SCREW	6
29	MMC 90108A417	3/8 X 1" OD WASHER	6
30	MMC 96075A211	1/4-20 X 1/2" TAMPERPROOF SCREW	29
31	MMC 91290A516	M10 X 20MM CAP SCREW	6
32	MMC 91106A133	M10 INTERNAL TOOTH WASHER	6
33	MMC 90272A192	8-32 X 3/8" PAN HEAD PHILLIPS SCREW	4



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01654-01	SNOW BOARD WELDMENT	1
2	600-01958-01	PINCH GUARD FOAM	70''
3	600-01959-01	BOARD BASE FRAME	1
4	MMC 90044A139	5/16-18 X 2" ALLOY CAP SCREW	4
5	MMC 91610A710	6MM X 26MM SLOTTED SPRING PIN	4
6	600-01970-01	ROSTA DR-A 18 X 120	2
7	608-00228-01	1K POT AND NUT	1
8	MMC 90648A029	1/4-20 NYLOK NUT	23
9	600-01658-01	POT HOLDER BRACKET	1
10	600-01661-01	POT COUPLER	1
11	600-01657-01	ROSTA MOUNTING BRACKET	2
12	600-01960-01	ANCHOR BRACKET	2

REV.	DESCRIPTION	DATE
Α	RELEASED	9/8/17
В	CHANGED PART NUMBER OF ITEM #7	11/7/17



## NOTES:

1) THE NUT HOLDING THE POT HOLDER BRACKET SHOULD BE FULLY TIGHTENED AND THEN LOOSENED SLIGHTLY (ABOUT 45 DEGREES) TO ALLOW PLAY IN THE POT HOLDER BRACKET.

## **BOARD ASSEMBLY**

## RAW THRILLS INC.

TOL: .X ±.030
.XX ±.015
.XXX±.005
HOLES: +.002/-.000

TITLE:
PEDESTAL ASSEMBLY DRAWING

MATERIAL:
SEE NOTES

FINISH: SEE NOTES

ANGLES: ±0.5° PART NO.

SHEET 2 of 4

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01966-01	PIVOT MECH TOP PLATE	1
2	600-01967-01	PINCH GUARD DISC	1
3	600-01182-01	STOP PLATE	1
4	600-01183-01	BOTTOM MECH PLATE	1
5	600-01971-01	ROSTA DR-S 18 X 70	1
6	600-01322-01	CROSS ROLLER RING	1
7	600-01364-01	M12 FEMALE ROD END - RIGHT HAND	1
8	MMC 90591A181	M12 RIGHT HAND NUT	2
9	600-01187-01	THREADED HEX TURNBUCKLE	1
10	MMC 93695A190	M12 LEFT HAND NUT	1
11	600-01363-01	M12 FEMALE ROD END - LEFT HAND	1
12	MMC 91420A320	M5 X 10MM PHILLIPS FLAT HEAD SCREW	6
13	MMC 91166A290	M12 WASHER	1
14	MMC 92005A220	M4 X 10MM PHILLIPS SCREW	2
15		1/2" CABLE CLAMP	2
16	MMC 91290A334	M6 X 35MM CAP SCREW	18
17	MMC 91290A336	M6 X 40MM CAP SCREW	8

	KEV.	DESCRIFITON
	Α	RELEASED
	В	NO CHANGES THIS SHEET
13	9	
16		

REV.

DESCRIPTION

9/8/17

11/7/17

LOWER BOARD MECH

RAW THRILLS INC. TITLE:
PEDESTAL ASSEMBLY DRAWING

TOL: X ±.030
 .XX ±.015
 .XXX ±.015
 .XXX ±.005
HOLES: +.002/-.000
ANGLES: ±0.5°

PART NO.

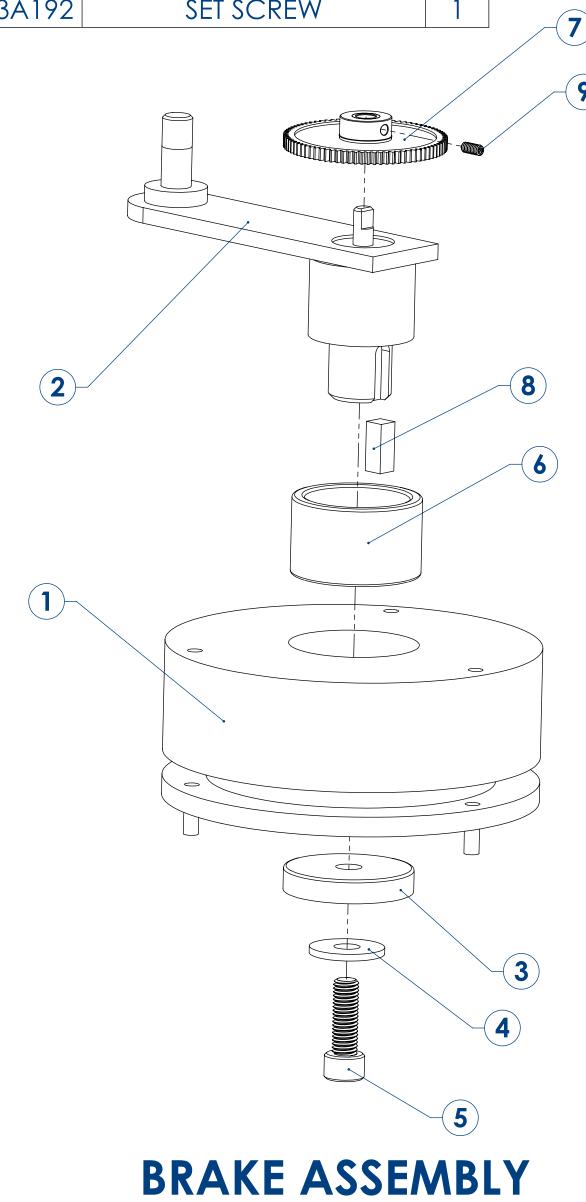
REV REV B

SHEET 3 of 4

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	604-00038-01	BRAKE AND 25MM HUB	1
2	600-01186-01	BRAKE BRACKET ASSY	1
3	600-01195-01	SMALL BRAKE BUSHING	1
4	MMC 91100A170	M10 FENDER WASHER	1
5	MMC 91290A522	M10 X 30MM CAP SCREW	1
6	600-01194-01	LARGE BRAKE BUSHING	1
7	600-01161-01	DRIVE GEAR	1
8	600-01317-01	MACHINE KEY 8MM X 8MM X 20MM	1
9	MMC 92313A192	SET SCREW	1

NO.	PART NUMBER	DESCRIPTION	QTY
1	600-01964-01	POT BRACKET	1
2	600-01188-01	IDLER STUD	1
3	600-01161-01	DRIVE GEAR	1
4	MMC 91770A827	10-32 X 3/8 TRUSS HEAD PHILLIPS SCREW	2
5	600-01567-01	SMALL POT GEAR	1
6	608-00219-01	5K POT AND NUT	1
7	MMC 92141A030	5/16 WASHER	1
8	MMC 91390A100	M3 X 6MM SET SCREW	1

REV.	DESCRIPTION	DATE
Α	RELEASED	9/8/17
В	CORRECTED PART NUMBER OF ITEM 6. ADDED ITEMS 7 & 8. ADDED NOTE.	11/7/17



DO NOT FULLY TIGHTEN THIS SCREW, THE GEAR MUST BE FREE TO SPIN. USE THREADLOCKER OR A PATCH SCREW TO PREVENT UNSCREWING  4
8
2
7

**POT ASSEMBLY** 

F	RAW THRILLS INC.	
PEDESTA	AL ASSEMBLY DRAWI	NC
TOL: .X ±.030 .XX ±.015 .XXX ±.005 HOLES: +.002/000	MATERIAL: SEE NOTES	
	FINISH: SEE NOTES	
ANGLES: ±0.5°	PART NO.	REV
SHEET 4 of 4		В

