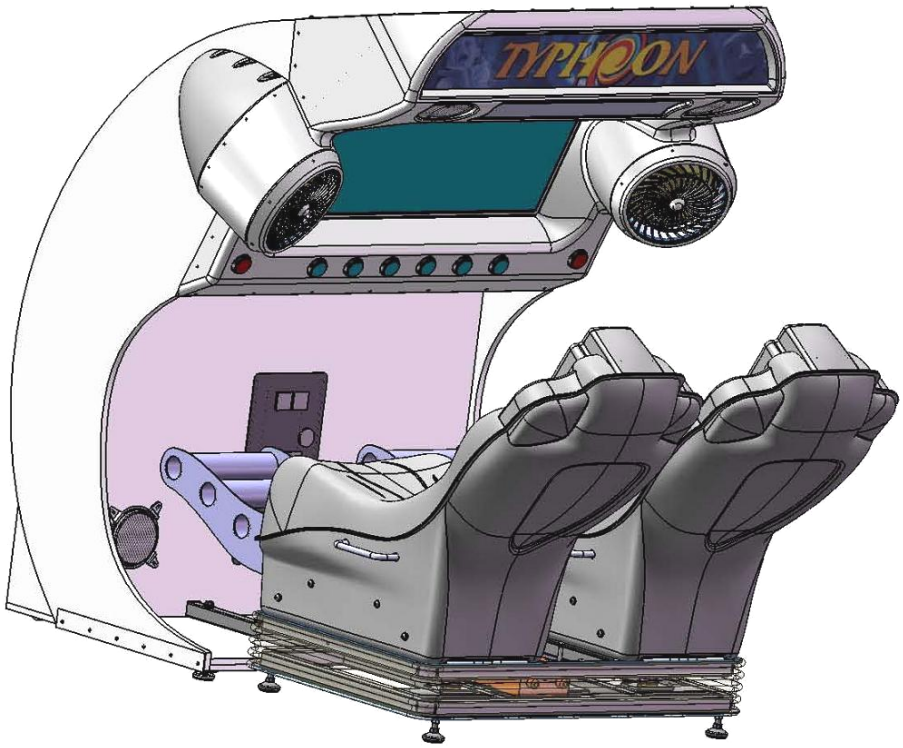
TYPHOON



USER MANUAL

Preliminary – January 2009

Triotech Amusement Inc.
190 Des Industries Lavaltrie, Quebec (Canada)
J5T 3R2
Tel.: **450.586.5009**
Toll free: **1-888-IN-LINE-4**
Fax: **450.586.0299**
e-mail: **service@trio-tech.com**

Dear valued customer,

Congratulations and thank you for purchasing TRIOTECH AMUSEMENT's *Typhoon.* You will not be disappointed with your purchase. Your 2-seat theater is coin-operated and does not require attendant. Featuring 4.1 Surround Sound and a 42" LCD screen this dual-actuator motion platform is the most realistic simulation available in coin-op.

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.

TYPHOON

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

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**

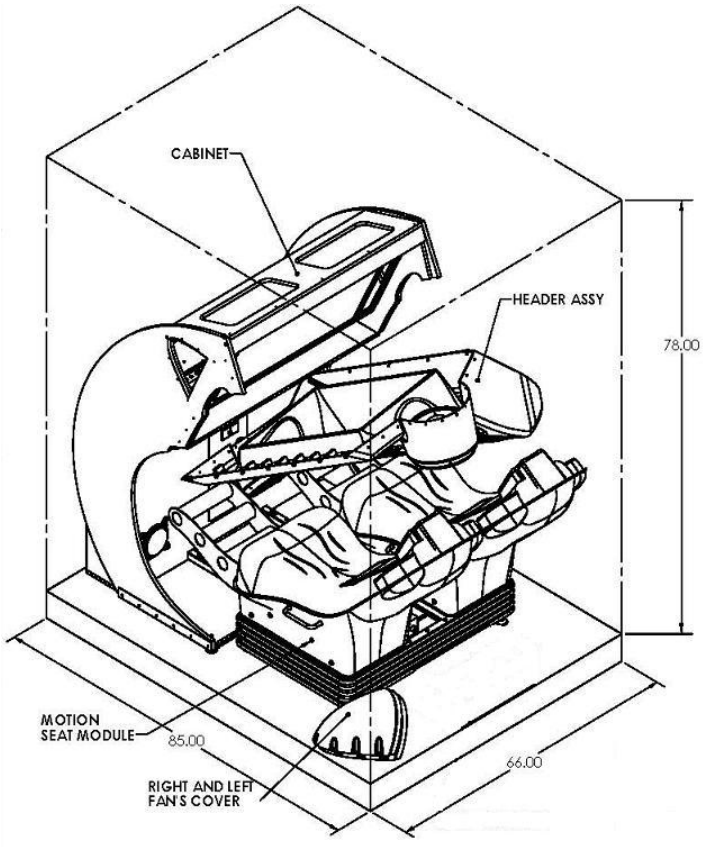
Typhoon reception

Reception

1

CAUTION
Typhoon requires a dedicated 120V. 15 amp circuit or 220V. 7.5amp or the machine may experience sporadic technical difficulties. Your Typhoon should not share a breaker 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.



TYPHOON Ships in one (1) crate

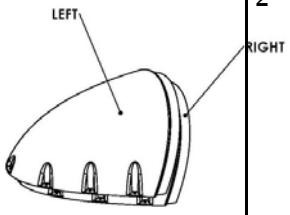
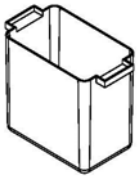
Package approximate dimensions:
90” x 56” x 80”

Reception

2

LIST OF SUPPLIED ASSEMBLY PARTS

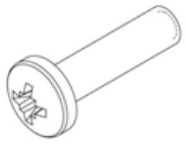
Package Content

Item	Description	Photo/ Image	Qty.
1	**Main cabinet**		1
2	**Motion seat module**		1
3	**Header assy**		1
4	**Fan's cover (right &left)**		2
5	**Hardware box (inside of the coin door; the access is from the front of the machine; a bag with the necessaries keys is attached to the coin door's door)**		1

HARDWARE BOX MANIFEST

Reception

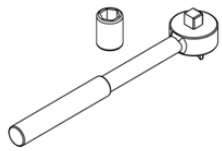
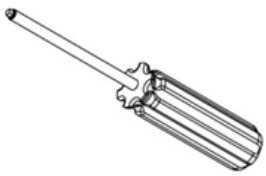
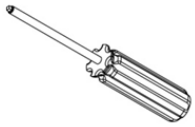
3

Bag or bin No.	IMAGE	DESCRIPTION	SIZE	QTY.	SPARE
1	SD-100-0215	FLAT WASHER NEORENE	#10	26	
2	SD-100-0187	PAN HEAD QUADREX DRIVE	#10-24 x 3/4"	26	
3	SD-100-0216	FLAT WASHER NEOPRENE	#14	12	
4	SD-100-0190 	PAN HEAD QUADREX DRIVE	1/4-20 x 3/4"	12	
5	SD-100-0328	LOCK WASHER	1/2"	6	
6	SD-100-0047	FLAT WASHER	1/2 “	6	
7	SD-100-0342	HEX.MACHINE SCREW	1/2 “-13 x 4”	6	

Installation

4

NECESSARY TOOLS TO COMPLETE ASSEMBLY

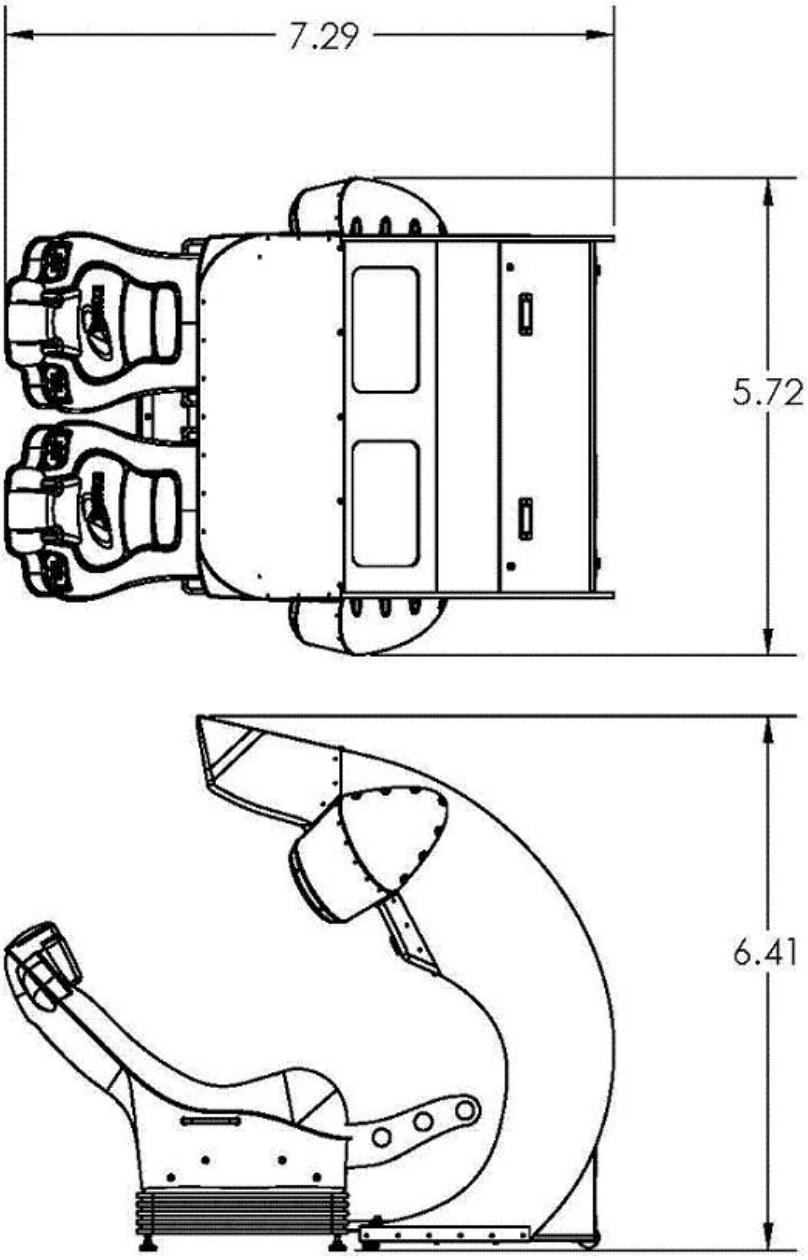
No.	Tools	Description /Image	Application
1	**Forklift**	**Capacity over 1000 lb** **Appropriated long forks attached (~65”)**	**Put the carrying package in the place**
2	**Socket 3/4"**		**Install the seat module (pg.14)**
3	**Wrench 3/4”**		**Adjust the height of the cabinet and seats (pg.9 and 14)**
4	**Screwdriver no.2 (square) (Screw #10) Or Phillips #2**		**Install the fan’s covers on to the header(pg.10)and the header to the cabinet (pg. 11)**
5	**Screwdriver no.3 (square) (Screw 1/4) Or Phillips #3**		**Install the header on the cabinet (pg.11)**

Installation

5

SPACE REQUIREMENTS

For installation, the required space is ~ 15’ X 10’
When fully assembled, the required space will be ~ 7.5’ X 8’



Installation

6

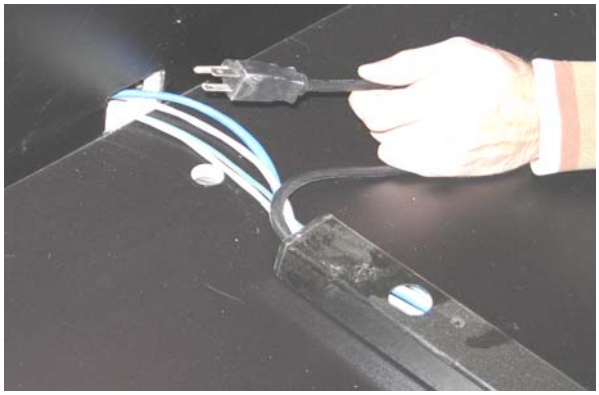
Uncrating

1 - Start by removing the header assembly from the seat.

2- Remove the header support

3- Remove the back legs holder

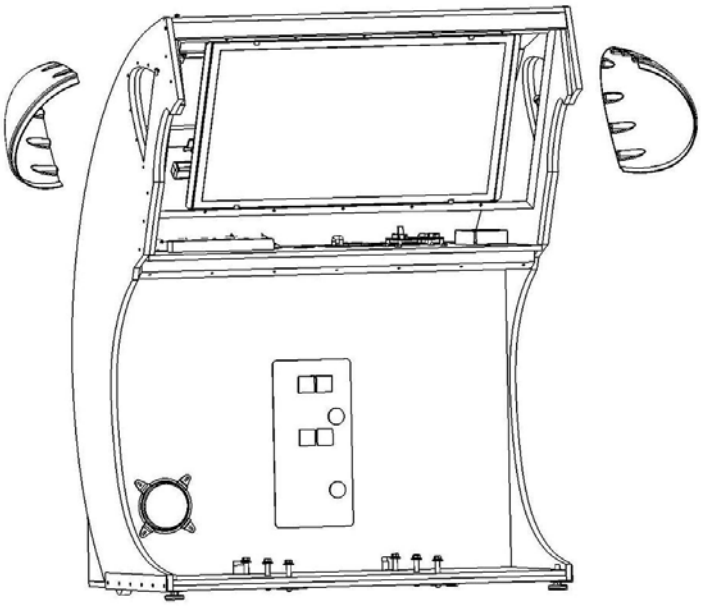
4-Pull the seat out of the cabinet about 6'' or 15cm. Then pull the 3 cables out of the hole one by one as shown in the picture below.



5- Remove seat assembly from the crate.

6- Remove cabinet from the crate and move in the desired final location.
- Locate the hardware box inside of the coin door
- You will find a description of the hardware on the bag.

STEP 2. Header assembly



Install the two fan covers (right and left) to the cabinet

Tools	Fasteners Reference
Screwdriver no.2	Flat neoprene washer #10”(14X), Screw #10-32 x 3/4”(14X)

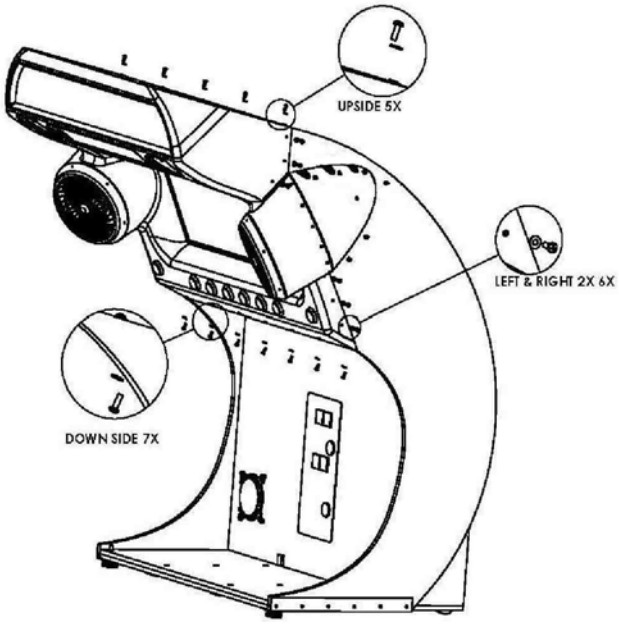
Installation

7

Header

STEP 3. Header installation

Place the header on the machine as shown



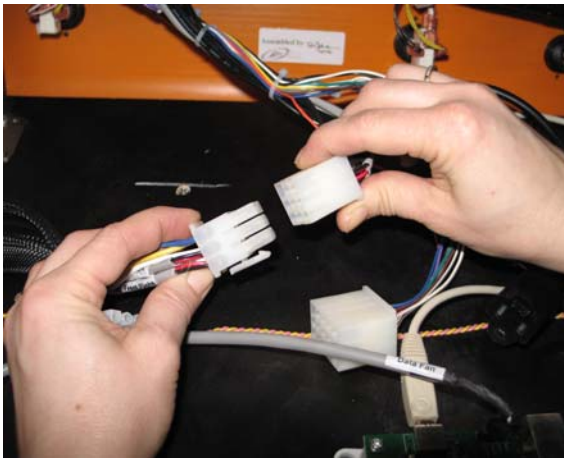
Tools	Fasteners Reference
Screwdriver no.2 (Down side, upside)	**Flat neoprene washer #10”(12X), Screw #10 -32 x 3/4”(12X)**
Screwdriver no.2 (right and left side fan’s cover)	**BAG/BIN NO: Flat neoprene washer #14”(12X), BAG/BIN NO : Screw 1/4"-20x 3/4”(12X)**

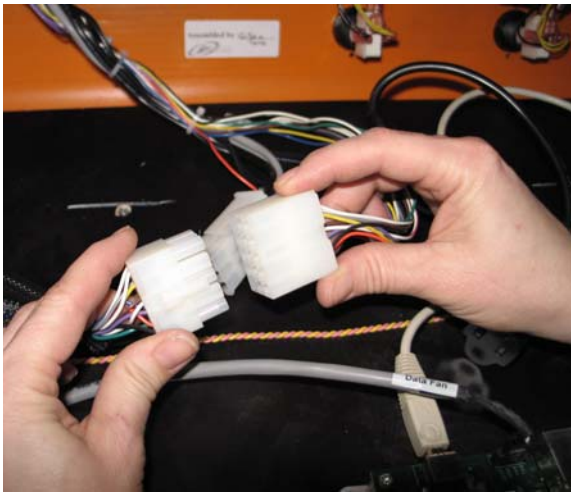
Header

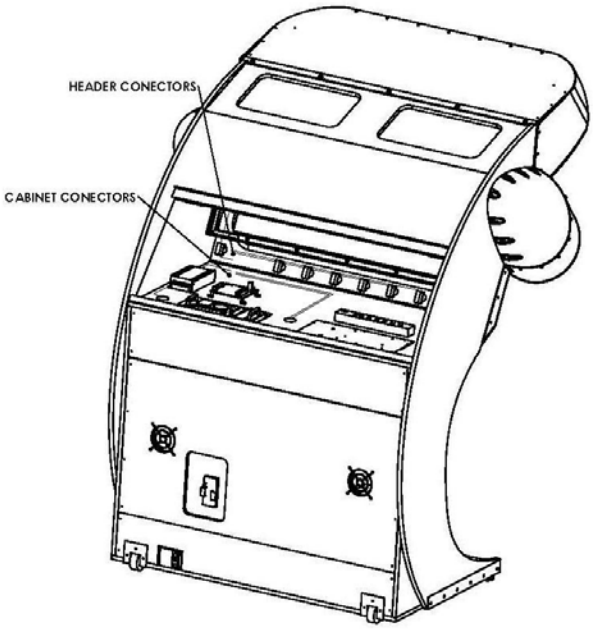
Installation

7

- Open the back service door.
- Connect the header cables. There are **three connectors**; one MOLEX, 9 pin and one 15 pins + one NEMA /standard 110V.





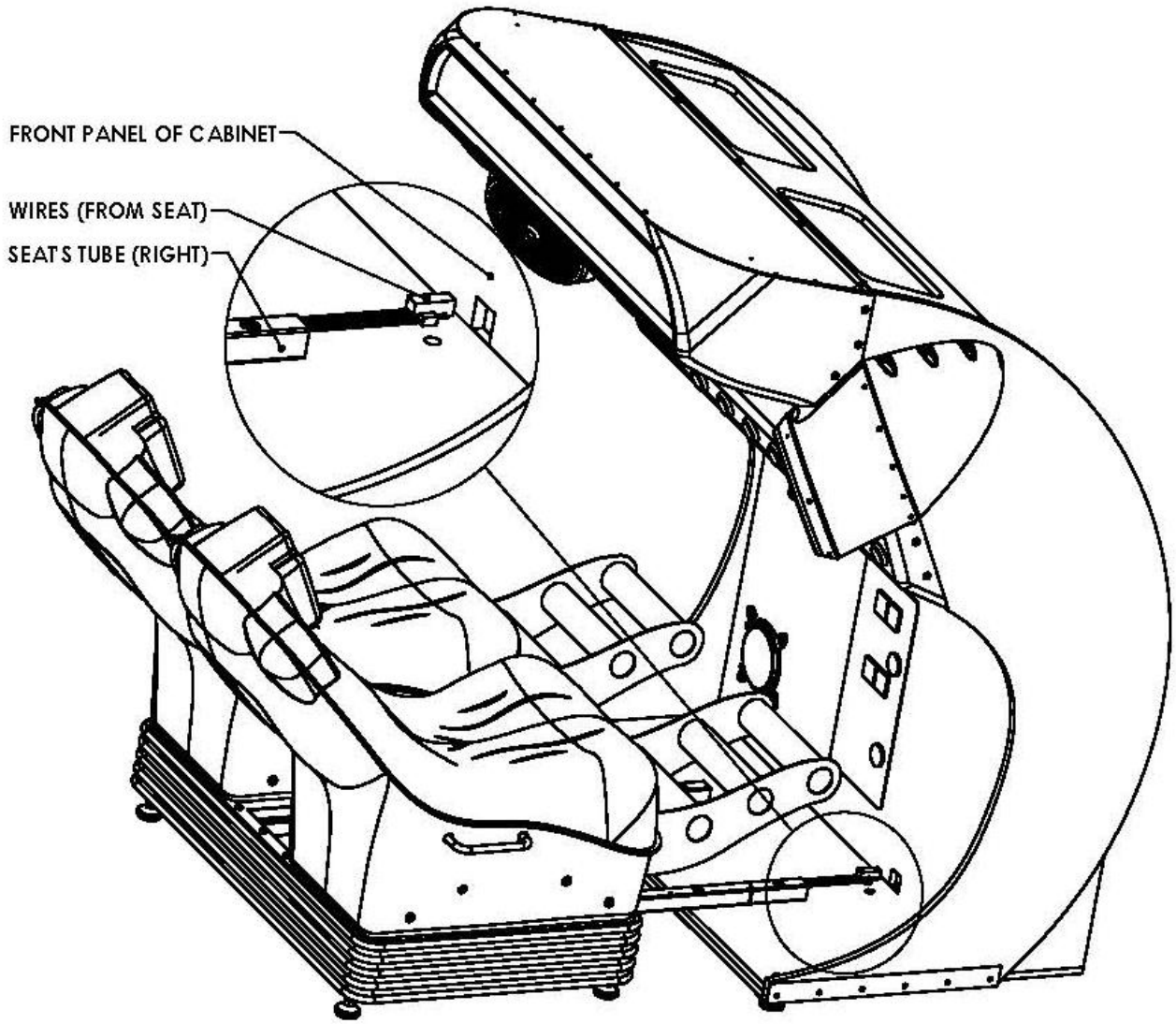


Once connected, close & lock top door.

Installation

8 Seat

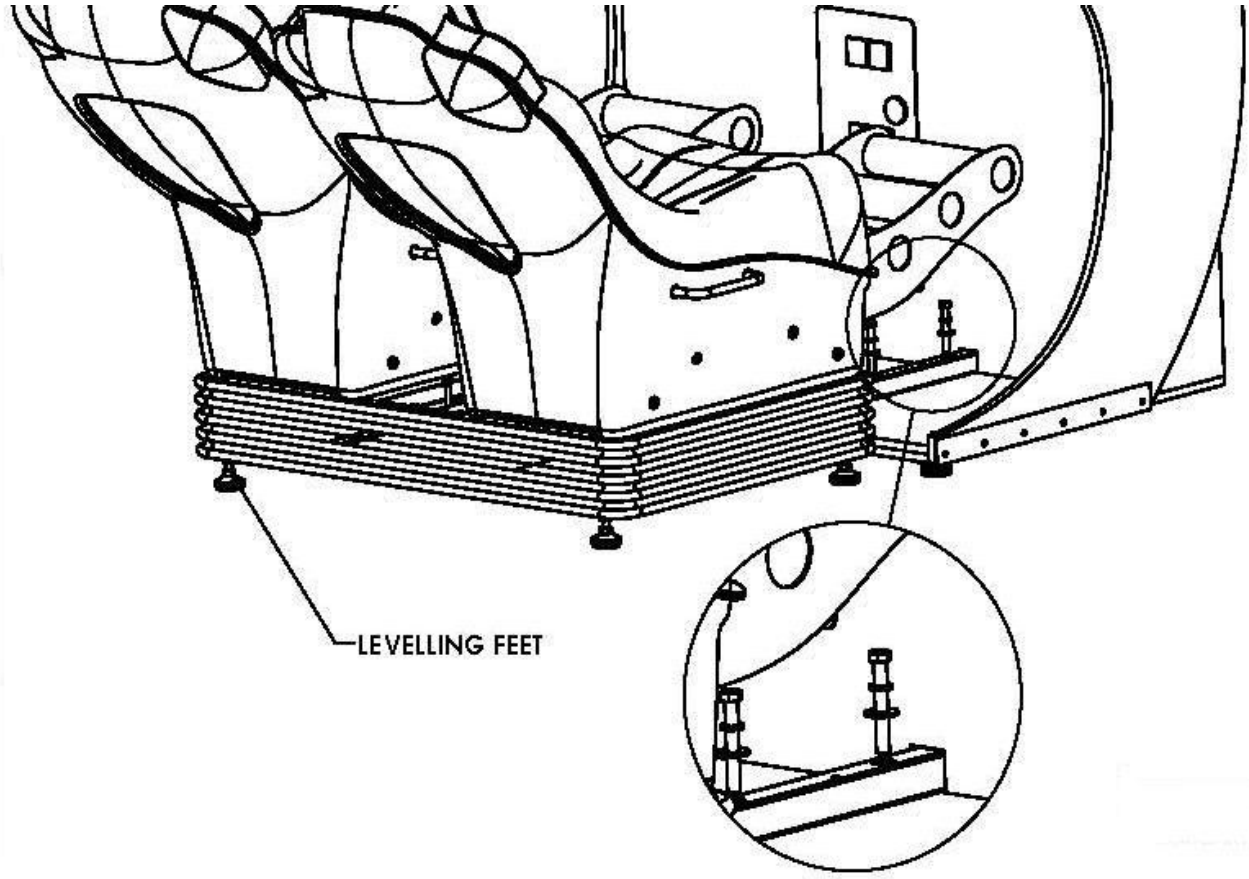
Align seats for wires to easily run through hole on lower right part of cabinet.



Installation

Seat 8

Fasten seats to cabinet using 6 hexagonal head screw 1/2" -13 x 4”, flat and lock washer. Level seats using adjustable feet



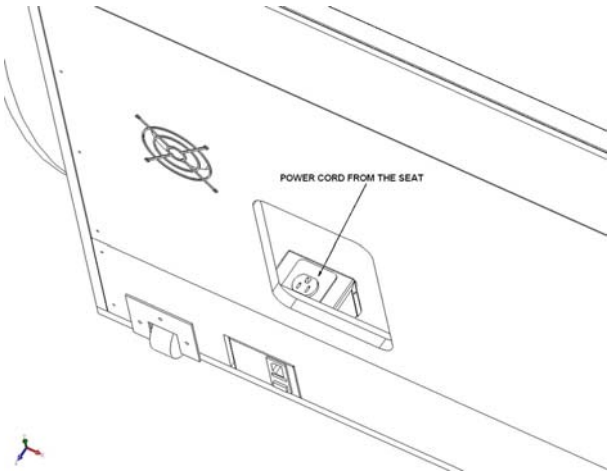
Tools	Fasteners Reference
Ratchet 3/4"	**Flat washer 1/2”(6X), lock washer 1/2 (6X), Hex. Screw 1/2”-13 x 4”(6X)**
Wrench 3/4"	**Levelling feet**

Installation

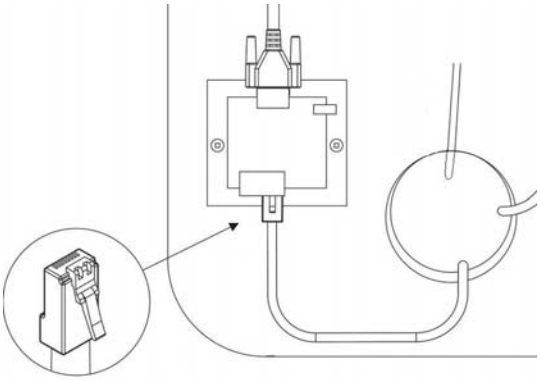
8 Seat

Through lower right (back of cabinet) door, connect wires you ran. (**Three connectors**: NEMA /standard 110V to electric box, RJ45 to Opto board (only one with RJ45 connection) and the Molex 9 pin connector to its female connector

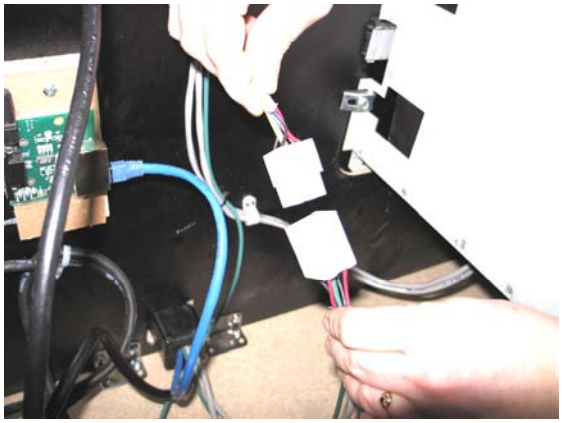
Main electric box



Opto-card

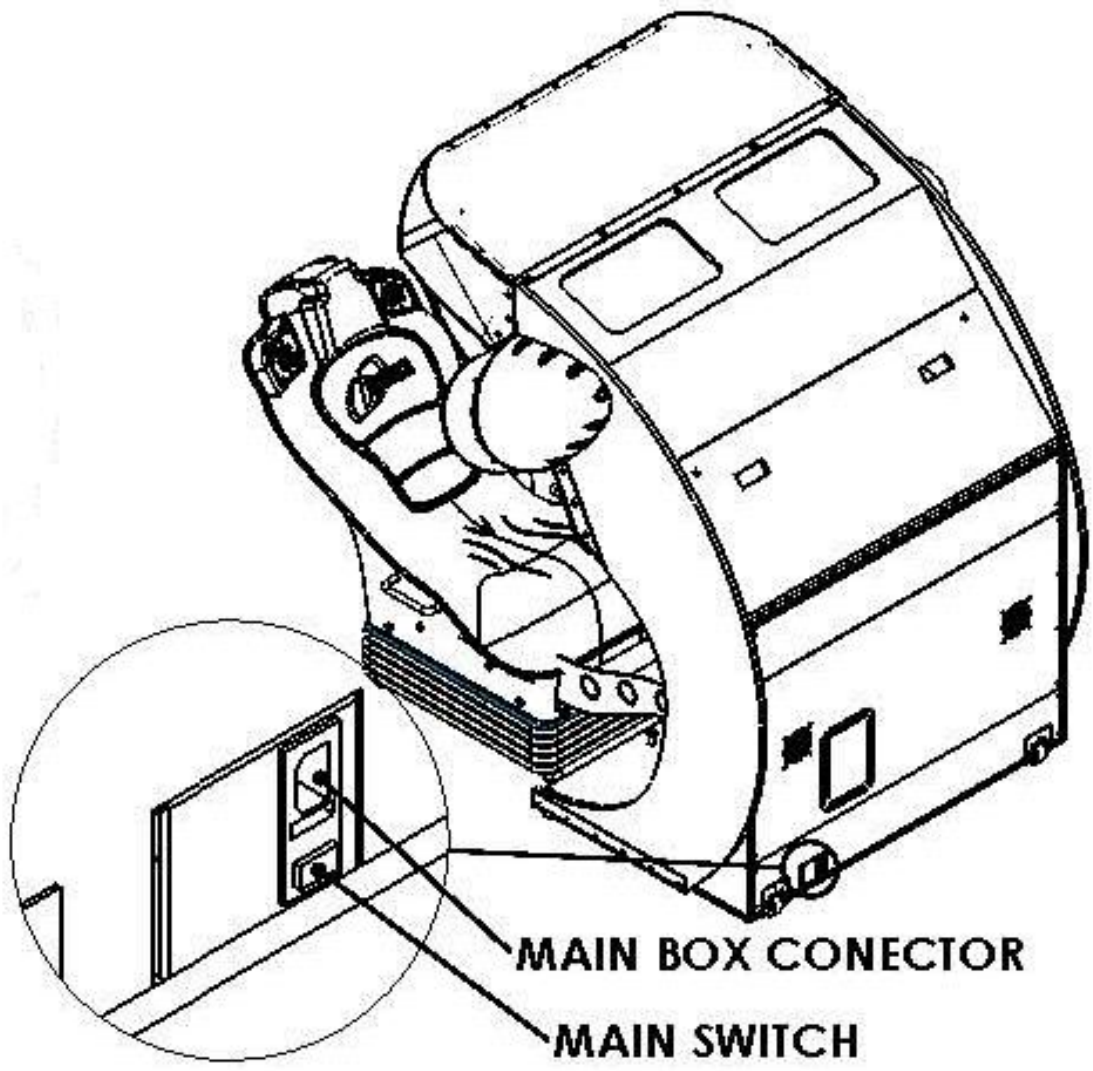


Molex 9-pin



Once plugged in, lock door.

Installation

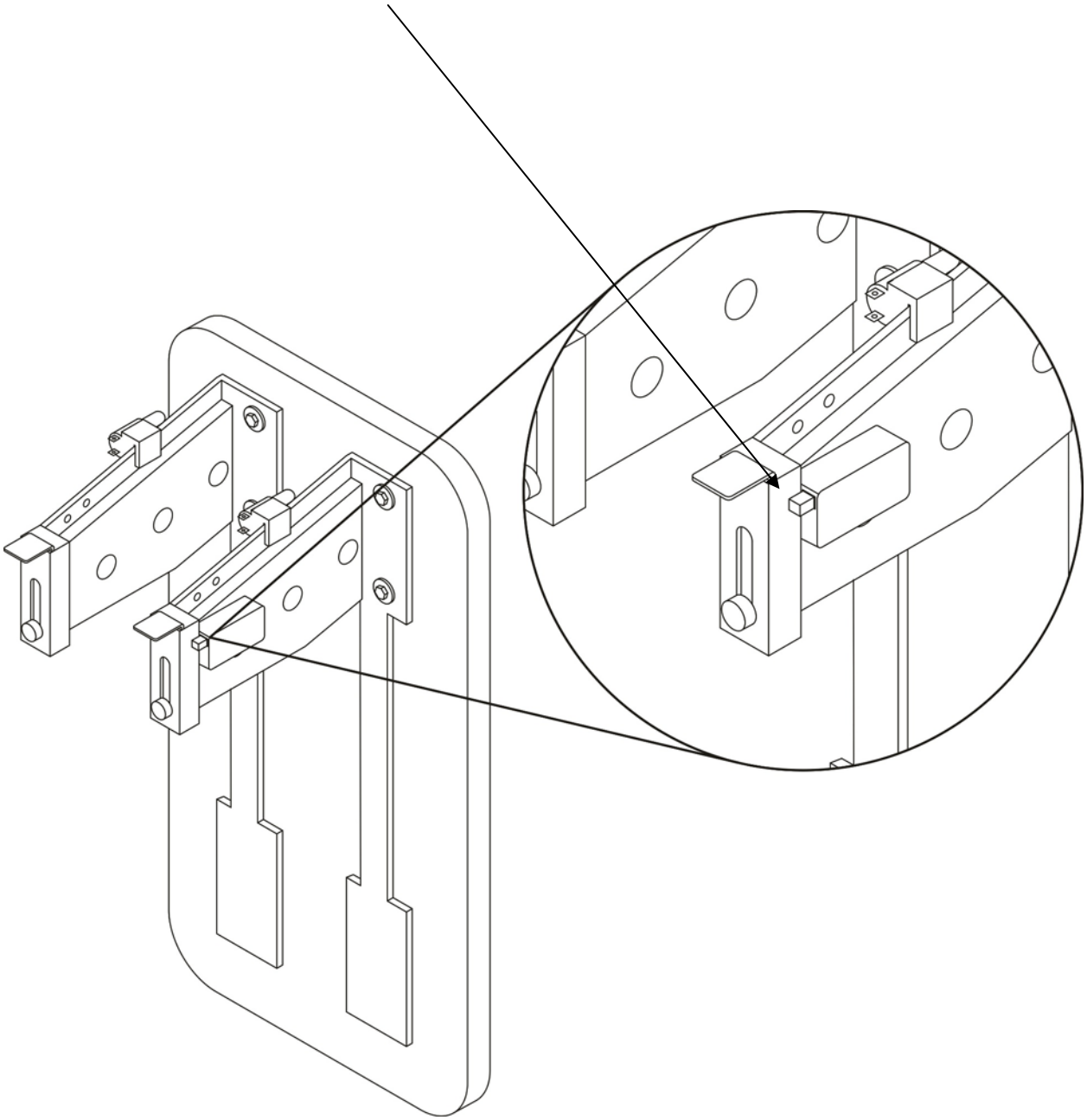


Before you connect, make sure main switch is in off position.
Connect power cord to cabinet and wall outlet.
Then turn the main switch ON

Configuration

10 Operator Setting

Accessing operator settings interface is done by opening the coin mech door and pushing the micro switch attached to the coin mech (*while in attract mode only).*



Operator Setting

Configuration

10

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

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

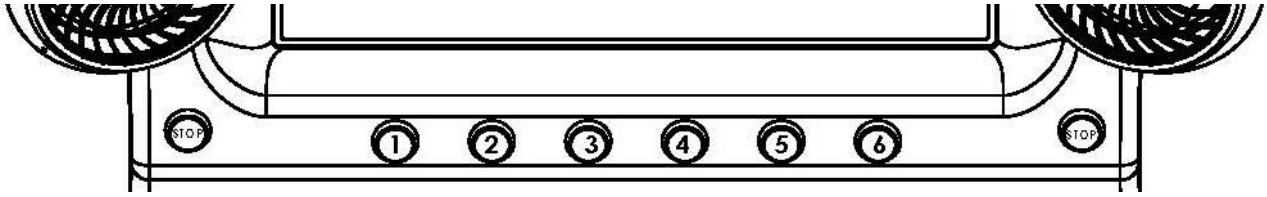
Configuration

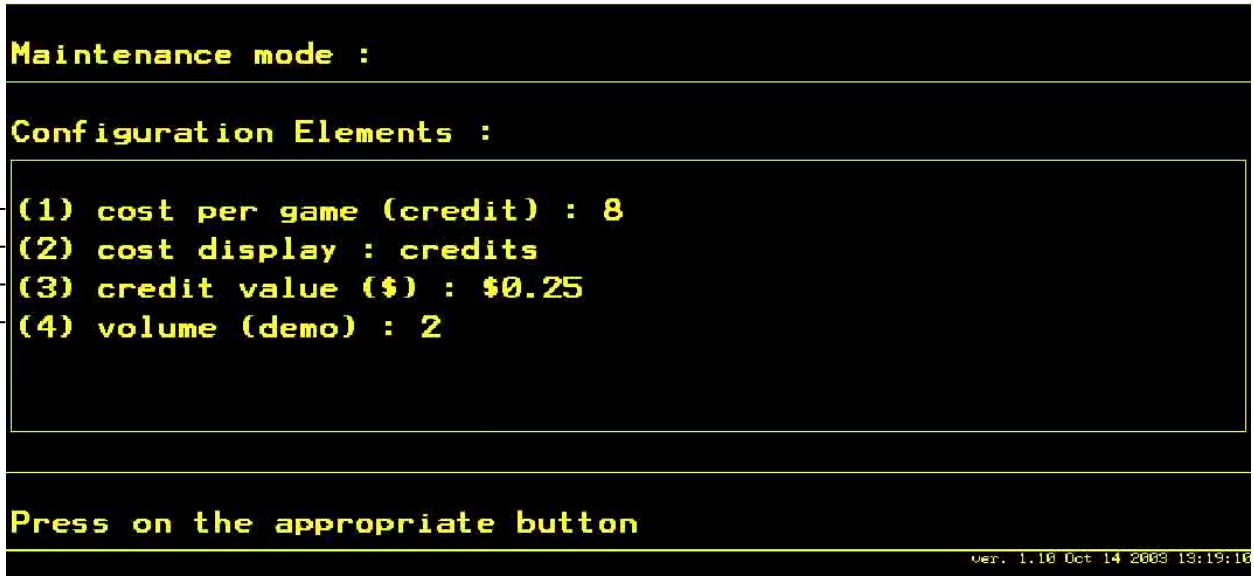
10 Operator Setting

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.

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)

Hit the appropriate button on the header to change variables



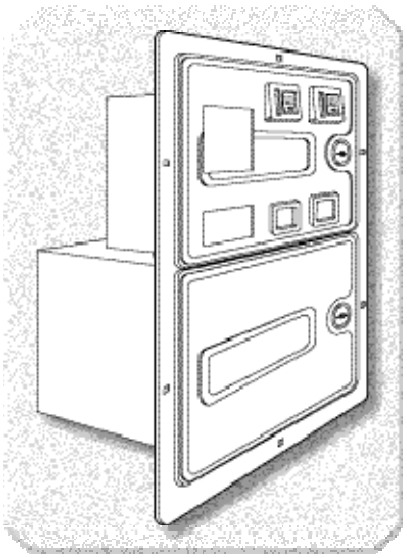


Dollar bill validator information

Configuration

11

Typhoon 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 below. This door accepts Mars upstacker bill validator with compact fitted Bezel (up to 10” 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

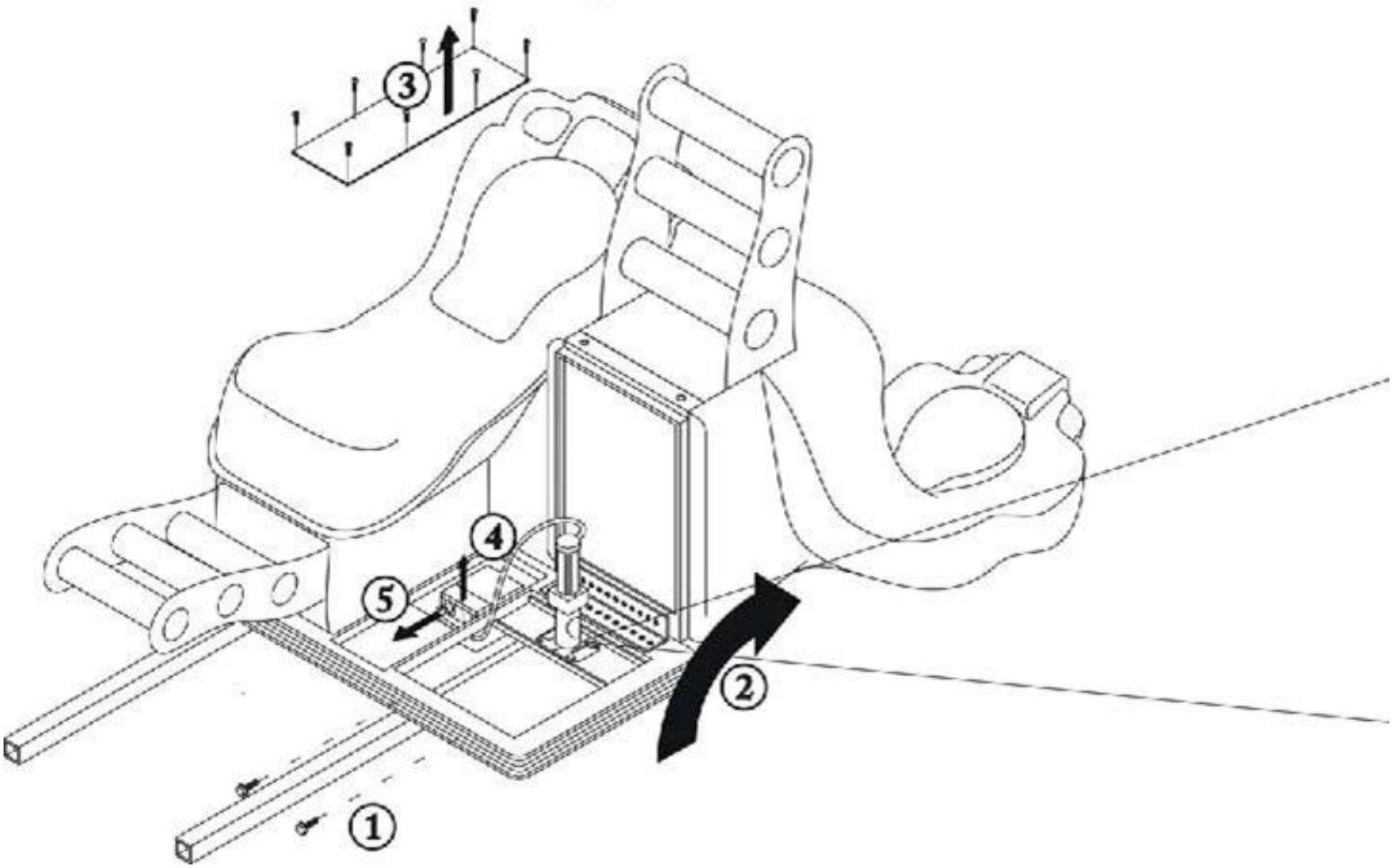
Upstacker Bill validator fits these Models amongst others

	Happ Control P/N
MARS	42-7312-00
MARS	42-7311-00
MARS	42-7310-00

Maintenance

12 Actuator replacement

Fig.1

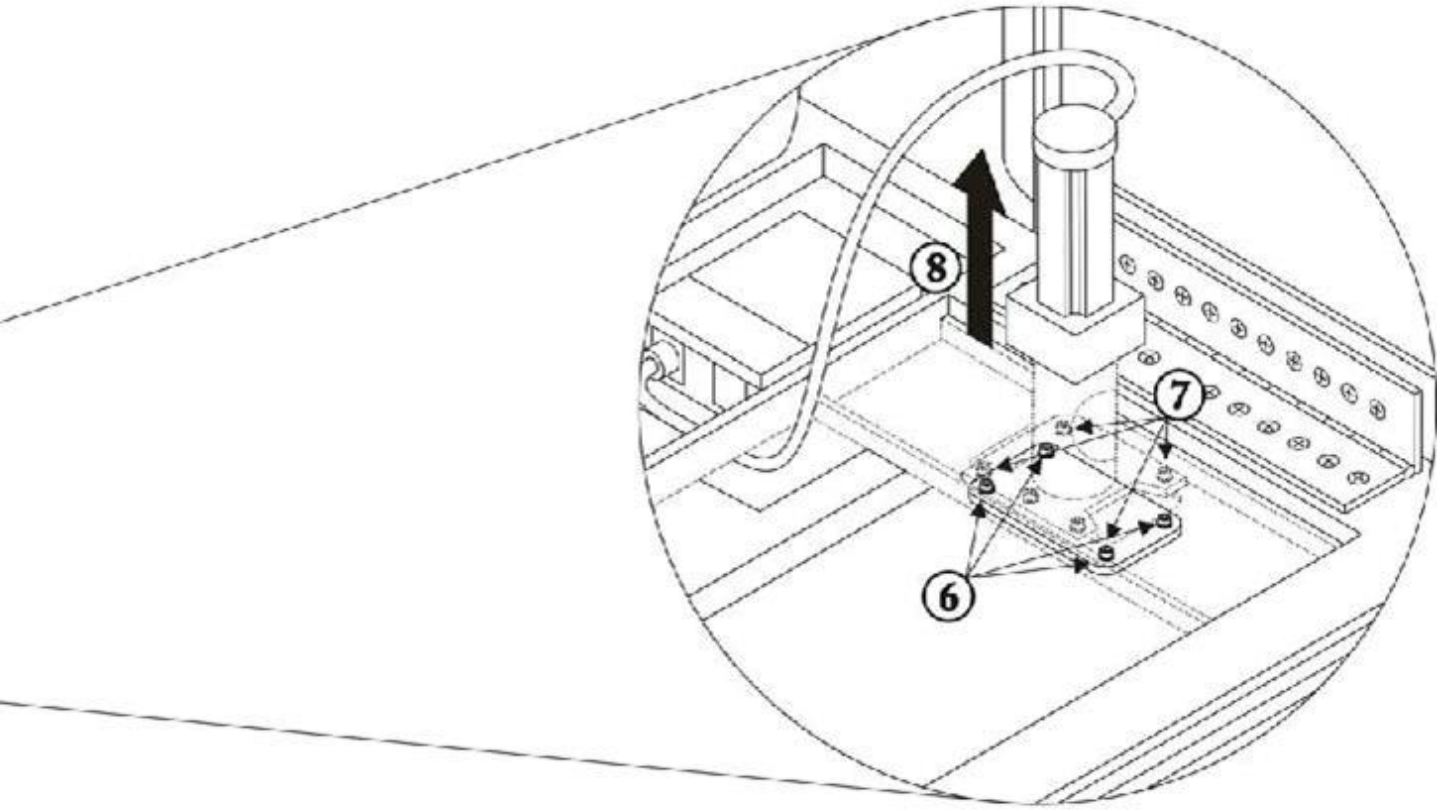


Actuator replacement procedure

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

Actuator replacement

Fig.2



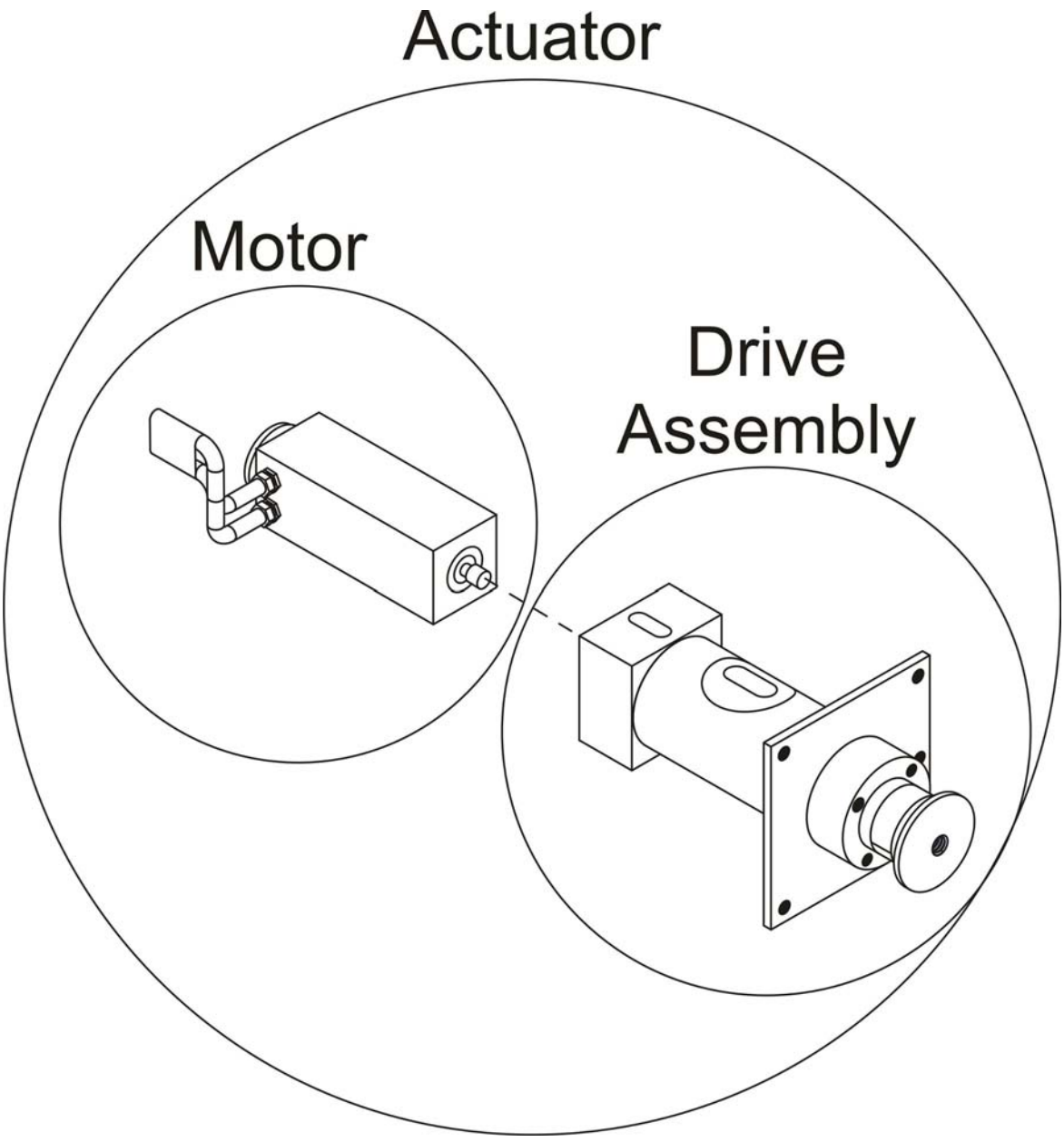
Actuator replacement procedure

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-reinstall new actuator

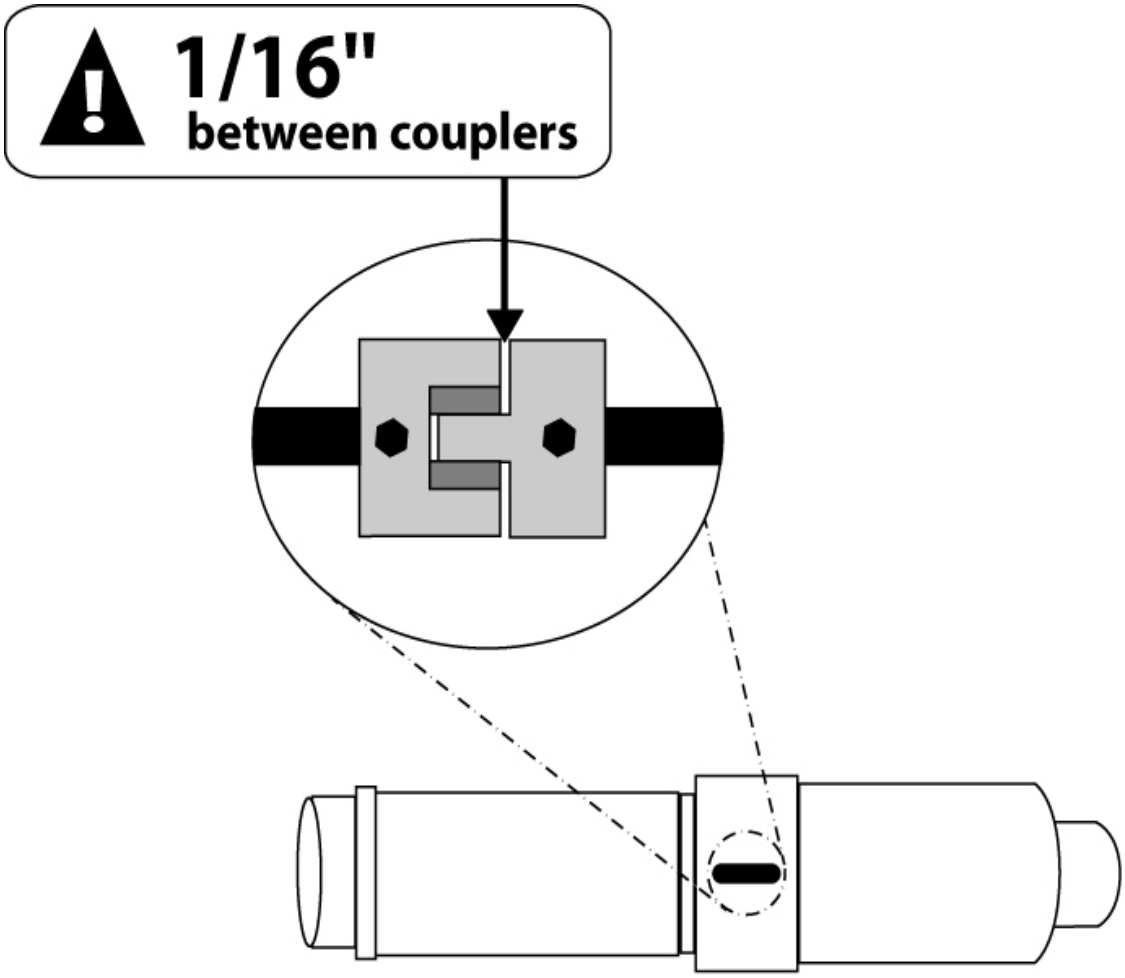
Maintenance

13 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).



Replacing a drive assembly



If positioned too close the heat
and pressure will damage the bearings.
You can ajust spacing by repositionning
the coupler on the motor with the set screew.

Maintenance

14 Replacing control box

A

Remove control box cover.

B

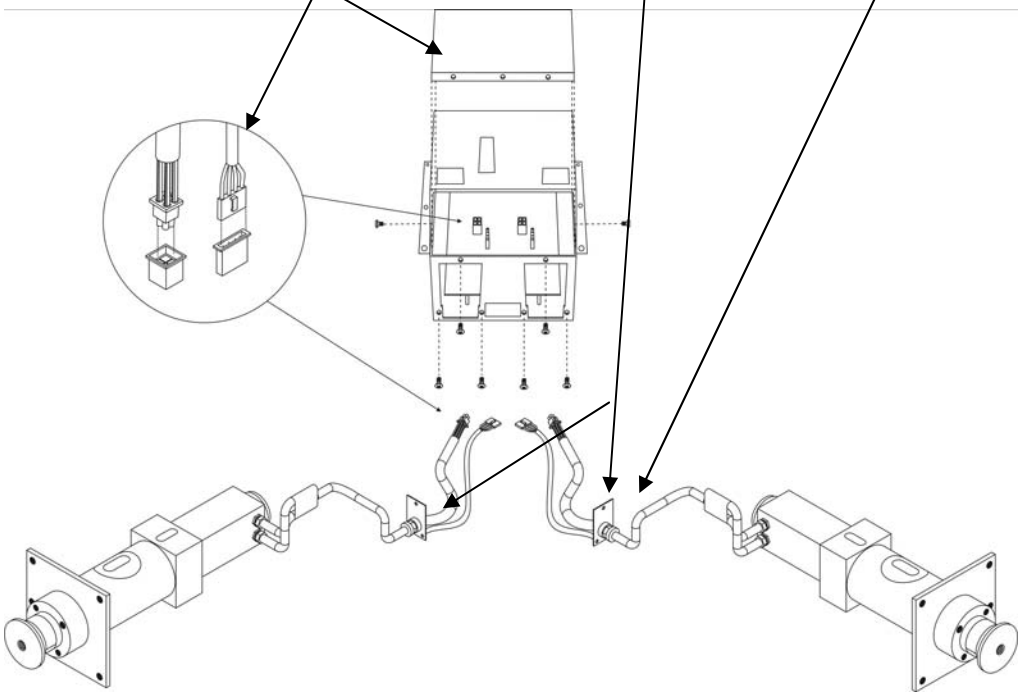
Unplug all connectors.

C

Unscrew cable plates.

D

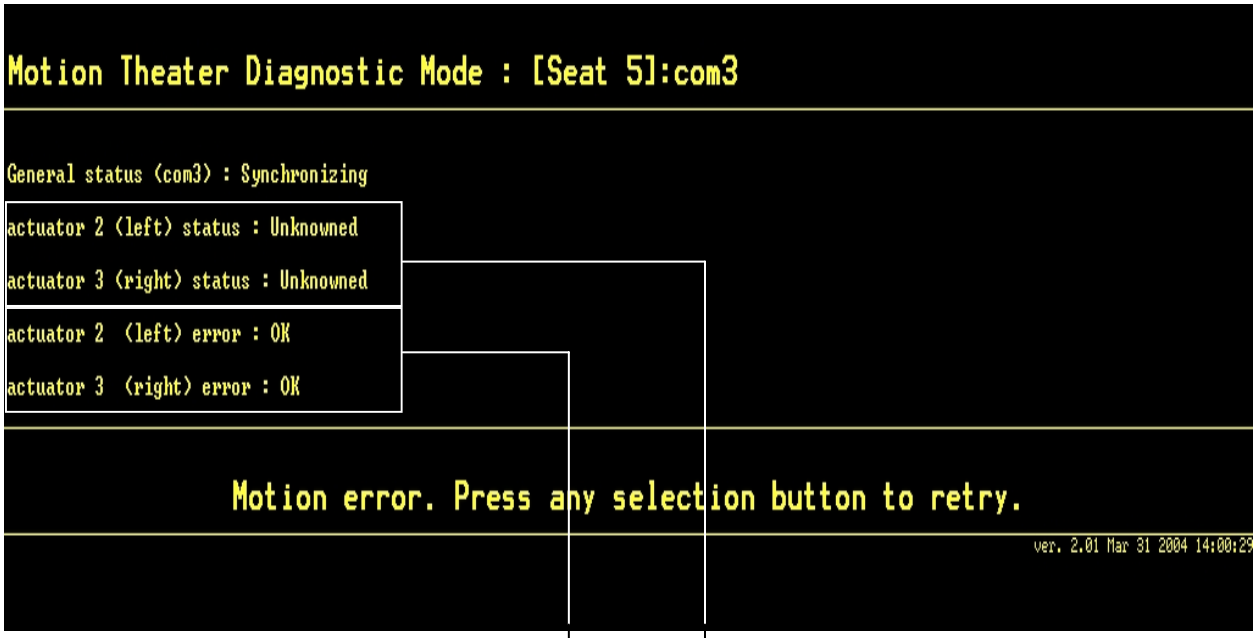
Pull cables out of box.



E

Remove and replace control box.

Diagnostic screen and error codes Continued



- ***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

Diagnostic screen and error codes Continued

Software (Travel)

Software (overweight)

Software (overweight) Command OverRun Fail State

Software (OverPos)

Software (Travel) Command OverRun Fail State

Cause

- Mechanical fault

-Unplug the Typhoon.
-Lift the back of each seat to see if they move freely.

MOVES FREELY

-Re-seat actuator on side the error appeared (diagnostic screen).

Verify coupler & tighten (see section 20).

If no change, replace whole actuator.

DOES NOT MOVE FREELY

-Replace DRIVE ASSEMBLY

Diagnostic screen and error codes Continued

Software (Fail Hall)

Software (Fail encoder)

Cause

- Electrical fault

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

Diagnostic screen and error codes Continued

Software (Timeout)

Cause

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

-Unplug machine
-Wait 1 minutes
-Re-plug machine

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.

-Verify voltage

I have more then 114volts.

Go to **Step B**

I have less then 115volts.

Plug machine into other outlet with at 115volts. If you do not have the minimum require-ments, call an electrician.

B

-Verify if machine is alone on breaker.

It is alone

It is not alone

Use another breaker or unplug all other games

-Get mouse and keyboard out.
-Press ESC.
-Go to WINDOWS EPLORER.
-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

20

Diagnostic screen and error codes Continued

Software (overPos) Command OverRun Fail State

Software (fail hall) Command OverRun Fail State

Cause

- Mechanical, electrical and/or software fault

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

-Replace actuator

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.

Command OverRun Fail State

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

Diagnostic screen and error codes Continued

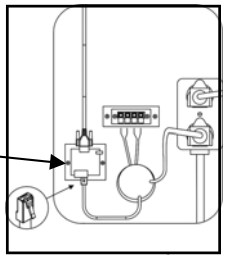
Not Responding

Cause

- No communication or no power going to actuators.

Step 1

-Open service door on bottom left in the back of the game.
-Look inside at Actuator control Board.



Light is RED or GREEN (LED)

-Go to next step

No light (LED)

-Check power on board power cord.

Light is YELLOW (LED)

-Check power on board power cord.

There is power

-Replace Actuator control board.

-Verify power output on Power Supply (top right of the back of the game).

-Unplug power cord on board. Disconnect network and serial cables. Re-connect power cord. If light is yellow replace board, if green goto next step.

There is power

-Replace Power Cord between Power Supply and Actuator Control Board.

There is no power

-Verify power Input on Power supply (red LED),

-Reconnect network cable, if light turns yellow replace network cable. If light is green reconnect serial cable, if light turns yellow replace serial cable.

There is power

-Replace Power Supply.

There is no power

-Replace Power Cord going

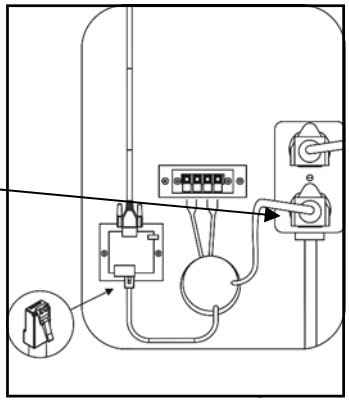
Continued next page →

Diagnostic screen and error codes Continued

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 to Control Box (IF EQUIPPED WITH CONTROL BOX)
-Restart computer

There is no power

-Open Outlet and repair connections.

There is Movement

-Replace Power Cord(s)

Troubleshooting

23 Motion stops and restarts during ride

Cause

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

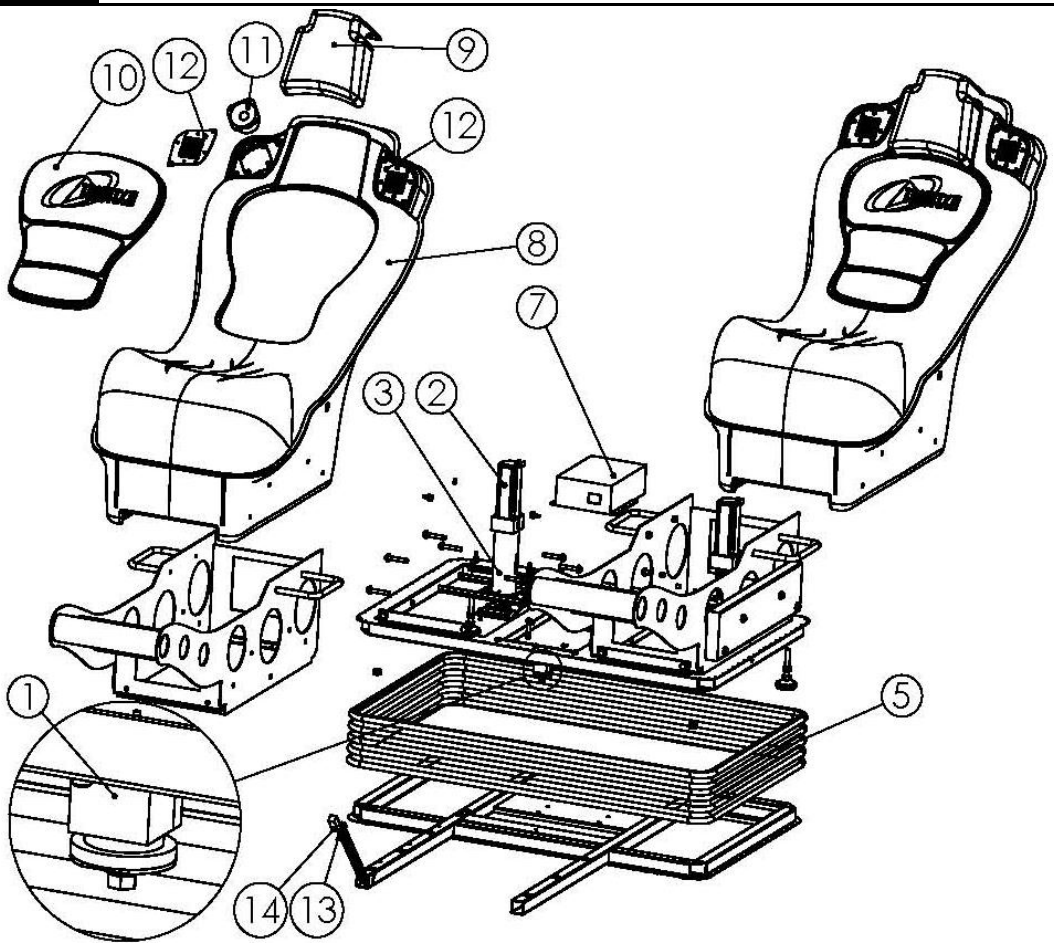
-Get mouse and keyboard out.
-Press ESC.
-Go to WINDOWS EXPLORER.
-Copy **D:\Typhoon.log** on floppy disk.
-Email file at **SERVICE@TRIO-TECH.COM**
-Wait 10 minutes and call Tech Support @ **1-888-465-4634**

Parts

Parts 24

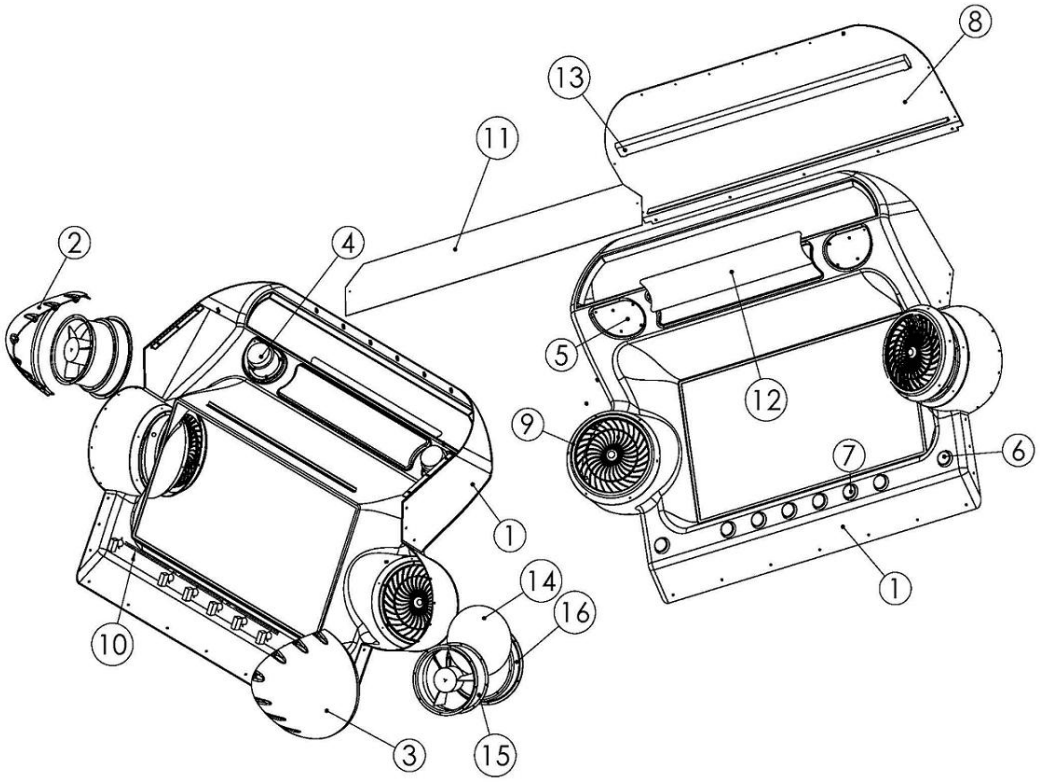
Parts

25 Seat assembly



ITEM	PART NUMBER	DESCRIPTION
1	SD-450-0003	PIVOT ASSEMBLY
2	SD-450-0008	ACTUATOR MOTOR AKM 24D
3	SD-450-0022	DRIVE ASSY AC10
4	SD-250-0068	ACTUATOR PLATE
5	SD-400-0010	SKIRT, RUBBER BASE
6	SD-900-0015	CAP PIVOT PISTON
7	SD-450-0013	CONTROL BOX "B"
8	SD-350-0015	FIBER GLASS SEAT
9	SD-500-0040	HEAD CUSHION
10	SD-500-0039	BACK REST CUSHION
11	SD-700-0070	3" SPEAKER ASSEMBLY
12	SD-250-0336	GRILL
13	SD-150-0019	NETWORK CABLE
14	IMT- 0151	SOUND WIRING HARNESS

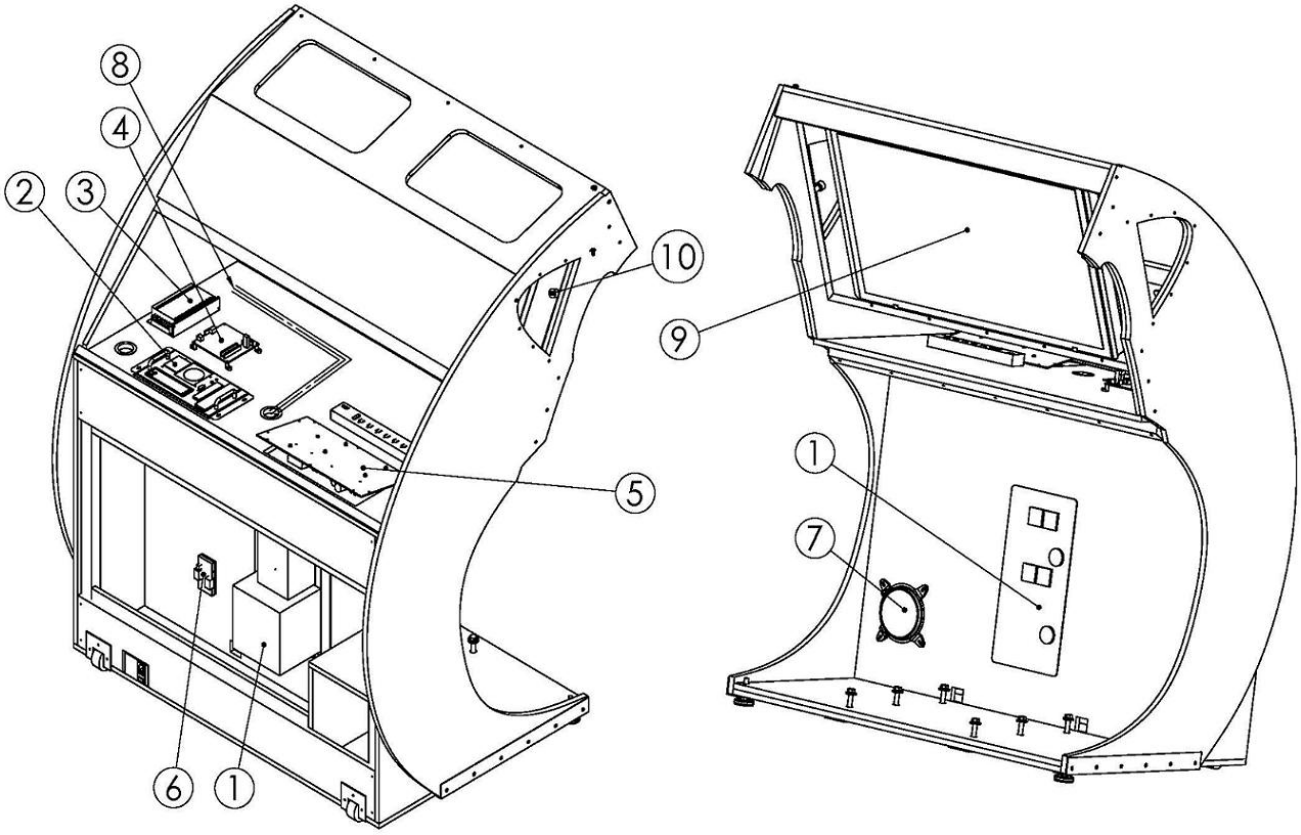
Header parts



ITEM	PART NUMBER	DESCRIPTION
1	SD-400-0071	HEADER
2	SD-400-0075	FAN CASING, RIGHT
3	SD-400-0074	FAN CASING, LEFT
4	SD-700-0065	SPEAKER 5.25_2 WAY
5	SD-250-0336	CABINET SPEAKER GRILL
6	SD-150-0091	RED BUTTON
7	SD-150-0090	BLUE BUTTON
8	SD-400-0072	HEADER TOP COVER
9	SD-400-0077	FAN GRILL
10	IMT-0269	HEADER HARNESS
11	SD-650-0118	HEADER BACKLITE SIGN
12	SD-650-0117	FRON HEADER DECAL
13	SD-550-0018	NEON FIXTURE
14	IMT-0226	FAN PROTECTION
15	SD-150-0420	FAN 10" X3.5" AC115V
16	SD-400-0073	FUNNEL

Parts

27 Cabinet

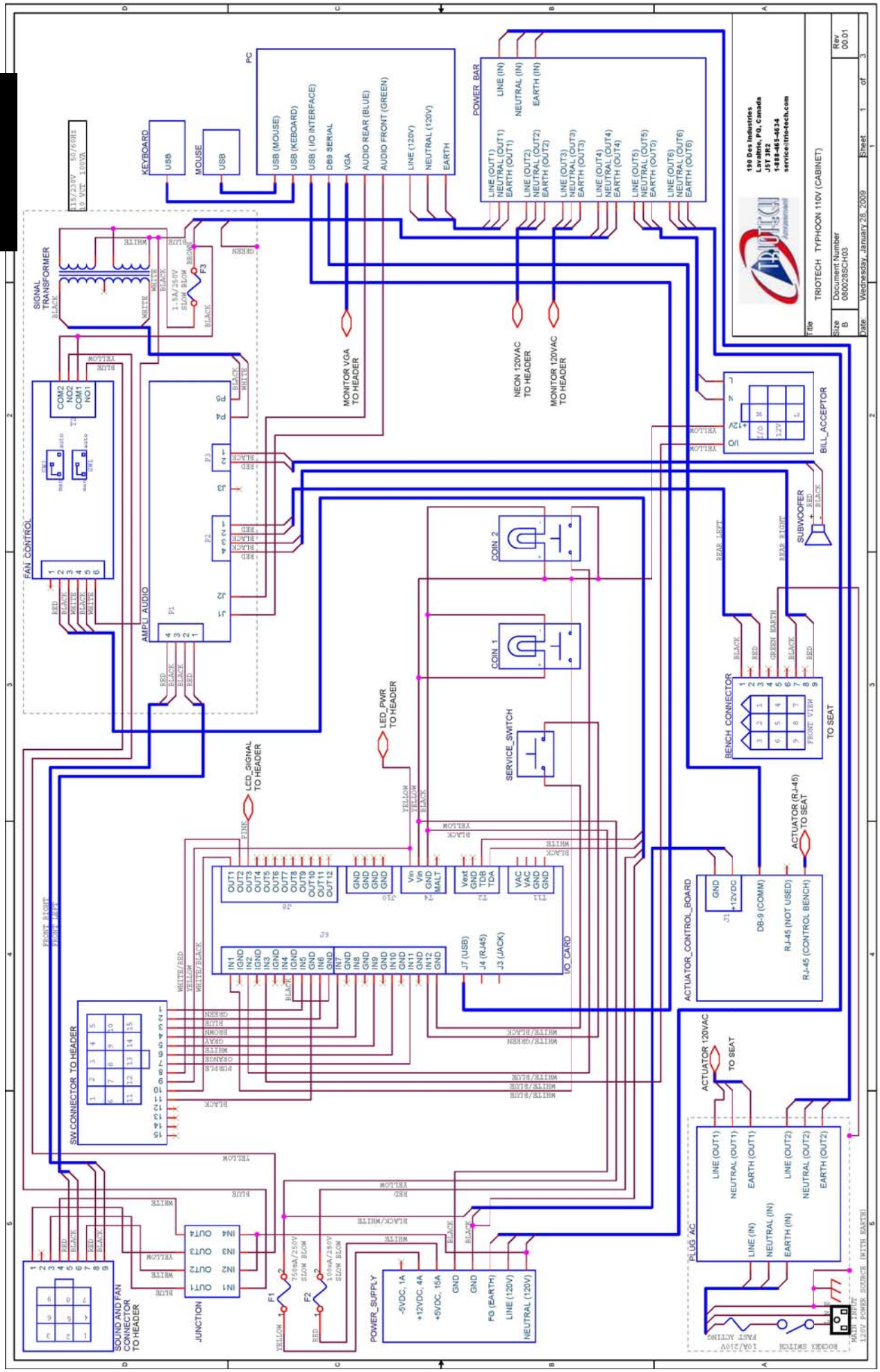


ITEM	PART NUM-BER	DESCRIPTION
1	SD-150-0035	COIN DOOR
2	IMT-0270	COMPUTER ASSEMBLY
3	SD-150-0098	5-12v POWER SUPPLY
4	SD-150-0297	I/O INTERFACE
5	SD-150-0370	10A TRANSFORMER
5	IMT-0303	BLOWER CONTROLLER
5	SD-700-0117	4.1 SOUND AMPLIFIER
6	IMT-0040	ACTUATOR CONTROL BOARD
7	SD-700-0075	SUB-WOOFER 6-1/2
8	IMT-0271	WIRING HARNESS (CABINET)
9	SD-700-0129	MONITOR 42"LCD
10	SD-150-0436	BLUE LED

Electrical

28

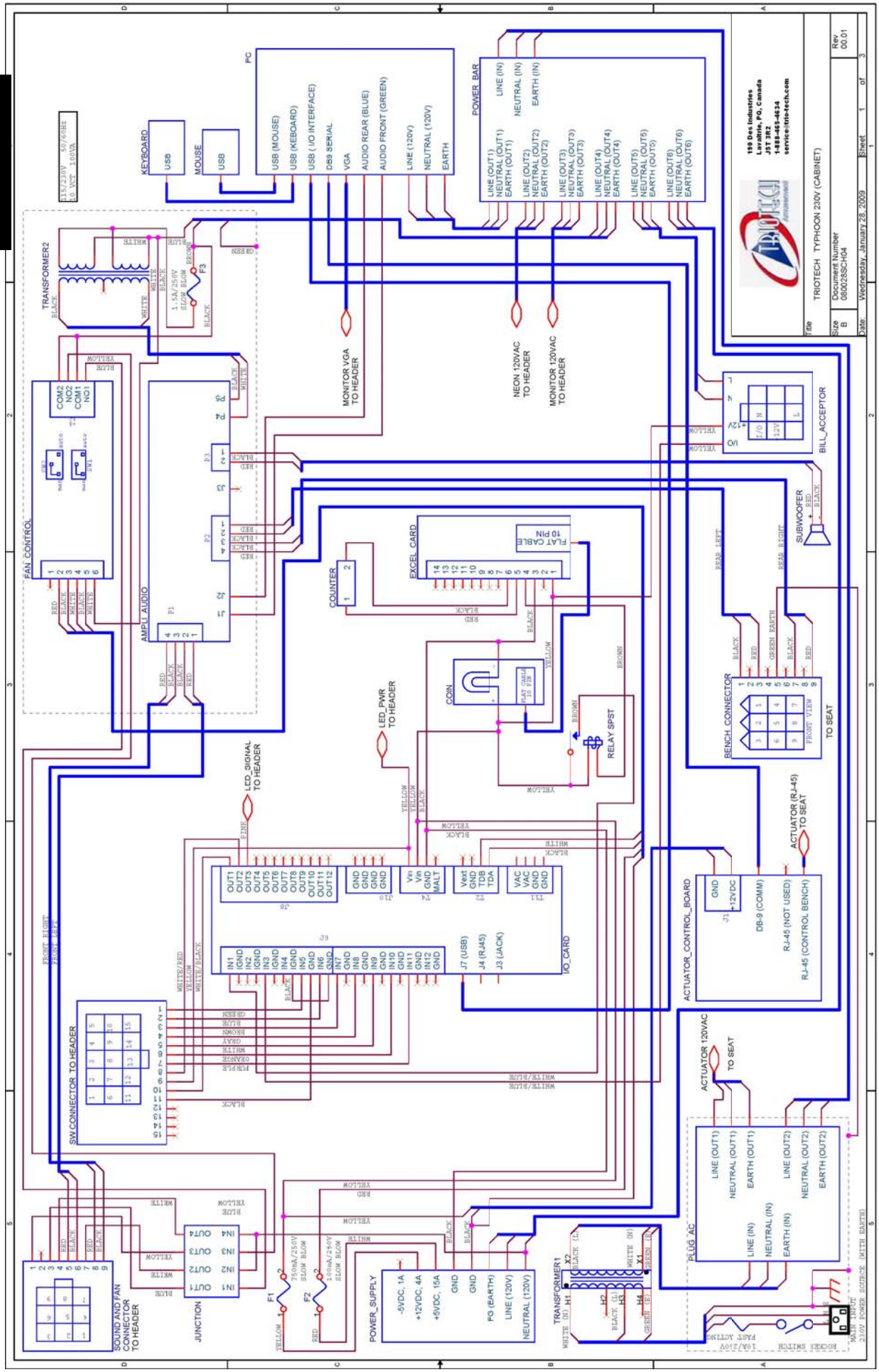
110v CABINET ELECTRIC SCHEMATICS



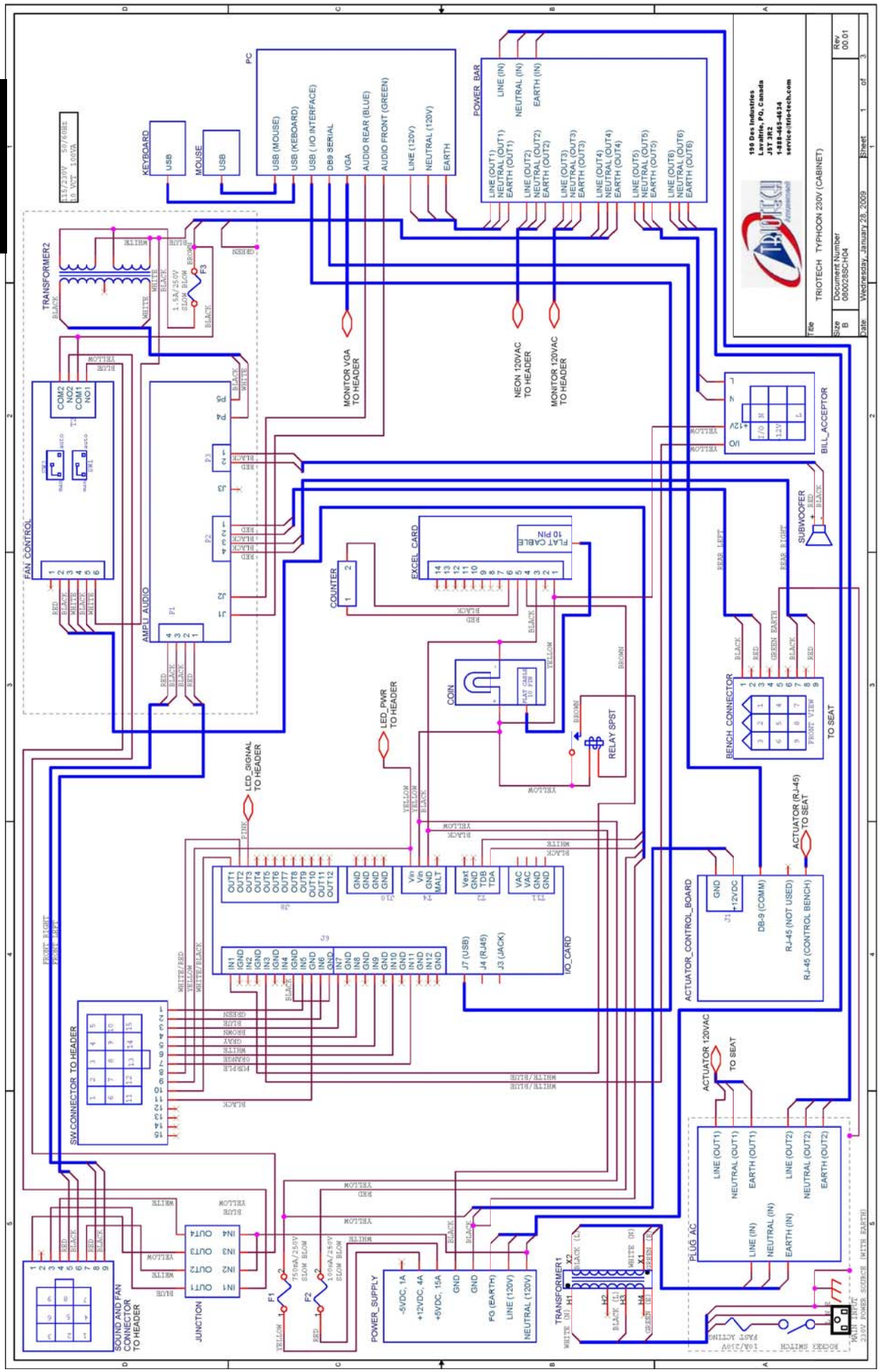
Electrical

29

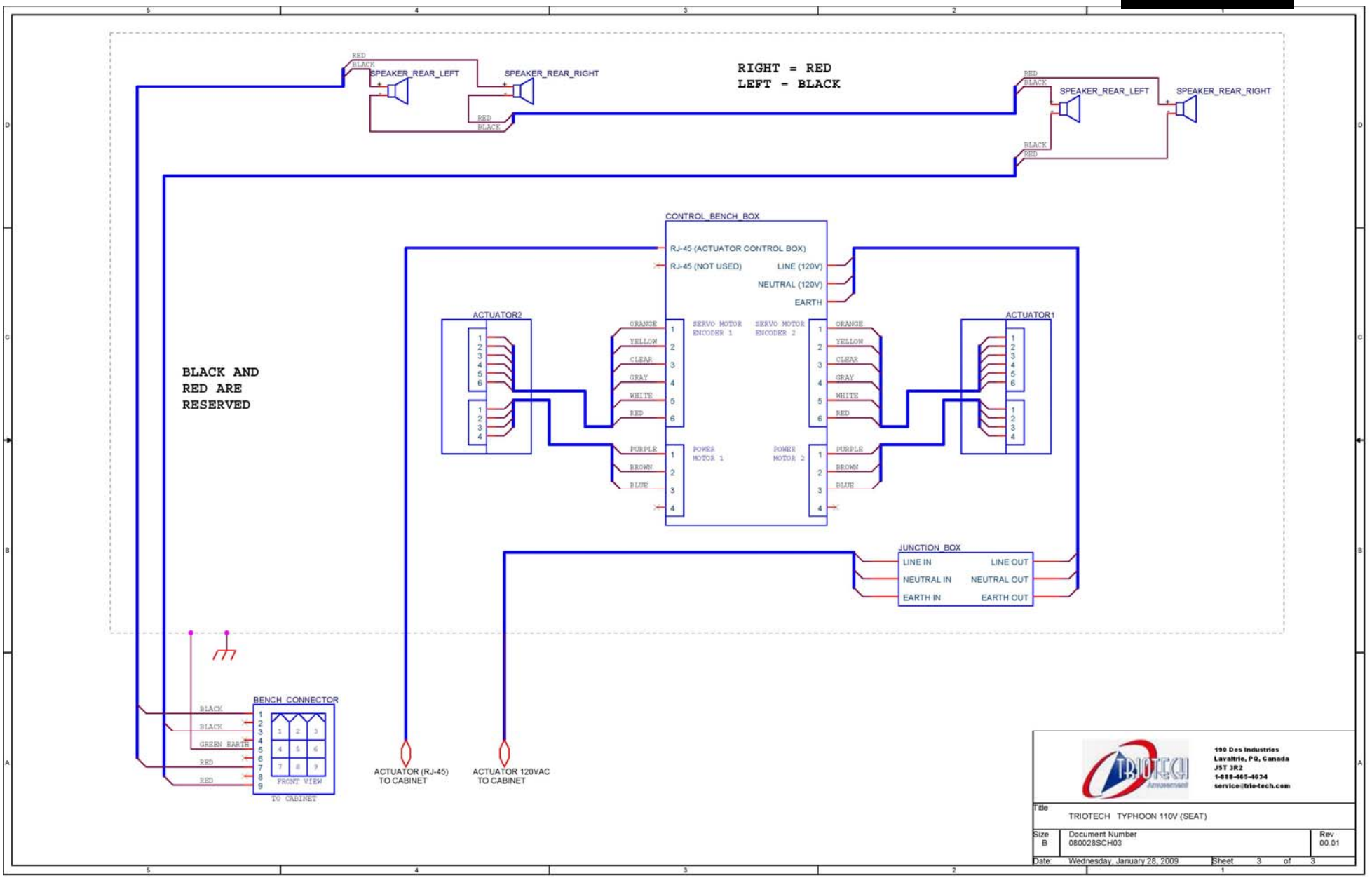
230v CABINET ELECTRIC SCHEMATICS



110-230v HEADER ELECTRIC SCHEMATICS



110-230v SEAT ELECTRIC SCHEMATICS



Technical Support

190 Des Industries
Lavaltrie, Quebec
Canada J5T 3R2

1-888-IN-LINE-4
Fax: 450.586.0299
www.trio-tech.com
info@trio-tech.com

LIMITED WARRANTY

Triotech warrants to the buyer, for a period of (1) one year starting on the day of product delivery, all parts against any manufacturer's defect. During this warranty period, Triotech agrees to replace defective parts. Installation costs onsite are at the charge of the buyer.

Ground Freight costs for replacement parts are at the charge of Triotech, For the return of the defective part. The buyer agrees to send back defective parts to Triotech within (30) thirty days and freight costs will be at his charge.

The warranty is limited to manufacturer's defects.

As for parts or components not manufactured by Triotech, the only valid warranty is that of the manufacturer's.

Triotech assumes no liabilities for any loss of revenue, damage or inconvenience of any type resulting from a defect of any part of the system and will not assume the temporary replacement of the system during the period of repair.

Triotech is not liable of any late delivery of the system.

Any apparent defect or non-delivery of a part of the system shall be notified in writing within 5 days of delivery.

Defective parts covered by the warranty will be replaced at Triotech's discretion either by new or rebuilt parts with the same or with a replacement model of the same parts. Warranty on replacement parts ends on the same date as the original part warranty.

No warranty is valid if the defect is the result of a misusage, or contrary to the norms of instruction or user manuals, or the result of improper maintenance.

Using spare parts that do not fit specifications will void the warranty. Removing serial numbers and/or bar codes from product or component will void the warranty.

Triotech is only liable to the replacement, in a reasonable delay, of the defective parts.

No warranty is granted on the productivity of the system sold or on the result of its use.