

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01241	TIX2 TIRE GUIDE ASSM	ASSEMBLY	2
2	01242	TIX2 REAR CRADLE PIVOT	ASSEMBLY	2
3	01243	TIX2 FRONT CRADLE PIVOT	ASSEMBLY	4
4	01244	LONG SIDE COVER STANDOFF	ASSEMBLY	14
5	01247	SHORT SIDE COVER STANDOFF	ASSEMBLY	2
6	01296	TIX LATCH ASSEMBLY	ASSEMBLY	1
7	02621	TIX4 SHROUD W BRACKETS	ASSEMBLY	1
8	09039	TIX4 LOGO PLATE W STUDS	ASSEMBLY	1
9	09561	TIX2 ADJUSTABLE CRADLE	ASSEMBLY	1
10	09619	TIX4 RAIL ASSEMBLY	ASSEMBLY	1
11	09817	TUG SPARE PARTS BAG	PART	1
12	09835	TIX2 PC BOARD	ASSEMBLY	1
13	09844	TIX2 TRACK ASSEMBLY	ASSEMBLY	2
14	09964	(A7-2) TIV2/TIX2 RADIO NO LIGHTS	ASSEMBLY	1
15	09998	CARRY-ON GEARBOX-MOTOR ASM	ASSEMBLY	2
16	09999	ON-BOARD PARTS BOX	ASSEMBLY	1
17	22376	TUG PLATE PLUG	PART	2
18	23351	TIX LOWER COVER	PART	1
19	23354	TIX OUTSIDE TRACK COVERS	PART	2
20	23375	TIX MAIN BOARD RAIL	PART	2
21	23377	TIX SIDE RAIL	PART	2
22	23410	TIX2 HINGE BLOCK	PART	2
23	23427	WIRE HOLDER	PART	2
24	23436	TIX2 WIRE BRACKET LEFT	PART	1
25	23500	TUG MAGNET HOLDER	PART	2
26	23532	TIV2 / TIX2 BATTERY BRACKET	PART	1
27	24346	CRADLE MAINPLATE	PART	1
28	24347	ELECTRONICS MAINPLATE	PART	1
29	24446	TUG CHARGING SUPPORT MALE	PART	1
30	24447	TUG CHARGING SUPPORT FEMALE	PART	1
31	24492	HANDLE MOUNT ANGLE BAR	PART	4
32	24493	HANDLE BAR	PART	2
33	24506	TIX4 BACK GATE STOP	PART	2
34	91000	2.5" CABLE ROUTER W/ FINGERS	PART	1
35	91184	10-24 X 1/2"L SS FLAT HEAD	PART	2
36	91285	10-32 X 5/8" L SS FLAT HEAD	PART	2
37	92125	10-32 X 3/8" L SS PHILLIPS SCREW	PART	8
38	92222	1/4"-20 X 1/2" FLAT HEAD	PART	4

39	92423	SERVO MOUNT FOR 95393	PART	1
40	92426	TUG LATCH CAM	PART	1
41	92524	8-32"X.1" SET SCREW	PART	6
42	92628	M2 X 0.4 MM, 6 MM L PHIL. SCREW	PART	1
43	95003	1/4"-20 X 3/4" FLAT HEAD	PART	4
44	95016	1/4"-20 X 5/8" SOCKET CAP	PART	6
45	95017	1/4"-20 X 1/2" SOCKET CAP	PART	2
46	95049	6-32 X 5/16"L SS FT HD PHIL	PART	6
47	95117	1/4"-20 X 3/4" SOCKET CAP	PART	4
48	95119	10-32 X 5/16" FLAT HEAD	PART	4
49	95158	1/4" X .125" NYLON SPACER	PART	6
50	95196	TUG CHARGER	PART	1
51	95321	10-24 X 3/8"L SOCKET CAP SCREW	PART	4
52	95359	6-32 X 3/8" FLAT HEAD	PART	4
53	95366	WIRE EXTENSION CLIP	BULK ITEM	1
54	95371	1/4"-20 X 1/2"L PAN HEAD	PART	6
55	95393	RED MICRO SERVO 1810-MG	PART	1
56	95400	TIX2 SHIPPING BRACKET	PART	1
57	95412	8-32 PAN HEAD PHILPS SCREW	PART	4
58	95503	24V 20AH BATTERY	PART	1
59	95511	TIX2 WIRE BRACKET RIGHT	PART	1
60	95573	1/4 TURN, SS RECEPTACLE	PART	4
61	95579	CO INSIDE TRACK COVER	PART	2
62	95582	TIX2 CARRY-ON OWNERS MANUAL	PART	1
63	95624	10-32 X 3/8" L PAN HEAD W THR	PART	16
64	95648	4-40 X 1/4" L CAP SCREW	PART	12
65	95659	TIX4 SIDE COVER R	PART	1
66	95660	TIX4 SIDE COVER L	PART	1
67	96348	TIM2-TIX2 FOAM PACKAGING 5PC	BULK ITEM	1
68	96357	5 FOLD STANDARD TUG BOX	BULK ITEM	1
69	98017	10-32 X 1/2" PAN HD SCREW W LOCK WASHER	PART	2
70	92420A	MAGNETIC CATCH W STRIKE	PART	2
71	92420B	MAGNETIC CATCH W STRIKE	PART	2

A Touch of Brass
A TOUCH OF BRASS INC

13832 MAGNOLIA AVE.
CHINO, CA 91710-7027
909-464-1000

TIX4 TUG

DWG. NO. 09996

REV G

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE 0.059

APPR.



SHEET 1 OF 8

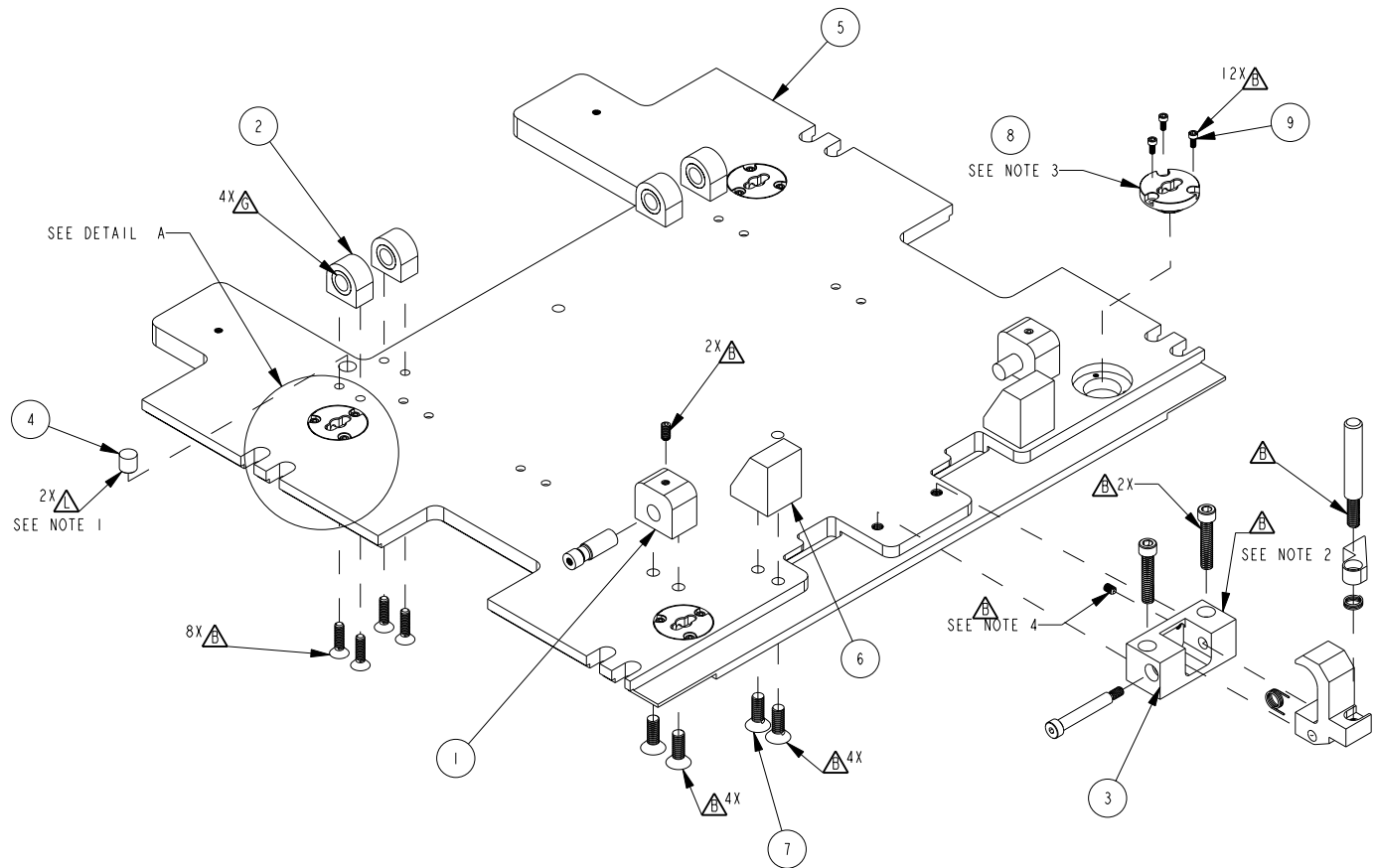
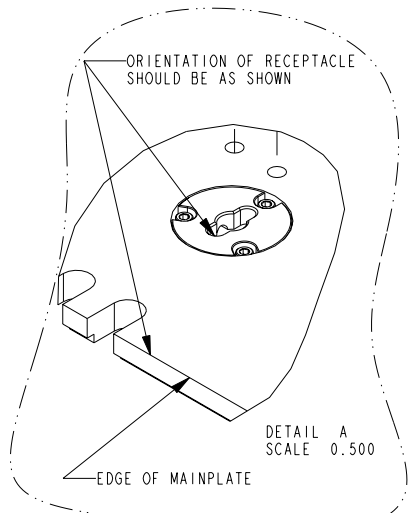
BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01242	TIX2 REAR CRADLE PIVOT	ASSEMBLY	2
2	01243	TIX2 FRONT CRADLE PIVOT	ASSEMBLY	4
3	01296	TIX LATCH ASSEMBLY	ASSEMBLY	1
4	22376	TUG PLATE PLUG	PART	2
5	24346	CRADLE MAINPLATE	PART	1
6	24506	TIX4 BACK GATE STOP	PART	2
7	95003	1/4"-20 X 3/4" FLAT HEAD	PART	4
8	95573	1/4 TURN, SS RECEPTACLE	PART </td <td>4</td>	4
9	95648	4-40 X 1/4" L CAP SCREW	PART	12

NOTES:

1. ADD GLUE IN BLIND HOLE BEFORE PRESS-FITTING PLUG.
 2. ADD GLUE FOR LATCH SHOULDER BOLT ON LATCH BLOCK THREADS. APPLYING GLUE TO SHOULDER BOLT THREADS COULD AFFECT LATCH SPRING ONCE GLUE DRIES.
 3. NOTE THE ORIENTATION OF 95573 (RECEPTACLE) WITH RESPECT TO THE EDGE OF THE MAINPLATE. SEE DETAIL A.
 4. THREAD HALF OF THE SET SCREW INTO THE MOUNTING BLOCK THEN APPLY GLUE ON THE REMAINING THREADS TO AVOID GETTING GLUE IN THE LATCH SPRING MECHANISM.
- ADJUST THE SET SCREW SO THAT THE LATCH IS PARALLEL WITH THE TOP OF THE MOUNTING BLOCK.

-  BLUE REMOVABLE LOCTITE
-  APPLY GREASE



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REV **G**

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SCALE 0.250

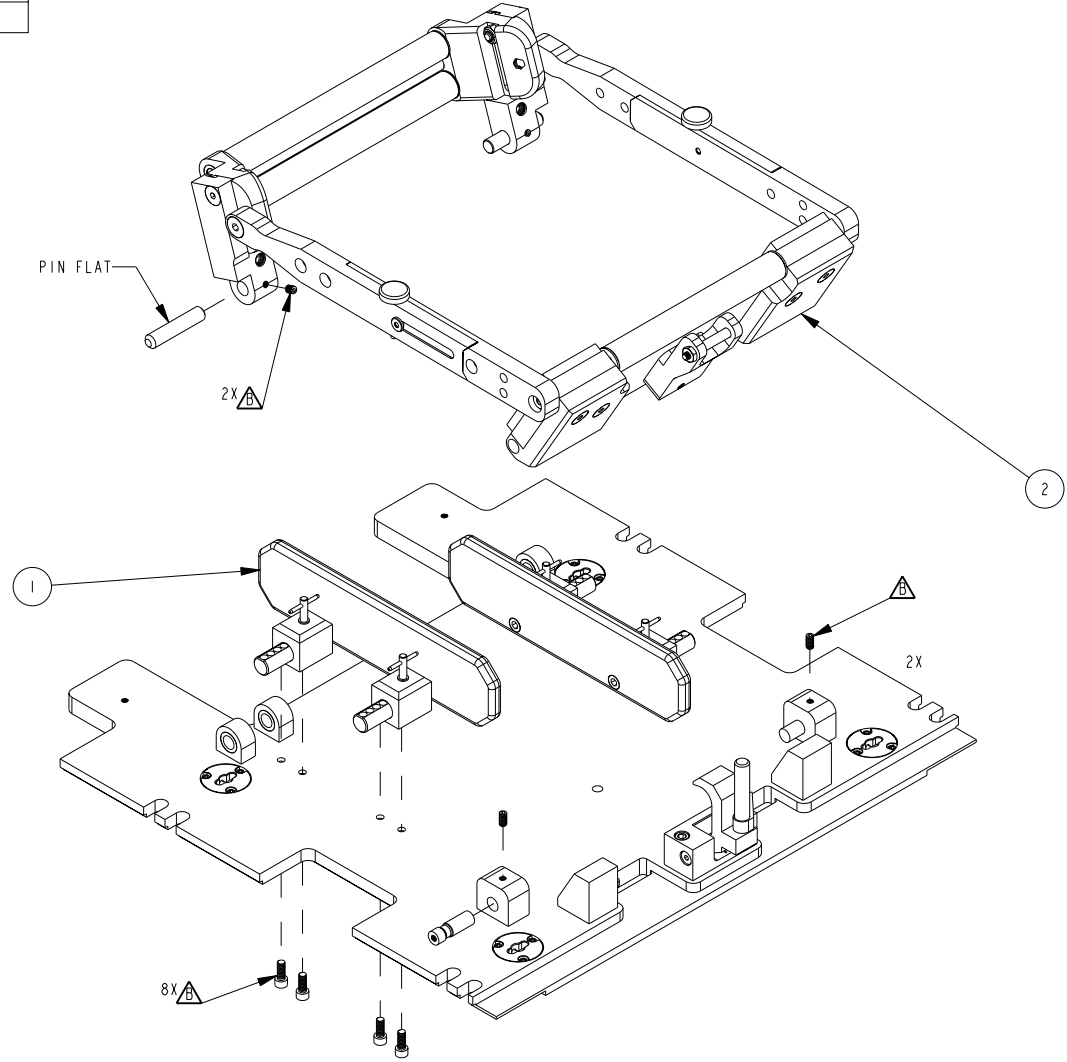
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SHEET 2 OF 8

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01241	TIX2 TIRE GUIDE ASSM	ASSEMBLY	2
2	09561	TIX2 ADJUSTABLE CRADLE	ASSEMBLY	1

 BLUE REMOVABLE LOCTITE



NOTES:

1. SET SCREW SHOULD SIT IN BETWEEN PIN (22322) FLAT
2. SET SCREW SHOULD SIT IN BETWEEN PIN GROOVE.

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TIX4 TUG

DWG. NO. 09996

REV G

SCALE 0.210

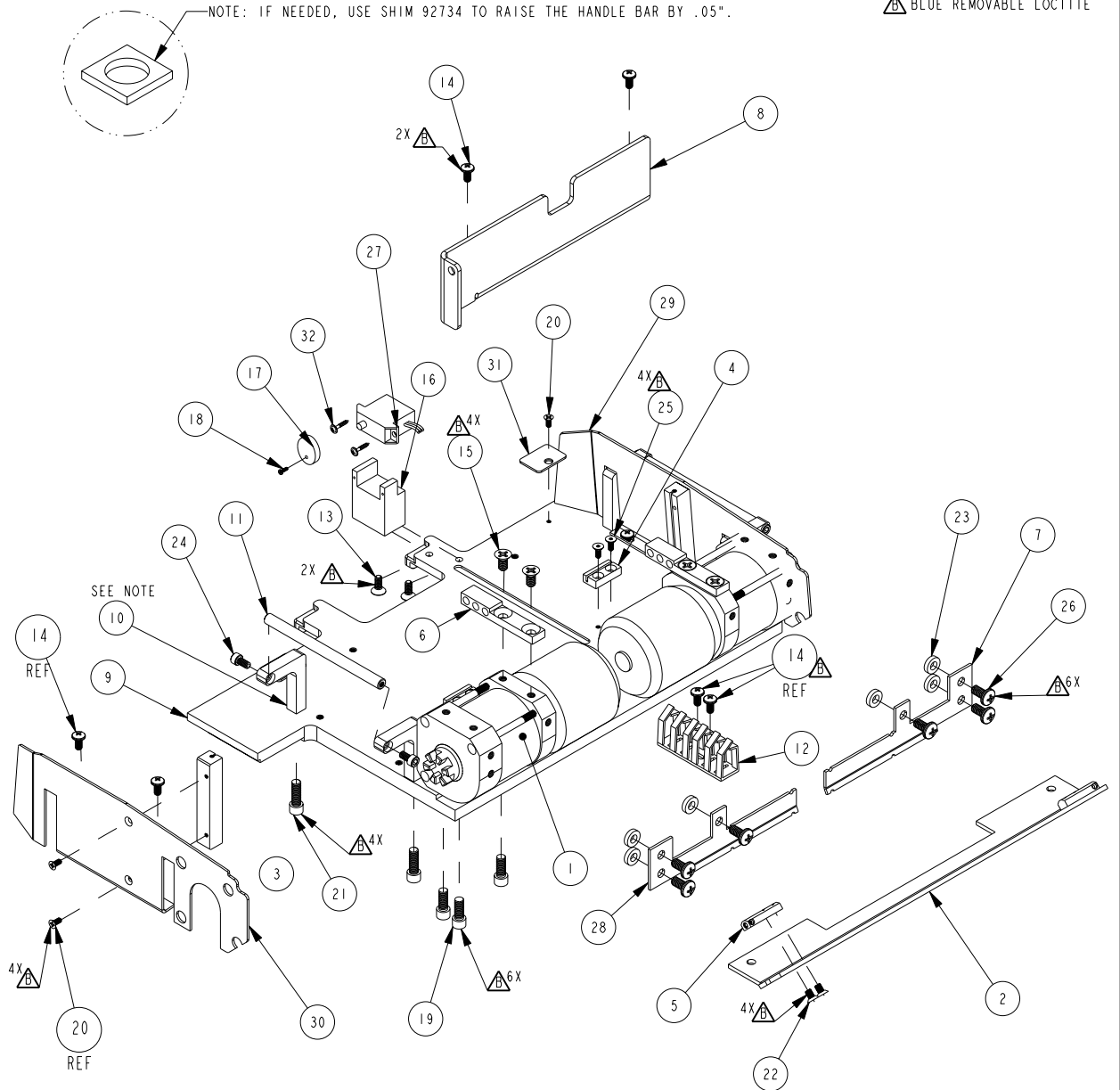
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SHEET 3 OF 8

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09998	CARRY-ON GEARBOX-MOTOR ASM	ASSEMBLY	2
2	23351	TIX LOWER COVER	PART	1
3	23375	TIX MAIN BOARD RAIL	PART	2
4	23377	TIX SIDE RAIL	PART	2
5	23410	TIX2 HINGE BLOCK	PART	2
6	23427	WIRE HOLDER	PART	2
7	23436	TIX2 WIRE BRACKET LEFT	PART	1
8	23532	TIV2 / TIX2 BATTERY BRACKET	PART	1
9	24347	ELECTRONICS MAINPLATE	PART	1
10	24492	HANDLE MOUNT ANGLE BAR	PART	4
11	24493	HANDLE BAR	PART	2
12	91000	2.5" CABLE ROUTER W/ FINGERS	PART	1
13	91184	10-24 X 1/2" L SS FLAT HEAD	PART	2
14	92125	10-32 X 3/8" L SS PHILLIPS SCREW	PART	8
15	92222	1/4"-20 X 1/2" FLAT HEAD	PART	4
16	92423	SERVO MOUNT FOR 95393	PART	1
17	92426	TUG LATCH CAM	PART	1
18	92628	M2 X 0.4 MM, 6 MM L PHIL. SCREW	PART	1
19	95016	1/4"-20 X 5/8" SOCKET CAP	PART	6
20	95049	6-32 X 5/16" L SS FT HD PHIL	PART	6
21	95117	1/4"-20 X 3/4" SOCKET CAP	PART	4
22	95119	10-32 X 5/16" FLAT HEAD	PART	4
23	95158	1/4" X .125" NYLON SPACER	PART	6
24	95321	10-24 X 3/8" L SOCKET CAP SCREW	PART	4
25	95359	6-32 X 3/8" FLAT HEAD	PART	4
26	95371	1/4"-20 X 1/2" L PAN HEAD	PART	6
27	95393	RED MICRO SERVO I810-MG	PART	1
28	95511	TIX2 WIRE BRACKET RIGHT	PART	1
29	95659	TIX4 SIDE COVER R	PART	1
30	95660	TIX4 SIDE COVER L	PART	1
31	92420B	MAGNETIC CATCH W STRIKE	PART	2
32	SRV_95036	SERVO SCREW-FOUND INSIDE SERVO BOX	PART	2



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TIX4 TUG

DWG. NO. 09996

REV G

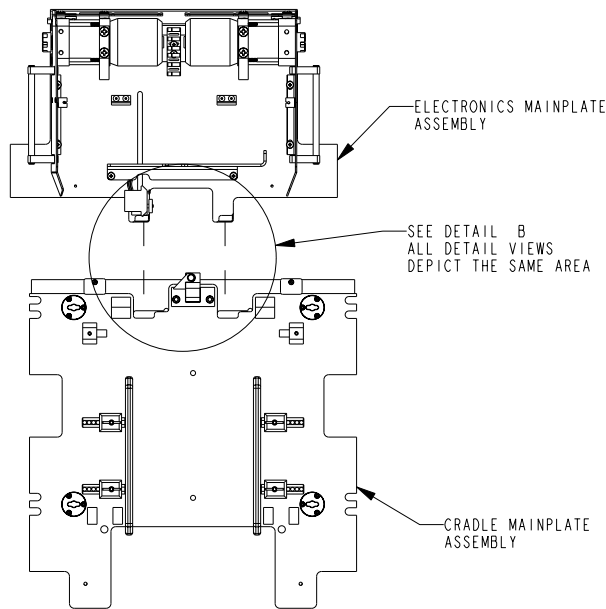
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SCALE 0.210

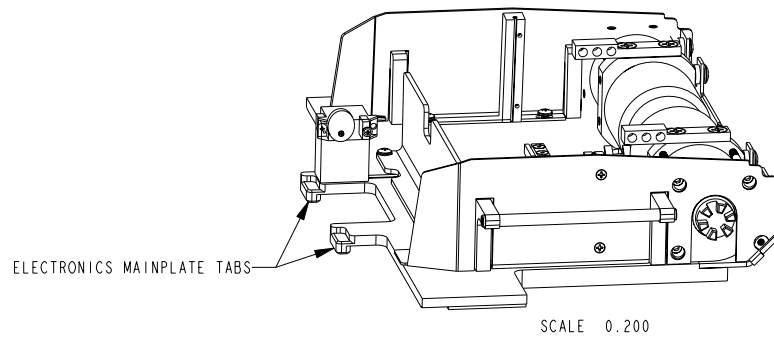
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SHEET 4 OF 8

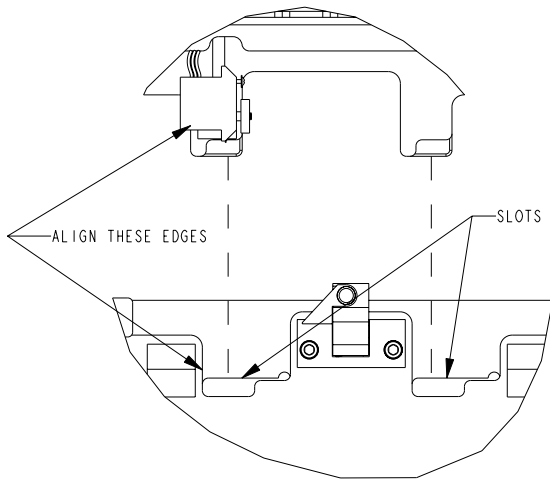
VIEW 1



VIEW 2

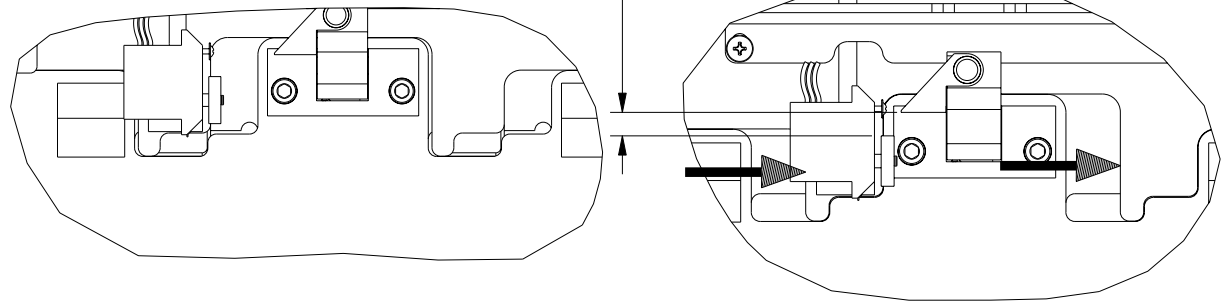


STEPS TO JOIN THE MAINPLATE ASSEMBLIES



1. WITH THE CRADLE IN DOWN (LOADING) POSITION LIFT THE ELECTRONICS MAINPLATE ASSEMBLY OVER THE CRADLE MAINPLATE ASSEMBLY ALIGNING THE EDGES SHOWN ABOVE. THE TABS ON THE ELECTRONICS MAINPLATE (SEE VIEW 2) SHOULD FIT THROUGH THE SLOTS ON THE CRADLE MAINPLATE.

THERE SHOULD BE A SMALL GAP BETWEEN THE CAM AND LATCH LEVER. WHEN THE TUG IS TAKEN APART INTO SECTIONS, THE LATCH LEVER SHOULD NOT INTERFERE WITH THE CAM FOR EASY REMOVAL.



2. SLIDE THE ELECTRONICS MAINPLATE AS SHOWN ABOVE. IT SHOULD SLIDE UNDERNEATH THE CRADLE MAINPLATE. THE EDGES OF THE MAINPLATES SHOULD BE ALIGNED ALONG THE LENGTH OF THE PLATES.

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TIX4 TUG

DWG. NO. 09996

REV G

SCALE 0.100

APPR.

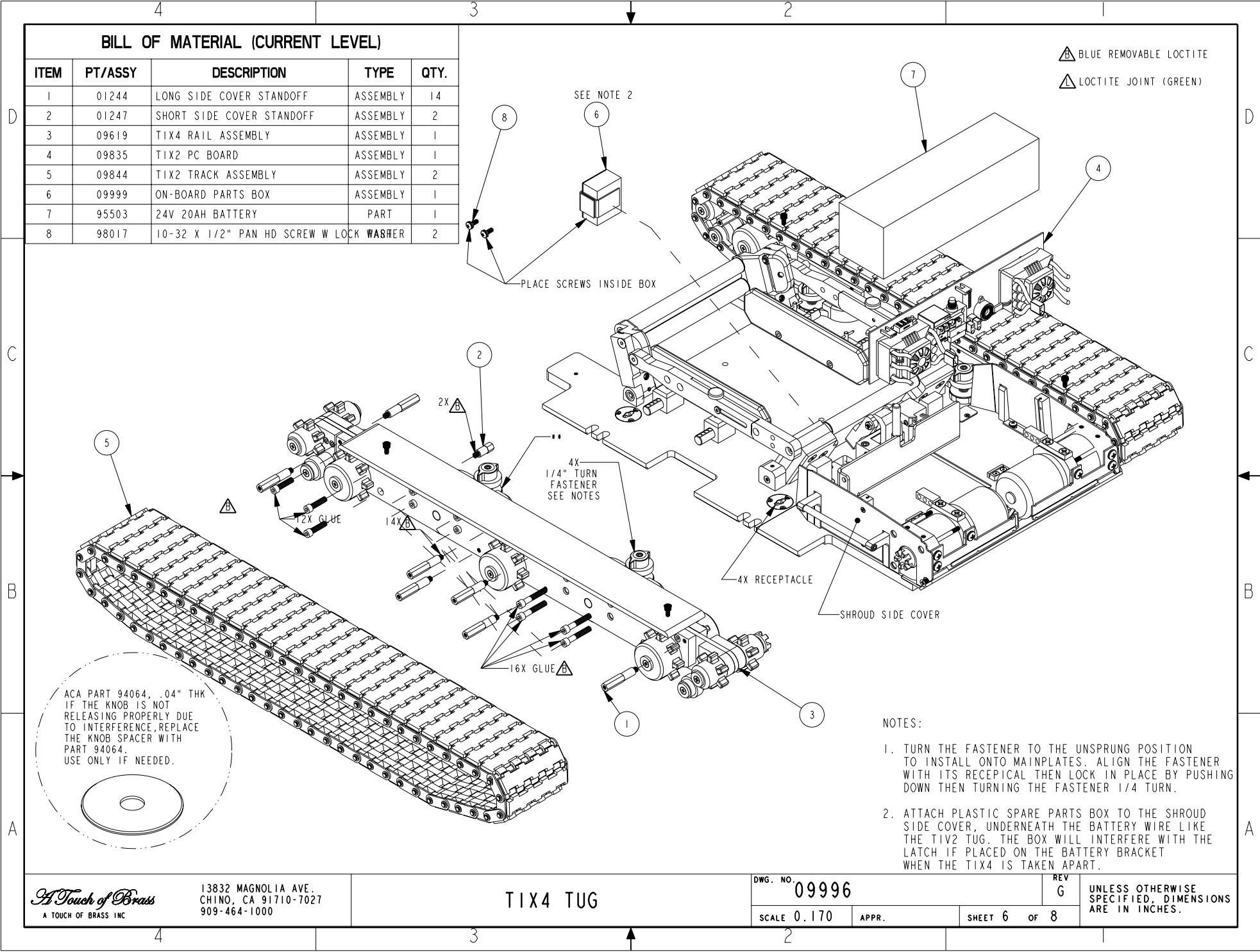
SHEET 5 OF 8

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

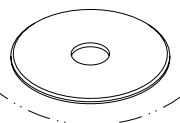
BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01244	LONG SIDE COVER STANDOFF	ASSEMBLY	14
2	01247	SHORT SIDE COVER STANDOFF	ASSEMBLY	2
3	09619	TIX4 RAIL ASSEMBLY	ASSEMBLY	1
4	09835	TIX2 PC BOARD	ASSEMBLY	1
5	09844	TIX2 TRACK ASSEMBLY	ASSEMBLY	2
6	09999	ON-BOARD PARTS BOX	ASSEMBLY	1
7	95503	24V 20AH BATTERY	PART	1
8	98017	10-32 X 1/2" PAN HD SCREW W LOCK WASHER	WASHER	2

BLUE REMOVABLE LOCTITE
 LOCTITE JOINT (GREEN)



ACA PART 94064, .04" THK
 IF THE KNOB IS NOT
 RELEASING PROPERLY DUE
 TO INTERFERENCE, REPLACE
 THE KNOB SPACER WITH
 PART 94064.
 USE ONLY IF NEEDED.



NOTES:

1. TURN THE FASTENER TO THE UNSPRUNG POSITION TO INSTALL ONTO MAINPLATES. ALIGN THE FASTENER WITH ITS RECEPTICAL THEN LOCK IN PLACE BY PUSHING DOWN THEN TURNING THE FASTENER 1/4 TURN.
2. ATTACH PLASTIC SPARE PARTS BOX TO THE SHROUD SIDE COVER, UNDERNEATH THE BATTERY WIRE LIKE THE TIX2 TUG. THE BOX WILL INTERFERE WITH THE LATCH IF PLACED ON THE BATTERY BRACKET WHEN THE TIX4 IS TAKEN APART.

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TIX4 TUG

DWG. NO. **09996**

REV **G**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE **0.170**

APPR.

SHEET **6** OF **8**

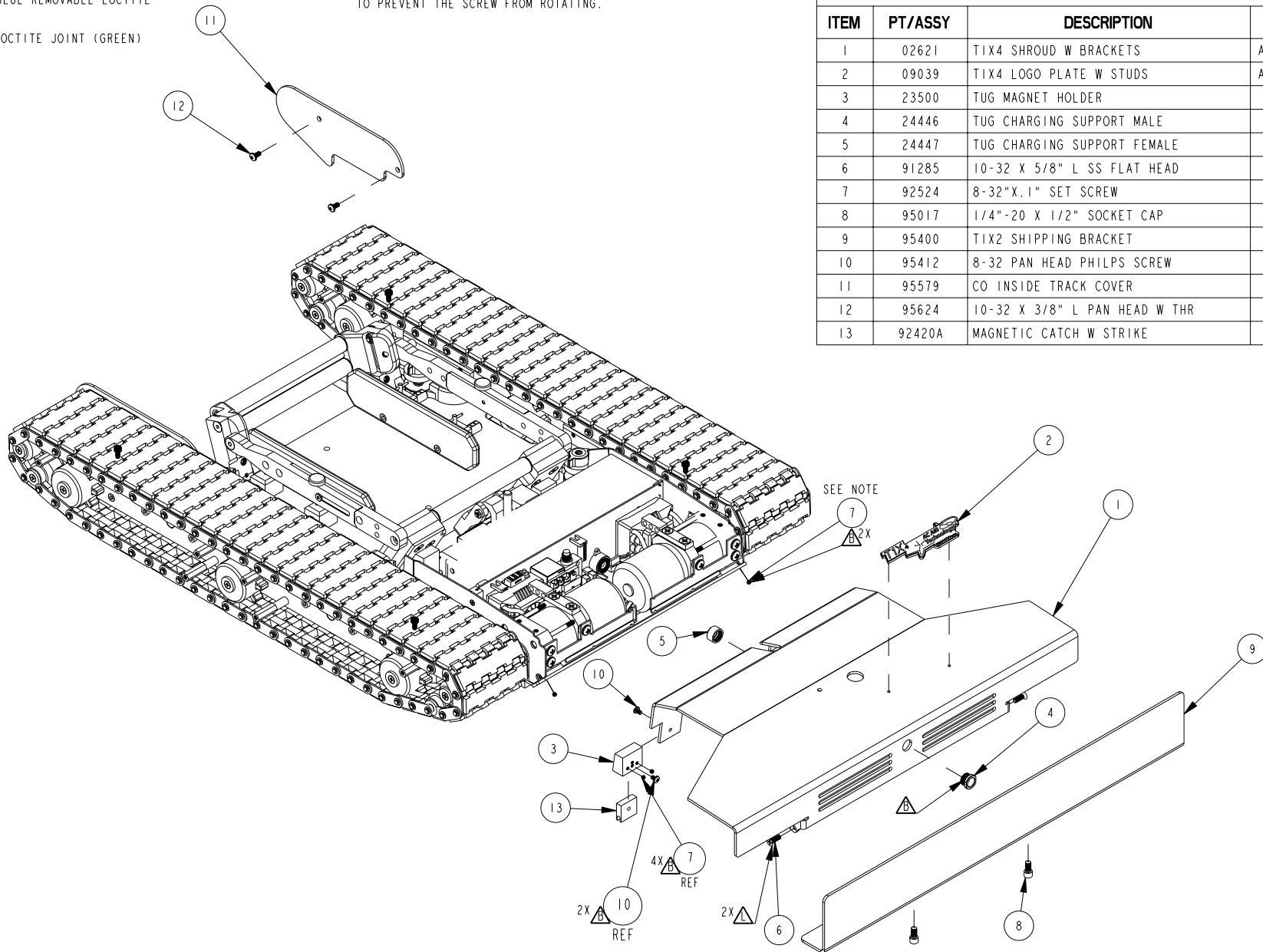
▲ BLUE REMOVABLE LOCTITE

▲ LOCTITE JOINT (GREEN)

NOTES: SET SCREW (92524) SHOULD TIGHTEN ONTO COVER HINGE SCREW (91285) TO PREVENT THE SCREW FROM ROTATING.

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	02621	TIX4 SHROUD W BRACKETS	ASSEMBLY	1
2	09039	TIX4 LOGO PLATE W STUDS	ASSEMBLY	1
3	23500	TUG MAGNET HOLDER	PART	2
4	24446	TUG CHARGING SUPPORT MALE	PART	1
5	24447	TUG CHARGING SUPPORT FEMALE	PART	1
6	91285	10-32 X 5/8" L SS FLAT HEAD	PART	2
7	92524	8-32"X.1" SET SCREW	PART	6
8	95017	1/4"-20 X 1/2" SOCKET CAP	PART	2
9	95400	TIX2 SHIPPING BRACKET	PART	1
10	95412	8-32 PAN HEAD PHILPS SCREW	PART	4
11	95579	CO INSIDE TRACK COVER	PART	2
12	95624	10-32 X 3/8" L PAN HEAD W THR	PART	4
13	92420A	MAGNETIC CATCH W STRIKE	PART	2



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TIX4 TUG

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REV G

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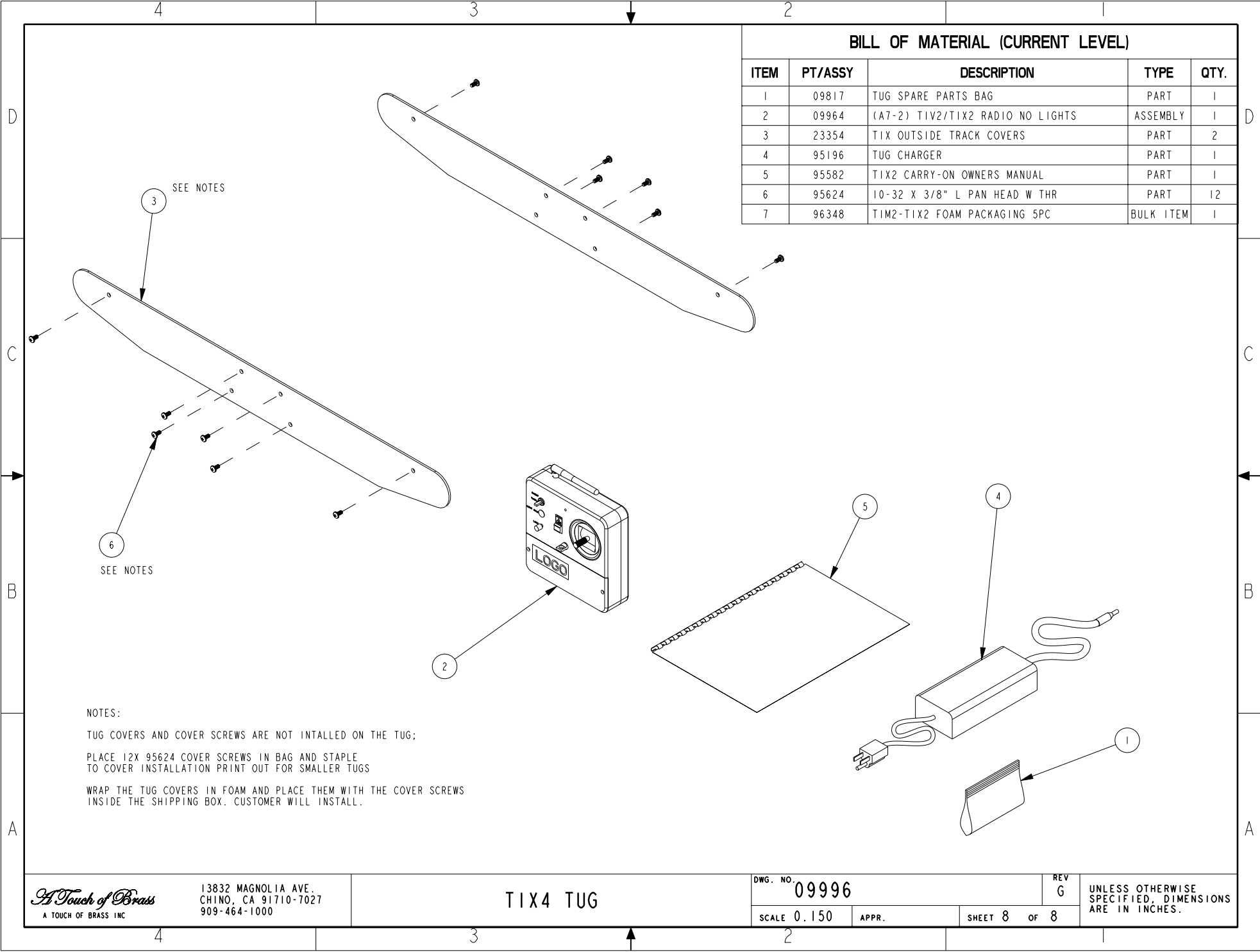
SCALE 0.150

APPR.

SHEET 7 OF 8

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09817	TUG SPARE PARTS BAG	PART	1
2	09964	(A7-2) TIV2/TIX2 RADIO NO LIGHTS	ASSEMBLY	1
3	23354	TIX OUTSIDE TRACK COVERS	PART	2
4	95196	TUG CHARGER	PART	1
5	95582	TIX2 CARRY-ON OWNERS MANUAL	PART	1
6	95624	10-32 X 3/8" L PAN HEAD W THR	PART	12
7	96348	TIM2-TIX2 FOAM PACKAGING 5PC	BULK ITEM	1



SEE NOTES

SEE NOTES

NOTES:

TUG COVERS AND COVER SCREWS ARE NOT INSTALLED ON THE TUG;

PLACE 12X 95624 COVER SCREWS IN BAG AND STAPLE TO COVER INSTALLATION PRINT OUT FOR SMALLER TUGS

WRAP THE TUG COVERS IN FOAM AND PLACE THEM WITH THE COVER SCREWS INSIDE THE SHIPPING BOX. CUSTOMER WILL INSTALL.

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TIX4 TUG

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REV **G**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE 0.150

APPR.

SHEET 8 OF 8