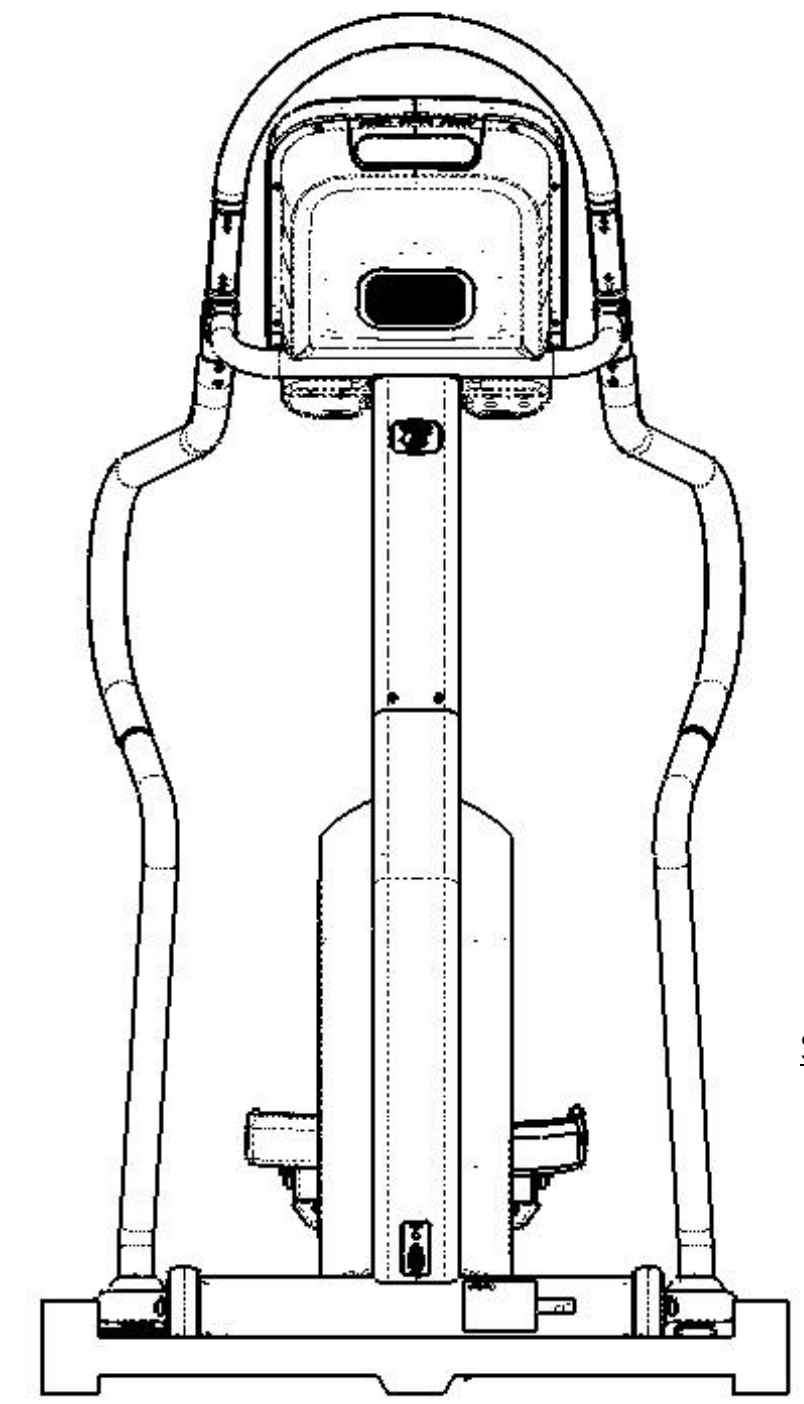
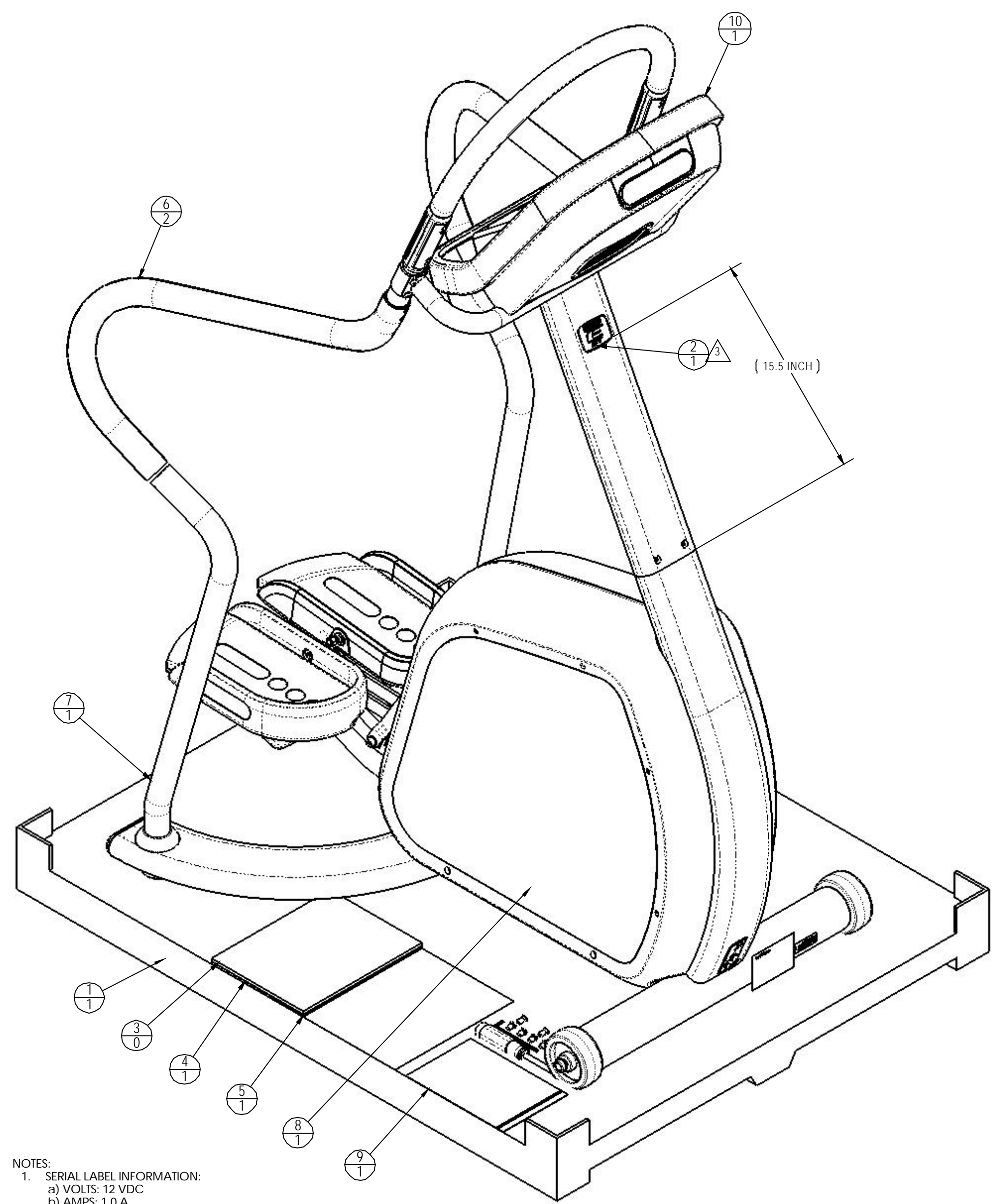


REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	03-26-08	PRODUCTION RELEASE	11822	DN



SCALE: 1:10

- NOTES:
- SERIAL LABEL INFORMATION:
    - VOLTS: 12 VDC
    - AMPS: 1.0 A
    - CYCLES: N/A
    - WATTS: 12 W
    - PHASE: N/A
    - IPX #: IPX 1
  - CERTIFICATION LOGOS:
    - CSA
    - CE
- CLEAN AREA WITH ISOPROPYL ALCOLHOL PRIOR TO PLACING BADGE.

**DOCUMENT STATUS:  
RELEASE**

NOTICE OF PROPRIETARY INFORMATION  
THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION CONTAINED HEREIN BE USED BY OR DISCLOSED TO OTHER EXCEPT AS EXPRESSLY AUTHORIZED BY UNISEN

MATERIAL  
SEE BOM

FINISH  
NA

VENDOR:

P/N: N/A

TOLERANCES UNLESS OTHERWISE SPECIFIED  
X.XXX ± 0.10 (0.25MM) ANGLES ± 2°  
X.XX ± 0.30 (0.76MM) FRACTIONS ± 1/32  
X.X ± 0.50 (1.27MM)  
X ± 1.25 (3.20MM)

DRAWN INITIAL DATE  
CHECKED DN 02/07/08  
APPROVED

**UNISEN, INC. DBA** 14410 Myford Road  
**STAR TRAC** Irvine CA 92606

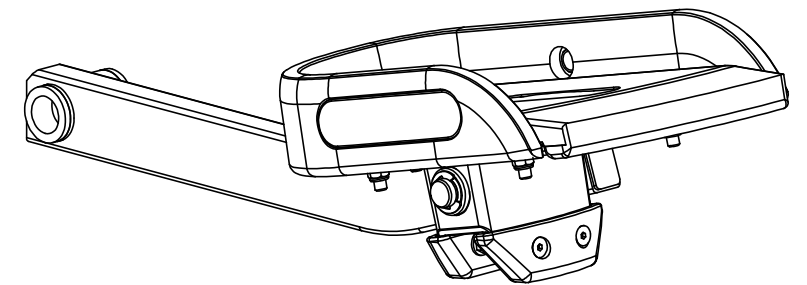
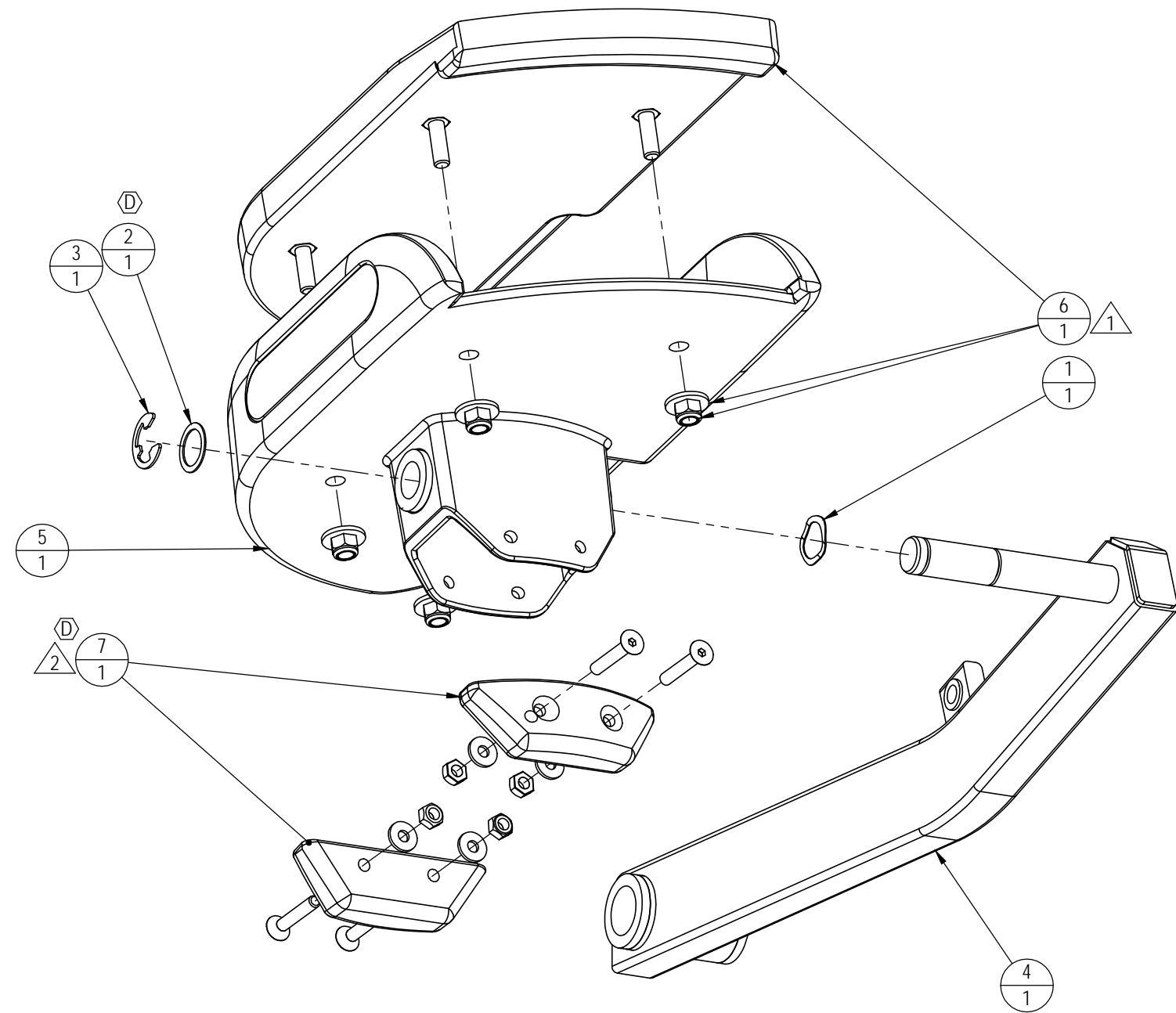
PART NO. **9-5070-MINTPO** REV **A**

TITLE  
E-ST5070, S/P,M, INT

SCALE: 1:6 SHEET 1 OF 1 SHEET SIZE: C

ITEM	PART NUMBER	DESCRIPTION	QTY.	NOTE
1	050-2046	ASSY, PACKAGING, E-ST	1	
2	050-2094	BADGE, PRODUCT, E-ST	1	
3	620-235-104	DHF, E-SERIES, CARDIO	0	REF
4	620-7135	DOC., WARRANTY, COMMERCIAL	1	
5	620-7690	MANUAL, OWNERS, E-ST	1	
6	710-1072	ASSY, SIDE TUBE, DIPPED	2	
7	711-3192	ASSY, STEP, BASE, DRIVE	1	
8	711-3203	KIT, SHROUD, STEPPER 5040	1	
9	711-3218	KIT, HARDWARE, E-ST	1	
10	711-3225	ASSY, CONSOLE/HNDLBAR, E-ST	1	

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	9/27/05	PRODUCTION RELEASE	11349	FP
B	8/16/06	ADD P/N: <b>120-0505</b> , <b>120-3015</b> , <b>140-0940</b> ; DELETE P/N: 711-3175	11476	FJM
C	04-29-09	ADD TORQUE SPEC OF 120 IN-LB TO NOTE 1.	12089	SCN
D	10-21-09	CHG QTY OF <b>120-3015</b> WAS 2 IS 1; ADD NOTE #2	12301	SCN

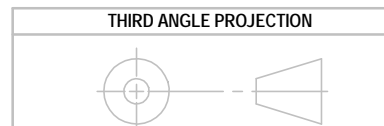


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	<b>120-0505</b>	WASHER, WAVE 3/4" ID	1
2	<b>120-3015</b>	STEEL SHIM,.75ID X 1.125 OD	1
3	<b>140-0940</b>	E-CLIPS, 3/4" ID	1
4	711-3173-01	ASSY, PEDAL ARM, W/BUSHING, LEFT	1
5	711-3174-01	ASSY, PEDAL, W/BUSHING, LEFT	1
6	711-3176-01	KIT, PEDAL PAD, LEFT	1
7	711-3177	KIT, PEDAL STOPS, 5100 STEPPER	1

**DOCUMENT STATUS:  
RELEASE**

- NOTES: (D)
- TORQUE TO 120 IN-LB/ 10 FT-LB/ 13.6 Nm
  - TIGHTEN HARDWARE SNUGLY TO RUBBER PADS WITHOUT DEFORMING RUBBER

NOTICE OF PROPRIETARY INFORMATION  
THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION CONTAINED HEREIN BE USED BY OR DISCLOSED TO OTHER EXCEPT AS EXPRESSLY AUTHORIZED BY UNISEN INC, D.B.A. STAR TRAC.



MATERIAL  
SEE BOM

FINISH  
N/A

VENDOR: P/N:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:  
DECIMALS X. = ±.13  
X.X = ±.05  
X.XX = ±.03  
X.XXX = ±.010

INITIAL DATE  
DRAWN FP 09-15-05  
CHECKED  
APPROVED

U.O.M. INCH

UNISEN, INC. DBA  
14410 Myford Road  
Irvine CA 92606

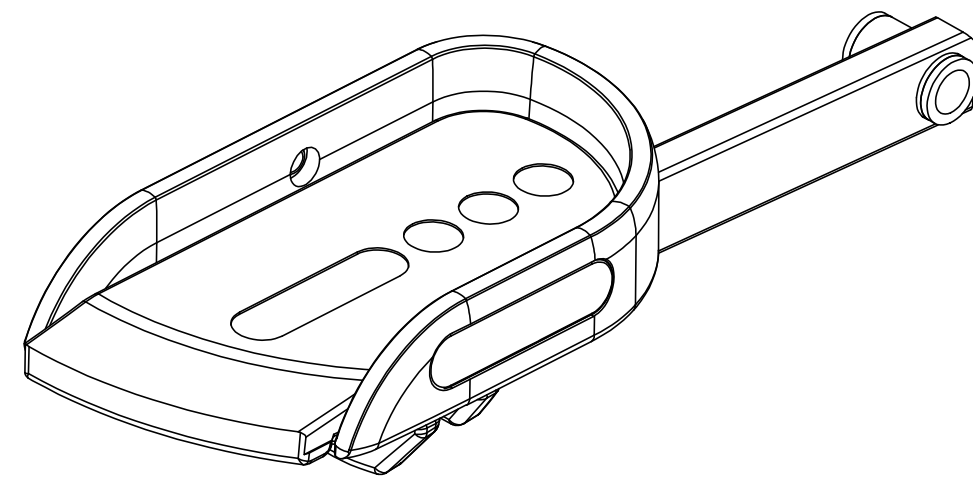
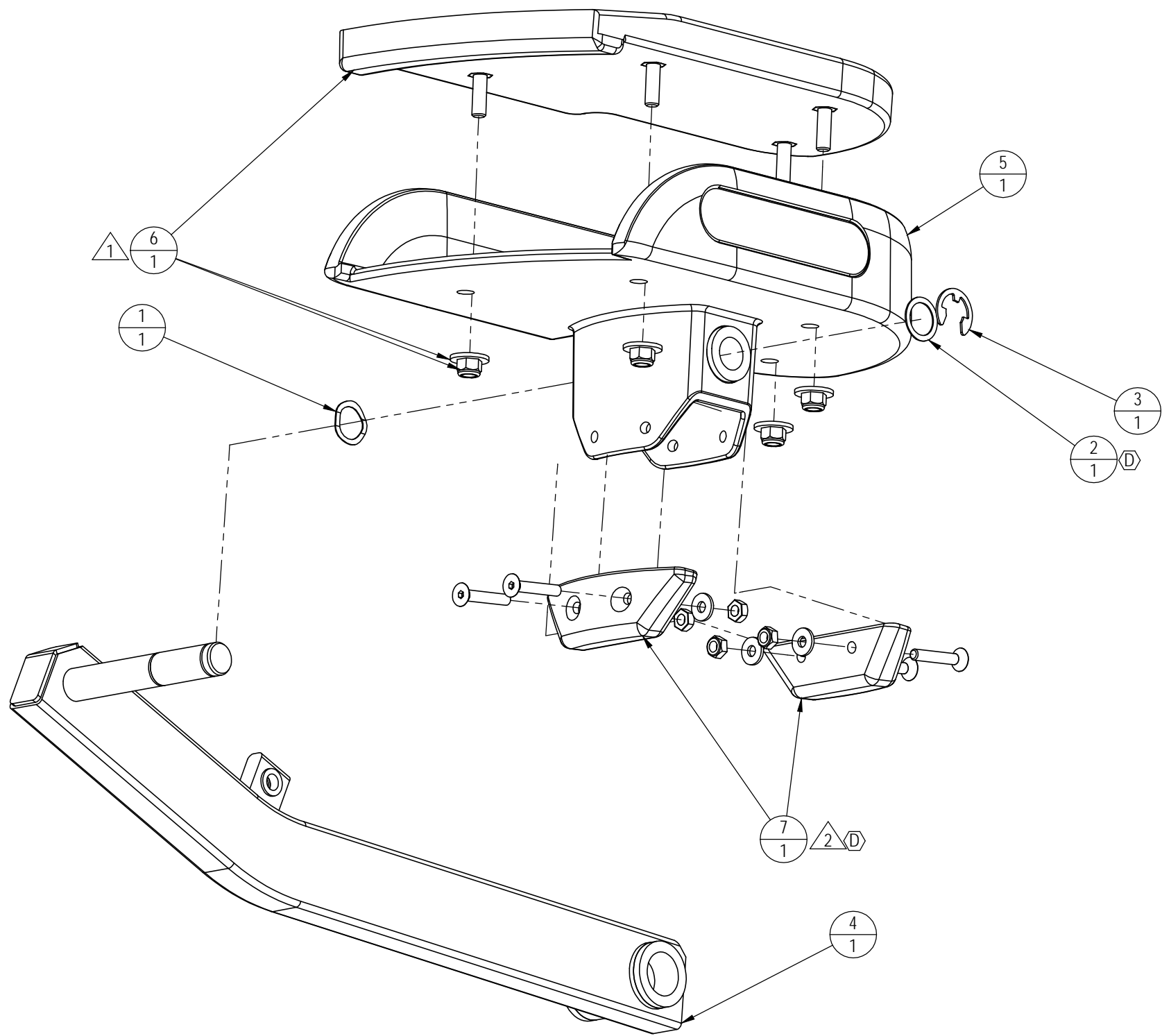


STARTRAC PART NO. **711-1045-01** REV **D**

TITLE  
**PEDAL ARM, LEFT, STEPPER**

SCALE: 1:3 | SHEET 1 OF 1 | SHEET SIZE: B

		REVISIONS		1	
REV.	DATE	DESCRIPTION	ECO	BY	
A	9/27/05	PRODUCTION RELEASE	11349	FP	
B	8/16/06	ADD P/N: 120-0505, 120-3015, 140-0940; DELETE P/N: 711-3175	11476	FJM	
C	04-29-09	ADD TORQUE SPEC OF 120 IN-LB TO NOTE 1	12089	SCN	
D	10-21-09	CHG QTY OF 120-3015 WAS 2 IS 1; ADD NOTE #2	12301	SCN	

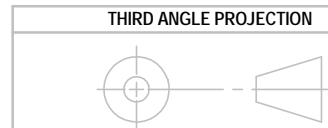


ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	120-0505	WASHER, WAVE 3/4" ID	1
2	120-3015	STEEL SHIM, .75ID X 1.125 OD	1
3	140-0940	E-CLIPS, 3/4" ID	1
4	711-3173-02	ASSY, PEDAL ARM, W/BUSHING, RIGHT	1
5	711-3174-02	ASSY, PEDAL, W/BUSHING, RIGHT	1
6	711-3176-02	KIT, PEDAL PAD, RIGHT	1
7	711-3177	KIT, PEDAL STOPS, 5100 STEPPER	1

**DOCUMENT STATUS:  
RELEASE**

- NOTES: <sup>D</sup>
- TORQUE TO 120 IN-LB/ 10 FT-LB/ 13.6 Nm
  - TIGHTEN HARDWARE SNUGLY TO RUBBER PADS WITHOUT DEFORMING RUBBER

NOTICE OF PROPRIETARY INFORMATION  
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MATERIAL  
SEE BOM

FINISH  
N/A

VENDOR: P/N:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:  
DECIMALS: X. = ±.13, X.X = ±.05, X.XX = ±.03, X.XXX = ±.010  
ANGLES: ±2°

DRAWN: FP, DATE: 09-15-05  
CHECKED:   
APPROVED:   
U.O.M.: INCH

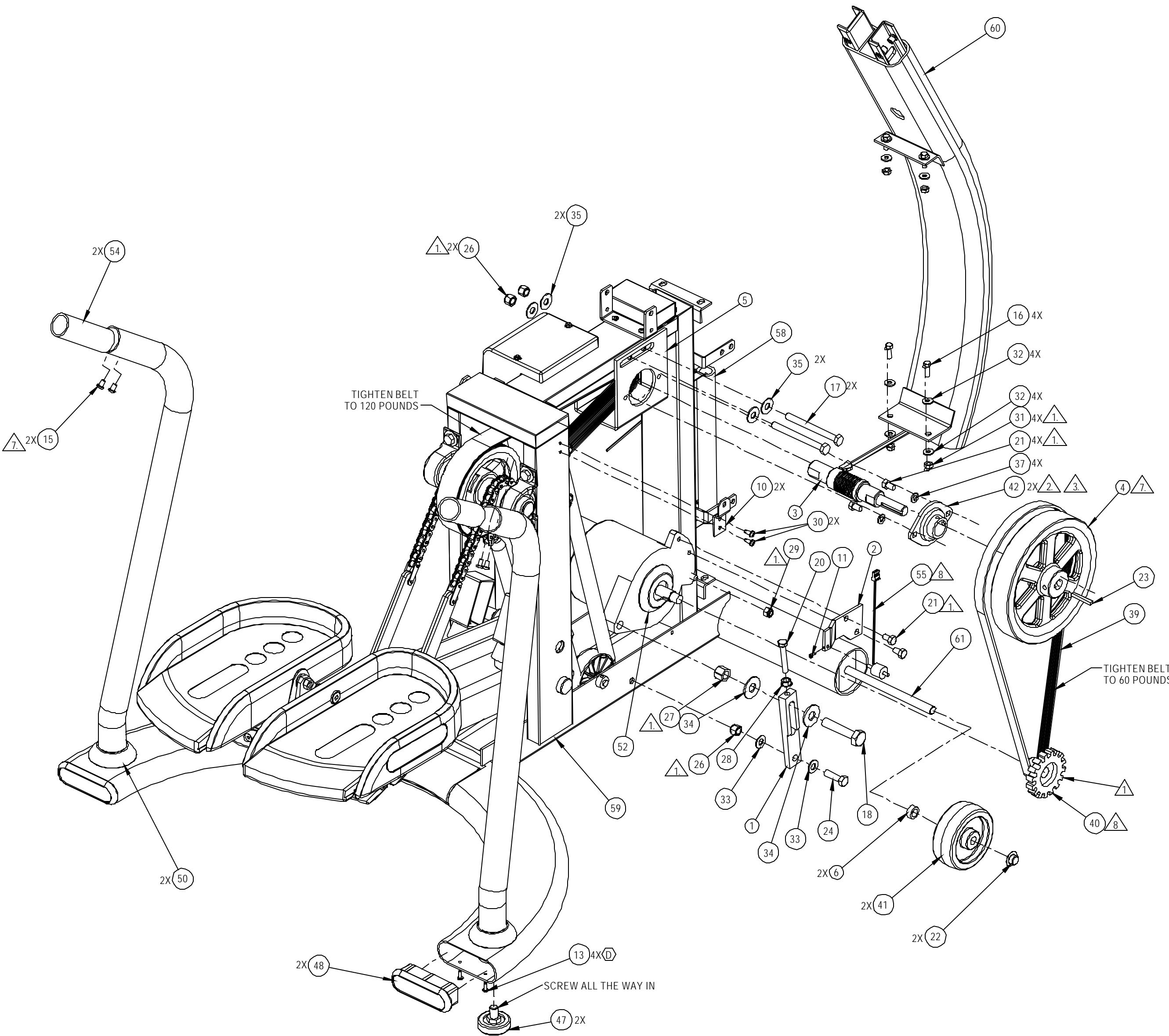
UNISEN, INC. DBA  
**STAR TRAC**  
14410 Myford Road  
Irvine CA 92606

STARTRAC PART NO: **711-1045-02** REV: **D**

TITLE: **PEDAL ARM, RIGHT, STEPPER**

SCALE: 1:3 | SHEET 1 OF 1 | SHEET SIZE: B

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	3/13/07	PRODUCTION RELEASE	11539	DN
B	5/16/07	REPLACED 140-3347 FOR 140-3347-05 (NEW PAINT)	11619	DN
C	3/5/08	ADD P/N: 140-0200, CHANGE P/N: 140-0210 QTY IS 4, WAS: 2 ADD WIRING TIE STRAP DETAIL SHEET 2 OF 2	11811	RKL
D	04-29-09	UPDATE PRINT AND NOTES TO CURRENT INFORMATION: CHG BOM QTY FOR P/N: 140-0490 & 140-0492 TO LINEAR FEET; ADD 110-0285 QTY 4	12089	SCN

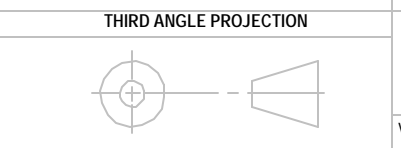


ITEM NO.	PART NUMBER	DESCRIPTION	Default/ QTY.
1	020-0021	BRACKET, ALTERNATOR ADJUST	1
2	020-0023	BRACKET, RPM SENSOR/ALTERNATOR	1
3	020-0141	SHAFT/PULLEY, 1.6130 STP	1
4	020-0681	FLYWHEEL, 8.0" OD X .625" ID	1
5	020-0690	BRACKET, ADJUSTABLE	1
6	020-4604	SPACER, 1/2 ID X 3/4 OD X .31 L	2
7	020-6748	COVER, LCB GUARD, STEPPER	1
8	020-6831	BRACKET, SHROUD MOUNT, STEP	1
9	020-6858	BRACKET, SHROUD, STEP-2	2
10	020-6859	BRACKET, SHROUD, STEP-3	2
11	110-0132	SCREW, #6-32x1/4, SHC, HK, AS, NP	1
12	110-0280	SCREW, #6-32x7/8, PHM, SL, CS, ZI	2
13	110-0285	SCREW, #8-18x1/2, PHT-AB, PH, SS	4
14	110-0501	SCREW, 1/4-20x3.25, HHC, CS, ZP	1
15	110-0506	SCREW, 1/4-28x3/8, BHC, HK, SS, BO	4
16	110-0570	SCREW, 1/4-20x3/4, HHC, HE, CS, ZP	4
17	110-0601	SCREW, 3/8-16x4.0, SHC, HE, CS, ZP	2
18	110-0610	BOLT, 1/2-13x2.5, HHC, HE, CS, ZI	1
19	110-0652	BOLT, 5/16-18x4.0, HHC, HE, CS, ZP	1
20	110-0686	BOLT, 5/16-18 X 2.0" HHCS FULLTHREAD	1
21	110-0687	SCREW, 5/16-18x1/2, HHC, HE, CS, Z	6
22	110-1415	CAP, 1/2 PUSH ON	2
23	110-1442	KEY, MACHINE 3/16X3/16X1.5"	1
24	110-1530	SCREW, 3/8-16x1.25, HHC, HE, CS, Z	1
25	110-1740	NUT, 6-32, KEP	2
26	110-1830	NUT, 3/8-16, NYLOK HEX	3
27	110-1833	NUT, 1/2-13, NYLOK HEX	1
28	110-1870	NUT, 5/16-18 KEPS	1
29	110-1871	NUT, NYLON INSERT	1
30	110-3026	SCREW, 10-24X.50" PPHCS	16
31	110-3098	NUT, 1/4-20, HEX, NYLOC	4
32	120-0410	WASHER, 1/4, SAE FLAT	9
33	120-0460	WASHER, 3/8, SAE FLAT	2
34	120-0462	WASHER, 1/2" FLAT 9/16ID 1-3/8OD	2
35	120-0463	WASHER, 3/8 X 1 OD	4
36	120-0480	WASHER, 5/16 ID, 7/8 OD, .087 THK	1
37	120-0495	WASHER, 5/16, SPLIT LOCK	4
38	120-0800	SPACER, #6, 1/4" OD x 1/2" L, NY	2
39	130-0123	BELT, 450J7 POLY VEE	1
40	130-1302	DRIVE PULLEY, 7J130 STEPPER	1
41	130-1694	WHEEL, 4.0" OD X 0.5" BORE	2
42	130-7008	FLANGE BEARING ASSY, 1"	2
43	140-0200	TIE STRAP, 5"	2
44	140-0210	TIE STRAP, 3.5"	4
45	140-0490	TAPE, VELCRO HOOKS	5-FT
46	140-0492	TAPE, VELCRO LOOPS	5-FT
47	140-3247	LEVELER, FEET ADJUSTMENT	2
48	140-3310	END CAP, STEP, BASE	2
49	140-3325	TIE MT, 2-WAY EXT, .18" TIE	2
50	140-3347-05	BOOT, HANDRAIL, STEPPER	2
51	170-0688	BRACKET, RESISTOR	4
52	260-0182	ALTERNATOR, MONDO	1
53	580-0275	BATTERY, 6V NP	1
54	710-0521	INSERT, SIDERAIL, UNIVERSAL	2
55	711-0225	RPM SENSOR COIL ASSY, STEPPER	1
56	711-3162	ASSY, LCB, STEPPER	1
57	711-3166	CABLE, ALT AND LCB, VLAD, STEP, 5100	1
58	711-3167	CABLE, RESISTOR, STEPPER	1
59	711-3193	KIT, STEP, FRAME, 5100	1
60	711-3199	ASSY, BASE NECK, STEPPER	1
61	715-3430	AXLE, ELEVATION, PRO TR	1

- NOTES: (D)
- TORQUE TO 120 IN-LB/ 10 FT-LB/ 13.6 Nm
  - ON THE FLYWHEEL SIDE, MOUNT BEARING ON INSIDE OF BRACKET. THE SET SCREW SIDE OF THE BEARING SHOULD BE DIRECTED TOWARDS THE FLYWHEEL
  - APPLY LOCTITE 222 (PURPLE), AND TORQUE TO BEARING MANUFACTURER SPECIFICATIONS
  - CUT P/N: 140-0490 & 140-492 INTO 3" STRIPS
  - BEFORE COVER IS ATTACHED TO LCB BOARD, THE RPM, MAIN I/O, RESISTOR, AND ALTERNATOR HARNESS MUST BE ATTACHED.
  - CABLE HARNESS CONNECTS TO: LCB, BATTERY, ALTERNATOR, AND TO THE PLATE ON THE BASE OF THE NEXK ASSEMBLY
  - TORQUE TO 75 IN-LB. 6.3 FT-LB/ 8.5 Nm
  - ADJUST A GAP OF 0.020" IN BETWEEN 711-0225 PIN TO 130-1302 TOOTH

**DOCUMENT STATUS:  
RELEASE**

NOTICE OF PROPRIETARY INFORMATION  
THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION CONTAINED HEREIN BE USED BY OR DISCLOSED TO OTHER EXCEPT AS EXPRESSLY AUTHORIZED BY UNISEN INC. D.B.A. STAR TRAC.



**MATERIAL**  
SEE BOM

**FINISH**  
SEE NOTE

VENDOR: \_\_\_\_\_ PIN: \_\_\_\_\_

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:

DECIMALS: X = ±.13, XX = ±.05, XXX = ±.03, X.XXX = ±.010

ANGLES: 12°

DRAWN: DNGO INITIAL: \_\_\_\_\_ DATE: 05-11-07

CHECKED: \_\_\_\_\_

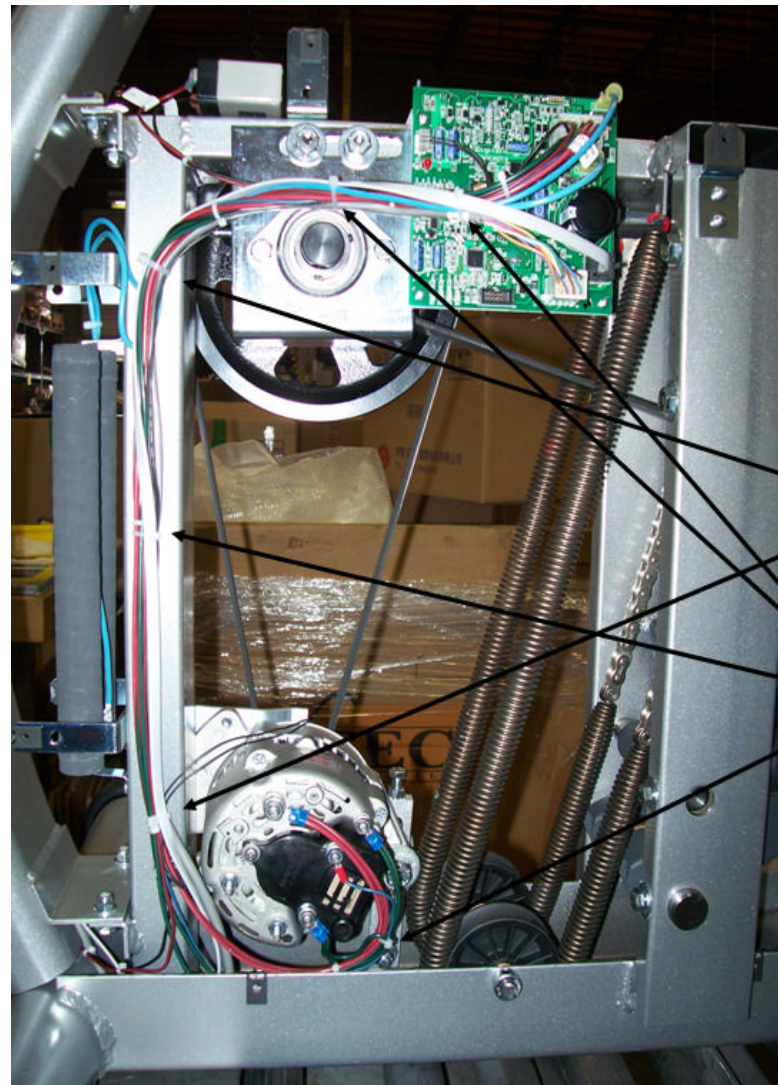
APPROVED: \_\_\_\_\_

**UNISEN, INC. DBA STAR TRAC** 14410 Myford Road Irvine CA 92606

STARTRAC PART NO: **711-3192** REV: **D**

TITLE: **ASSY, STEP, BASE, DRIVE**

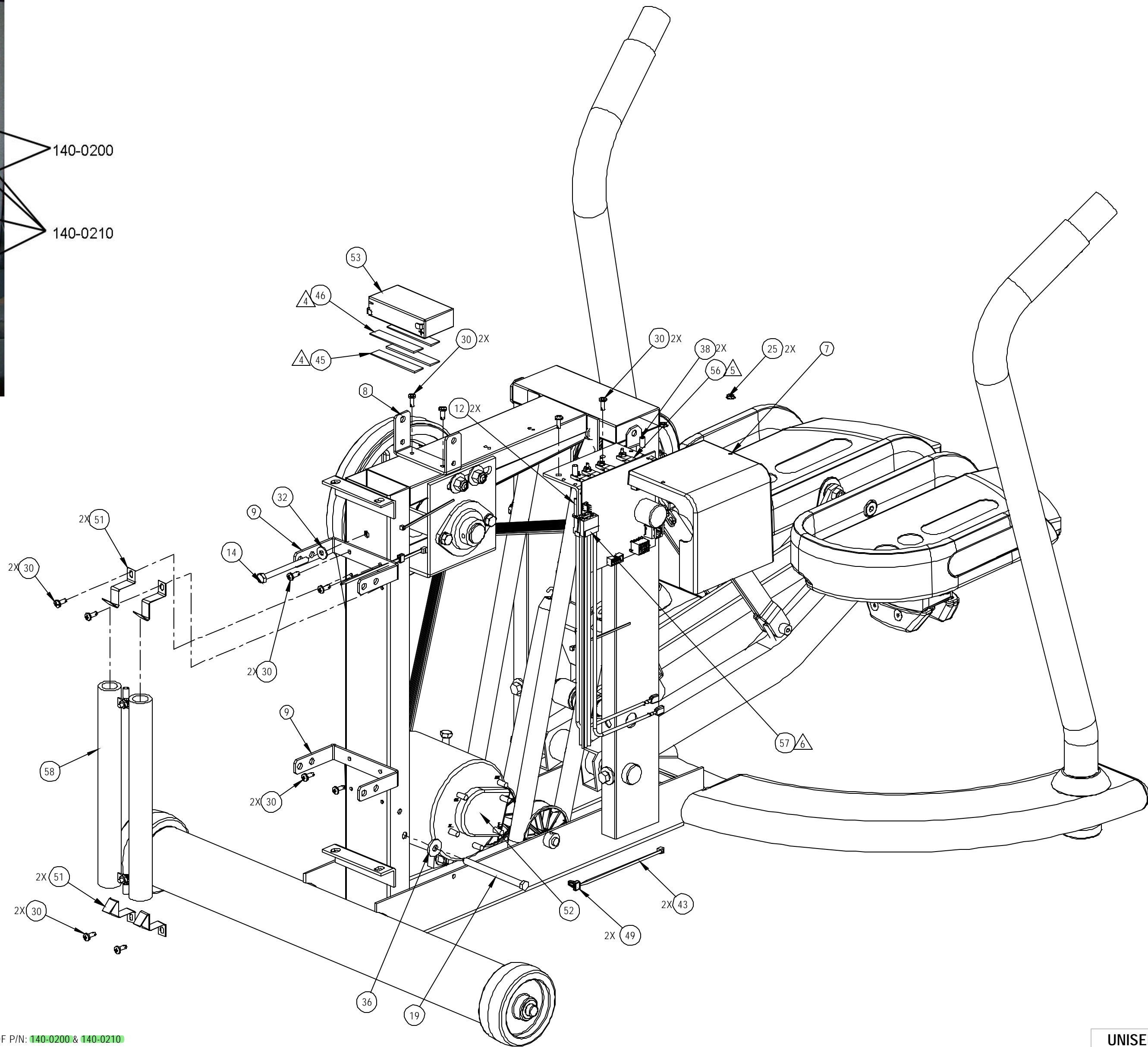
SCALE: 1:5 SHEET 1 OF 2 SHEET SIZE: C



140-0200

140-0210

43 44 9. DIAGRAM 1



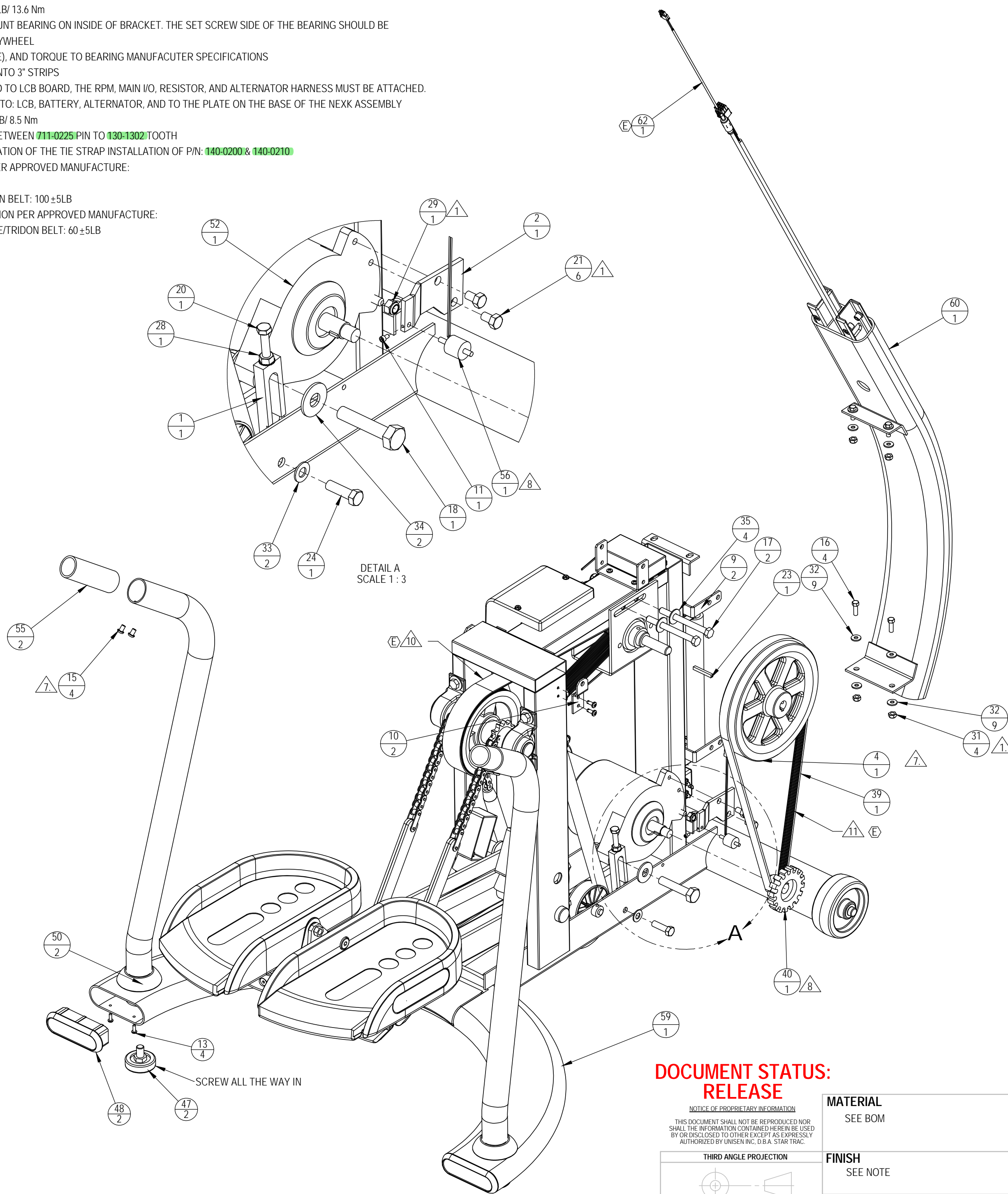
NOTES:

9. DIAGRAM 1 SHOWS THE LOCATION OF THE TIE STRAP INSTALLATION OF P/N: 140-0200 & 140-0210

UNISEN, INC. DBA 14410 Myford Road Irvine CA 92606	
STARTRAC PART NO <b>711-3192</b>	REV <b>D</b>
TITLE <b>ASSY, STEP, BASE, DRIVE</b>	
SCALE: 1:4	SHEET 2 OF 2   SHEET SIZE: C

NOTES: (E)

1. TORQUE TO 120 IN-LB/ 10 FT-LB/ 13.6 Nm
2. ON THE FLYWHEEL SIDE, MOUNT BEARING ON INSIDE OF BRACKET. THE SET SCREW SIDE OF THE BEARING SHOULD BE DIRECTED TOWARDS THE FLYWHEEL
3. APPLY LOCTITE 222 (PURPLE), AND TORQUE TO BEARING MANUFACUTER SPECIFICATIONS
4. CUT P/N: 140-0490 & 140-492 INTO 3" STRIPS
5. BEFORE COVER IS ATTACHED TO LCB BOARD, THE RPM, MAIN I/O, RESISTOR, AND ALTERNATOR HARNESS MUST BE ATTACHED.
6. CABLE HARNESS CONNECTS TO: LCB, BATTERY, ALTERNATOR, AND TO THE PLATE ON THE BASE OF THE NEXK ASSEMBLY
7. TORQUE TO 75 IN-LB. 6.3 FT-LB/ 8.5 Nm
8. ADJUST A GAP OF 0.020" IN BETWEEN 711-0225 PIN TO 130-1302 TOOTH
9. DIAGRAM 1 SHOWS THE LOCATION OF THE TIE STRAP INSTALLATION OF P/N: 140-0200 & 140-0210
10. MAIN DRIVE (J16) TENSION PER APPROVED MANUFACTURE:
  - a. BANDO BELT: 125 ±5LB
  - b. JASON/MEGADYNE/TRIDON BELT: 100 ±5LB
11. ALTERNATOR BELT (J7) TENSION PER APPROVED MANUFACTURE:
  - a. BANDO/JASON/MEGADYNE/TRIDON BELT: 60 ±5LB



**DOCUMENT STATUS:  
RELEASE**

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**MATERIAL**  
SEE BOM

**FINISH**  
SEE NOTE

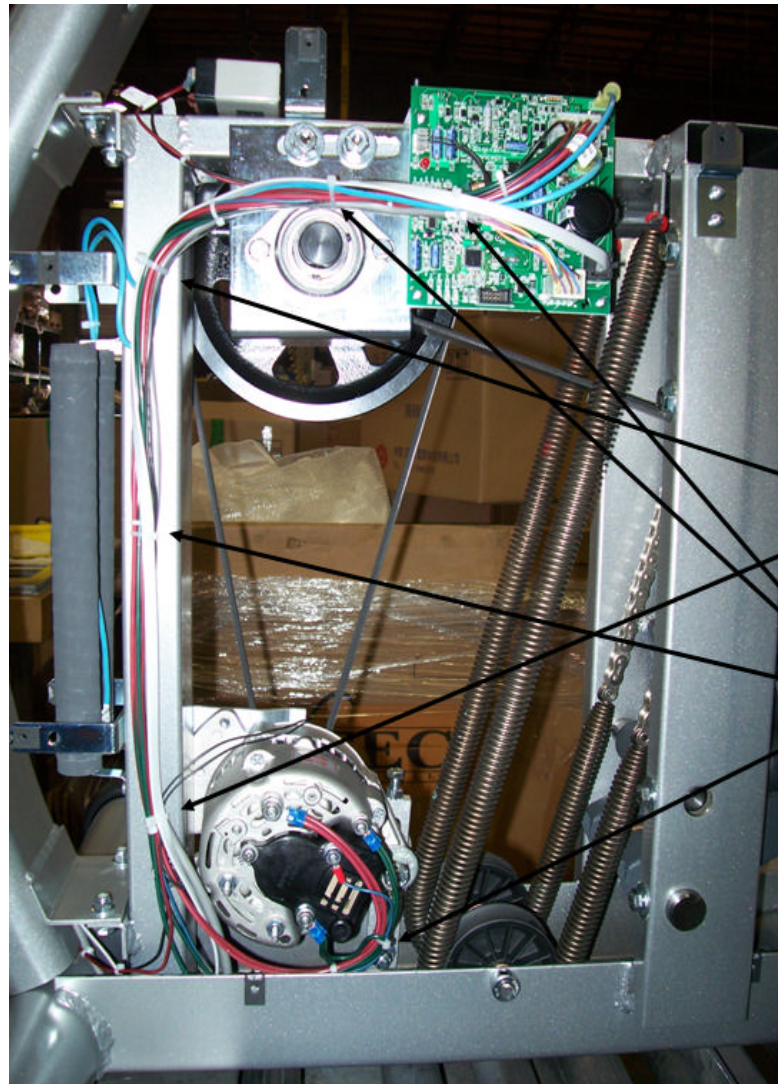
VENDOR: \_\_\_\_\_ P/N: \_\_\_\_\_

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	3/13/07	PRODUCTION RELEASE	11539	DN
B	5/16/07	REPLACED 140-3347 FOR 140-3347-05 (NEW PAINT)	11619	DN
C	3/5/08	ADD P/N: 140-0200, CHANGE P/N: 140-0210 QTY IS 4, WAS: 2 ADD WIRING TIE STRAP DETAIL SHEET 2 OF 2	11811	RKL
D	04-29-09	UPDATE PRINT AND NOTES TO CURRENT INFORMATION: CHG BOM QTY FOR P/N: 140-0490 & 140-0492 TO LINEAR FEET; ADD 110-0285 QTY 4	12089	SCN
E	10-21-09	REMOVE 711-3166 (1); ADD 711-3228 (1), 711-3229 (1), 440-0278 (1); ADD NOTES #10 & #1, CHG QTY OF 110-3026 IS18, WAS 16	12301	SCN

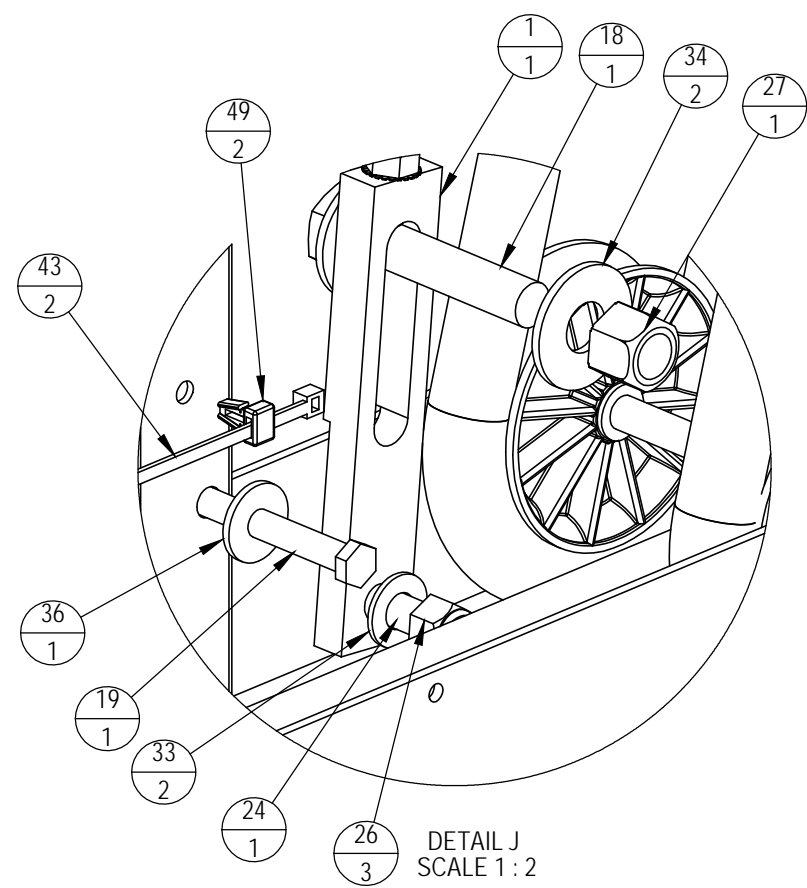
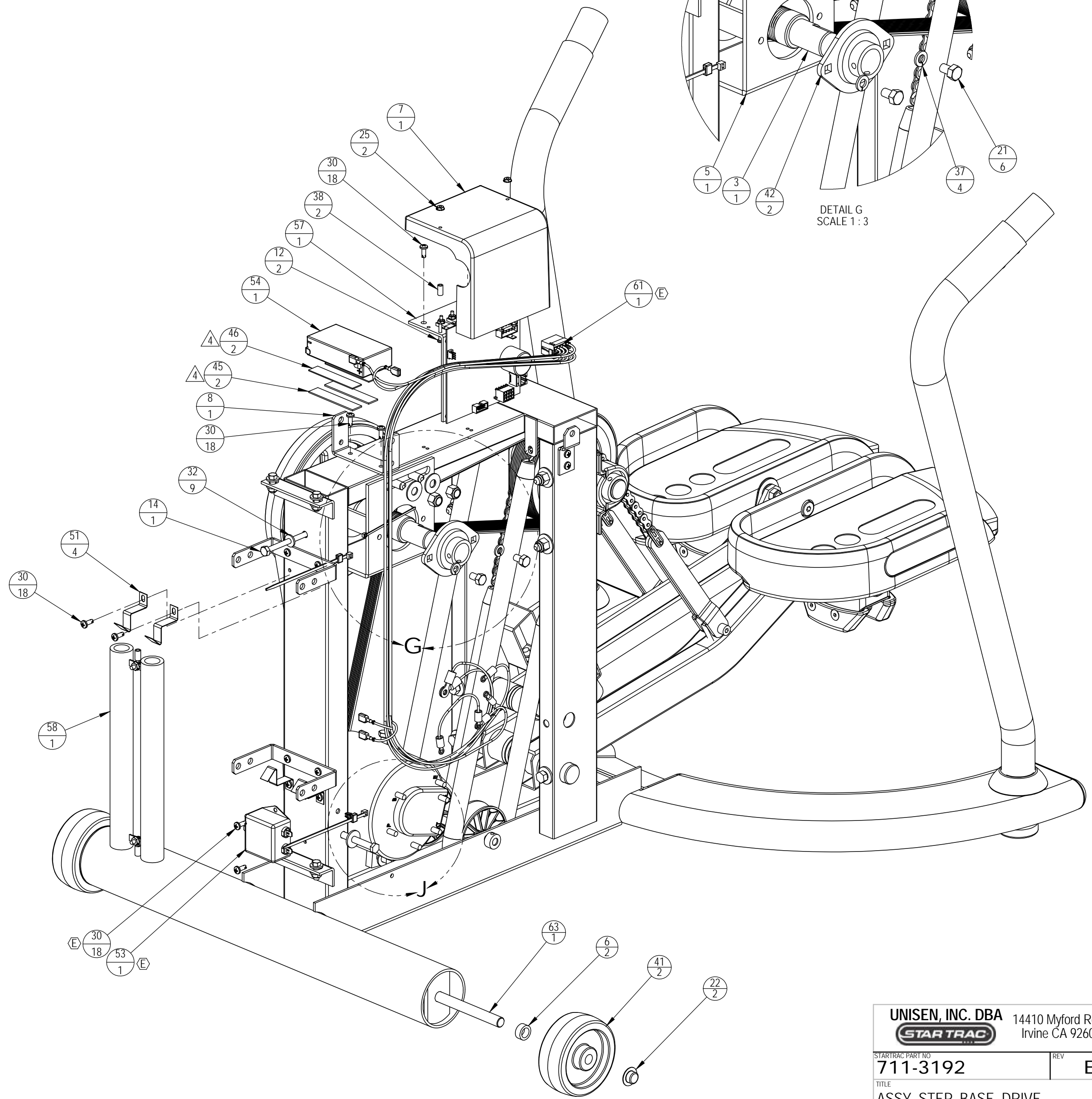
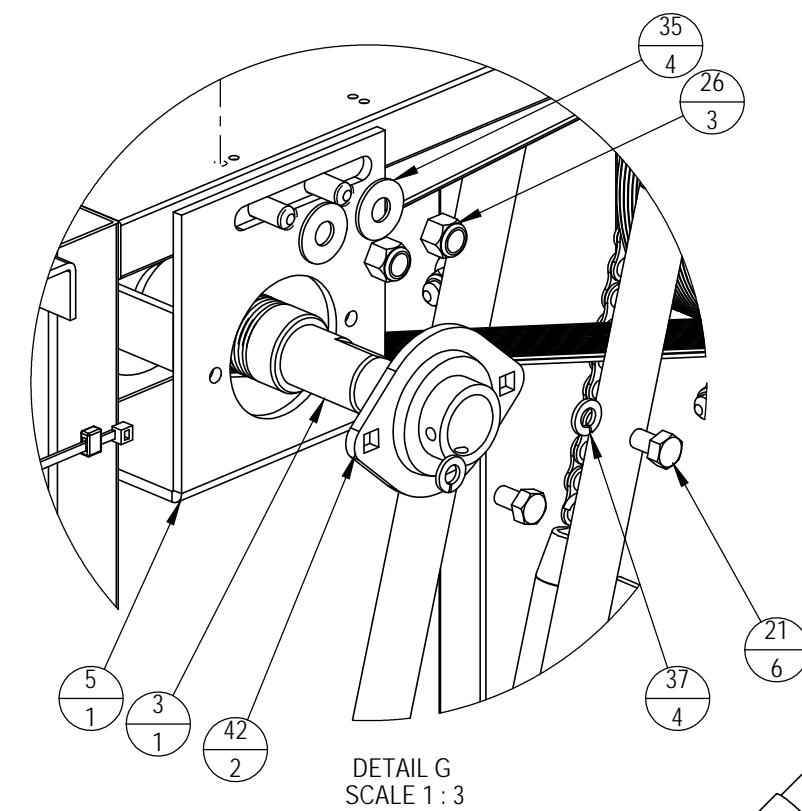
ITEM NO.	PART NUMBER	DESCRIPTION	Default/QTY.
1	020-0021	BRACKET, ALTERNATOR ADJUST	1
2	020-0023	BRACKET, RPM SENSOR/ALTERNATOR	1
3	020-0141	SHAFT/PULLEY,16J130 STP	1
4	020-0681	FLYWHEEL, 8.0" OD X .625" ID	1
5	020-0690	BRACKET, ADJUSTABLE	1
6	020-4604	SPACER, 1/2 ID X 3/4 OD X .31 L	2
7	020-6748	COVER, LCB GUARD, STEPPER	1
8	020-6831	BRACKET, SHROUD MOUNT, STEP	1
9	020-6858	BRACKET, SHROUD, STEP-2	2
10	020-6859	BRACKET, SHROUD, STEP-3	2
11	110-0132	SCREW, #6-32x1/4,SHC,HK,AS,NP	1
12	110-0280	SCREW, #6-32x7/8,PHM,SL,CS,ZI	2
13	110-0285	SCREW, #8-18x1/2,PHT-AB,PH,SS	14
14	110-0501	SCREW, 1/4-20x3.25,HHC,CS,ZP	1
15	110-0506	SCREW, 1/4-28x3/8,BHC,HK,SS,BO	4
16	110-0570	SCREW, 1/4-20x3/4,HHC,HE,CS,ZP	4
17	110-0601	SCREW, 3/8-16x4.0,SHC,HE,CS,ZP	2
18	110-0610	BOLT, 1/2-13x2.5,HHC,HE,CS,ZI	1
19	110-0652	BOLT, 5/16-18x4.0,HHC,HE,CS,ZP	1
20	110-0686	BOLT, 5/16-18 X 2.0" HHCS FULLTHREAD	1
21	110-0687	SCREW, 5/16-18x1/2,HHC,HE,CS,Z	6
22	110-1415	CAP, 1/2 PUSH ON	2
23	110-1442	KEY,MACHINE 3/16X3/16X1.5"	1
24	110-1530	SCREW, 3/8-16x1.25,HHC,HE,CS,Z	1
25	110-1740	NUT, 6-32, KEP	2
26	110-1830	NUT, 3/8-16, NYLOK HEX	3
27	110-1833	NUT, 1/2-13, NYLOK HEX	1
28	110-1870	NUT, 5/16-18 KEPS	1
29	110-1871	NUT, NYLON INSERT	1
30	110-3026	SCREW, 10-24X.50" PPHTCS	18
31	110-3098	NUT, 1/4-20, HEX, NYLOC	4
32	120-0410	WASHER, 1/4, SAE FLAT	9
33	120-0460	WASHER, 3/8, SAE FLAT	2
34	120-0462	WASHER, 1/2"FLAT 9/16ID 1-3/8OD	2
35	120-0463	WASHER, 3/8 X 1 OD	4
36	120-0480	WASHER, 5/16 ID, 7/8 OD, .087 THK	1
37	120-0495	WASHER, 5/16, SPLIT LOCK	4
38	120-0800	SPACER, #6, 1/4"ODx1/2" L, NY	2
39	130-0123	BELT, 450J7 POLY VEE	1
40	130-1302	DRIVE PULLEY,7J130 STEPPER	1
41	130-1694	WHEEL, 4.0" OD X 0.5" BORE	2
42	130-7008	FLANGE BEARING ASSY, 1"	2
43	140-0200	TIE STRAP, 5"	2
44	140-0210	TIE STRAP, 3.5"	4
45	140-0490	TAPE, VELCRO HOOKS	.5-FT
46	140-0492	TAPE, VELCRO LOOPS	.5-FT
47	140-3247	LEVELER, FEET ADJUSTMENT	2
48	140-3310	END CAP, STEP, BASE	2
49	140-3325	TIE MT, 2-WAY EXT, .18" TIE	2
50	140-3347-05	BOOT, HANDRAIL, STEPPER	2
51	170-0688	BRACKET, RESISTOR	4
52	260-0182	ALTERNATOR, MONDO	1
53	440-0278	FILTER, NOISE, STEPPER	1
54	580-0275	BATTERY, 6V NP	1
55	710-0521	INSERT, SIDERAIL, UNIVERSAL	2
56	711-0225	RPM SENSOR COIL ASSY,STEPPER	1
57	711-3162	ASSY, LCB, STEPPER	1
58	711-3167	CABLE, RESISTOR, STEPPER	1
59	711-3193	KIT, STEP, FRAME, 5100	1
60	711-3199	ASSY, BASE NECK, STEPPER	1
61	711-3228	CABLE, EMI, ALT AND LCB, VLAD, STEP	1
62	711-3229	CABLE, EMI, POWER, VLAD, STEP	1
63	715-3430	AXLE, ELEVATION, PRO TR	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		UNISEN, INC. DBA 14410 Myford Road Irvine CA 92606			
DECIMALS	ANGLES	STARTRAC PART NO <b>711-3192</b> TITLE <b>ASSY, STEP, BASE, DRIVE</b> SCALE: 1:5 SHEET 1 OF 2 SHEET SIZE: C			
X = ±.13	±.2°				
XX = ±.05					
XXX = ±.03		DRAWN	DNGO	DATE	05-11-07
XXXX = ±.010		CHECKED			
		APPROVED			

INITIAL	DATE	REV	E
U.O.M.	INCH		



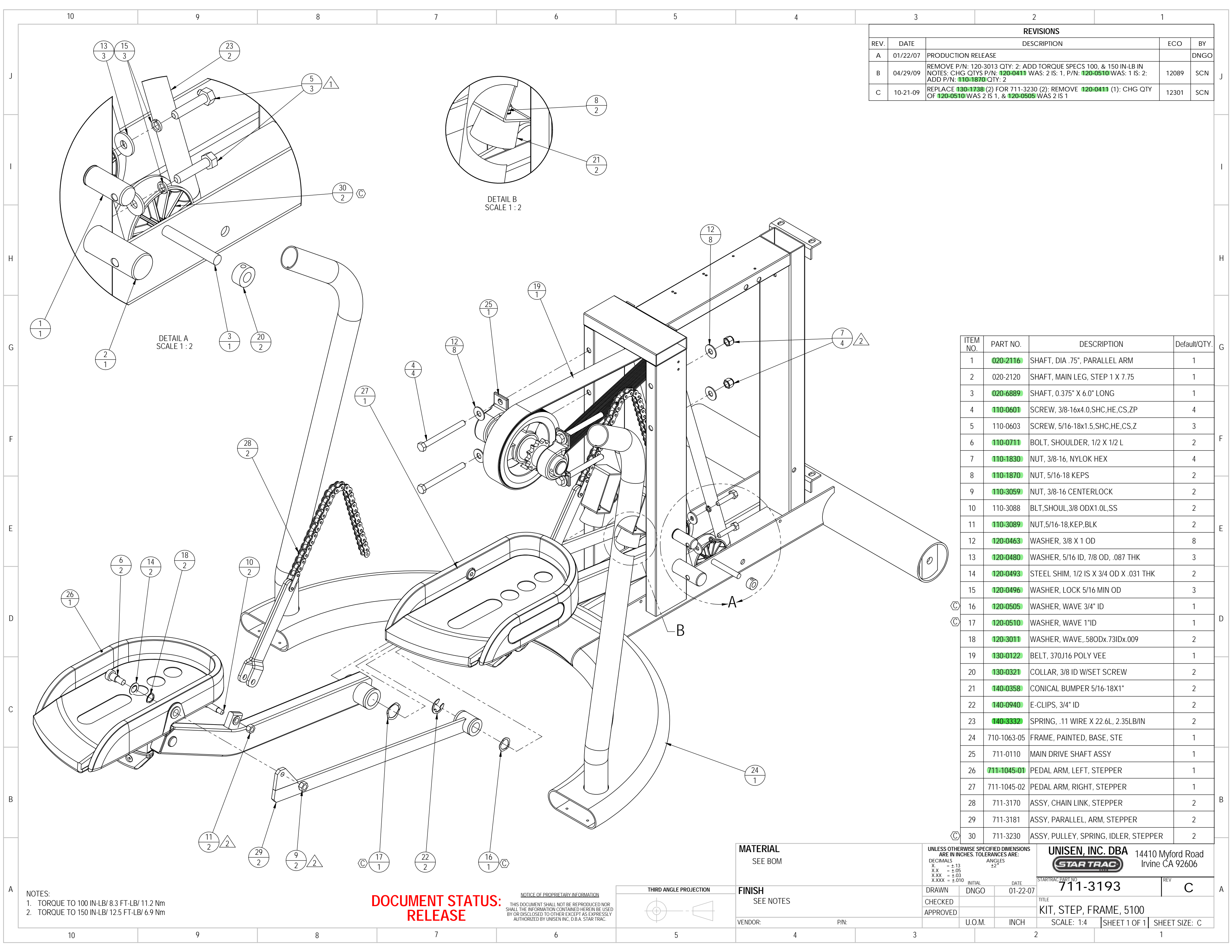
9. DIAGRAM 1



NOTES: SEE SHEET 1

UNISEN, INC. DBA		14410 Myford Road	
STARTRAC		Irvine CA 92606	
STARTRAC PART NO	REV		
711-3192	E		
TITLE			
ASSY, STEP, BASE, DRIVE			
SCALE: 1:4	SHEET 2 OF 2	SHEET SIZE: C	

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	01/22/07	PRODUCTION RELEASE		DNGO
B	04/29/09	REMOVE P/N: 120-3013 QTY: 2; ADD TORQUE SPECS 100, & 150 IN-LB IN NOTES; CHG QTY'S P/N: 120-0411 WAS: 2 IS: 1, P/N: 120-0510 WAS: 1 IS: 2; ADD P/N: 110-1870 QTY: 2	12089	SCN
C	10-21-09	REPLACE 130-1738 (2) FOR 711-3230 (2); REMOVE 120-0411 (1); CHG QTY OF 120-0510 WAS 2 IS 1, & 120-0505 WAS 2 IS 1	12301	SCN

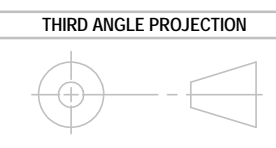


ITEM NO.	PART NO.	DESCRIPTION	Default/QTY.
1	020-2116	SHAFT, DIA .75", PARALLEL ARM	1
2	020-2120	SHAFT, MAIN LEG, STEP 1 X 7.75	1
3	020-6889	SHAFT, 0.375" X 6.0" LONG	1
4	110-0601	SCREW, 3/8-16x4.0,SHC,HE,CS,ZP	4
5	110-0603	SCREW, 5/16-18x1.5,SHC,HE,CS,Z	3
6	110-0711	BOLT, SHOULDER, 1/2 X 1/2 L	2
7	110-1830	NUT, 3/8-16, NYLOK HEX	4
8	110-1870	NUT, 5/16-18 KEPS	2
9	110-3059	NUT, 3/8-16 CENTERLOCK	2
10	110-3088	BLT,SHOUL,3/8 ODX1.0L,SS	2
11	110-3089	NUT,5/16-18,KEP,BLK	2
12	120-0463	WASHER, 3/8 X 1 OD	8
13	120-0480	WASHER, 5/16 ID, 7/8 OD, .087 THK	3
14	120-0493	STEEL SHIM, 1/2 IS X 3/4 OD X .031 THK	2
15	120-0496	WASHER, LOCK 5/16 MIN OD	3
16	120-0505	WASHER, WAVE 3/4" ID	1
17	120-0510	WASHER, WAVE 1"ID	1
18	120-3011	WASHER, WAVE, .58ODx.73IDx.009	2
19	130-0122	BELT, 370J16 POLY VEE	1
20	130-0321	COLLAR, 3/8 ID W/SET SCREW	2
21	140-0358	CONICAL BUMPER 5/16-18X1"	2
22	140-0940	E-CLIPS, 3/4" ID	2
23	140-3332	SPRING, .11 WIRE X 22.6L, 2.35LB/IN	2
24	710-1063-05	FRAME, PAINTED, BASE, STE	1
25	711-0110	MAIN DRIVE SHAFT ASSY	1
26	711-1045-01	PEDAL ARM, LEFT, STEPPER	1
27	711-1045-02	PEDAL ARM, RIGHT, STEPPER	1
28	711-3170	ASSY, CHAIN LINK, STEPPER	2
29	711-3181	ASSY, PARALLEL, ARM, STEPPER	2
30	711-3230	ASSY, PULLEY, SPRING, IDLER, STEPPER	2

NOTES:  
 1. TORQUE TO 100 IN-LB/ 8.3 FT-LB/ 11.2 Nm  
 2. TORQUE TO 150 IN-LB/ 12.5 FT-LB/ 6.9 Nm

**DOCUMENT STATUS:  
RELEASE**

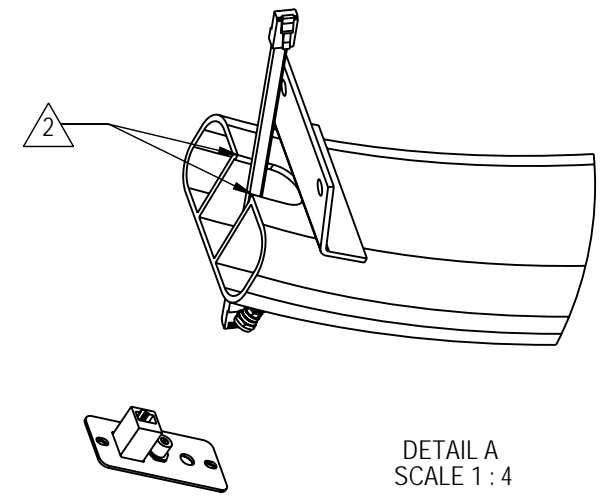
NOTICE OF PROPRIETARY INFORMATION  
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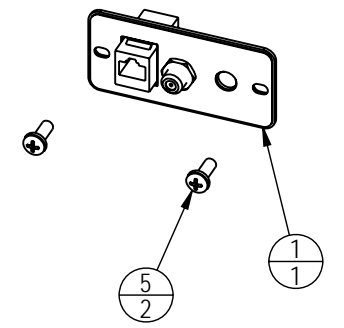
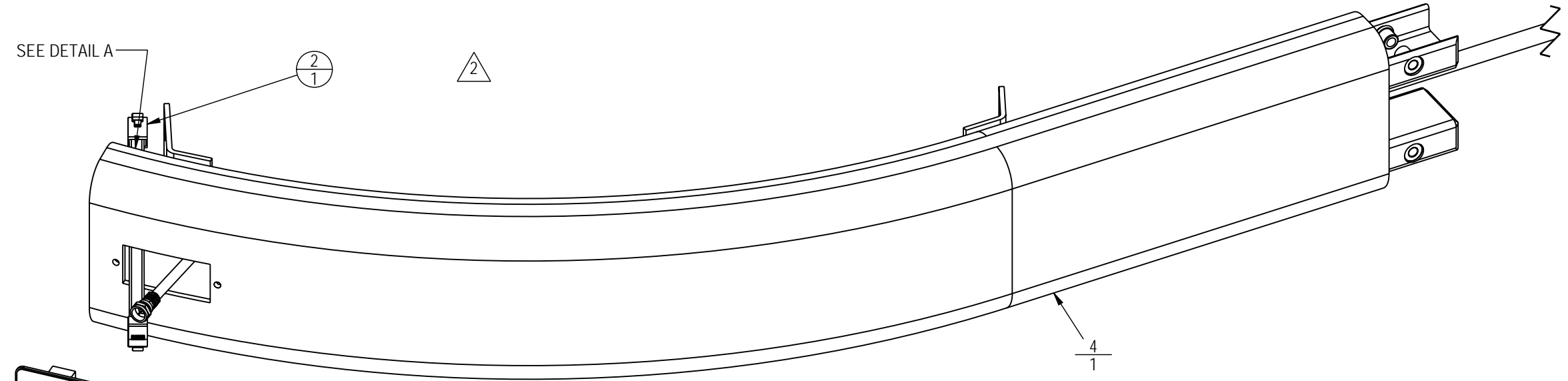
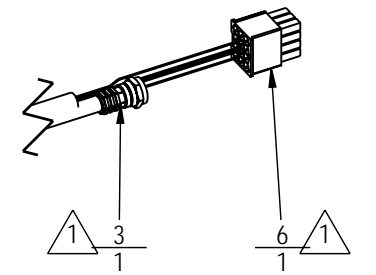
<b>MATERIAL</b> SEE BOM		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS X = ±.13 XX = ±.05 XXX = ±.03 X.XXX = ±.010		<b>UNISEN, INC. DBA</b>  14410 Myford Road Irvine CA 92606	
<b>FINISH</b> SEE NOTES		INITIAL	DATE	STARTRAC PART NO	REV
VENDOR:		DNGO	01-22-07	711-3193	C
P/N:		CHECKED		TITLE	
		APPROVED		KIT, STEP, FRAME, 5100	
		U.O.M.	INCH	SCALE: 1:4	SHEET 1 OF 1
				SHEET SIZE: C	



REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	02-12-2007	RELEASE FOR PRODUCTION	11539	DN



DETAIL A  
SCALE 1:4




ITEM	PART NUMBER	DESCRIPTION	QTY.
1	721-1134	ASSY,CONNECTOR,VLAD	1
2	711-3161	ASSY, HARNESS, CSAFE EXT,STEP	1
3	718-5126	CABLE,ANTENNA,M-M, ST/TBT	1
4	711-3200	ASSY, FRONT NECK, LOWER, STEP	1
5	110-3026	SCREW, 10-24X.50" PPHTCS	2
6	711-3185	ASSY, CABLE, INTERFACE, SC5100	1

DOCUMENT STATUS:  
REVIEW

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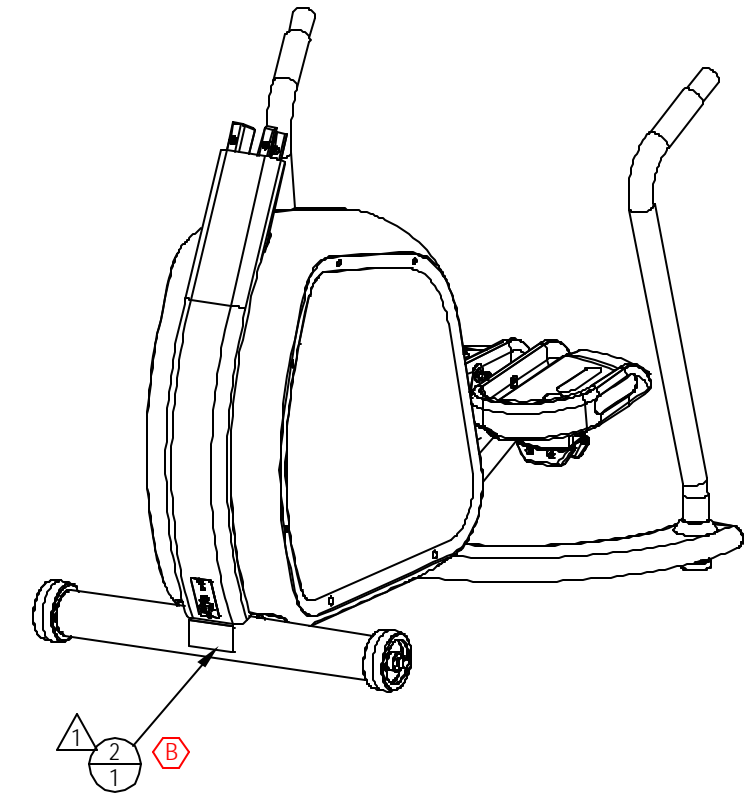
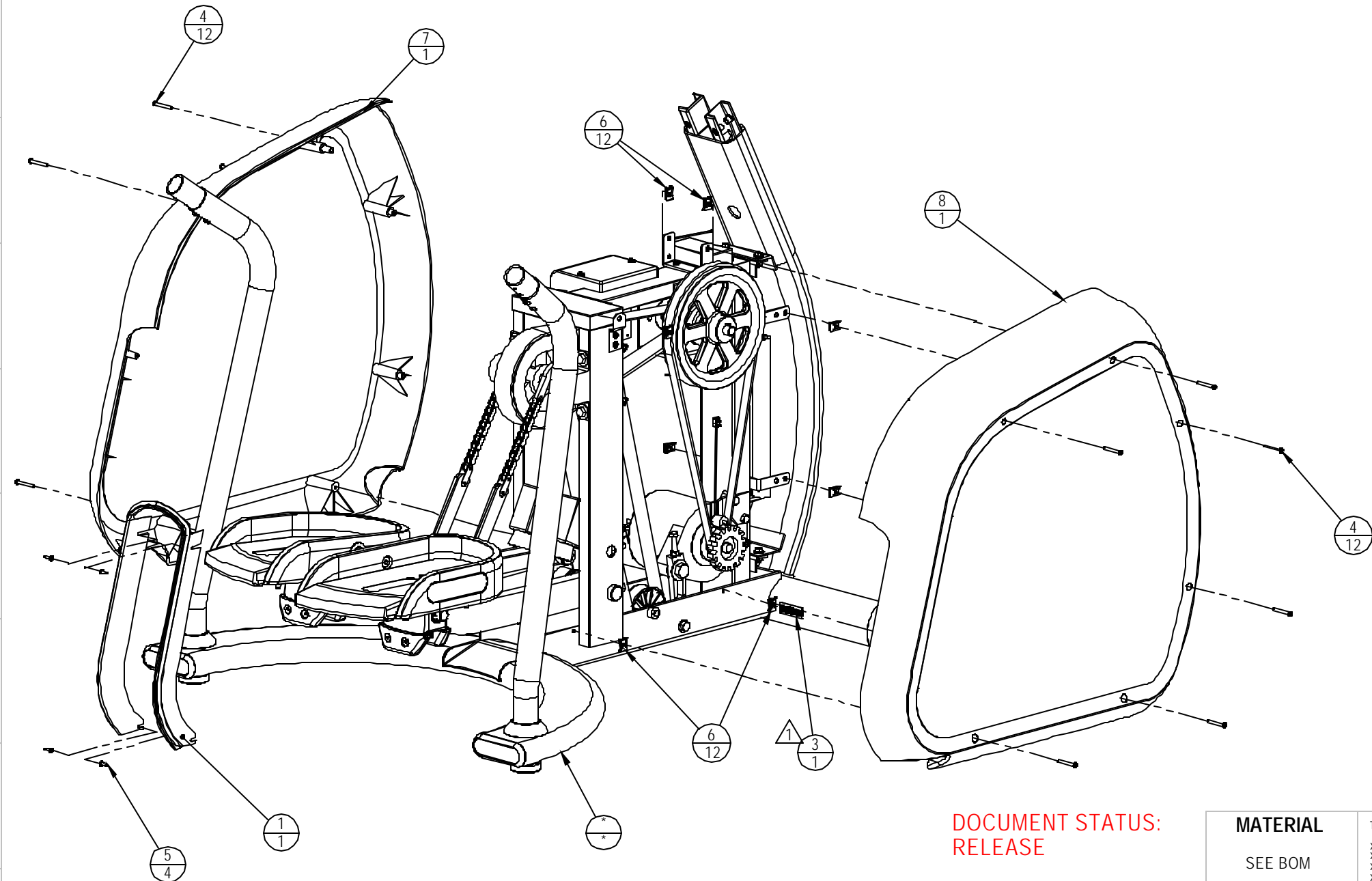
- NOTES:
- 1 INSTALL CABLE ASSEMBLIES IN CENTER OF TUBE, EXISTING TOP END.
  - 2 CABLE ASSEMBLY EXITS THROUGH BOTTOM OF NECK.

MATERIAL SEE BOM	TOLERANCES UNLESS OTHERWISE SPECIFIED			UNISEN, INC. DBA 14410 Myford Road Irvine CA 92606		
	X.XXX = ± .010	ANGLES = ± 2°				
X.XX = ± .030	FRACTIONS = ± 1/32					
FINISH N/A	INITIAL	DATE	PART NO	REV	TITLE	
	DRAWN	DNGO	01-22-07	711-3199	A	ASSY, BASE NECK, STEPPER
	CHECKED					
	APPROVED					
	U.O.M.	INCH	SCALE: 1:3	SHEET 1 OF 1	SHEET SIZE: B	

NOTES:

1 CLEAN AREA WITH ISOPROPYL ALCOLHOL PRIOR PLACING LABEL(S).

REVISION HISTORY				
REV	DATE	DESCRIPTION	ECO	BY
A	03-13-08	PRODUCTION RELEASE	11539	DN
B	04-30-08	ADEED P/N 050-2070; REMOVED P/N 050-1816	11888	FJM

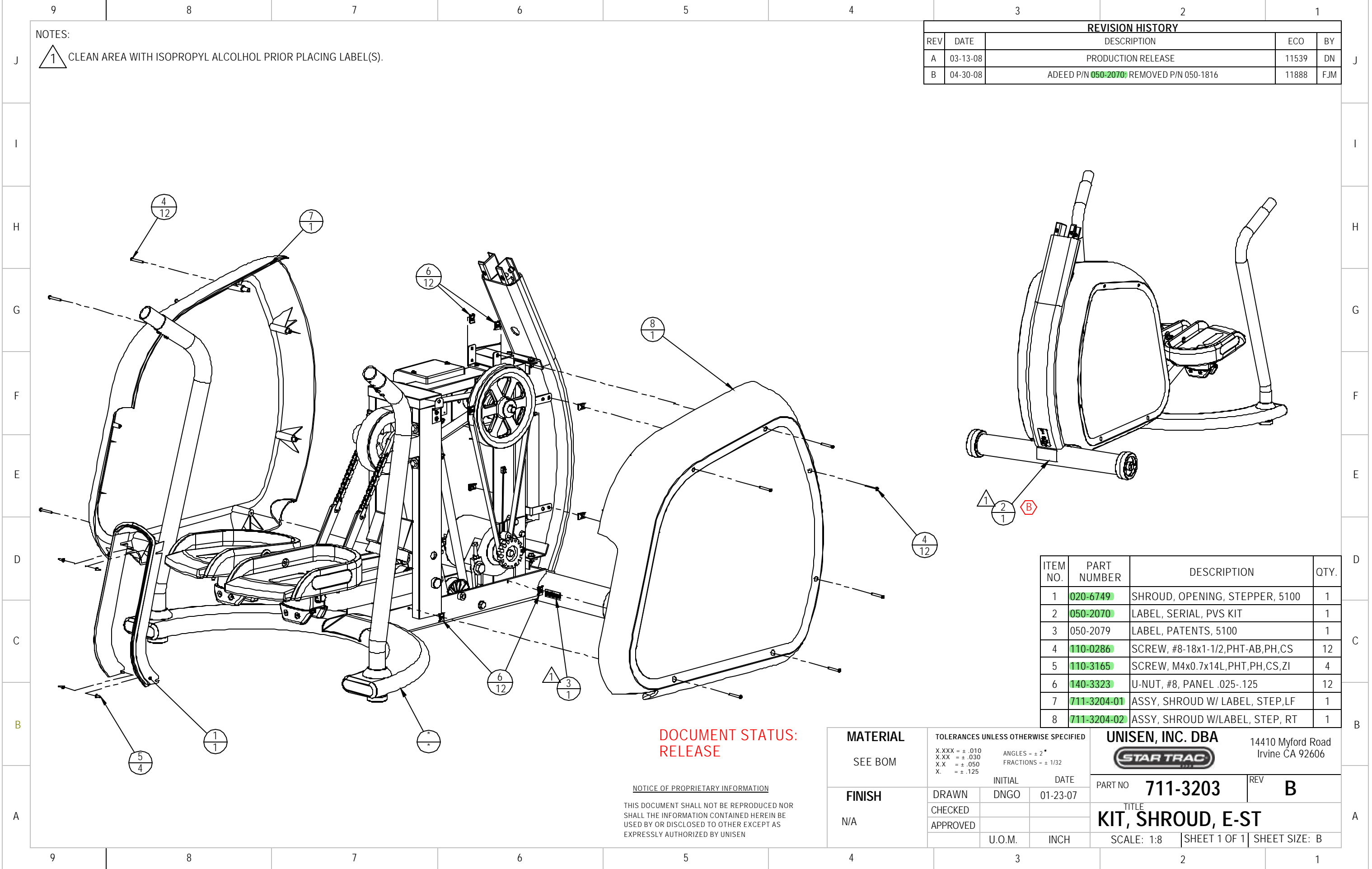


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	020-6749	SHROUD, OPENING, STEPPER, 5100	1
2	050-2070	LABEL, SERIAL, PVS KIT	1
3	050-2079	LABEL, PATENTS, 5100	1
4	110-0286	SCREW, #8-18x1-1/2,PHT-AB,PH,CS	12
5	110-3165	SCREW, M4x0.7x14L,PHT,PH,CS,ZI	4
6	140-3323	U-NUT, #8, PANEL .025-.125	12
7	711-3204-01	ASSY, SHROUD W/ LABEL, STEP,LF	1
8	711-3204-02	ASSY, SHROUD W/LABEL, STEP, RT	1

**DOCUMENT STATUS:  
RELEASE**

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MATERIAL SEE BOM	TOLERANCES UNLESS OTHERWISE SPECIFIED		UNISEN, INC. DBA	
	X.XXX = ± .010	ANGLES = ± 2°	14410 Myford Road Irvine CA 92606	
FINISH N/A	DRAWN	DNGO	01-23-07	PART NO <b>711-3203</b> REV <b>B</b>
	CHECKED			
	APPROVED			TITLE <b>KIT, SHROUD, E-ST</b>
		U.O.M.	INCH	SCALE: 1:8   SHEET 1 OF 1   SHEET SIZE: B



REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	06-14-07	PRODUCTION RELEASE	11649	DN
B	03-19-09	P/N <b>110-0506</b> QTY WAS:8 IS:10 AND P/N <b>110-3172</b> QTY WAS:4 IS:5	12078	AK

**STAR TRAC** 14410 MYFORD ROAD  
IRVINE, CA 92606 USA  
www.startrac.com

**E-ST**

**ATTENTION EQUIPMENT INSTALLERS**  
Star Trac recommends the STEPPER be spaced a minimum of 20.0" (0.5 M) apart to allow safe and easy ingress and egress. Even more important, there must be at least 46" (1.25 M) of free space behind the STEPPER. As with any motorized equipment, the area where the STEPPER are located must be free from obstructions and fixtures with sharp edges to prevent injury in the event that a user loses balance and falls.

**ASSEMBLY INSTRUCTIONS**  
To assemble your STAR TRAC STEPPER, just follow these steps.  
**Tools needed for assembly:**  
1. 5/32" Hex (Allen) Key  
2. #2 Phillips Screwdriver

**Note**  
If you have any questions regarding the assembly of your Star Trac STEPPER, review the Owner's Manual or contact Star Trac Customer Support at (714) 669-1660 or (800) 503-1221.

**STEP 1.** Open the top of the Stepper Box, remove the handrail box (long, thin box at outside edge) place aside. Remove Display assembly and place aside. Remove remaining packing material, and carefully remove from pallet base.

**STEP 2.** Remove (2) M4 x 0.7 screws from back of display (retain for later use) with a #2 Phillips screwdriver and separate the back of the display from the front.

**STEP 3.** Take upper display to the front of the Stepper. Feed cables through the neck. Take care not to damage the display or handlebar on the ground.

**STEP 4.** Keep hold of the cables and rotate the neck up. Slide neck over mounts, take special care not to pinch the cables.

**STEP 5.** Thread in (4) M6 x 16 Flat Head Screws in the front and back of the neck. Use a 5/32 hex key to tighten the screws to 60 lb-in (6.7 N-m) of torque.

**STEP 6.** 1st Slide handrail on to upper display mount. Rotate until bottom of handrail is near lower frame. 2nd With some force lift handrail until opening at the bottom of the handrail is able to slide over lower frame. Use a 5/32" Hex Key and thread into the handrail (4) 1/4-28 x 3/8" Button Head Screws. Then tighten each screw to 110 lb-in (12.4 N-m) of torque. Repeat for other side.

**STEP 7.** Plug in the 12 pin display cable from the neck into the front display circuit board at J4. Next plug in the Heart Rate cable from the handlebars into the HR board, then plug the HR ground into the quick disconnect tab on the display frame.

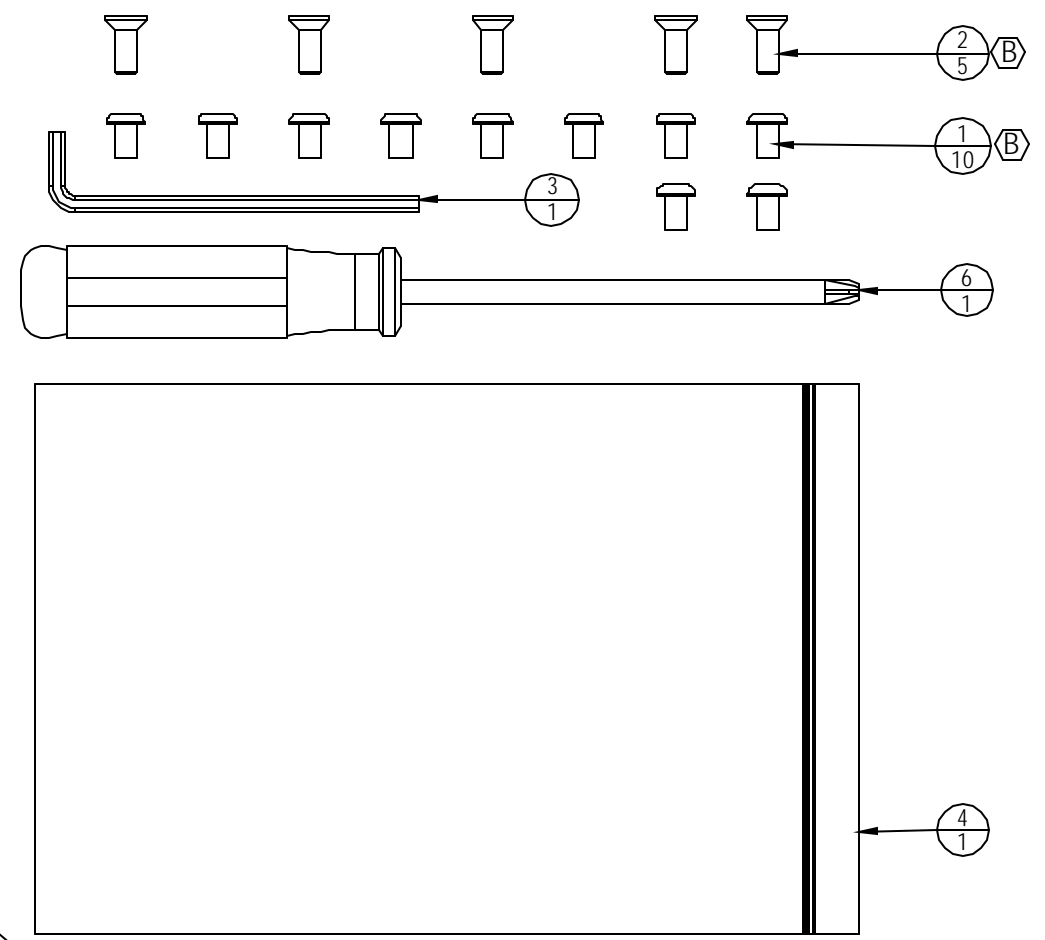
**\* If you are installing Entertainment, Refer to the PVS install guide before you perform this step.**

**STEP 8.** 1st Slide the bottom of the front display under the 2 tabs at the base of the mount. 2nd Press display against the round bar and rotate it to the back. Careful not to pinch any wires.

**STEP 9.** Secure the Front display to the back with (8) M4 x 0.7 x 19mm long Phillips Head Screws.

**STEP 10.** Adjust leveling feet to assure that the Stepper is level to the floor and does not rock back and forth. Pedal unit to check for proper operation. Check to see that all screws are tight.

PN: 620-7713 REV. A



ITEM	PART NUMBER	DESCRIPTION	QTY.	NOTE
1	<b>110-0506</b>	SCREW, 1/4-28x3/8, BHC, HK, SS, BO	10	
2	<b>110-3172</b>	SCREW, ISO10642, M6x16	5	
3	290-0040	HEX L-KEY, 5/32 "	1	
4	050-1874	BAG, PLASTIC, ZIP-LOCK, 6X9, 4 MIL	1	
5	620-7713	INSTALLATION, QUICK, E-ST	1	
6	290-0010	SCREWDRIVER, PHILLIPS #2 X 5.0	1	

**DOCUMENT STATUS:  
RELEASE**

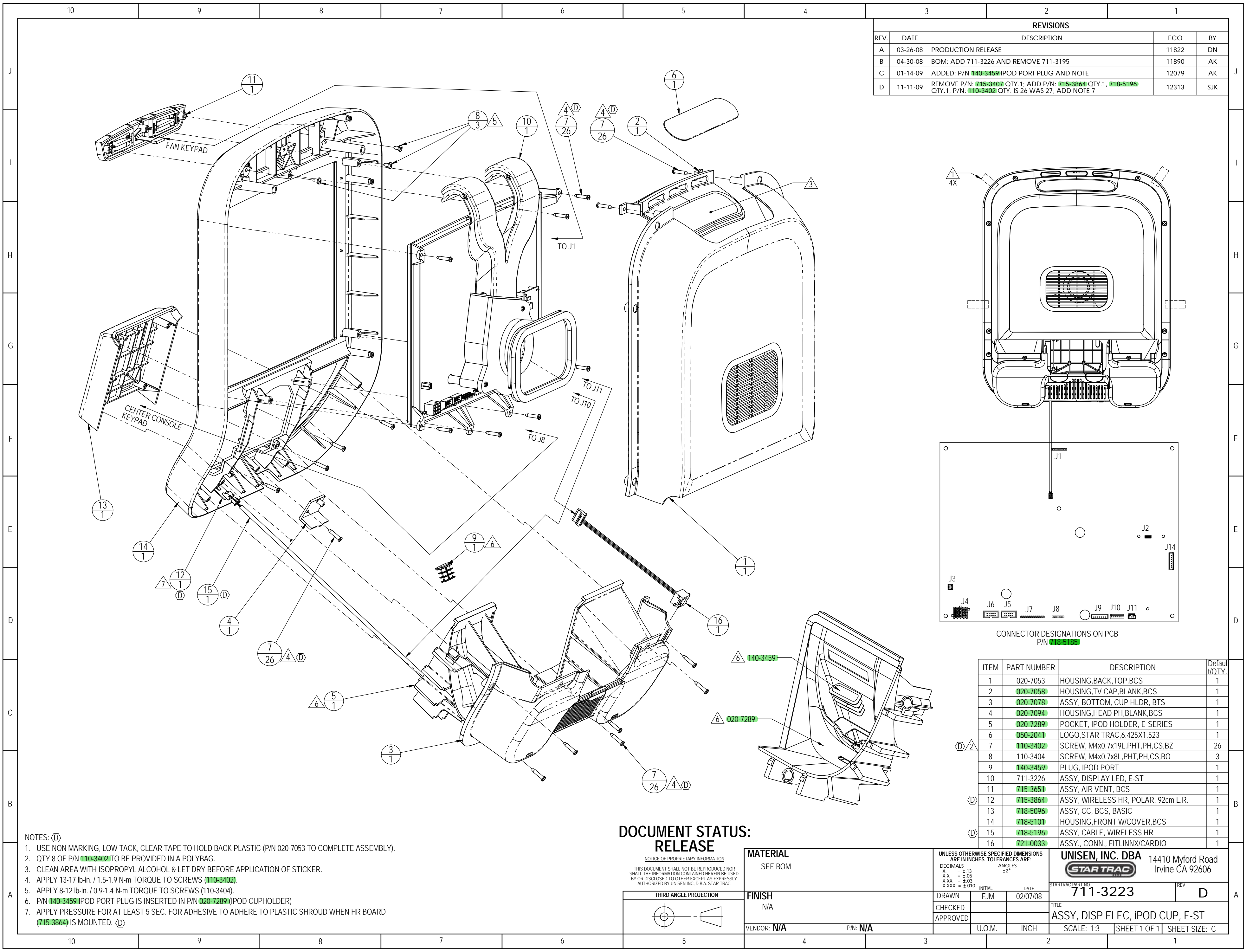
<b>MATERIAL</b> SEE BOM	TOLERANCES UNLESS OTHERWISE SPECIFIED X.XXX = ± .010" (0.25MM) ANGLES = ± 2° X.XX = ± .030" (0.76MM) FRACTIONS = ± 1/32 X.X = ± .050" (1.27MM) X = ± .125" (3.20)
<b>FINISH</b> N/A	
<b>VENDOR:</b> N/A	

UNISEN, INC. DBA		14410 Myford Road Irvine CA 92606	
<b>STAR TRAC</b>			
PART NO	711-3218	REV	B
TITLE KIT, HARDWARE, E-ST			
U.O.M.		INCH	SCALE: 1:2
SHEET 1 OF 1		SHEET SIZE: B	

**NOTES:**  
1. ALL TOOLS TO BE PACKAGED IN PLASTIC BAGS ALONG WITH ALL OF THE SCREWS NEEDED FOR INSTALLATION (**110-0506** QTY 8 AND **110-3172** QTY 4)

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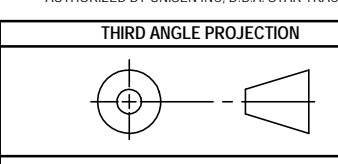
REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	03-26-08	PRODUCTION RELEASE	11822	DN
B	04-30-08	BOM: ADD 711-3226 AND REMOVE 711-3195	11890	AK
C	01-14-09	ADDED: P/N 140-3459 IPOD PORT PLUG AND NOTE	12079	AK
D	11-11-09	REMOVE P/N: 715-3407 QTY.1; ADD P/N: 715-3864 QTY.1, 718-5196 QTY.1; P/N: 110-3402 QTY. IS 26 WAS 27; ADD NOTE 7	12313	SJK



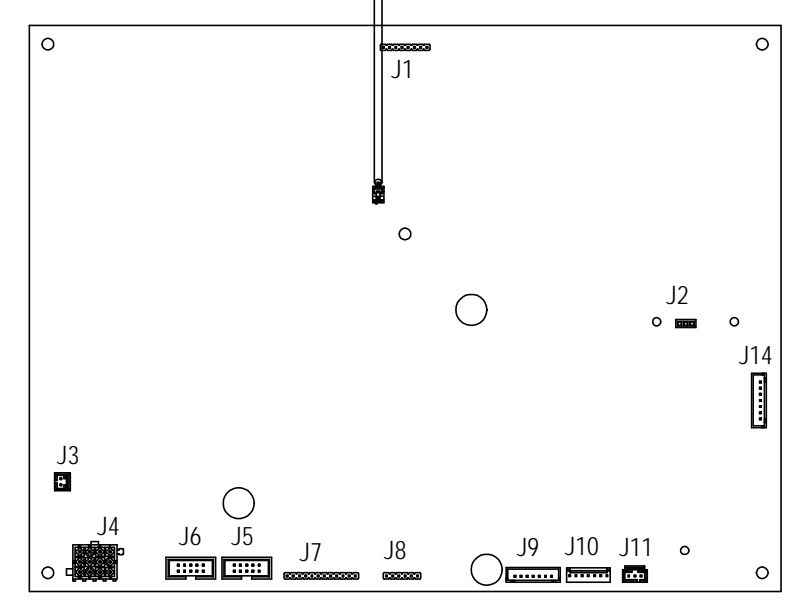
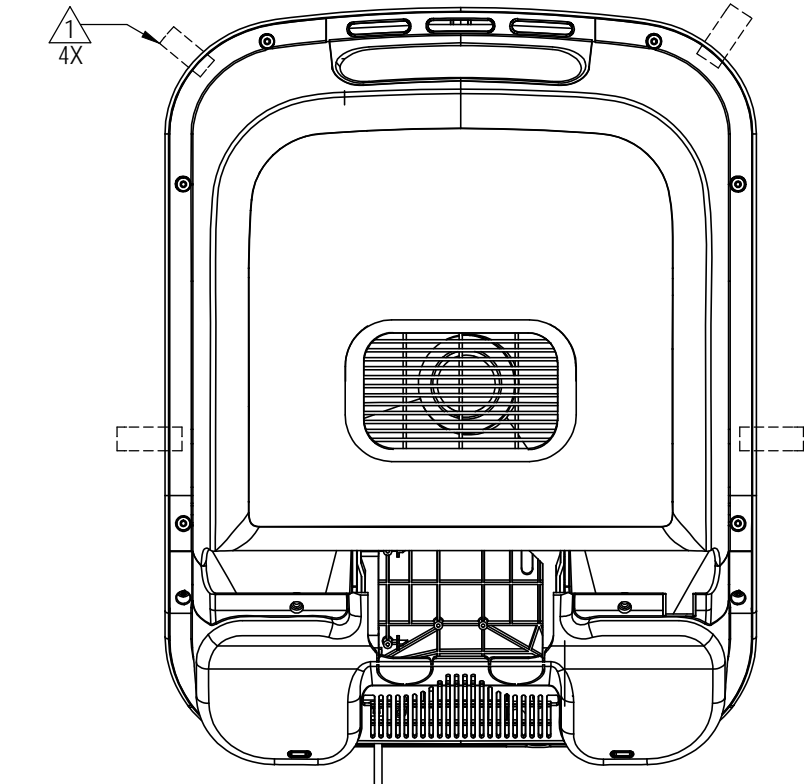
- NOTES: (D)
- USE NON MARKING, LOW TACK, CLEAR TAPE TO HOLD BACK PLASTIC (P/N 020-7053 TO COMPLETE ASSEMBLY).
  - QTY 8 OF P/N 110-3402 TO BE PROVIDED IN A POLYBAG.
  - CLEAN AREA WITH ISOPROPYL ALCOHOL & LET DRY BEFORE APPLICATION OF STICKER.
  - APPLY 13-17 lb-in. / 1.5-1.9 N-m TORQUE TO SCREWS (110-3402).
  - APPLY 8-12 lb-in. / 0.9-1.4 N-m TORQUE TO SCREWS (110-3404).
  - P/N 140-3459 IPOD PORT PLUG IS INSERTED IN P/N 020-7289 (IPOD CUPHOLDER)
  - APPLY PRESSURE FOR AT LEAST 5 SEC. FOR ADHESIVE TO ADHERE TO PLASTIC SHROUD WHEN HR BOARD (715-3864) IS MOUNTED. (D)

**DOCUMENT STATUS:  
RELEASE**

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<b>MATERIAL</b> SEE BOM		<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS X = ±.13 XX = ±.05 XXX = ±.03 X.XXX = ±.010</small>		<b>UNISEN, INC. DBA</b> 14410 Myford Road Irvine CA 92606	
<b>FINISH</b> N/A		<small>INITIAL</small> DRAWN FJM CHECKED APPROVED	<small>DATE</small> 02/07/08	STARTRAC PART NO. <b>711-3223</b>	
VENDOR: N/A P/N: N/A		U.O.M. INCH		REV <b>D</b>	
				TITLE ASSY, DISP ELEC, IPOD CUP, E-ST	
				SCALE: 1:3 SHEET 1 OF 1 SHEET SIZE: C	

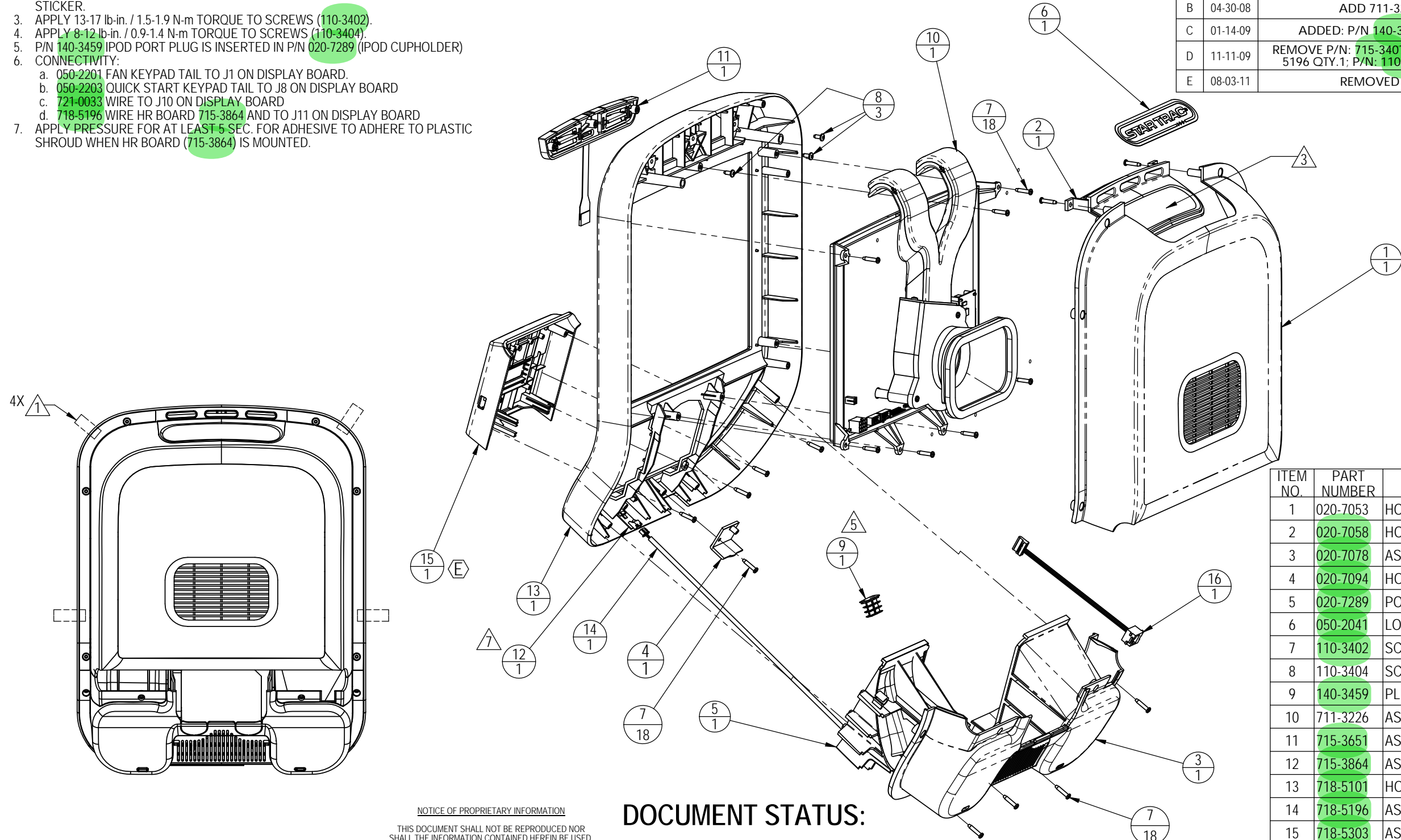


CONNECTOR DESIGNATIONS ON PCB  
P/N 715-5185

ITEM	PART NUMBER	DESCRIPTION	Default QTY.
1	020-7053	HOUSING, BACK, TOP, BCS	1
2	020-7058	HOUSING, TV CAP, BLANK, BCS	1
3	020-7078	ASSY, BOTTOM, CUP HLD, BTS	1
4	020-7094	HOUSING, HEAD PH, BLANK, BCS	1
5	020-7289	POCKET, IPOD HOLDER, E-SERIES	1
6	050-2041	LOGO, STAR TRAC, 6.425X1.523	1
(D) 7	110-3402	SCREW, M4x0.7x19L, PHT, PH, CS, BZ	26
8	110-3404	SCREW, M4x0.7x8L, PHT, PH, CS, BO	3
9	140-3459	PLUG, IPOD PORT	1
10	711-3226	ASSY, DISPLAY LED, E-ST	1
11	715-3651	ASSY, AIR VENT, BCS	1
(D) 12	715-3864	ASSY, WIRELESS HR, POLAR, 92cm L.R.	1
13	718-5096	ASSY, CC, BCS, BASIC	1
14	718-5101	HOUSING, FRONT W/COVER, BCS	1
(D) 15	718-5196	ASSY, CABLE, WIRELESS HR	1
16	721-0033	ASSY., CONN., FITLINX/CARDIO	1

- NOTES:
- USE NON MARKING, LOW TACK, CLEAR TAPE TO HOLD BACK PLASTIC (P/N 020-7053 TO COMPLETE ASSEMBLY).
  - CLEAN AREA WITH ISOPROPYL ALCOHOL & LET DRY BEFORE APPLICATION OF STICKER.
  - APPLY 13-17 lb-in. / 1.5-1.9 N-m TORQUE TO SCREWS (110-3402).
  - APPLY 8-12 lb-in. / 0.9-1.4 N-m TORQUE TO SCREWS (110-3404).
  - P/N 140-3459 IPOD PORT PLUG IS INSERTED IN P/N 020-7289 (IPOD CUPHOLDER).
  - CONNECTIVITY:
    - 050-2201 FAN KEYPAD TAIL TO J1 ON DISPLAY BOARD.
    - 050-2203 QUICK START KEYPAD TAIL TO J8 ON DISPLAY BOARD
    - 721-0033 WIRE TO J10 ON DISPLAY BOARD
    - 718-5196 WIRE HR BOARD 715-3864 AND TO J11 ON DISPLAY BOARD
  - APPLY PRESSURE FOR AT LEAST 5 SEC. FOR ADHESIVE TO ADHERE TO PLASTIC SHROUD WHEN HR BOARD (715-3864) IS MOUNTED.

REVISION HISTORY				
REV	DATE	DESCRIPTION	ECO	BY
A	03-26-08	PRODUCTION RELEASE, NEW IPOD CONSOLE	11822	DN
B	04-30-08	ADD 711-3226 AND REMOVE 711-3195	11890	AK
C	01-14-09	ADDED: P/N 140-3459 IPOD PORT PLUG AND NOTE 6	12079	AK
D	11-11-09	REMOVE P/N: 715-3407 QTY. 1; ADD P/N: 715-3864 QTY. 1, 718-5196 QTY. 1; P/N: 110-3402 QTY. IS 26 WAS 27. ADD NOTE 7	12313	SJK
E	08-03-11	REMOVED 718-5096; ADDED 718-5303	13484	FJM



ITEM NO.	PART NUMBER	DESCRIPTION	Default/QTY.
1	020-7053	HOUSING, BACK, TOP, BCS	1
2	020-7058	HOUSING, TV CAP, BLANK, BCS	1
3	020-7078	ASSY, BOTTOM, CUP HLDR, BTS	1
4	020-7094	HOUSING, HEAD PH, BLANK, BCS	1
5	020-7289	POCKET, IPOD HOLDER, E-SERIES	1
6	050-2041	LOGO, STAR TRAC, 6.425X1.523	1
7	110-3402	SCREW, M4x0.7x19L, PHT, PH, CS, BZ	18
8	110-3404	SCREW, M4x0.7x10L, PHT, PH, CS, BO	3
9	140-3459	PLUG, IPOD PORT	1
10	711-3226	ASSY, DISPLAY LED, E-ST	1
11	715-3651	ASSY, AIR VENT, BCS	1
12	715-3864	ASSY, WIRELESS HR, POLAR, 92cm L.R.	1
13	718-5101	HOUSING, FRONT W/COVER, BCS	1
14	718-5196	ASSY, CABLE, WIRELESS HR	1
15	718-5303	ASSY, CC, E-BTS, BASIC, G2 KEYPAD	1
16	721-0033	ASSY., CONN., FITLINX/CARDIO	1

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**DOCUMENT STATUS:**

CLASS OF WORK	UNLESS OTHERWISE SPECIFIED DIMS ARE IN mm. TOLERANCES FOR MEASURE OF LENGTH ARE:							ANGLES = ±2°
	0.5 to 3	> 3 to 6	> 6 to 30	> 30 to 120	> 120 to 400	> 400 to 1000	> 1000 to 2000	
FINE	±0.05	±0.05	±0.1	±0.15	±0.2	±0.3	±0.5	----
MEDIUM	±0.1	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2
COARSE	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	±4
VERY COARSE	----	±0.5	±1	±1.5	±2.5	±4	±6	±8

MATERIAL: SEE BOM  
 FINISH: N/A  
 VENDOR: N/A  
 P/N: N/A

THIRD ANGLE PROJECTION

DRAWN: FJM  
 CHECKED:  
 APPROVED:

INITIAL: FJM  
 DATE: 02/18/08

U.O.M.: MM

CORE INDUSTRIES, INC. DBA  
**STAR TRAC**  
 14410 Myford Road  
 Irvine CA 92606

STARTRAC PART NO: 711-3223  
 REV: E

TITLE: ASSY, DISP ELEC, IPOD CUP, E-ST

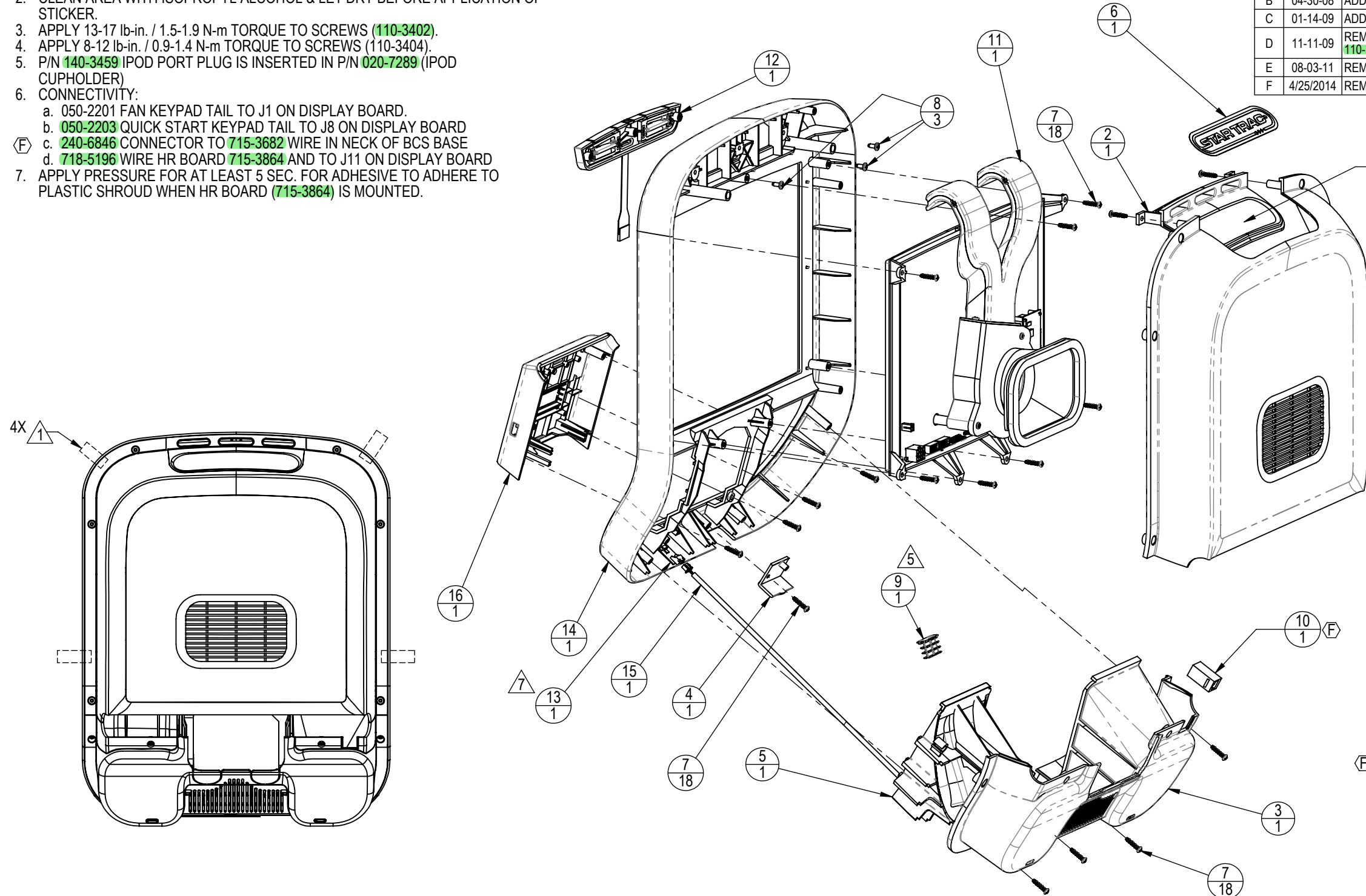
SCALE: 1:5  
 SHEET 1 OF 1  
 SHEET SIZE: B

NOTES:

1. USE NON MARKING, LOW TACK, CLEAR TAPE TO HOLD BACK PLASTIC (P/N 020-7053 TO COMPLETE ASSEMBLY).
2. CLEAN AREA WITH ISOPROPYL ALCOHOL & LET DRY BEFORE APPLICATION OF STICKER.
3. APPLY 13-17 lb-in. / 1.5-1.9 N-m TORQUE TO SCREWS (110-3402).
4. APPLY 8-12 lb-in. / 0.9-1.4 N-m TORQUE TO SCREWS (110-3404).
5. P/N 140-3459 IPOD PORT PLUG IS INSERTED IN P/N 020-7289 (IPOD CUPHOLDER)
6. CONNECTIVITY:
  - a. 050-2201 FAN KEYPAD TAIL TO J1 ON DISPLAY BOARD.
  - b. 050-2203 QUICK START KEYPAD TAIL TO J8 ON DISPLAY BOARD
  - c. 240-6846 CONNECTOR TO 715-3682 WIRE IN NECK OF BCS BASE
  - d. 718-5196 WIRE HR BOARD 715-3864 AND TO J11 ON DISPLAY BOARD
7. APPLY PRESSURE FOR AT LEAST 5 SEC. FOR ADHESIVE TO ADHERE TO PLASTIC SHROUD WHEN HR BOARD (715-3864) IS MOUNTED.

REVISION HISTORY

REV	DATE	DESCRIPTION	ECO	BY
A	03-26-08	PRODUCTION RELEASE, NEW IPOD CONSOLE	11822	DN
B	04-30-08	ADD 711-3226 AND REMOVE 711-3195	11890	AK
C	01-14-09	ADDED: P/N 140-3459 IPOD PORT PLUG AND NOTE 6	12079	AK
D	11-11-09	REMOVE P/N: 715-3407 QTY.1; ADD P/N: 715-3864 QTY.1, 718-5196 QTY.1; P/N: 110-3402 QTY. IS 26 WAS 27; ADD NOTE 7	12313	SJK
E	08-03-11	REMOVED 718-5096; ADDED 718-5303	13484	FJM
F	4/25/2014	REMOVE 721-0033 (1); ADD 240-6846 (1); UPDATE NOTE 6C	14630	MMG



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	020-7053	HOUSING,BACK,TOP,BCS	1
2	020-7058	HOUSING,TV CAP,BLANK,BCS	1
3	020-7078	ASSY, BOTTOM, CUP HLDR, BTS	1
4	020-7094	HOUSING,HEAD PH,BLANK,BCS	1
5	020-7289	POCKET, IPOD HOLDER, E-SERIES	1
6	050-2041	LOGO,STAR TRAC,6.425X1.523	1
7	110-3402	SCREW, #8-18, 3/4", HI-LOW, PHT, PH, CS, BO	18
8	110-3404	SCREW, M4x0.7x10L,PHT,PH,CS,BO	3
9	140-3459	PLUG, IPOD PORT	1
10	240-6846	CONNECTOR, 8 PIN, INLINE	1
11	711-3226	ASSY,DISPLAY LED,E-ST	1
12	715-3651	ASSY, AIR VENT, BCS	1
13	715-3864	ASSY, WIRELESS HR, POLAR, 92cm L.R.	1
14	718-5101	HOUSING, W/BLACK COVER, E-BCS, FNT	1
15	718-5196	ASSY, CABLE, WIRELESS HR	1
16	718-5303	ASSY, CC, E-BTS, BASIC, G2 KEYPAD	1

**DOCUMENT STATUS:**

NOTICE OF PROPRIETARY INFORMATION  
THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION CONTAINED HEREIN BE USED BY OR DISCLOSED TO OTHER EXCEPT AS EXPRESSLY AUTHORIZED BY CORE HEALTH & FITNESS, LLC.

CLASS OF WORK	UNLESS OTHERWISE SPECIFIED DIMS ARE IN mm. TOLERANCES FOR MEASURE OF LENGTH ARE:							ANGLES = ±2°
	0.5 to 3	>3 to 6	>6 to 30	>30 to 120	>120 to 400	>400 to 1000	>1000 to 2000	
FINE	±0.05	±0.05	±0.1	±0.15	±0.2	±0.3	±0.5	----
MEDIUM	±0.1	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2
COARSE	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	±4
VERY COARSE	----	±0.5	±1	±1.5	±2.5	±4	±6	±8

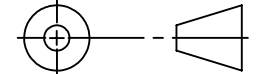
MATERIAL SEE BOM

FINISH N/A

VENDOR: N/A

P/N: N/A

THIRD ANGLE PROJECTION

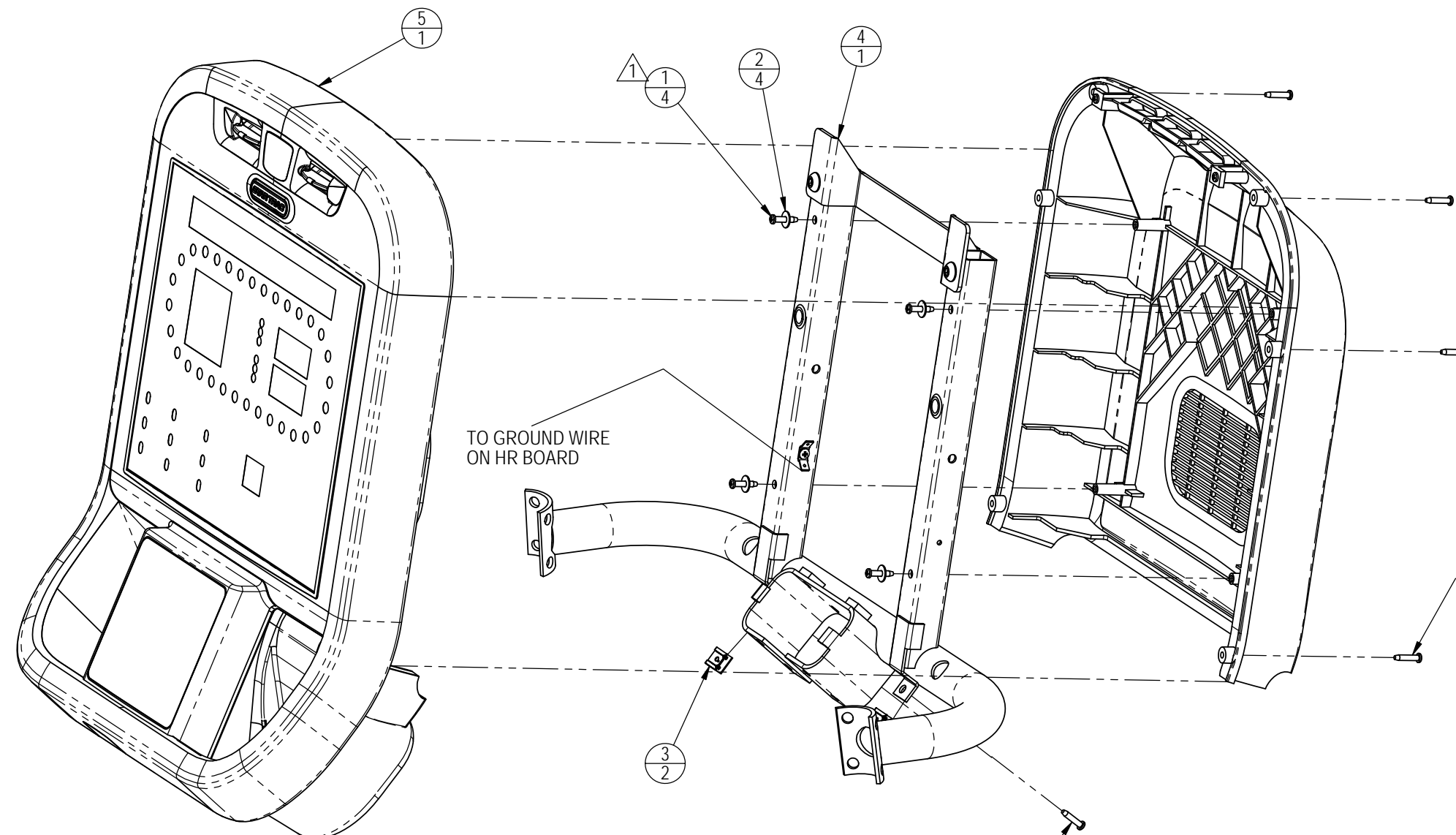


DRAWN	INITIAL	DATE
CHECKED	FJM	02/18/08
APPROVED		
	U.O.M.	MM

**CORE HEALTH & FITNESS, LLC**  
4400 NE 77th Ave., Suite 300  
Vancouver, WA 98662

CORE PART NO	REV
<b>711-3223</b>	<b>F</b>
TITLE	
ASSY, DISP ELEC, IPOD CUP, E-ST	
SCALE: 1:5	SHEET 1 OF 1
SHEET SIZE: B	

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	03-26-08	PRODUCTION RELEASE	11822	DN



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	110-3402	SCREW, M4x0.7x19L,PHT,PH,CS,BZ	4
2	120-3307	WASHER, M4, 4.3mm I.D. X 12mm O.D., ISO 7089	4
3	140-3323	U-NUT, #8, PANEL .025-.125	2
4	711-3208	ASSY, DISP. WELD. w/ HARDWARE, PRO ST	1
5	711-3223	ASSY, DISP ELEC, IPOD CUP, E-ST	1

NOTES:  
 1 APPLY 13-17 lb-in / 1.5-1.9 N-m OF TORQUE TO SCREWS (110-3403).

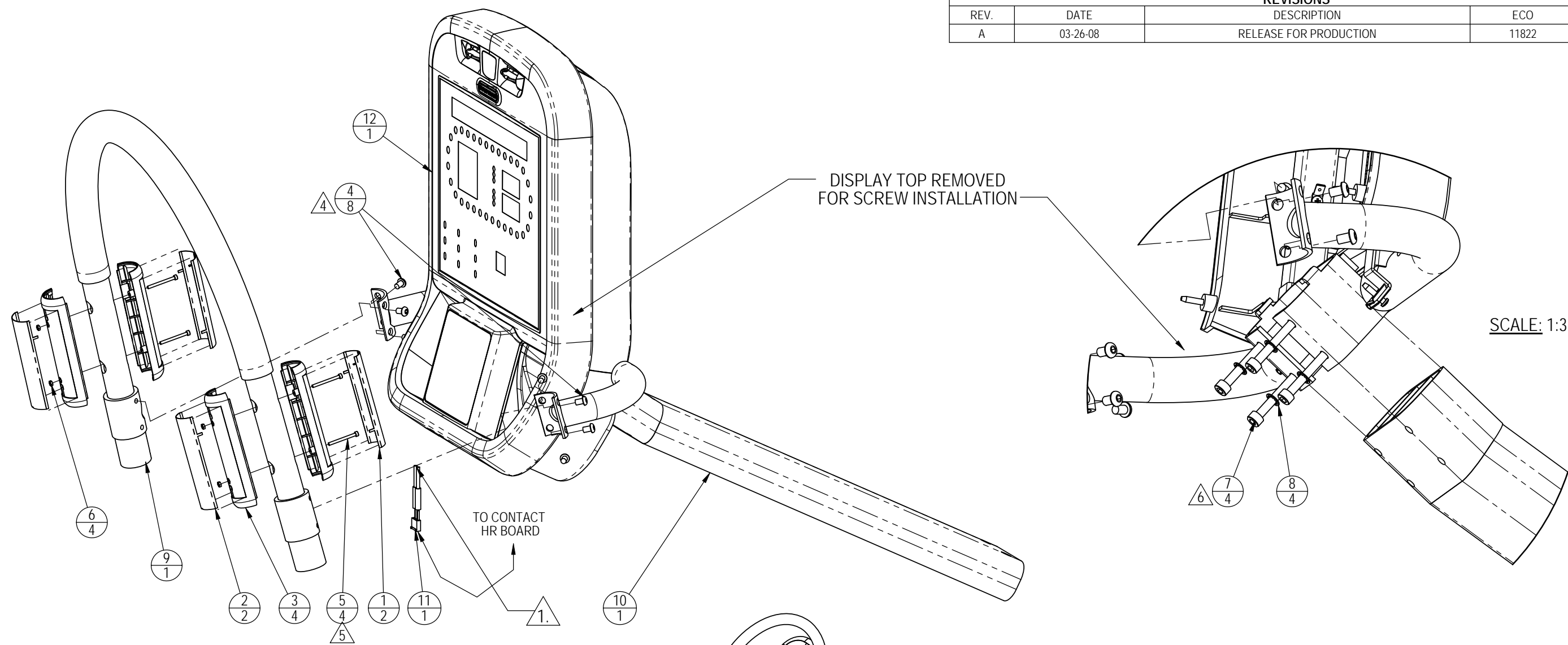
**DOCUMENT STATUS:  
RELEASE**

NOTICE OF PROPRIETARY INFORMATION  
 THIS DOCUMENT SHALL NOT BE REPRODUCED NOR  
 SHALL THE INFORMATION CONTAINED HEREIN BE  
 USED BY OR DISCLOSED TO OTHER EXCEPT AS  
 EXPRESSLY AUTHORIZED BY UNISEN

MATERIAL SEE BOM		TOLERANCES UNLESS OTHERWISE SPECIFIED X.XXX = ± .010" (0.25MM)    ANGLES = ± 2° X.XX = ± .030" (0.76MM)    FRACTIONS = ± 1/32 X.X = ± .050" (1.27MM) X = ± .125" (3.20)	
FINISH SEE BOM		INITIAL	DATE
VENDOR: N/A		DATE	DATE
P/N: N/A		U.O.M.	INCH

UNISEN, INC. DBA <b>STAR TRAC</b> 14410 Myford Road Irvine CA 92606	
PART NO <b>711-3224</b>	REV <b>A</b>
TITLE ASSY, LED DISP & WELDMENT, E-ST	
SCALE: 1:4	SHEET 1 OF 1
SHEET SIZE: B	

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	03-26-08	RELEASE FOR PRODUCTION	11822	DN



- NOTES:**
- 1 SEE SHEET #2 FOR WIRING DIAGRAM OF 711-3153.
  - 2. GRIP ASSEMBLY ORDER:  
 PALM SIDE:  
 a) INSTALL, NUT P/N: 110-3148.  
 b) CLEAN PLATE RECESS AREA WITH ALCOHOL.  
 c) PEEL PLATE TAPE LINER.  
 d) REMOVE PLATE SCRATCH GUARD & PRESS PLATE TO GRIP HOUSING.  
 e) CONNECTOR TAB MUST GO TOWARDS THE INSIDE END.  
  
 FINGER SIDE:  
 a) CLEAN PLATE RECESS AREA WITH ALCOHOL.  
 b) PEEL PLATE TAPE LINER.  
 c) REMOVE PLATE SCRATCH GUARD & PRESS PLATE TO GRIP HOUSING.  
 d) CONNECTOR TAB MUST GO TOWARDS THE OUTSIDE END.
  - 3. PERFORM A CONTINUITY TEST AFTER INSTALLING THE CONTACT HR CABLE.
  - 4 APPLY 110 lb-in / 9.2 lb-ft. / 12.4 N-m OF TORQUE TO SCREWS (110-0506).
  - 5 APPLY 4 lb-in / 0.5 N-m OF TORQUE TO SCREWS (110-3147).
  - 6 APPLY 240 lb-in / 20 lb-ft / 27.1 N-m OF TORQUE TO SCREWS (110-3169).

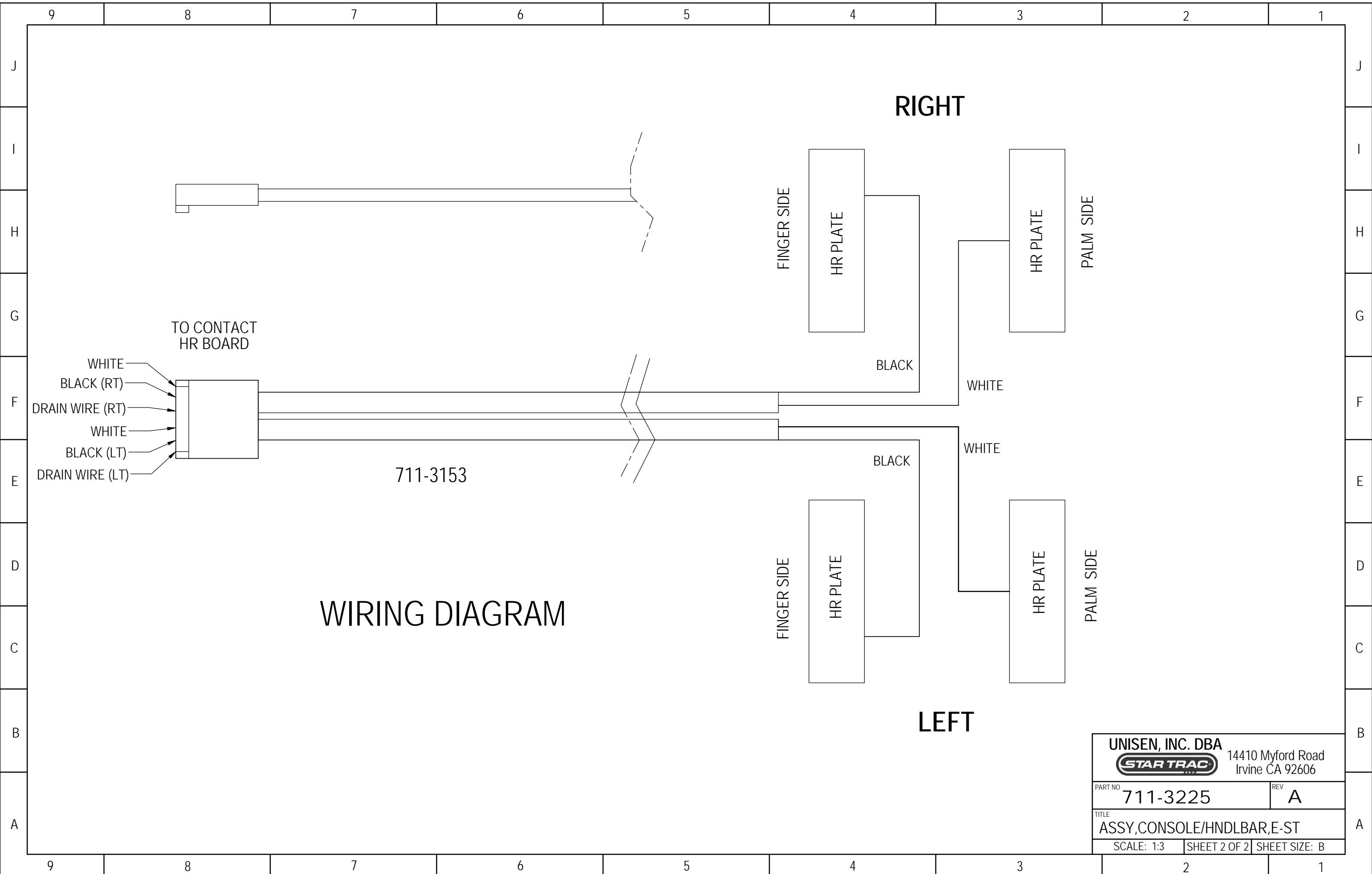
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	020-6549	PLATE, HR, BOTTOM	2
2	020-6555	PLATE, HR, UNIVERSAL, TOP	2
3	020-6556	GRIP, HR, UNIVERSAL, BLK	4
4	110-0506	SCREW, 1/4-28x3/8, BHC, HK, SS, BO	8
5	110-3147	SCREW, M3x35, SHC, ISO4762	4
6	110-3148	NUT, M3, HEXAGON, ISO4762	4
7	110-3169	SCREW, M6x65, SHC, HE, ISO4762	4
8	120-3257	WASHER, M6, TEETH, 0.6 THICK	4
9	710-1066-05	TUBE, TOP, DIPPED, STEPPER	1
10	711-3139-05	ASSY, STEP, FRONT, EXT, TOP	1
11	711-3153	ASSY, HR GRIP CABLE, STEPPER	1
12	711-3224	ASSY, LED DISP & WELDMENT, E-ST	1

## DOCUMENT STATUS: RELEASE

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 SHALL THE INFORMATION CONTAINED HEREIN BE  
 USED BY OR DISCLOSED TO OTHER EXCEPT AS  
 EXPRESSLY AUTHORIZED BY UNISEN

<b>MATERIAL</b> SEE BOM		TOLERANCES UNLESS OTHERWISE SPECIFIED X.XXX = ± .010" (0.25MM) ANGLES = ± 2° X.XX = ± .030" (0.76MM) FRACTIONS = ± 1/32 X.X = ± .050" (1.27MM) X. = ± .125" (3.20)		<b>UNISEN, INC. DBA</b>  14410 Myford Road Irvine CA 92606	
<b>FINISH</b> SEE BOM		INITIAL	DATE	PART NO	REV
VENDOR: N/A		DRAWN	FJM	02-06-08	711-3225
P/N: N/A		CHECKED			A
		APPROVED			TITLE
					ASSY, CONSOLE/HNDLBAR, E-ST
					SCALE: 1:5
					SHEET 1 OF 2
					SHEET SIZE: B





WIRING DIAGRAM

711-3153

TO CONTACT  
HR BOARD

- WHITE
- BLACK (RT)
- DRAIN WIRE (RT)
- WHITE
- BLACK (LT)
- DRAIN WIRE (LT)

RIGHT

LEFT

FINGER SIDE

PALM SIDE

FINGER SIDE

PALM SIDE

HR PLATE

HR PLATE

HR PLATE

HR PLATE

BLACK

WHITE

BLACK

WHITE

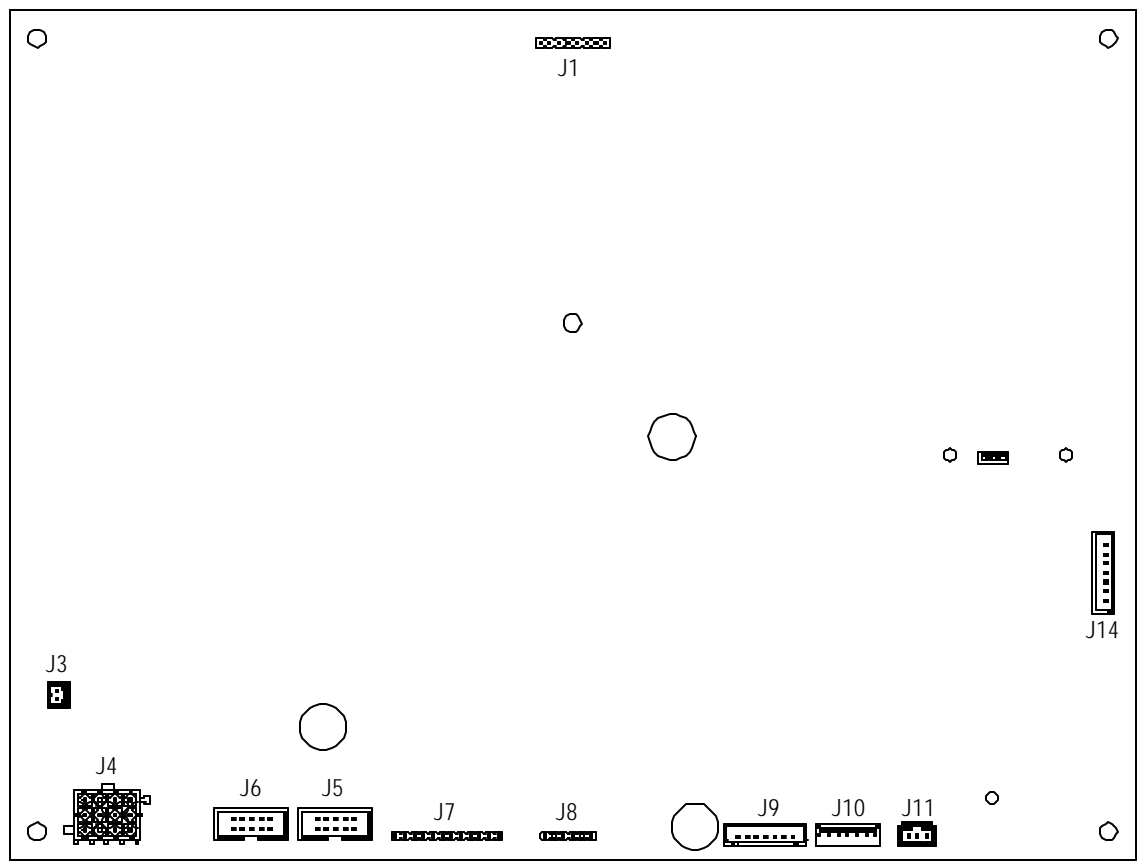
UNISEN, INC. DBA  
 14410 Myford Road  
 Irvine CA 92606

PART NO	711-3225	REV	A
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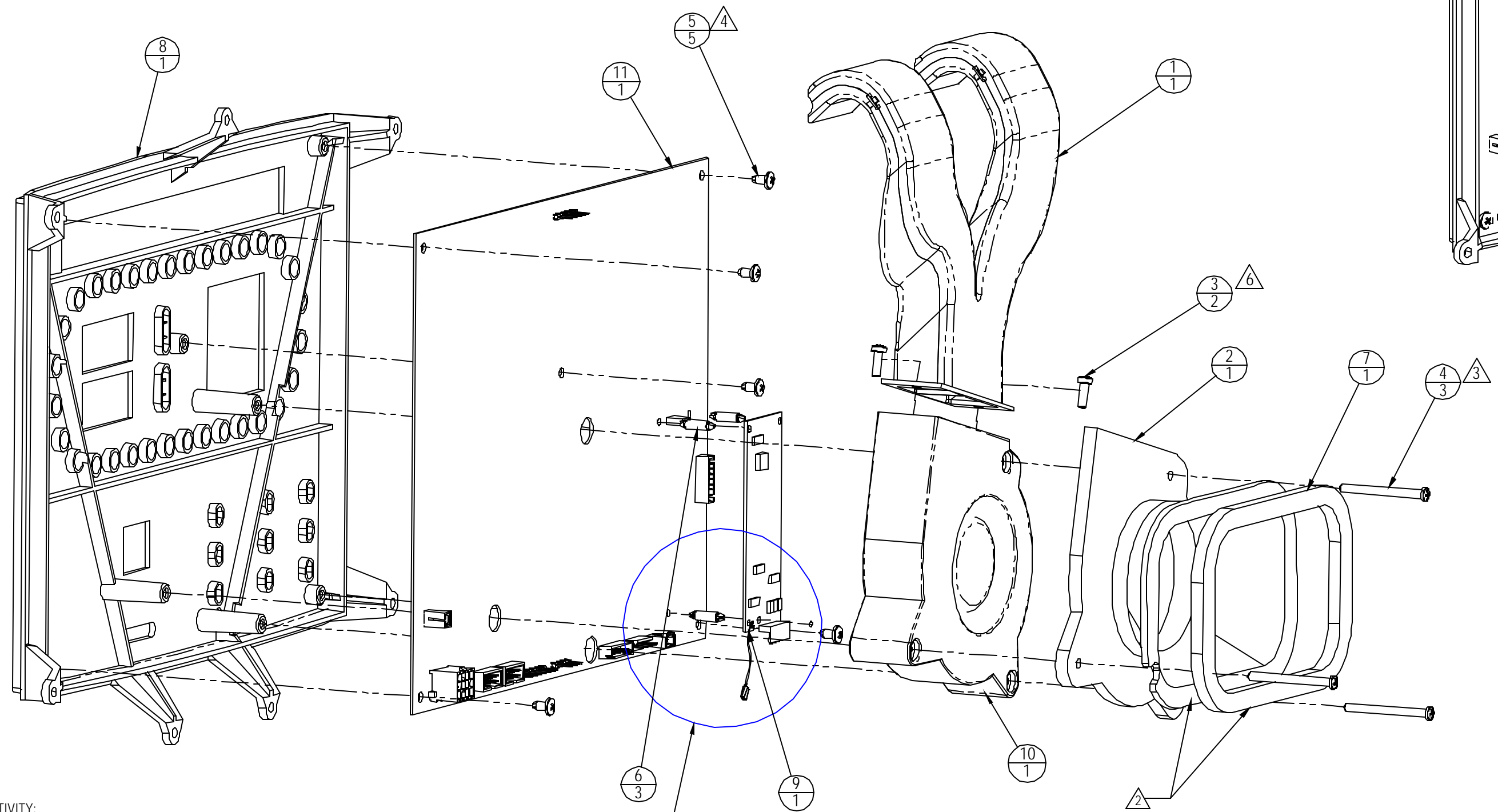
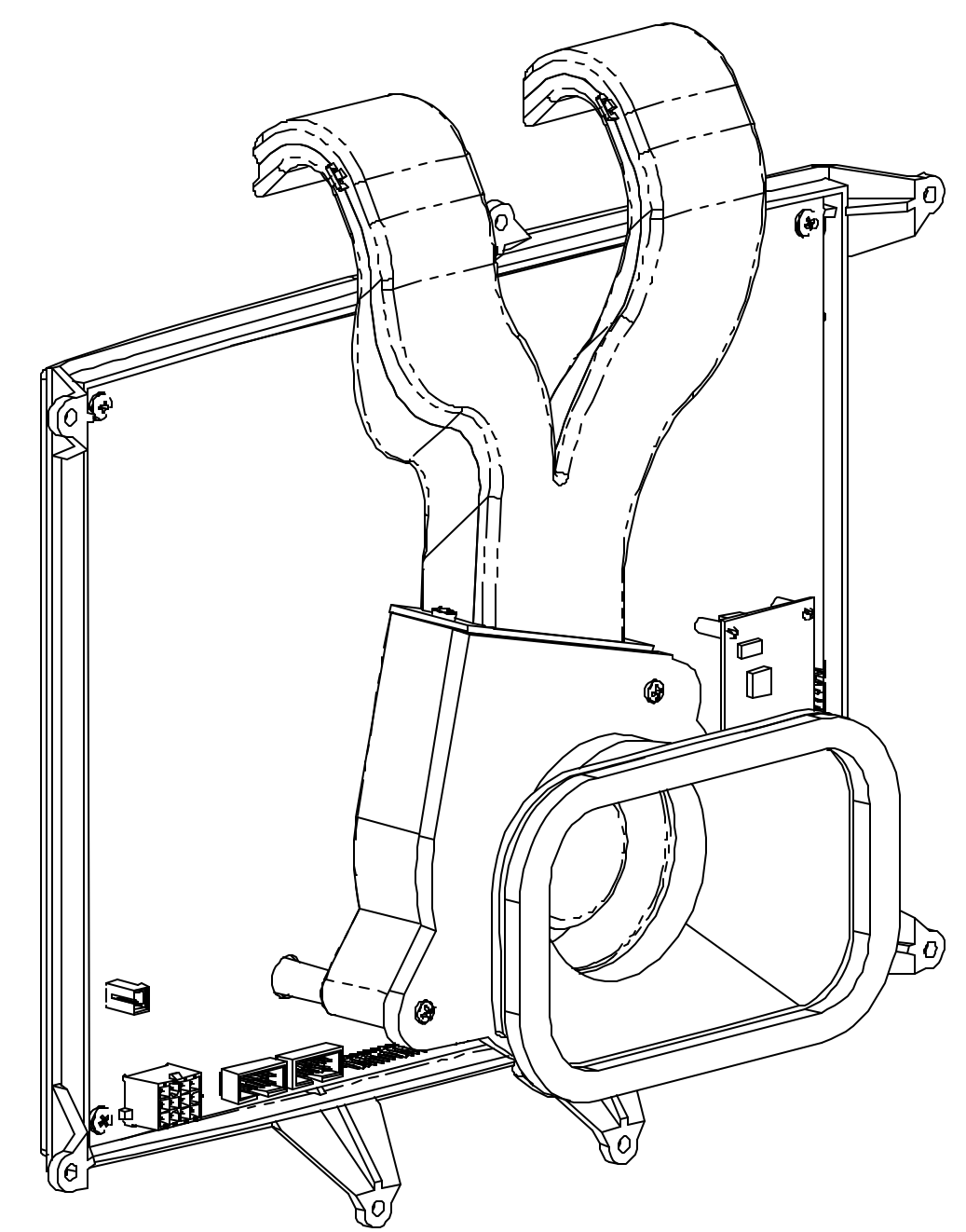
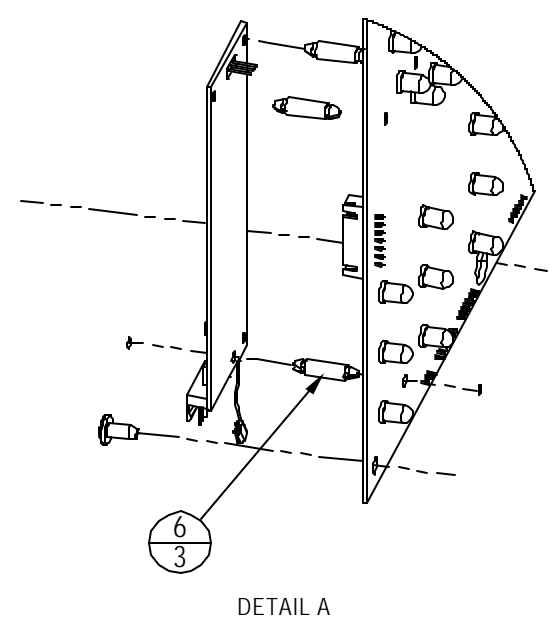
TITLE	ASSY, CONSOLE/HNDLBAR, E-ST		
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SCALE: 1:3	SHEET 2 OF 2	SHEET SIZE: B
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REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	04-30-08	PRODUCTION RELEASE	11890	AK



CONNECTOR DESIGNATIONS ON PCB  
P/N **018-5185**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	<b>020-7063</b>	DUCT,VENT,BCS,LED,VLAD	1
2	<b>020-7067</b>	INTAKE,BLOWER,BCS,LED	1
3	<b>110-3168</b>	SCREW, M4x12, PHM,PH, CS,ZI	2
4	<b>110-3403</b>	SCREW, M4x0.7x45L,PHT,PH,CS,BO	3
5	110-3404	SCREW, M4x0.7x8L,PH,PH,CS,BO	5
6	120-3250	STANDOFF, 1/8" DIA X 7/16" NYLON	3
7	140-3396	GASKET, BCS BLOWER DUCT, FOAM	1
8	<b>711-3194</b>	ASSY, KEY PAD PLASTIC,PRO ST	1
9	<b>715-3670</b>	PCBA, SALUTRON 6000, VLAD	1
10	718-1122	ASSY,BLOWER,12VDC	1
11	<b>718-5185</b>	ASSY, DISP BOARD LED,USB,E-BCS	1

- NOTES:
- CONNECTIVITY:
    - 260-0932 WIRE TO J3 ON **018-5185**
    - 050-2033** RIBBON TO J7 ON **018-5185**
  - P/N 140-3396 TO ATTACH TO P/N **020-7067** VIA ADHESIVE STRIP LOCATED ON FACE OF P/N 140-3396.
  - APPLY 13-17 lb-in / 1.5-1.5 N-m TORQUE TO SCREWS (**110-3403**).
  - APPLY 8-12 lb-in / 0.9-1.4 N-m TORQUE TO SCREWS (110-3404).
  - APPLY 10-12 lb-in / 1.1-1.4 N-m TORQUE TO SCREWS (110-3405).
  - APPLY 13-17 lb-in / 1.5-1.5 N-m TORQUE TO SCREWS (**110-3168**).

SEE DETAIL A FOR VIEW OF BACKSIDE

**DOCUMENT STATUS: RELEASE**

NOTICE OF PROPRIETARY INFORMATION  
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MATERIAL	SEE BOM
FINISH	N/A
VENDOR	N/A
P/N	N/A

TOLERANCES UNLESS OTHERWISE SPECIFIED	
X.XXX ± 0.10' (0.25MM)	ANGLES ± 0.5°
X.XX ± 0.030' (0.76MM)	FRACTIONS ± 1/32
X.X ± 0.050' (1.27MM)	
X ± 0.125' (3.20MM)	

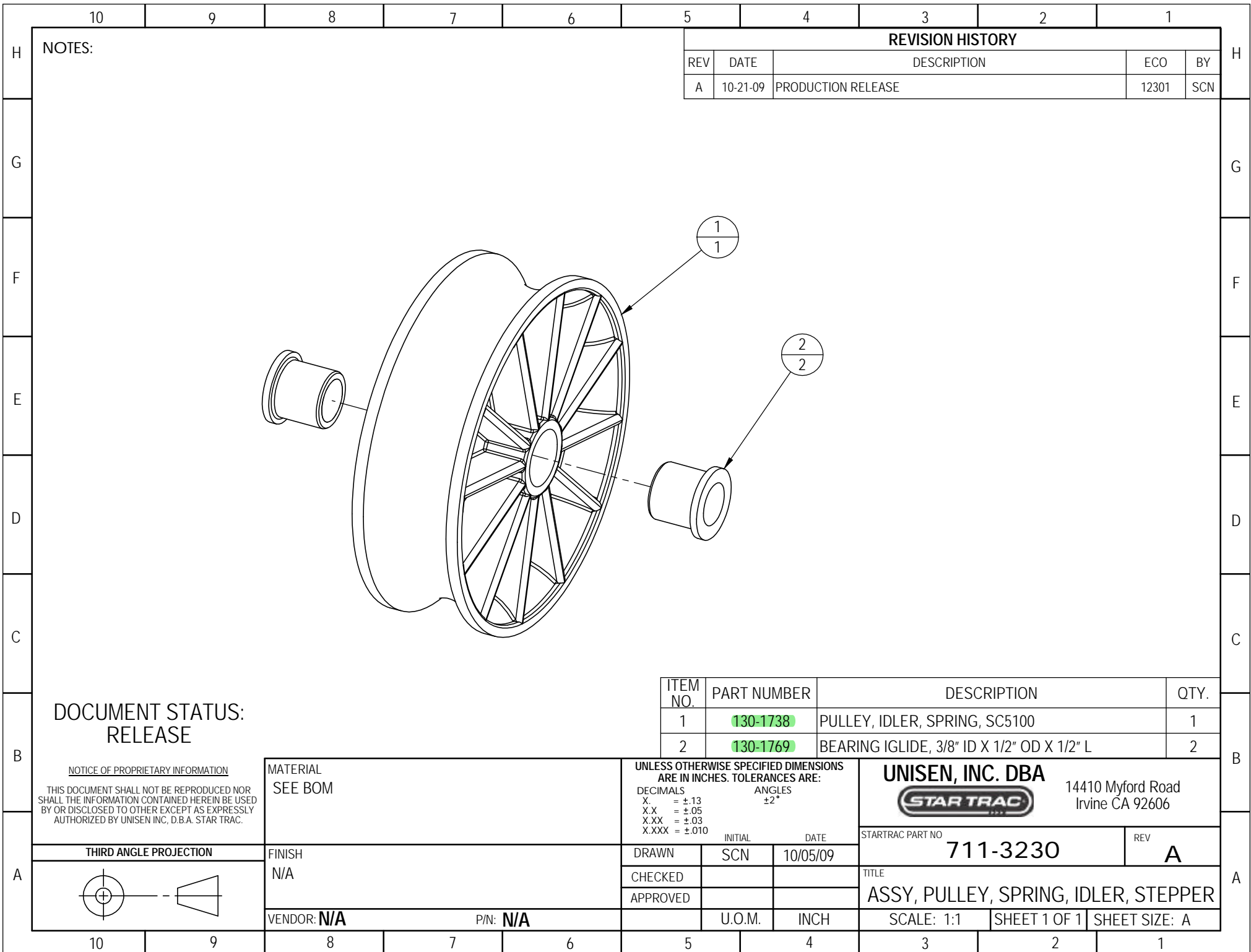
**UNISEN, INC. DBA STAR TRAC** 14410 Myford Road Irvine CA 92606

PART NO: **711-3226** REV: **A**

TITLE: **ASSY,DISPLAY LED,E-ST**

SCALE: 1:2 SHEET 1 OF 1 SHEET SIZE: C

DRAWN	JRT	DATE	12-16-06
CHECKED			
APPROVED			
U.O.M.			



NOTES:

**REVISION HISTORY**

REV	DATE	DESCRIPTION	ECO	BY
A	10-21-09	PRODUCTION RELEASE	12301	SCN

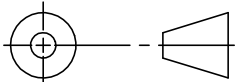
**DOCUMENT STATUS:  
RELEASE**

NOTICE OF PROPRIETARY INFORMATION  
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	130-1738	PULLEY, IDLER, SPRING, SC5100	1
2	130-1769	BEARING IGLIDE, 3/8" ID X 1/2" OD X 1/2" L	2

MATERIAL SEE BOM		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS                      ANGLES X.                      = ±.13 X.X                      = ±.05 X.XX                      = ±.03 X.XXX                      = ±.010		UNISEN, INC. DBA <b>STAR TRAC</b> 14410 Myford Road Irvine CA 92606	
FINISH N/A		DRAWN	SCN	DATE	STARTRAC PART NO
VENDOR: <b>N/A</b>		CHECKED			<b>711-3230</b>
P/N: <b>N/A</b>		APPROVED			REV <b>A</b>
			U.O.M.	INCH	TITLE <b>ASSY, PULLEY, SPRING, IDLER, STEPPER</b>
					SCALE: 1:1    SHEET 1 OF 1    SHEET SIZE: A

THIRD ANGLE PROJECTION

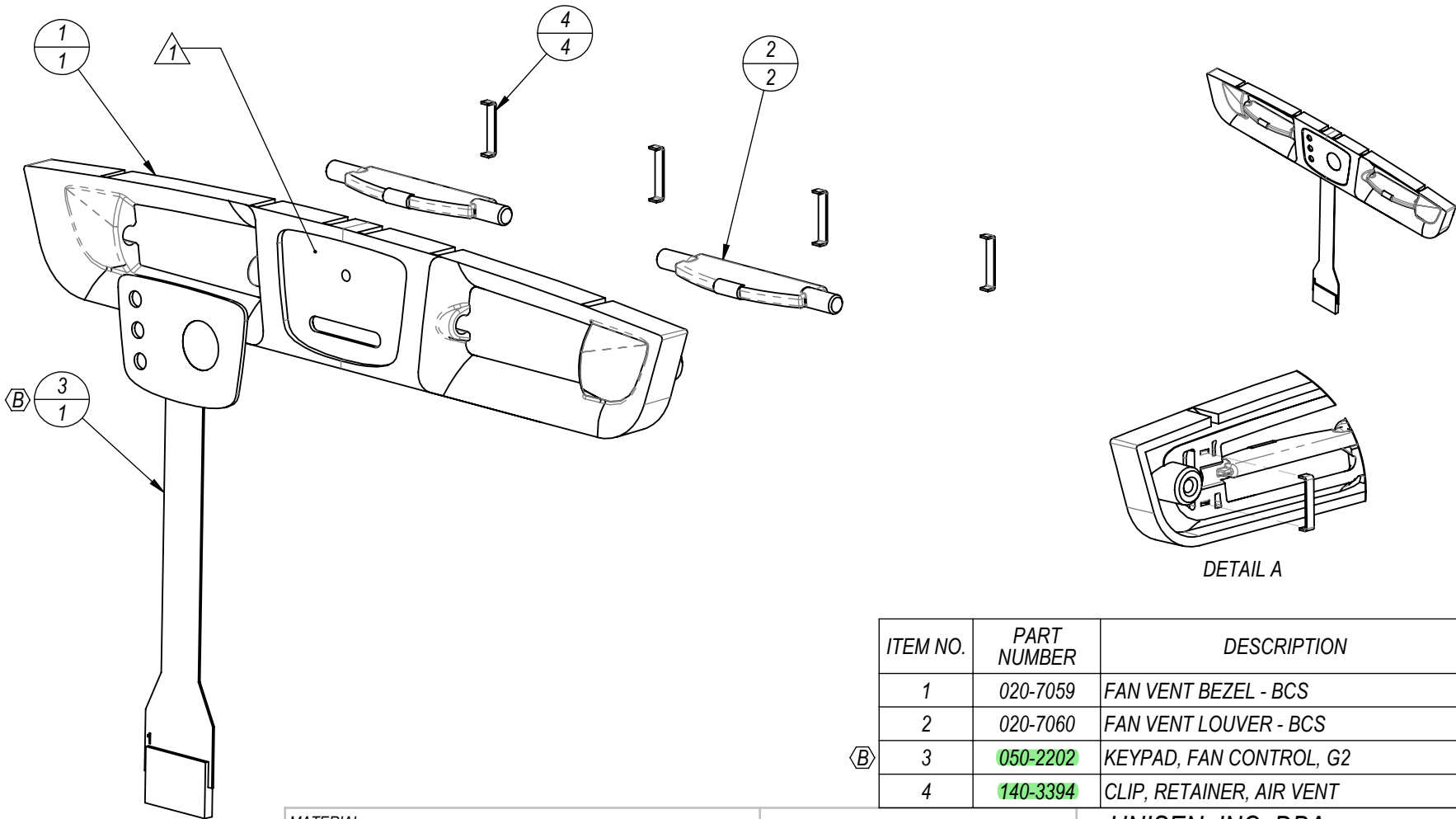


10      9      8      7      6      5      4      3      2      1

**NOTES:**

1. CLEAN SURFACE WITH ISOPROPYL ALCOHOL & LET DRY BEFORE APPLICATION OF KEYPAD.

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	BY
A	03-16-07	RELEASE FOR PRODUCTION	11562	RLH
B	01-04-11	REPLACE P/N: 050-2026 WITH P/N: 050-2202	13469	SJK

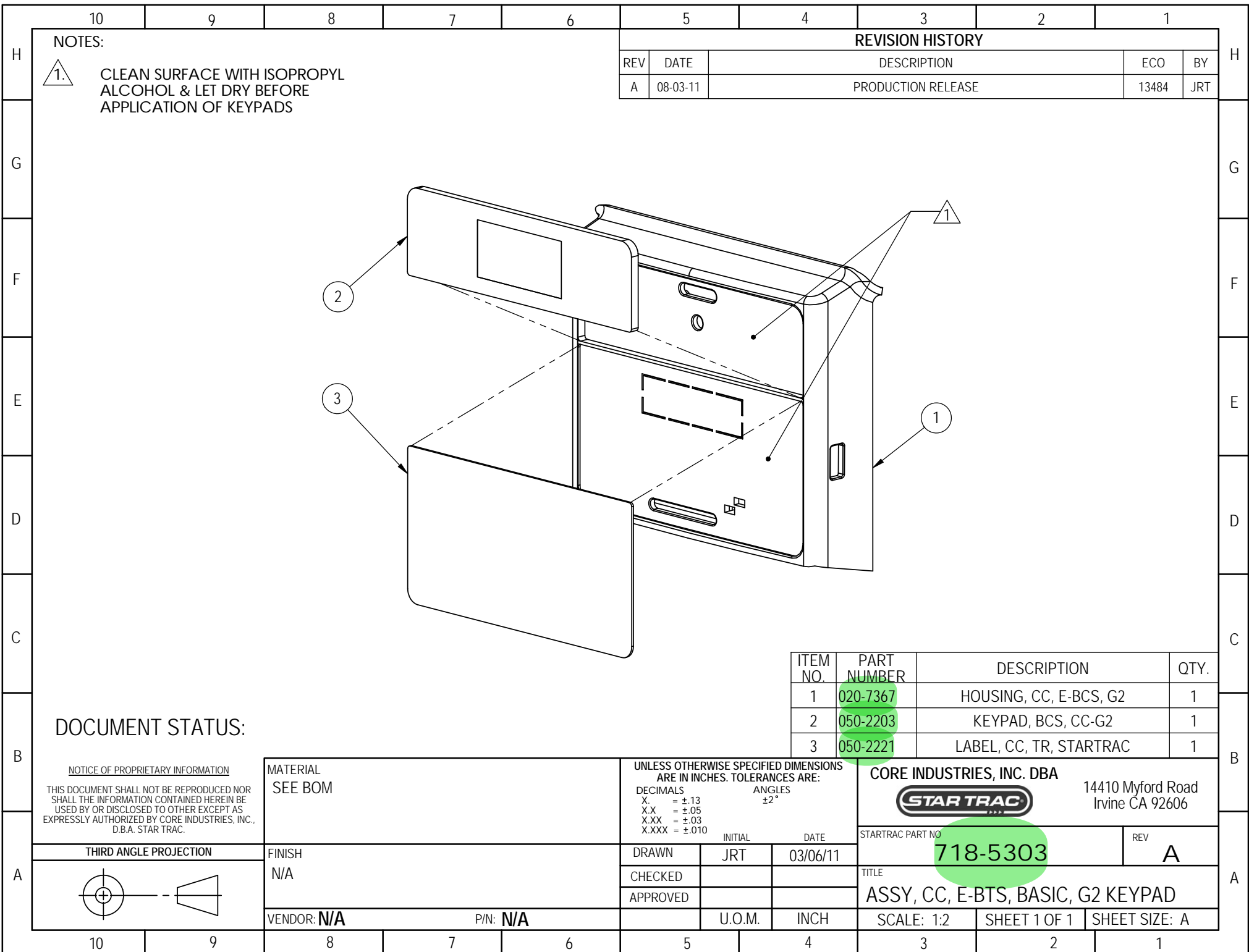


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	020-7059	FAN VENT BEZEL - BCS	1
2	020-7060	FAN VENT LOUVER - BCS	2
(B) 3	050-2202	KEYPAD, FAN CONTROL, G2	1
4	140-3394	CLIP, RETAINER, AIR VENT	4

**DOCUMENT STATUS:**

MATERIAL SEE BOM	TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>UNISEN, INC. DBA</b>  14410 Myford Road Irvine CA 92606
	X.XXX = ± .010" (0.25MM)	ANGLES = ± 2°	
FINISH NONE	X.XX = ± .030" (0.76MM)	FRACTIONS = ± 1/32	STARTRAC PART NO <b>715-3651</b>
	X.X = ± .050" (1.27MM)		REV <b>B</b>
VENDOR: N/A	P/N: N/A	INITIAL DATE DRAWN SJK 12/2/06	TITLE <b>ASSY, AIR VENT, BCS</b>
		CHECKED	SCALE: 1:1.5   SHEET 1 OF 1   SHEET SIZE: A
		APPROVED	
		U.O.M.	

NOTICE OF PROPRIETARY INFORMATION  
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NOTES:

1. CLEAN SURFACE WITH ISOPROPYL ALCOHOL & LET DRY BEFORE APPLICATION OF KEYPADS

REVISION HISTORY

REV	DATE	DESCRIPTION	ECO	BY
A	08-03-11	PRODUCTION RELEASE	13484	JRT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	020-7367	HOUSING, CC, E-BCS, G2	1
2	050-2203	KEYPAD, BCS, CC-G2	1
3	050-2221	LABEL, CC, TR, STARTRAC	1

DOCUMENT STATUS:

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MATERIAL  
SEE BOM

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:  
 DECIMALS                      ANGLES  
 X.                                = ±.13  
 X.X                              = ±.05  
 X.XX                            = ±.03  
 X.XXX                         = ±.010

CORE INDUSTRIES, INC. DBA



14410 Myford Road  
Irvine CA 92606

STARTRAC PART NO

718-5303

REV

A

THIRD ANGLE PROJECTION

FINISH  
N/A

DRAWN	JRT	03/06/11
CHECKED		
APPROVED		

TITLE  
ASSY, CC, E-BTS, BASIC, G2 KEYPAD

VENDOR: N/A                      P/N: N/A

U.O.M.    INCH

SCALE: 1:2    SHEET 1 OF 1    SHEET SIZE: A