Manufactured by Innovative Concepts in Entertainment, Inc. (716) 759-0370 www.icegame.com

TABLE OF CONTENTS

SAFETY AND WARNINGS 3

- Before You Begin

GAME SETUP AND FEATURES

- Introduction 4
- Game Play and Player Controls 4
- Assembly - see insert 4
- Programming - see insert 4

MAINTENANCE

- Power Supply & Transformer 5
- AC Main fuse 5
- General illumination 6
- LED lights 6
- Display Boards 7
- Control Panel Assembly 8-15
- Target Marquee Assembly 16
- Target Cover Removal 17
- Target Motor Assembly 18-20
- Target Display board Assembly 21-23
- Conveyor Assembly Access 24
- Conveyer Assembly 25-26
- Playfield back door assembly 27
- Playfield target ring assembly 28-29
- Left Target bracket assembly 30
- Wiring harnesses 31-45
- Spare Parts List 46-48

WARRANTY INFORMATION 49-50

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.

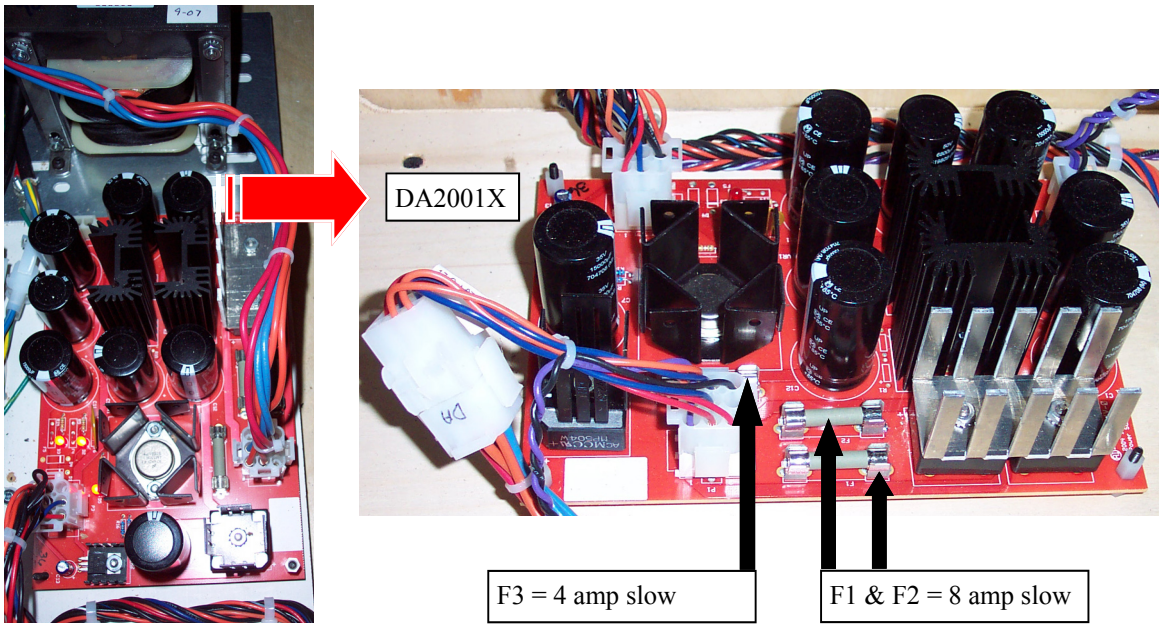
Assembly - See insert.

Programming - See insert.

Maintenance

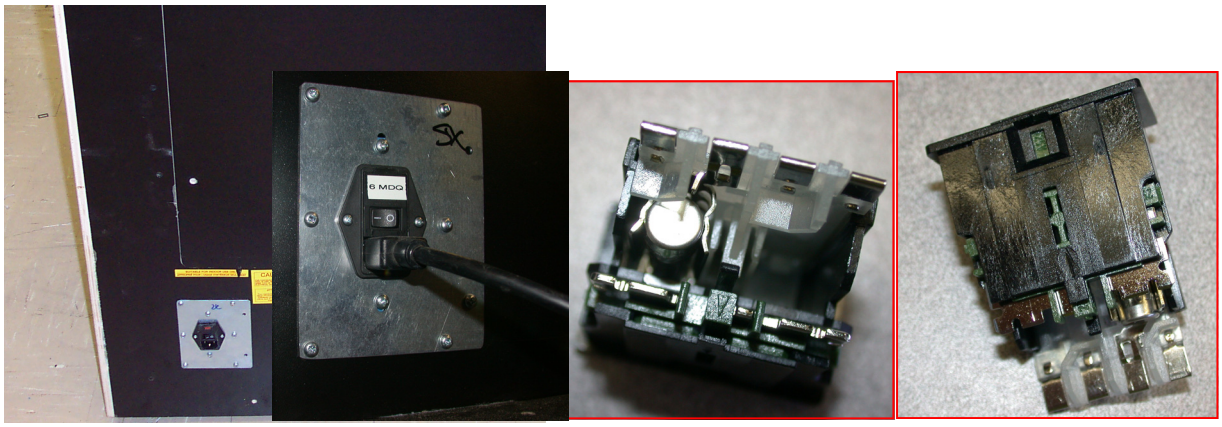
Power Supply & Transformer

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.

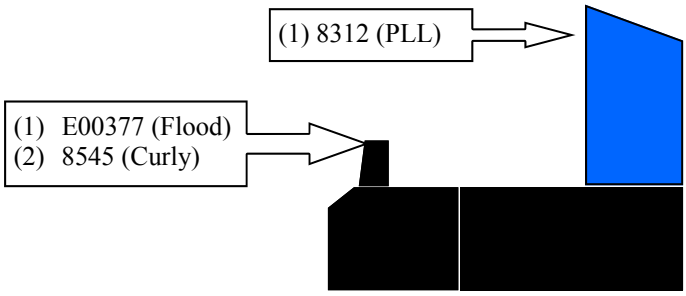


Maintenance

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.

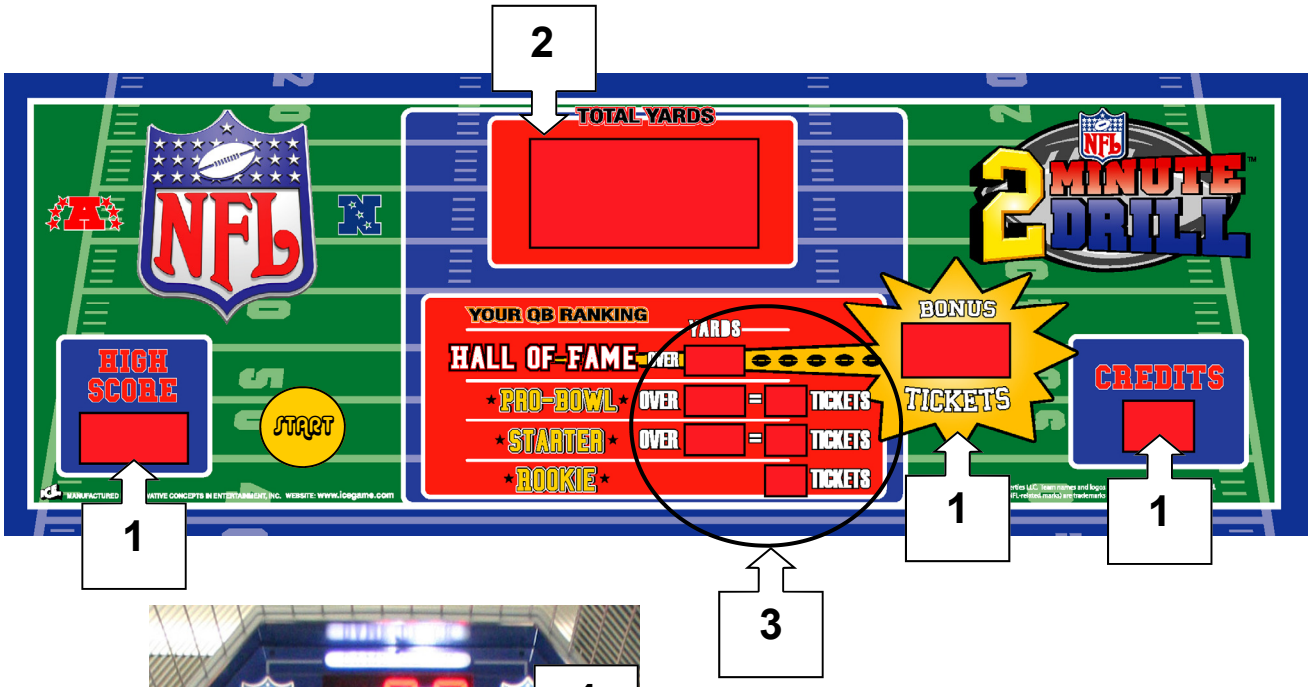
LED Lights

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.



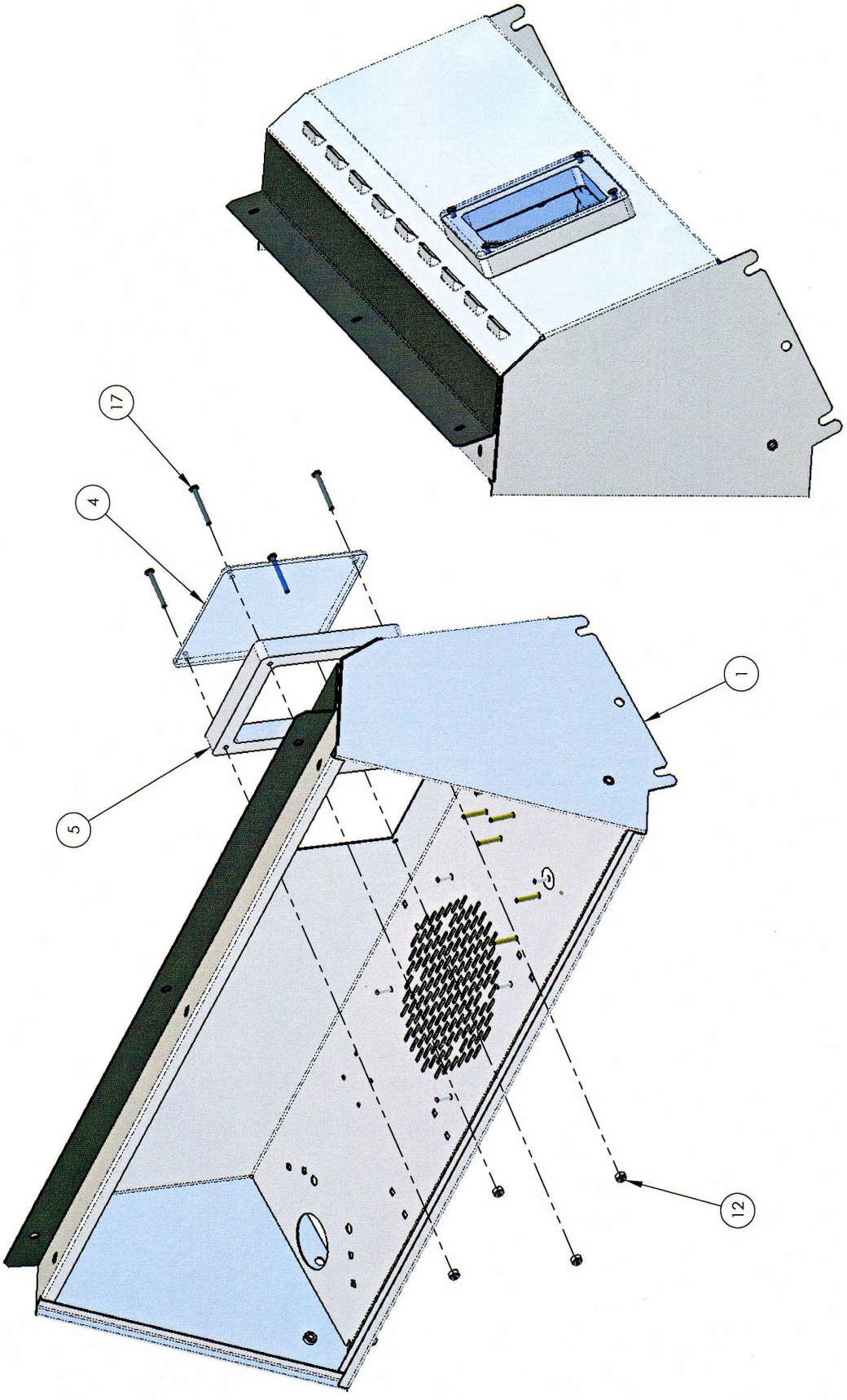
ICE part numbers

[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

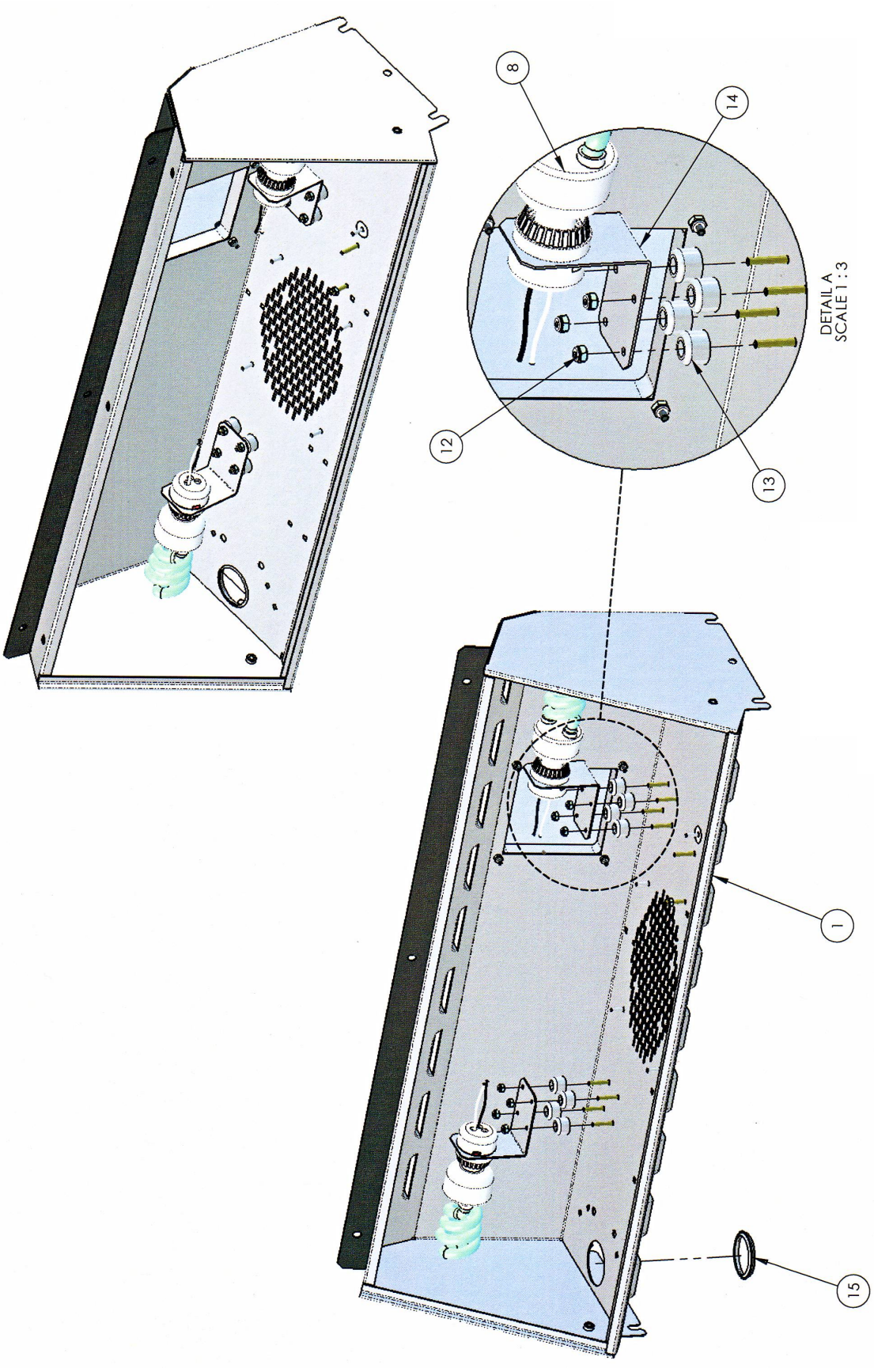
Control Panel Assembly
FB1001X

Maintenance



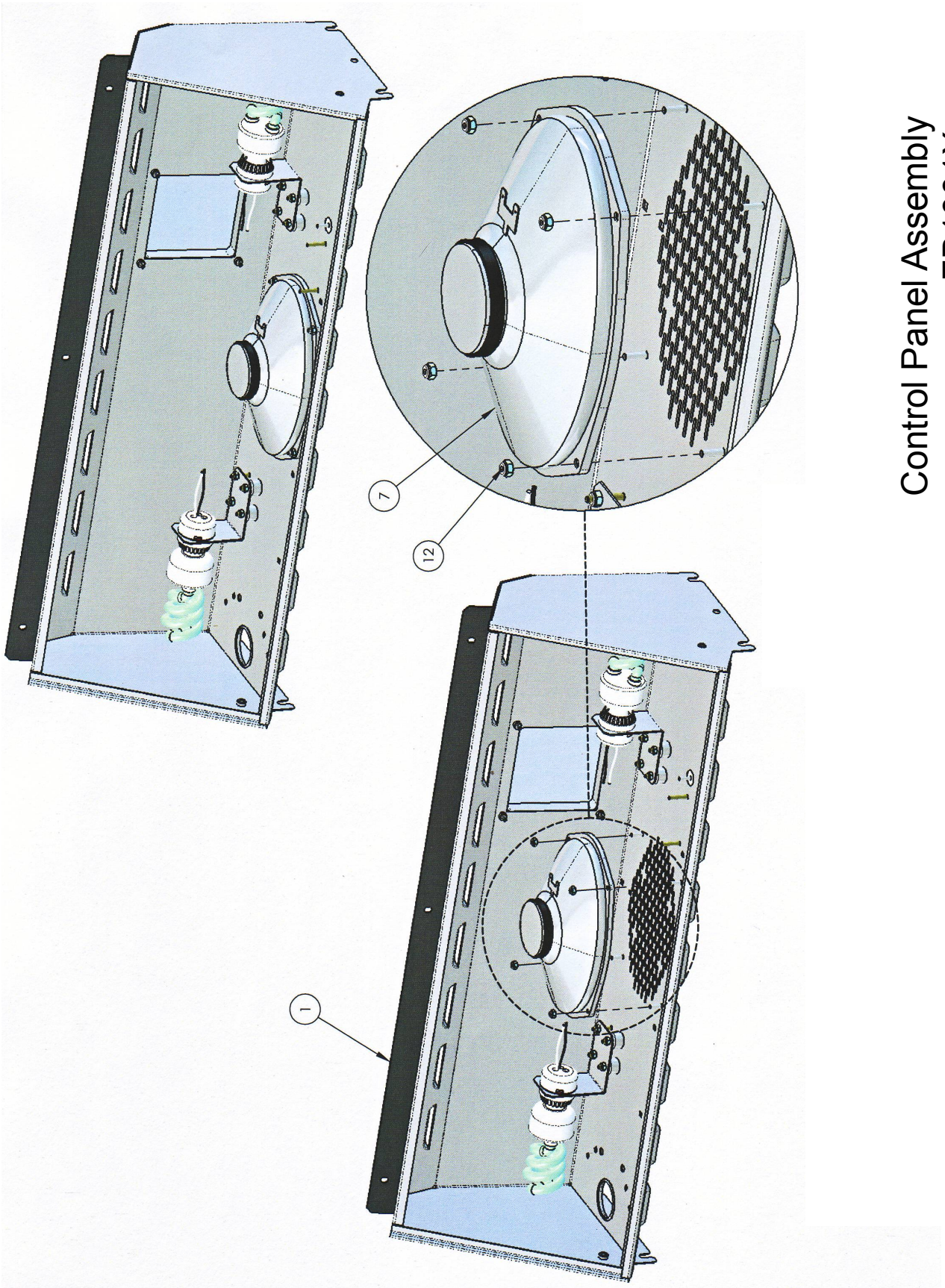
Control Panel Assembly
FB1001X

Maintenance



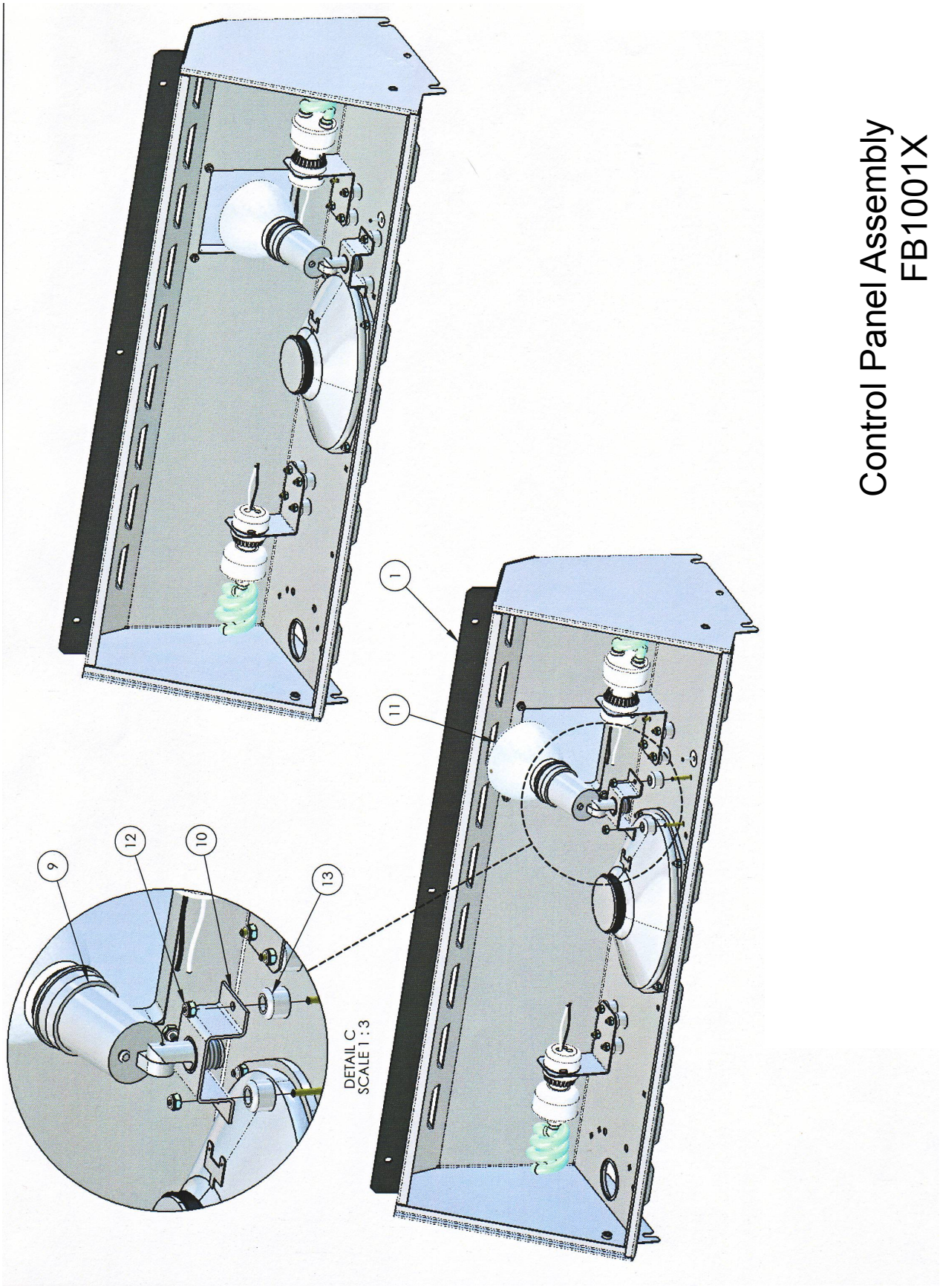
Control Panel Assembly
FB1001X

Maintenance



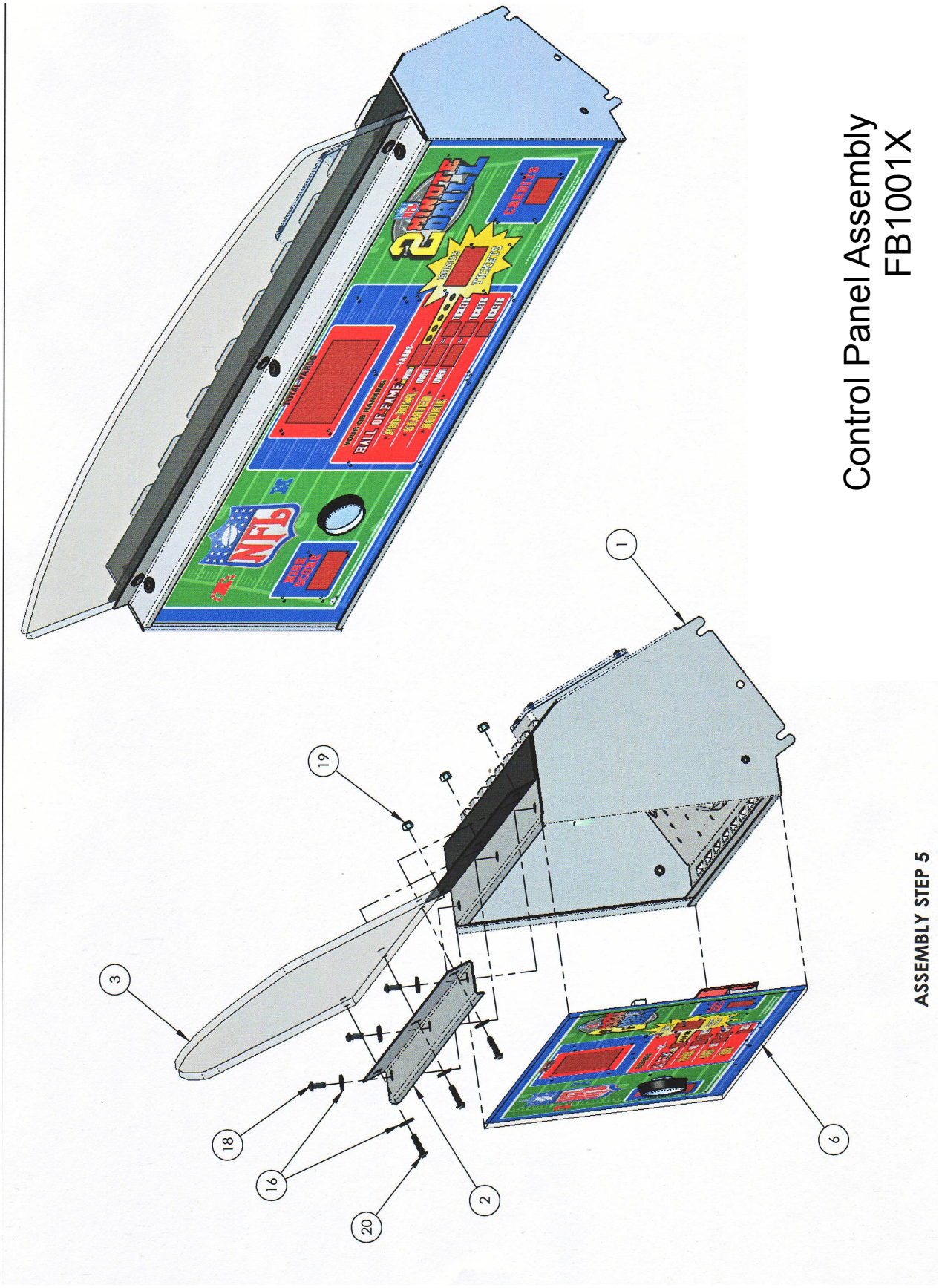
Control Panel Assembly
FB1001X

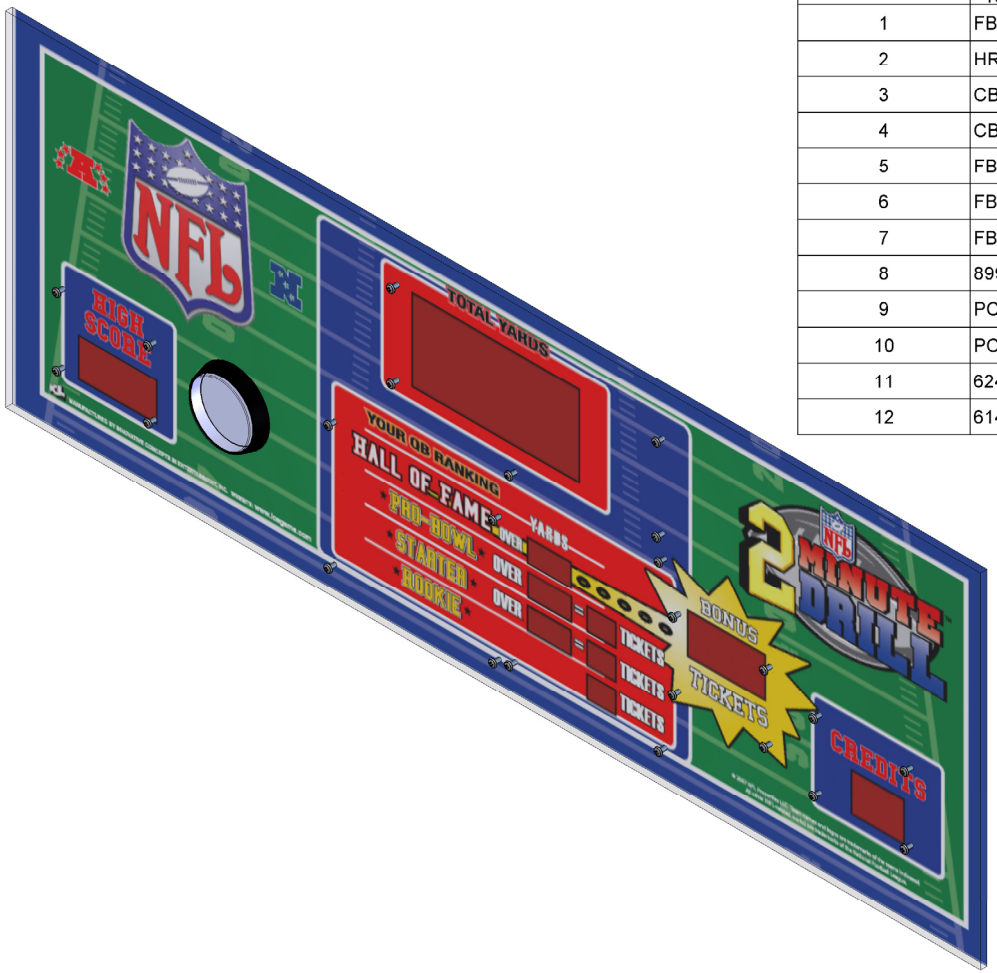
Maintenance



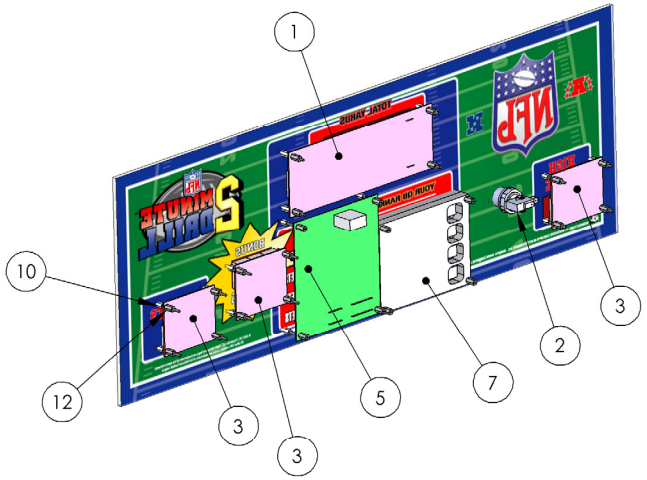
Control Panel Assembly
FB1001X

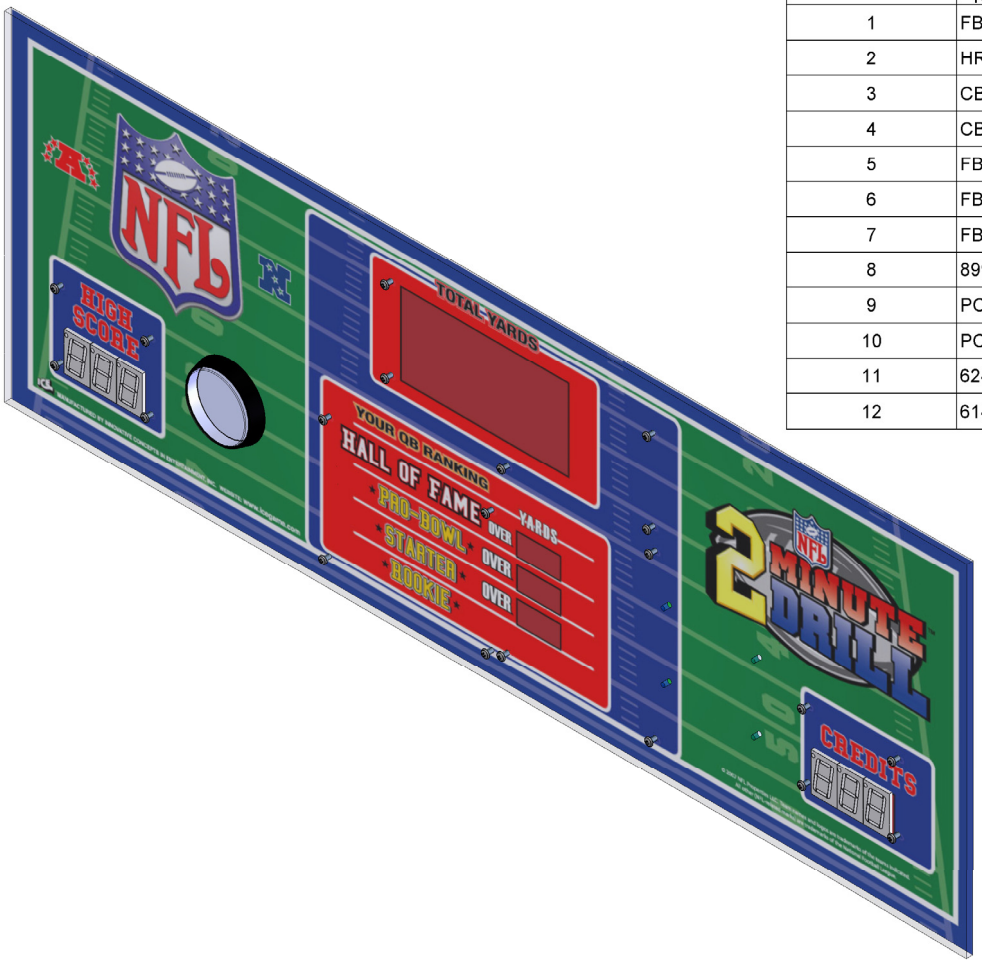
Maintenance



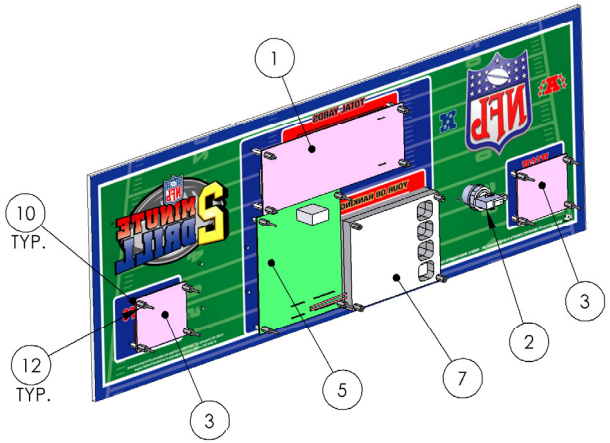


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB7012	CONTROL PANEL-TICKETS	1
2	HR2005	LARGE ROUND BUTTON WITH LIGHT ASY	1
3	CB2232X	PCBA (DISPLAY)	3
4	CB2233X	PCBA (DISPLAY)	1
5	FB2032X	QB RANKING DISPLAY	1
6	FB3012-1	CONTROL PANEL LED BOX BOTTOM	1
7	FB3012-2	CONTROL PANEL LED BOX TOP	1
8	8992FBAX	ASY (CLEAR 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





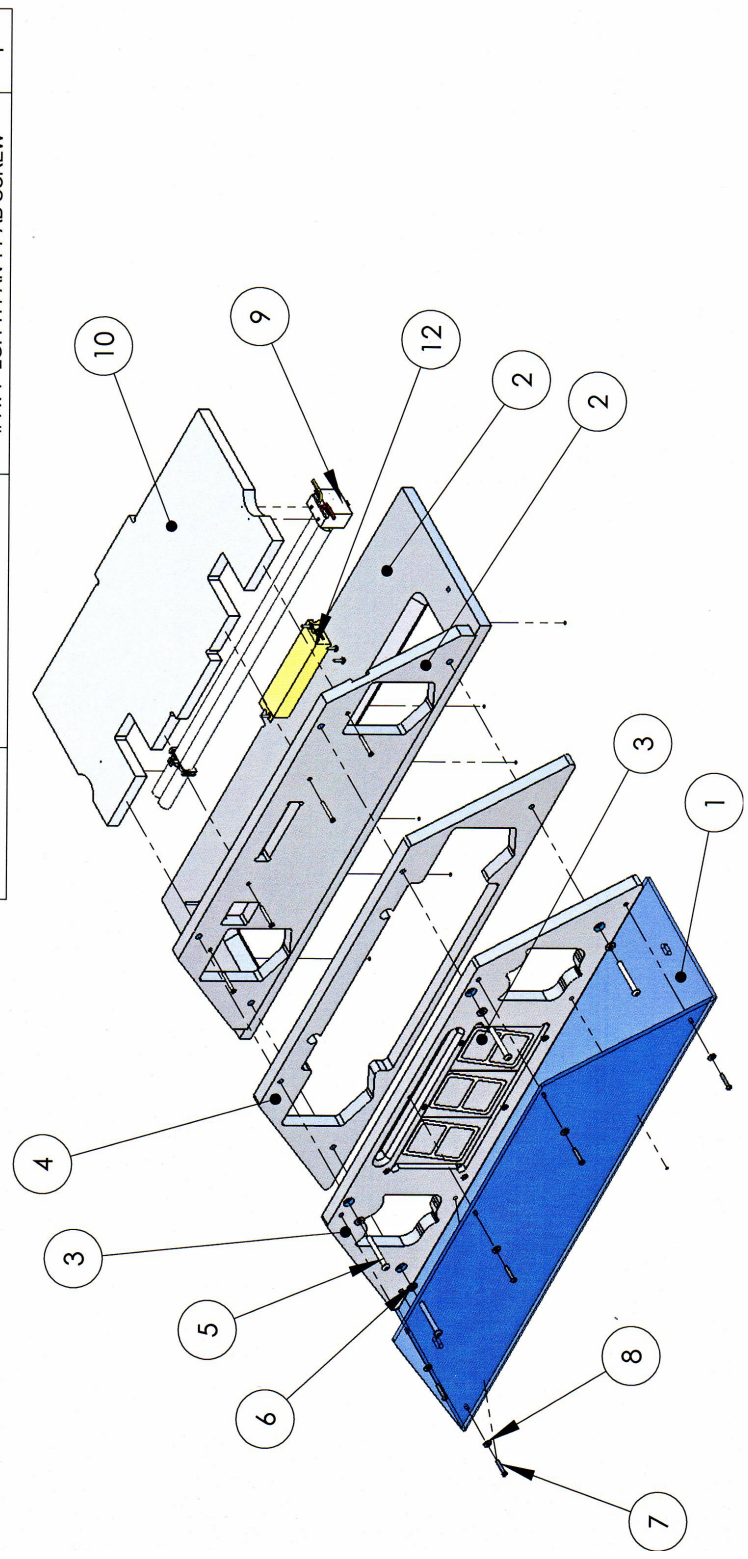
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB7013	CONTROL PANEL	1
2	HR2005	LARGE ROUND BUTTON WITH LIGHT ASY	1
3	CB2232X	PCBA (DISPLAY)	2
4	CB2233X	PCBA (DISPLAY)	1
5	FB2032X	QB RANKING DISPLAY	1
6	FB3012-1	CONTROL PANEL LED BOX BOTTOM	1
7	FB3012-2	CONTROL PANEL LED BOX TOP	1
8	8992FBAX	ASY (CLEAR LED STRIP) 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

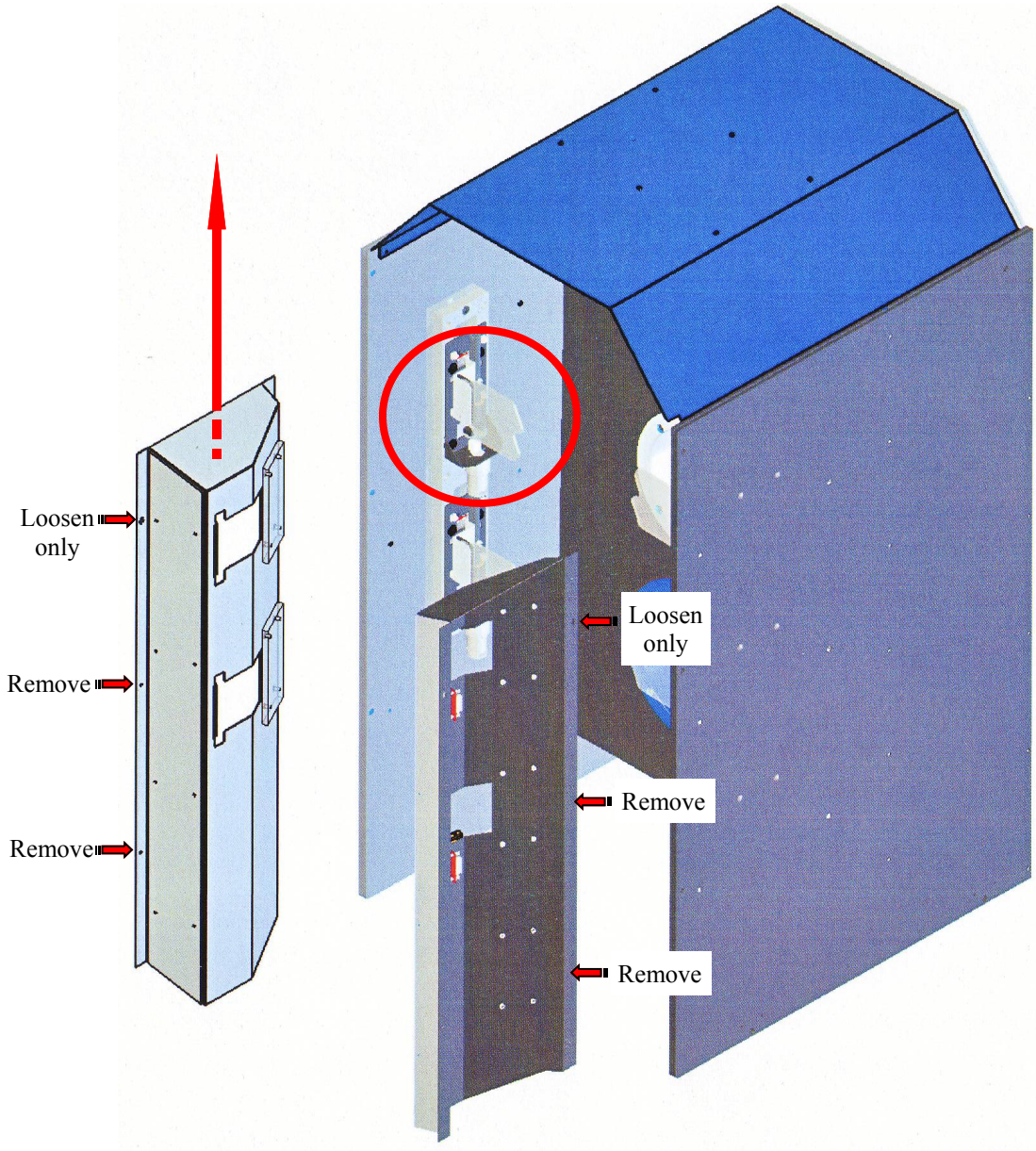
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB7029	MARQUEE WINDOW	1
2	FB3079CX	LIGHT BOX ASSEMBLY	1
3	FB3091X	TIME DISPLAY ASSEMBLY	1
4	FB3098	TIME DISPLAY SPACER PANEL	1
5	6261	1/4-20 x 2 1/4 BSHCS (SS)	4
6	6430	#10 FLAT WASHER, BLACK (1/4-20)	4
7	6238	BHCS, #8-32 x 1" LG. (BLACK OXIDE)	6
8	6240	#8 USS 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

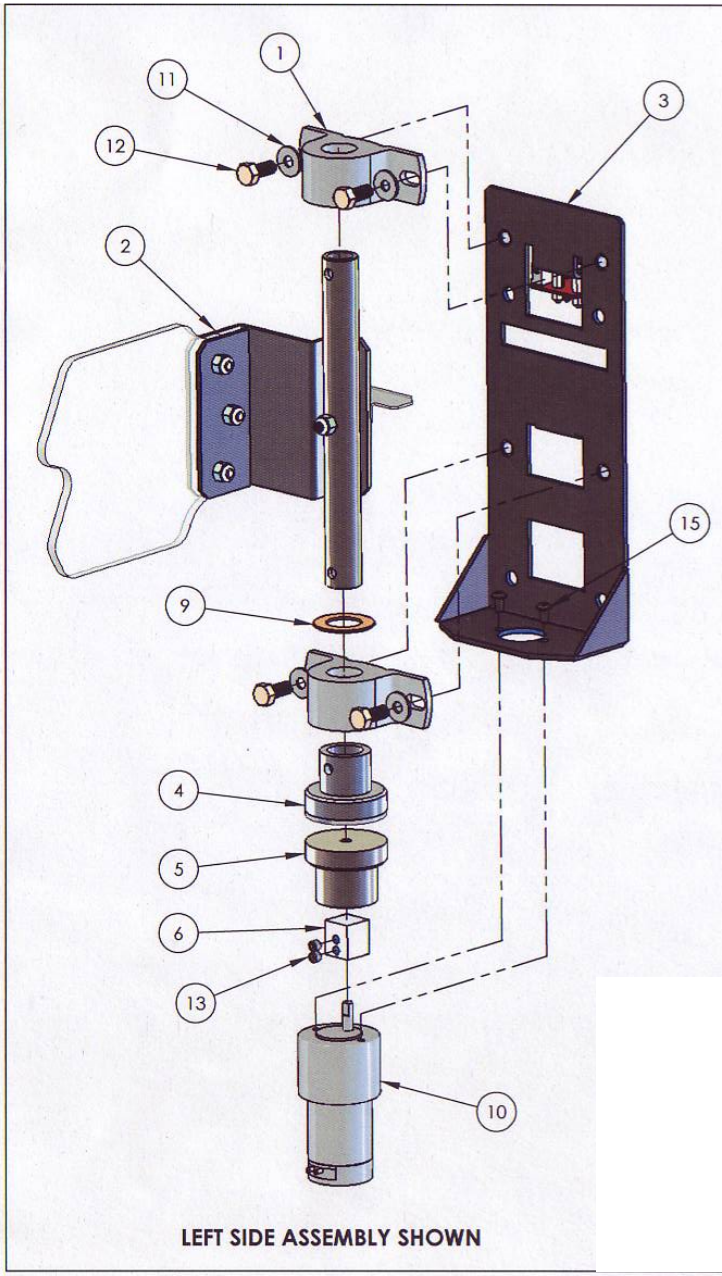


Maintenance

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.



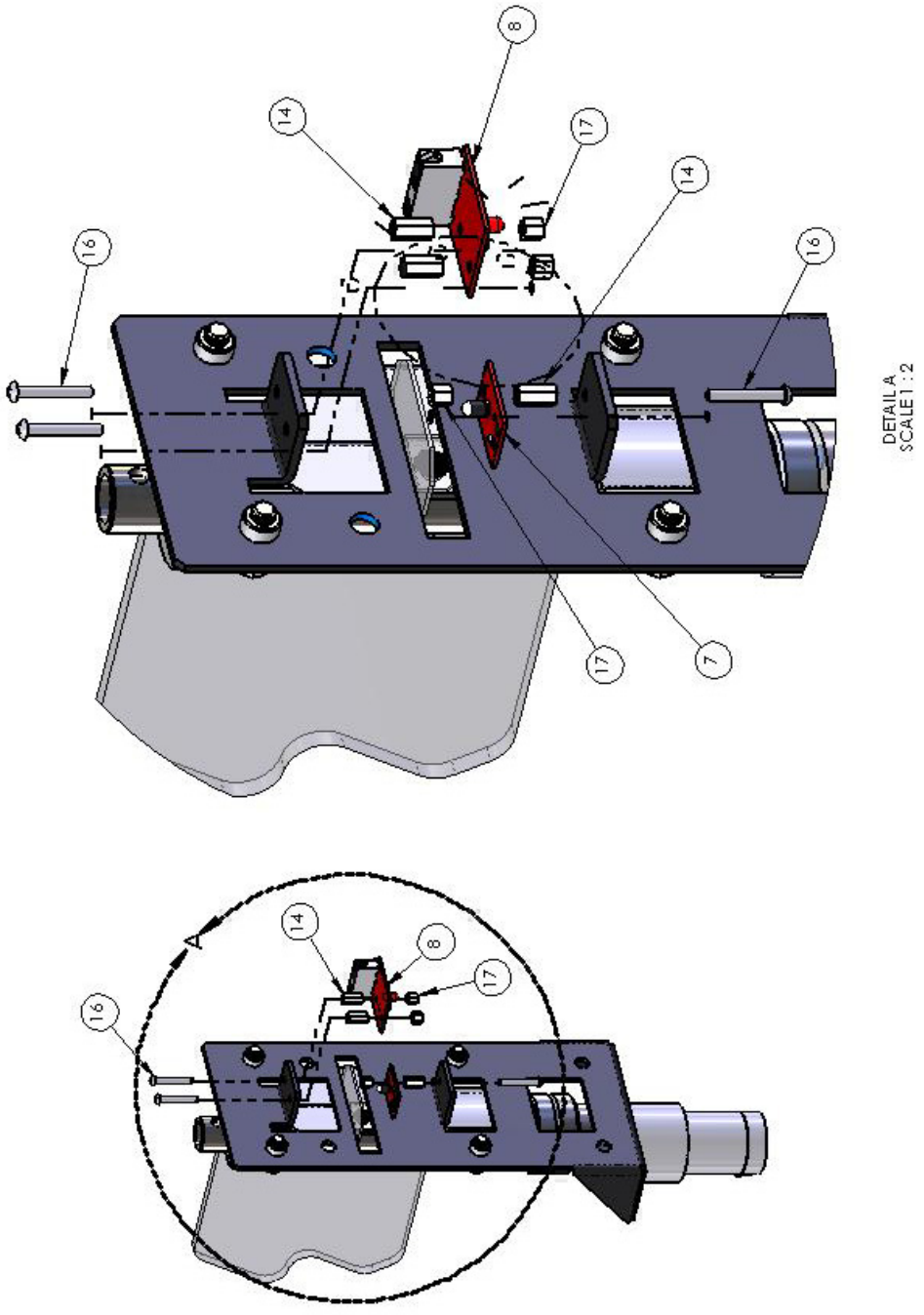


LEFT SIDE ASSEMBLY SHOWN

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)

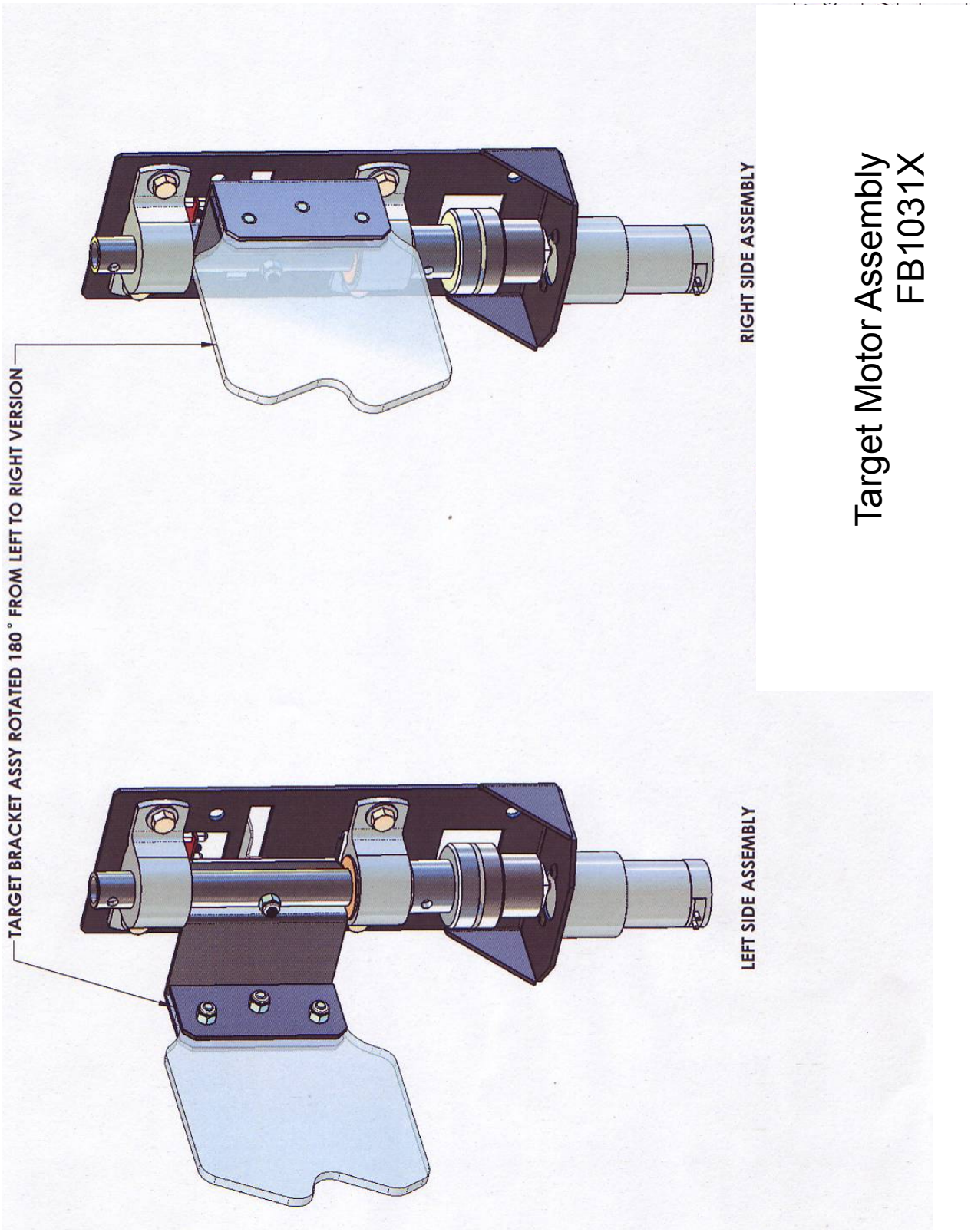
Maintenance



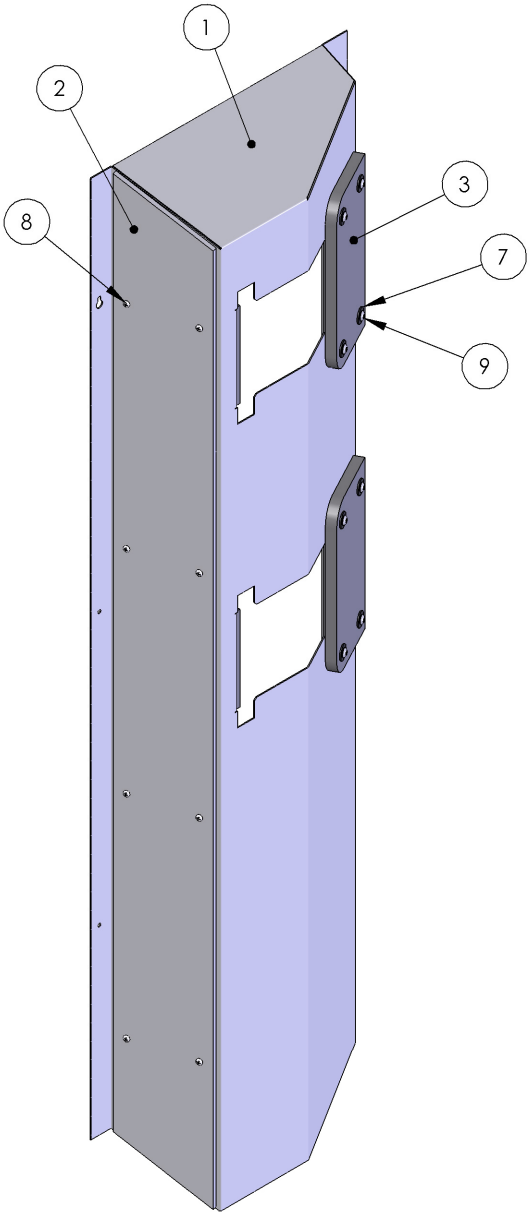
Target Motor Assembly
FB1031X

LEFT SIDE ASSEMBLY SHOWN

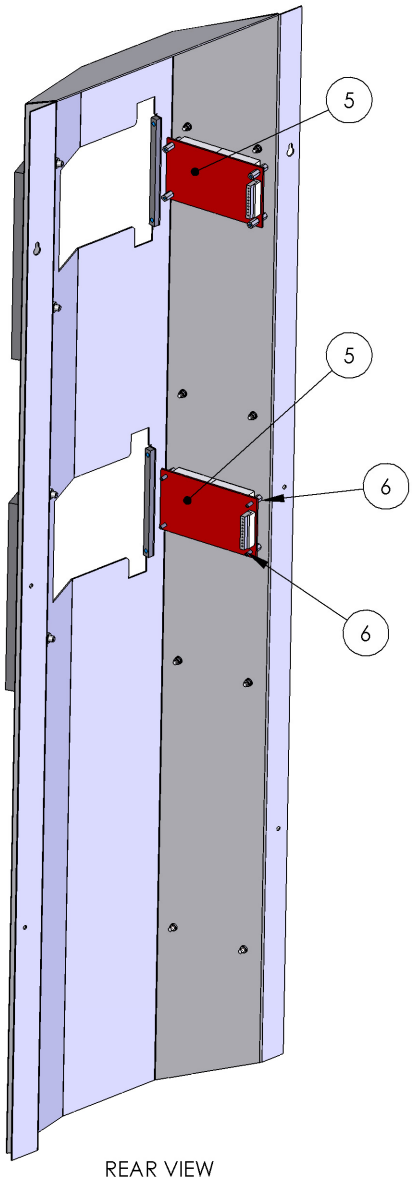
Maintenance



Target Motor Assembly
FB1031X



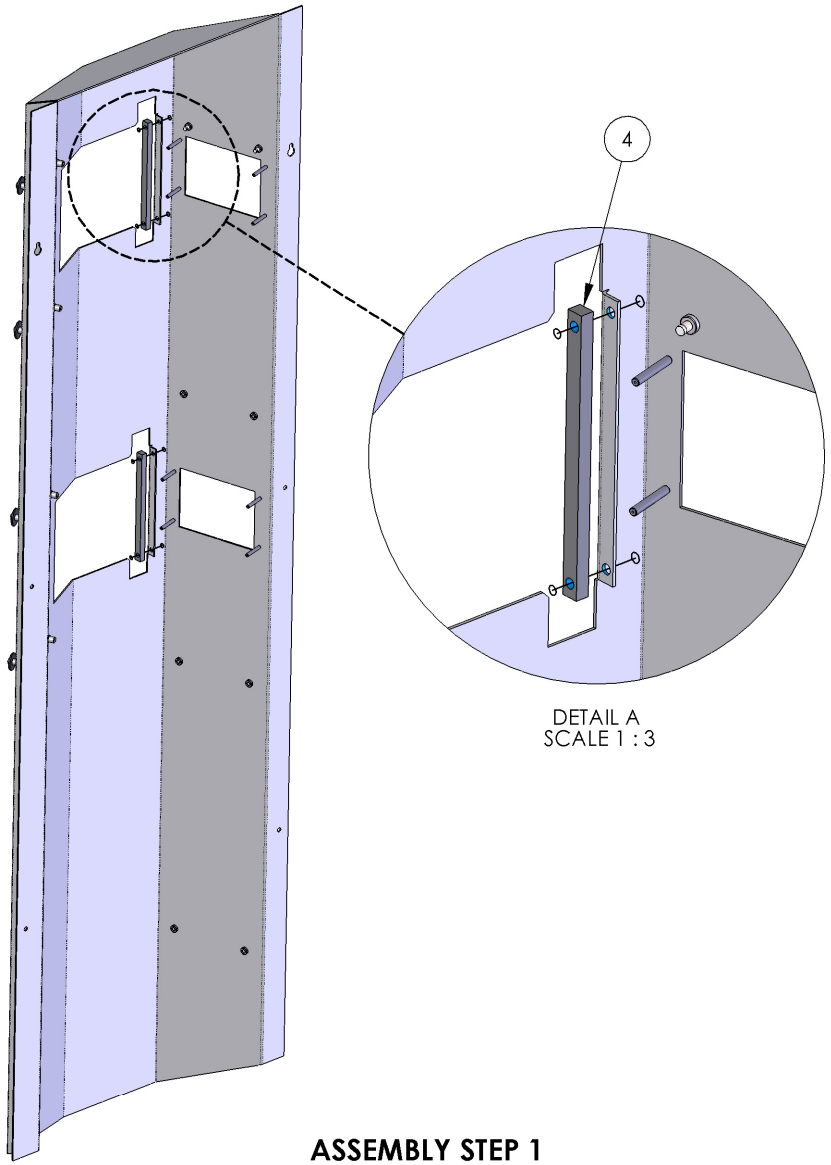
FRONT VIEW



REAR VIEW

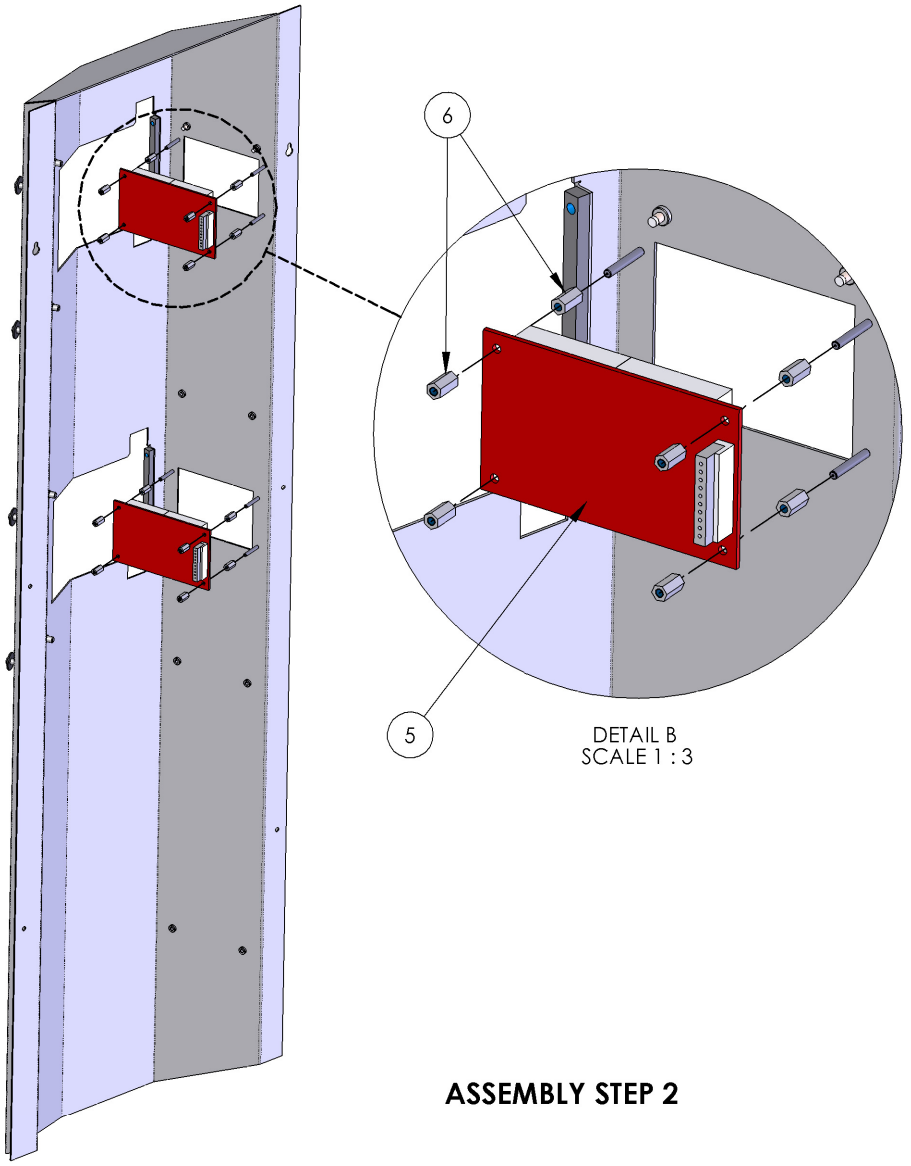
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB1016	TARGET COVER LEFT/RIGHT	1
2	FB3014	DISPLAY STRIP LEFT/RIGHT	1
3	FB4005	TARGET COVER SPACER	2
4	FB4006	TARGET SMALL PADDING	2
5	DA2133X	PCBA (SMALL DISPLAY, BRIGHT)	2
6	6446	8-32 x 1/2 HH SPACER	16
7	6212	1/4 x 3/4 FLAT WASHER BLACK (USS)	8
8	6320	8-32 X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



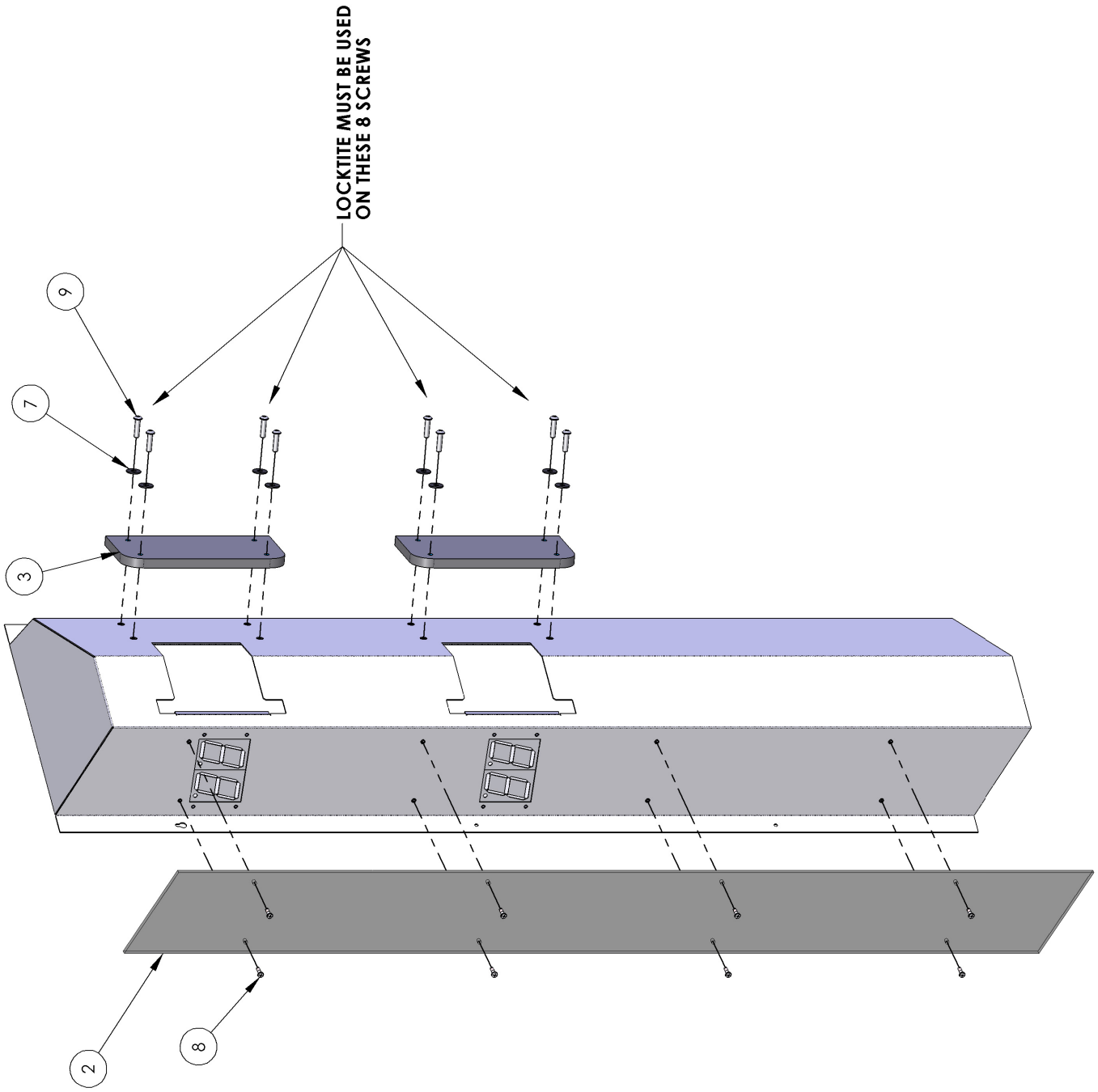
DETAIL A
SCALE 1 : 3

ASSEMBLY STEP 1



DETAIL B
SCALE 1 : 3

ASSEMBLY STEP 2

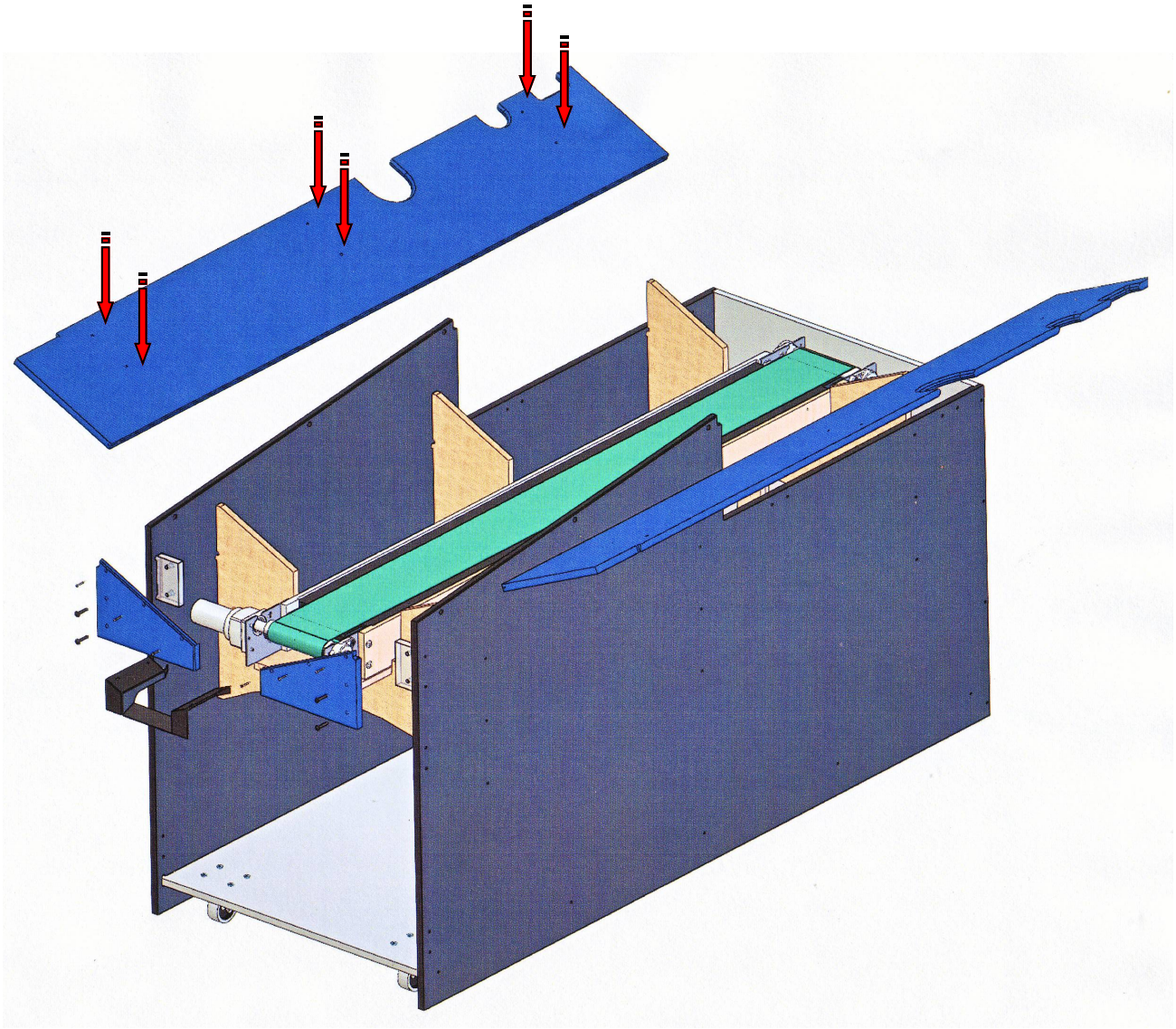


ASSEMBLY STEP 3

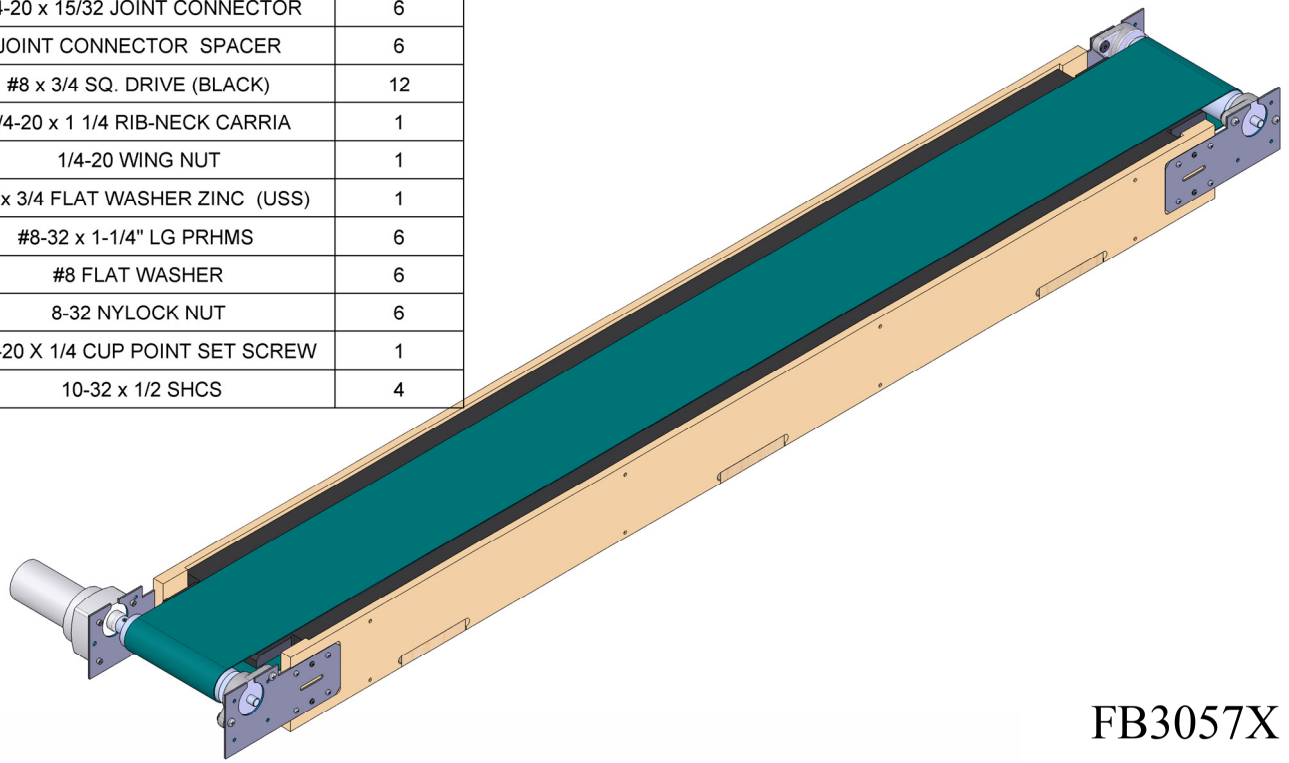
Maintenance

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.

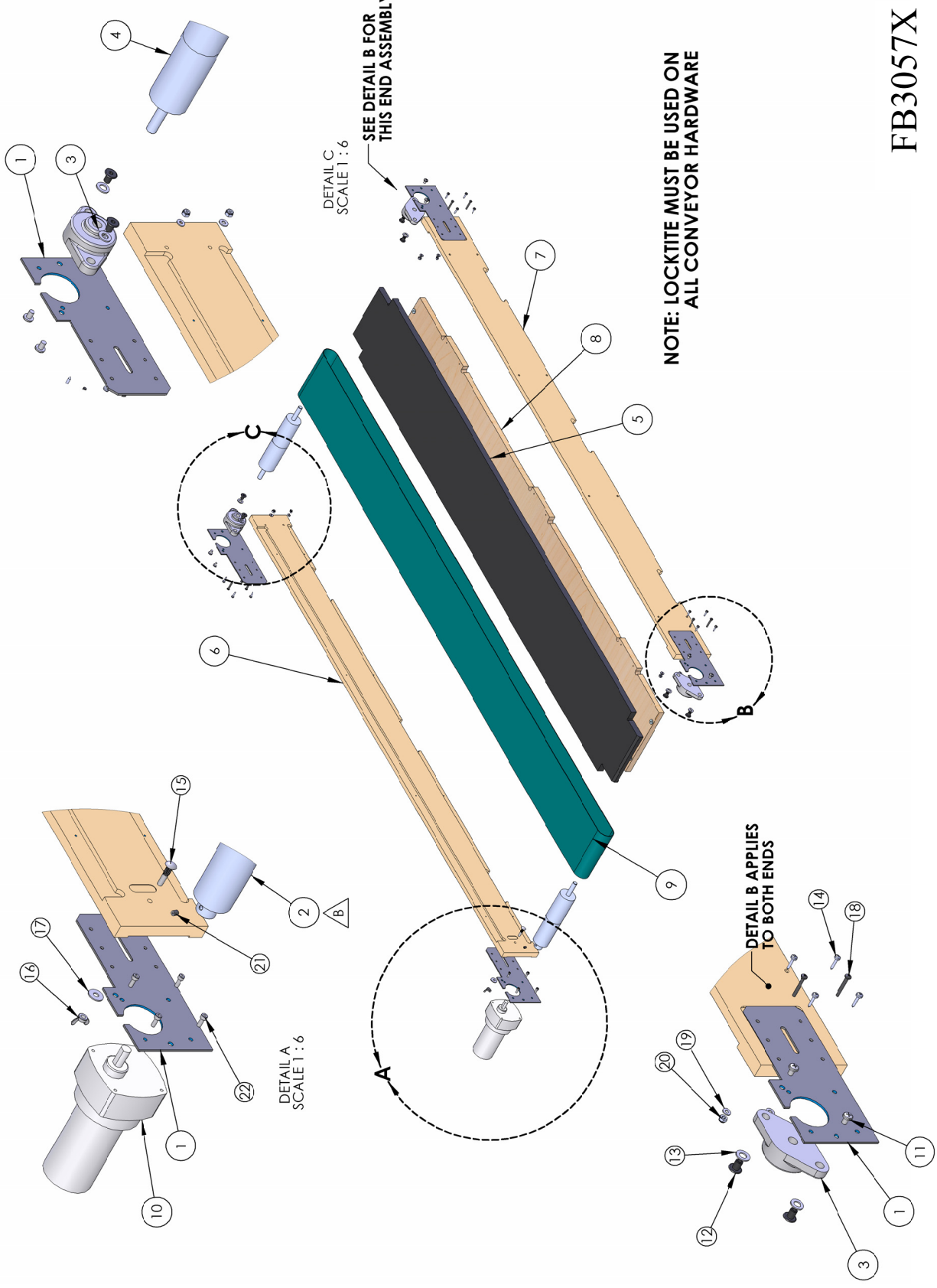


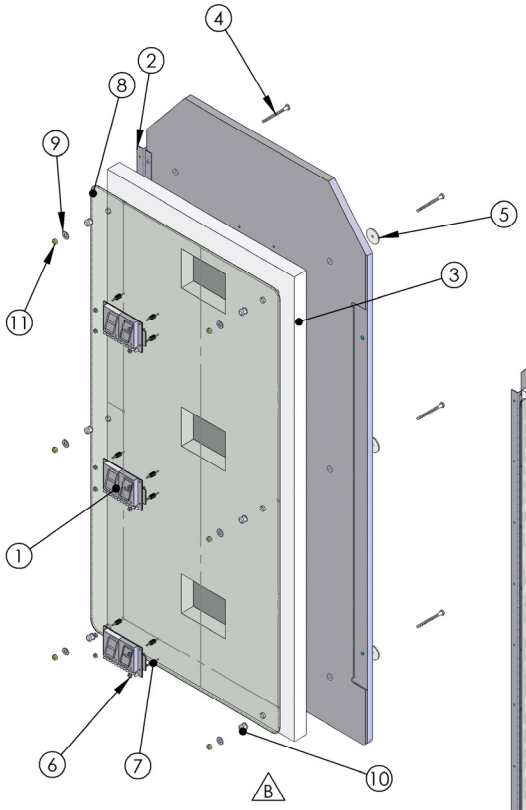
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB1035	CONVEYOR BRACKET	4
2	FB1057	CONVEYOR HEAD ROLLER	1
3	FB1058	BEARING (CONVEYOR ROLLER)	3
4	FB1062	CONVEYOR TAIL ROLLER	1
5	FB3057	CONVEYOR BED	1
6	FB3063	CONVEYOR LEFT SIDE	1
7	FB3064	CONVEYOR RIGHT SIDE	1
8	FB3065CX	CONVEYOR BOTTOM ASSEMBLY	1
9	FB4001	CONVEYOR 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

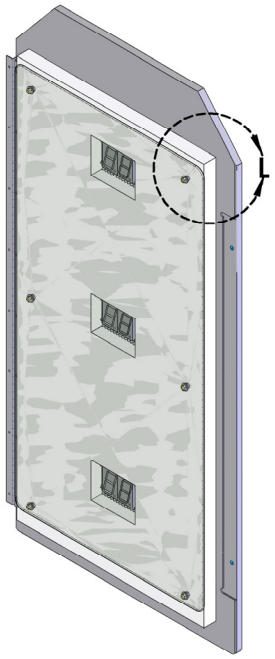


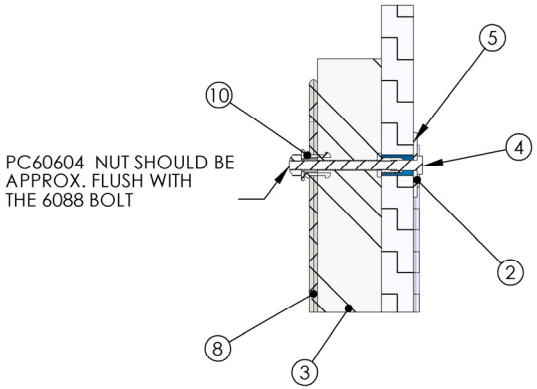
FB3057X

Maintenance

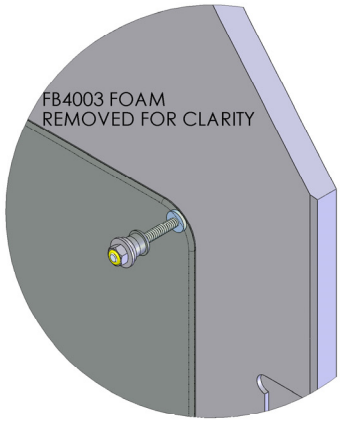








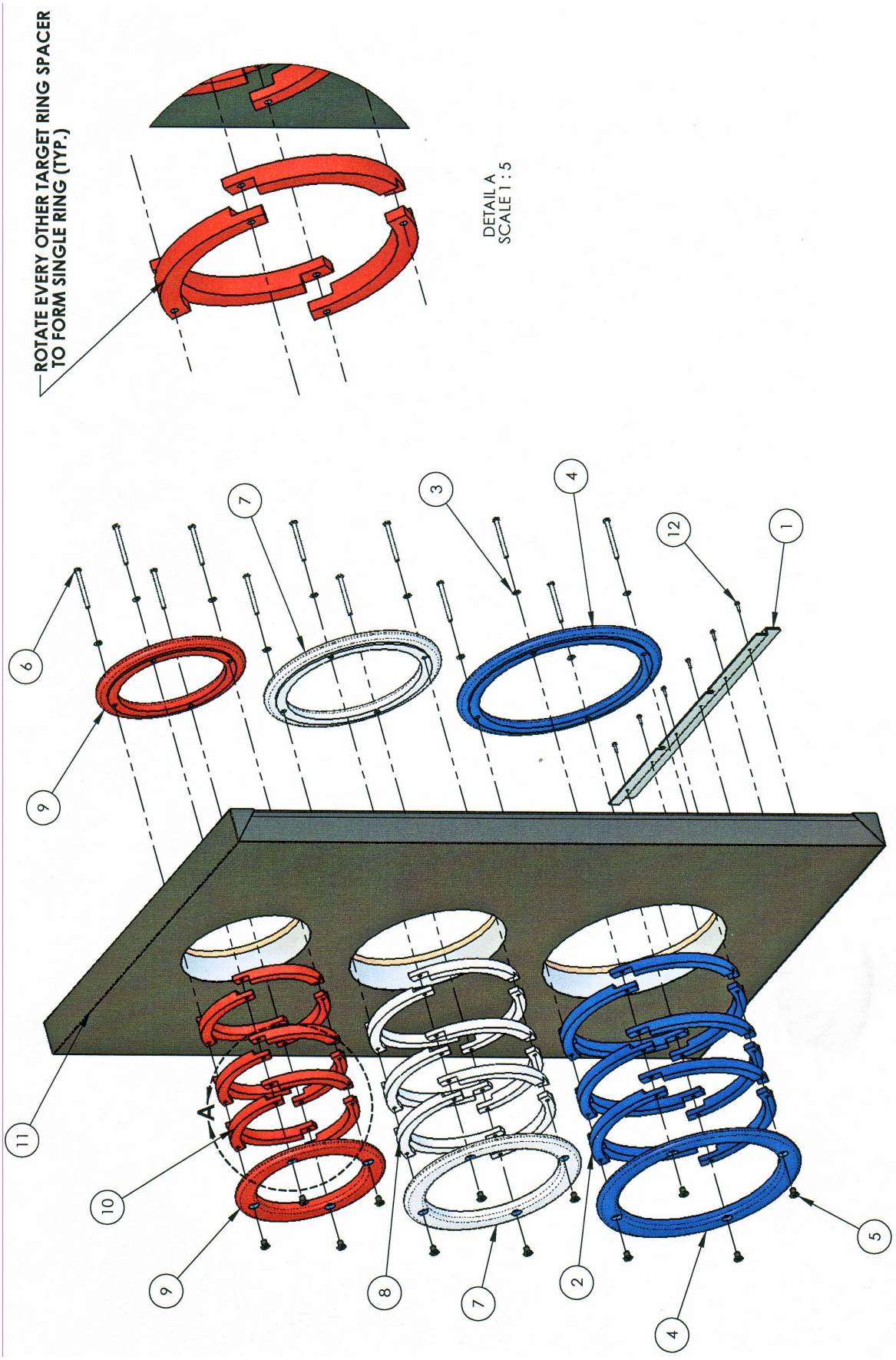
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FB2035X	DISPLAY BOARD	3
2	FB3081CX	REAR ACCESS PANEL, HINGE ASSY	1
3	FB4003	REAR DOOR FOAM PAD	1
4	6088	1/4-20 X 3" HH FT BOLT	6
5	6070	1/4 x 1-1/2 OD F-WASHER	6
6	6004a	8-32 KEP NUT	12
7	6457	SHOCK MOUNT 8-32 (THD BOTH ENDS)	12
8	FB3101	REAR DOOR DISPLAY COVER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



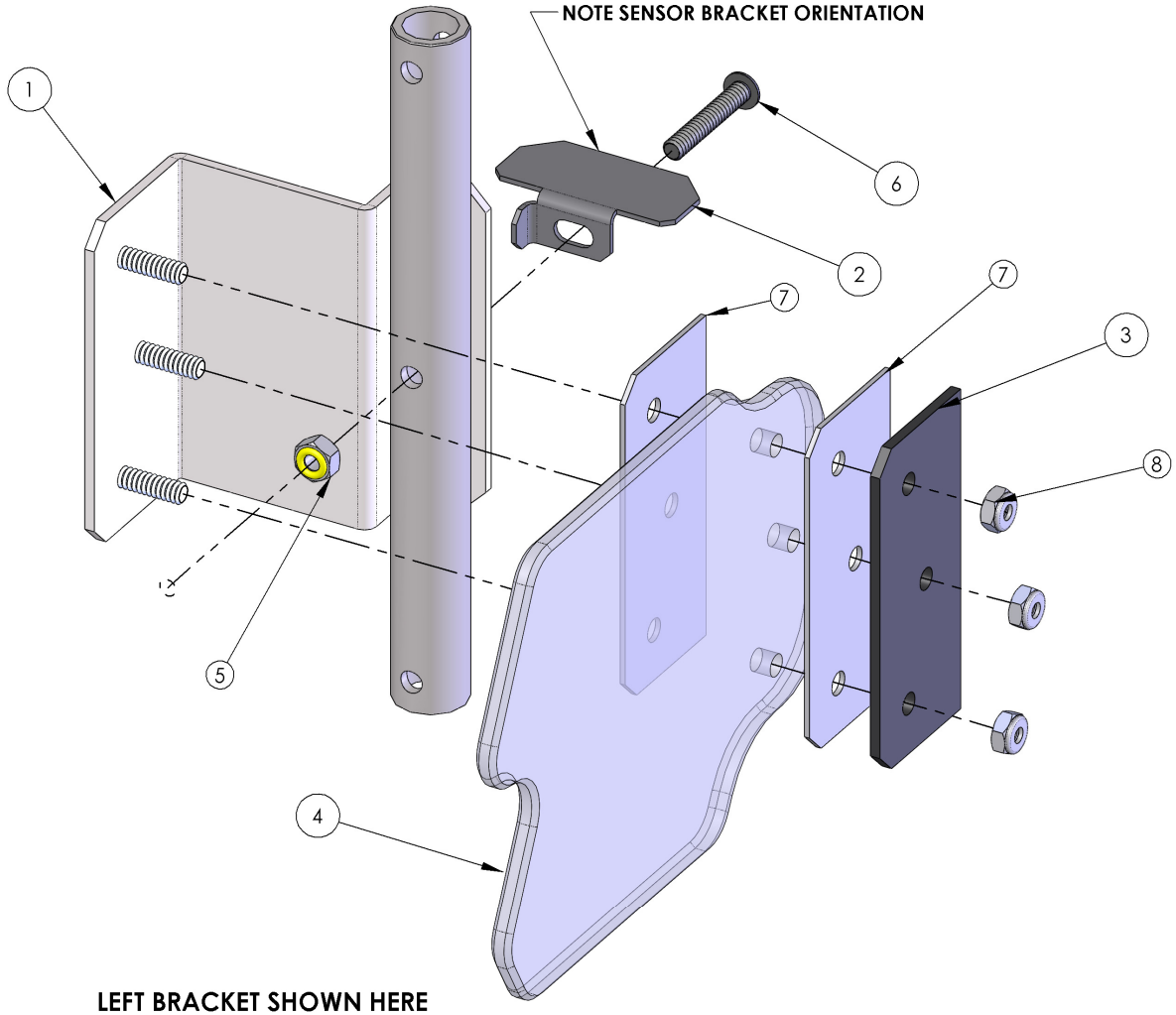
Maintenance

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

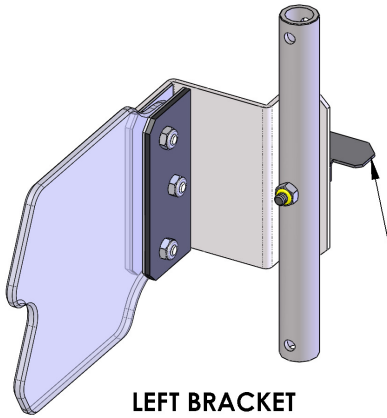
Maintenance



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

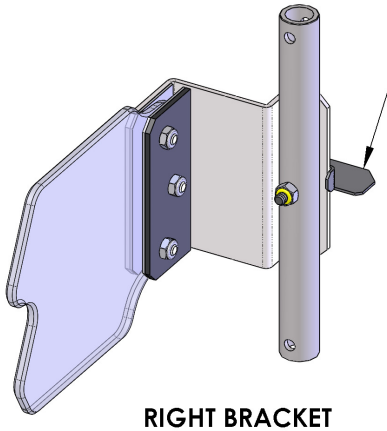


LEFT BRACKET SHOWN HERE

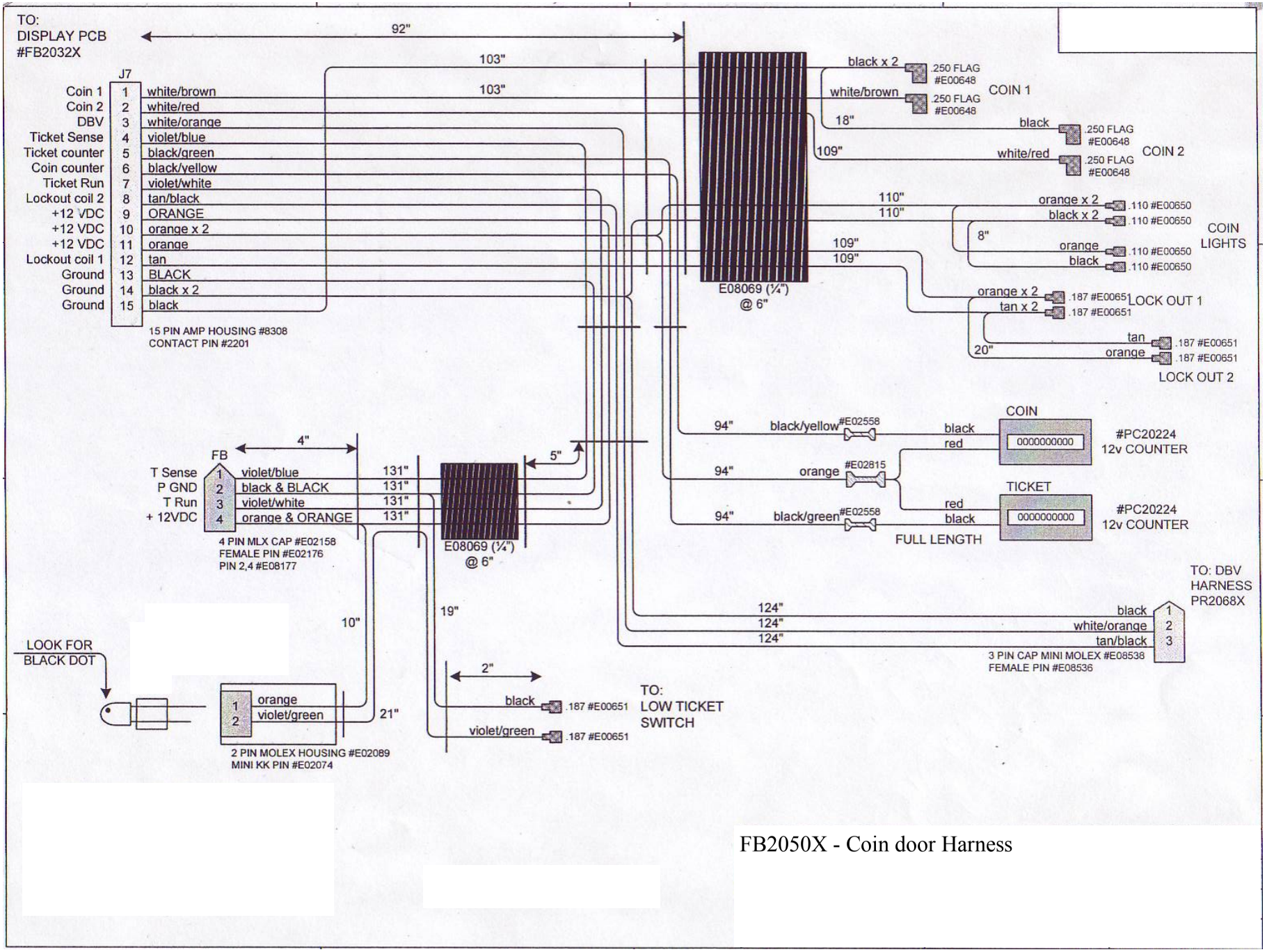


LEFT BRACKET

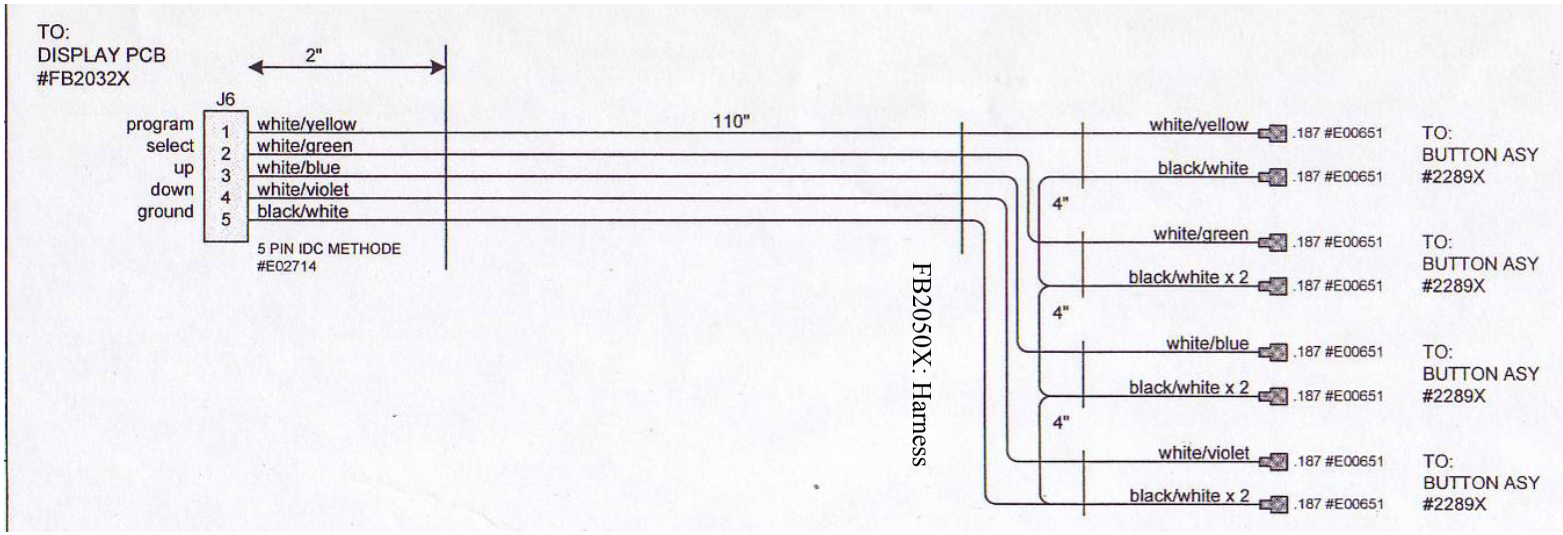
THE ONLY DIFFERENCE BETWEEN THE LEFT & RIGHT TARGET BRACKET IS THE SENSOR BRACKET IS ROTATED 180° FOR RIGHT BRACKET

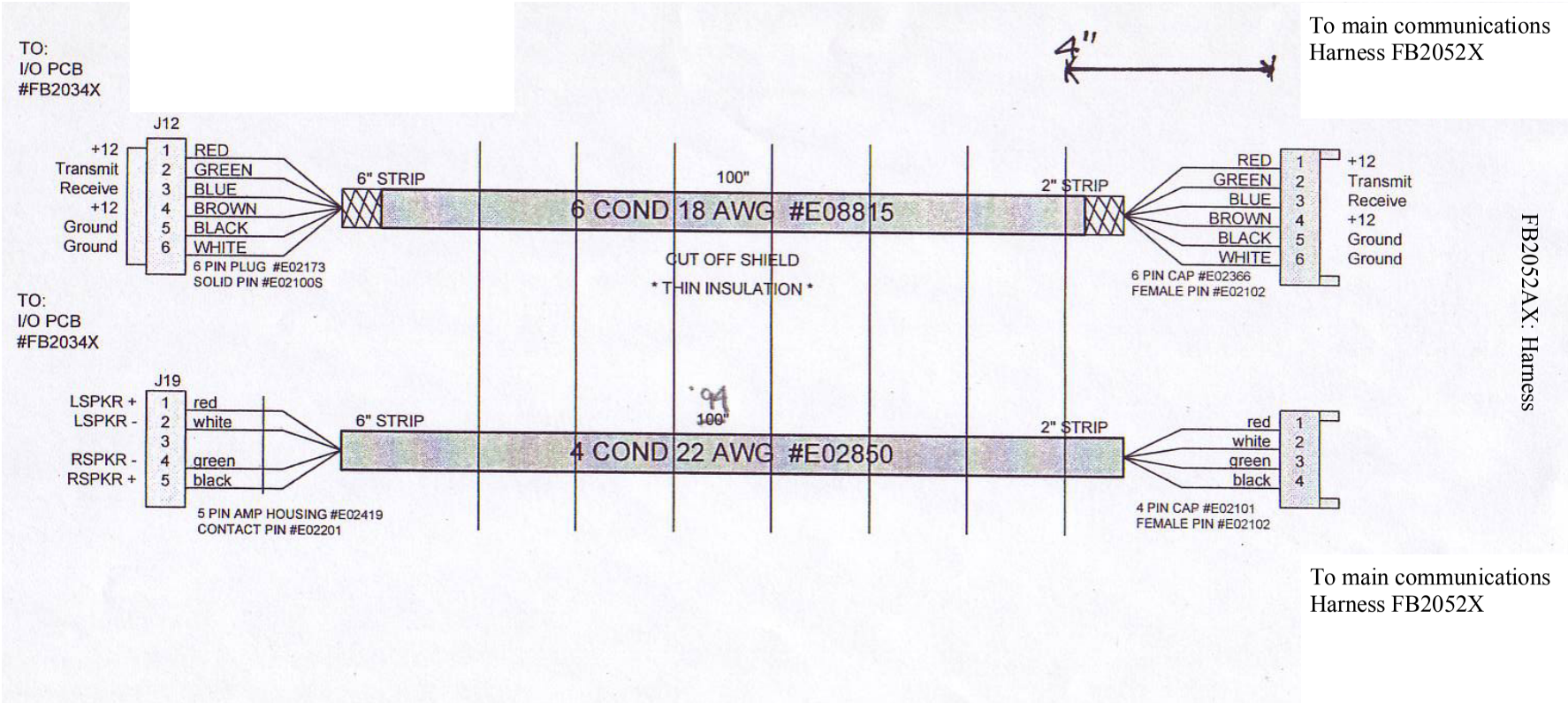


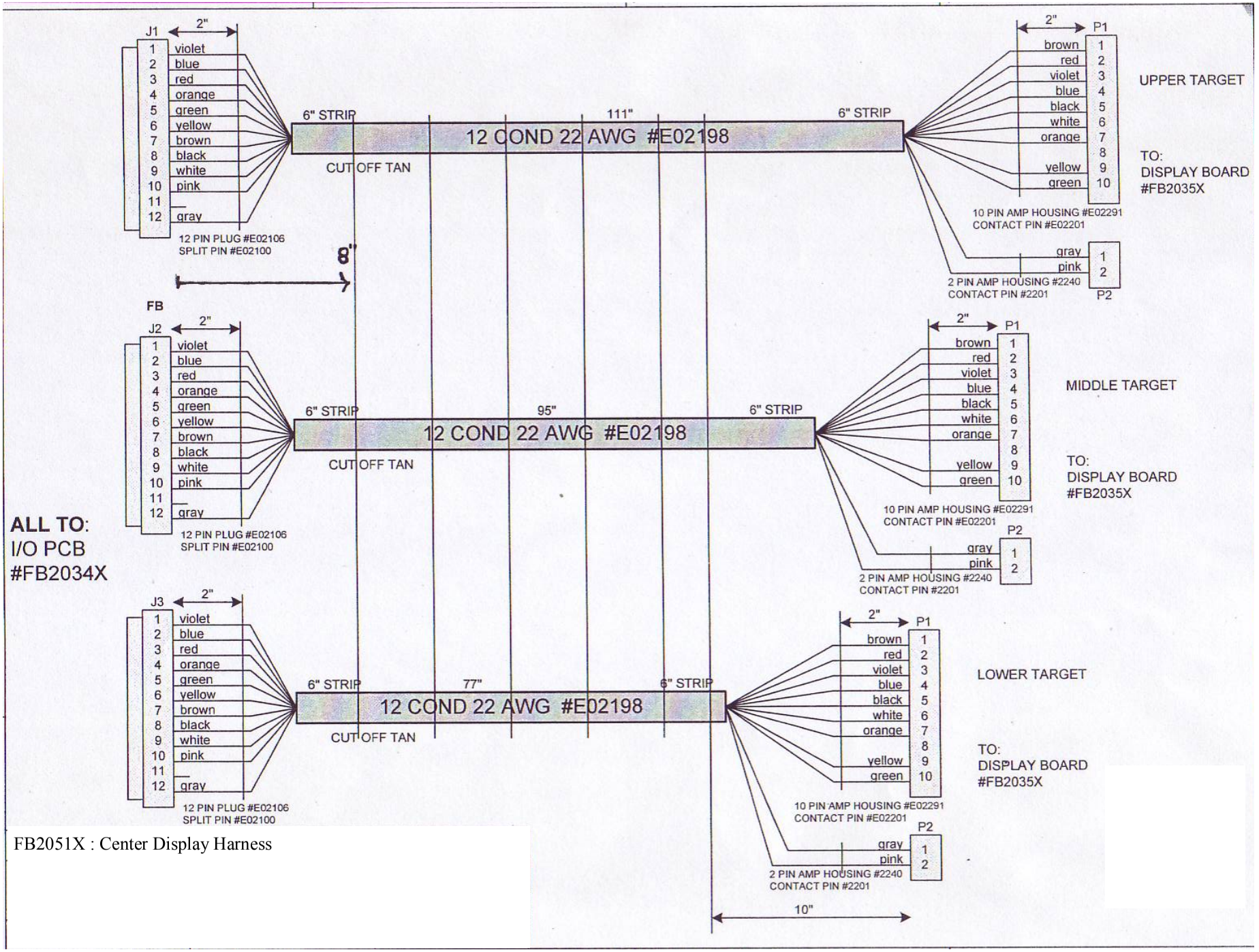
RIGHT BRACKET



FB2050X - Coin door Harness

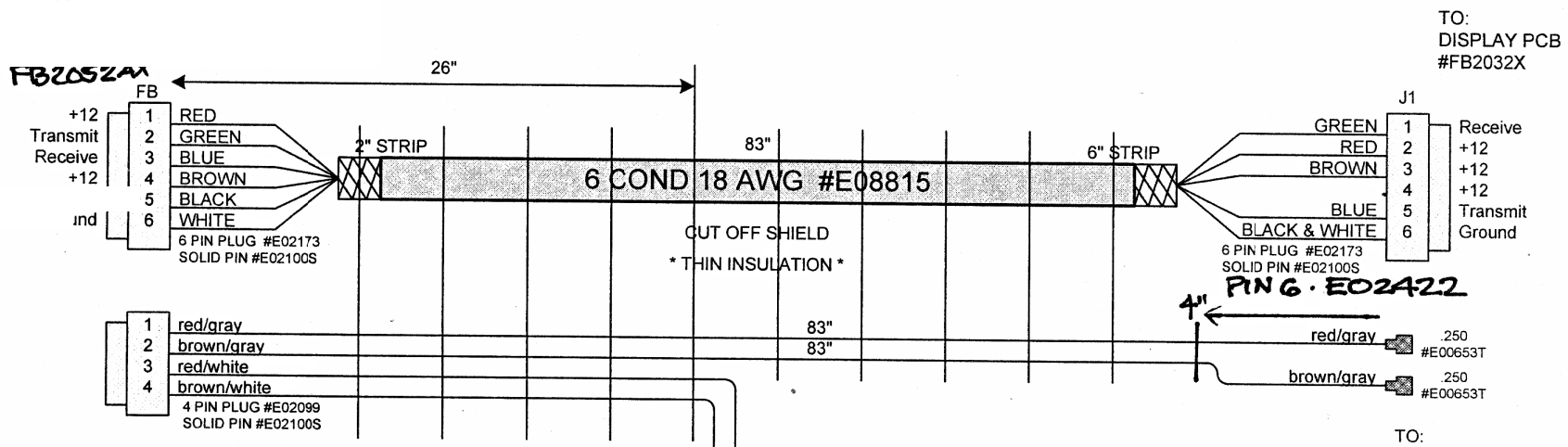

TO:
DISPLAY PCB
#FB2032X
2"
J6
program
select
up
down
ground
1 white/yellow
2 white/green
3 white/blue
4 white/violet
5 black/white
5 PIN IDC METHODE
#E02714
110"
FB2050X: Harness
white/yellow .187 #E00651
black/white .187 #E00651
4"
white/green .187 #E00651
black/white x 2 .187 #E00651
4"
white/blue .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:
I/O PCB
#FB2034X
4"
To main communications
Harness FB2052X
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

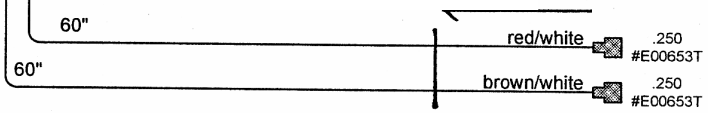


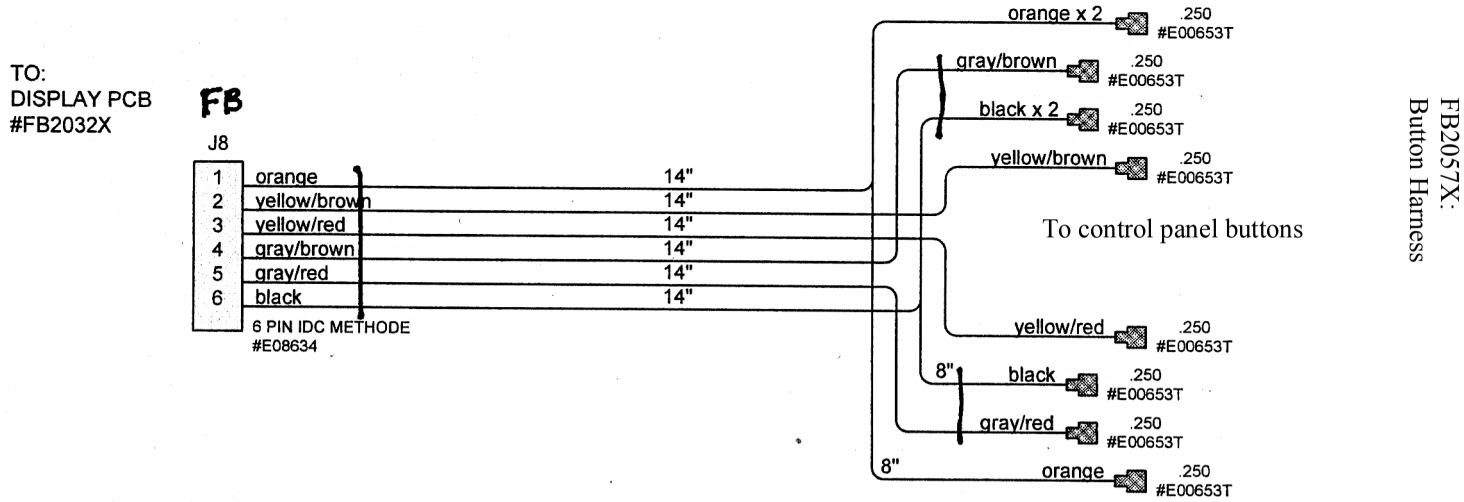
To main communications extension
FB2052AX

TO:
CONTROL PANEL
SPEAKER
#AR2007

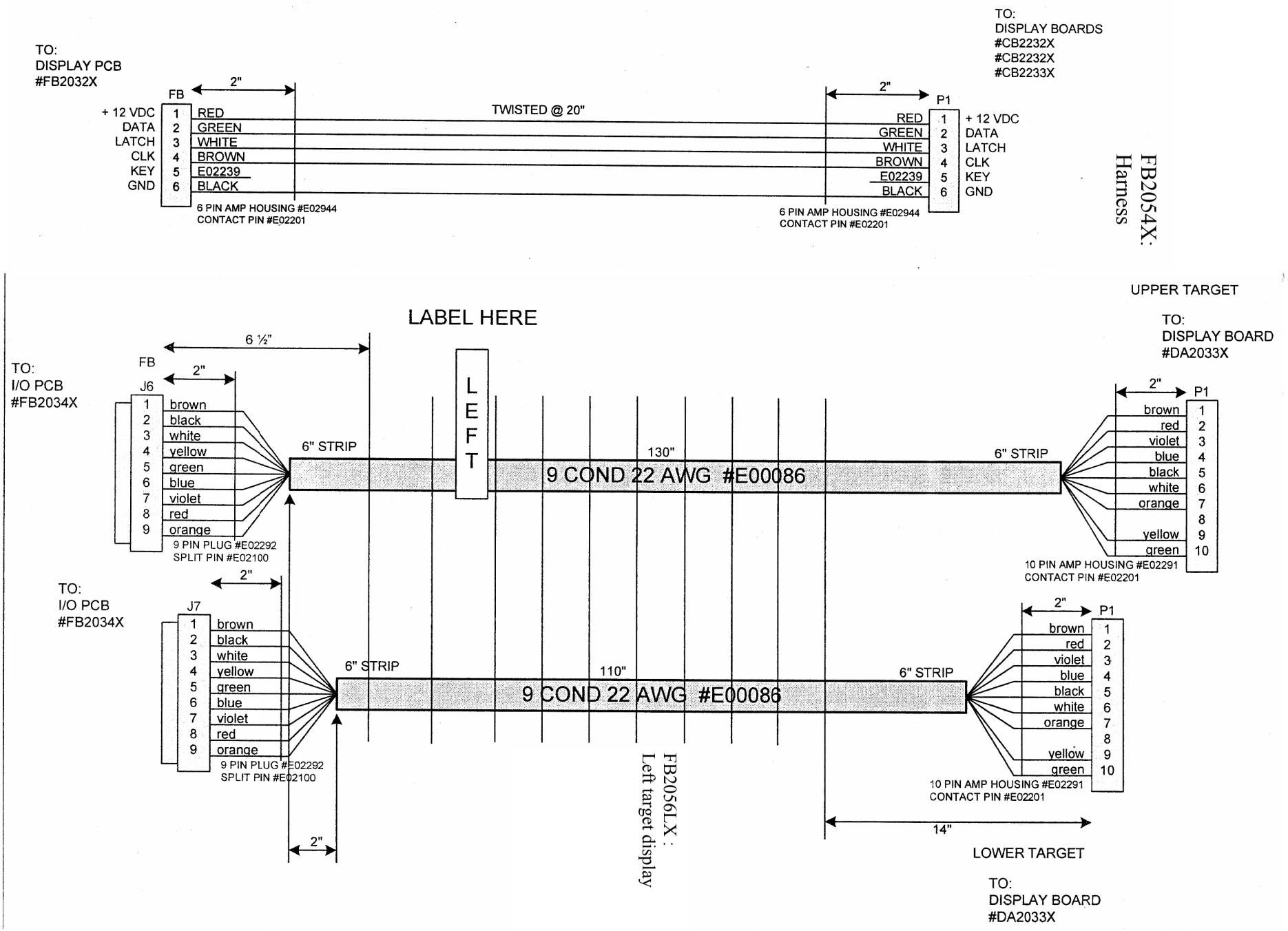
FB2052X : Harness

TO:
FRONT SPEAKER
#AR2007

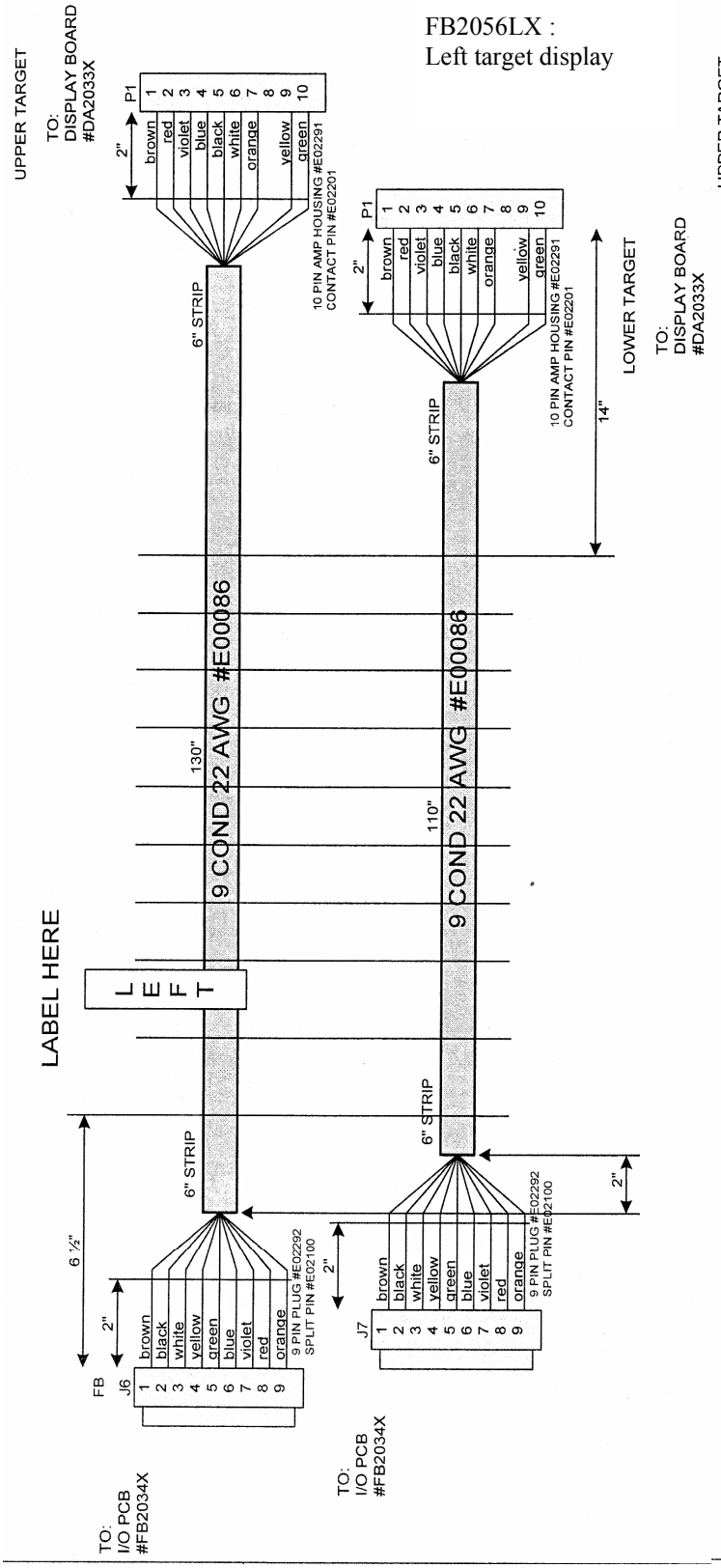




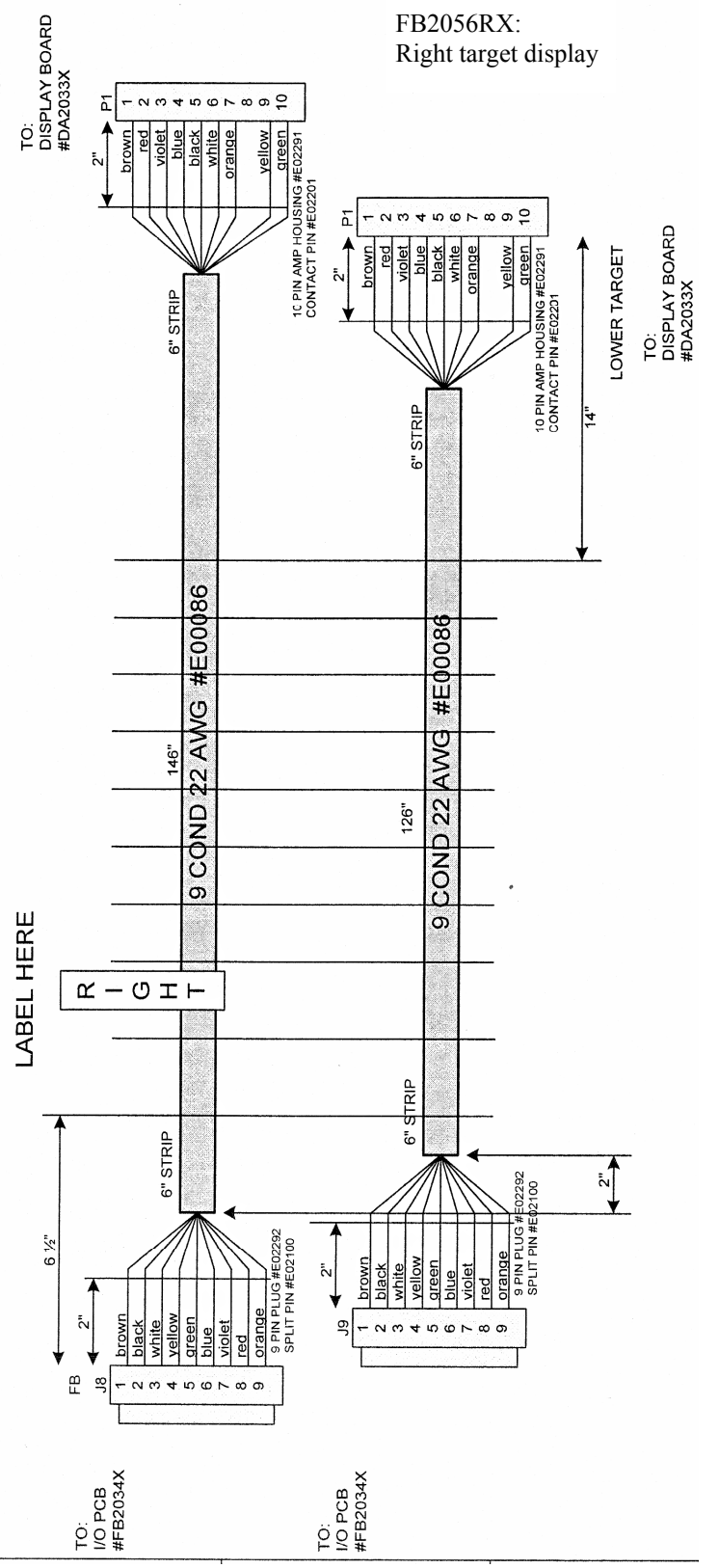
FB2057X:
Button Harness

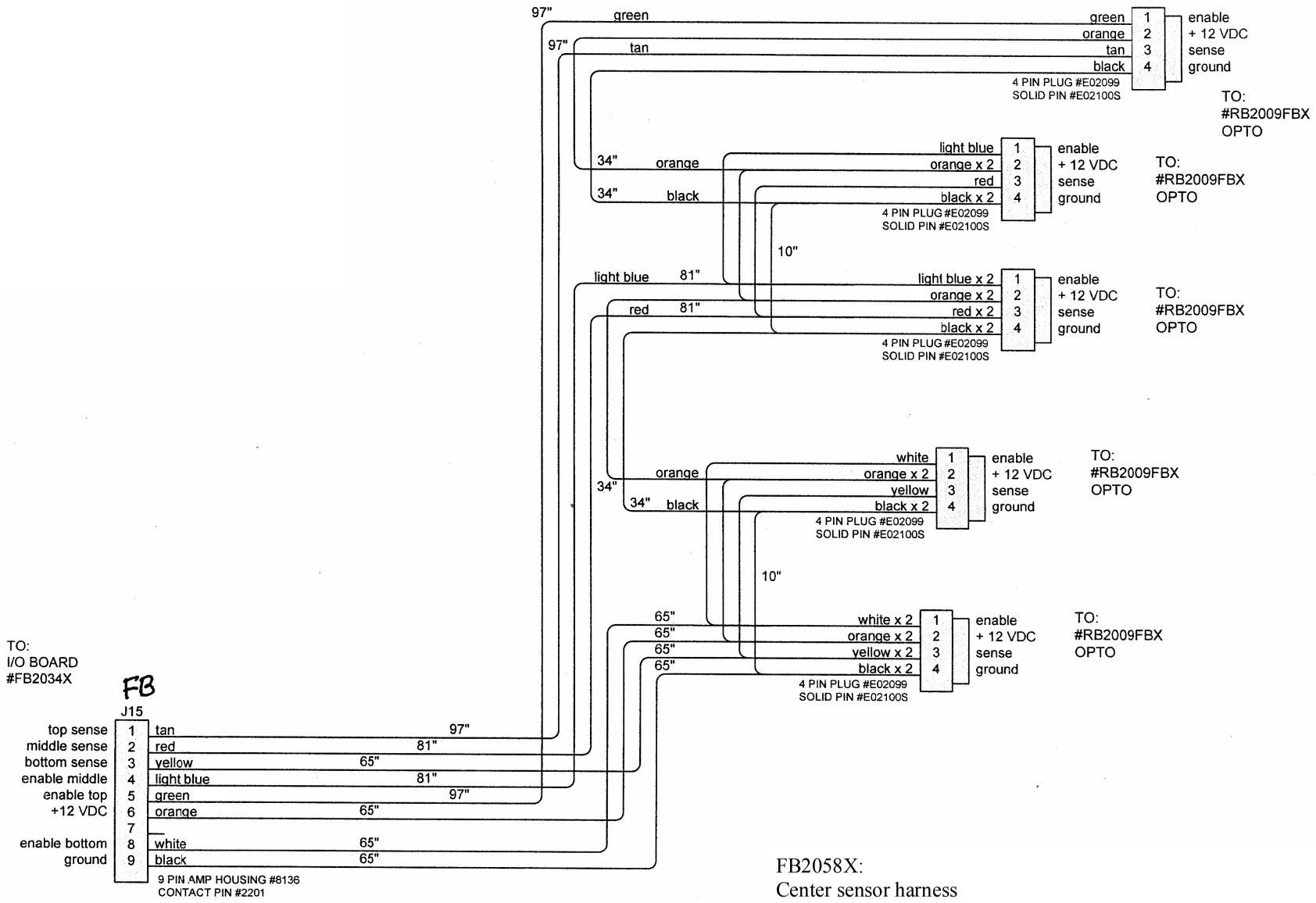

TO:
DISPLAY PCB
#FB2032X
FB
2"
+ 12 VDC 1 RED
DATA 2 GREEN
LATCH 3 WHITE
CLK 4 BROWN
KEY 5 E02239
GND 6 BLACK
6 PIN AMP HOUSING #E02944
CONTACT PIN #E02201
TWISTED @ 20"
2"
P1
RED 1 + 12 VDC
GREEN 2 DATA
WHITE 3 LATCH
BROWN 4 CLK
E02239 5 KEY
BLACK 6 GND
6 PIN AMP HOUSING #E02944
CONTACT PIN #E02201
TO:
DISPLAY BOARDS
#CB2232X
#CB2232X
#CB2233X
FB2054X:
Harness
LABEL HERE
UPPER TARGET
TO:
DISPLAY BOARD
#DA2033X
TO:
I/O PCB
#FB2034X
6 ½"
FB
2"
J6
1 brown
2 black
3 white
4 yellow
5 green
6 blue
7 violet
8 red
9 orange
9 PIN PLUG #E02292
SPLIT PIN #E02100
6" STRIP
LEFT
130"
9 COND 22 AWG #E00086
6" STRIP
2"
P1
brown 1
red 2
violet 3
blue 4
black 5
white 6
orange 7
8
yellow 9
green 10
10 PIN AMP HOUSING #E02291
CONTACT PIN #E02201
TO:
I/O PCB
#FB2034X
2"
J7
1 brown
2 black
3 white
4 yellow
5 green
6 blue
7 violet
8 red
9 orange
9 PIN PLUG #E02292
SPLIT PIN #E02100
6" STRIP
110"
9 COND 22 AWG #E00086
6" STRIP
2"
P1
brown 1
red 2
violet 3
blue 4
black 5
white 6
orange 7
8
yellow 9
green 10
10 PIN AMP HOUSING #E02291
CONTACT PIN #E02201
2"
14"
FB2056LX :
Left target display
LOWER TARGET
TO:
DISPLAY BOARD
#DA2033X

FB2056LX :
Left target display

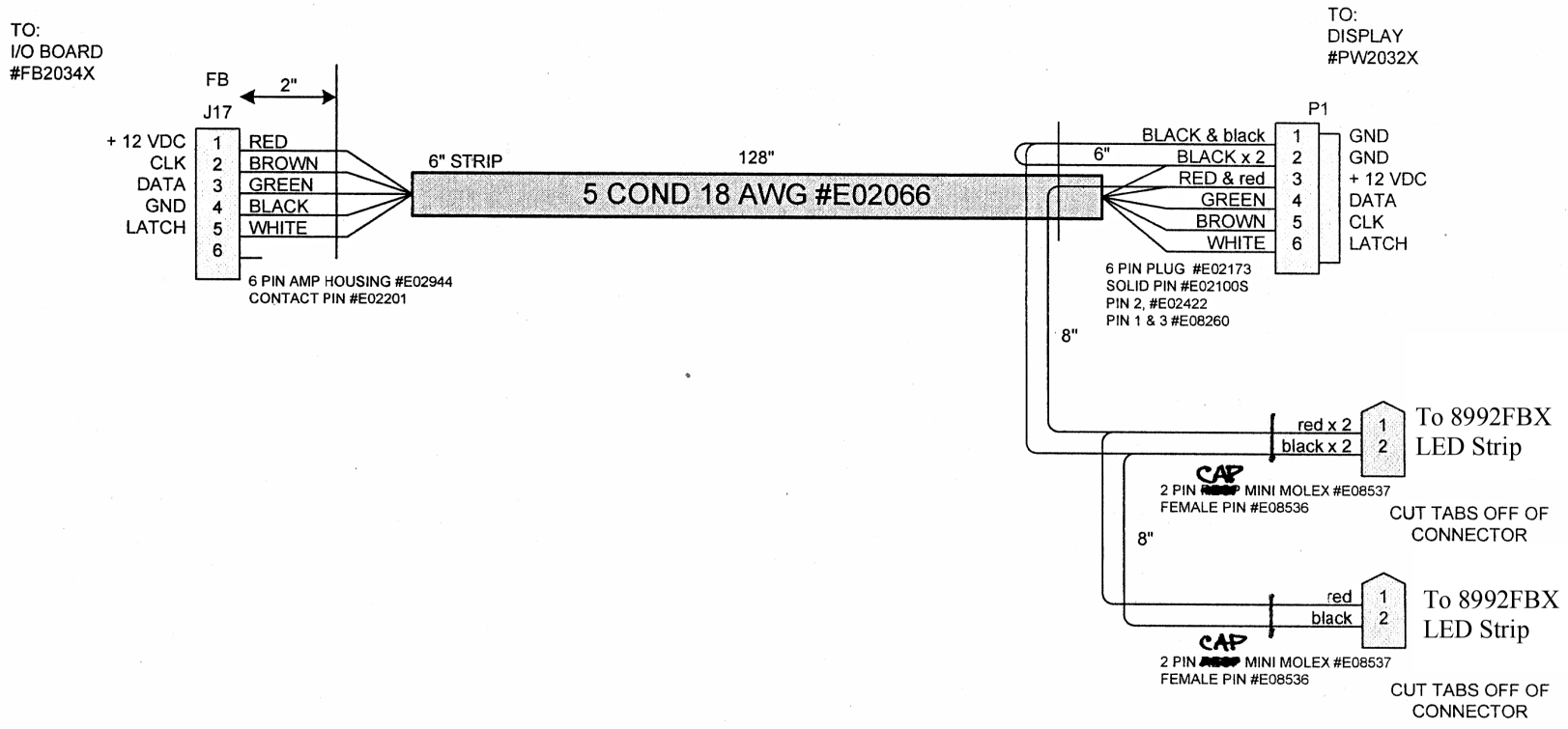


FB2056RX:
Right target display



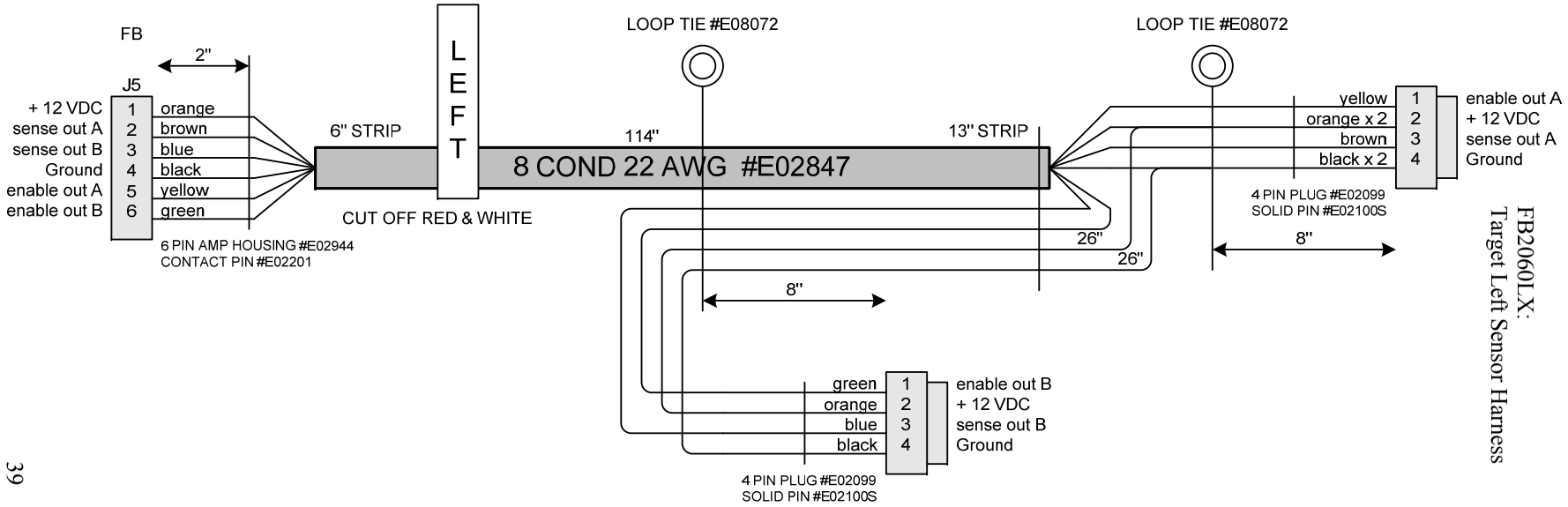


FB2058X:
Center sensor harness



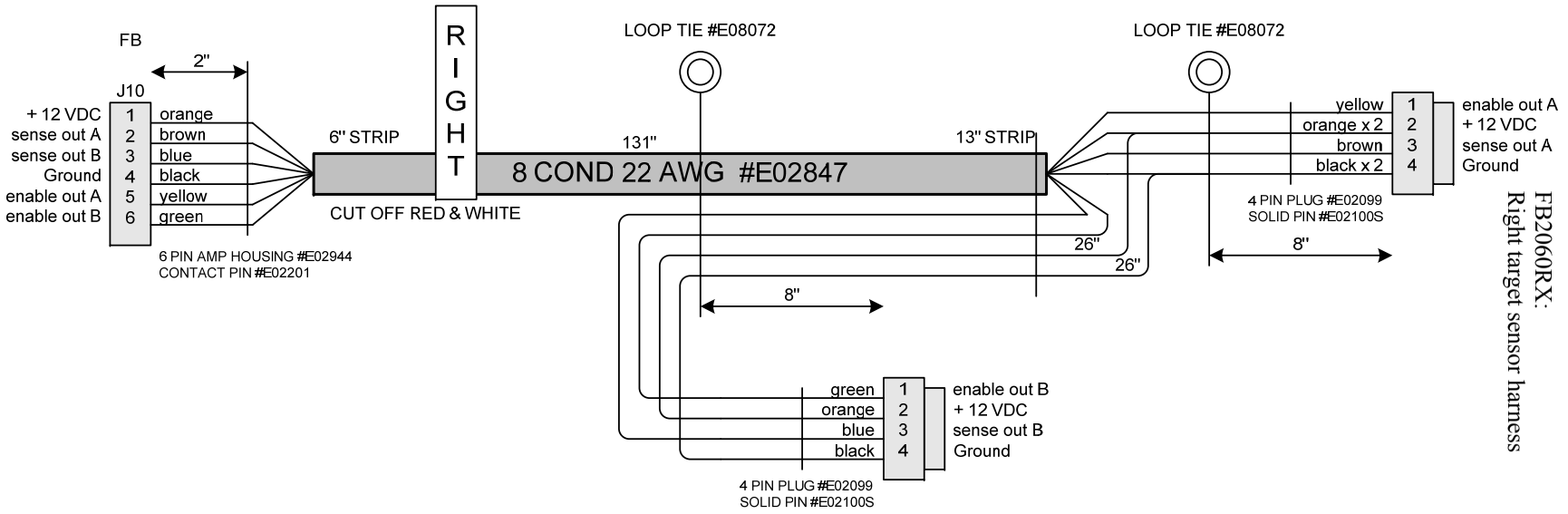
FB2059X:
Time Clock Harness

LABEL HERE:
LEFT DECAL
#FB7018



FB2060LX:
Target Left Sensor Harness

LABEL HERE:
RIGHT DECAL
#FB7019



FB2060RX:
Right target sensor harness

TO:
#FB2061BX

#FB2061BX

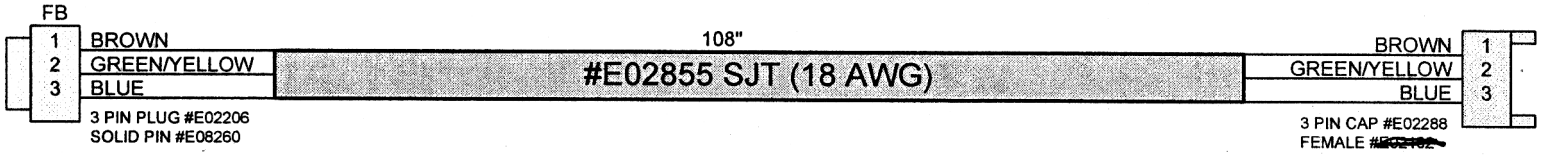
I/O PCB
#FB2034X

FB2061AX:
AC extension

TO:
BALLAST ASY
#CS8449X

#FB2061X

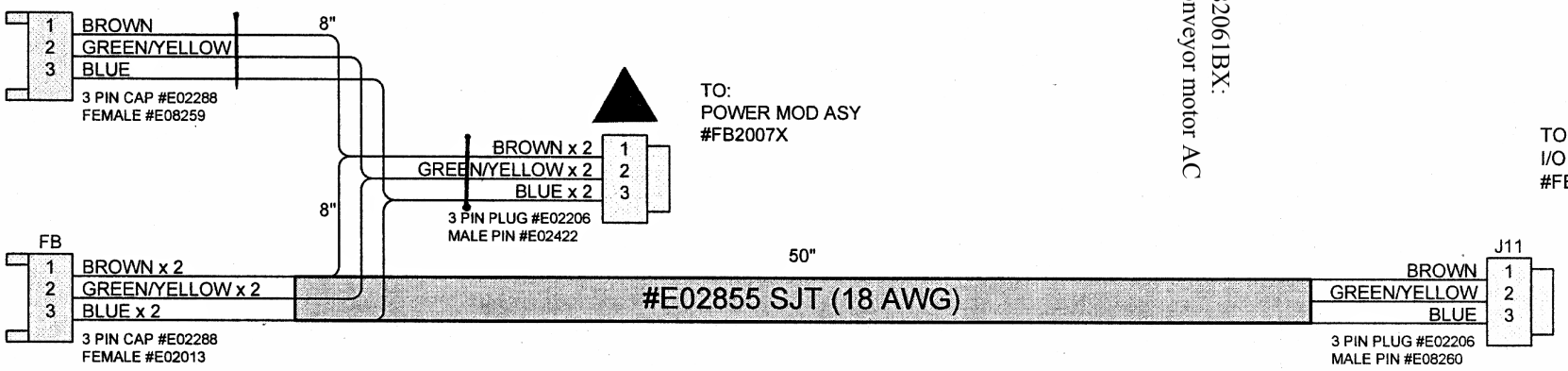
#FB2008AX



TO:
#FB2061AX

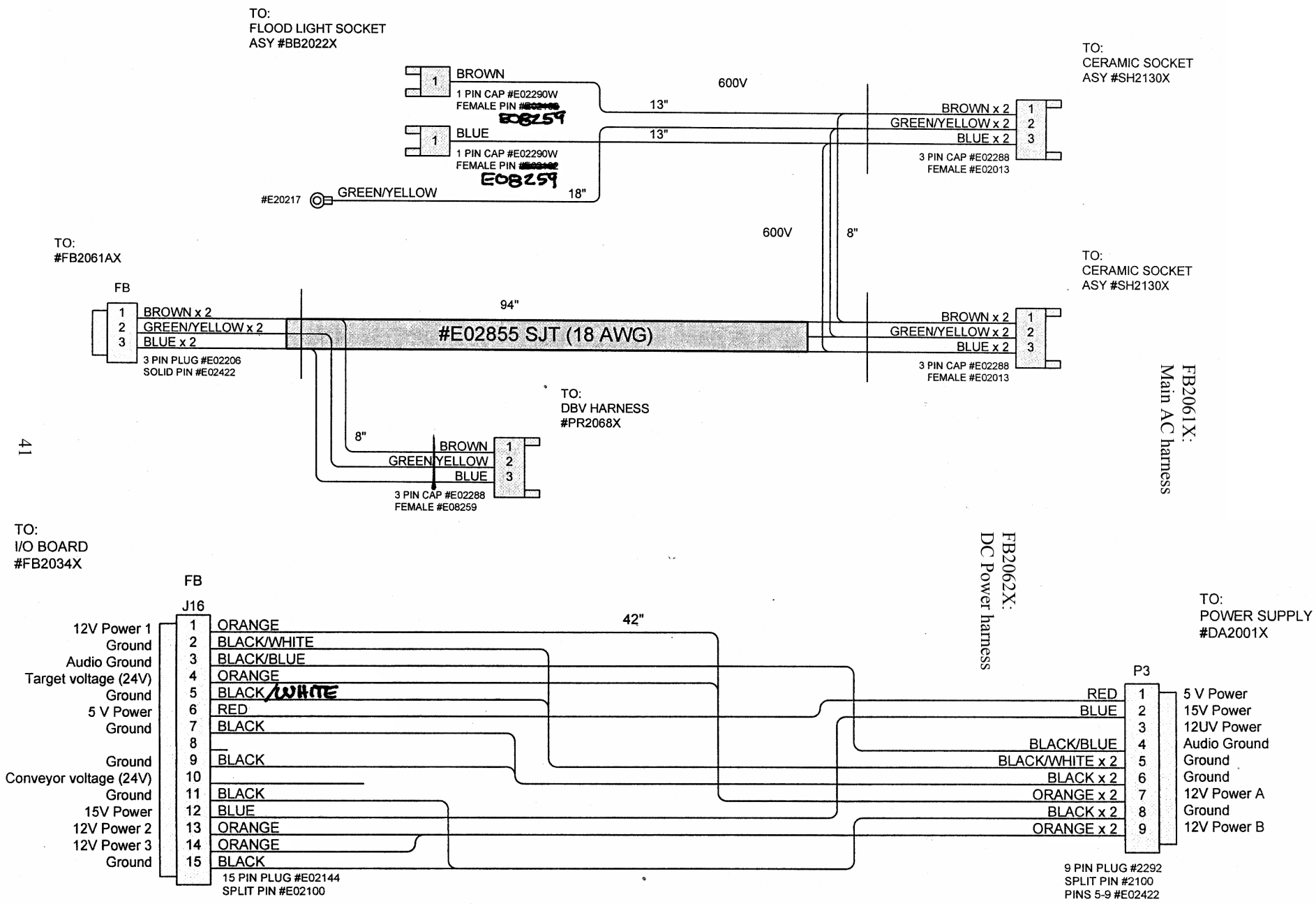
ALL WIRE IS 600V

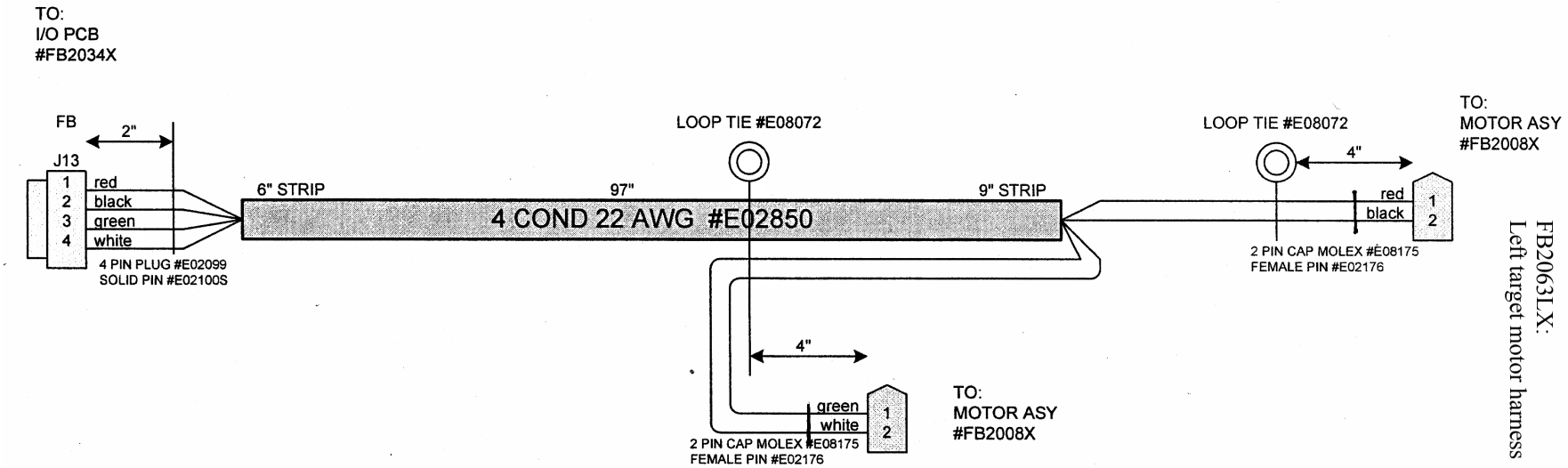
FB2061BX:
Conveyor motor AC

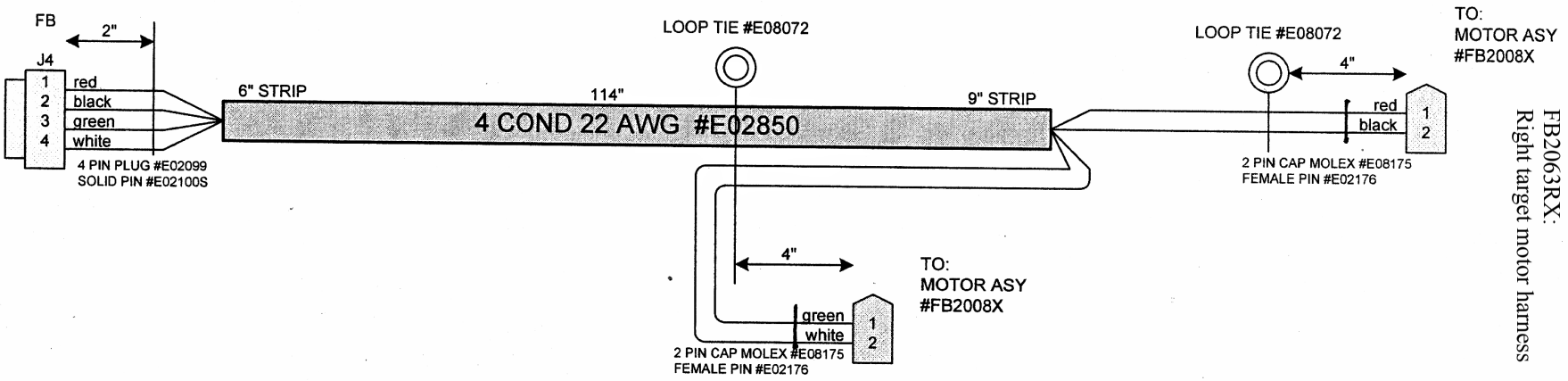


TO:
I/O PCB
#FB2034X

TO:
#FB2061AX


TO:
FLOOD LIGHT SOCKET
ASY #BB2022X
1
BROWN
1 PIN CAP #E02290W
FEMALE PIN
E08259
1
BLUE
1 PIN CAP #E02290W
FEMALE PIN
E08259
#E20217
GREEN/YELLOW
18"
600V
13"
13"
TO:
CERAMIC SOCKET
ASY #SH2130X
BROWN x 2
GREEN/YELLOW x 2
BLUE x 2
1
2
3
3 PIN CAP #E02288
FEMALE #E02013
600V
8"
TO:
#FB2061AX
FB
1
2
3
BROWN x 2
GREEN/YELLOW x 2
BLUE x 2
3 PIN PLUG #E02206
SOLID PIN #E02422
94"
#E02855 SJT (18 AWG)
TO:
CERAMIC SOCKET
ASY #SH2130X
BROWN x 2
GREEN/YELLOW x 2
BLUE x 2
1
2
3
3 PIN CAP #E02288
FEMALE #E02013
TO:
DBV HARNESS
#PR2068X
8"
BROWN
GREEN/YELLOW
BLUE
1
2
3
3 PIN CAP #E02288
FEMALE #E08259
FB2061X:
Main AC harness
TO:
I/O BOARD
#FB2034X
FB
J16
12V Power 1
Ground
Audio Ground
Target voltage (24V)
Ground
5 V Power
Ground
Ground
Conveyor voltage (24V)
Ground
15V Power
12V Power 2
12V Power 3
Ground
1 ORANGE
2 BLACK/WHITE
3 BLACK/BLUE
4 ORANGE
5 BLACK/WHITE
6 RED
7 BLACK
8
9 BLACK
10
11 BLACK
12 BLUE
13 ORANGE
14 ORANGE
15 BLACK
15 PIN PLUG #E02144
SPLIT PIN #E02100
42"
FB2062X:
DC Power harness
P3
RED 1
BLUE 2
3
BLACK/BLUE 4
BLACK/WHITE x 2 5
BLACK x 2 6
ORANGE x 2 7
BLACK x 2 8
ORANGE x 2 9
9 PIN PLUG #2292
SPLIT PIN #2100
PINS 5-9 #E02422
TO:
POWER SUPPLY
#DA2001X
5 V Power
15V Power
12UV Power
Audio Ground
Ground
Ground
12V Power A
Ground
12V Power B

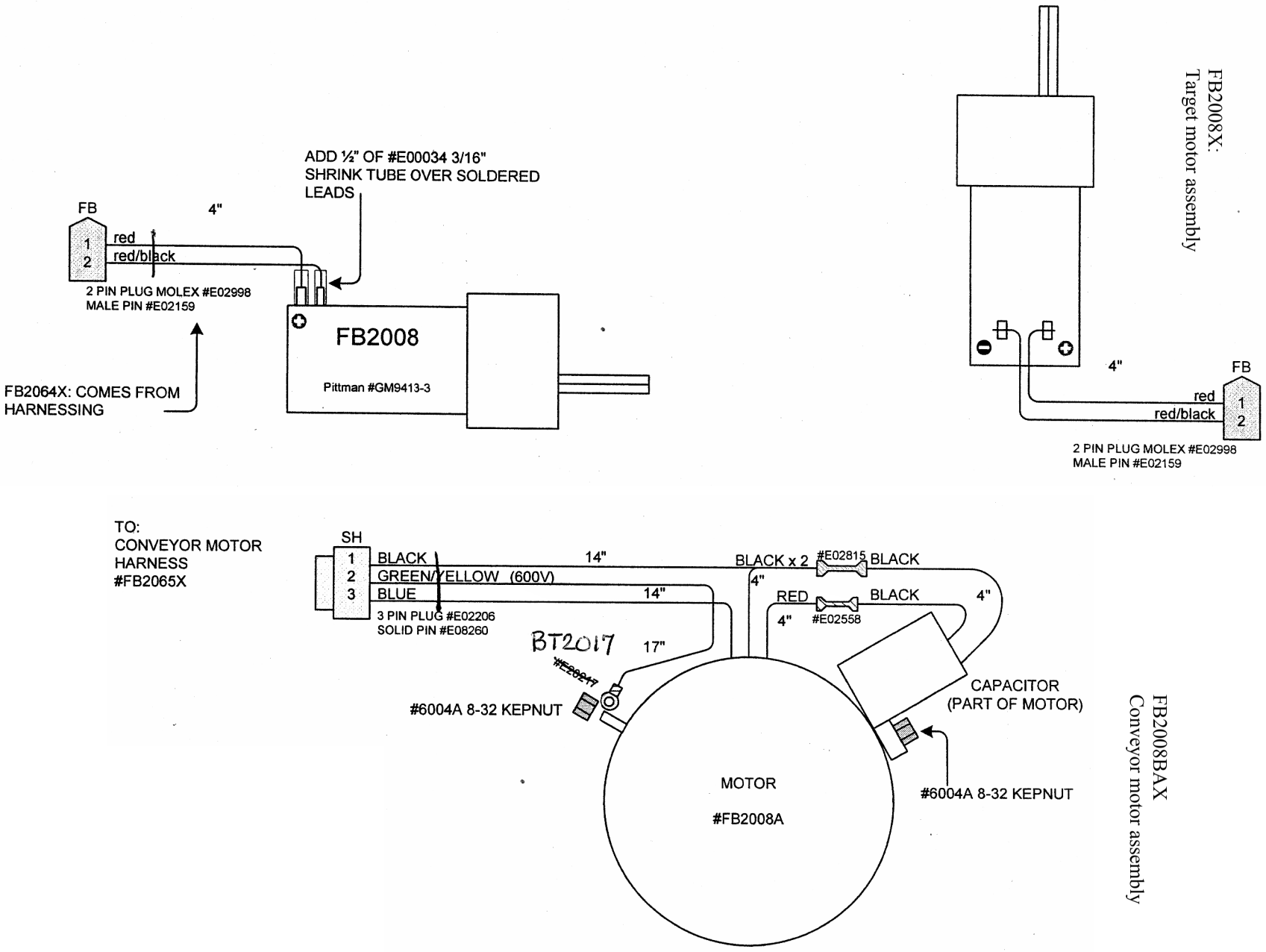

TO:
I/O PCB
#FB2034X
FB
2"
J13
1 red
2 black
3 green
4 white
4 PIN PLUG #E02099
SOLID PIN #E02100S
6" STRIP
97"
LOOP TIE #E08072
4 COND 22 AWG #E02850
9" STRIP
LOOP TIE #E08072
4"
red
black
1
2
2 PIN CAP MOLEX #E08175
FEMALE PIN #E02176
TO:
MOTOR ASY
#FB2008X
4"
green
white
1
2
2 PIN CAP MOLEX #E08175
FEMALE PIN #E02176
TO:
MOTOR ASY
#FB2008X
FB2063LX:
Left target motor harness


TO:
I/O PCB
#FB2034X
FB
2"
J4
1 red
2 black
3 green
4 white
4 PIN PLUG #E02099
SOLID PIN #E02100S
6" STRIP
114"
LOOP TIE #E08072
4 COND 22 AWG #E02850
9" STRIP
LOOP TIE #E08072
4"
red
black
1
2
2 PIN CAP MOLEX #E08175
FEMALE PIN #E02176
TO:
MOTOR ASY
#FB2008X
4"
green
white
1
2
2 PIN CAP MOLEX #E08175
FEMALE PIN #E02176
TO:
MOTOR ASY
#FB2008X
FB2063RX:
Right target motor harness

8992FBAX:
LED Strip assembly

8992FBX
LED strip assembly

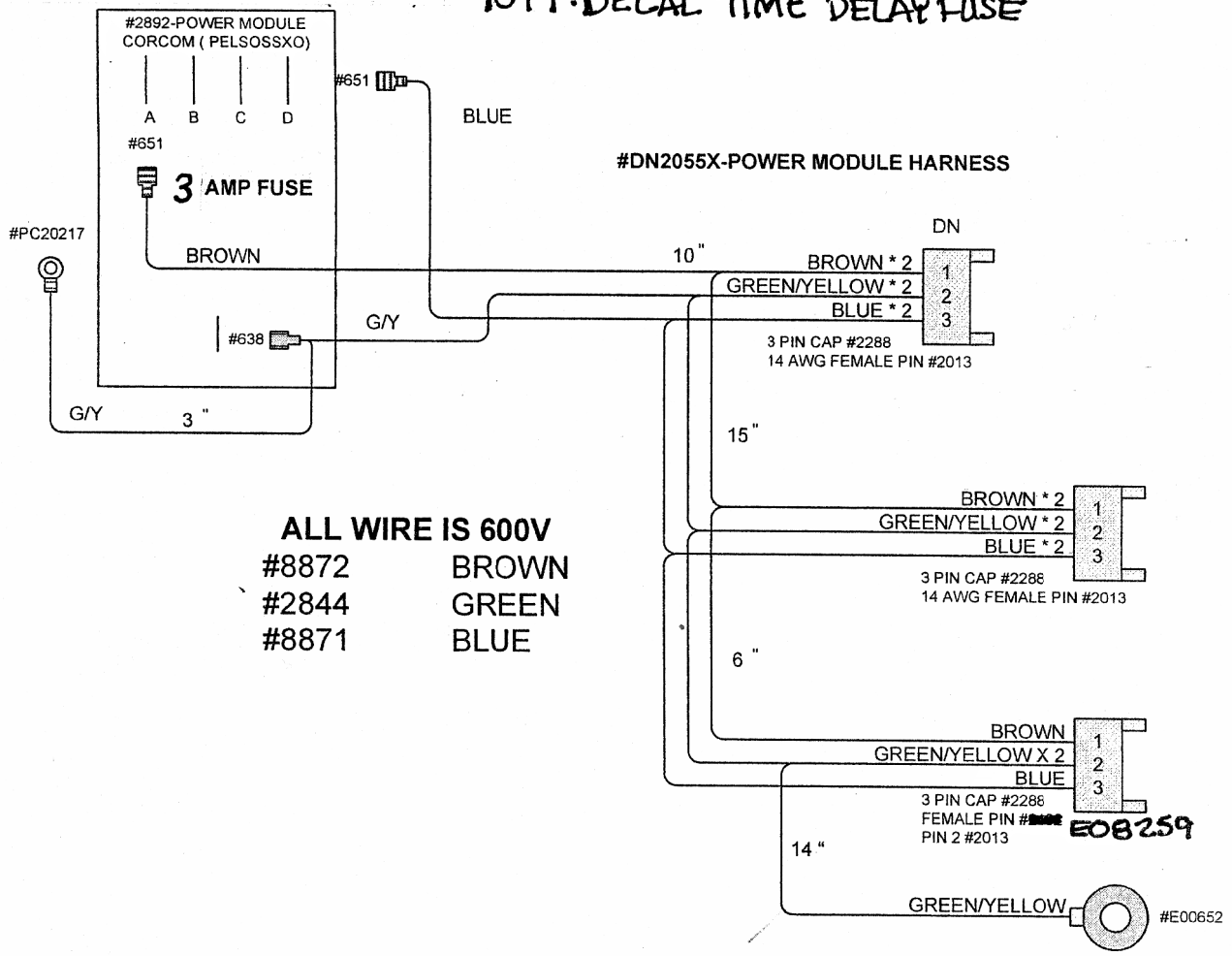
NB2253X:
Display harness


FB2008X:
Target motor assembly
ADD ½" OF #E00034 3/16"
SHRINK TUBE OVER SOLDERED
LEADS
FB
4"
1
2
red
red/black
2 PIN PLUG MOLEX #E02998
MALE PIN #E02159
FB2064X: COMES FROM
HARNESSING
FB2008
Pittman #GM9413-3
4"
FB
red
red/black
2 PIN PLUG MOLEX #E02998
MALE PIN #E02159
TO:
CONVEYOR MOTOR
HARNESS
#FB2065X
SH
1
2
3
BLACK
GREEN/YELLOW (600V)
BLUE
14"
14"
3 PIN PLUG #E02206
SOLID PIN #E08260
BLACK x 2
#E02815
BLACK
4"
RED
BLACK
4"
4"
#E02558
BT2017
17"
#E08947
#6004A 8-32 KEPNUT
CAPACITOR
(PART OF MOTOR)
MOTOR
#FB2008A
#6004A 8-32 KEPNUT
FB2008BAX
Conveyor motor assembly

FB2007X · POWER MOD ASY

3 AMP FUSE · E02315

7077 · DECAL TIME DELAY FUSE



ALL WIRE IS 600V

#8872	BROWN
#2844	GREEN
#8871	BLUE

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

WARRANTY

I.C.E warrants all components in the **NFL 2 Minute Drill™** game to be free of defects in materials and workmanship for a period of ninety days from the date of purchase.

This warranty does not cover items damaged due to normal wear and tear, subjected to abuse, improperly assembled by the end user, modified, repaired, or operated in a fashion other than that described in the service manual.

If your **NFL 2 Minute Drill™** game fails to conform to the above-mentioned warranty, our sole responsibility shall be at our option to repair or replace any defective component with a new or remanufactured component of equal to or greater O.E.M. specification.

I.C.E. will assume no liability whatsoever, for costs associated with labor to replace defective parts, or travel time associated therein.

Our obligation will be to ship free of charge, replacement parts by domestic U.P.S. Ground, U.S. mail, or other comparable shipping means. Any express mail or overnight shipping expense is at the cost of the purchaser.

Products will be covered under warranty only when:

- The serial number of the game with the defective parts is given. A RMA number has been issued by an I.C.E. technical representative.

- The serial number of the defective part, if applicable, is given..

- A copy of the sales receipt is available as proof of purchase upon request of I.C.E.

I.C.E. distributors are independent, privately owned and operated. In their judgment, they may sell parts or accessories other than those manufactured by I.C.E. We cannot be responsible for the quality, suitability, or safety of any non-I.C.E. part, or any modification, including labor, which is performed by such a distributor.

WARRANTY

ICE Inc warrants that all of its products will be free from defects in material and workmanship.

When placing a warranty request, please be prepared to provide the following information:

- Serial Number of Game or Bill of Sale
- Machine Type
- A Detailed Description of the Equipment Fault Symptoms

ICE product, including Cromptons, Sam's Billiards, Uniana and Bell Fruit is warranted as follows:

- 180 days on the Main PCB and Computers
- 180 days on Motors
- 90 days on all other components (i.e. DBV's, Ticket Dispensers, etc)
- 30 days on repaired items
- 3 years on all Crane Harnessing
- 9 Months on Printers

ICE Inc shall not be obligated to furnish a warranty request under the following conditions:

- Equipment has been subjected to unwarranted stress through abuse or neglect
- Equipment has been damaged as a result of arbitrary repair/modification attempts
- Equipment that has failed through normal wear and tear

ICE Inc will assume no liability whatsoever for costs associated with labor to replace defective parts or travel time associated therein.

All defective warranty covered components will be replaced with new or factory refurbished components equal to OEM specifications. ICE Inc will cover all domestic UPS ground, or comparable shipping means, freight costs during the warranty period. Expedited shipments are available for an additional charge.

Defective parts are returned to ICE Inc, at the customer's expense, in a timely fashion.

ICE distributors are independent, privately owned and operated. In their judgment, they may sell parts and/or accessories other than those manufactured by ICE Inc. We cannot be responsible for the quality, suitability or safety of any non-ICE part, modification (including labor) that is performed by such a distributor.

I.C.E. Parts/Service Dept.
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