NFL
2 MINUTE DRILL
NFL
GAME CLOCK
BILLS
50
LONG BOMB
YARDS
30
PLAY ACTION
20
SCREEN PASS
TOTAL YARDS
NFL
2 MINUTE DRILL
HALL OF FAME
START
NFL
BILLS
ICE

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SAFETY AND WARNINGS

BEFORE YOU BEGIN

WARNING: WHEN INSTALLING THIS GAME, A GROUNDED A.C. RECEPTACLE MUST BE USED. FAILURE TO DO SO COULD RESULT IN INJURY TO YOURSELF OR OTHERS. FAILURE TO USE A GROUNDED RECEPTACLE COULD ALSO CAUSE IMPROPER GAME OPERATION, OR DAMAGE TO THE ELECTRONICS.

DO NOT DEFEAT OR REMOVE THE GROUNDING PRONG ON THE POWER CORD FOR THE SAME REASON AS GIVEN ABOVE. USING AN IMPROPERLY GROUNDED GAME COULD VOID YOUR WARRANTY.

HAVE A QUALIFIED ELECTRICIAN CHECK YOUR A.C. RECEPTACLE TO BE SURE THE GROUND IS FUNCTIONING PROPERLY.

INSTALLATION

Please see assembly booklet insert for instructions on how to assembly the game.

1. Once the game is assembled plug the game into the A.C. outlet and turn on power to the game. The switch for the game is located on a power module on the outside rear of the game.

THIS GAME IS DESIGNED TO DISSIPATE STATIC ELECTRICITY THROUGH THE GROUNDING PLANE OF THE GAME. IF THE A.C. GROUND DOES NOT WORK, THE GAME COULD DISCHARGE STATIC ELECTRICITY THROUGH THE GAME CIRCUITRY, WHICH COULD CAUSE DAMAGE.

2. Make sure the game is level after installation. It is necessary to make sure the game is level for safety concerns.

3. Check that the A.C. voltage rating on the back of the game matches the A.C. voltage of your location.

THE POWER SUPPLY IS NOT VOLTAGE ADJUSTABLE. TO OPERATE THE GAME AT VOLTAGES OTHER THAN THOSE IT WAS DESIGNED FOR. PLEASE CONTACT OUR SERVICE DEPARTMENT FOR VOLTAGE CONVERSION INFORMATION.

WARNING

DO NOT remove any of the components on the main board (e.g. compact flash and EPROMS) while the game is powered on. This may cause permanent damage to the parts and the main board. Removing any main board component part while powered on will void the warranty.

NOTE: THIS GAME IS INTENDED FOR INDOOR USE ONLY.
ON THE BACK PANEL OF THE GAME: WARNING: SHOCK HAZARD - DO NOT OPEN. REFER SERVICING TO SERVICE PERSONNEL.

GAME SETUP AND FEATURES

Introduction

NFL TWO MINUTE DRILL™ is a revolutionary concept in Coin Operated football games. You will see that this game includes many features which make it the obvious choice for your location.

NFL™ incorporates both pop out targets as well as stationary targets that are user friendly and realistic. Fun and easy to play for players of all ages, yet challenging enough for even the expert football players. Practice your football skills and try to better your last score or compete against your friends.

CONTROL PANEL. Attractive LED displays are used to display all scoring and vital information such as time, credits and high score. The control panel is laid out in a convenient user friendly fashion, making it easy for players to operate.

HEAVY DUTY CONSTRUCTION is incorporated throughout the game by using only heavy gage metals and plastics. The game can be assembled and disassembled many times without any harm to the game. You will appreciate this feature if you move your games often.

HIGH TECH GAME ELECTRONICS. Solid state electronics are used throughout the game for their rugged reliability as well as making it virtually impossible to connect harnessing the wrong way. Heavy duty optical sensors are used throughout.

Digital sound effects are used for optimum dependability. Over twenty sound effects are incorporated into the sound effect circuitry. The game electronics have been highly integrated into the Main PC Board assembly, making it easy to repair games. The game has a full feature self-test system to make troubleshooting easier.

OPTIONS. A ticket dispenser and/or a dollar bill acceptor can be ordered with your game.

Game Play

NFL™ is an interactive coin operated amusement game.

Linking is a popular option used in locations where more than one game is to be used. The games are linked with the marquee option to add direct head to head action between the game players. This option is built into each main PC board but requires the marquee to activate, and it is as easy as connecting a phone cord and setting a number between 1-9 on the main circuit board.

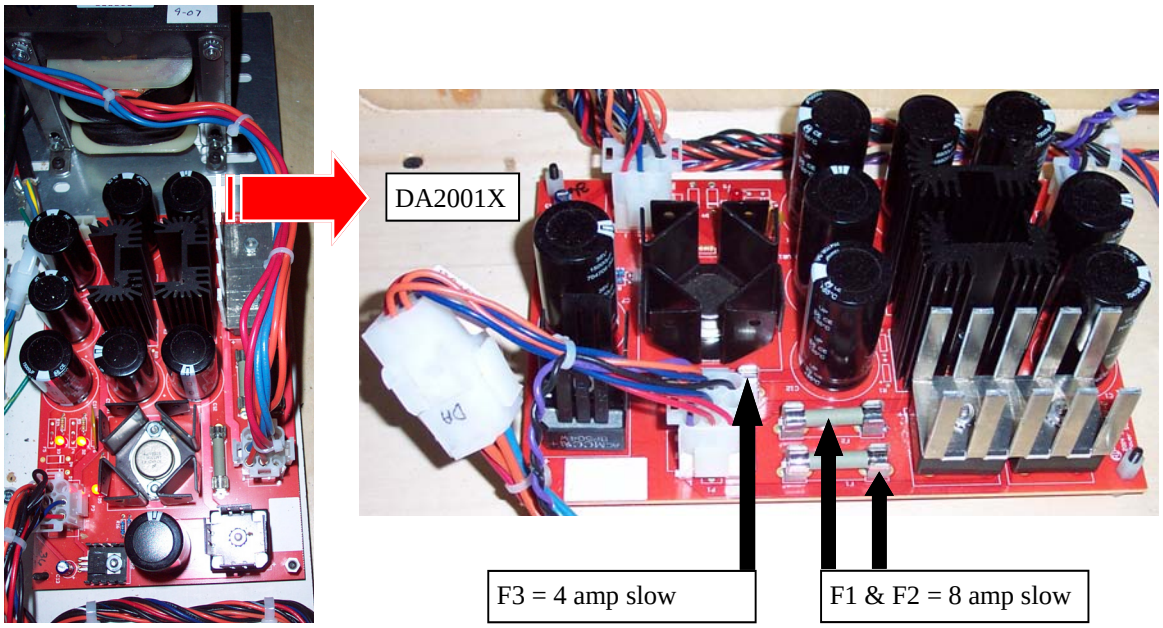
Assembly - See insert.

Programming - See insert.

Maintenance

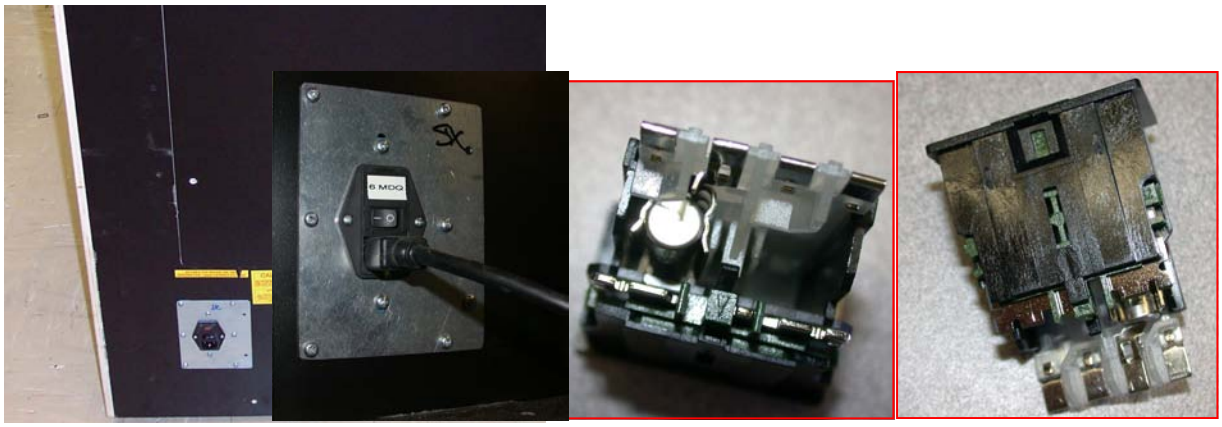
Power Supply & Transformer

The power supply and transformer are located in the back of the game. To access them, you must open the bottom back access door and located on the left is the power assembly. See pictures below



AC Main Power Fuse

Located in the power module is a 3 amp slow blow fuse. To check or replace the fuse pull the tab with the label out. There is only one fuse installed. See diagram below.

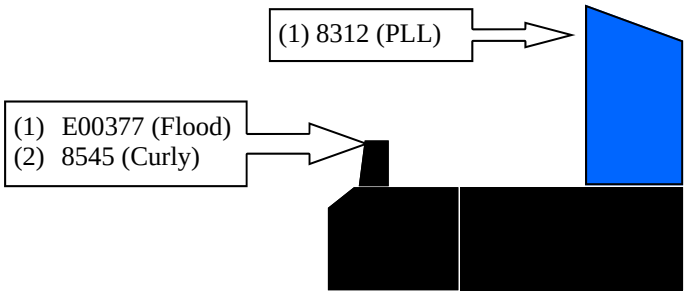


Maintenance

General illumination

Location of bulbs

There are two 8545's (Compact fluorescent bulbs) located in the control panel, one E00377 (Flood Bulb) and located above the Playfield area is one 8312 (PLL 18 bulb).



Control panel bulbs

To access the three bulbs located in the control panel you will need to remove the bracket holding the control panel. Use a 5/32 Allen and 7/16 wrench to remove the 3 bolts holding the top bracket of the control panel. See page 13 for bracket diagram and see pages 8 through 12 for assembly diagrams of the control panel.

Playfield bulb

Open the top back door and remove the #2 square head screws that hold the upper cover plate. You can now access the top PLL bulb. It is also possible to access the bulb from the front if access to the back is limited. See diagram on page 14.

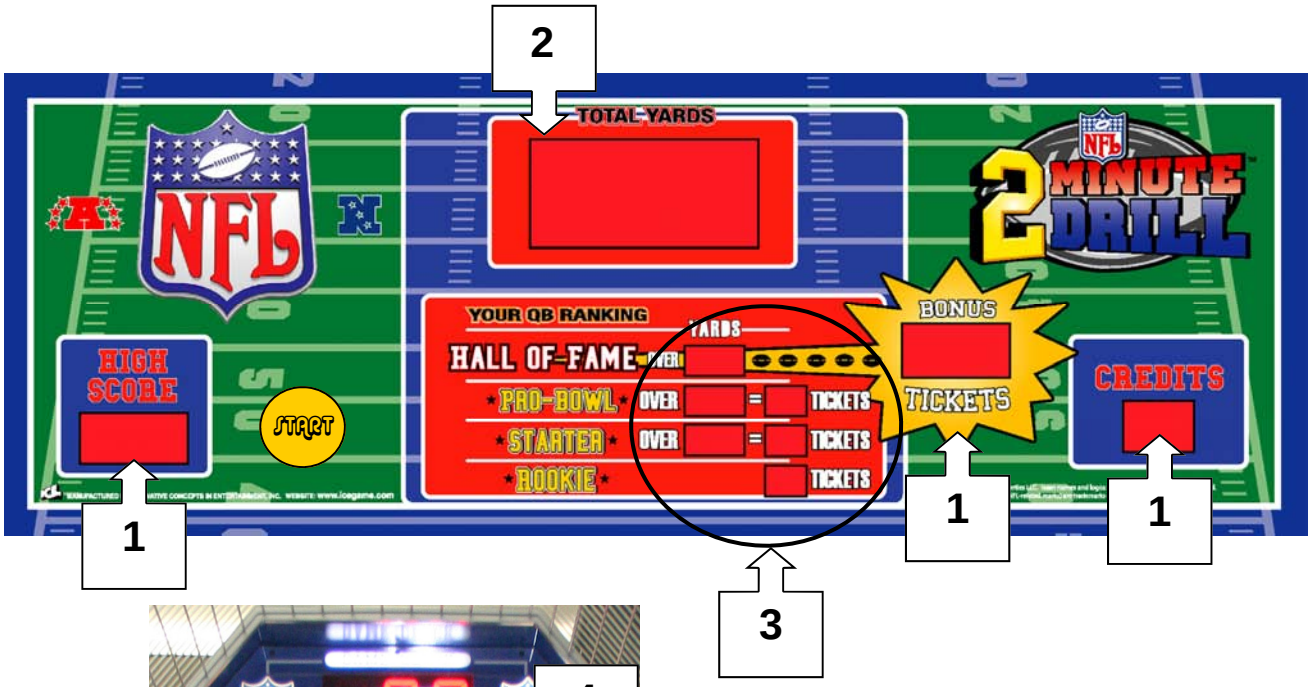
LED Lights

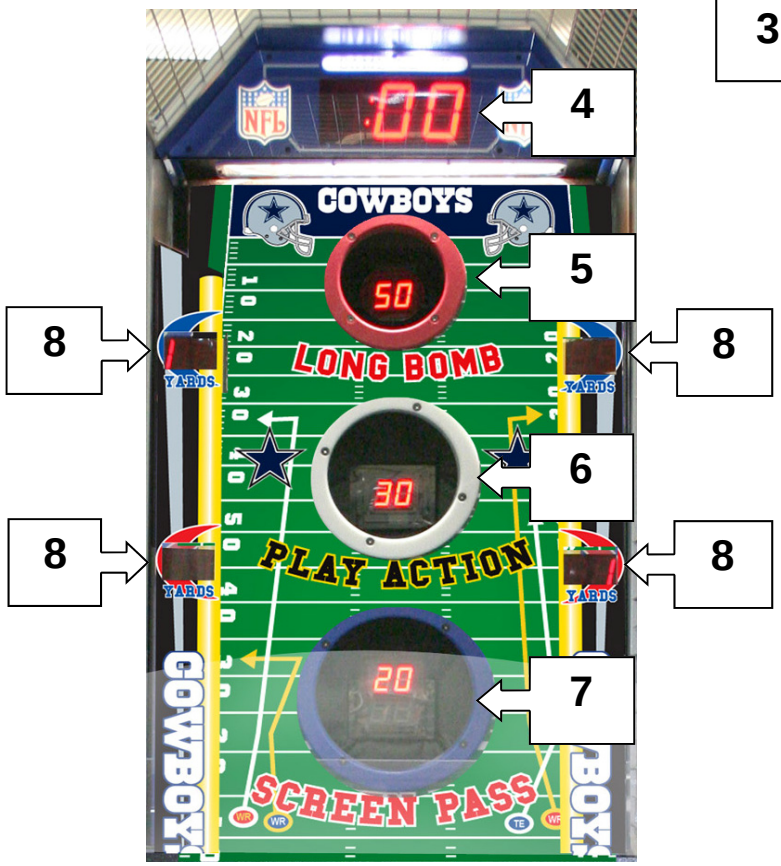
There are two LED strips to illuminate the word GAME CLOCK located at the top of the playfield in the marquee. You will need to remove the front marquee to replacement the LED strips. See the assembly diagram on page 14 for removal. There are also four strips located in the control panel to illuminate the player's ranking. See diagram on page 13 for access. The LED Strips located in the target area are part of the display assemblies and cannot be replaced alone. See display location on the next page.

Maintenance

Display Board locations

Control panel display boards are located below. FB2032X is a display that includes six display boards and five mini footballs. See picture below.





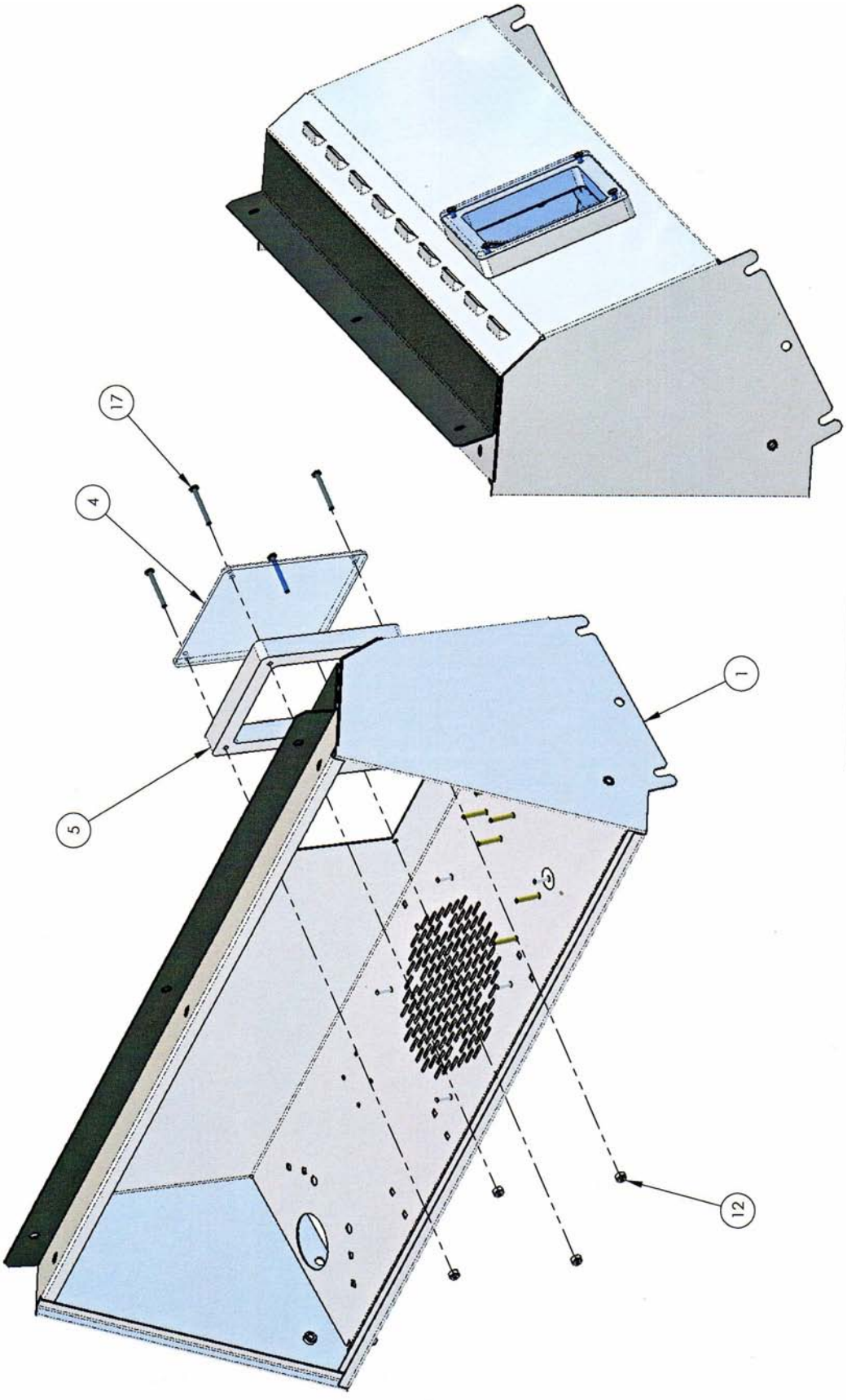
ICE part numbers

[1] CB2232X
[2] CB2233X
[3] FB2032X
[4] FB2033X
[5] FB2035RX
[6] FB2035WX
[7] FB2035BX
[8] DA2133X

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB1001	CONTROL PANEL HOUSING	1
2	FB1002	CONTROL PANEL RETAINER	1
3	FB3013	REBOUND GUARD	1
4	FB3016	CONTROL PANEL LIGHT SHIELD	1
5	FB3018	C. P. LIGHT COVER SPACER	1
6	FB7002x	CONTROL PANEL ASSEMBLY	1
7	AR2007	6 X 9 SPEAKER	1
8	AR2130X_8545	PIG TAIL LIGHT W/ AR2130X SOCKET	2
9	BB2022	SOCKET FLOOD LAMP	1
10	BT1049	BRACKET (LIGHT SOCKET MTG)	1
11	E00377	BULB CF FLOOD PAR 30 (MAXLITE SKR3015FLDL, 33020) (15W=75W)	1
12	6072	8-32 NYLOCK NUT	18
13	4002	BUMPER (#2953w) 9540K53	10
14	TG1021	LIGHT BRACKET	2
15	3039	GROMMET (BP2 - PUNCHED)#853118	1
16	6212	1/4 x 3/4 FLAT WASHER BLACK (USS)	6
17	6331	#8-32 x 1-1/2" LG PPHMS	4
18	6426	1/4-20 x 5/8 BHCS (BLACK) SECURITY	3
19	PC60604	1/4-20 NYLOCK NUT	3
20	PC60622	1/4-20 x 1.00" LG. BSHCS	3

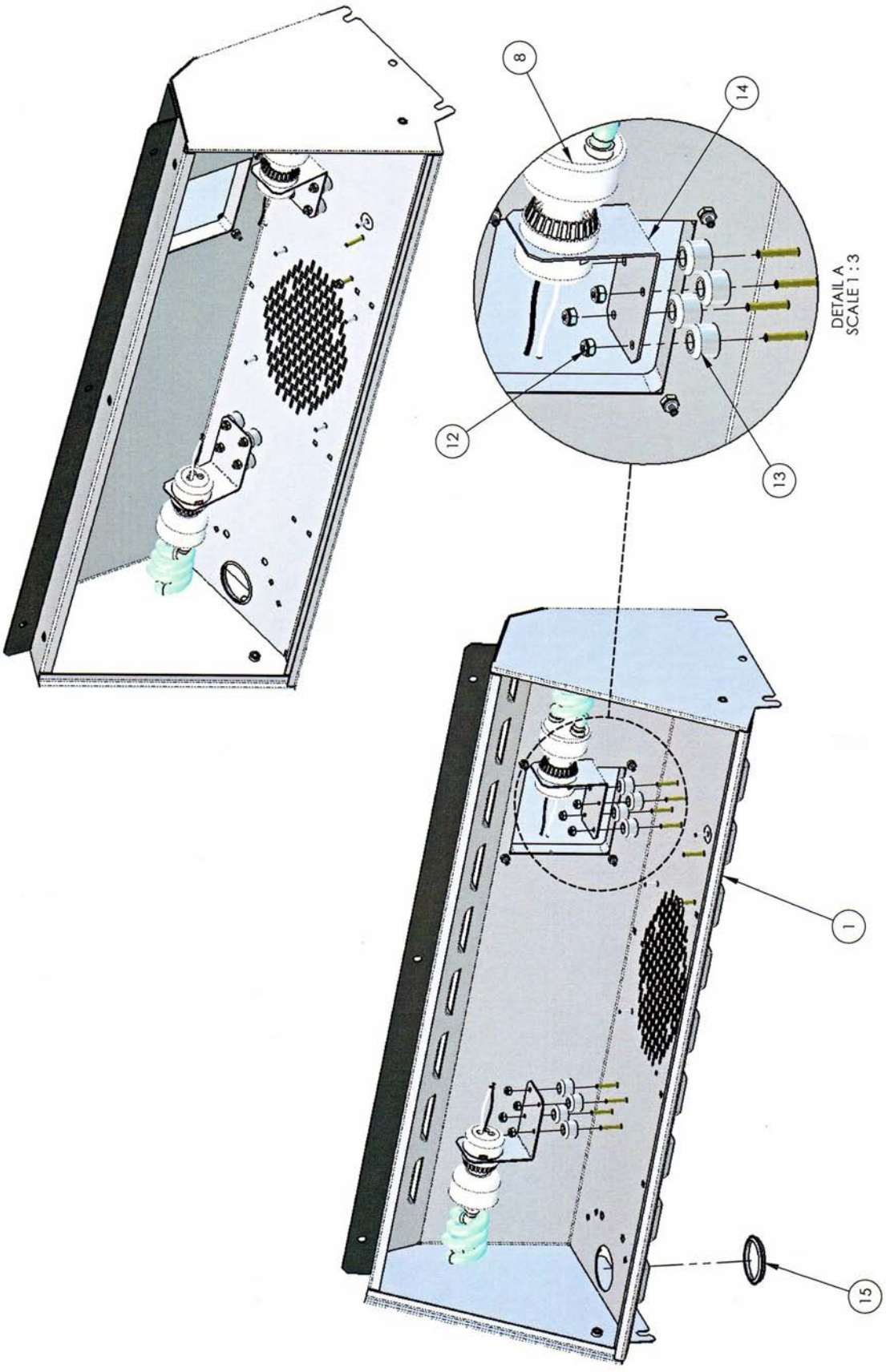
Control Panel Assembly
FB1001X

Maintenance



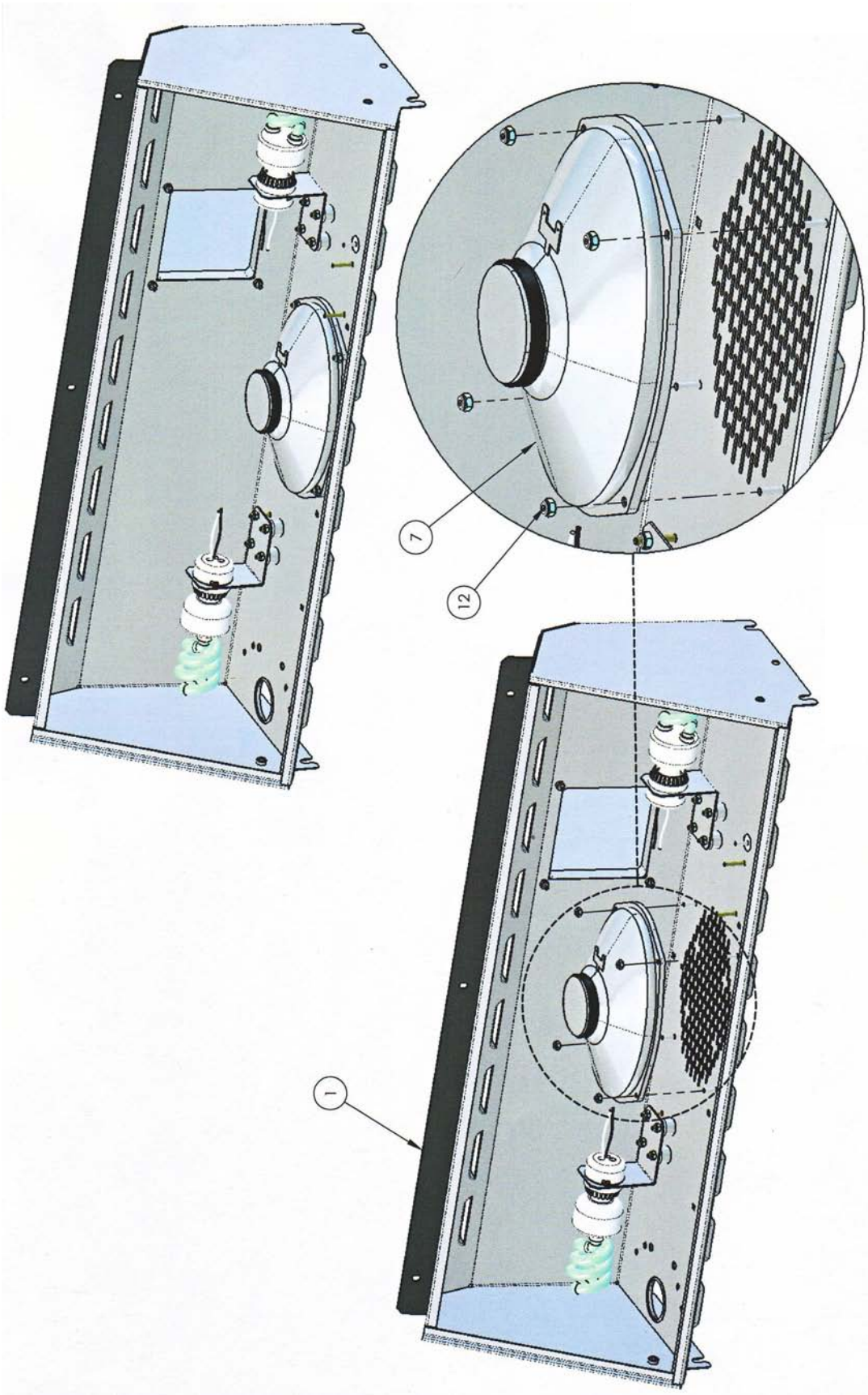
Control Panel Assembly
FB1001X

Maintenance



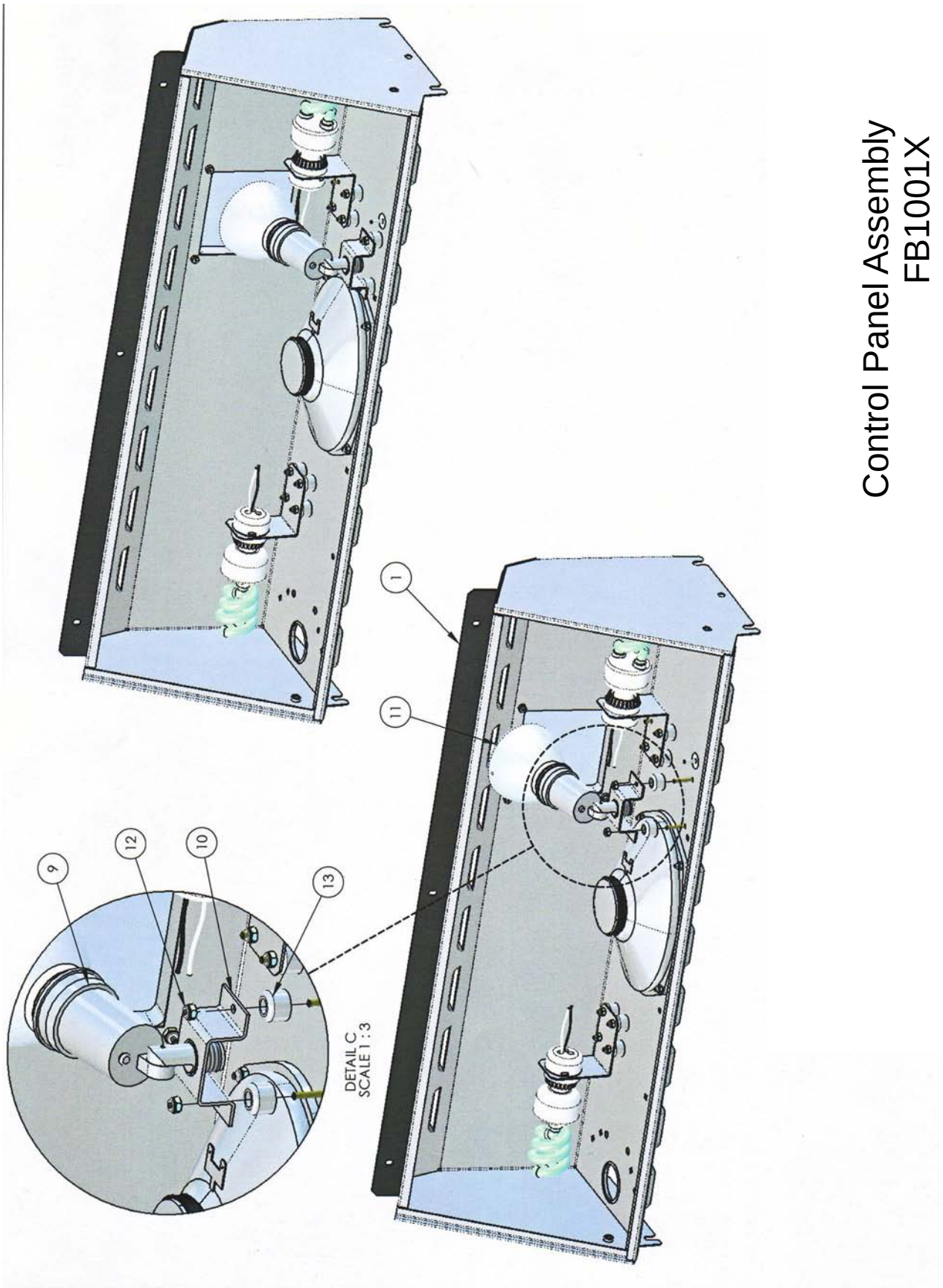
Control Panel Assembly
FB1001X

Maintenance



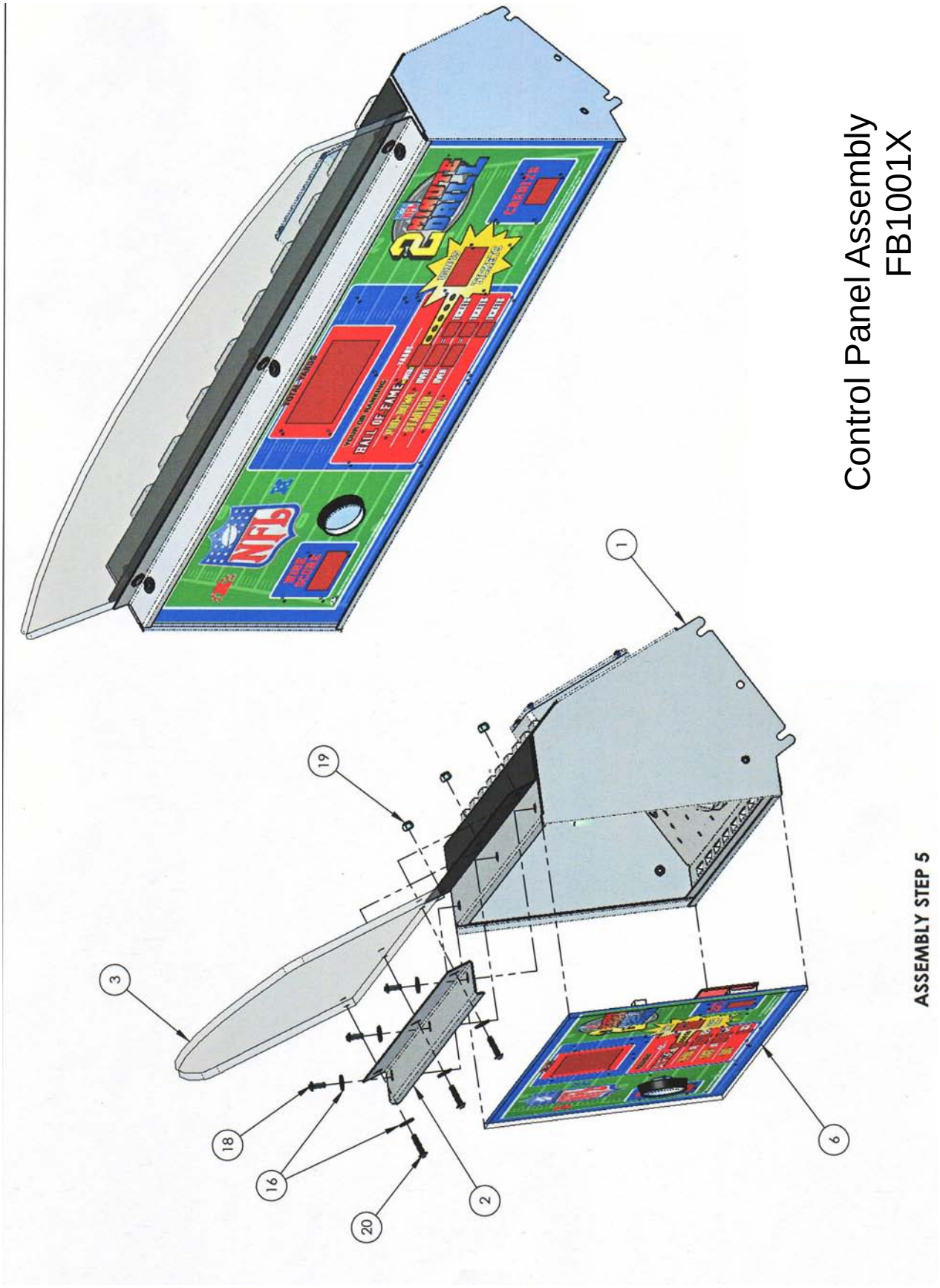
Control Panel Assembly
FB1001X

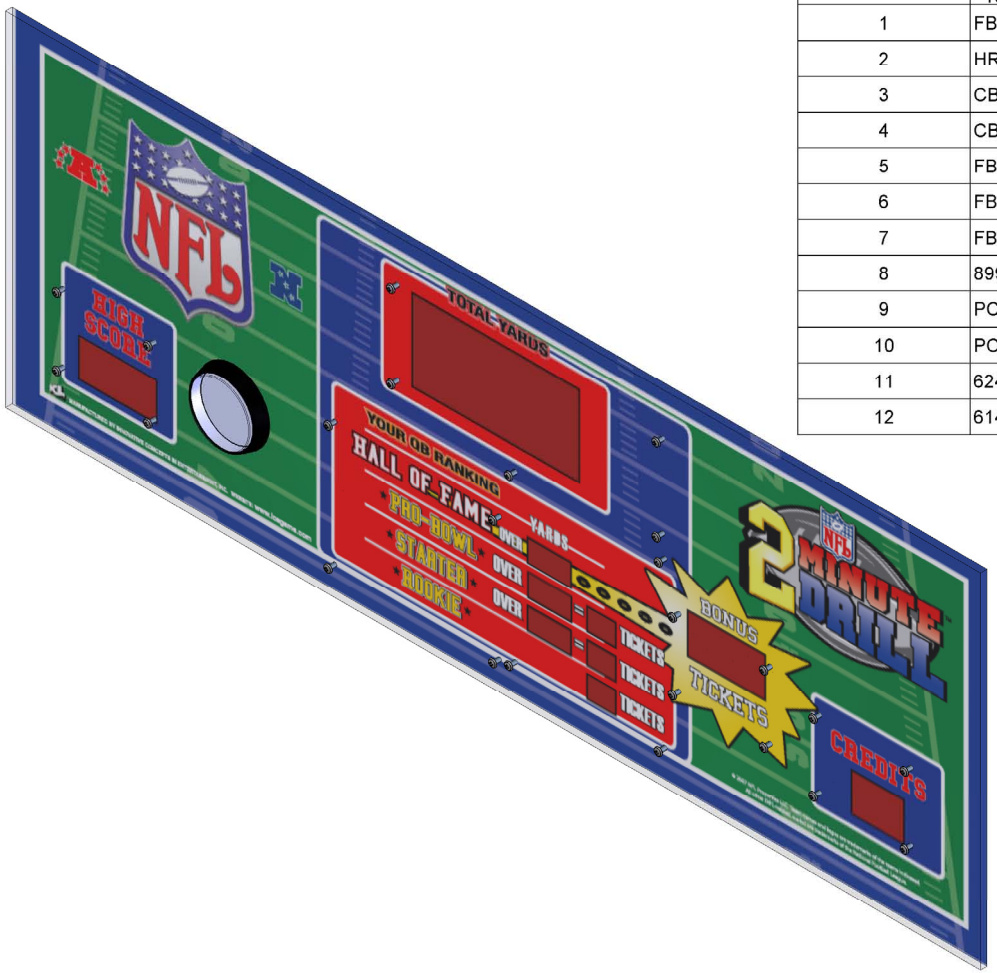
Maintenance



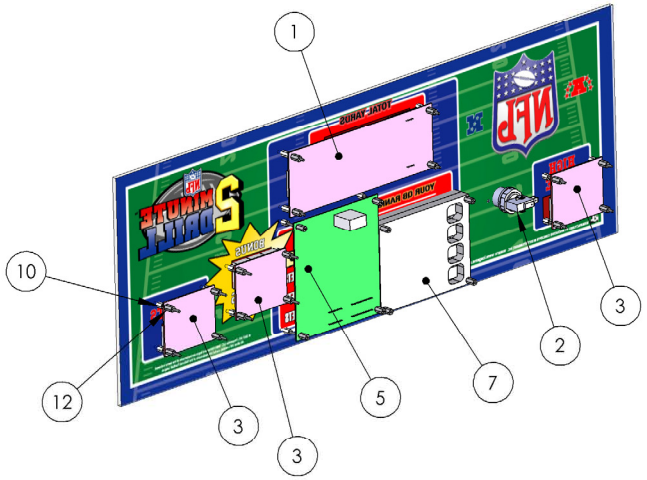
Control Panel Assembly
FB1001X

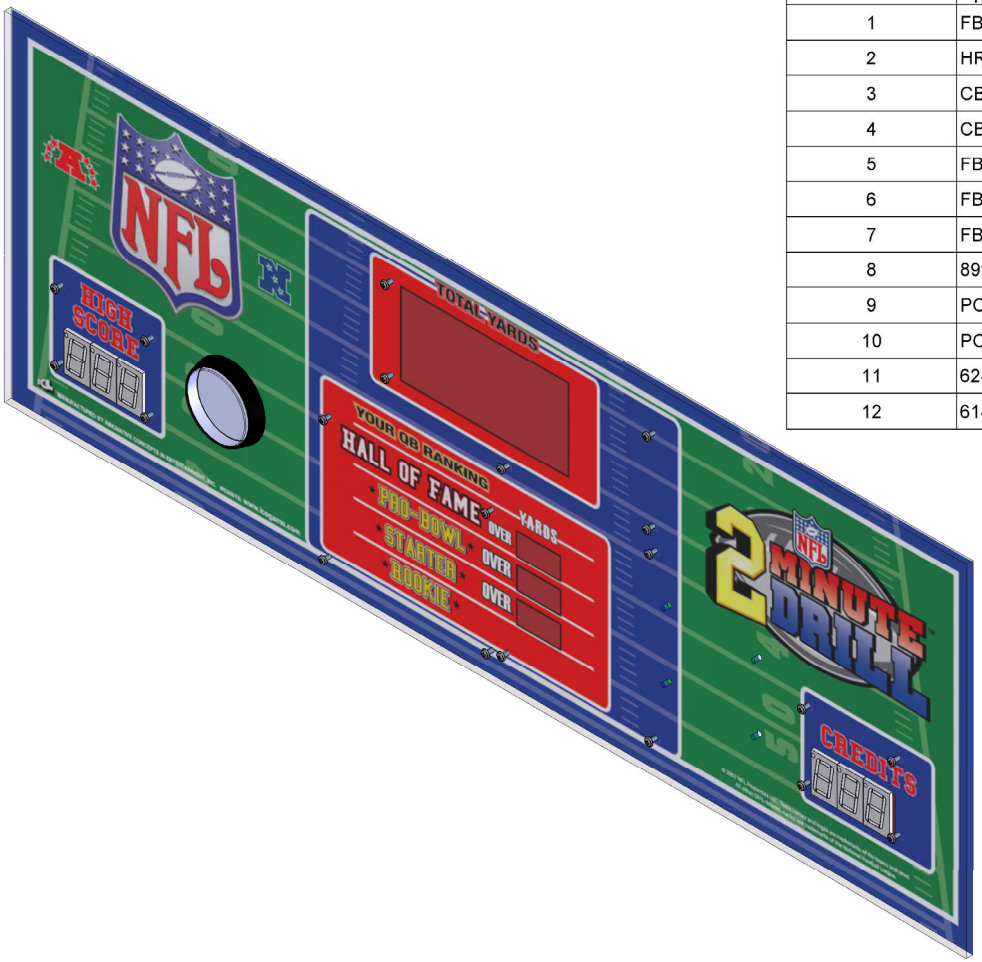
Maintenance



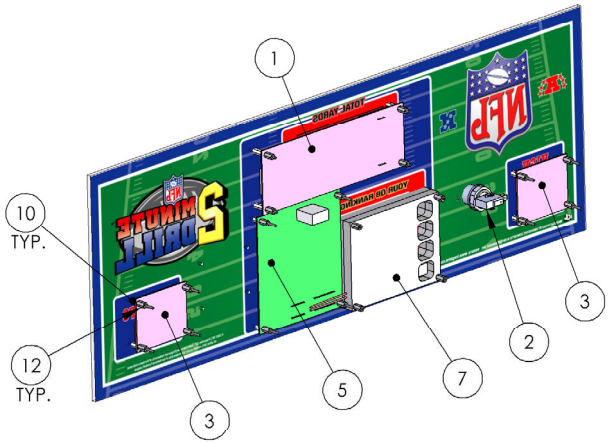


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB7012	CONTROL PANEL-TICKETS	1
2	HR2005	LARGE ROUND BUTTON WITH LIGHT ASY	1
3	CB2232X	PCBA (DISPLAY)	3
4	CB2233X	PCBA (DISPLAY)	1
5	FB2032X	QB RANKING DISPLAY	1
6	FB3012-1	CONTROL PANEL LED BOX BOTTOM	1
7	FB3012-2	CONTROL PANEL LED BOX TOP	1
8	8992FBAX	ASY (CLEAR LED STRIP) CONTROL PANEL	4
9	PC60628	6-32X1 3/4 PRHMS	24
10	PC60642	6-32 x 3/8 HH SPACER 14HTSP007	16
11	6247	6-32 x 3/4 HH SPACER 14HTSP009	4
12	6145	6-32 x 1/2" HH METALSPACER	24





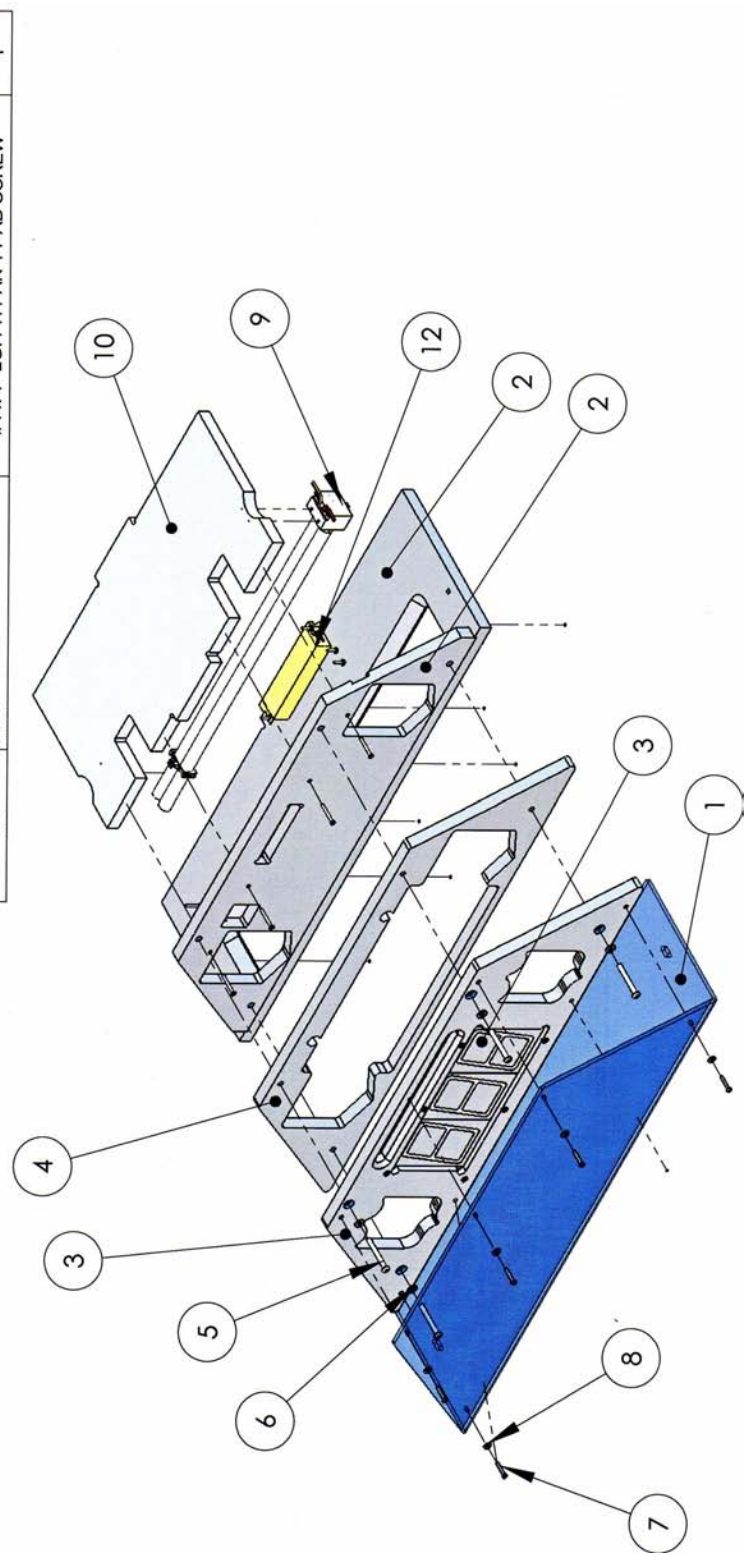
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB7013	CONTROL PANEL	1
2	HR2005	LARGE ROUND BUTTON WITH LIGHT ASY	1
3	CB2232X	PCBA (DISPLAY)	2
4	CB2233X	PCBA (DISPLAY)	1
5	FB2032X	QB RANKING DISPLAY	1
6	FB3012-1	CONTROL PANEL LED BOX BOTTOM	1
7	FB3012-2	CONTROL PANEL LED BOX TOP	1
8	8992FBAX	ASY (CLEAR LED STRIP) CONTROL PANEL	1
9	PC60628	6-32X1 3/4 PRHMS	20
10	PC60642	6-32 x 3/8 HH SPACER 14HTSP007	12
11	6247	6-32 x 3/4 HH SPACER 14HTSP009	4
12	6145	6-32 x 1/2" HH METALSPACER	20



Maintenance

Marquee light box assembly

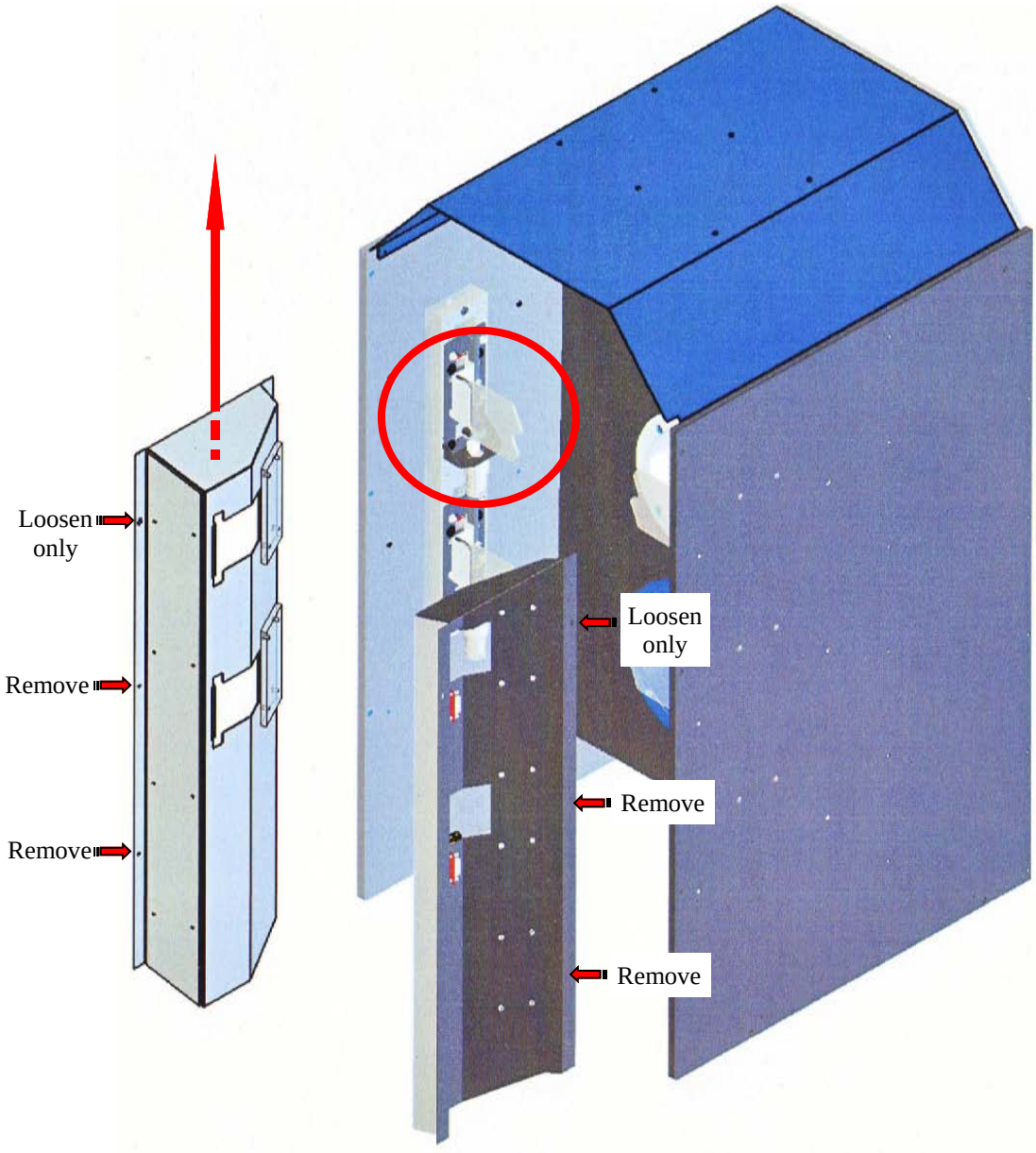
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB7029	MARQUEE WINDOW	1
2	FB3079CX	LIGHT BOX ASSEMBLY	1
3	FB3091X	TIME DISPLAY ASSEMBLY	1
4	FB3098	TIME DISPLAY SPACER PANEL	1
5	6261	1/4-20 x 2 1/4 BSHCS (SS)	4
6	6430	#10 FLAT WASHER, BLACK (1/4-20)	4
7	6238	BHCS, #8-32 x 1" LG. (BLACK OXIDE)	6
8	6240	#8 USS WASHER (BLACK)	6
9	8312 ASSY	8312 BULB, SOCKET, CLIP FASTENERS	1
10	FB3094	LIGHT BOX TOP	1
11	6166	#6 DRYWALL SCREW 1-1/2"	4
12	8449	BALLAST MODEL# WH3-120-L	1
13	655S	#8 x 5/8 SQ. DRIVE (SILVER)	4
14	6189	#4 x 1" LG. PH PAN TY AB SCREW	1

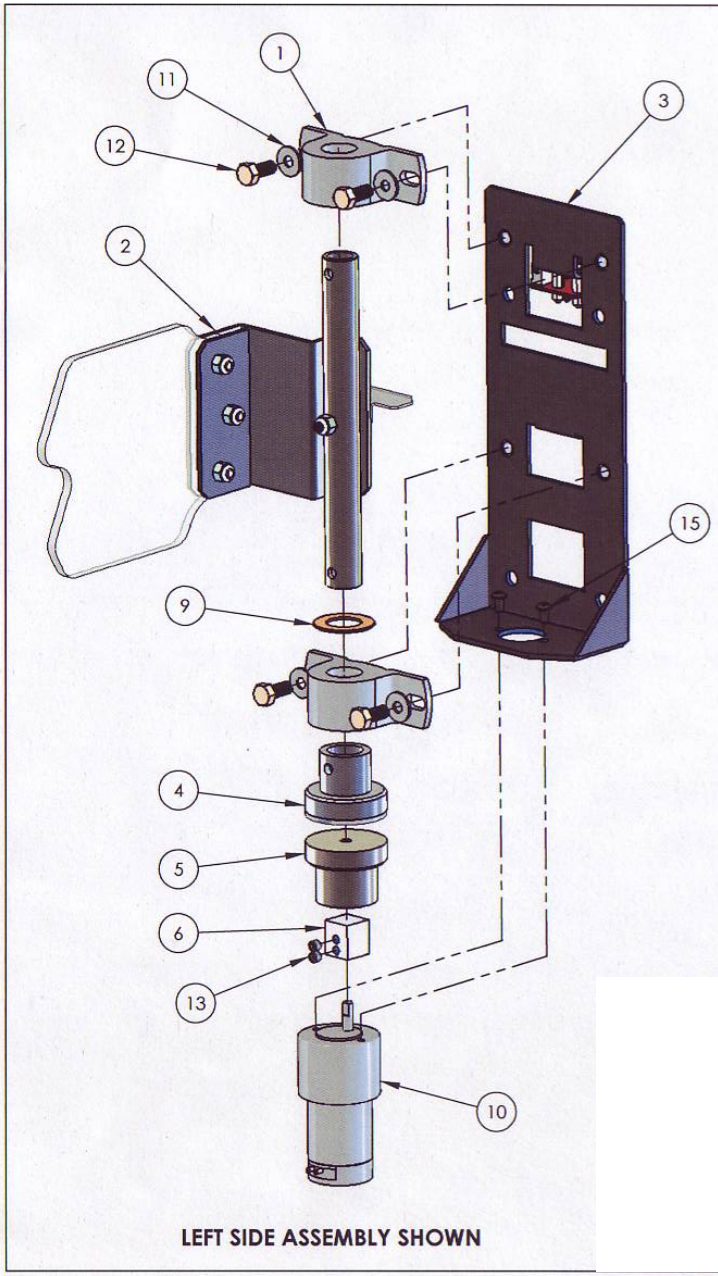


Maintenance

Target Covers

To access the target motors you will need to remove the display housing. You also will need to ensure the targets are protruding out as shown below. Unlatch the harness clamps located in the back side of the game first. Remove the four mounting screws at the bottom back of the game in order to gain access to remove the back door. This will allow you enough slack in the wires to lift the covers off and lay them on their side. It is not necessary to fully remove the target covers to access the target motors. Only remove the four lower bolts and loosen the two top bolts. Slide the cover up until the top bolts heads can slide out the slotted holes. The diagram shows the location of the bolts. Bolt locations are shown on two different covers but exists on both sides of the cover.



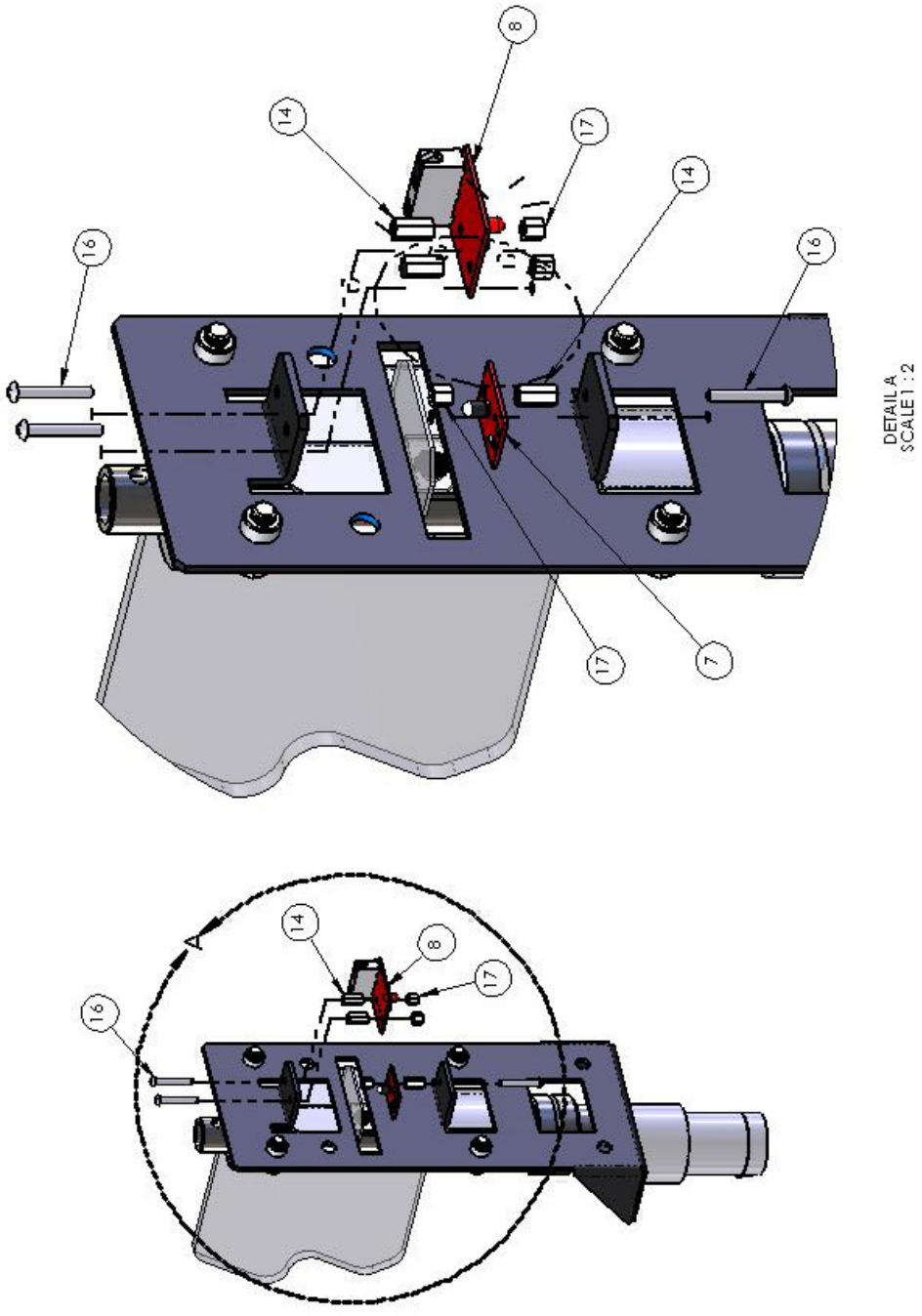


LEFT SIDE ASSEMBLY SHOWN

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB1061		2
2	FB1020X	LEFT TARGET BRACKET ASSY	1
3	FB1022	TARGET MOTOR BRACKET	1
4	FB1023X	ASSEMBLY-MAGNETIC HOUSING	1
5	FB1024	MAGNETIC HOUSING BOTTOM	1
6	FB1025	TARGET MOTOR COUPLER	1
7	FP2009B	PCBB (RED) TRANSMITTER	1
8	RB2009		1
9	6670	7/8 BRONZE THRUST WASHER	1
10	GM8712-41 (PITTMAN)	MOTOR, 24 VDC, 728:1 RATIO, ROHS	1
11	6075	1/4 x 3/4 FLAT WASHER ZINC (USS)	4
12	6389	5/16-18 x 3/4 HHMB GR 8 W/ LOCTITE	4
13	6668	SET SCREW 1/4-28 X .25	2
14	644	6-32 x 1/2 HH SPACER 14HTSP008	3
15	6476	#10-32 x .375" BHSC	2
16	675	6-32 x 1 PRHMS	3
17	PC60643	6-32 x 1/4 HH SPACER 14HTSP007	3

Target Motor Assembly
FB1031X (assembled for the left side)
FB1031AX (assembled for the right side)

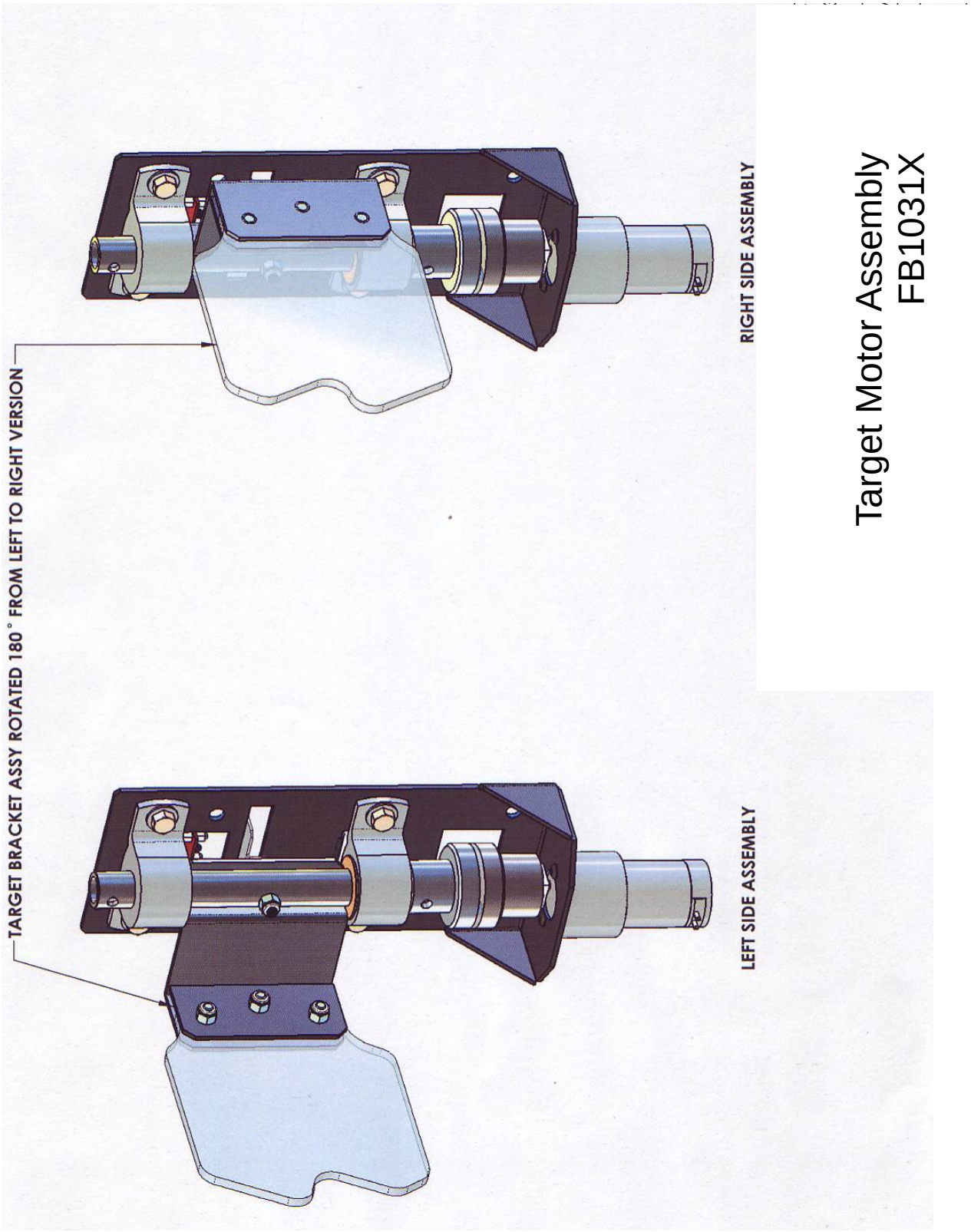
Maintenance



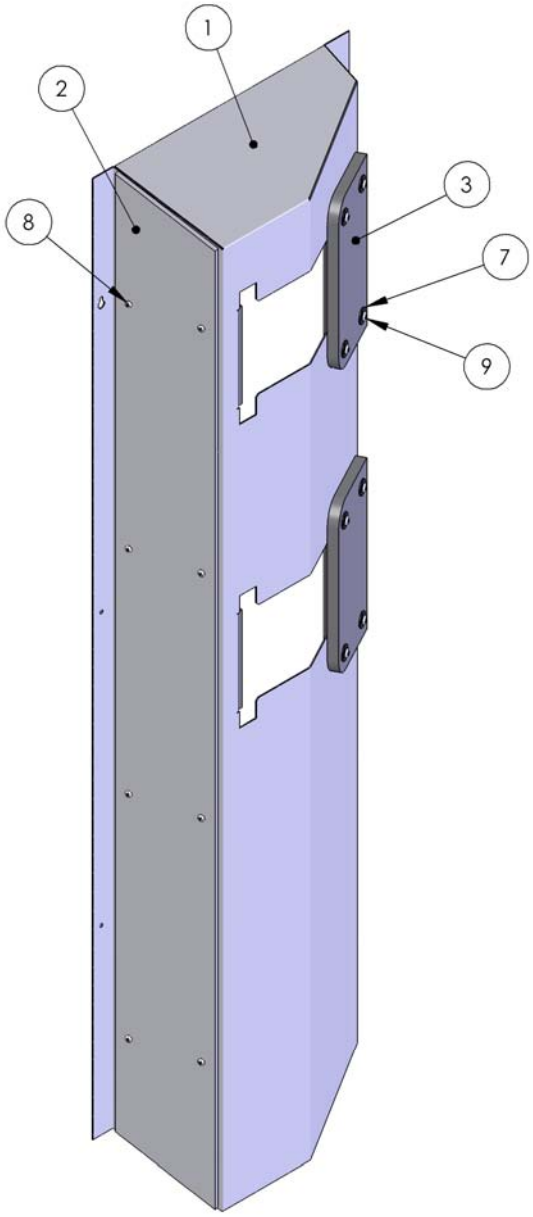
Target Motor Assembly
FB1031X

LEFT SIDE ASSEMBLY SHOWN

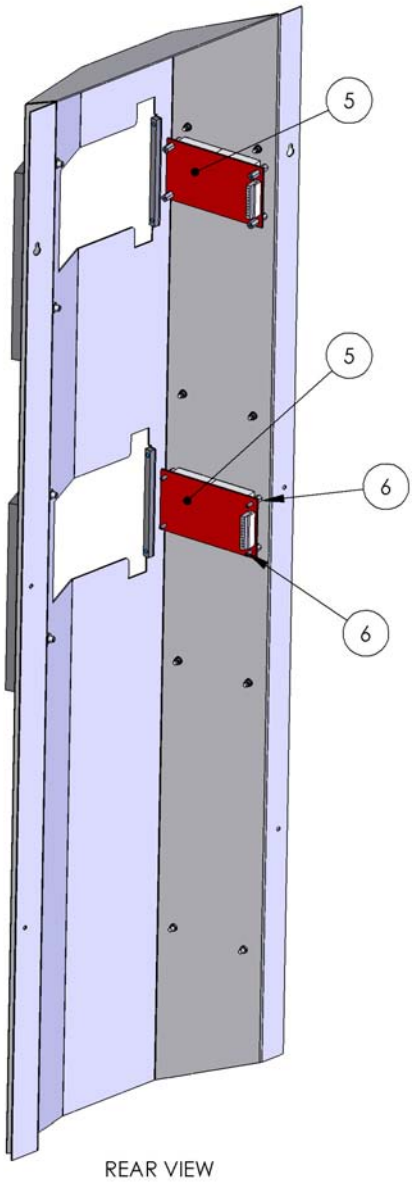
Maintenance



Target Motor Assembly
FB1031X



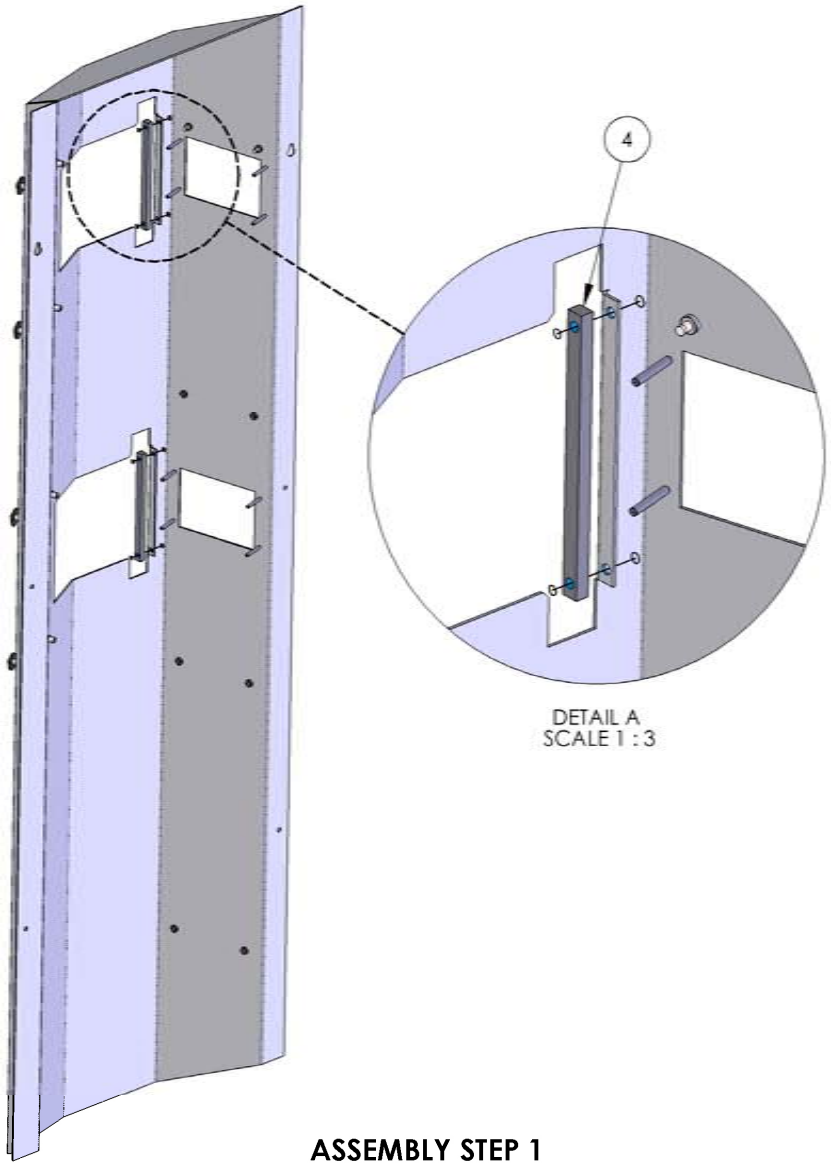
FRONT VIEW



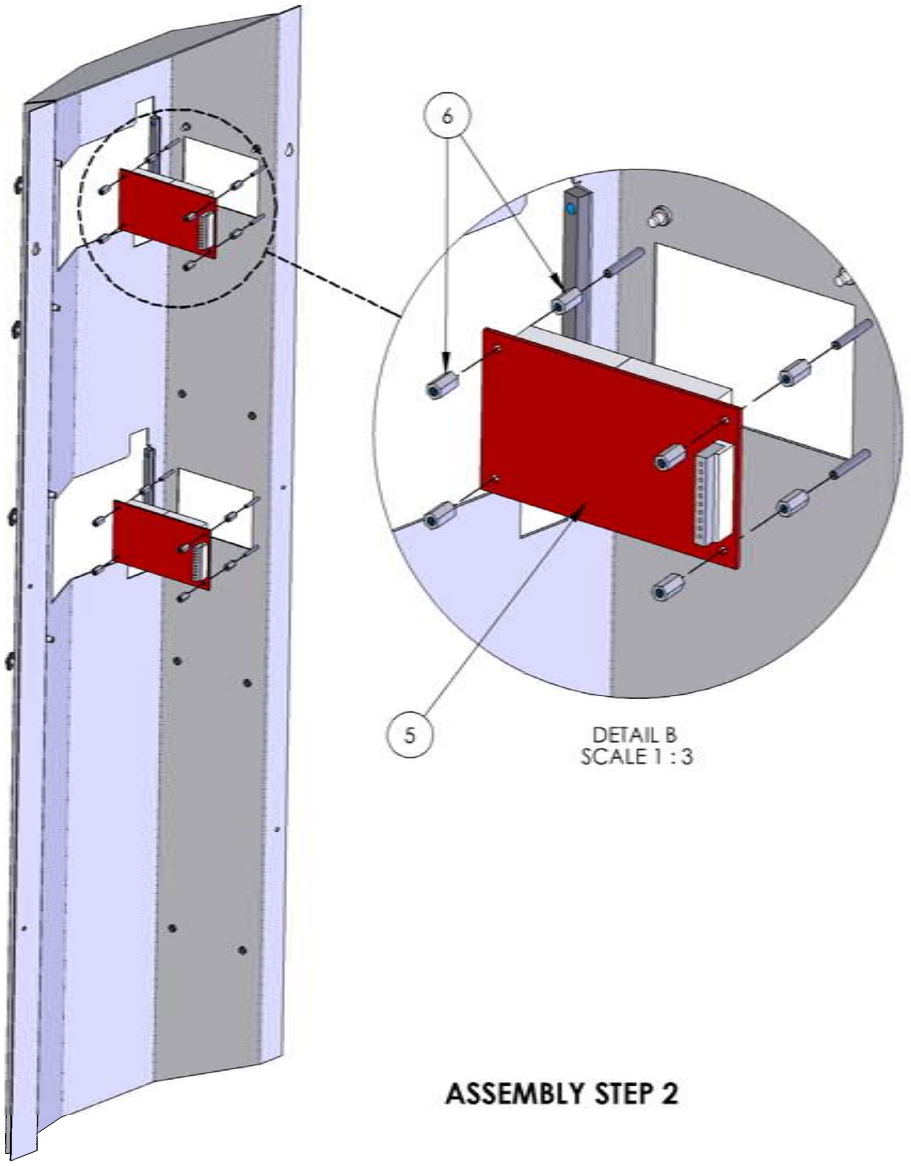
REAR VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB1016	TARGET COVER LEFT/RIGHT	1
2	FB3014	DISPLAY STRIP LEFT/RIGHT	1
3	FB4005	TARGET COVER SPACER	2
4	FB4006	TARGET SMALL PADDING	2
5	DA2133X	PCBA (SMALL DISPLAY, BRIGHT)	2
6	6446	8-32 x 1/2 HH SPACER	16
7	6212	1/4 x 3/4 FLAT WASHER BLACK (USS)	8
8	6320	8-32 X 5/8 PRHMS W/LOCKTITE	8
9	PC60622	1/4-20 x 1" LG. BSHCS	8

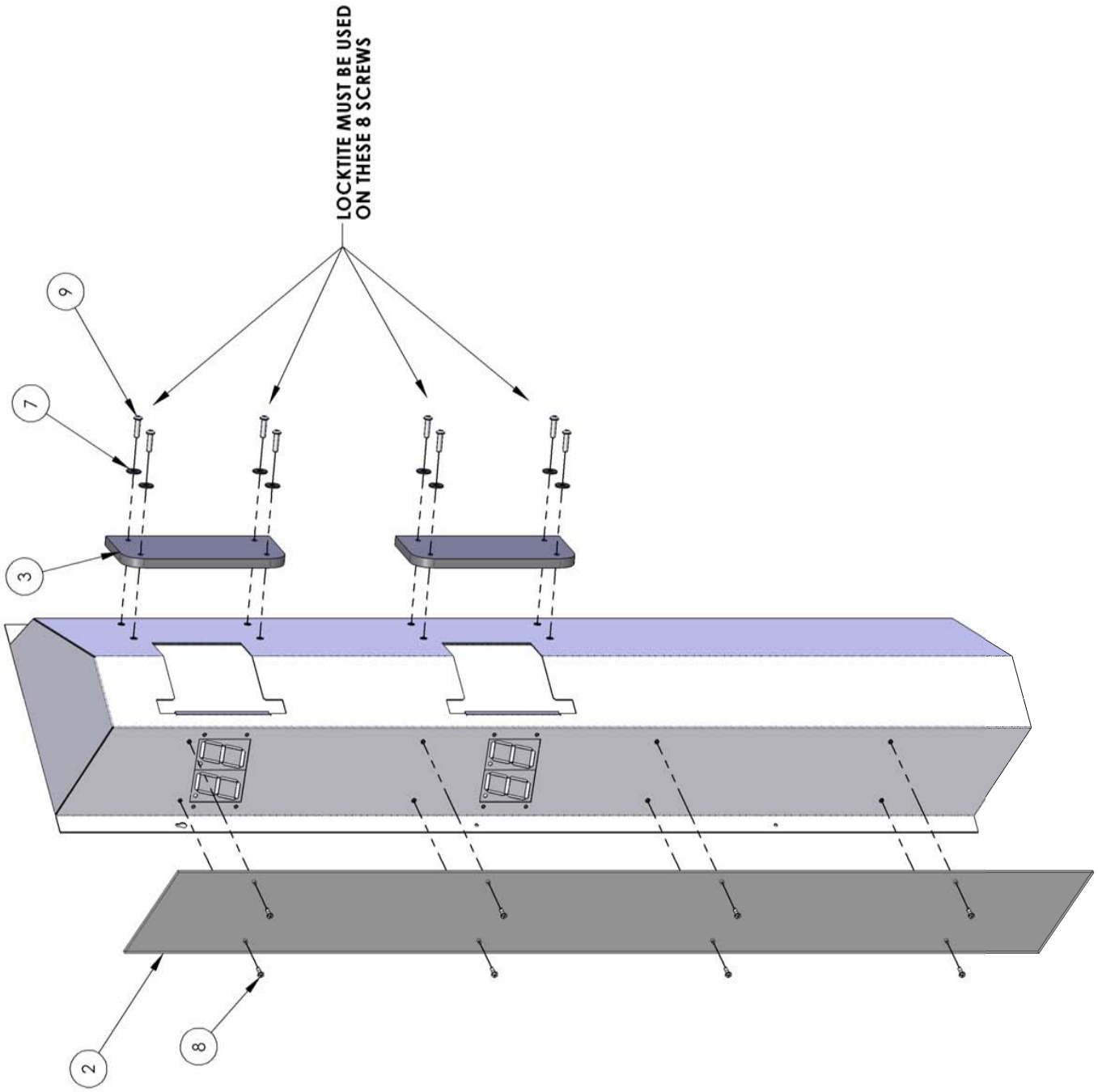
NOTE:
DA2033X was changed to DA2133X on 7/3/08



ASSEMBLY STEP 1



ASSEMBLY STEP 2

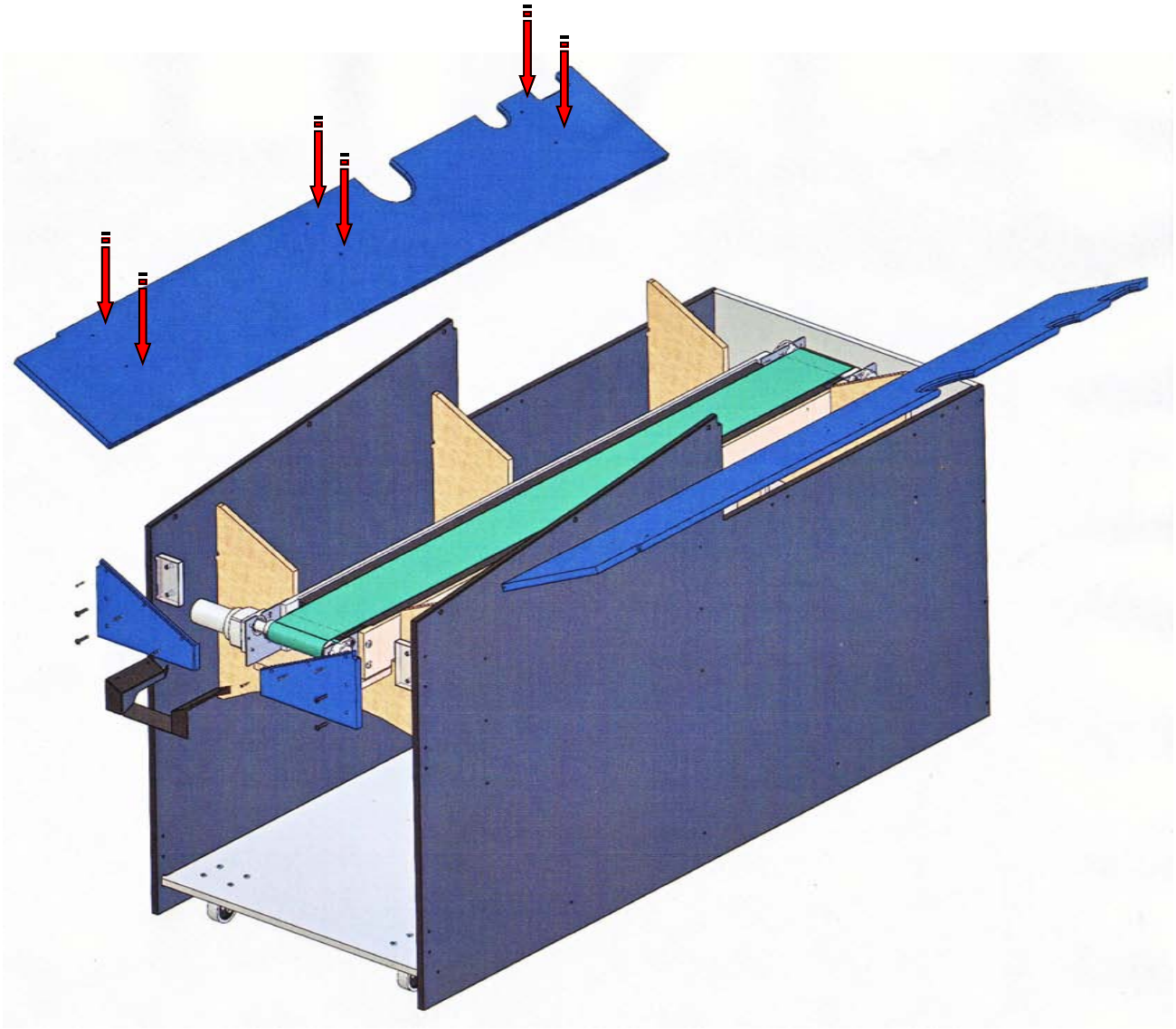


ASSEMBLY STEP 3

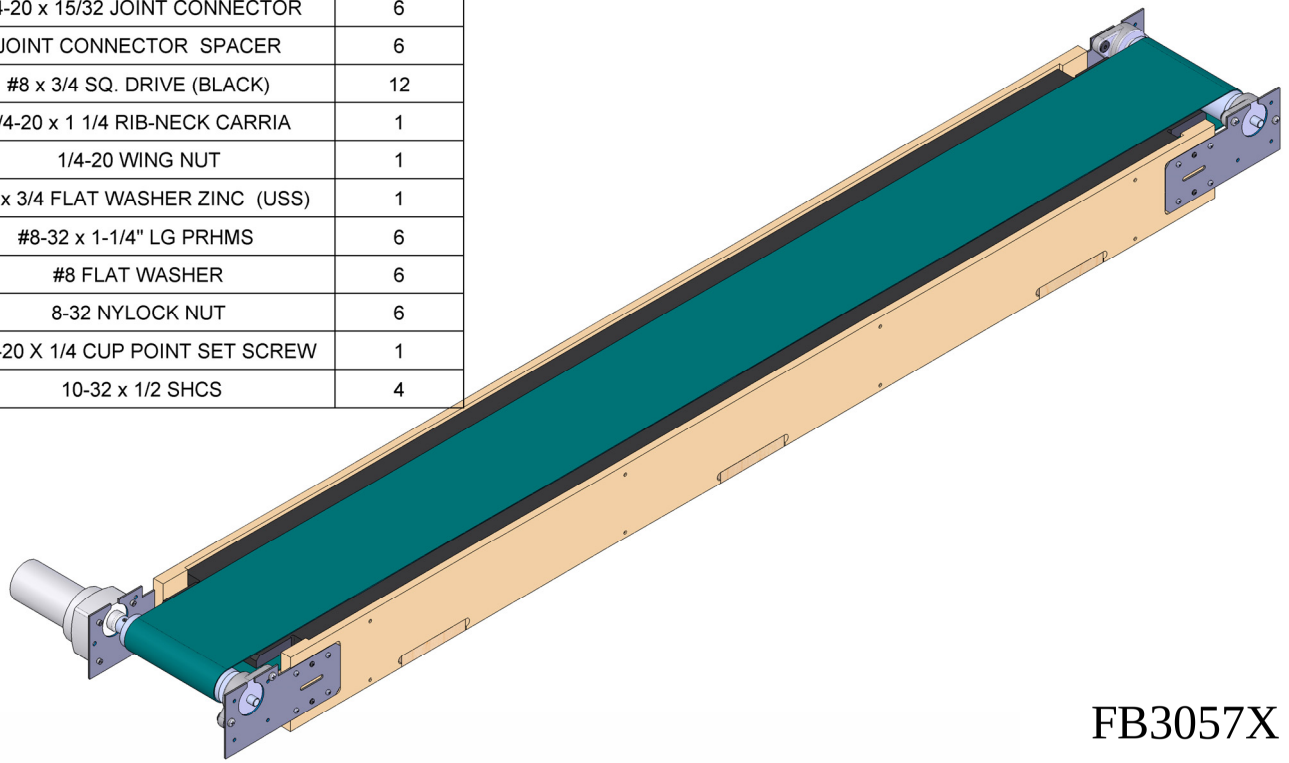
Maintenance

Conveyor Assembly Access

To access the conveyor assembly you will need to remove the side wall panels. It is not necessary to remove the target covers in order to remove the side wall panels but to ensure that they are not scratched it is recommended. Refer to page 15 on how to remove target covers. Remove the five bolts holding the front cover plates first and remove the finger guard as shown below. Now remove the six screws holding the side wall panels. Slide the panel down and out if the target covers are still installed.

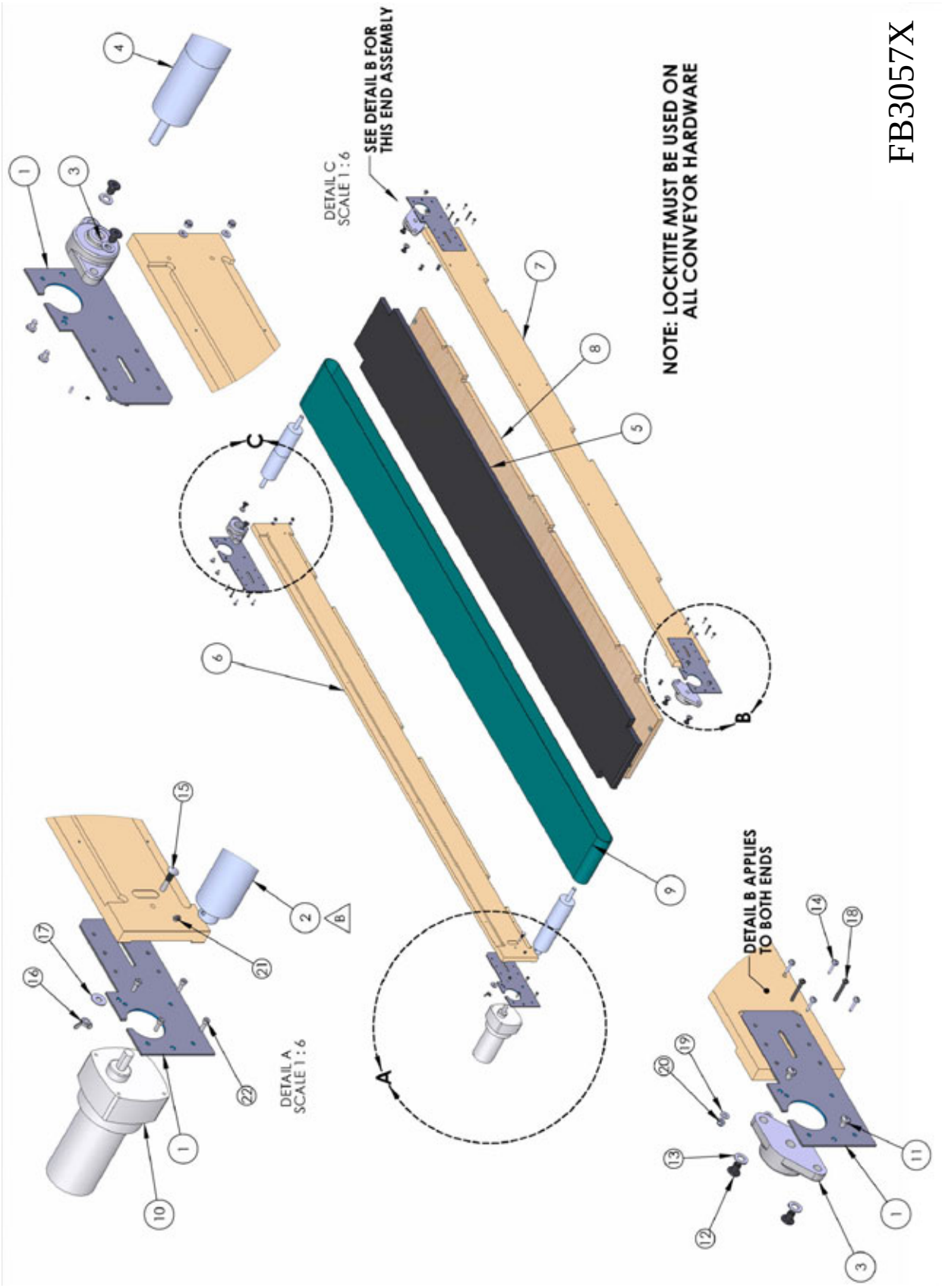


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB1035	CONVEYOR BRACKET	4
2	FB1057	CONVEYOR HEAD ROLLER	1
3	FB1058	BEARING (CONVEYOR ROLLER)	3
4	FB1062	CONVEYOR TAIL ROLLER	1
5	FB3057	CONVEYOR BED	1
6	FB3063	CONVEYOR LEFT SIDE	1
7	FB3064	CONVEYOR RIGHT SIDE	1
8	FB3065CX	CONVEYOR BOTTOM ASSEMBLY	1
9	FB4001	CONVEYOR BELT 7" X 14'	1
10	SR2008x	MOTOR	1
11	6003	1/4-20 X 3/8 PRHMS	6
12	6444	1/4-20 x 15/32 JOINT CONNECTOR	6
13	FB1066	JOINT CONNECTOR SPACER	6
14	655	#8 x 3/4 SQ. DRIVE (BLACK)	12
15	6160	1/4-20 x 1 1/4 RIB-NECK CARRIA	1
16	6204	1/4-20 WING NUT	1
17	6075	1/4 x 3/4 FLAT WASHER ZINC (USS)	1
18	6062	#8-32 x 1-1/4" LG PRHMS	6
19	6031	#8 FLAT WASHER	6
20	6072	8-32 NYLOCK NUT	6
21	6460	1/4-20 X 1/4 CUP POINT SET SCREW	1
22	6677	10-32 x 1/2 SHCS	4



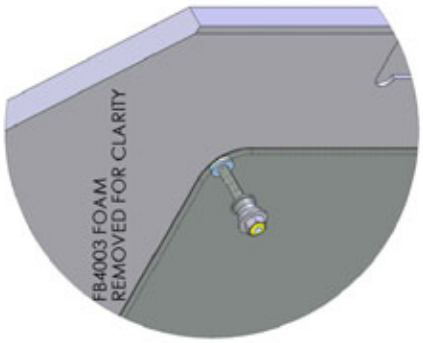
FB3057X

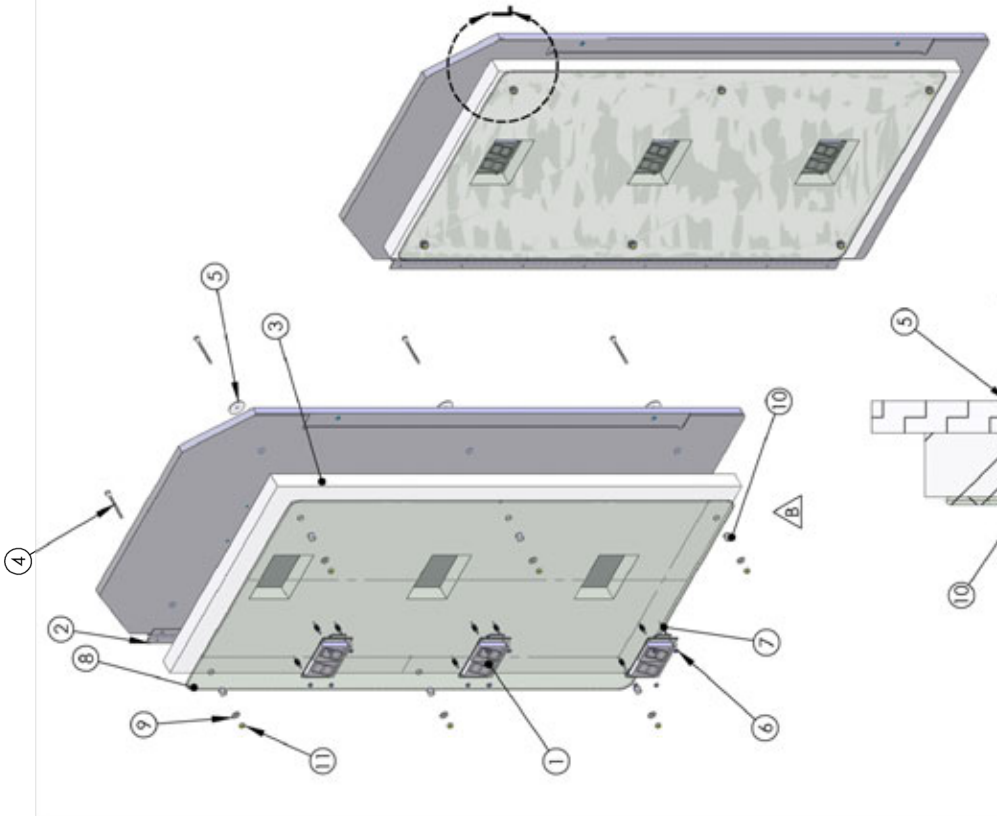
Maintenance



Maintenance

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB2035X	DISPLAY BOARD	3
2	FB3081CX	REAR ACCESS PANEL, HINGE ASSY	1
3	FB4003	REAR DOOR FOAM PAD	1
4	6088	1/4-20 X 3" HH FT BOLT	6
5	6070	1/4 x 1-1/2 OD F-WASHER	6
6	6004a	8-32 KEP NUT	12
7	6457	SHOCK MOUNT 8-32 (THD BOTH ENDS)	12
8	FB3101	REAR DOOR DISPLAY COVER	1
9	6075	1/4 x 3/4 FLAT WASHER	6
10	4028	GROMMET	6
11	PC60604	NYLOCK NUT, 1/4-20	6

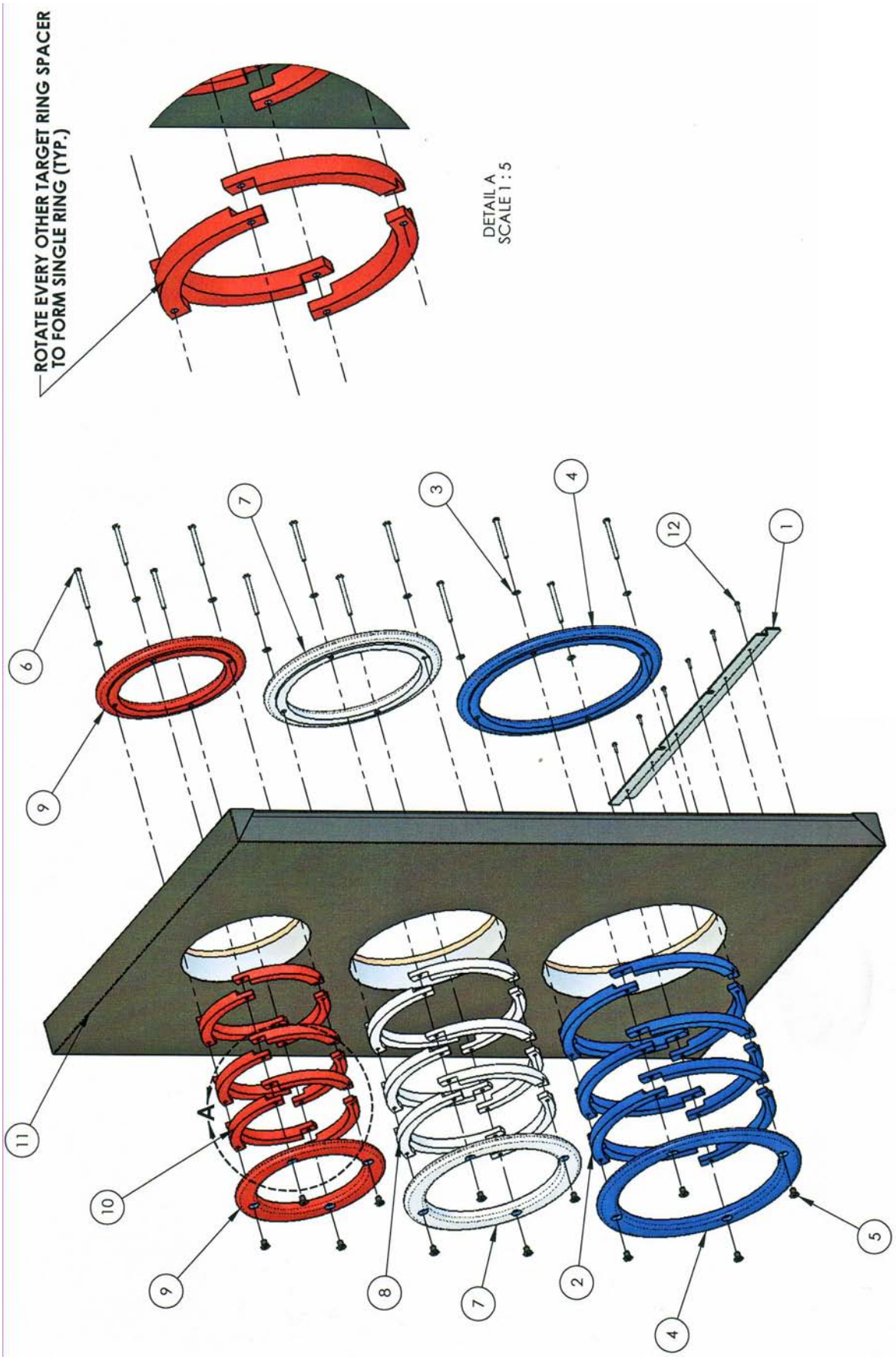




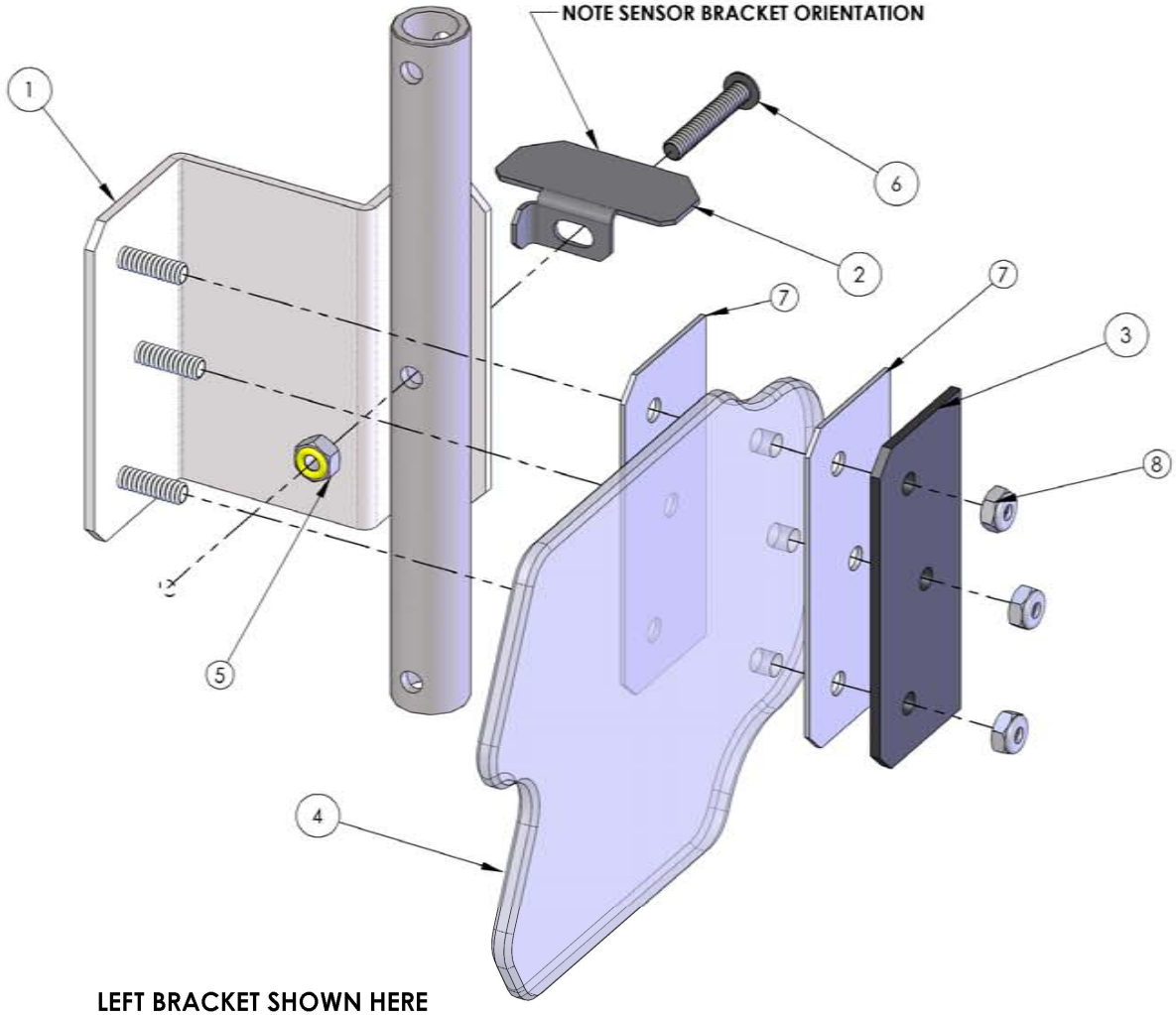
Maintenance

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	CG1042	FRONT GLASS RETAINER	1
2	FB3007-2	BOTTOM TARGET RING SPACER	12
3	6057	1/4 X 1/2 X .062 FLAT WASHER	12
4	FB3007-1	BOTTOM TARGET RING CAP	2
5	6444	1/4-20 x 15/32 JOINT CONNECTOR	12
6	6088	1/4-20 X 3" HH FT BOLT	12
7	FB3008-1	MIDDLE TARGET RING CAP	2
8	FB3008-2	MIDDLE TARGET RING SPACER	12
9	FB3009-1	TOP TARGET RING CAP	2
10	FB3009-2	TOP TARGET RING SPACER	12
11	FB3084CX	PLAYFIELD ASSEMBLY	1
12	655	#8 x 3/4 SQ. DRIVE (BLACK)	6

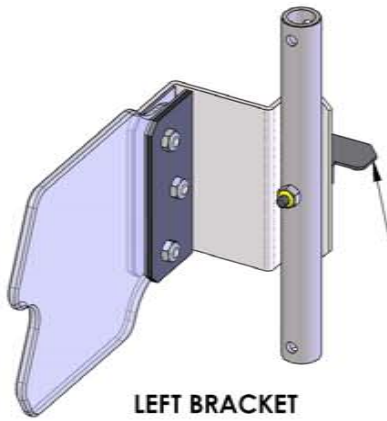
Maintenance



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB1020	TARGET BRACKET	1
2	FB1028	SENSOR BRACKET	1
3	FB1036	TARGET MOUNT SUPPORT PLATE	1
4	FB3039	TARGET 1	1
5	PC60604	NYLOCK NUT, 1/4-20	1
6	6281	1/4-20 x 1 1/2 BSHCS (BLACK)	1
7	FB4008	TARGET GASKET	2
8	6503	1/4-20 NYLOCK NUT (LOW PROFILE)	3

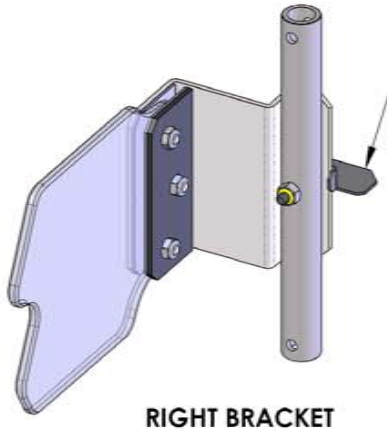


LEFT BRACKET SHOWN HERE

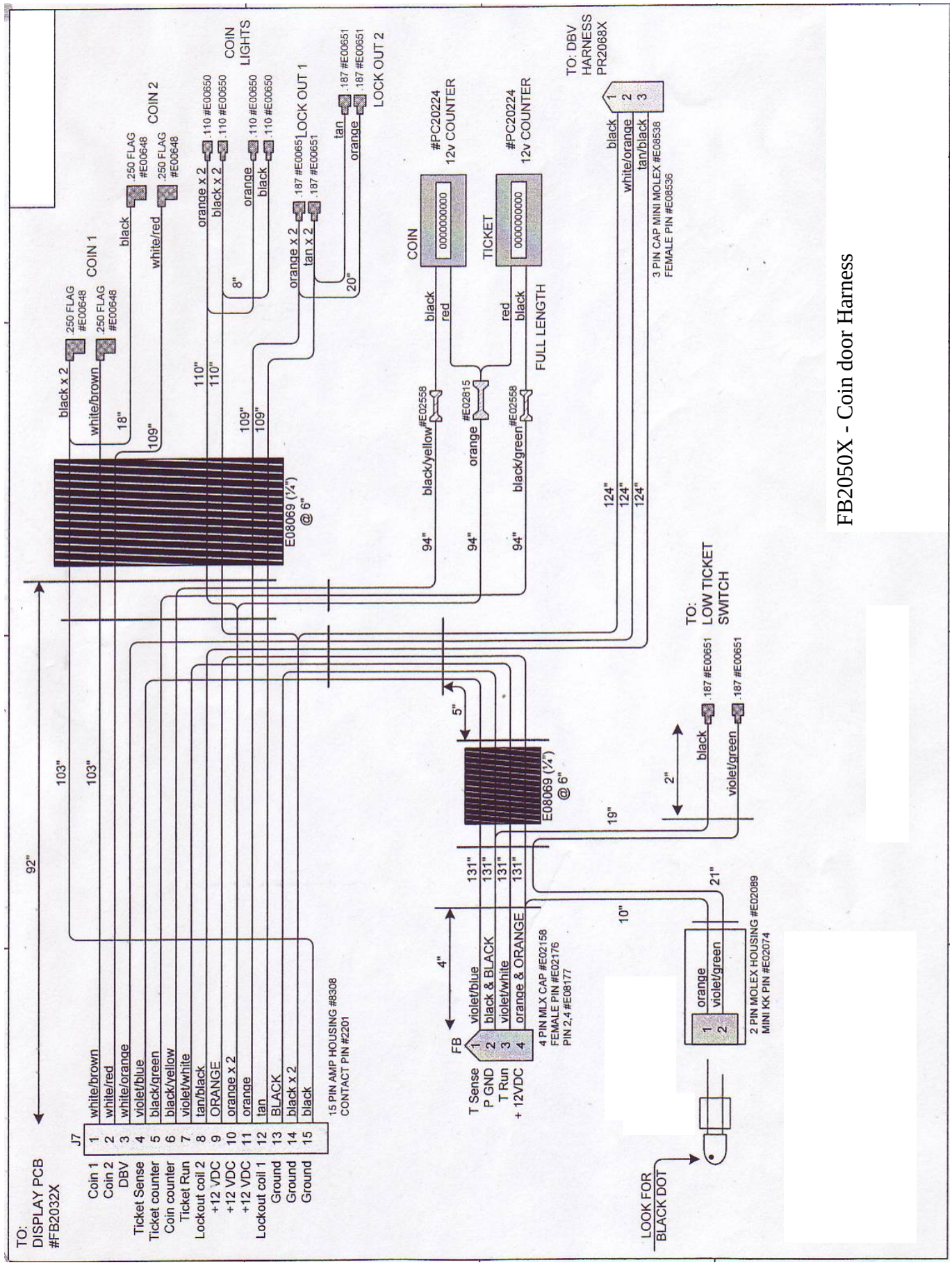


LEFT BRACKET

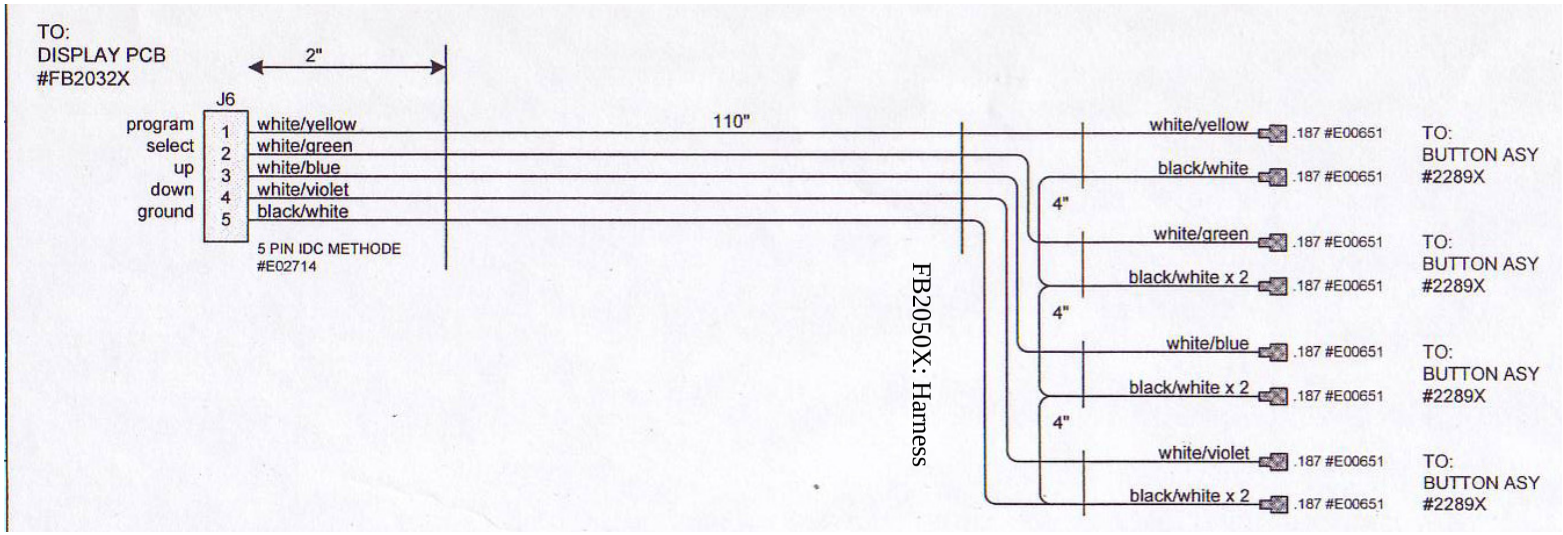
THE ONLY DIFFERENCE BETWEEN THE LEFT & RIGHT TARGET BRACKET IS THE SENSOR BRACKET IS ROTATED 180° FOR RIGHT BRACKET

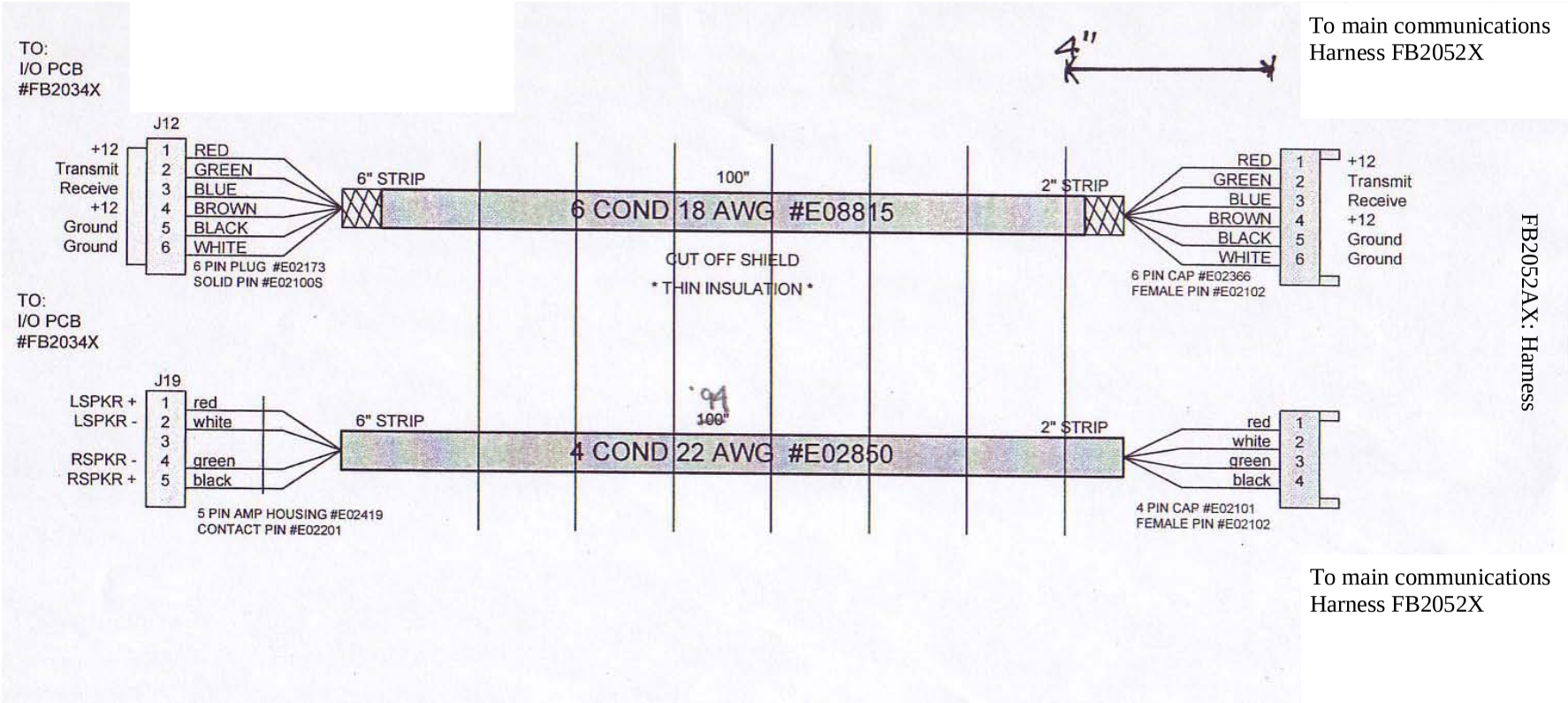


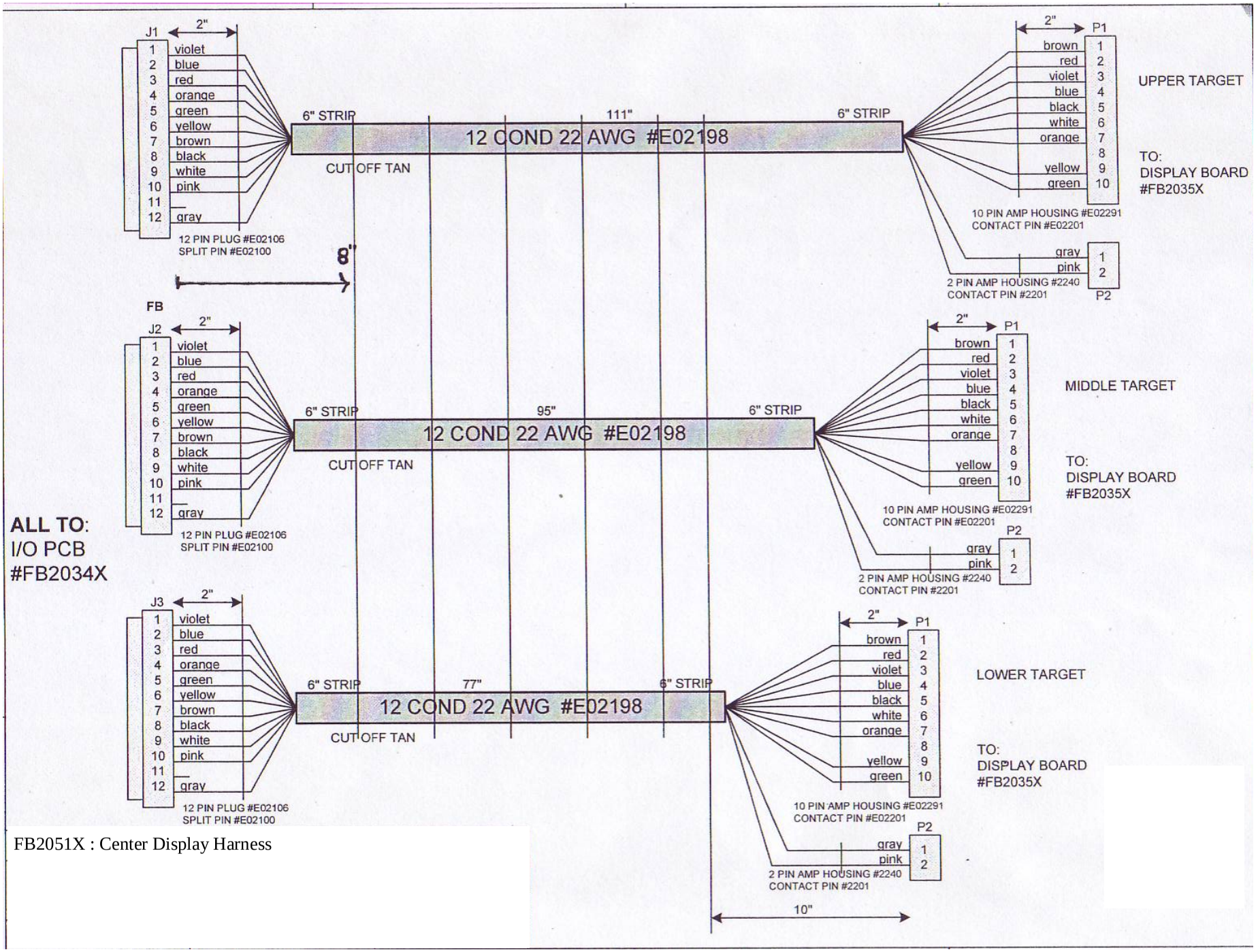
RIGHT BRACKET



FB2050X - Coin door Harness

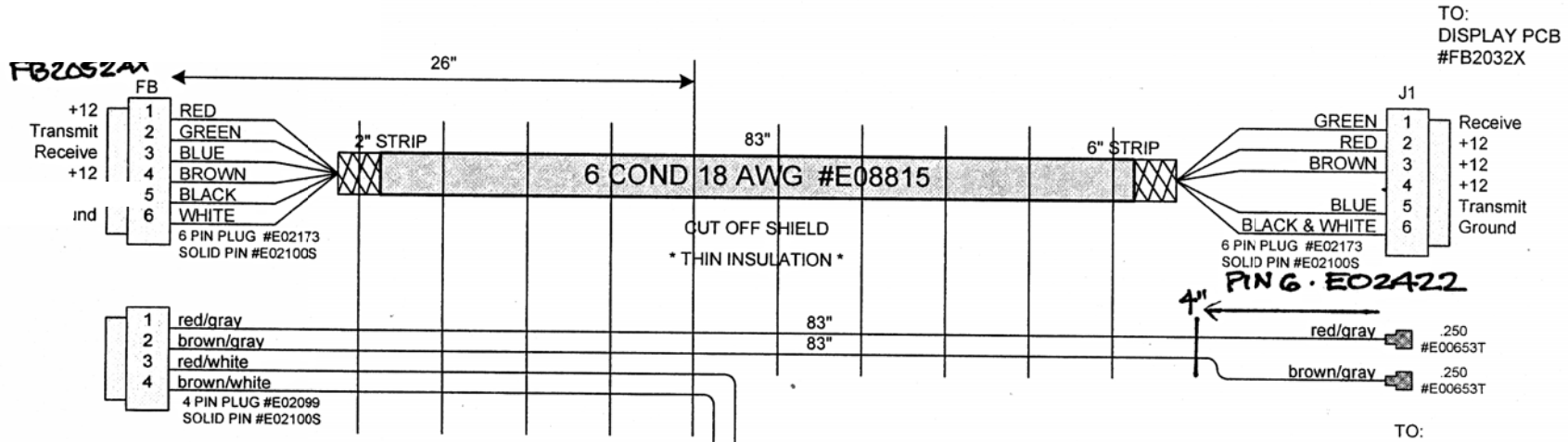

TO:
DISPLAY PCB
#FB2032X
2"
J6
program
select
up
down
ground
1 white/yellow
2 white/green
3 white/blue
4 white/violet
5 black/white
5 PIN IDC METHODE
#E02714
110"
FB2050X: Harness
white/yellow .187 #E00651
black/white .187 #E00651
4"
white/green .187 #E00651
black/white x 2 .187 #E00651
4"
white/blue .187 #E00651
black/white x 2 .187 #E00651
4"
white/violet .187 #E00651
black/white x 2 .187 #E00651
TO:
BUTTON ASY
#2289X
TO:
BUTTON ASY
#2289X
TO:
BUTTON ASY
#2289X
TO:
BUTTON ASY
#2289X


To main communications
Harness FB2052X
4"
TO:
I/O PCB
#FB2034X
J12
+12
Transmit
Receive
+12
Ground
Ground
1 RED
2 GREEN
3 BLUE
4 BROWN
5 BLACK
6 WHITE
6 PIN PLUG #E02173
SOLID PIN #E02100S
6" STRIP
100"
2" STRIP
6 COND 18 AWG #E08815
CUT OFF SHIELD
* THIN INSULATION *
RED 1 +12
GREEN 2 Transmit
BLUE 3 Receive
BROWN 4 +12
BLACK 5 Ground
WHITE 6 Ground
6 PIN CAP #E02366
FEMALE PIN #E02102
FB2052AX: Harness
TO:
I/O PCB
#FB2034X
J19
LSPKR +
LSPKR -
RSPKR -
RSPKR +
1 red
2 white
3
4 green
5 black
5 PIN AMP HOUSING #E02419
CONTACT PIN #E02201
6" STRIP
100"
2" STRIP
4 COND 22 AWG #E02850
red 1
white 2
green 3
black 4
4 PIN CAP #E02101
FEMALE PIN #E02102
To main communications
Harness FB2052X



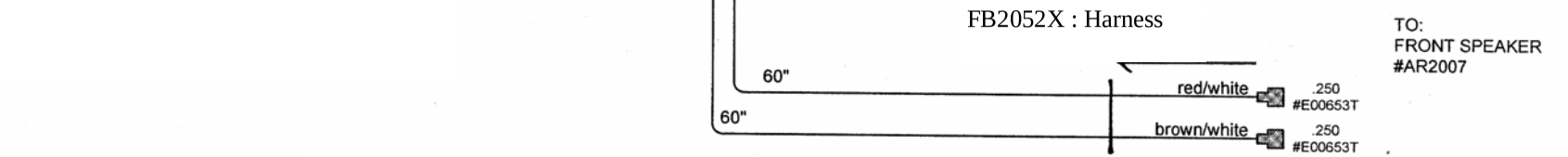
FB2051X : Center Display Harness

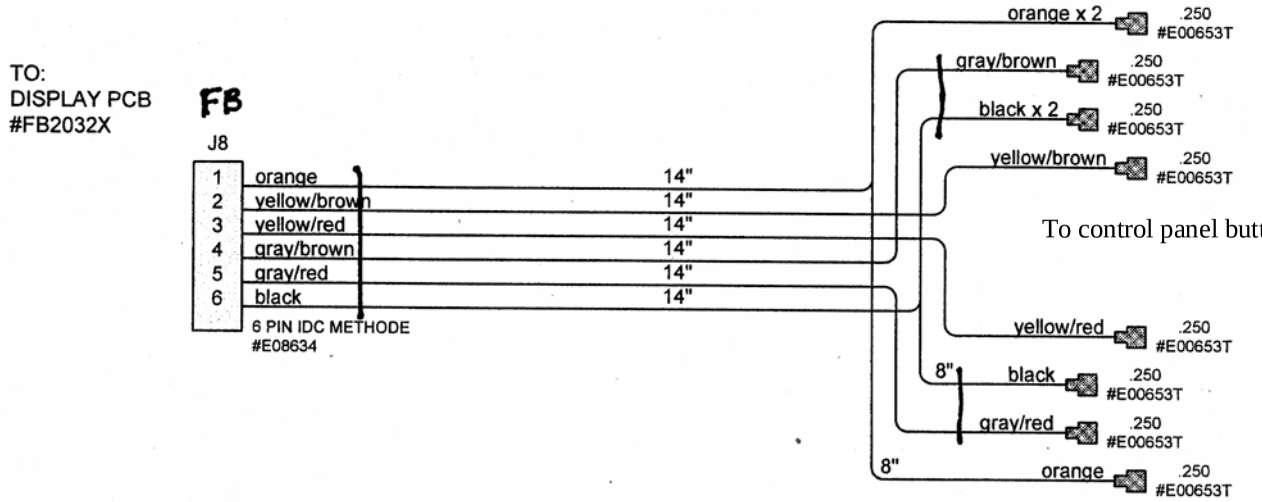
To main communications extension
FB2052AX



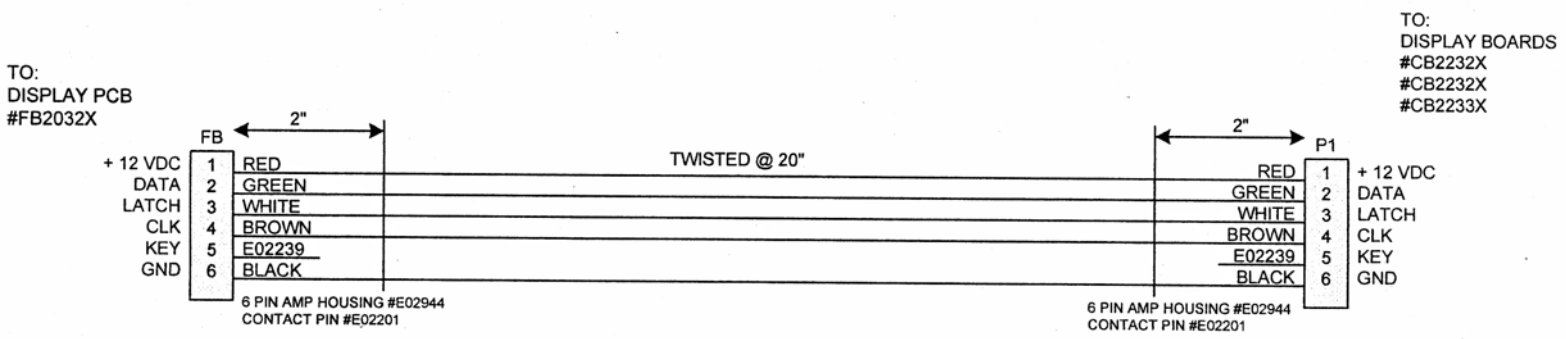
To main communications extension
FB2052AX

FB2052X : Harness

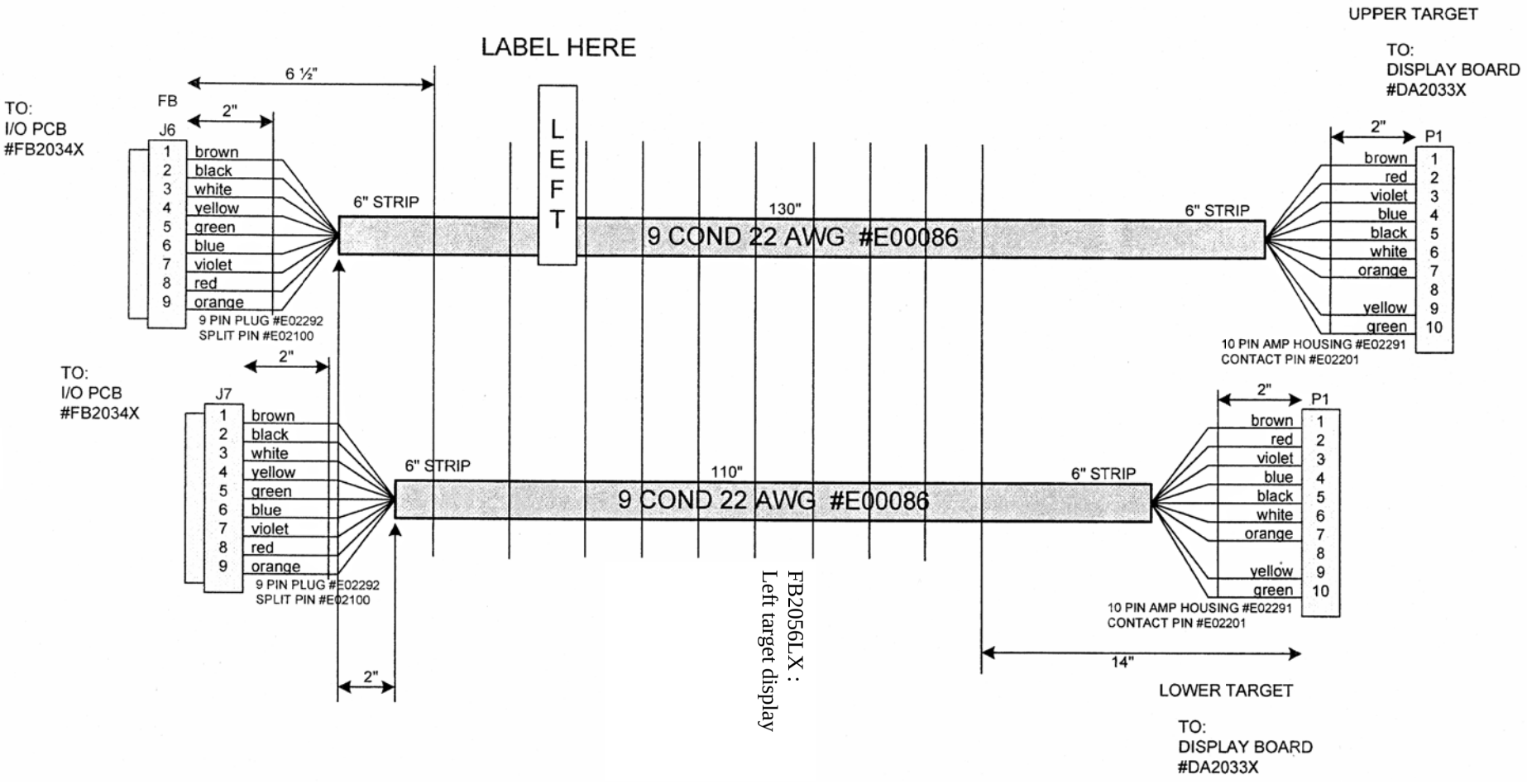




FB2057X:
Button Harness

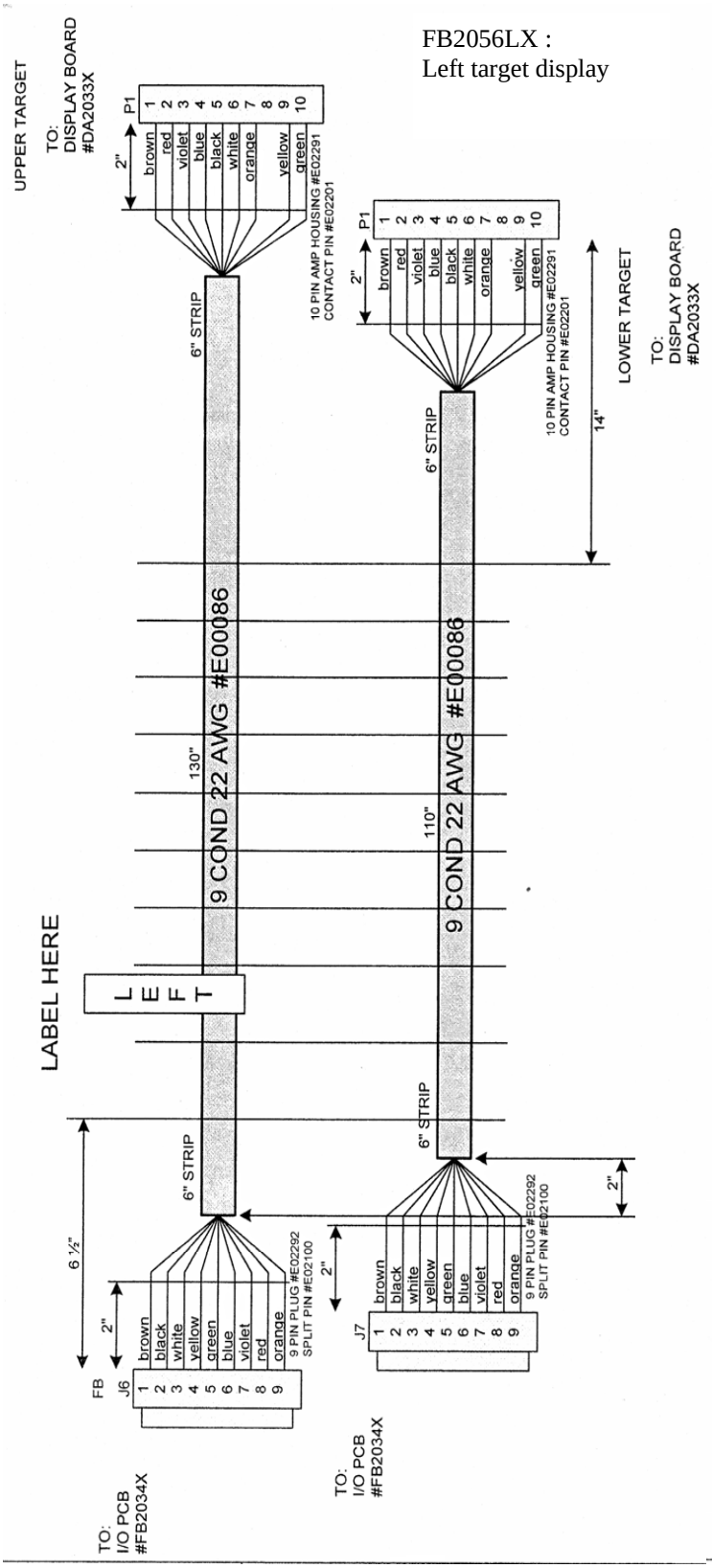


FB2054X:
Harness

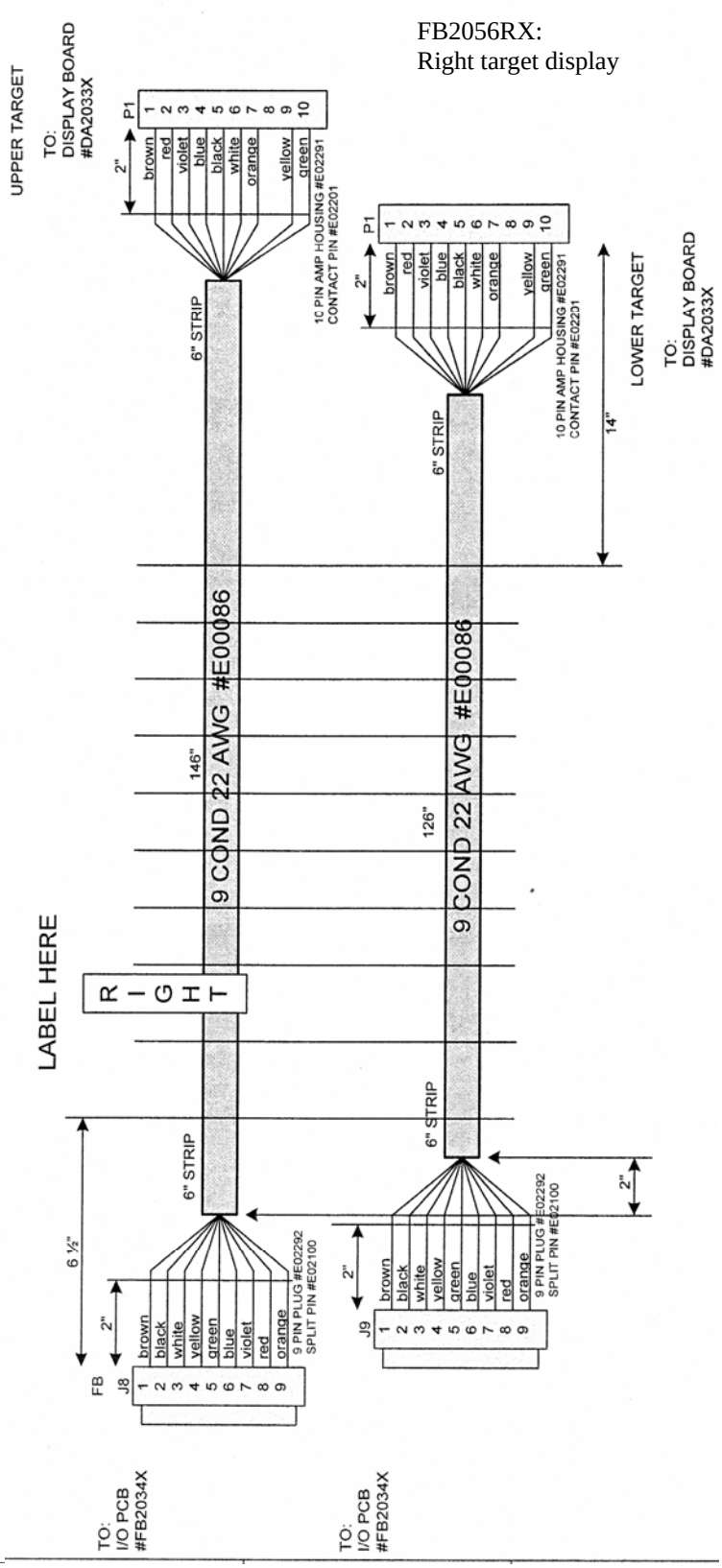


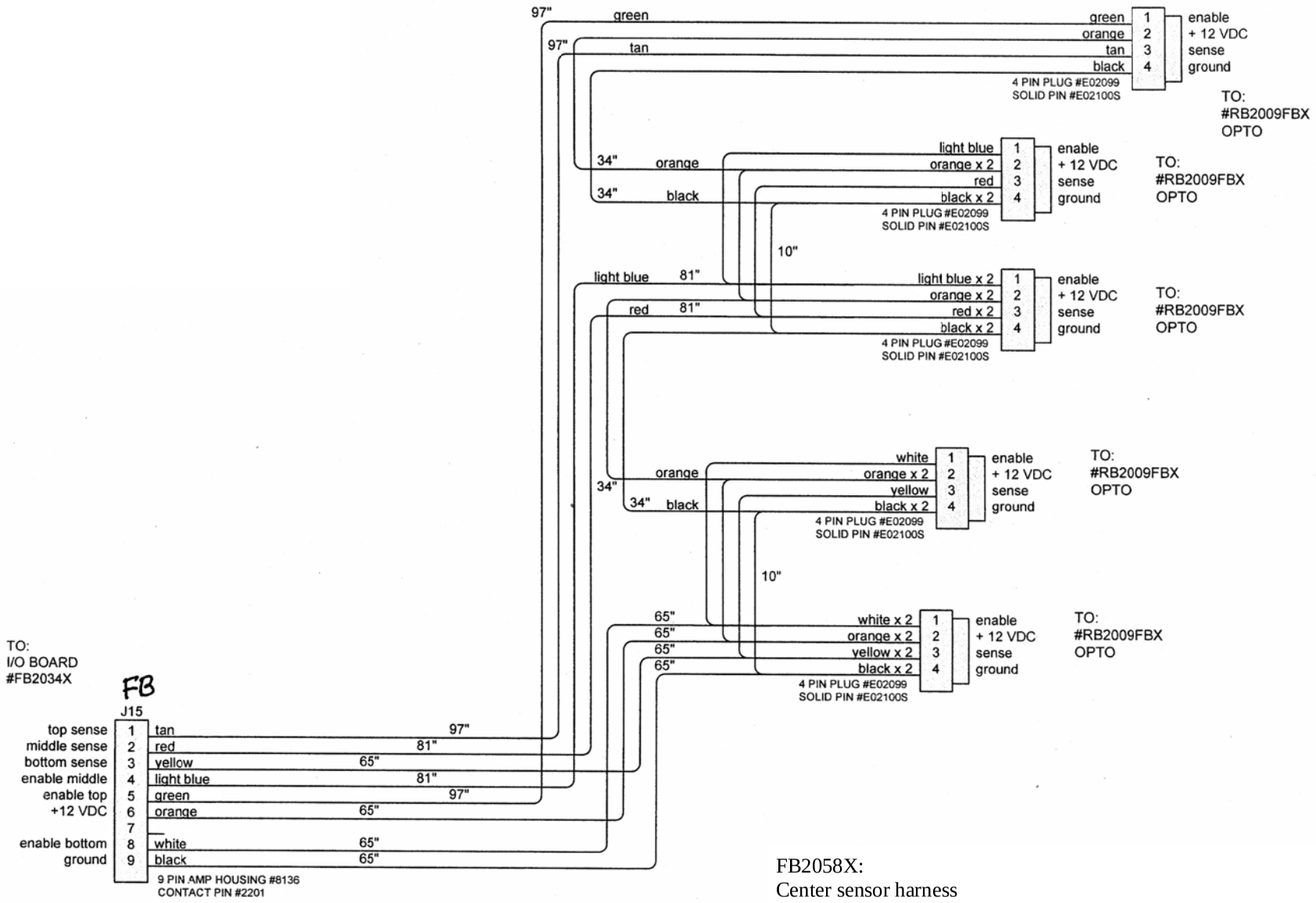
FB2056LX :
Left target display

FB2056LX :
Left target display

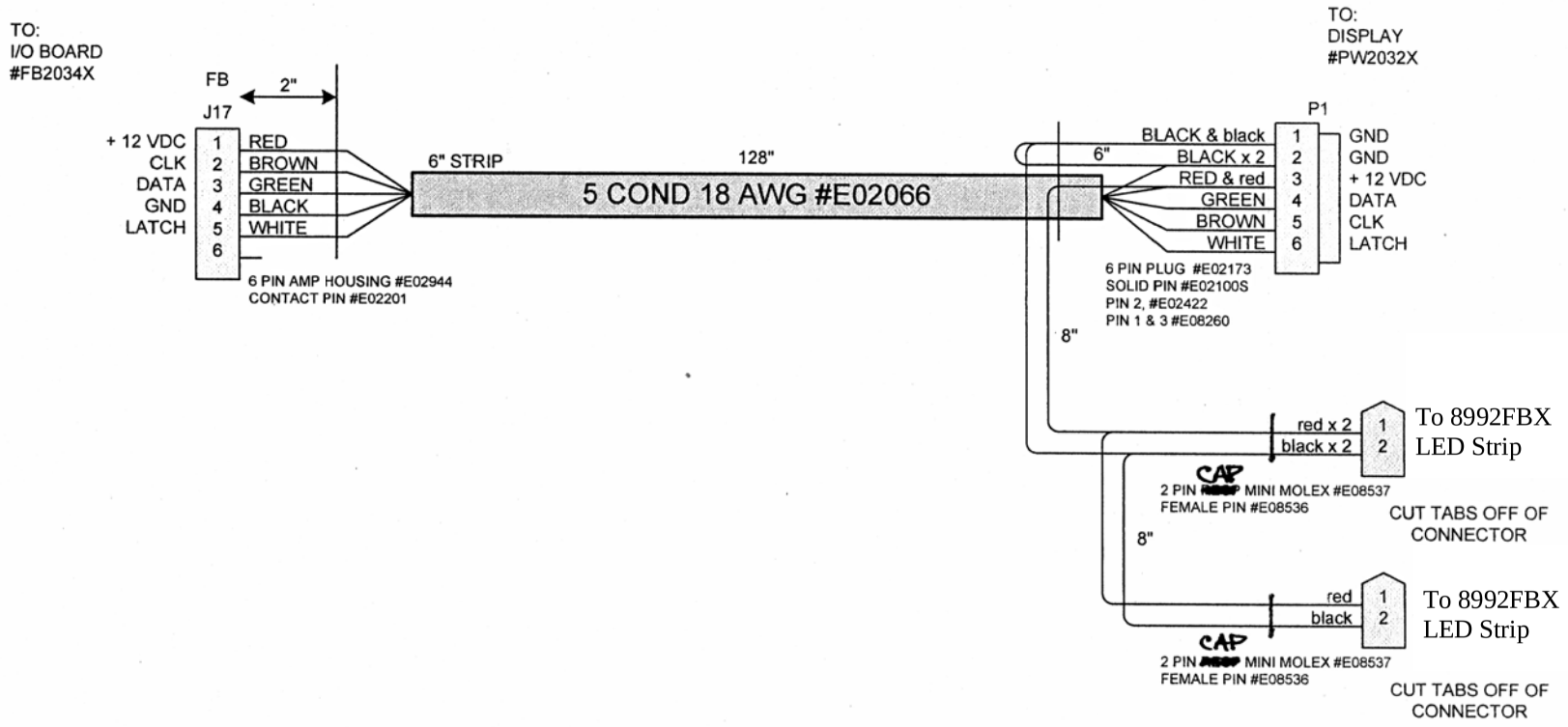


FB2056RX:
Right target display



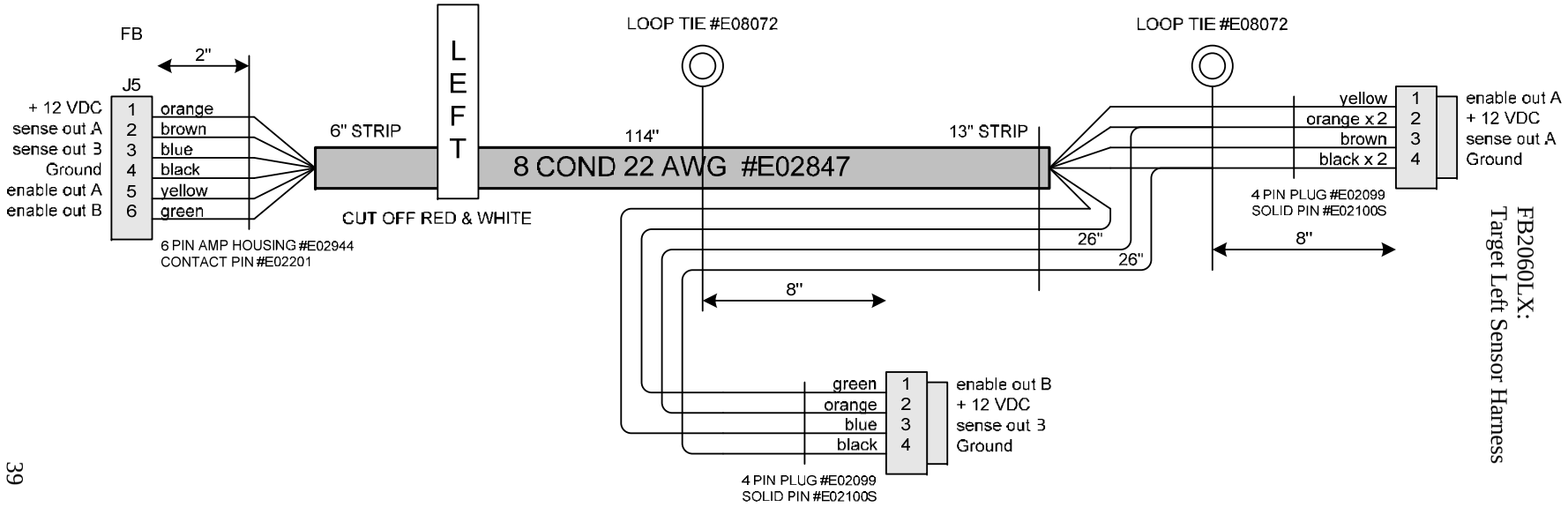


FB2058X:
Center sensor harness



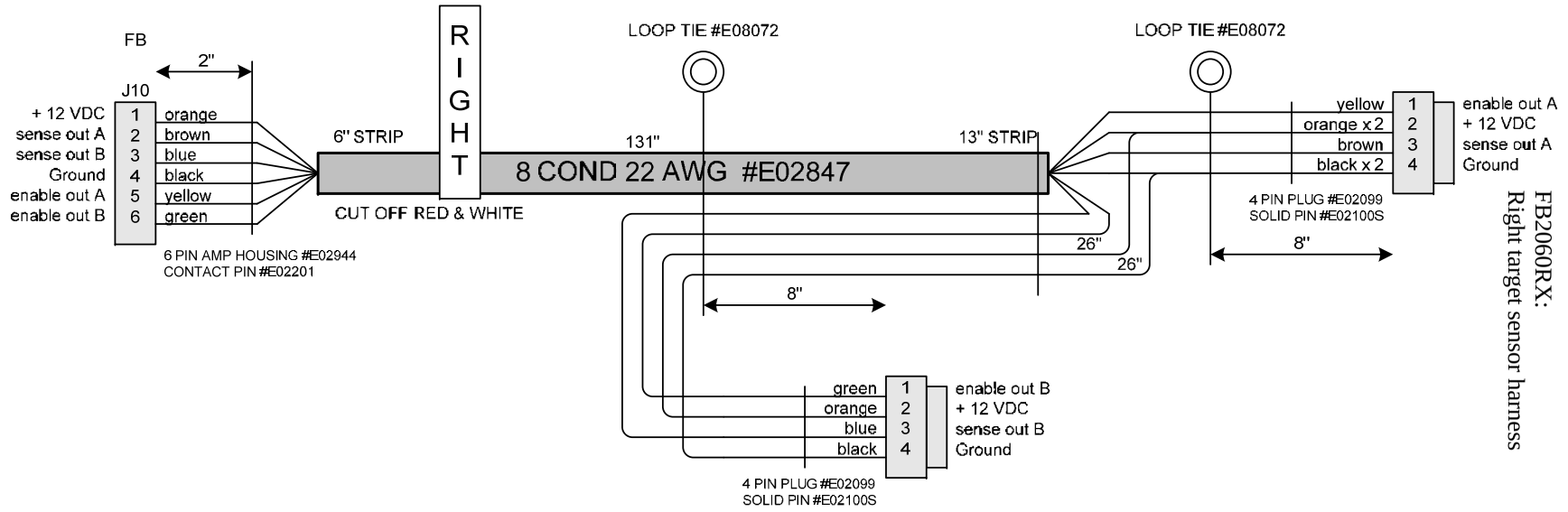
FB2059X:
Time Clock Harness

LABEL HERE:
LEFT DECAL
#FB7018



FB2060LX:
Target Left Sensor Harness

LABEL HERE:
RIGHT DECAL
#FB7019



FB2060RX:
Right target sensor harness

FB2061AX:
AC extension

TO:
#FB2061BX

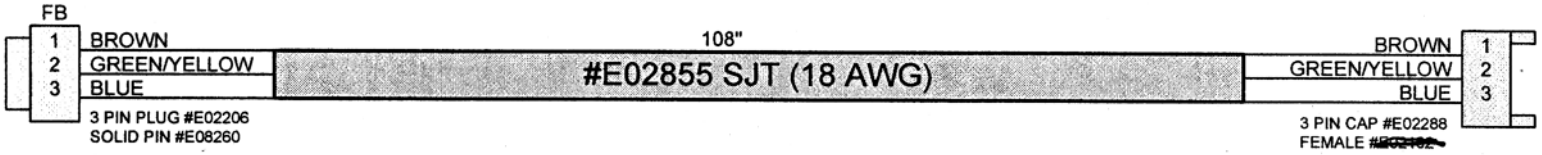
#FB2061BX

I/O PCB
#FB2034X

TO:
BALLAST ASY
#CS8449X

#FB2061X

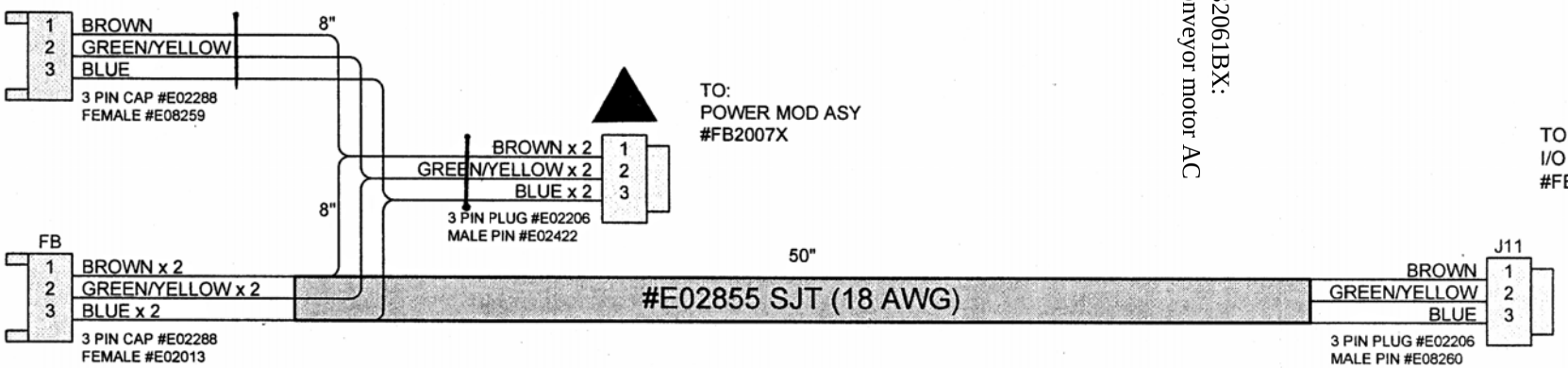
#FB2008AX



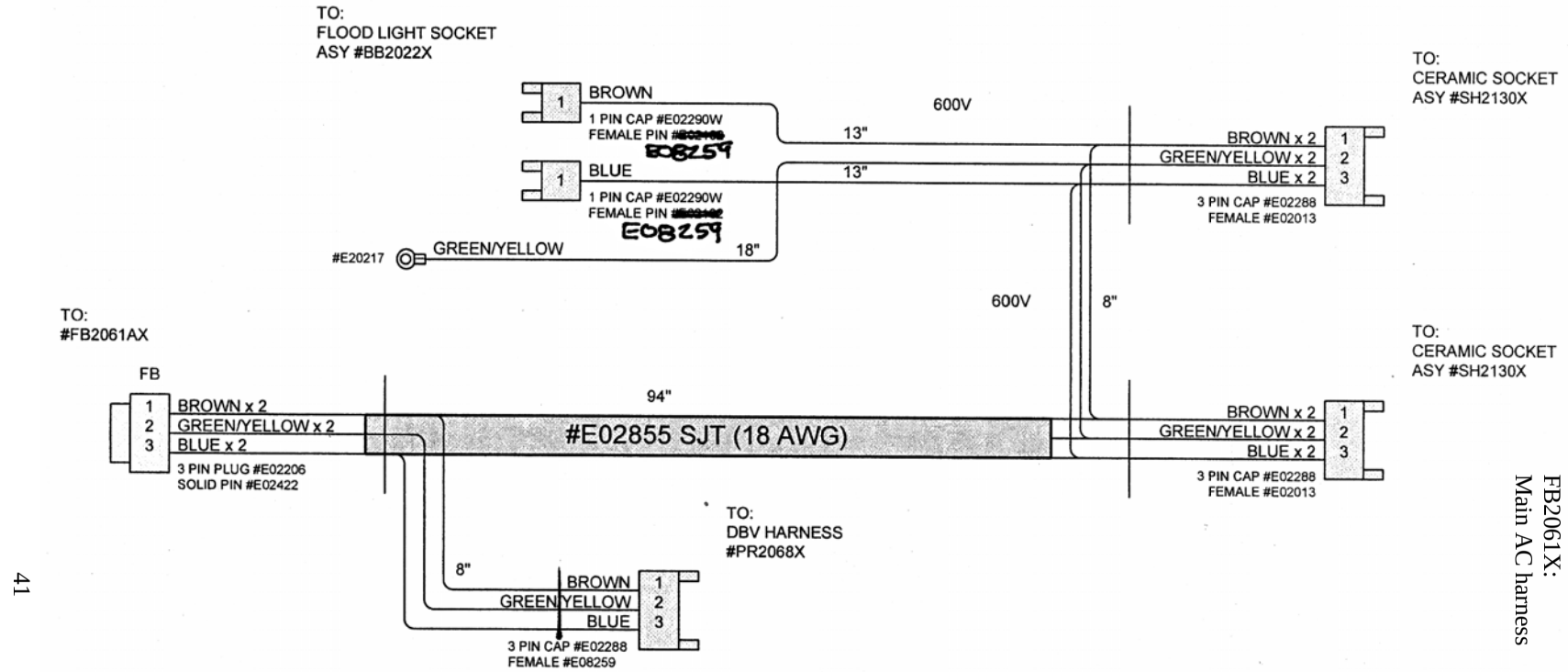
FB2061BX:
Conveyor motor AC

TO:
#FB2061AX

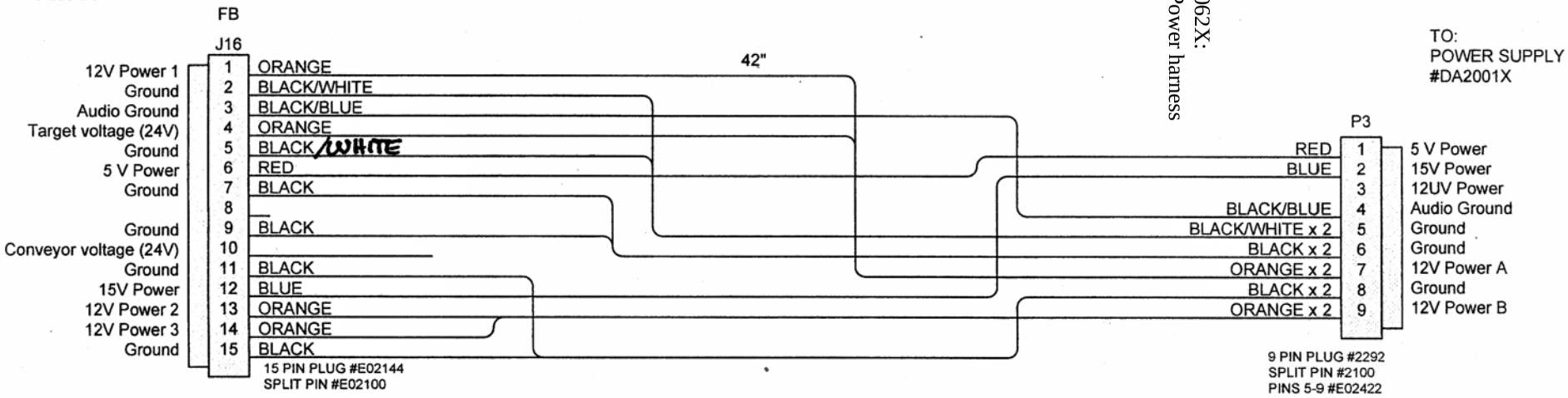
ALL WIRE IS 600V



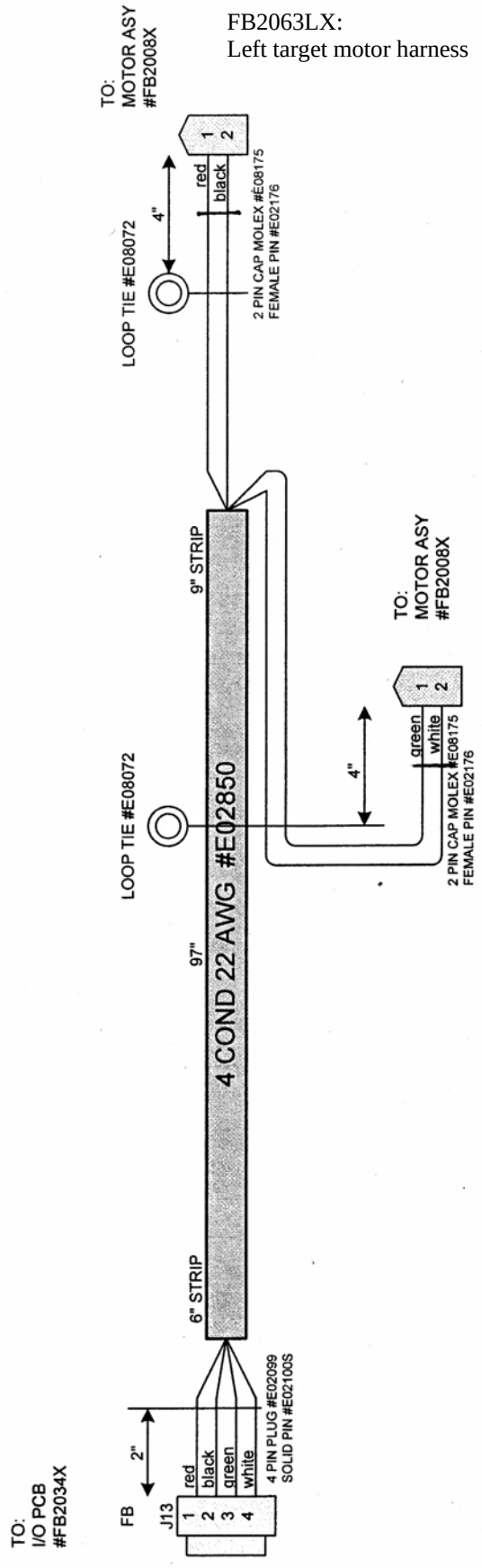
FB2061X: Main AC harness



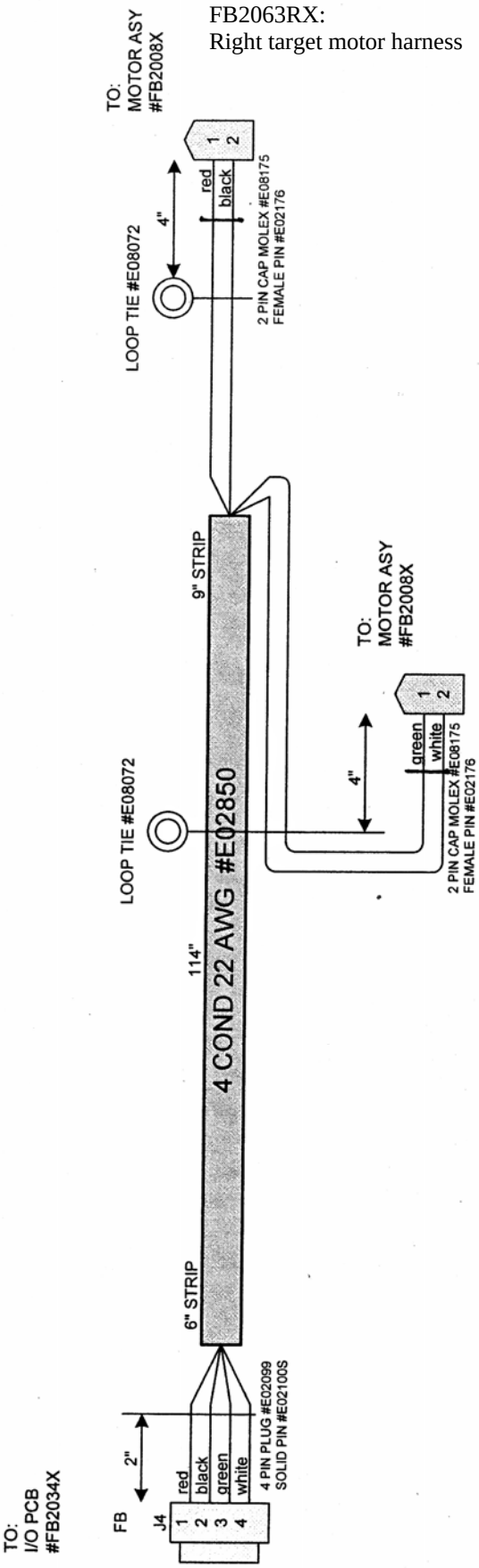
FB2062X: DC Power harness



FB2063LX:
Left target motor harness



FB2063RX:
Right target motor harness



8992FBAX:
LED Strip assembly

8992FBX
LED strip assembly

NB2253X:
Display harness

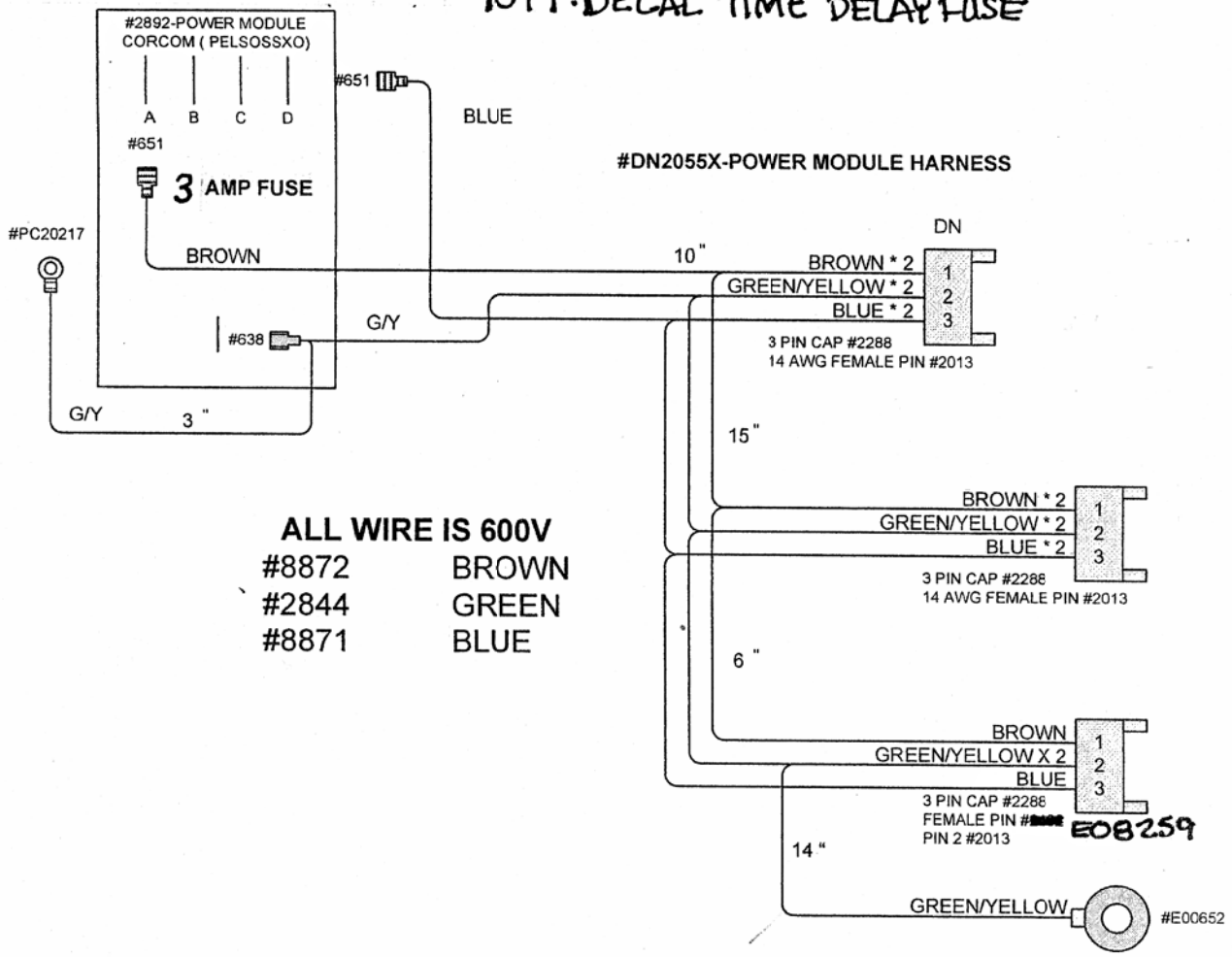
FB2008X:
Target motor assembly

FB2008BAX
Conveyor motor assembly

FB2007X · POWER MOD ASY

3 AMP FUSE · E02315

7077 · DECAL TIME DELAY FUSE



FB2007X

Spare Parts Listing

Electronics:

FB2002X	Isolation Transformer (for TUV games)
1029WSX	ASY RESET BUTTON
8992FBAX	ASY (CLEAR LED STRIP for control panel)
8992FBX	ASY (CLEAR LED STRIP for game clock)
AR2007	6X9 SPEAKER
BB2022X	ASY FLOOD LAMP SOCKET
CB2232X	PCBA (DISPLAY)
CB2233X	PCBA (DISPLAY)
CS8449X	ASY (BALLAST)
DA2001X	PCBA (POWER SUPPLY)
DA2002X	ASY (TRANSFORMER)
DA2133X	PCBA (SMALL DISPLAY)
FB2007X	ASY (POWER MOD 3 MDQ)
E00377	BULB OF FLOOD
FB2008AX	ASY (CONVEYOR MOTOR)
FB2008X	ASY (TARGET MOTOR) included in FB1031X
FB2032X	PCBA (DISPLAY)
FB2033X	PCBA (TIME CLOCK)
FB2034X	PCBA (MAIN I/O) ** Cannot be purchased separate
E08716	FLASH CARD ** Cannot be purchased separate
E2034X	PCBA (BRAIN BOARD) ** Cannot be purchased separate
FB2035BX	PCBA (DISPLAY, BLUE LEDS)
FB2035RX	PCBA (DISPLAY, RED LEDS)
FB2035WX	PCBA (DISPLAY, WHITE LEDS)
HR2005	BUTTON LG ROUND WHITE
PP250X	ASY (SOCKET)
RB2009FBX	** PCBA (OPTO SENSE FOOTBALL)
RB2009BX	** PCBA (OPTO SENSE) included in FB1031X
RB2009EX	* (OPTO SENSE FOOTBALL)
FP2009EX	* PCBA (OPTO SENSE) included in FB1031X

Mechanical:

FB1031X	ASY, TARGET MOTOR LEFT SIDE
FB1031AX	ASY, TARGET MOTOR RIGHT SIDE
FB1061	PILLOW BLOCK BEARING
FB3013	REBOUND GUARD
FB3014	DISPLAY STRIP LEFT/RIGHT
FB3015	NUMBER GUARD
FB3039	TARGET

NOTE:

*****Games manufactured before June 2008***

****Games manufactured after June 2008***

Spare Parts Listing

Decals:

FB7001	START BUTTON
FB7003	BALL RETURN DECAL
FB7005	Target Top Left
FB7006	Target Top Right
FB7007	Target Bottom Left
FB7008	Target Bottom Right
FB7013	CONTROL PANEL
FB7029	MARQUEE-GAME CLOCK

Miscellaneous:

FB3001	8.5” FOOTBALL
FB4001	ENDLESS CONVEYOR BELT
FB4002	FRONT TARGET PAD
FB4003	REAR DOOR FOAM PAD
FB7011	NFL BLACK SCRIM VINYL
RR5001-P802	COIN DOOR (TRIPLE) SINGLE MECH Black
RR5001-P200	COIN DOOR (TRIPLE) SINGLE MECH Orange Gloss
RR5001-P901	COIN DOOR (TRIPLE) SINGLE MECH Gold Metallic
RR5001-P903	COIN DOOR (TRIPLE) SINGLE MECH Powder Gray

MARQUEE:

E02016	25’ PHONE CORD
2770	7’ PHONE CORD

Spare Parts Listing

Options (continued):

FB2002CX	Option: 220v
FB2600X	DBV
FB1000CX	Option: Competition mode
FB1000TD	Option: Ticket dispenser
RR5001FBX	Option: Blank triple door
FB1000ARIX	Arizona Cardinals
FB1000ATLX	Atlanta Falcons
FB1000BALX	Baltimore Ravens
FB1000BUFX	Buffalo Bills
FB1000CARX	Carolina Panthers
FB1000CINX	Cincinnati Bengal's
FB1000CLEX	Cleveland Browns
FB1000DALX	Dallas Cowboys
FB1000DENX	Denver Broncos
FB1000DETX	Detroit Lions
FB1000GENX	Generic Game
FB1000GREX	Green Bay Packers
FB1000HOUX	Houston Texans
FB1000INDX	Indianapolis Colts
FB1000JACX	Jacksonville Jaguars
FB1000KANX	Kansas City Chiefs
FB1000MIAX	Miami Dolphins
FB1000MINX	Minnesota Vikings
FB1000BEOX	New England Patriots
FB1000NOSX	New Orleans Saints
FB1000NYGX	New York Giants
FB1000NYJX	New York Jets
FB1000OAKX	Oakland Raiders
FB1000PHIX	Philadelphia Eagles
FB1000PITX	Pittsburg Steelers
FB1000SDCX	San Diego Chargers
FB1000SEAX	Seattle Seahawks
FB1000SF4X	San Fran Cisco 49ers
FB1000STLX	Saint Louis Rams
FB1000TAMX	Tampa Bay Buccaneers
FB1000TENX	Tennessee Titans
FB1000WASX	Washington Red Skins

NFL 2 Minute Drill
ASSEMBLY GUIDE

Production Game
Rev C

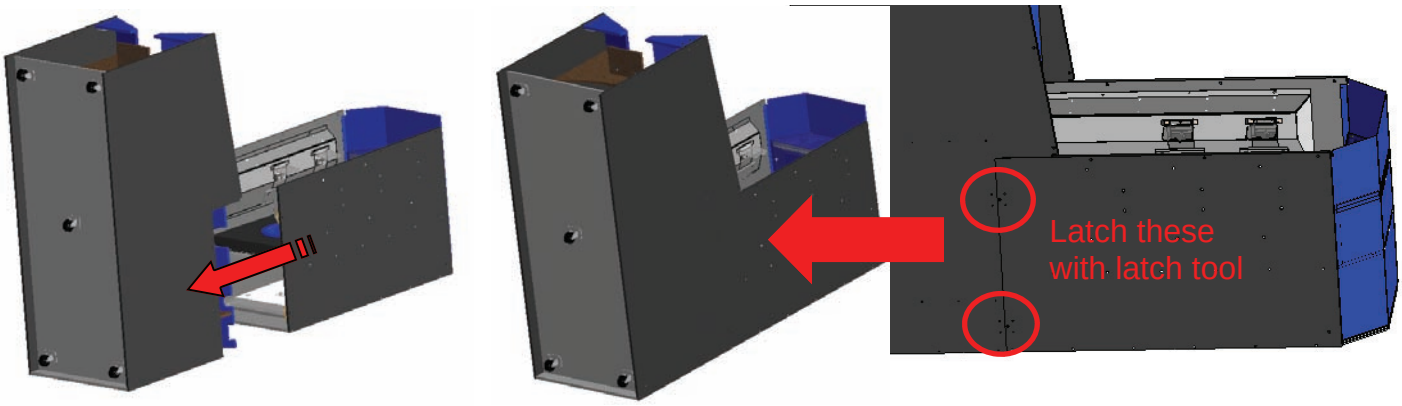
2/8/2008

Overview:

Please review assembly instructions before beginning assembly. It will be necessary to have at least two people to assemble this game.

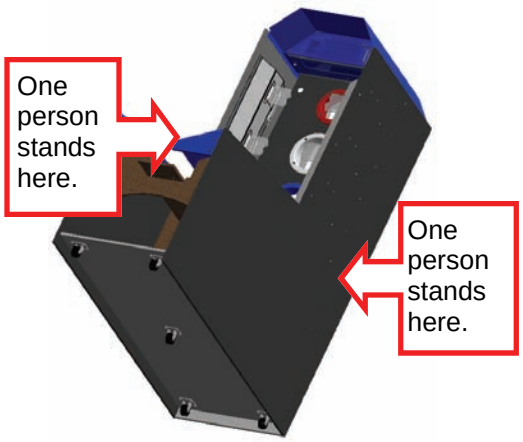
Step 1:

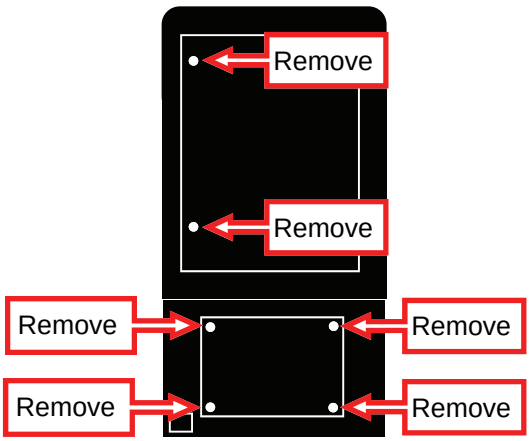
With two people position the upper rear and conveyer base as shown in below. Slide the two halves together and latch the halves with the provided tool found in the cash box. Be careful not to catch any harness or connectors while sliding the two halves together.



Step 2:

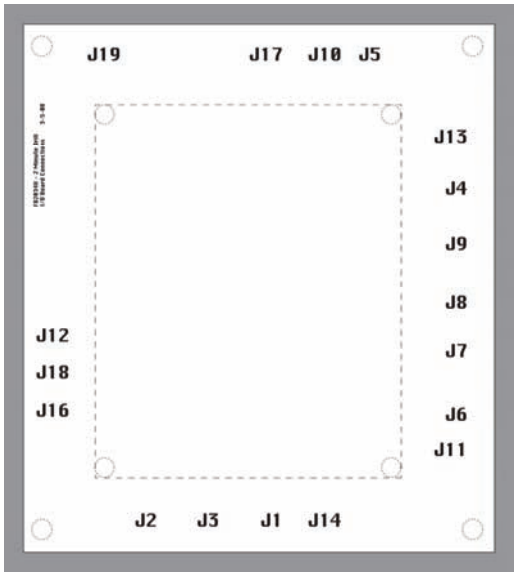
Two people are required to lift the two halves to their up right position, see below. Remove the lower back panel by remove the four mounting bolts and open the upper rear section to access the wire harnesses. See drawing below for the location of the bolts.

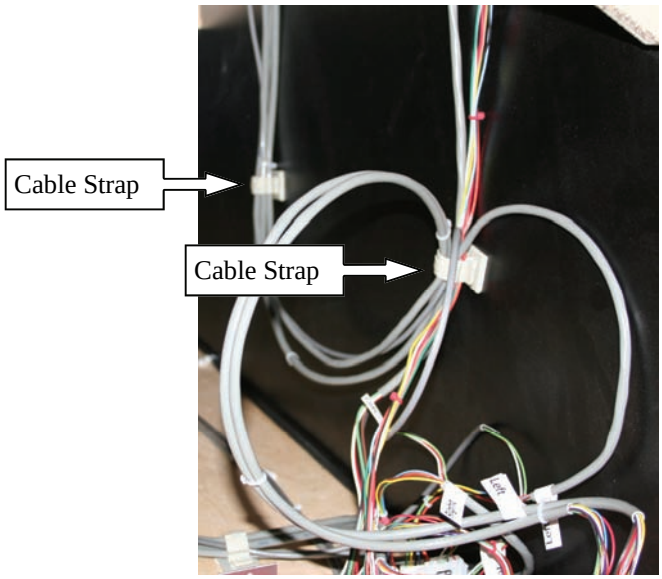




Step 3:

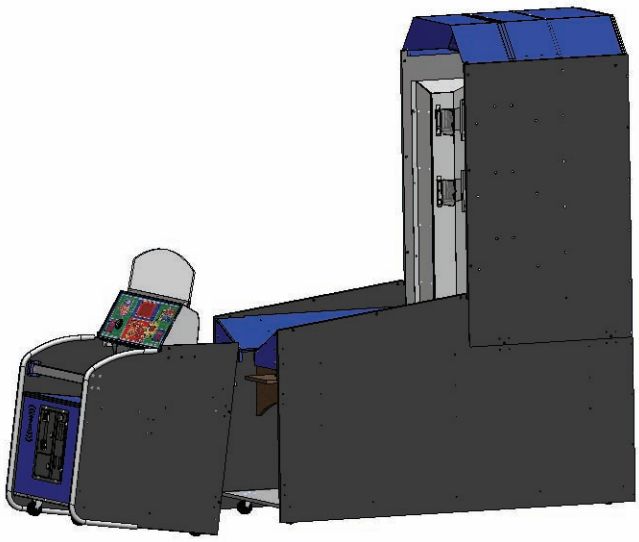
Connect the upper rear section harnesses to the main board. All wire connectors are labeled and connect to the same labeled connections found along the side of the main board. See example of label below. Attach the excess cabling into the two cable straps mounted on the right side of the cabinet. See the picture below.

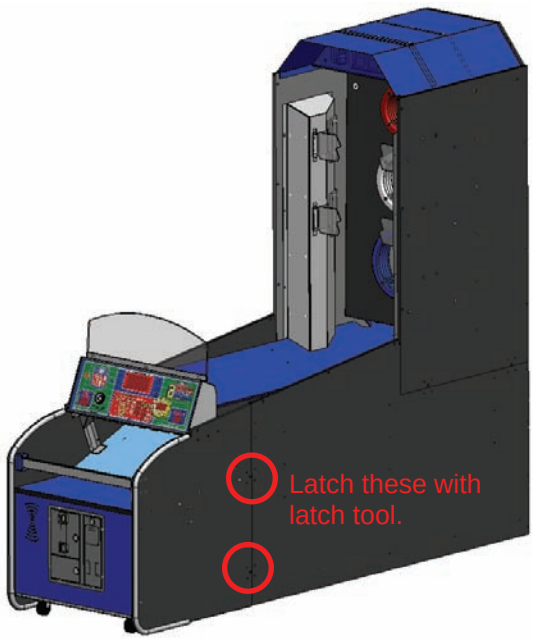




Step 4:

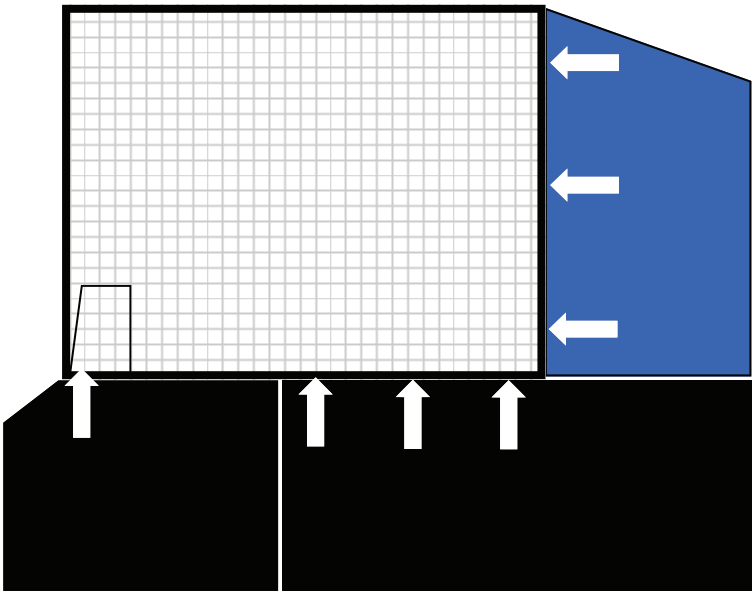
Position the front half so you can attach the wire harnesses together. Angle the front as shown below and push the front half forward until flush with other cabinet. Be careful not to pinch any harnesses and latch with supplied latch tool.





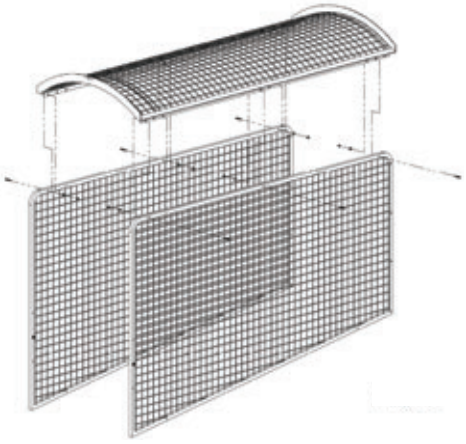
Step 5:

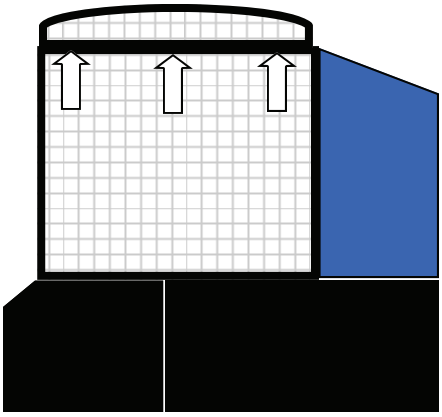
Loosen the 3 hat nuts mounting the control panel shown on step 7 before positioning the cages. Position the side cages onto the cabinet and install (7) 1/4-20 bolts (use 5/32 Allen) and (7) 1/4-20 inserts (use 3/16 Allen) as shown in picture 4a and arrow drawing below. You will have to climb into the cabinet to install the side cages. The cages will slide down and back. Be sure to tighten the cage bolts before proceeding.



Step 6:

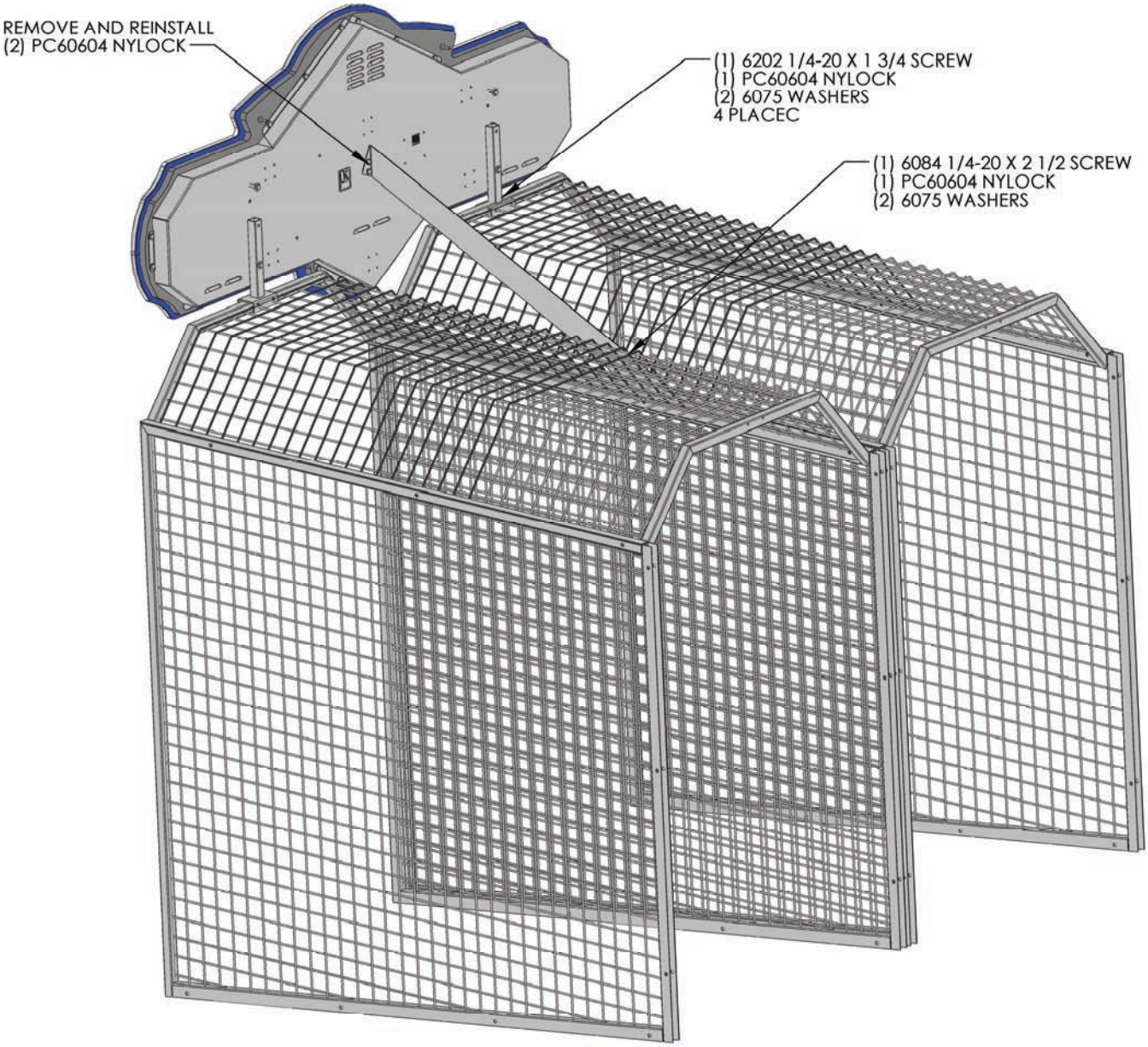
Install the top cage being careful not to bend the sides out as the top will be unstable. Attach using (6) 1/4-20 bolts (use the 5/32 Allen) and (6) 1/4-20 inserts (use the 3/4 Allen), three per side. See picture 5a and diagram for bolt locations.





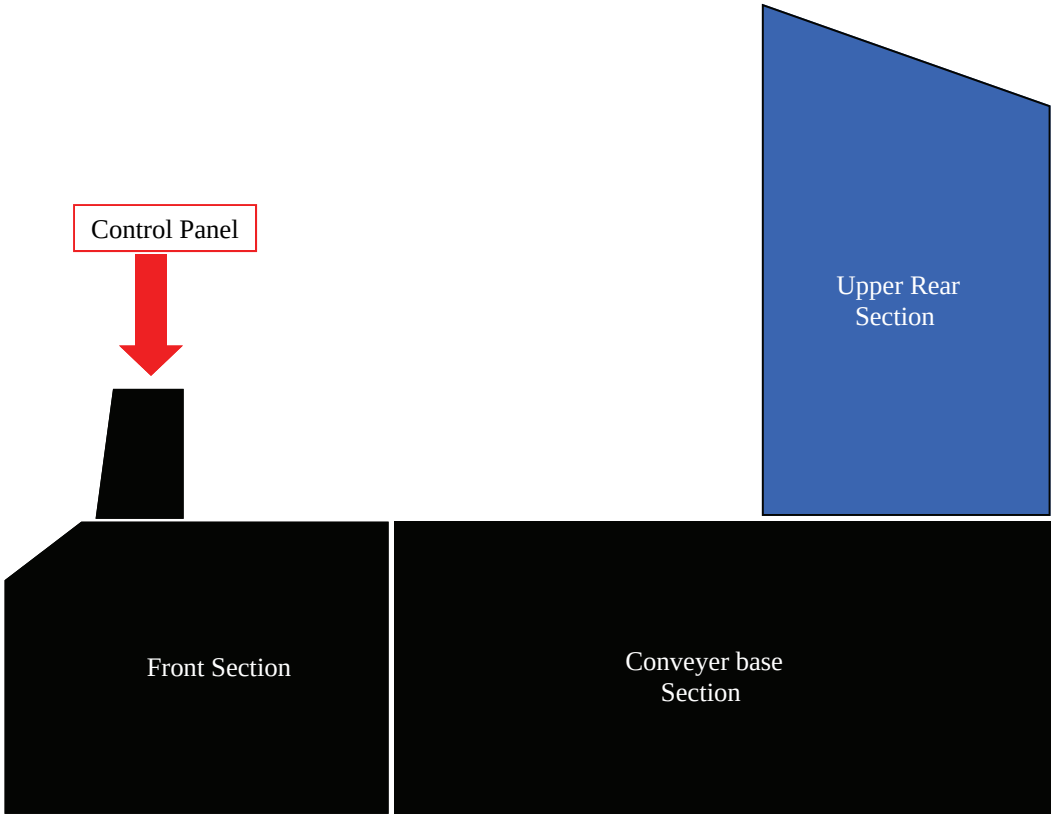
Marquee Install

The marquee can be installed for two or more games. It is recommended to place the marquee as close to the center of the games as possible. See diagram below for location of mounting bolts. Game software installed must be version 3.0 or greater for marquee to communicate with game.



Section Diagram

The game is manufactured in three sections. Here is a diagram with the sections labeled for identification during assembly.



Spares package includes the following:

Ice Part	Description	Qty
3052	Black hole plug	8
6001B	Allen wrench 3/16”	1
6105	Latch Tool	1
6110	Joint connector 1/4-20 Thread	20
6212	1/4 x 3/4 Flat washer black	20
CG2027	Power cord 9’ 10”	1
FB9001	Service Manual	1
PC60601	1/4-20 x 5/8 BHCS (black)	12
PC60601A	Allen wrench 5/32”	1
PC60622	1/4-20 x 1 BSHCS BLK	6
6281	1/4-20 x 1 1/2 BSHCS	2
	Programming Insert	1
	Assembly insert	1
	Schematic insert	1

NFL 2 Minute Drill
PROGRAMMING GUIDE

SOFTWARE VERSION
Production 3.00

Programming Description

To enter programming, open the coin door and press the button labeled “PROG” which is on the left. The display “credits” will show which option you are on. The display “Total Yards” will show the current value. No other displays will update until you exit programming. Press the select button to cycle through options and press the advance button to change the value. Press program button again to exit and save changes.

Option	Label	Description	Value	Default
0	VOLUME	Sets the sound level	0-8	3
1	COIN1	Cost of the game in coins	0-10	2
2	COIN2	How many Coins is the Coin 2 input worth	0-10	1
3	DBV	How many Coins is the DBV input worth	0-10	4
4	DISCOUNT	How many Coins before Discount	0-10	0
5	TIME	How fast it counts down in seconds, 66=40 seconds	66-200	66
6	RTICKETS	Rookie Tickets	0-10	5
7	STICKETS	Starter Tickets	1-50	10
8	PTICKETS	Pro Tickets	1-50	15
9	HTICKETS	Hall of Fame Tickets (value x 5)	1-199	100
10	SSCORE	Starter Min Score (value x 5)	10-100	200
11	PSCORE	Pro Min Score (value x 5)	10-100	400
12	HSCORE	Hall of Fame Min Score (bonus) (value x 5)	10-180	600
13	SAVE	Save High Score 0 = no	0-1	0
14	AUTO	Auto Adjust 0 = no Hall of Fame Target Value Adds value to the Hall of Fame	0-100	25
15	ATYPE	0 = off, 1 = Audio Only, 2 = Motion only, 3 = Both		3
16	ATIME	Attract Time in minutes	00-90	3
17	FACTORY	Factory Reset	0-1	0

Error Code Description

When your game is powered on it will run some self tests to determine the functionality of the game. If any errors occur, then game will display the error and wait until it is cleared. The game will not proceed until the error is fixed.

Error	Description
1	Compact Flash
2	Top Left Motor Sensor Stuck off
3	Top Right Motor Sensor Stuck off
4	Bottom Left Motor Sensor Stuck off
5	Bottom Right Motor Sensor Stuck off
6	Top Sensor Stuck off
7	Middle Sensor Stuck off
8	Bottom Sensor Stuck off
9	Top Left Motor Sensor Stuck on
10	Top Right Motor Sensor Stuck on
11	Bottom Left Motor Sensor Stuck on
12	Bottom Right Motor Sensor Stuck on
13	Top Sensor Stuck on
14	Mid Sensor Stuck on
15	Bottom Sensor Stuck on
16	Top Left Motor Inoperative
17	Top Right Motor Inoperative
18	Bottom Left Motor Inoperative
19	Bottom Right Motor Inoperative

4
3
2
1
GAME CLOCK
DISPLAY BOARD
FB2033X
LED STRIP #8992FBX
LED STRIP #8992FBX
POWER CORD
3A MDQ
POWER ENTRY MODULE
FB2007X
8453
PP250X
BALLAST
#CS8449X
LEFT TOP TARGET
DA2033X display
RB2009DX opto sensor
FB2008X
12VDC
Pittman
#GM9413-3
LEFT BOTTOM TARGET
DA2033X display
RB2009DX opto sensor
FB2008X
12VDC
Pittman
#GM9413-3
RED RING
DA2035RX display
RB2009FBX opto sensor
WHITE RING
DA2035WX display
RB2009FBX opto sensor
RB2009FBX opto sensor
BLUE RING
DA2035BX display
RB2009FBX opto sensor
RB2009FBX opto sensor
RIGHT TOP TARGET
DA2033X display
RB2009DX opto sensor
FB2008X
12VDC
Pittman
#GM9413-3
RIGHT BOTTOM TARGET
DA2033X display
RB2009DX opto sensor
FB2008X
12VDC
Pittman
#GM9413-3
FB2008AX
CONVEYOR
MOTOR
FB2059X
FB2058X
FB2051X
FB2059RX
FB2061AX
FB2056LX
FB2063LX
FB2060LX
FB2063RX
FB2060RX
FB2061BX
FB2061AX
FB2061X
FB2062X
FB2063RX
FB2060RX
FB2052AX
FB2052X
FB2050X
FB2054X
FB2057X
FB2050X
FB2052AX
FB2061X
FB2034X
I/O BOARD
E2034X
FB
1.00
DA2002X
MA1019
DA2001X
POWER
SUPPLY PCB
INSERT
STEP DOWN
HERE FOR
220 GAME
TICKET
0000
COIN
0000
LOCKOUT COIL
LOCKOUT COIL
COIN LAMP
#161 BULB
COIN
SWITCH 1
COIN LAMP
#161 BULB
COIN
SWITCH 2
PROGRAM
SELECT
ADVANCE
PR2068X
DBV
TICKET
DISPENSER
8212 FLASHING LED
LOW TICKET SWITCH
SEVEN
SEGMENT KEY
START
BUTTON & LIGHT
LED BULB
#E00049
HR2005
LINK
BUTTON & LIGHT
LED BULB
#E00049
HR2005
CB2232X
CB2232X
CB2233X
CB2232X
FB2032X
FB2057X
FB2050X
NB2253X
CONTROL PANEL
FLOOD LIGHT
#E00377
BULB #8545
red/gray
brown/gray
A
B
C
D

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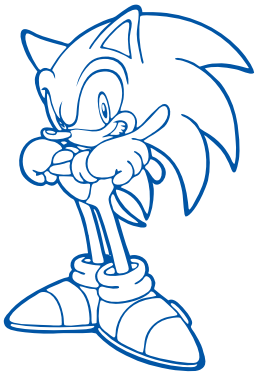

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