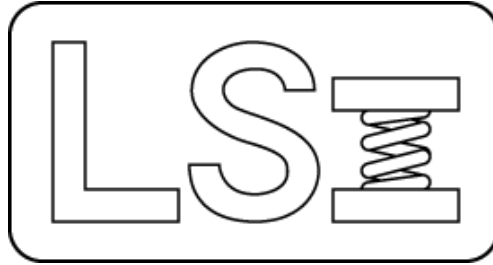


Larson Systems Inc.



V200 Parts List

050-0000-0109-04

Valve Spring Tester – 200 lb





050-0000-0109-04 A
V200 Valve Spring Tester

Parts List

Rev	By	Date	Description
	BH	05-23-2011	Force resolution set up at .1 lb.
A	TLS	10-09-2013	Removed 060-0000-0074-00 (was item 9, now obsolete)

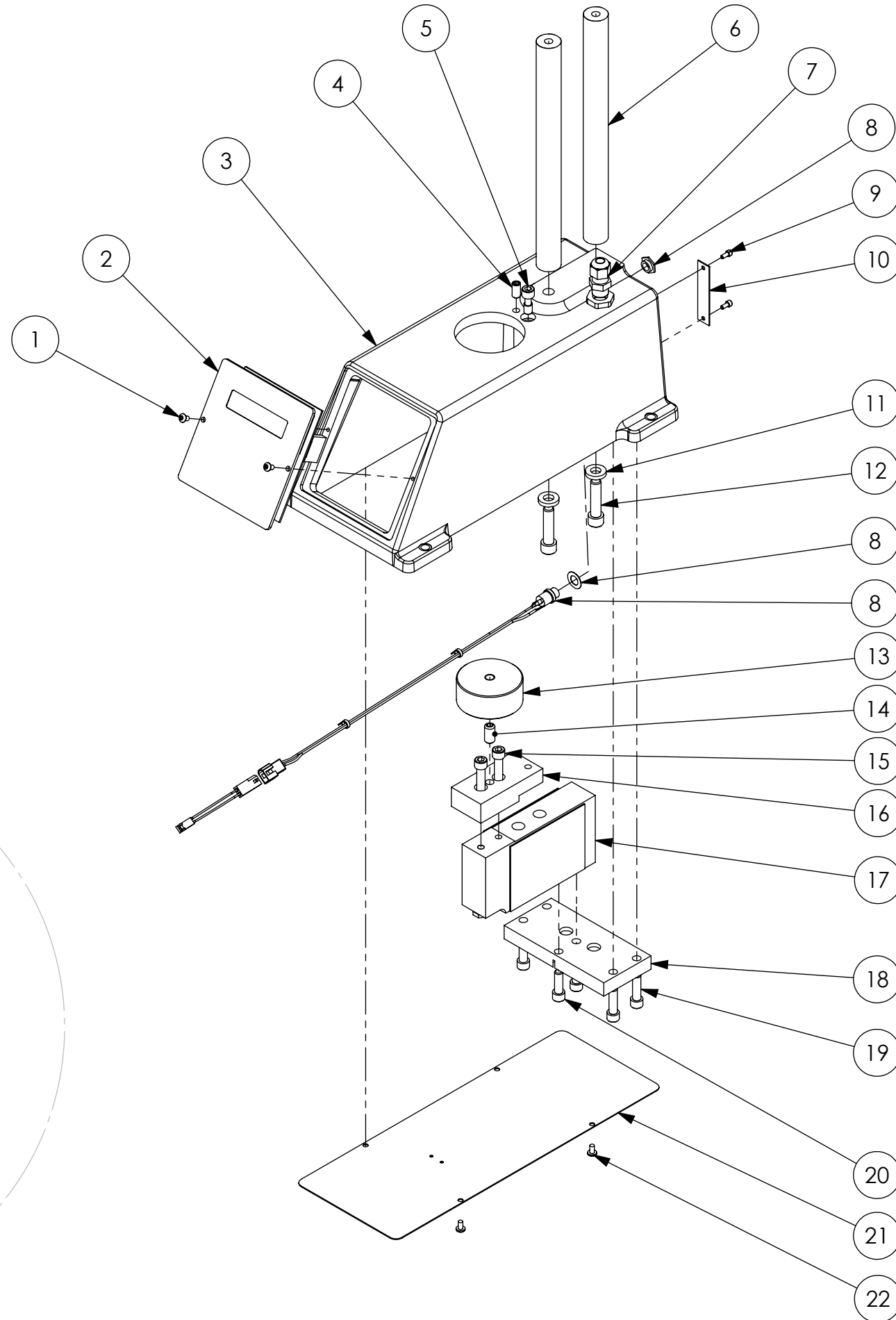
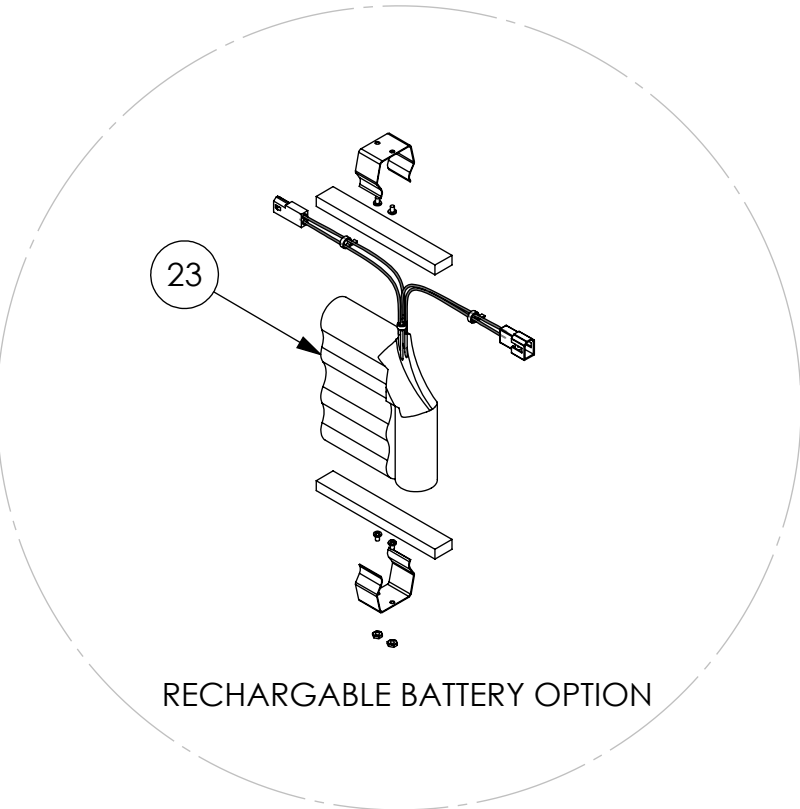
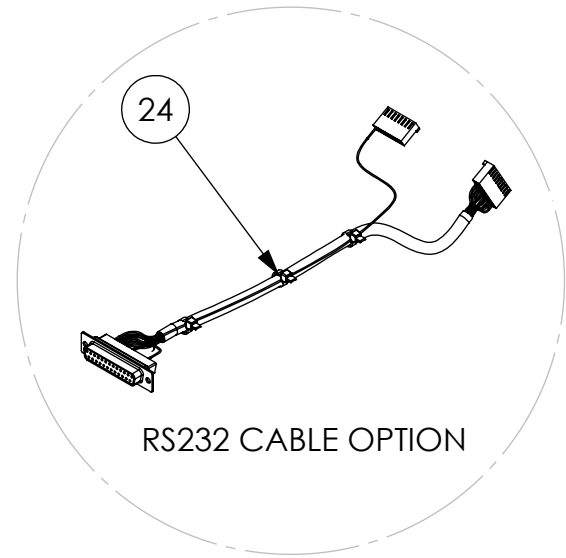
Item	Qty	Part Number	Rev	Part Name	PCB Location	Part Length
1	1	025-0000-0483-03	D	Lower Assembly V200 lb		in.
2	1	025-0000-0185-05	N	Upper Assembly 5" ECT / CDHT		in.
3	1	025-0000-0386-00	F	Digital Length Display		in.
4	1	050-1000-0013-00		High Resolution Length for ECT (0.001" / 0.02 mm)		in.
5	1	050-1000-0012-00		High Resolution Force (2X Res. from 0-100% FS)(ECT)		in.
6	1	025-1000-0261-00	D	Internal RS232 Cable		in.
7	1	025-1000-0396-00		Power Supply, 100-240 VAC 50-60 Hz (USA Plug)		in.
8	1	060-1000-0025-00	K	User Manual - ECT / CDHT / FDHT / DHT / CST		in.
9	1	059-0000-0016-00	E	Hand Tester Shipping Box & Materials		in.
10	1	060-2000-0018-03		Parts List - V200 lb		in.
11	1	025-6000-0001-00		Sticker Assembly - ECT		in.


Approved by: _____

Date: _____

Tester	Part Number
ECT 110	025-0000-0483-00
V200	025-0000-0483-03
ECT 100	025-0000-0483-04

REV.	DATE	DESCRIPTION	DRW	APPROVED
		SEE SHEET 2		



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX ± .01 .XXX ± .005		 LARSON SYSTEMS INC. 10073 Baltimore St. NE PH. 763-780-2131 Mpls., MN 55449 FAX. 763-780-2182
MATERIAL	See Parts List	
FINISH	None	APPROVALS DATE DRAWN RRS 02/04/13 APPR.
HEAT TREAT	None	DWG. NO. B 025-0000-0483-XXD SCALE: NONE
		SHEET 1 OF 4



025-0000-0483-03 D

Parts List

Lower Assembly V200 lb

Rev	By	Date	Description
A	SMH	12-09-2002	2X 18-0-907-00 WAS 18-0-907-01, 18-0-2160 WAS 18-0-1301, 13-0-178 WAS 13-0-20, ADDED 13-3-22, DRAWING WAS 1 SHEET IS 2 SHEETS
B	BAH	04-29-2010	Chg front panel to -01 (was00)for use with Amcel load cell
C	RRS	02-05-2013	Add -04 thru -07, Created family drawing, renumbered
D	RRS	07-26-2013	Add -08 & -09

Item	Qty	Part Number	Rev	Part Name	PCB Location	Part Length
1	2	013-0000-0077-00		6-32 X 1/4 BHCS		in.
2	1	025-0000-0482-00	M	FP Assy, 2 Line Display (force/length)(6.9-15.8 mv		in.
3	1	018-0000-0871-02	Y	DHT Base - Blue		in.
4	1	013-0000-0194-00		1/4-28 X 1/2 SSS FLAT POINT		in.
5	1	018-0000-1302-00	A	Compression Overload Stops		in.
6	2	018-0000-0907-00	N	8.200" Support Rods (5" Range)		in.
7	1	013-3000-0022-00		Nylon Liquid-Tight Cord Grip Fitting, Straight Dome,		in.
8	1	025-1000-0251-00	G	Internal Power Cable (025-1000-0396-XX power		in.
9	2	013-0000-0178-00		4-40 X 1/4 SHCS		in.
10	1	018-0000-2014-00		25 PIN COVER PLATE		in.
11	2	018-0000-1514-00		WASHER .320 I.D. X .625 O.D.		in.
12	2	013-0000-0154-00		5/16-18 X 1 1/4 SHCS		in.
13	1	018-0000-0905-00	C	2" DIA Lower Platform		in.
13	Opt	018-0000-0905-02	C	2" DIA Lower Platform, -0048 series LC 500 lb, 1000		in.
14	1	013-0000-0132-00		5/16-18 X 5/8 SSS		in.
15	2	013-0000-0064-00		1/4-20 X 1 SHCS		in.
16	1	018-0000-0903-03	A	Lower Platform Mounting Plate (DHT)		in.
17	1	025-1000-0172-10	Q	200 lb Load Cell Assembly		in.
18	1	018-0000-0902-02	D	Load Cell Mounting Plate (DHT)		in.
19	4	013-0000-0149-00		1/4-28 X 7/8" SHCS		in.
20	2	013-0000-0032-00		1/4-20 X 3/4 SHCS		in.
21	1	018-0000-0877-00	E	Base Bottom Cover		in.
22	4	013-0000-0195-00		6-32 X 1/4 Phillips Pan Machine Screw		in.
23	Opt	025-1000-0654-00		Battery Pack, 6V		in.
24	Opt	025-1000-0287-01	K	Internal RS 232 Cable		in.
25	ref	060-4000-0235-00		Instructions, Hand tester assembly		in.

Approved by: 

Date: August 14, 2013

SEE ATTACHED 3 DRAWINGS

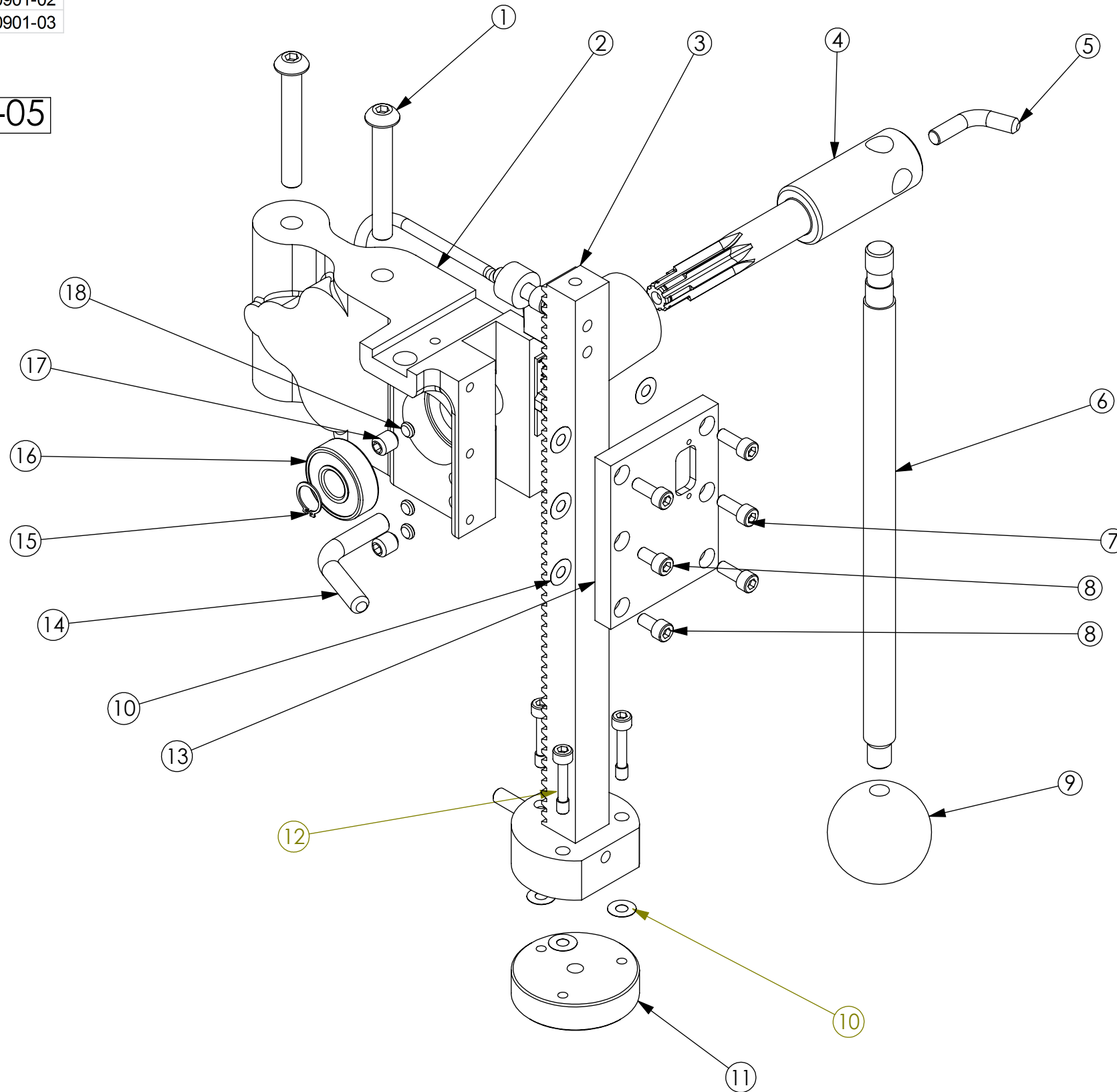
Printed on 08-14-2013, 5:47:24 PM by DAL

Page 4 of 4


MODEL	ITEM 6
2 lbs, 11 lbs	018-0000-0901-00
110 lbs	018-0000-0901-01
750 lbs	018-0000-0901-02
1500 lbs	018-0000-0901-03

REV.	DATE	DESCRIPTION	DRW	APPROVED
		SEE SHEET 2		

-05

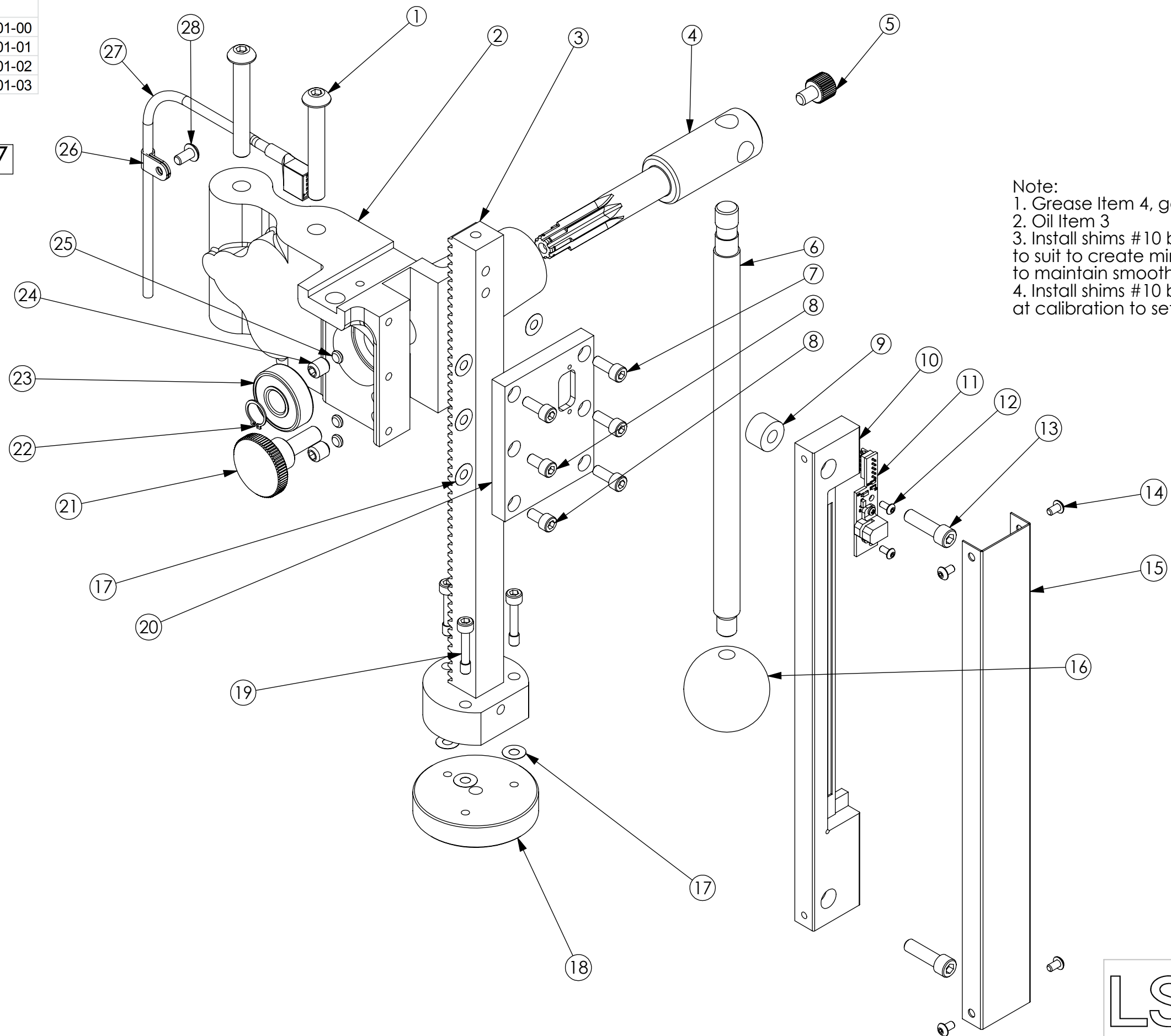


Note:
 1. Grease Item 4, gear teeth and 1.0 dia
 2. Oil Item 3
 3. Install shims #10 between #13 and #2 to suit to create min clearance for #3 but to maintain smooth operation
 4. Install shims #10 between #11 and #3 at calibration to set parallism of the platforms

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX ± .01 .XXX ± .005		 LARSON SYSTEMS INC. 10073 Baltimore St. NE PH. 763-780-2131 Mpls., MN 55449 FAX. 763-780-2182
MATERIAL	-	
FINISH	-	APPROVALS DATE DRAWN SMH 11/22/00 APPR.
HEAT TREAT	--	ECT/ CDHT Upper Assembly DWG. NO. B 025-0000-0185-05 & -07N SCALE: NONE SHEET 1 OF 4

MODEL	ITEM 6
2 lbs, 11 lbs	018-0000-0901-00
110 lbs	018-0000-0901-01
750 lbs	018-0000-0901-02
1500 lbs	018-0000-0901-03

-07



Note:
 1. Grease Item 4, gear teeth and 1.0 dia
 2. Oil Item 3
 3. Install shims #10 between #13 and #2
 to suit to create min clearance for #3 but
 to maintain smooth operation
 4. Install shims #10 between #11 and #3
 at calibration to set parallism of the platforms



LARSON SYSTEMS INC.

10073 Baltimore St. NE PH. 763-780-2131
 Mpls., MN 55449 FAX. 763-780-2182

B SCALE: NONE

DWG. NO. 025-0000-0185-05 -07 & -07 SHEET 2 OF 4



025-0000-0185-05 N
Upper Assembly 5" ECT / CDHT

Parts List

Rev	By	Date	Description
J	DAL	03-31-2003	Item #3, 018-0000-435-01,-03,-04 Was 018-0000-0435-XX
K	DAL	06-16-2004	Item 17 was 013-0000-0175-00 is 018-0000-1732-02, Item 12 was 013-0000-0242-00 is 013-0000-0243-00
M	DAL	01-22-2010	Added #6 018-0000-0901-03
N	RRS	07-26-2013	Add -07

Item	Qty	Part Number	Rev	Part Name	PCB Location	Part Length
1	2	013-0000-0300-00		5/16-18 X 2 1/4 BHSCS		in.
2	1	018-0000-0872-03	E	ECT / CDHT Rack Housing		in.
3	1	018-0000-1249-06	P	ECT / CDHT / DHT Gear Rack		in.
4	1	018-0000-0876-00	A	Stem Pinion		in.
5	1	018-0000-2214-00	A	Handle Lock, 1/4-20		in.
6	1	018-0000-0901-00	C	Handle - 5.84" (2, 10 lb Hand Tester)		in.
6		018-0000-0901-01	C	Handle - 7.84" (22, 66, 110, 200 lb Hand Tester)		in.
6		018-0000-0901-02	C	Handle - 9.84" (750, 2000 lb Hand Tester)		in.
6		018-0000-0901-03	C	Handle - 11.84" (1500 lb Hand Tester)		in.
7	4	013-0000-0196-00		10-32 X 1/2 SHCS		in.
8	2	013-0000-0192-00		10-32 X 3/8 SHCS		in.
9	1	013-5000-0029-00		Phoenolic Ball Knob		in.
10	AR	018-0000-0435-01	C	Shim - 0.195 ID, 0.450 OD, 0.0010 thick		in.
10	AR	018-0000-0435-03	C	Shim - 0.195 ID, 0.450 OD, 0.0050 thick		in.
10	AR	018-0000-0435-04	C	Shim - 0.195 ID, 0.450 OD, 0.0015 thick		in.
11	1	018-0000-1044-00	C	2" DIA Upper Platform		in.
12	3	018-0000-1732-02	B	10-32 Custom Screws for Platform Alignment		in.
13	1	018-0000-2218-00	B	Front Plate (for LSI Encoder)		in.
14	1	018-0000-2221-00	A	Rack Lock, 5/16-18		in.
15	1	013-2000-0086-00		Snap Ring, 5100-46-PP		in.
16	1	013-2000-0080-00		Bearing, Hand Tester Housing		in.
17	2	013-0000-0243-00		5/16-18 X 3/8 SSS with Nylon Lock		in.
18	3	018-0000-1036-00	A	Brass Wear Pad		in.

Approved by: 

Date: August 12, 2013

SEE ATTACHED 2 DRAWINGS



025-0000-0185-07 N

Parts List

Upper Assembly 5" ECT / CDHT - Ø2.370 upper

Rev	By	Date	Description
J	DAL	03-31-2003	Item #3, 018-0000-435-01,-03,-04 Was 018-0000-0435-XX
K	DAL	06-16-2004	Item 17 was 013-0000-0175-00 is 018-0000-1732-02, Item 12 was 013-0000-0242-00 is 013-0000-0243-00
M	DAL	01-22-2010	Added #6 018-0000-0901-03
N	RRS	07-26-2013	Add -07

Item	Qty	Part Number	Rev	Part Name	PCB Location	Part Length
1	2	013-0000-0300-00		5/16-18 X 2 1/4 BHSCS		in.
2	1	018-0000-0872-04	E	ECT / CDHT Rack Housing - Carbide Black		in.
3	1	018-0000-1249-06	P	ECT / CDHT / DHT Gear Rack		in.
4	1	018-0000-0876-00	A	Stem Pinion		in.
5	1	018-0000-3531-00		Handle Lock Knob		in.
6	1	018-0000-0901-00	C	Handle - 5.84" (2, 10 lb Hand Tester)		in.
6		018-0000-0901-01	C	Handle - 7.84" (22, 66, 110, 200 lb Hand Tester)		in.
6		018-0000-0901-02	C	Handle - 9.84" (750, 2000 lb Hand Tester)		in.
6		018-0000-0901-03	C	Handle - 11.84" (1500 lb Hand Tester)		in.
7	4	013-0000-0196-00		10-32 X 1/2 SHCS		in.
8	2	013-0000-0192-00		10-32 X 3/8 SHCS		in.
9	1	018-0000-2222-00		ENCODER SPACER		in.
10	1	025-0000-0484-00	B	Glass Scale Assembly		in.
11	1	025-1000-0351-00	A	Encoder PCB Assembly		in.
12	2	013-0000-0020-00		4-40 X 1/4 BHCS		in.
13	2	013-0000-0202-00		1/4-20 X 7/8 SHCS		in.
14	4	013-0000-0077-00		6-32 X 1/4 BHCS		in.
15	1	018-0000-2217-00	B	Encoder Cover		in.
16	1	013-5000-0029-00		Phoenolic Ball Knob		in.
17	AR	018-0000-0435-01	C	Shim - 0.195 ID, 0.450 OD, 0.0010 thick		in.
17	AR	018-0000-0435-03	C	Shim - 0.195 ID, 0.450 OD, 0.0050 thick		in.
17	AR	018-0000-0435-04	C	Shim - 0.195 ID, 0.450 OD, 0.0015 thick		in.
18	1	018-0000-1044-02		Ø2.375 Upper Platform		in.
19	3	018-0000-1732-02	B	10-32 Custom Screws for Platform Alignment		in.
20	1	018-0000-2218-00	B	Front Plate (for LSI Encoder)		in.
21	1	018-0000-3532-00		Ram Lock Knob		in.
22	1	013-2000-0086-00		Snap Ring, 5100-46-PP		in.
23	1	013-2000-0080-00		Bearing, Hand Tester Housing		in.
24	2	013-0000-0243-00		5/16-18 X 3/8 SSS with Nylon Lock		in.
25	3	018-0000-1036-00	A	Brass Wear Pad		in.

Approved by: David Zamora

Date: August 12, 2013

SEE ATTACHED 2 DRAWINGS



025-0000-0185-07 N

Parts List

Upper Assembly 5" ECT / CDHT - Ø2.370 upper

Rev	By	Date	Description
J	DAL	03-31-2003	Item #3, 018-0000-435-01,-03,-04 Was 018-0000-0435-XX
K	DAL	06-16-2004	Item 17 was 013-0000-0175-00 is 018-0000-1732-02, Item 12 was 013-0000-0242-00 is 013-0000-0243-00
M	DAL	01-22-2010	Added #6 018-0000-0901-03
N	RRS	07-26-2013	Add -07

Item	Qty	Part Number	Rev	Part Name	PCB Location	Part Length
26	1	013-3000-0023-00		Cable Clamp, 3/16" Dia.		in.
27	1	025-1000-0352-00	B	Encoder Cable Standard ECT / CDHT		in.
28	1	013-0000-0052-00		10-32 X 3/8 BHSCS		in.

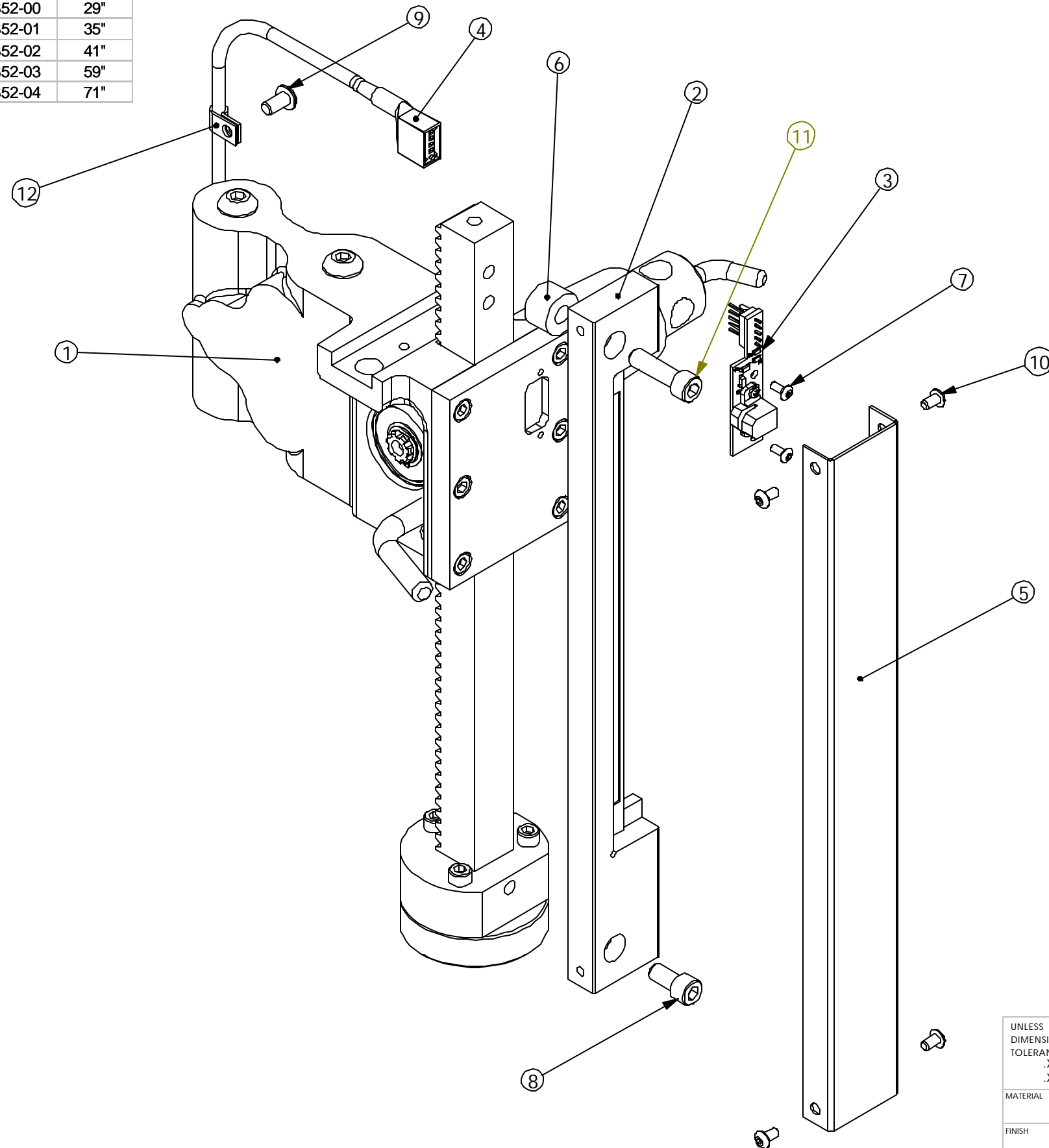
Approved by: 

Date: August 12, 2013

SEE ATTACHED 2 DRAWINGS

MODEL	025-1000-352-XX	LENGTH
STANDARD ECT/ CDHT	025-1000-352-00	29"
STANDARD DHT	025-1000-352-01	35"
DHT, 18" RODS	025-1000-352-02	41"
DHT, 36" RODS	025-1000-352-03	59"
DHT, 48" RODS	025-1000-352-04	71"

REV.	DATE	DESCRIPTION	DRW	APPROVED
		See Page 2		



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
.XX ± .01
.XXX ± .005

MATERIAL	1
FINISH	1
HEAT TREAT	--



APPROVALS	DATE
DRAWN SMH	12/9/00
APPR.	
APPR.	

LARSON SYSTEMS INC.

10073 Baltimore St. NE PH. 763-780-2131
Mpls., MN 55449 FAX. 763-780-2182

Upper Assembly with Encoder

B DWG. NO. 025-0000-0386-00F

SCALE: NONE SHEET 1 OF 2



025-0000-0386-00 F

Parts List

Digital Length Display

Rev	By	Date	Description
C	SMH	09-07-2001	Removed Digital Scale and replaced with LSI 6" encoder, reformed assembly, removed notes and chart, assembly is now for both the ECT and CDHT
D	SMH	10-30-2002	Added table for 25-1000-0352-XX
E	SMH	12-24-2002	Standard ECT/CDHT was listed as standard ECT/DHT on the table
F	DAL	06-17-2004	013-3000-0023-00 was 013-3000-0021-00

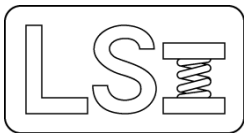
Item	Qty	Part Number	Rev	Part Name	PCB Location	Part Length
1	1	025-0000-0185-05	K	Upper Assembly 5" ECT / CDHT		in.
2	1	025-0000-0484-00	A	Glass Scale Assembly		in.
3	1	025-1000-0351-00		Encoder PCB Assembly		in.
4	1	025-1000-0352-00	B	Encoder Cable Standard ECT / CDHT		in.
4		025-1000-0352-01	B	Encoder Cable Standard DHT		in.
4		025-1000-0352-02	B	Encoder Cable DHT, 18" Rods		in.
4		025-1000-0352-03	B	Encoder Cable DHT, 36" Rods		in.
4		025-1000-0352-04	B	Encoder Cable DHT, 48" Rods		in.
5	1	018-0000-2217-00	A	Encoder Cover		in.
6	1	018-0000-2222-00		ENCODER SPACER		in.
7	2	013-0000-0020-00		4-40 X 1/4 Button Head Cap Screw		in.
8	1	013-0000-0031-00		1/4-20 X 1/2 SHCS		in.
9	1	013-0000-0052-00		10-32 X 3/8 BHSCS		in.
10	4	013-0000-0077-00		6-32 X 1/4 Button Head Cap Screw		in.
11	1	013-0000-0202-00		1/4-20 X 7/8 SHCS		in.
12	1	013-3000-0023-00		Cable Clamp, 3/16" Dia.		in.

Approved by:

Date:

June 17, 2004

SEE ATTACHED DRAWING



Larson Systems Inc.
10073 Baltimore Street NE
Minneapolis, MN 55449-4425
www.larsonsystems.com

763-780-2131
1-877-780-2131
Fax: 763-780-2182
info@larsonsystems.com

