

Mad Wave Motion Theater

Technical Support

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USER MANUAL

Version 2.1 – November 2007



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J5T 3R2
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Dear valued customer,

Congratulations and thank you for purchasing a *Mad Wave Motion Theater* from TRIOTECH AMUSEMENT. We are certain you will not be disappointed with your purchasing decision. Your 2-seat motion theater is coin-operated and does not require any attendance. It features a 5.1 Digital sound system, a bright 1500 LUMENS projector for the 55" screen and a dual-actuator motion platform, which features the most realistic simulation available in coin-op. The built-in LED display and marquee header are sure to attract a crowd.

You can also offer your players a selection of 10 Motion Rides by purchasing additional ride films. Contact your distributor today for more information on these rides!

Sincerely,
TRIOTECH

**ATTENTION ALL GUESTS
READ IMPORTANT SAFETY INFORMATION
AND FOLLOW INSTRUCTIONS OF ATTENDANTS**

RIDE DESCRIPTION: MODERATE

A movie ride with intense back and forth and side to side movement of the seats.

MOTION THEATER

Do not ride if you have any of the following conditions:



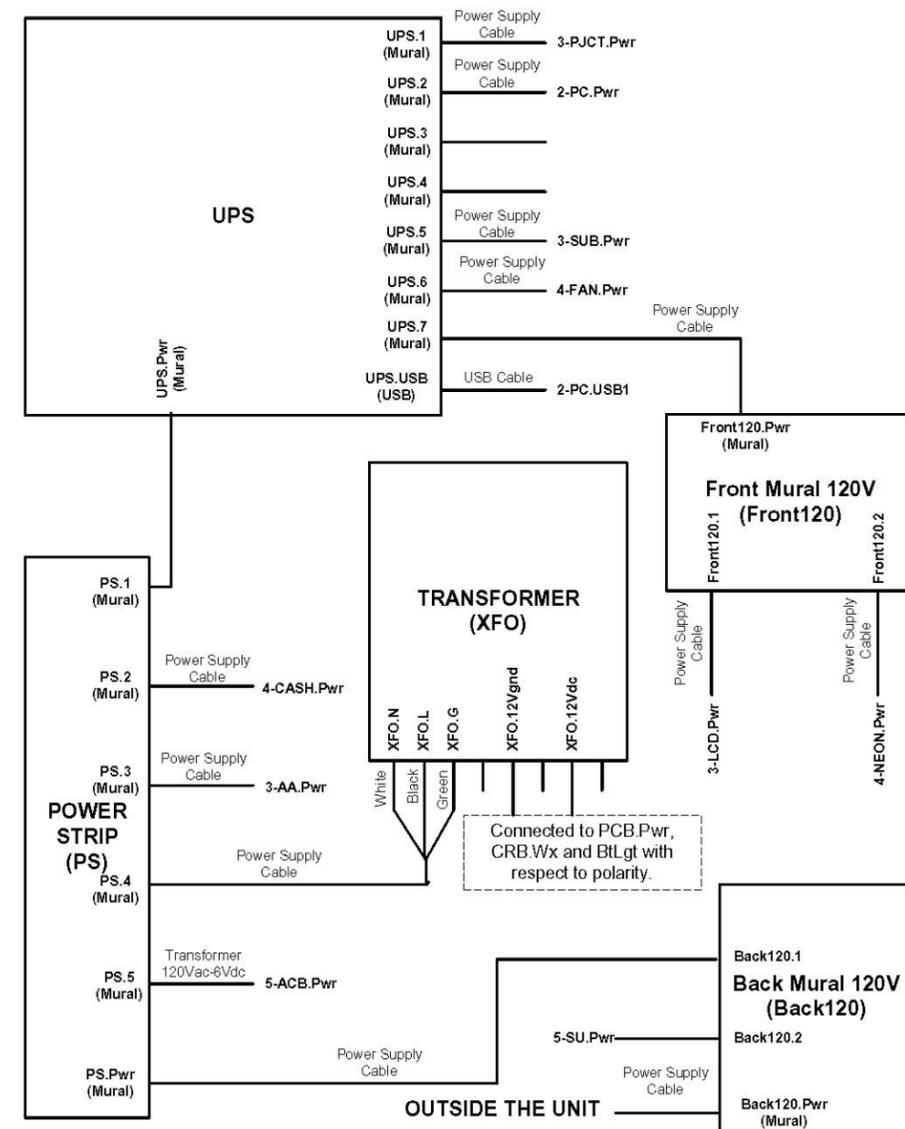
For your safety, you should be in good health to ride. Only you know your physical conditions or limitations. If you suspect your health could be at risk for any reason, or you could aggravate a pre-existing condition of any kind, DO NOT RIDE!

RIDE RULES

- Secure all loose articles (glasses, cameras, cell phones, hats, wallets, keys, etc.) or leave them with a non-rider
- Cameras and video equipment are not permitted on the ride
- Smoking is not permitted on the ride
- Chewing gum, candy, food and drinks are not permitted on the ride

Schematics
Electrical 6-4

MWMT Electrical Schematics: Alimentation



Schematics
6-3 Audio / Video

MWMT Electrical Schematics: Audio/Video

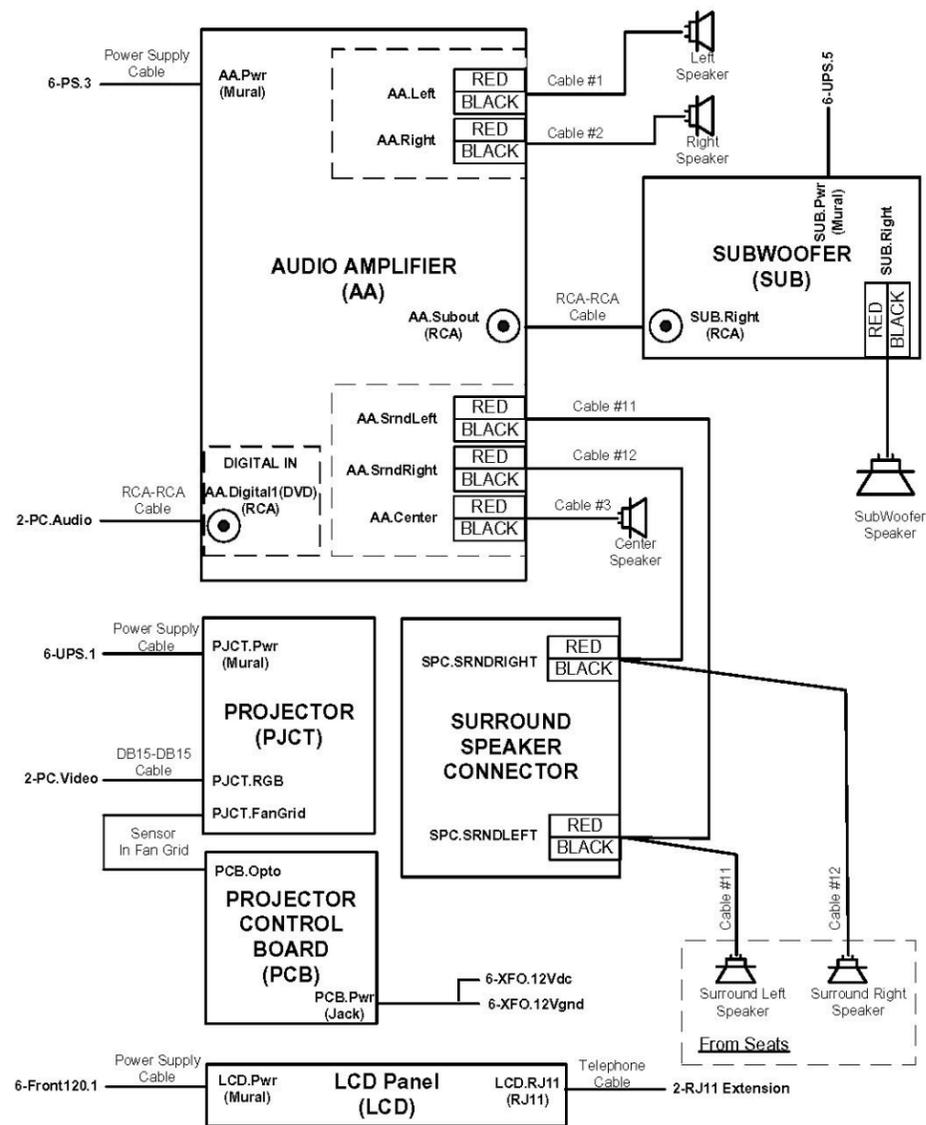


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Installation

1-1

Mad Wave Motion Theater Installation

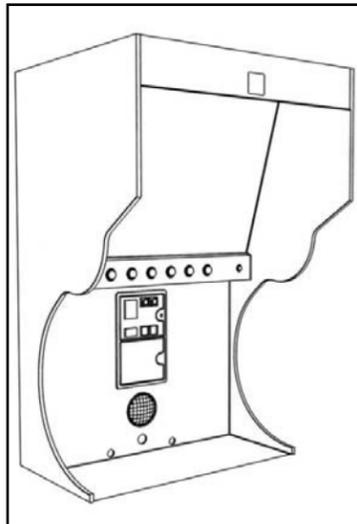


CAUTION
Mad Wave Motion Theater requires a dedicated 15 amp circuit or the machine may experience sporadic technical difficulties. Your Mad Wave Motion Theater should not be plugged in with other deluxe or motion based cabinets.

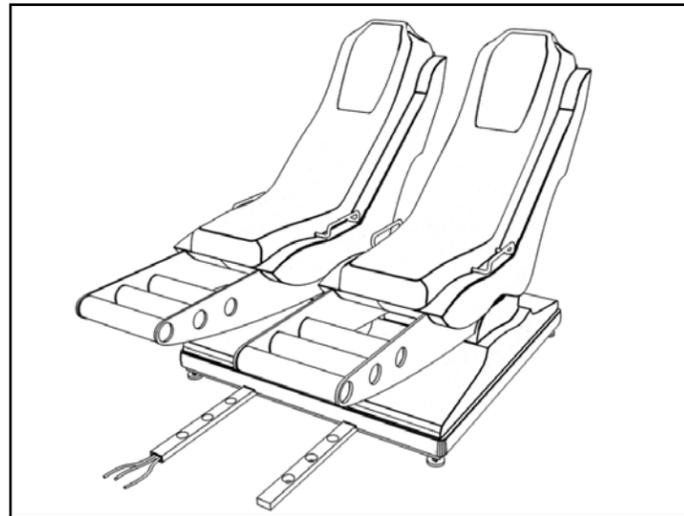
Determine Optimum Location

The game location must be free of exposure to direct sunlight, high humidity, dust, salt mist, high heat, or extreme cold. If installed in an unusually hot location, allow additional clearance between ventilation slots in the game and any structure or object that would tend to restrict air circulation.

Madwave Motion Theater Ships in two (2) crates



CRATE 1
INCLUDES MAIN CABINET AND MARQUEE HEADER

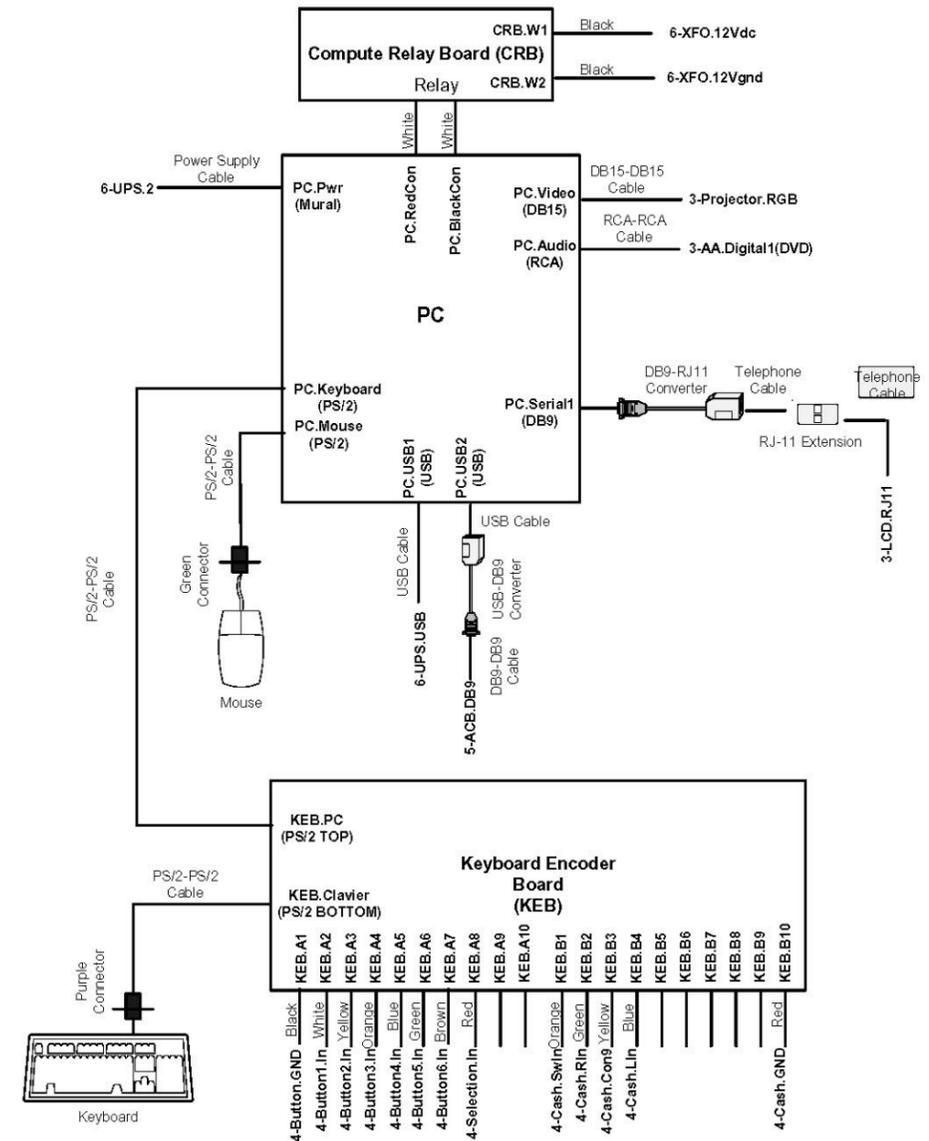


CRATE 2
MOTION SEAT MODULE

Schematics

Computer 6-2

MWMT Electrical Schematics: PC



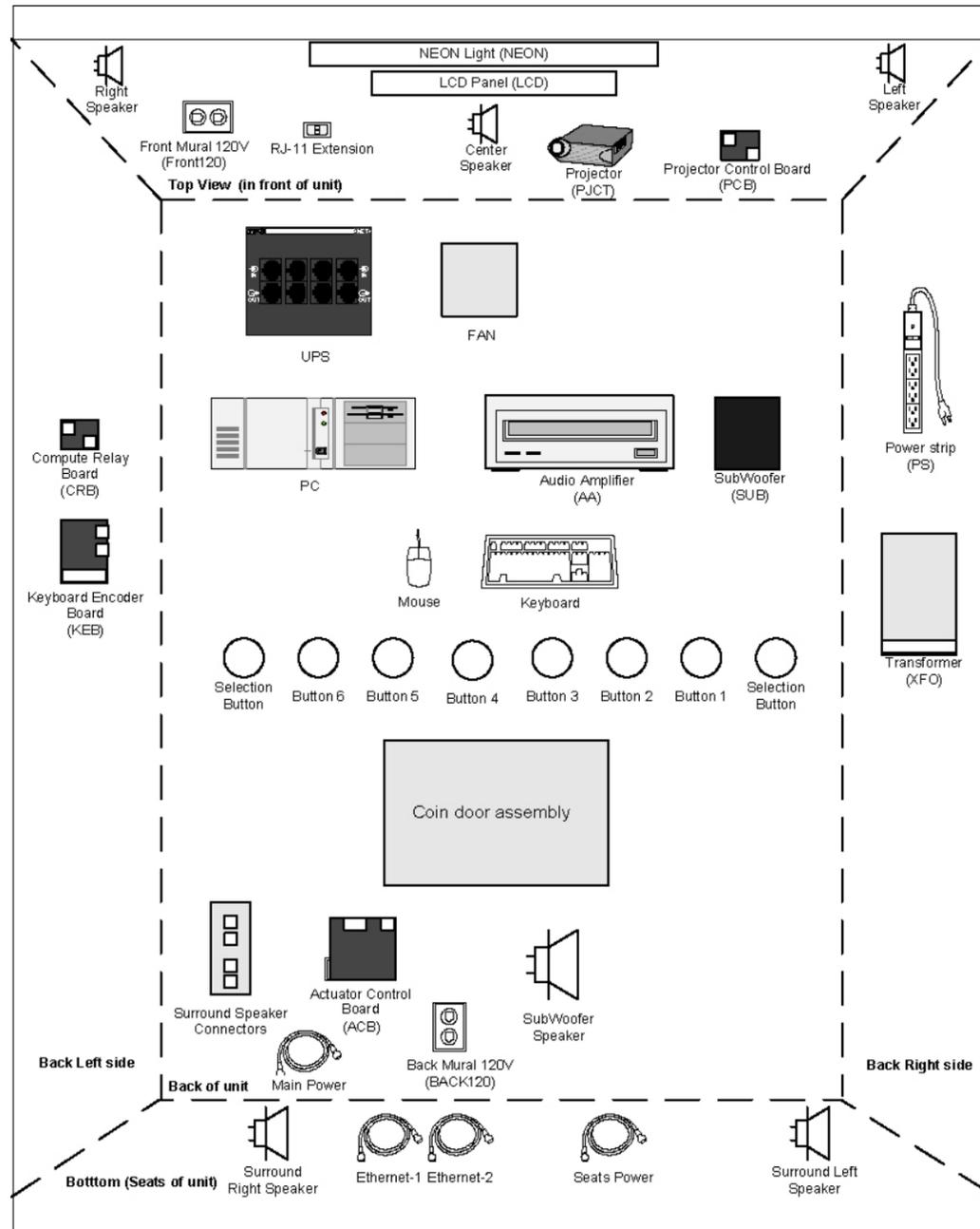
Schematics

6-1 Electrical (back of game)

Installation

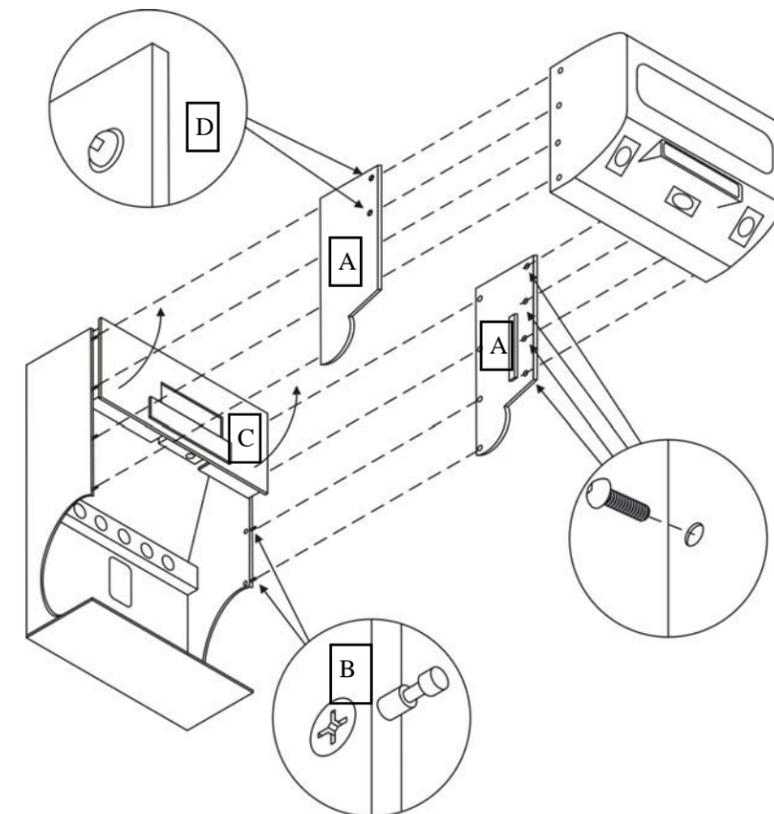
Assembling main cabinet 1-2

MWMT Electrical Schematics: Physical view (back)



You will need the following hardware:
 8 bolts (1/4"-20 X 1/2") and washers
 4 bolts (1/4" -20 X 1 1/4")
 3 persons will be needed for this operation

1. Insert one of the two side panels (A) on side of cabinet .
2. Rotate insert (B) clockwise with Philips screwdriver.
3. Repeat step 1 with remaining panel.
4. Unfold the projector panel (C) until it sits on top of the two plastic supports (you may have to slightly open the two side panels to let the projector support fit between the two panels until it reaches its upright position)
5. Install 2 bolts (1/4"-20 X 1 1/4") and washers on each side of the cabinet (D) to hold the projector panel in the upright position.



1-3 Header Wiring

- A. Remove projector cover plate
- B. Slide wires from header into plastic tube.
- C. Connect the Phone cable to the outlet.
- D. Connect the two 120V cords to the outlet.
- E. Connect the Speaker wire to the connectors (Make sure the number on the wire match with those beside the connector plate).
- F. Unscrew Screw.
- G. Pull plastic tube out.
- H. Close projector cover plate
- I. Position tube so both screws are positioned inside wood panels and screw both screws to prevent tube from sliding.

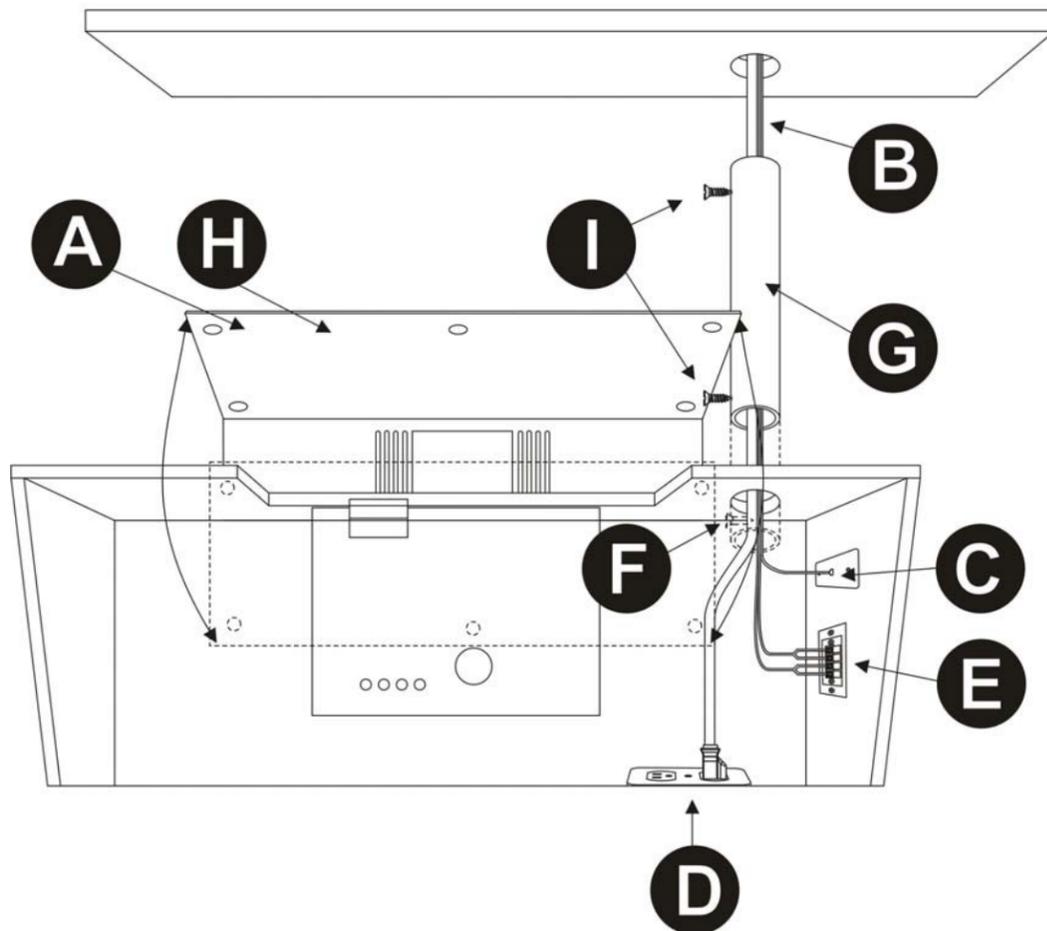


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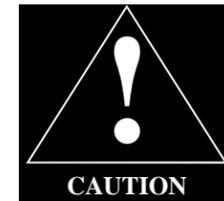
Parts
5-5 General parts

THEATER		
	PART NUMBER	NAME
MECHANICAL	MECHANICAL	
	SD-450-0002	ACTUATOR AV 1.15 LEFT
	SD-450-0002	ACTUATOR AV 1.15 RIGHT
	SD-1000-0001	ACTUATOR AC 6
	SD-450-0004	DRIVE ASSEMBLY AV 1.15
	SD-450-0005	DRIVE ASSEMBLY AC 6
		PIVOT BRACKET
	SD-900-0004	ACTUATOR COUPLER
COMPUTER	COMPUTER	
	SD-300-0002	COMPUTER
	SD-300-0008	MAXTOR HARD DRIVE 40GB
	SD-300-0017	SEAGATE HARD DRIVE 80GB
	SD-300-0007	COMPUTER VIA MOTHERBOARD
	SD-300-0018	MEMORY CARD 256 MEG SDRAM
	SD-300-0022	CD-ROM DRIVE
	SD-300-0024	COMPUTER POWER SUPPLY MINI ATX
	SD-300-0014	FLOPPY READER
ELECTRONICS	ELECTRONICS	
	SD-150-0098	12V POWER SUPPLY
	SD-900-0018	PROJECTOR AIR FILTER
	SD-700-0002	PROJECTOR
	SD-700-0042	PROJECTOR REMOTE CONTROL
	SD-300-0004	PROJECTOR CONTROL BOARD
	SD-900-0014	PROJECTOR LAMP PJ-501
	SD-900-0016	PROJECTOR LAMP PJ-550
	SD-300-0001	KEYBOARD ENCODER BOARD
	SD-150-0024	ACTUATOR CONTROL BOARD
	SD-300-0003	UPS BATTERY BACKUP
	SD-950-0001	AMPLIFIER
	SD-700-0003	SUBWOOFER SPEAKER
	SD-700-0020	SURROUND SPEAKER
	SD-550-0002	PROLITE LCD PANEL
	SD-150-0019	ACTUATOR RJ45 SHIELDED NETWORK CABLE
	MISC	MISC
SD-150-0030		BLUE SELECTION BUTTON
SD-150-0029		RED BUTTON
SD-350-0005		FIBERGLASS SEAT
SD-150-0099		CHERRY SWITCH
SD-500-0003		HEAD CUSHION
SD-250-0019		ACTUATOR BRACKET LEFT
SD-250-0020		ACTUATOR BRACKET RIGHT
SD-250-0017		AMPLIFIER MOUNTING PLATE
SD-650-0001		SIDE DECALS
SD-250-0023		SPEAKER HOLDING BAR (LEFT)
SD-250-0024		SPEAKER HOLDING BAR (RIGHT)

Installation
1-4 Seat Assembly

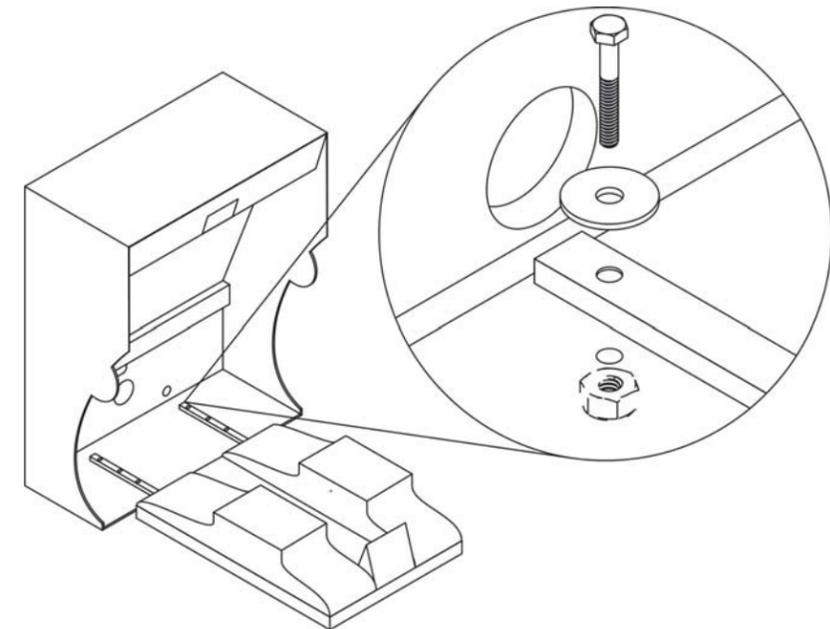


You will need the following hardware:
6 bolts and washers (1/2" - 13 X 2 1/2")



CAREFUL NOT TO DAMAGE THE ATTACHED WIRES WHILE
HANDLING THE SEAT MODULE

1. Remove seat platform from CRATE 2
2. Insert wires through the hole while positioning the seat module.
3. Attach seat module to the theater cabinet with the 6 bolts (1/2-13"x2 1/2") and washers.



Stabilize Unit

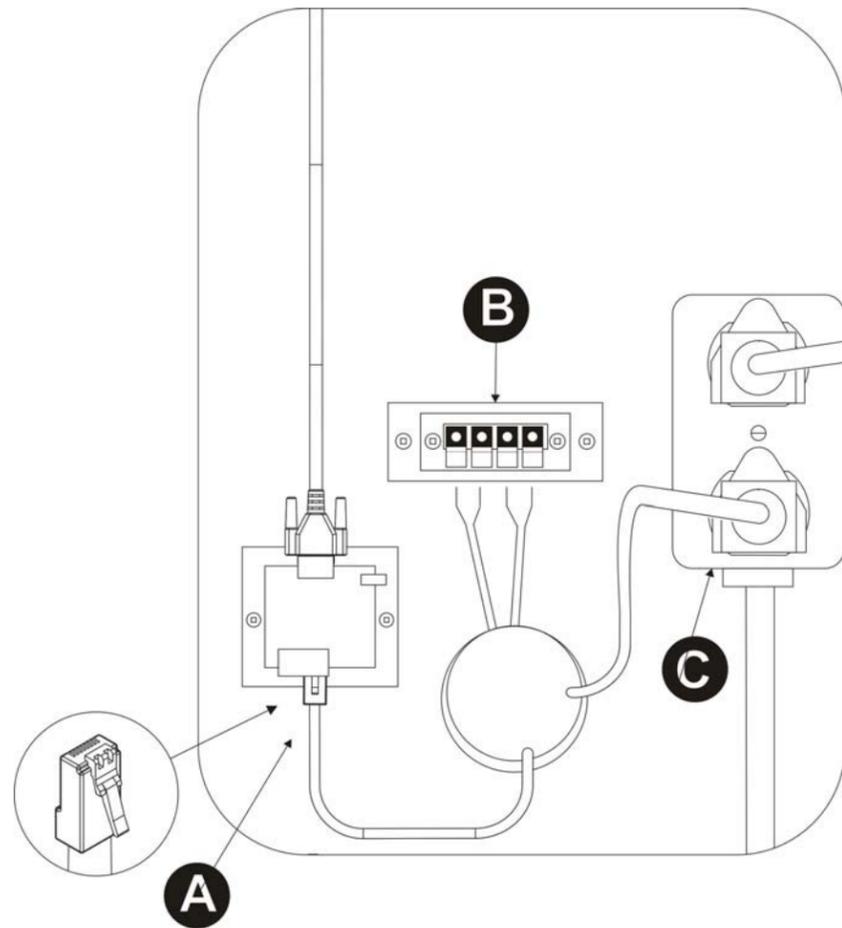
The movement of the seats produces force on the machine that can cause the entire game to move. Before operating the theater, make sure all levellers are down and resting firmly on the floor.

Installation

1-5 Seat wiring

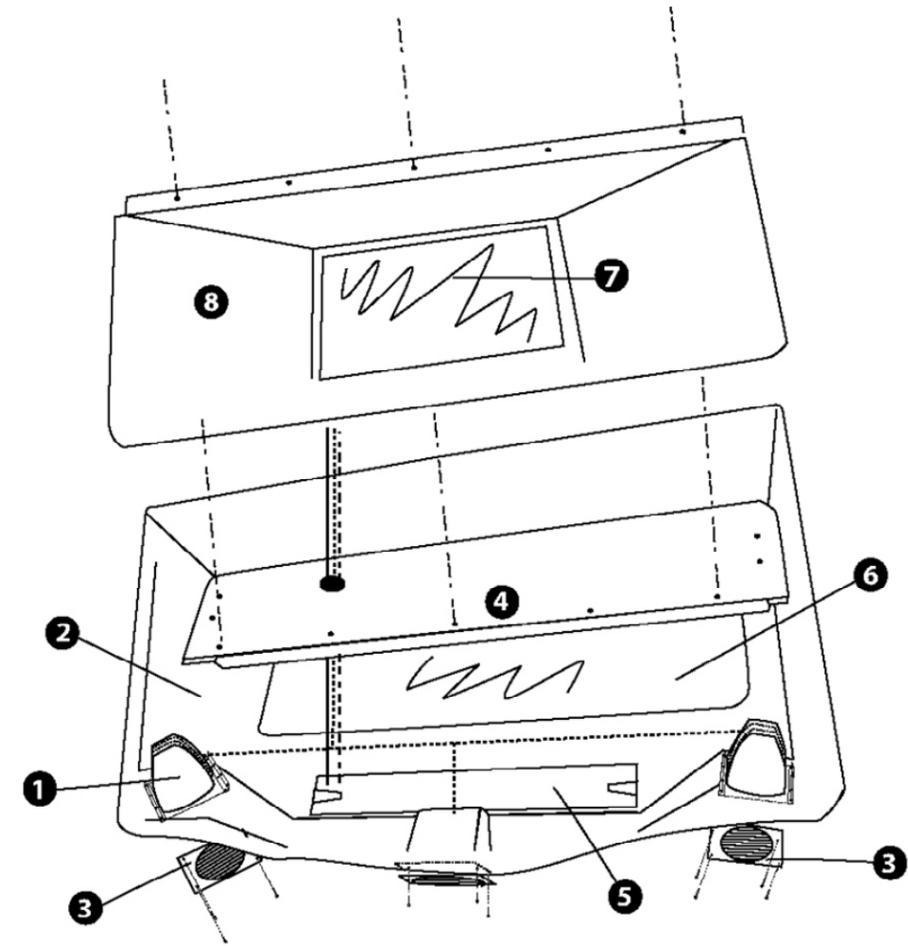
- Proceed to rear cabinet
- Open the lower rear door (key on hook in coin mech door)
- Take wires from the opening and connect as follows:
 - A. Connect the RG-45 cables to the terminal block;
 - B. Connect the speaker wire to the terminal; (Be sure to match the numbers that are on the speaker wires to the numbers indicated below the terminal block)
 - C. Connect the power cord from the seat.

From the back service door re-route the main power cord to the outside of the machine through the circular opening beside the door.



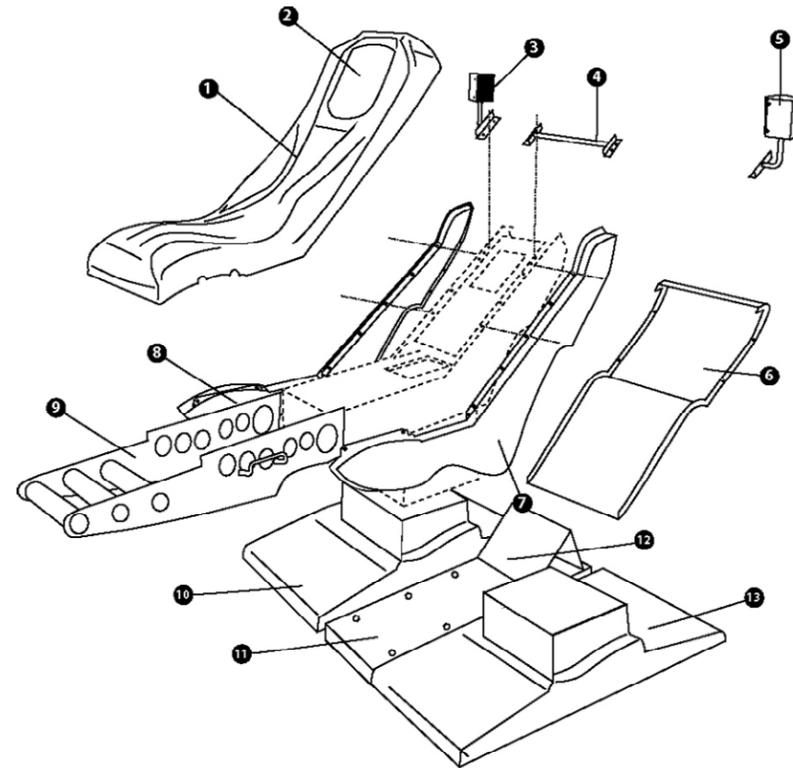
Parts

Header 5-4



Item	Part No.	Description
01	SD-700-0020	Speakers
02	SD-350-0007	Header
03	SD-250-0026	Speaker grill
04	SD-550-0003	Neon Light 4'
05	SD-550-0002	LED Sign
06	SD-400-0005	Front Plastic
07	SD-600-0002	Mirror
08	SD-400-0004	Mirror holder

Parts
5-3 Seat assembly (fibreglass)



Item	Part No.	Description
01	SD-250-0010	Fiberglass seat
02	SD-500-0003	Head Custom
03	SD-250-0024	Right Speaker support
04	SD-250-0010	Holder Bar
05	SD-250-0023	Left Speaker support
06	SD-350-0006	Fiberglass back
07	SD-350-0004	Fiberglass right side
08	SD-350-0003	Fiberglass left side
09	SD-250-0025	Foot Rest
10	SD-350-0001	Right Fiberglass base
11	SD-400-0002	Center floor plastic
12	SD-250-0011	No Step Plate
13	SD-350-0002	Left Fiberglass base

Projector adjustment
Viewsonic PJ-501

Installation
1-6

1

Projection is pre-adjusted at the factory but minor adjustments may be required.
(1) Vertical adjustment (Tilt) To center the image horizontally on the screen, loosen the large knob on both sides of the projector and tighten it when it is adjusted properly.

2

Zoom Adjustment:
Turn the zoom knob.
Focus Adjustment:
Turn the Focus Ring.

3

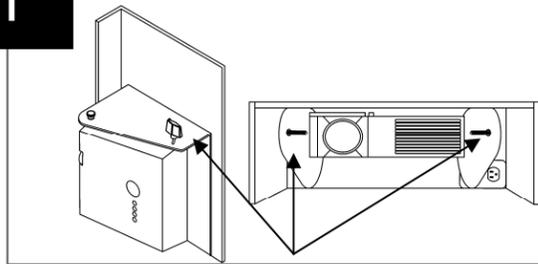
Horizontal Adjustment:
To rotate the projector find the two adjustment bolts at the top of the machine (pictured here) loosen them, adjust view then tighten.

Installation

1-7

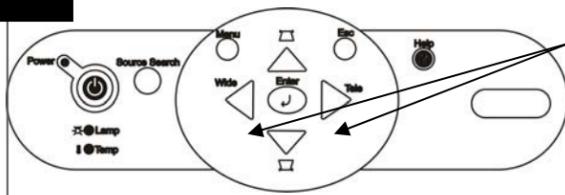
Projector adjustment
Epson PowerLite S3

1



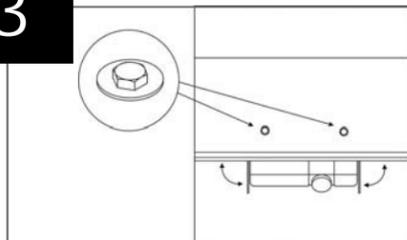
Projection is pre-adjusted at the factory but minor adjustments may be required.
(1) Vertical adjustment (Tilt) To center the image horizontally on the screen, loosen the large knob on both sides of the projector and tighten it when it is adjusted properly.

2



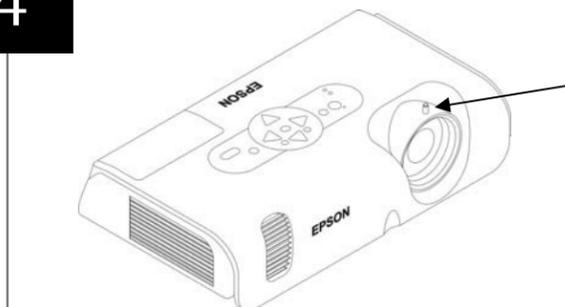
Zoom Adjustment:
Hit the WIDE and TELE buttons to adjust to the proper size.

3



Horizontal Adjustment:
To rotate the projector, find the two adjustment bolts at the top of the machine (pictured here) loosen them, adjust view then tighten.

4

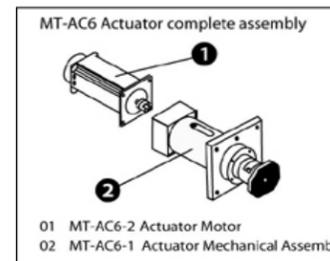
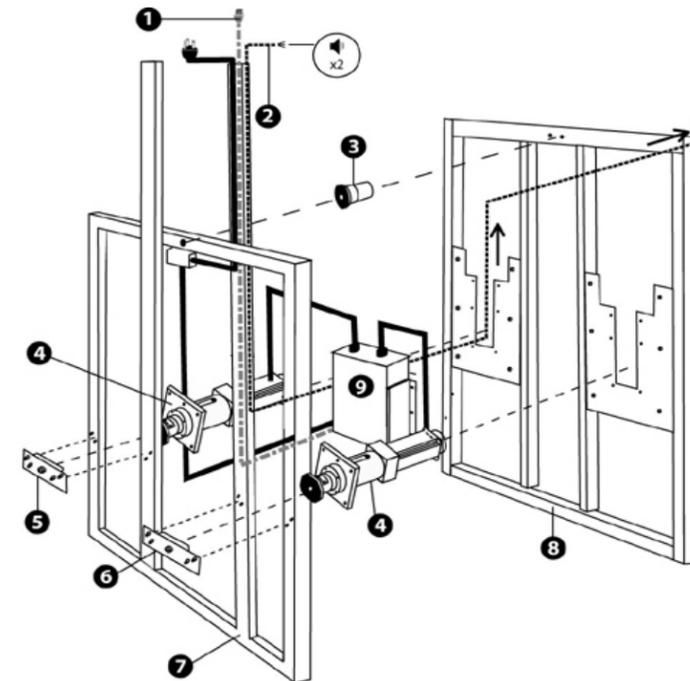


Focus adjustment:
Rotate focus knob on lens to adjust focus.

Parts

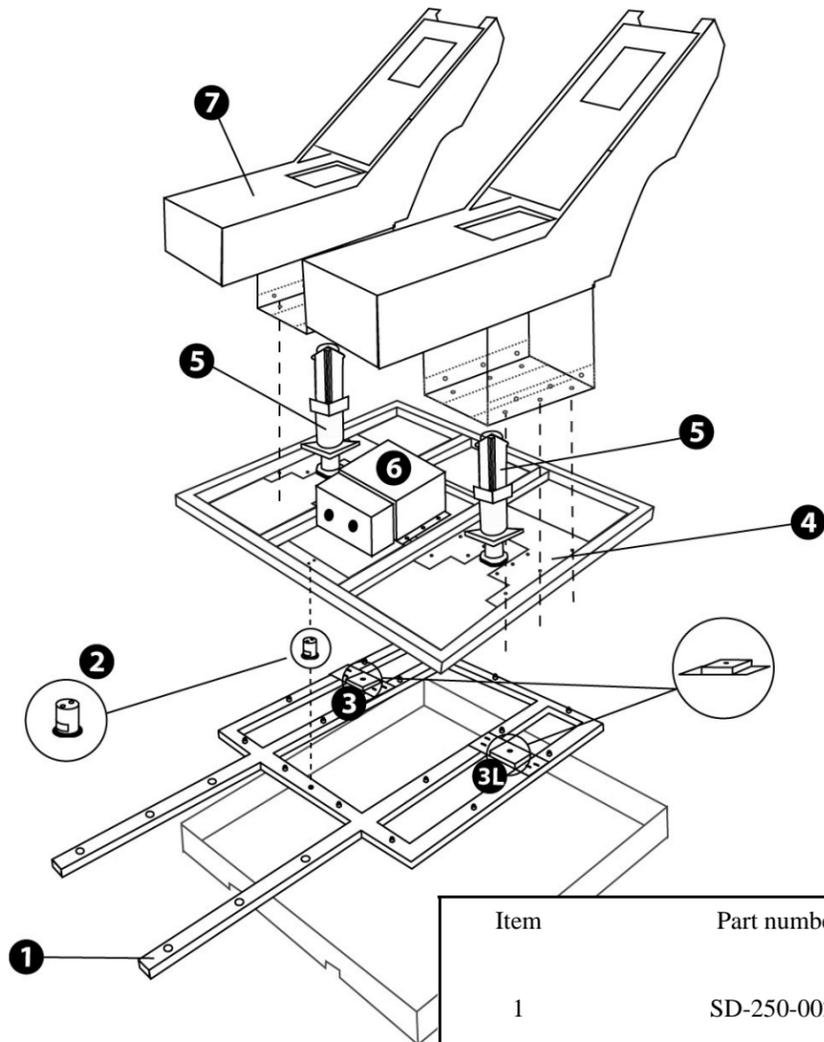
Seat assembly

5-2



Item	Part No.	Description
1	SD-150-0019	RJ45 cable
2	SD-150-0022	18 Ga speaker wire
3	SD-450-0003	Pivot
4	SD-1000-0001	Actuator Complete assembly
5	SD-250-0020	Piston bracket right
6	SD-250-0019	Piston bracket left
7	SD-250-0021	Fixed frame
8	SD-250-0018	Mobile frame
9	SD-450-0013	Actuator control box

Parts
5-1 Seat assembly

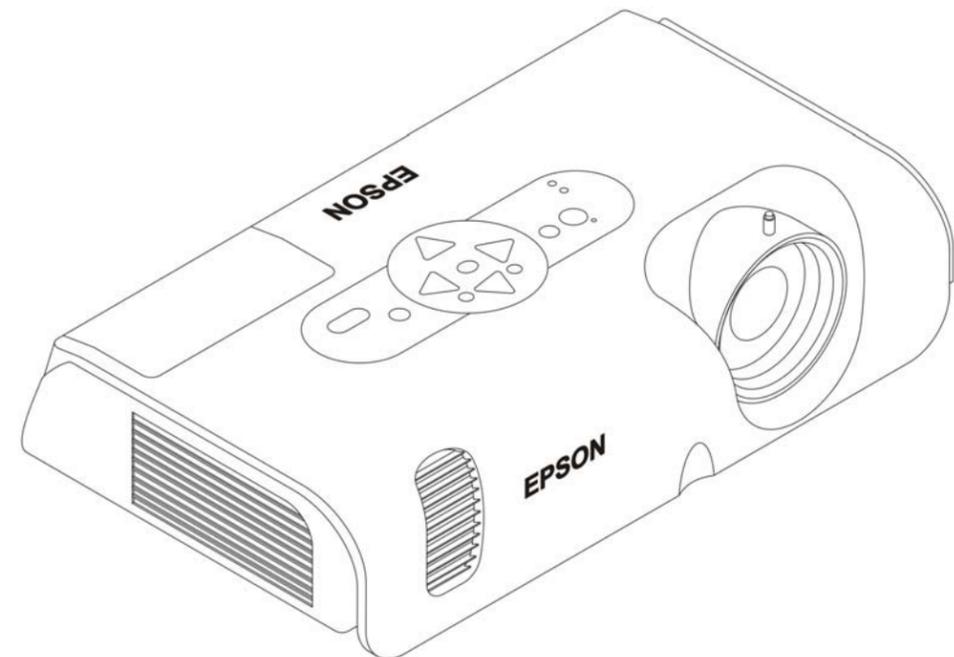
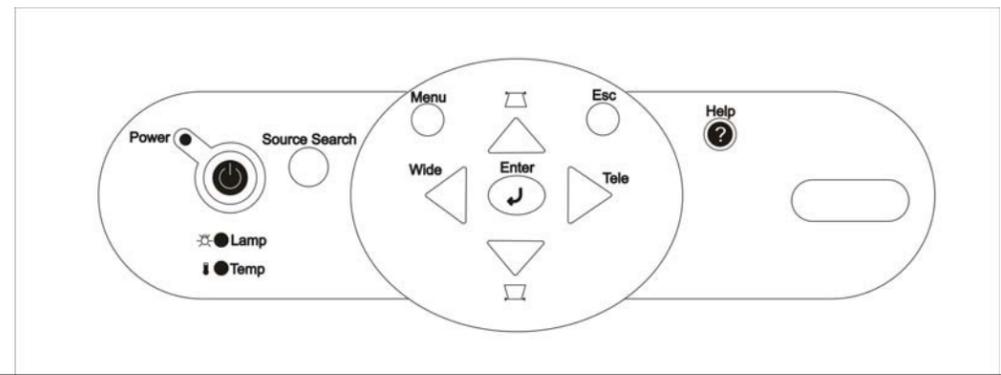


Item	Part number	Description
1	SD-250-0021	Fixed frame
2	SD-450-0003	Pivot
3r	SD-250-0020	Piston bracket right
3l	SD-250-0019	Piston bracket left
4	SD-250-0018	Mobile frame
5	SD-1000-0001	Actuator assembly
6	SD-450-0013	Actuator control box
7	—	Wood seat frame

Projector adjustment
 Epson PowerLite S3
 Continue
 Installation
1-7

Factory projector adjustments Projector

1. Invert image: press **Menu-projector-rear/ceiling**
2. Image shape: press **Menu-setting-keystone**, and set to **-22**
3. Brightness: press **Menu-setting-brightness control-low**
4. Image color: press **menu-image-color mode-presentation**
5. Image position: press **menu-signal-position**



Parts

Parts

5

	Section	Page
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Seat assembly parts	5-2	65
Seat fibreglass parts	5-3	66
Header parts	5-4	67
General parts	5-5	68

4-8 Audio sound

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Trouble

- No sound to 1 or more surround speakers.
- No sound at all

Step 1

Reset Amplifier settings in the following order

- Press DVD
- Press Input digital
- Press Surround

No sound to 1 or more surround speakers

If no sound, disconnect all surround speakers and test them one at the time. If one or more do not work, replace it (them).

No sound at all

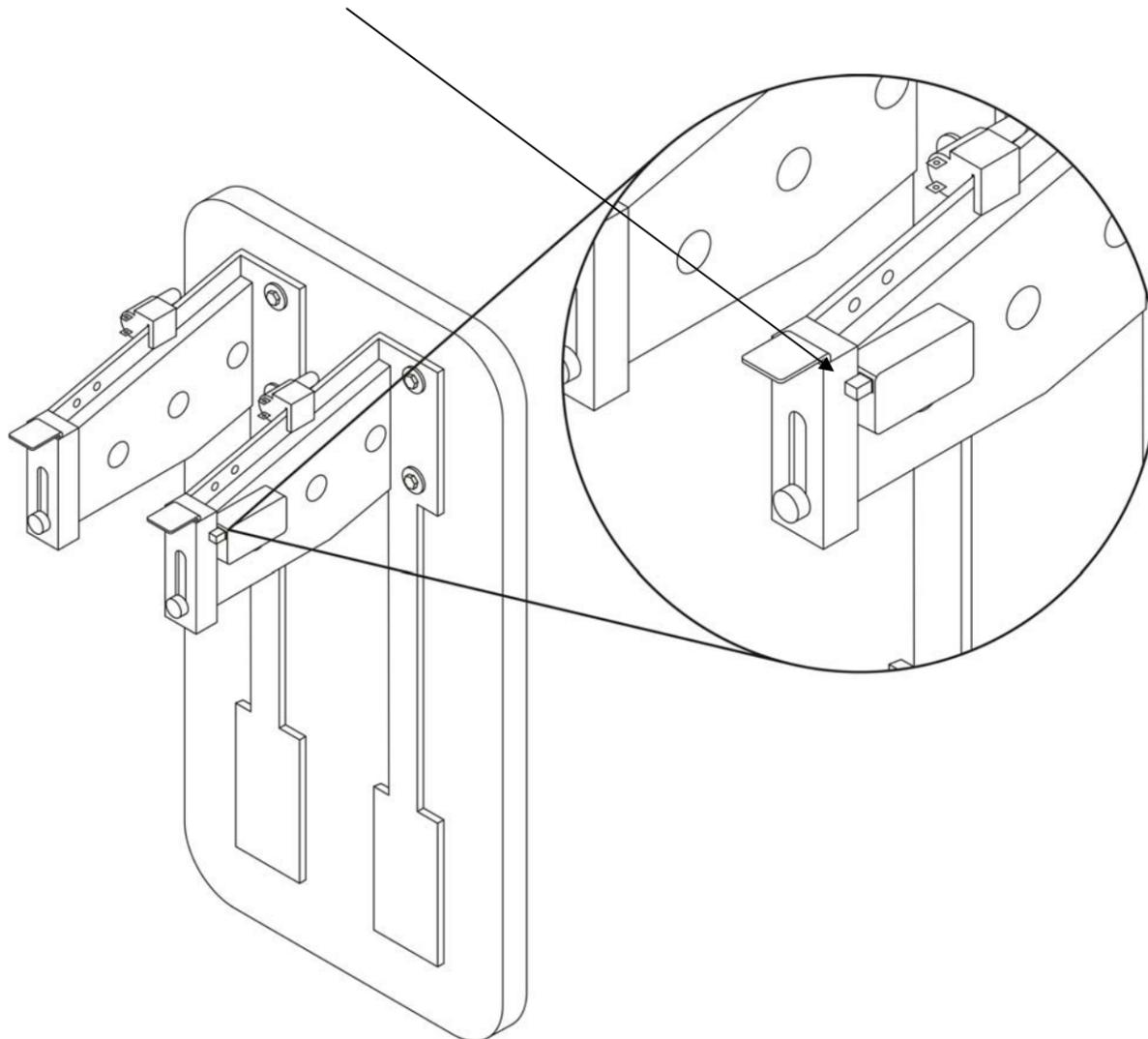
If no sound, check power. If you have power, reset settings and restart computer. Replace coaxial cable linking computer and amplifier. If all else fails, replace amplifier.

	Section	Page
Operator Setting	2-1	14
Audio adjustment	2-2	15
Dollar Bill Validator Information	2-3	16

2-1 Operator Setting

Factory setting is set at 12 coins per ride

To access the operator settings interface, open the coin mechanical door and push the small micro switch on the inside door as shown below (*while in attract mode only*). If you push the micro switch once, you will get the Statistic mode.



Led sign 4-7

Trouble

- Some lights not functioning
- Lines not lighting
- Message changes
- Does not store message in memory
- Customizing message
- Does not power on

Some lights not functioning

-Replace SIGN

Lines not lighting

-Replace SIGN

Message changes

Call Triotech 1.888.465.4634 for update

Does not store message in memory

-Replace SIGN

Customizing message

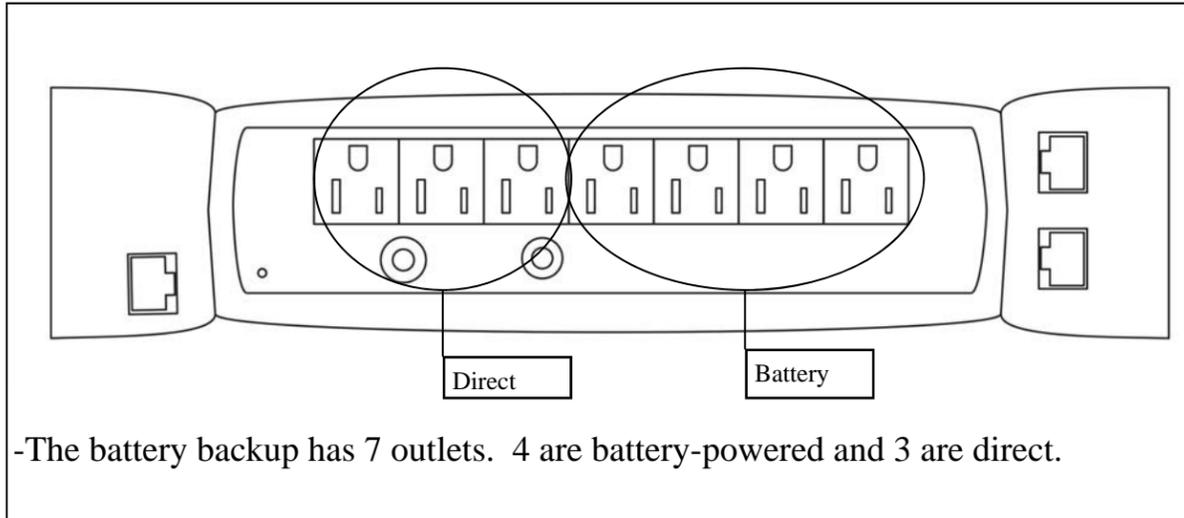
-Call Triotech 1.888.465.4634 for update

Does not power ON

-Replace SIGN

Troubleshooting

4-6 Battery backup



-The battery backup has 7 outlets. 4 are battery-powered and 3 are direct.

-If **START** bar appears during game play, battery did not shut down computer properly.
 -Unplug game from wall and wait 15 minutes before replugging. Problem will be solved.



-If battery keeps on beeping, unplug game from wall and wait 15 minutes before replugging. Problem will be solved.

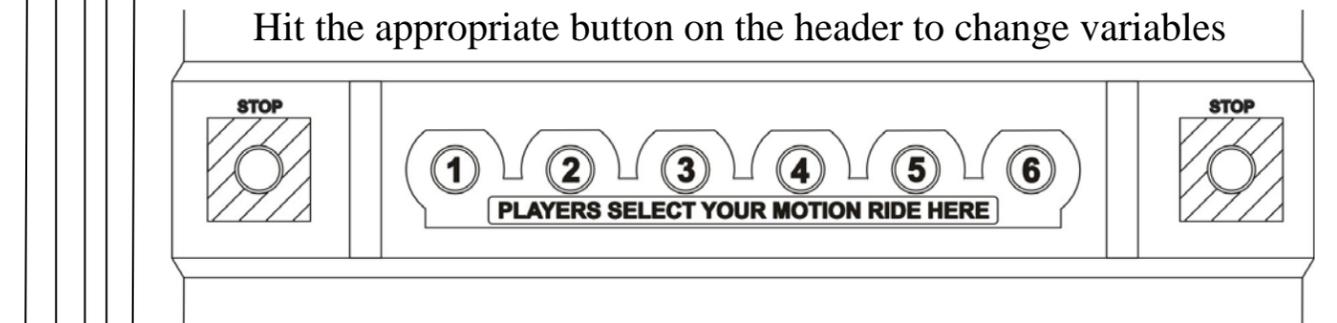
-If battery does not turn on, replace battery.

Configuration

Operator Setting 2-1

To access the Maintenance mode screen, press the micro switch once again (or toggle micro switch until you reach this screen).

- Amount of credits needed to start game. Set to 0 for free play (Press 1)
- Choose to display credits or money on screen. (Press 2)
- Value of one credit. (Press 3)
- Sound volume in attract mode. (Press 4)
- Sound volume in menu mode. (Press 5)



Hit the appropriate button on the header to change variables

Maintenance mode :

Configuration Elements :

- (1) cost per game (credit) : 8
- (2) cost display : credits
- (3) credit value (\$) : \$0.25
- (4) volume (demo) : 2
- (5) volume (menu) : 66

Press on the appropriate button

Configuration
2-1 Operator Setting
Continue

Computer error codes **4-5**

Use the large dash selection buttons 1 through 6 to change configurations. To change any of the options, press the appropriate button until the desired setting is reached. To return to a previous setting, keep toggling the button until it reaches the end of the settings; then it will restart the settings from the beginning.

1. Amount of credits inserted into game in lifetime.
2. Amount of money inserted into game in lifetime.
3. Value of one credit
4. Actuator usage time since game installed
5. Actuator usage time since game installed
6. Revenue from each movie installed



Cause

- Hard drive not ON
- USB to SERIAL connector (cable in back is not connected)
- Actuator problem

-If you get this error at boot-up, Check ON/OFF switch on outside of hard drive case. Button should be to the left and green light should be on.
-If light is on and same error appears, remove hard drive from tray and connect it directly on IDE cable inside computer.

-If this error appears, call technical support at 1-888-465-4634

-If this screen appears, refer to section 4-1 page 33.

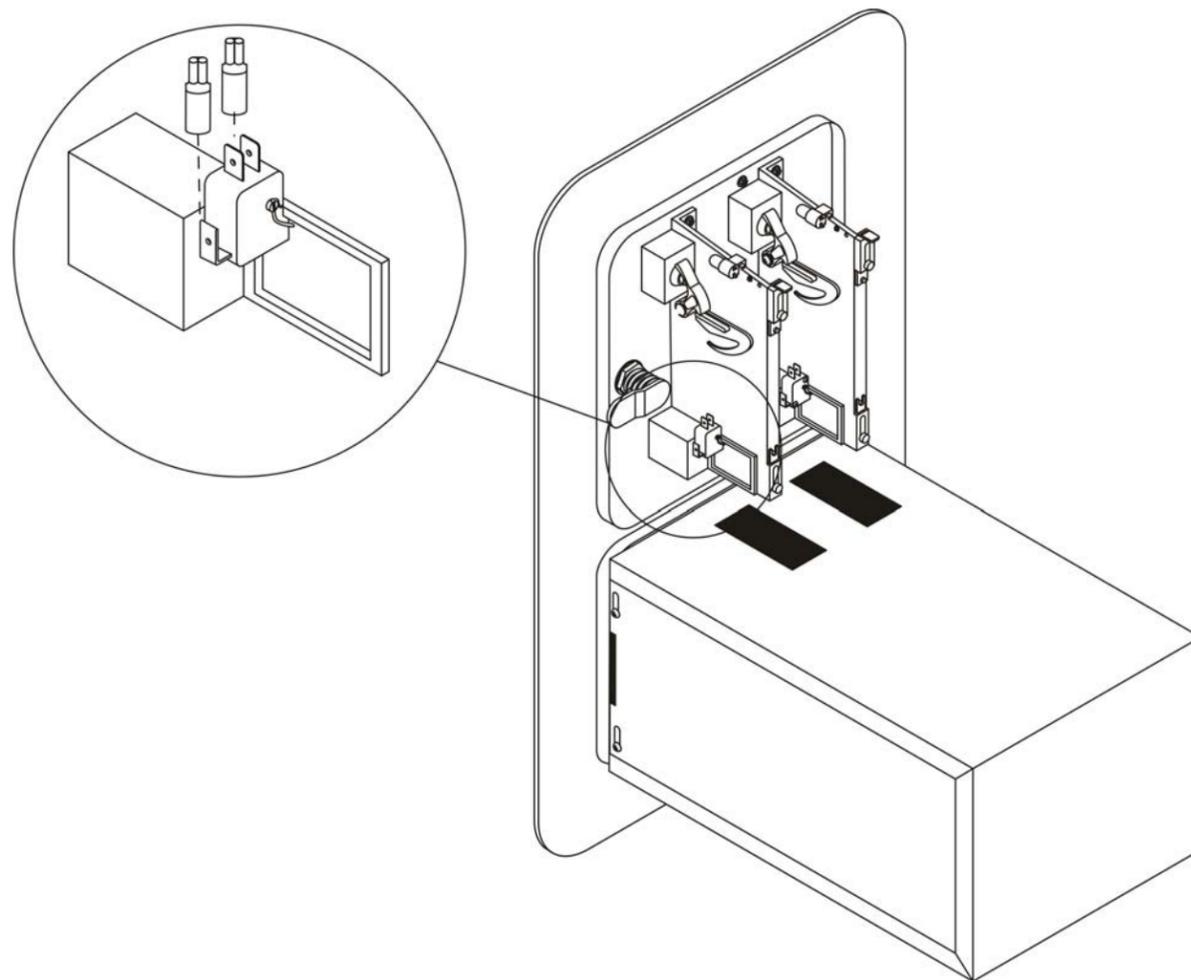
Troubleshooting

Coin door (credits not recognized)

4-4

Cause

- Connectors or wires came loose



- Verify that red connectors are pushed in tight.
- Verify that wires in connectors are secure.
- Verify that problem does not come from keyboard encoder board. (section 3)

Configuration

Audio adjustments

2-2

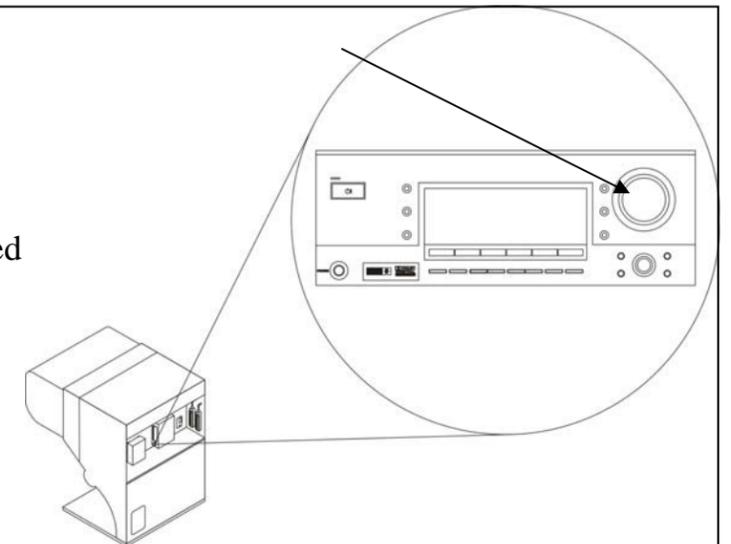


CAUTION

If the movie volume is not set high enough, it will dramatically reduce the experience! Sound level must be set loud to get the maximum effect.

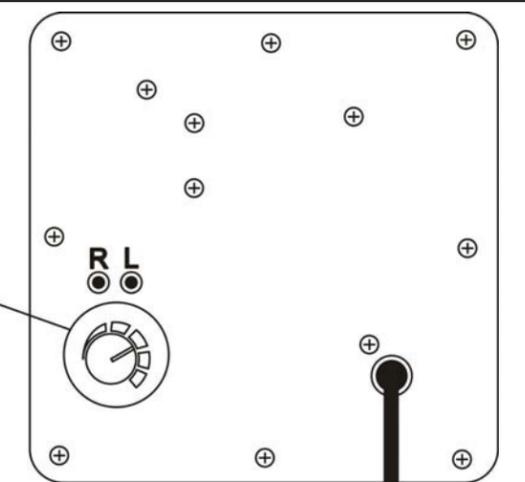
Sound settings

Movie volume is controlled by knob on amplifier. Recommended setting is between 35 and 40



Subwoofer settings

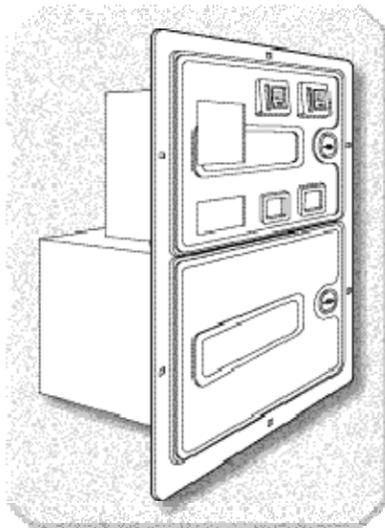
Recommended setting of 4



Configuration

2-3 Dollar bill validator information

THE MAD WAVE MOTION THEATER does not ship equipped with a DBV, however it is pre-wired to accept one and we suggest the installation of one of the models recommended below. This game uses the Happ Controls Over Under Wide Bill Validator, part number 40-2000-00. This door accepts Mars upstacker bill validator with compact fitted Bezel (up to 7" deep)



- Accepts both bills and coins
- Fitted with full metal cash box enclosure
- Fitted with two \$.25 U.S. Coin

FACTORY SUGGESTED PRICING PER RIDE IS \$3.00

Upstacker Bill validator fits these Models amongst others

MARS	AE-2651-U3E
MARS	AE-2651-U5E
MARS	AE-2611-U7E

Troubleshooting

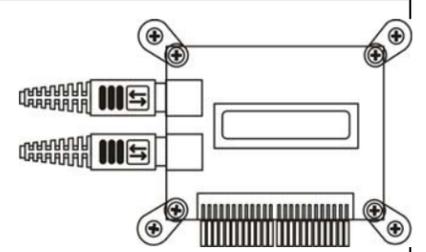
Buttons do not respond 4-3

Cause

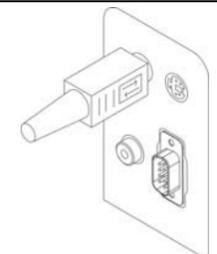
- Bad connection in wiring
- Bad connection to computer

Restart computer after each step below

-Ensure keyboard encoder board wires are pushed in tight. (use knife)

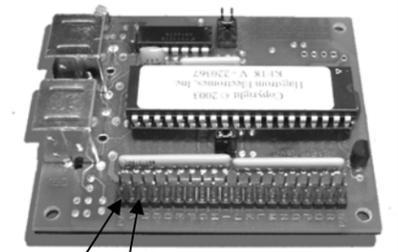


-Make sure PS2 extension that runs between keyboard encoder board and computer is on tight. (turn computer off, reseal cable and restart computer)

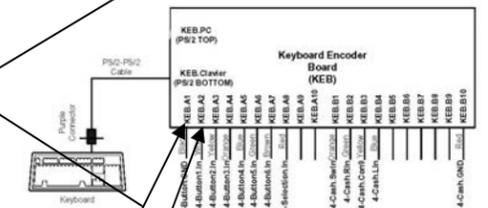


-Try shorting wires with ground to verify if board detects connection.

Look at example below:



Ex: Button NO. 1 does not Respond. Short button 1 wire and ground



Troubleshooting
4-2-4 Projector remote control does not respond

- Cause**
- Batteries are dead
 - Remote control is defective

-Replace batteries
 -Replace remote control

Table of contents

Maintenance
3

	SECTION	PAGE
Cleaning projector air-filter	3-1	18
Replacing projector lamp	3-2	19-22
Replacing an actuator	3-3	23-24
Replacing a drive assembly	3-4	25-29
Replacing control box	3-5	30

Maintenance

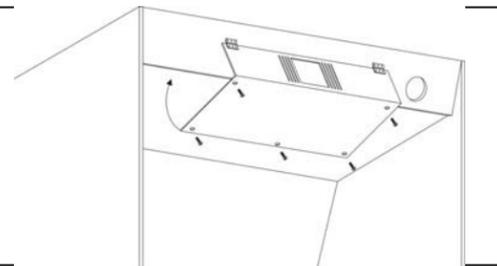
3-1

Cleaning projector air filter
Epson PowerLite S3

The air filter should be cleaned as described below at intervals of approximately 3 months. If a message appears asking you to clean filter, turn projector off and clean filter.

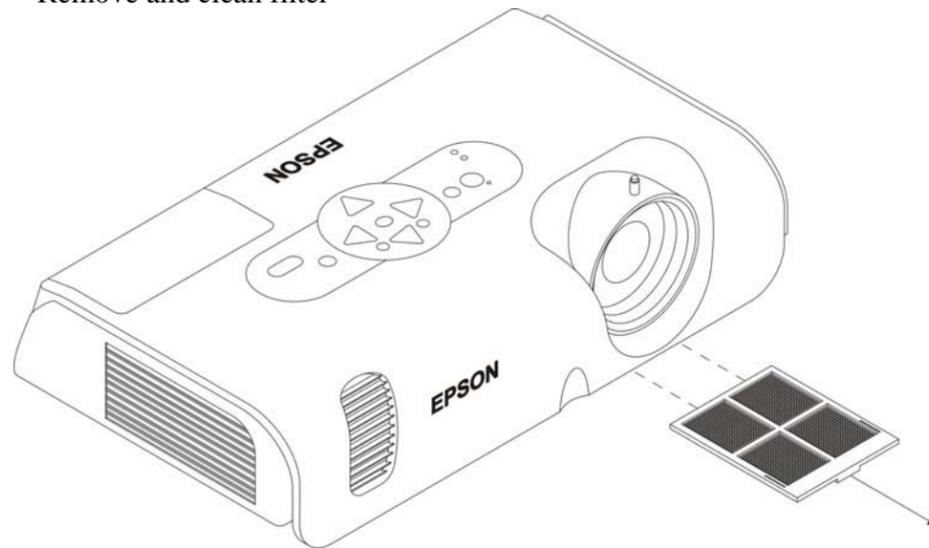
A

Remove the projector cover plate



B

Remove and clean filter



- Replace the air filter if contamination cannot be removed, or if it is damaged.
- Do not use the projector with the air filter removed.
- When the air filter is clogged, the power supply is switched OFF automatically to prevent overheating.

Troubleshooting

Message on screen 4-2-3

Cause

- Computer problem
- Projector control board problem
- Projector filter needs cleaning
- Projector lamp timer to reset
- Wrong input selected on projector



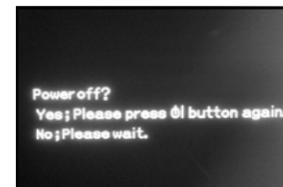
REASON
-Computer uses USB to SERIAL cable

SOLUTION
-USB to SERIAL cable not connected



REASON
-Regular filter cleaning

SOLUTION
-Clean air filter on side of projector and reset timer



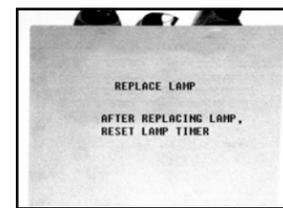
REASON
-Projector control board (behind projector) is not detecting projector

SOLUTION
-Check light sensor on projector control board, insert in grill. If inserted, replace board



REASON
-Wrong input source on projector

SOLUTION
-Using remote control, set input to RGB or press INPUT on projector



REASON
-Lamp has reached the end of its expected life.

SOLUTION
-Purchase spare lamp and replace when yours fails
-Reset lamp timer using menu button on remote control

Troubleshooting

4-2-2 Blue or purple screen

Cause

- Projector ballast is defective

-Replace projector

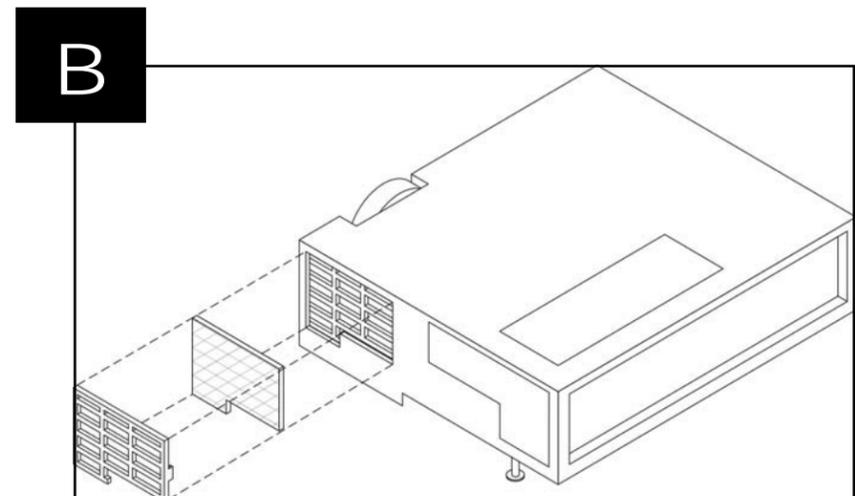
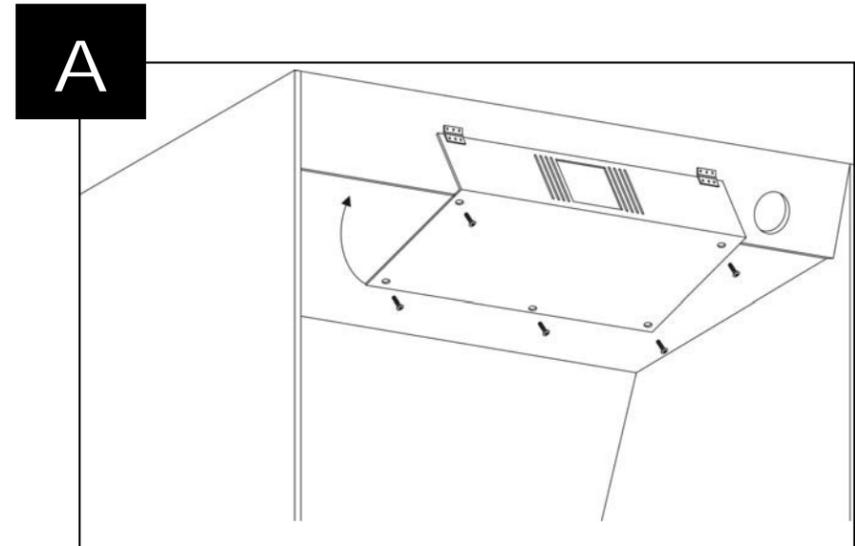
Cleaning projector air filter Viewsonic PJ-501

Maintenance

3-2

The air filter should be cleaned as described below at intervals of approximately 250 hours. When the filter is used for approximately 200 hours, the message "CLEAN THE AIR FILTER" appears when the projector is switched on.

- Remove the projector cover plate
- Remove filter and clean
- Reset filter timer (page 24)



Maintenance
3-3 Reseting projector air filter Timer
 Viewsonic PJ-501

Reset filter timer

Do not reset the filter time without cleaning the filter. The message functions will not operate properly if the filter time is not reset correctly.

1. Take the remote control from inside the cabinet
2. Press MENU on the remote control
3. Select OPTION
4. Select FILTER TIMER
5. Hold the RESET button on the remote control for 5 seconds
6. Select RESET
7. Check that the filter timer is back to 0

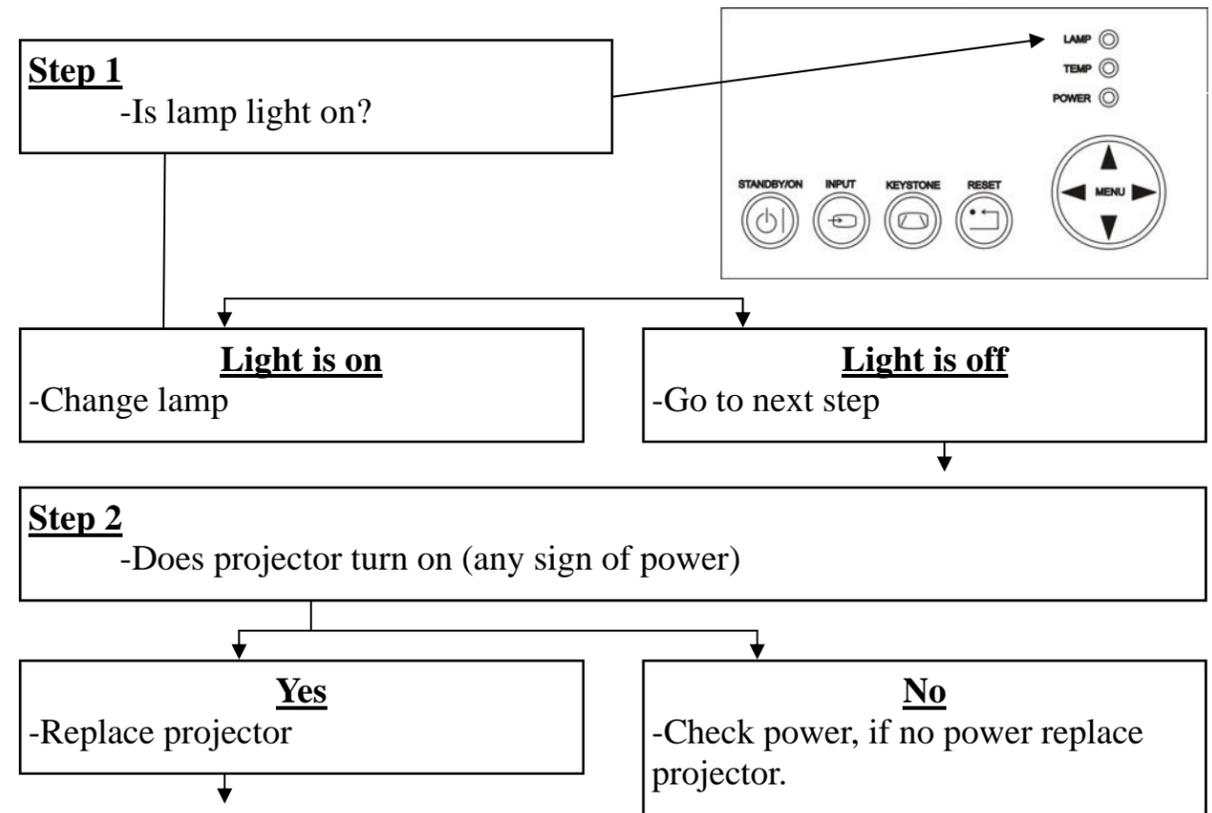


- Replace the air filter if contamination cannot be removed, or if it is damaged.
- Do not use the projector with the air filter removed.
- When the air filter is clogged, the power supply is switched OFF automatically to prevent overheating.

Troubleshooting
4-2-1

No image

- Cause**
- Lamp is defective
 - Projector is defective
 - No power to projector



Troubleshooting

4-2

Video (picture, image and projector)

Replacing projector lamp
Epson PowerLite S3

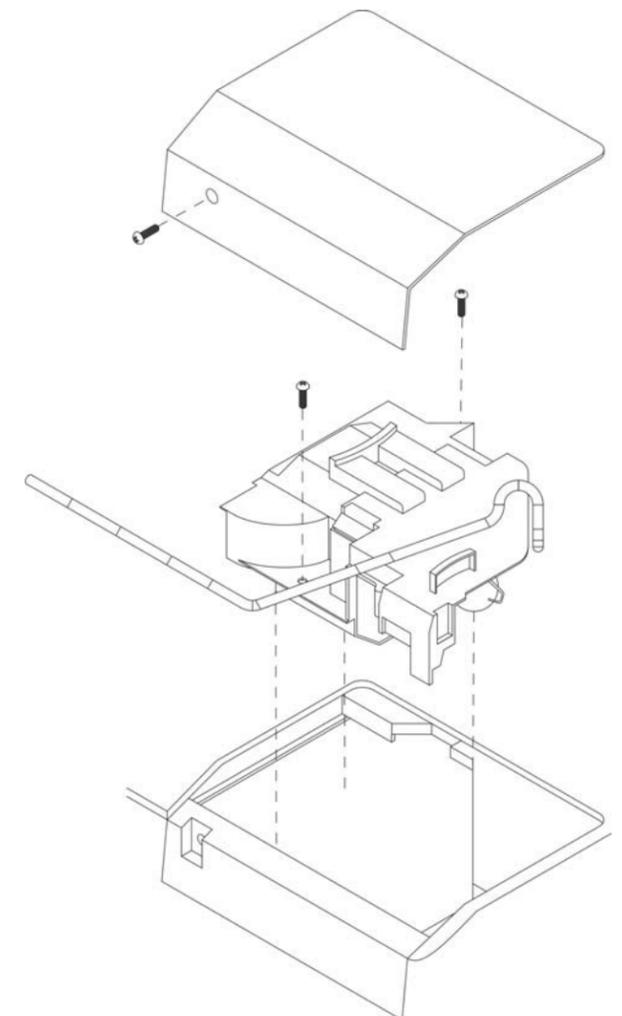
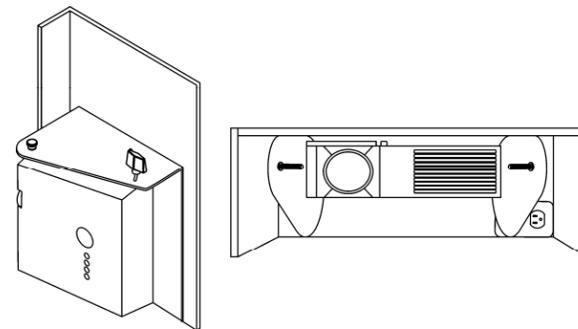
Maintenance

3-4

Before replacing the lamp, you need to remove the projector.

A Remove the projector and disconnect the video and power cable.

B Remove projector lamp cover, unscrew 2 holding screws from lamp and pull lamp out.



	SECTION	PAGE
Video (Picture, image and projector) Table of contents	4-2	51
No image	4-2-1	52
Blue or purple screen	4-2-2	53
Message on screen	4-2-3	54
Projector remote control does not respond	4-2-4	55

Maintenance

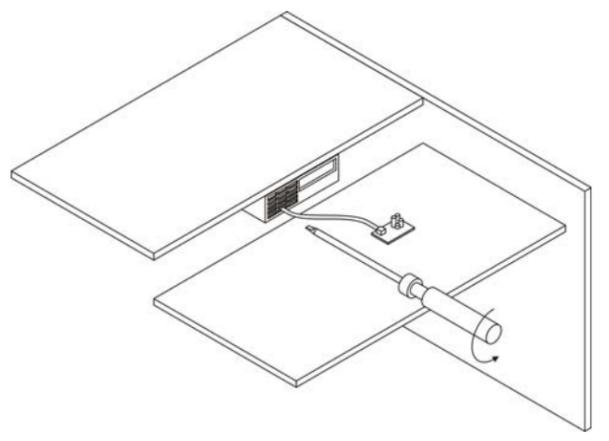
3-5

Replacing projector lamp Viewsonic PJ-501

Before replacing the lamp, you need to remove the projector.

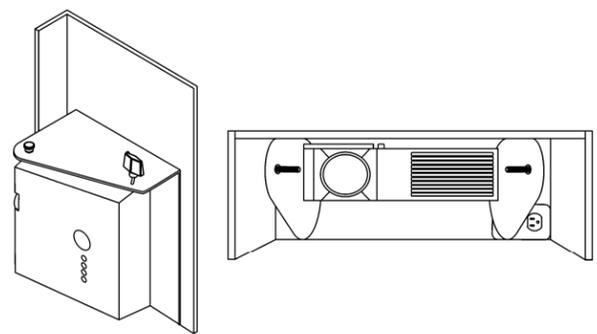
A

Remove the light sensor through the projector's fan outlet (use screwdriver to remove the sensor between the plastic pieces).



B

Remove the projector and disconnect the video and power cable.



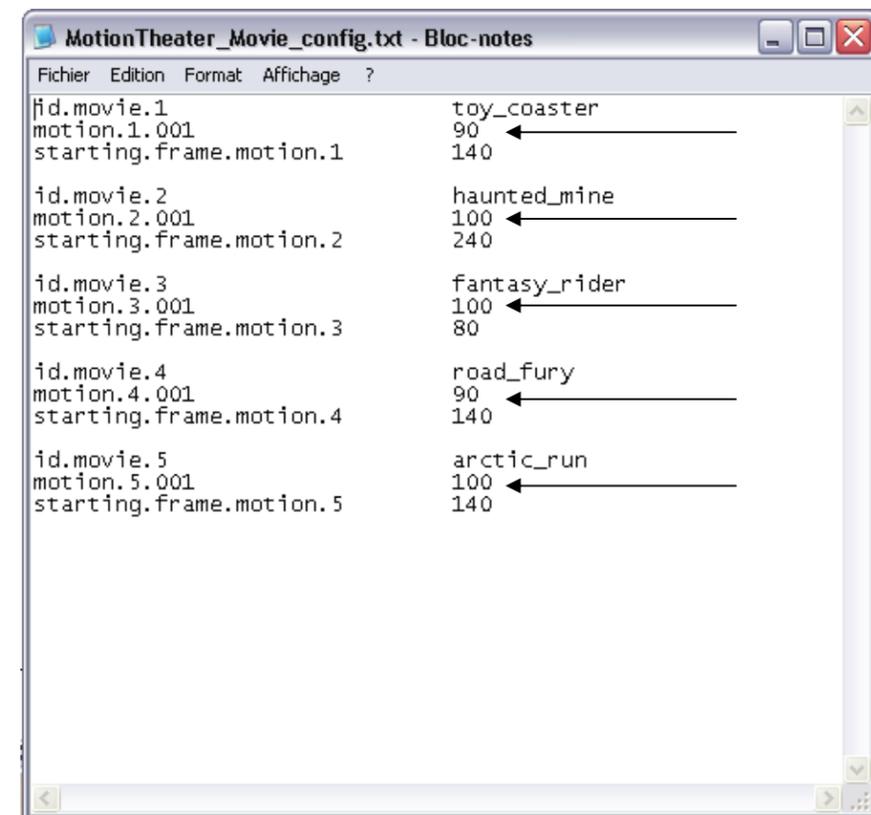
Troubleshooting

Motion is too strong **4-1-6**

Cause

- All games have the same motion strength

- Get mouse and keyboard
- Open WINDOWS EXPLORER
- Access c:\MotionTheater\MotionTheater_Movie_config.txt
- Open file
- Modify the motion volume for the rides you think are too strong.
- Set motion between 70 and 100



Troubleshooting

4-1-5

One seat rises when starting and other does not

Cause

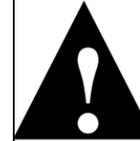
- One or more Actuator is faulty, but does not generate an error in the Diagnostic Screen.

- Take mouse and keyboard out.
- Press ESC.
- Go to WINDOWS EPLORER.
- Copy **C:\MotionTheater\Motion_Theater.log** on floppy disk.
- Email file to **SERVICE@TRIO-TECH.COM**
- Wait 10 minutes and call Tech Support @ **1-888-465-4634**

Replacing projector lamp
Viewsonic PJ-501
Continued

Maintenance

3-5



CAUTION:

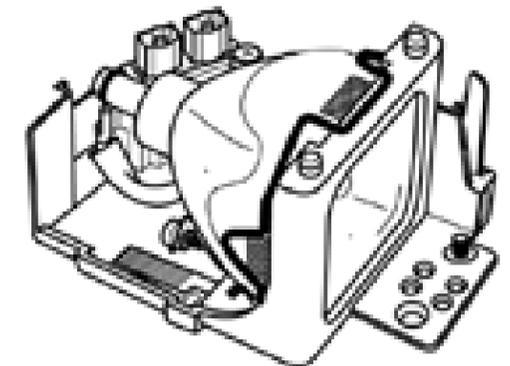
The lamp may explode if handled at high temperatures.
HIGH VOLTAGE - HIGH TEMPERATURE - HIGH PRESSURE

- Dispose of the used lamp according to local regulations.
- Since the lamp is made of glass, do not drop the unit and do not scratch the glass.
- Do not reuse the old lamp. This could cause the lamp to explode.
- Do not use the projector with the lamp's front glass covering removed.
- If there is a possibility that the lamp has exploded (you heard an explosive sound), disconnect the power plug from the power outlet and ask your dealer to replace the lamp. The lamp is protected by a glass cover, but in rare cases, the reflector and the inside of the projector could be damaged by broken or shattered glass. Broken pieces of glass could cause injury

Lamp

The estimated lamp life is 4000 hours. Before replacing the lamp, turn the Power Switch OFF, remove the power cord from the power outlet, and wait approximately 45 minutes until the lamp has cooled.

NOTE: The LAMP indicator is also red when the lamp unit reaches a high temperature. Before replacing the lamp, switch the POWER OFF, wait approximately 20 minutes, and switch the POWER ON again. If the LAMP indicator is still red replace the lamp.



Maintenance

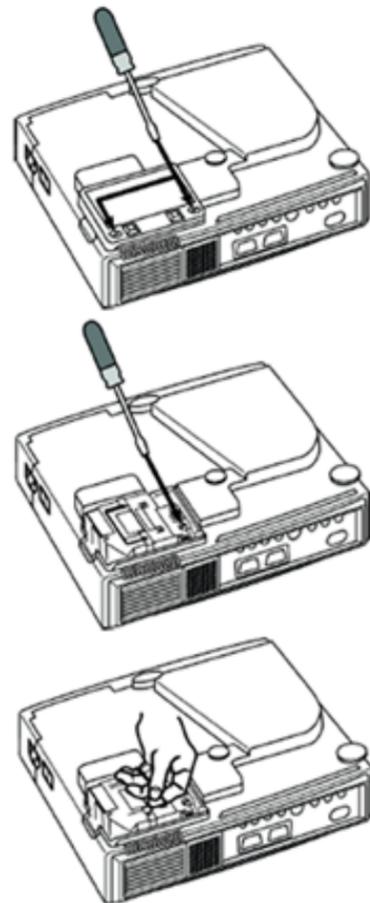
3-5

Replacing projector lamp
Viewsonic PJ-501
Continue

Replacing the Lamp

When the indicator shows that there is zero (0) hours of lamp life remaining, the unit will automatically shut off within 10 minutes. If you see this message, you should replace the lamp. However, you may replace the lamp anytime after the first warning message appears, at approximately 300 hours of remaining lamp life.

1. Switch the projector OFF, remove the power cord from the power outlet, and wait at least 45 minutes for the unit to cool.
2. Prepare a new lamp.
Check that the projector has cooled sufficiently, and gently turn it upside down.
3. Loosen the two screws as shown in the diagram, and remove the lamp cover.
4. Loosen the one screw, and gently remove the lamp while holding the grips. Touching the inside of the lamp case may result in uneven coloring.
5. Install the new lamp and tighten the one screw firmly.
6. Make sure that the lamp assembly is seated properly before replacing the other screw.
7. Replace the lamp cover in position and tighten the two screws firmly.
8. Gently turn the projector right-side up.



CAUTION!

Ensure that screws are properly tightened .
Screws not fully tightened may result in injury or accidents.

Troubleshooting

4-1-4

Game plays without motion

Cause

- Wrong version of the USB to Serial converter (computer cable)

- Replace computer with version that does not use such a cable (new cables are not compatible).

4-1-3 Motion is not synchronized

Cause

- Wrong version of the USB to Serial converter (computer cable)

-Replace computer with version that does not use such a cable (new cables are not compatible).

Replacing projector lamp Viewsonic PJ-501 Continued

3-5

After replacing the lamp, it is important that you reset the lamp timer. When the lamp has been replaced after the "THE POWER WILL TURN OFF AFTER 0hr." message is displayed, complete the following steps within 10 minutes of switching power ON. The power will be turned off automatically after 10 minutes.

Switch POWER ON.

From the OPTION menu select LAMP TIME with the description of "Adjusting the Projected Image".

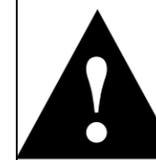
Press the RESET button and hold for approximately 3 seconds.
The DEFAULT and CANCEL options will display.

Press the Up arrow button to select the DEFAULT.
The remaining lamp life is now reset to 2000 hours.

IMPORTANT: Do not reset the lamp timer without replacing the lamp.
The message functions will not operate properly if the lamp timer is not reset correctly.

Cleaning the Lens

Gently wipe the lens with lens cleaning paper. Do not touch the lens with your hands.



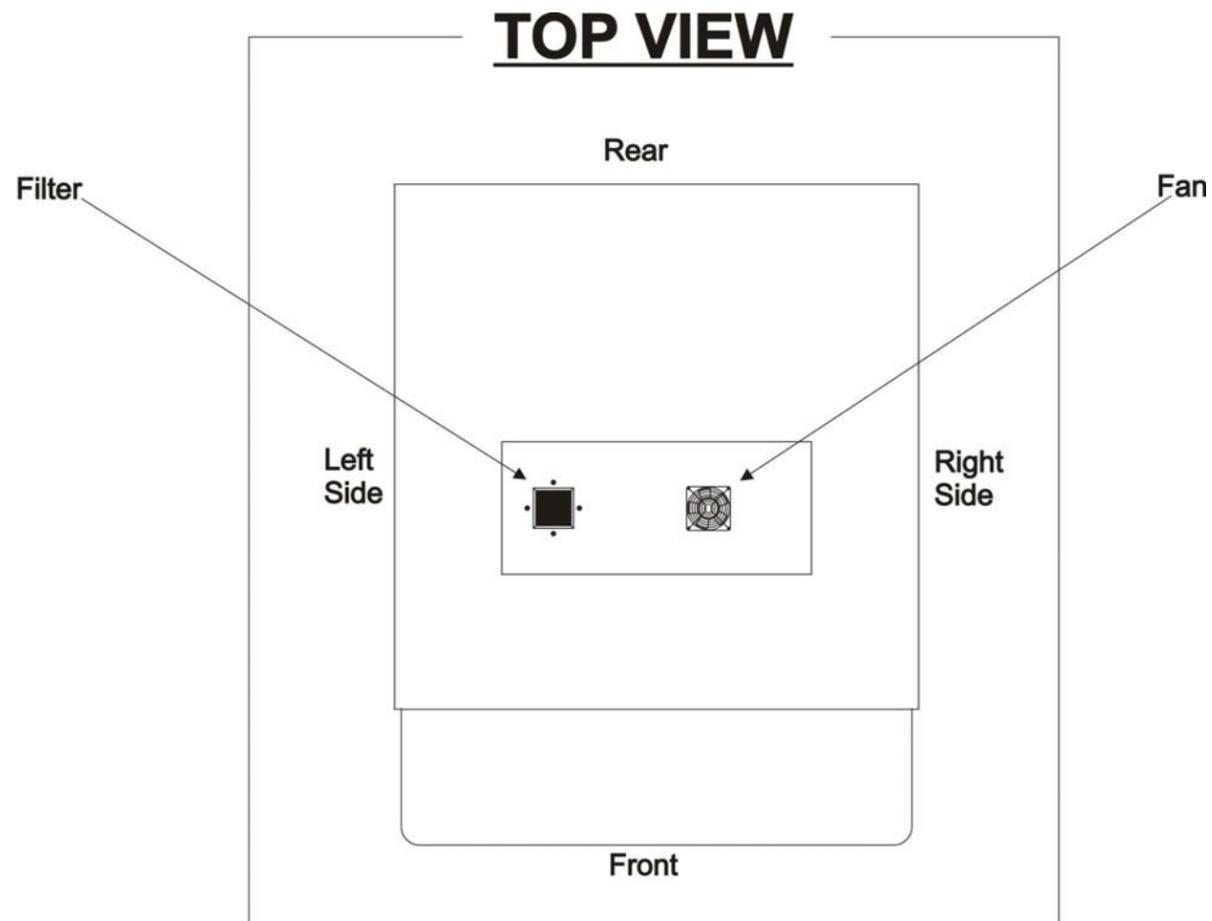
Make sure the lens is cool before cleaning.
Do not use detergents or chemicals other than those noted above. Do not use benzene or thinners.
Do not use chemical sprays.
Use a soft cloth or lens paper only.

Maintenance

3-6

Cleaning the projector area filter

- Reach top of Game
- Slide out the filter and clean in soapy water
- Insert back in place



Clean filter minimum once a month

Troubleshooting

Motion stops and restarts during ride

4-1-2

Cause

- One or more Actuator is faulty, but does not generate an error in the Diagnostic Screen.

- Get mouse and keyboard out.
- Press ESC.
- Go to WINDOWS EXPLORER.
- Copy **C:\MotionTheater\Motion_Theater.log** on floppy disk.
- Email file at **SERVICE@TRIO-TECH.COM**
- Wait 10 minutes and call Tech Support @ **1-888-465-4634**

Troubleshooting

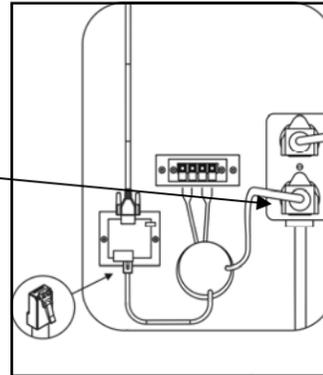
Diagnostic screen and error codes Continued

4-1-1

Not Responding

Step 2

- Open service door on bottom left in back of the game.
- Look inside and test Power on Power Outlet



There is Power

- Remove seat assembly
- Connect another Power cord directly to Actuators or Control Box (IF EQUIPPED WITH CONTROL BOX)
- Restart computer

There is no power

- Open Outlet and repair connections.

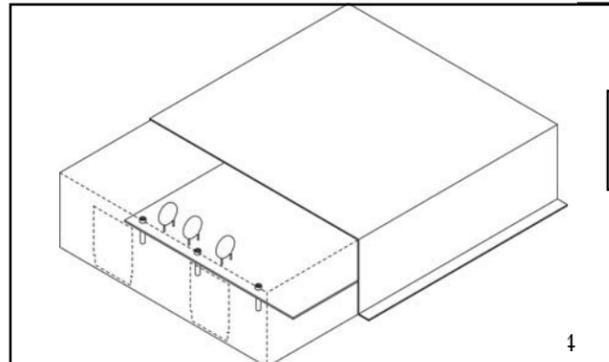
Still Have Error

- Open control box and verify if capacitors are burned, damaged or have broken legs.

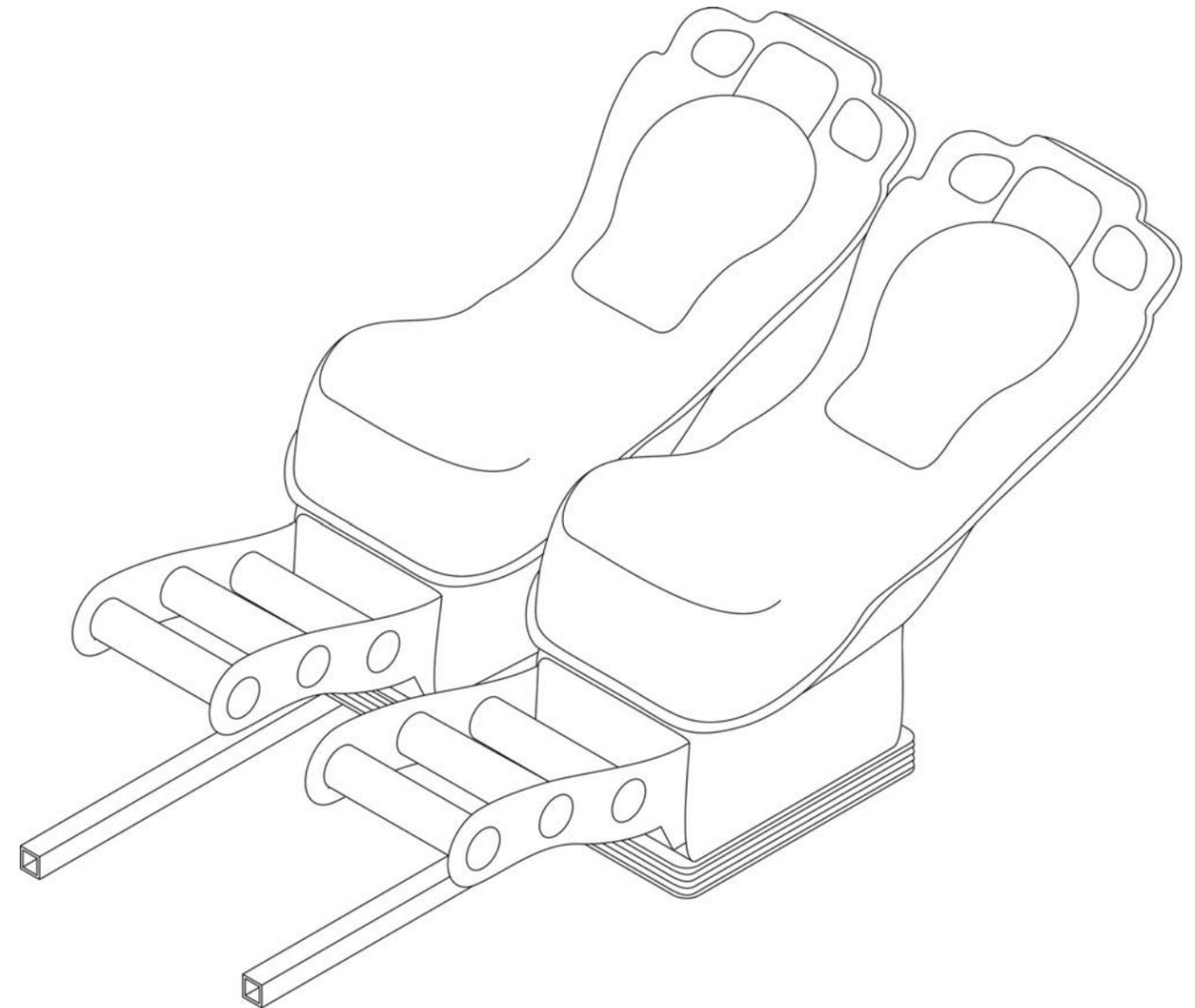
There is Movement

- Replace Power Cord(s)

If capacitors are ok, call technical support, if damaged, replace box.

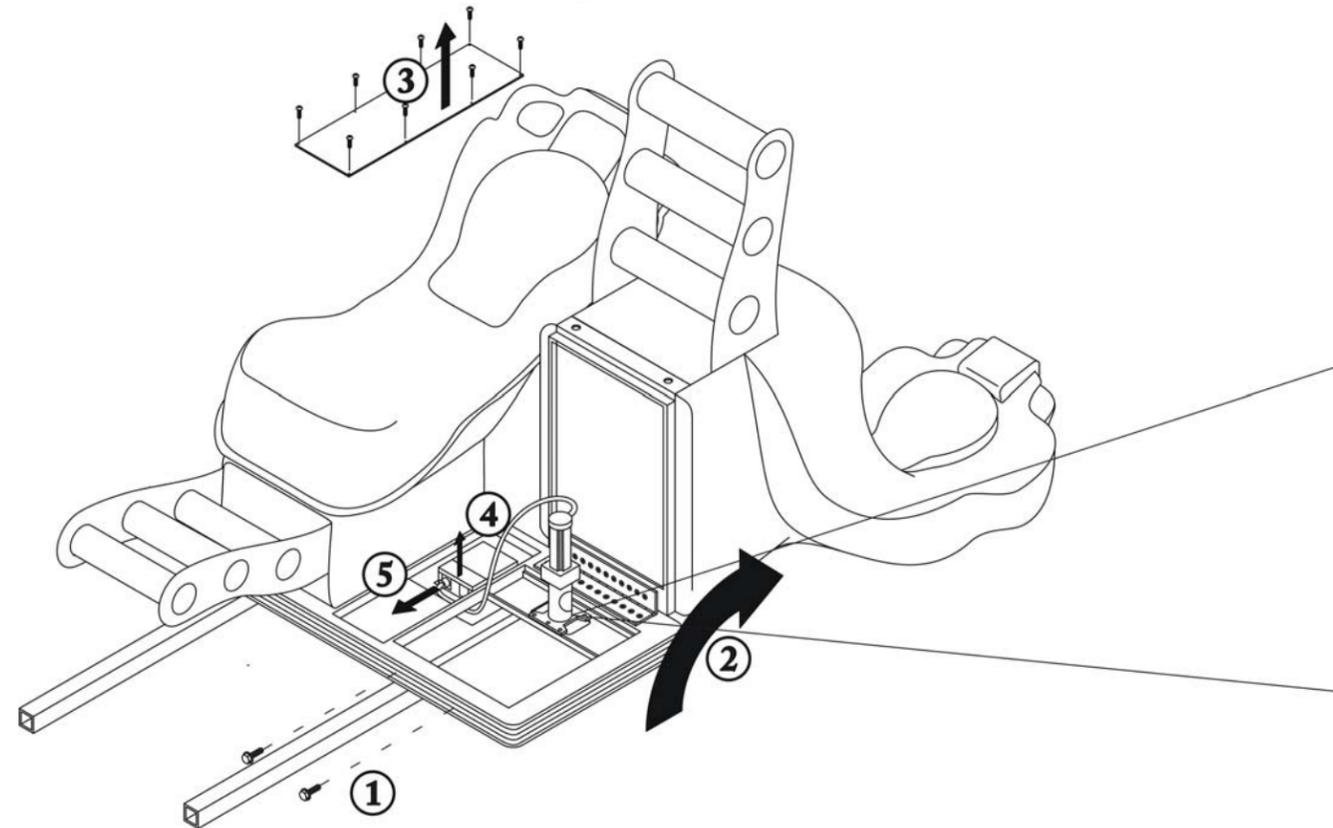


Actuator replacement MT2 Seats



**Actuator replacement
MT2 Style Seat**

Fig.1

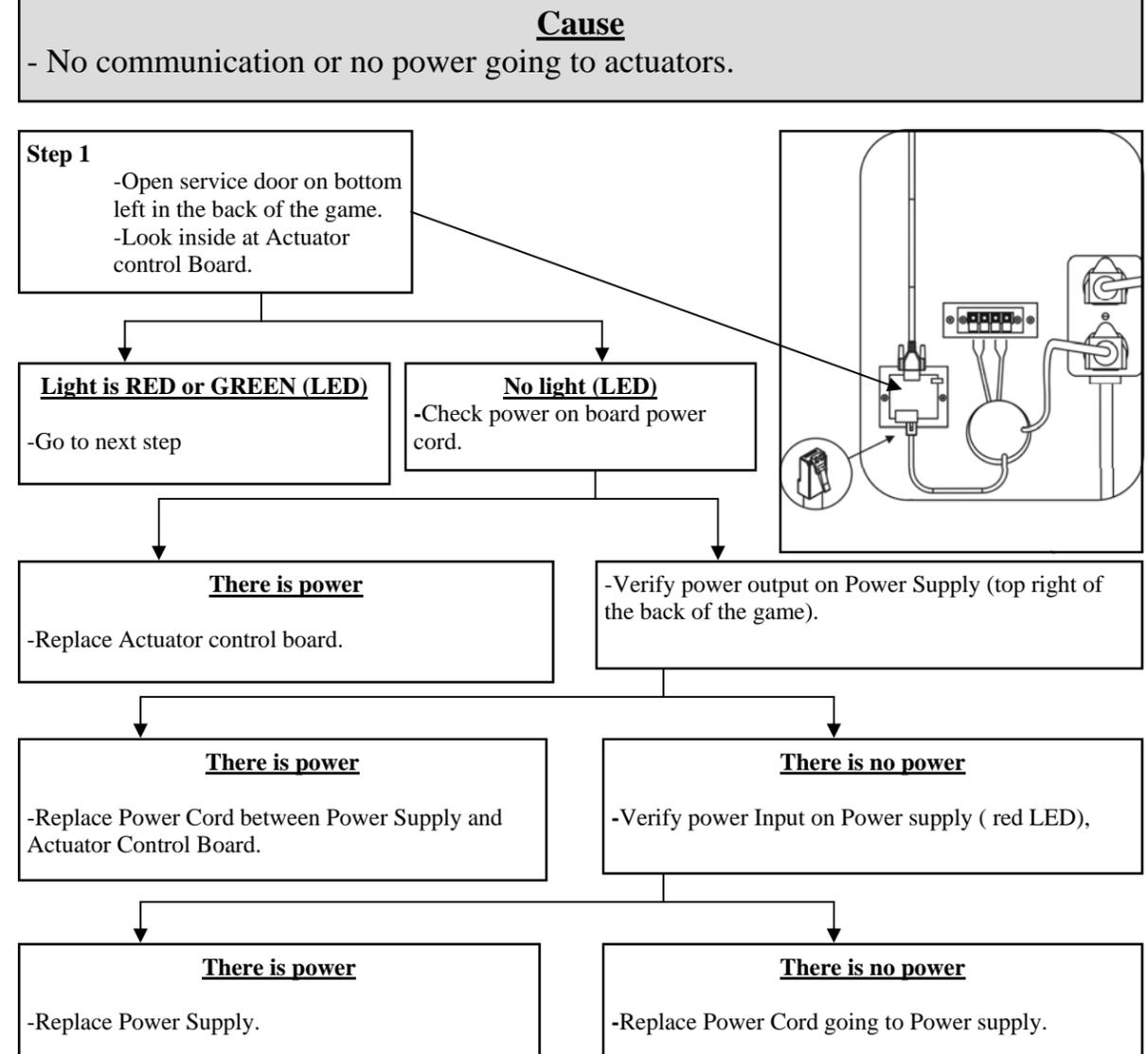


Actuator replacement procedure

1. Unscrew the 2 bolts holding the defective seat (under foot rest)
2. Flip seat back (protect head rest by covering floor with something soft)
3. Remove cover plate between the 2 seats
4. Open cover of control box, and detach the actuators's 2 connectors from the control box board (see page 38)
5. Remove front cover plate from control box

**Diagnostic screen and error codes
Continue**

Not Responding

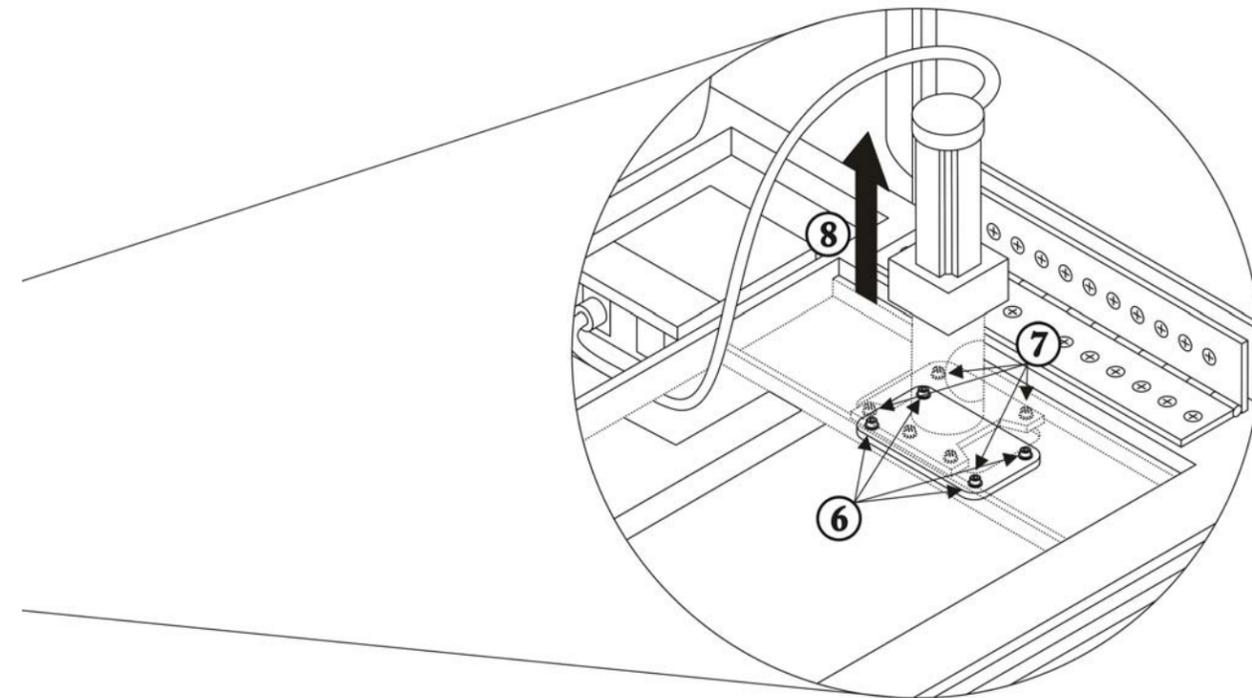


Continued next page →

Command OverRun Fail State

- When error appears as is, without the word **software**, no problem is detected on **this** actuator.

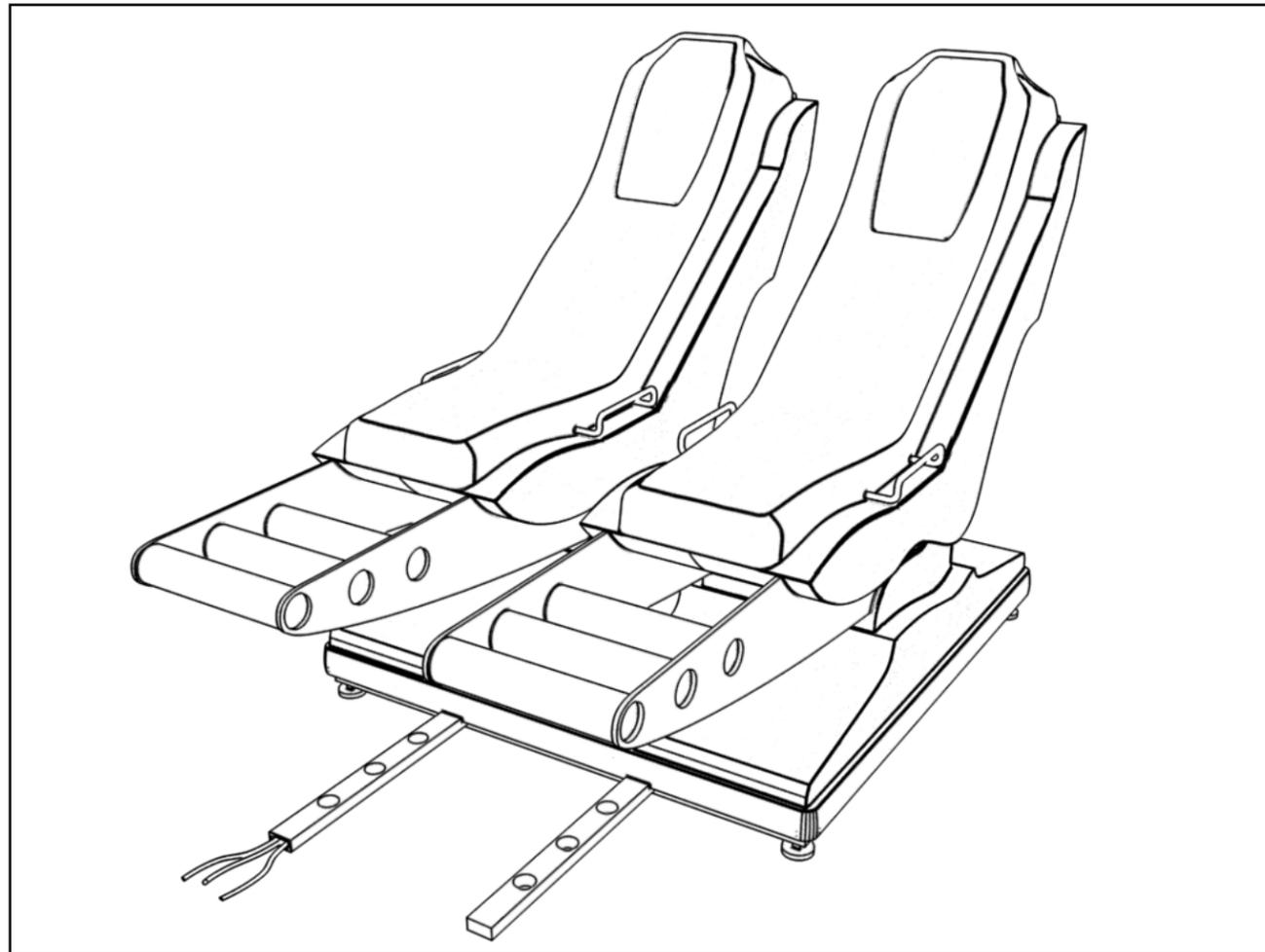
Fig.2



Actuator replacement procedure (continued)

6. Unscrew the 4 hex socket screws from inside the actuator positioning hole
7. Unscrew the 5 hex socket screws attaching the actuator to the seat frame
8. Remove actuator
9. Reverse procedure to re-install new actuator

Actuator replacement MT1 Seats



Diagnostic screen and error codes
Continue

Troubleshooting

4-1-1

Software (overPos) Command OverRun Fail State

Software (fail hall) Command OverRun Fail State

Cause

- Mechanical, electrical and/or software fault

A

- Remove seats from game
- Remove Control Box
- Verify software version.

SOFT VERSION
AC6-AKM24D-2B32
V 3.10
Made in Canada by D-BOX

Version is v3.10

-Go to step B

Version is not v3.10

-Call Tech Support to order new version of box.

B

- Remove Actuator from the side error appears on. (Sec 3-3)
- Verify condition of Coupler (small aluminum cylinder Linking Drive Assembly and Motor.



Coupler is in perfect condition

-Good

Coupler is loose or broken

-If coupler is loose, use HEX key to tighten.
-If coupler is broken, call Tech Support @ 1-888-465-4634 to get replacement.

Troubleshooting

4-1-1

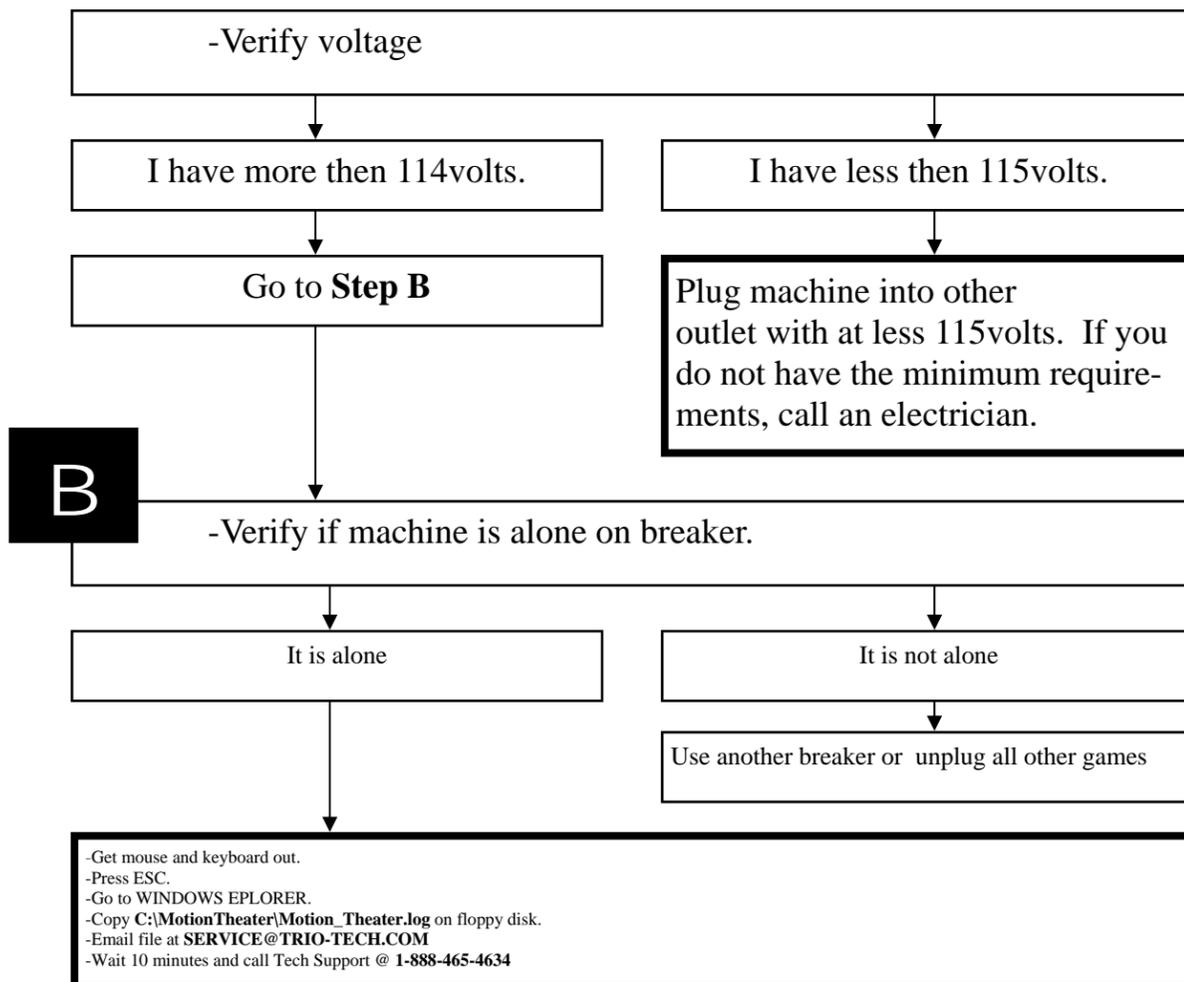
Diagnostic screen and error codes
Continued

Software

Software Command OverRun Fail State

Cause

- Machine is sharing breaker with other devices.
- Machine is not receiving at least 115volts.



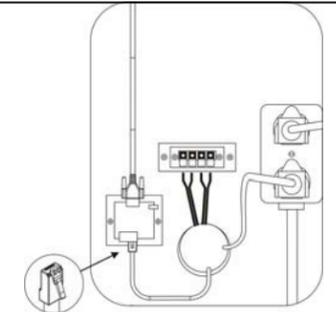
Actuator replacement
MT1 Style Seat

Maintenance

3-7

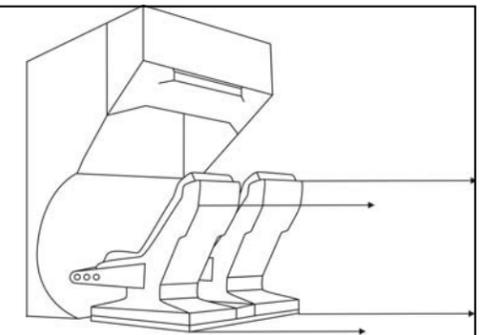
A

Unplug all cables from the seat module through the small door opening in the back of the main cabinet.



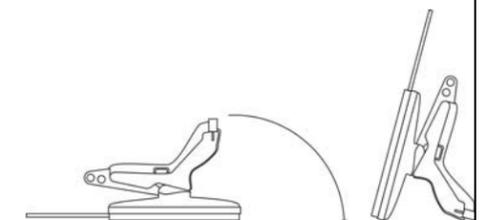
B

Unbolt the seat module from the main cabinet
Slide the seat module a foot away from the main cabin (being careful not to damage the seat cables)

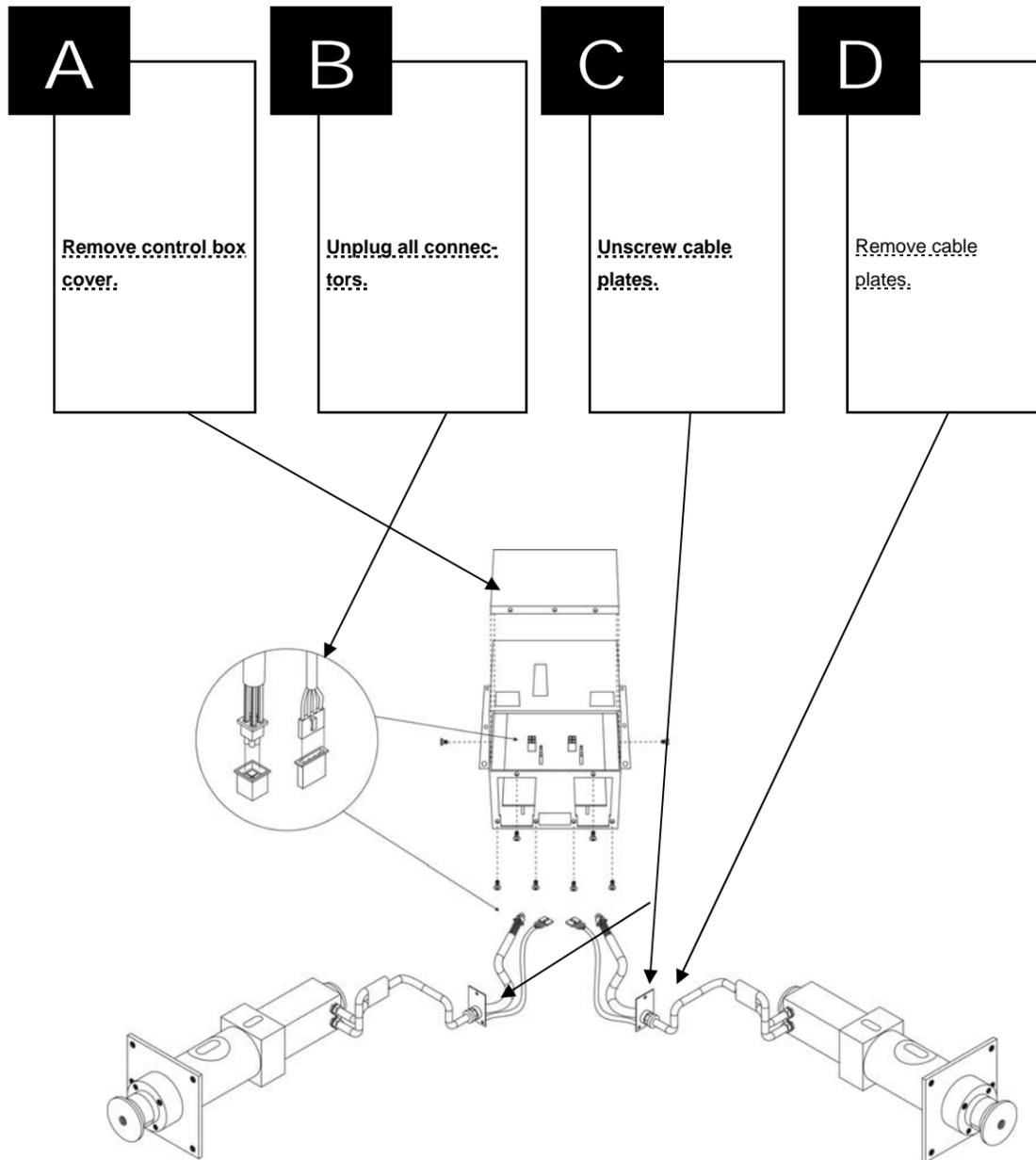


C

Lift the seat module using the 2" 1x2 metal tubes as handles until the back of the seats touches the floors (fig C)



Maintenance
3-7 Replacing an actuator
 Continue



Diagnostic screen and error codes
 Continue

Troubleshooting
4-1-1

Command OverRun

Cause
 - Same side Actuators are installed on Motion Theater

A
 I have not replaced an actuator.

Call Tech Support @ 1-888-465-4634

B
 I just replaced an actuator.

-Remove actuator you just installed.
 -Open actuator.

Call Technical Support 1-888-465-4634

Troubleshooting

4-1-1

Diagnostic screen and error codes
Continued

Software (Timeout)

Cause

- Actuators have not received data from computer for more than one minute

A

- Unplug machine
- Wait 6 minutes
- Re-plug machine

B

- Get mouse and keyboard
- Press ESC on keyboard
- Double Click MOTION THEATER icon on computer desktop.

Replacing an actuator
Continued

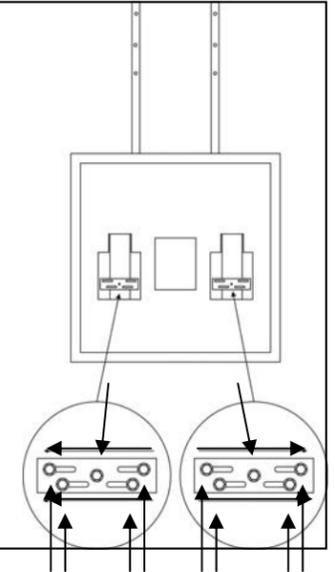
Maintenance

3-7

D

Remove the bolts using 7/16" socket with bolts #1 , 1/2" socket with bolts #2 and 5/32 hex key with bolts #3

NOTE: The left and right plates are not the same. Do not mix them if you are removing the two actuators.



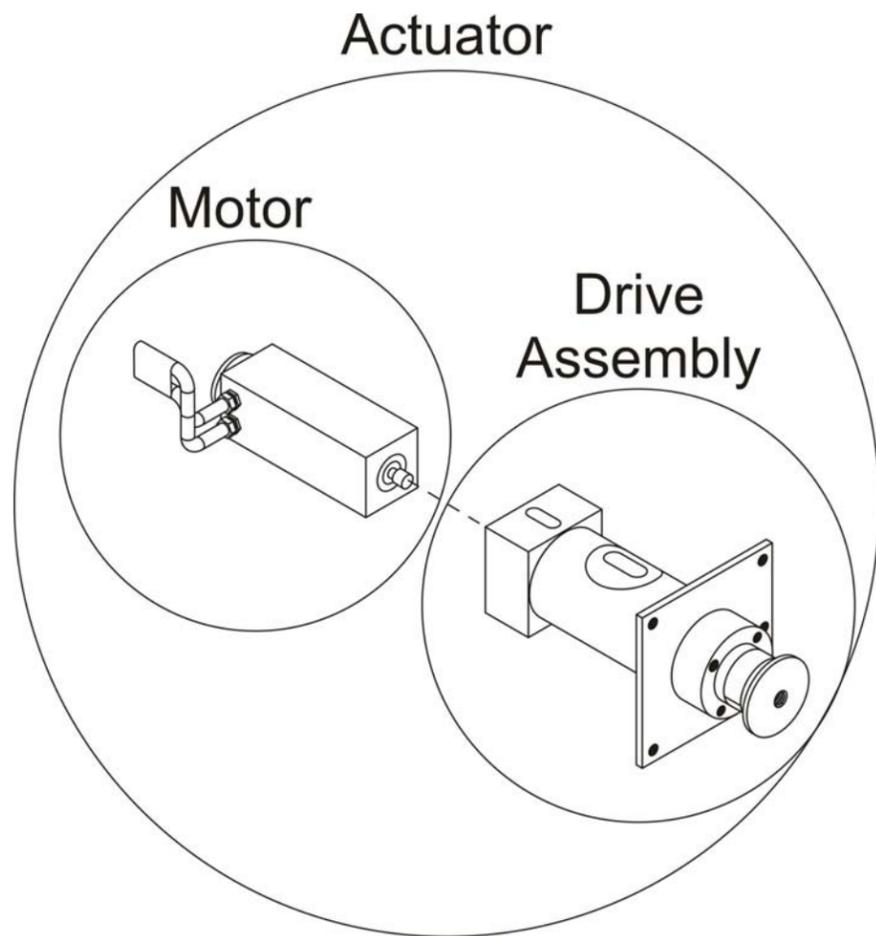
IMPORTANT: When reinstalling the plates, slide them toward the outside of the machine.

Maintenance

3-8

Replacing a drive assembly

Remove drive assembly from motor. Shipping a drive assembly is the cheapest way to get the actuator repaired as you save on shipping (weight).



Diagnostic screen and error codes Continued

Troubleshooting

4-1-1

Software (Fail Hall)

Software (Fail encoder)

Cause

- Electrical fault

-Replace whole ACTUATOR on side error appears.
Section 3-3.

Troubleshooting
4-1-1 Diagnostic screen and error codes
 Continued

Software (Travel)

Software (overweight)

Software (overweight) Command OverRun Fail State

Software (OverPos)

Software (Travel) Command OverRun Fail State

<u>Cause</u>
- Mechanical fault

-Unplug Motion Theater.
 -Lift speaker bars on sets to check if they move freely.

MOVES FREELY

-Re-seat actuator on side the error appeared (diagnostic screen). **Do not tighten center bolt too hard.**

DOES NOT MOVE FREELY

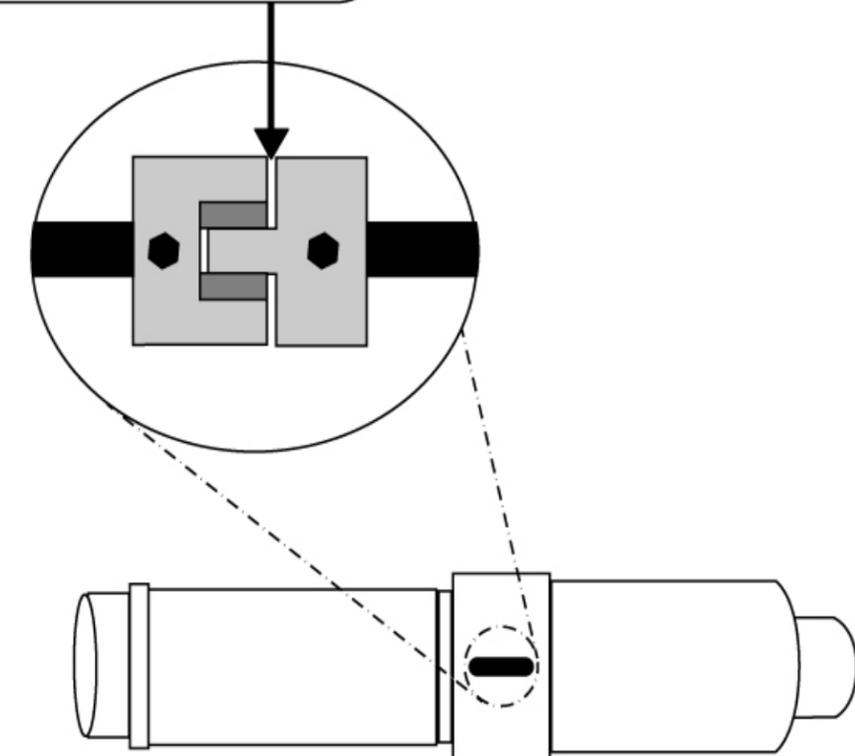
-Replace DRIVE ASSEMBLY

If no change, replace whole actuator.

Replacing a drive assembly
 Continued

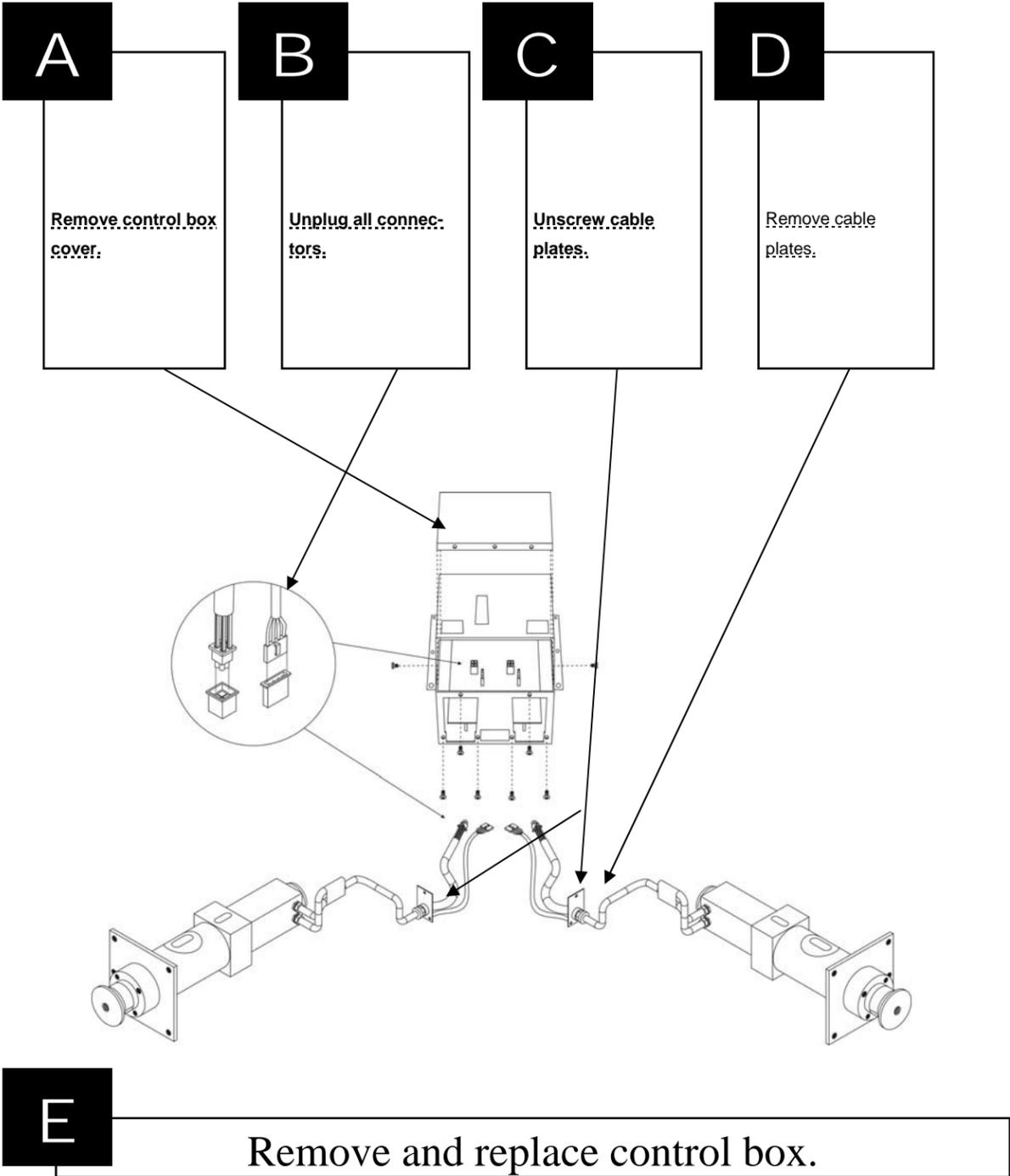
Maintenance
3-8

! **1/16"**
 between couplers

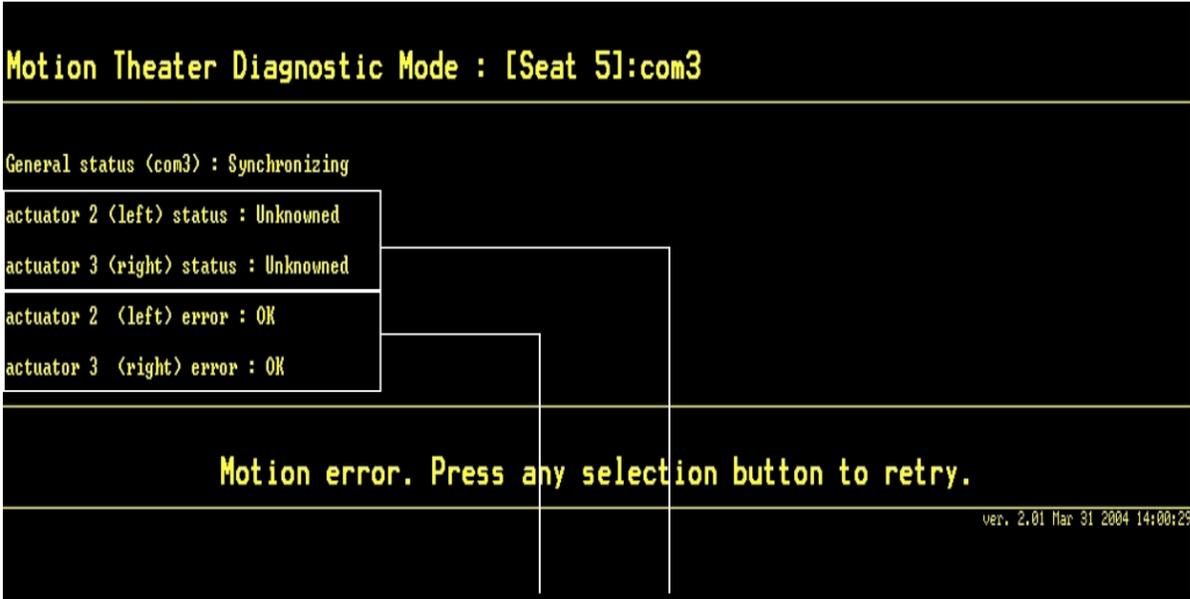


! If positioned too close the heat and pressure will damage the bearings. You can adjust spacing by repositioning the coupler on the motor with the set screw.

Maintenance
3-9 Replacing control box



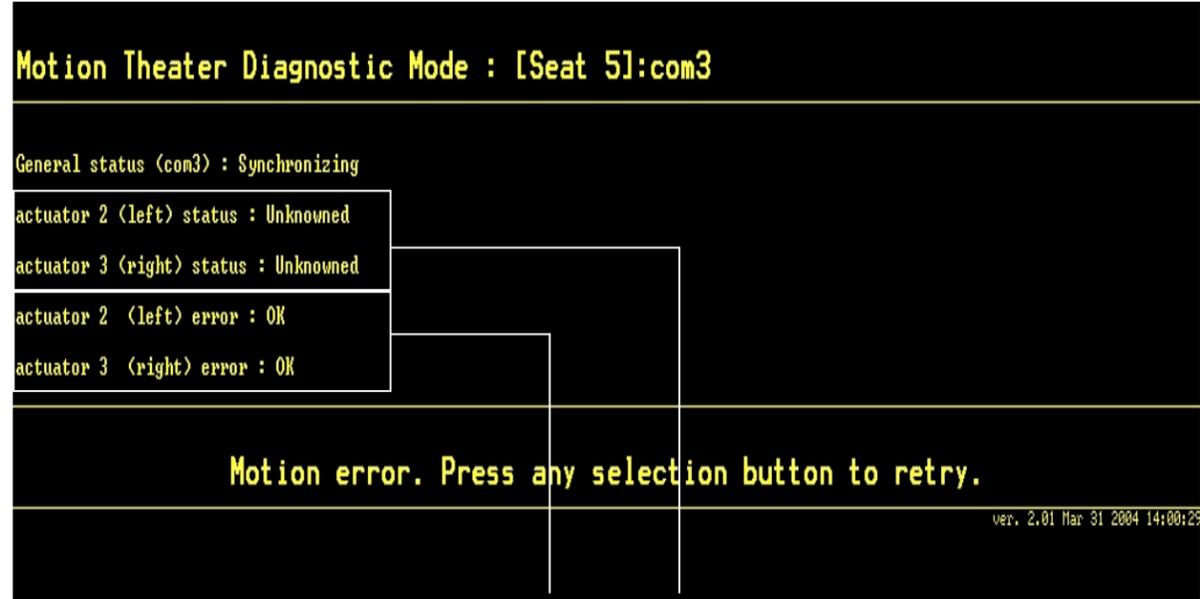
Diagnostic screen and error codes
 Continue
 Troubleshooting
4-1-1



- **SYNCRONIZED** No problem reported with this actuator
- **SYNCRONIZING** Move to box below
- **NOT RESPONDING** Goto page 43

- **Software (overweight)Command OverRunFail State** Goto page 36
- **Software (travel)Command OverRunFail State** Goto page 36
- **Software (fail hall)Command OverRunFail State** Goto page 41
- **Software (overpos)Command OverRunFail State** Goto page 41
- **Software (Timeout)** Goto page 38
- **Command OverRunFail State** Goto page 42
- **Software Command OverRunFail State** Goto page 40

Troubleshooting
4-1-1 Diagnostic screen and error codes
 Continue



- **SYNCRONIZED** No problem reported with this actuator
- **SYNCRONIZING** Move to box below
- **NOT RESPONDING** Goto page 43

- Software (overweight) Go to page 36
- Software (travel) Go to page 36
- Software (overpos) Go to page 36
- Software (fail hall) Go to page 37
- Software (fail encoder) Go to page 37
- Software (Timeout) Go to page 38
- Command OverRun Go to page 39
- Software Go to page 40

Troubleshooting
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Troubleshooting

4-1

Actuator / drive assembly (motion)
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Troubleshooting

4-1-1

Diagnostic screen and error codes

Choose one of the following options

A

If your serial number ends with the last 3 digits between 001 and 241 (example MT-03-04-018), go to page 34.

B

If your serial number ends with the last 3 digits 242 or above (example MT-05-04-596), go to page 35.