

LIQUID SOLIDS CONTROL

MODEL 614 X1 & X2 PROCESS REFRACTOMETER



**LIQUID SOLIDS CONTROL, INC.
P.O.Box 259, Upton, MA. USA 01568**

TEL: (508) 529 - 3377

LSC Model 614

PROCESS REFRACTOMETER

MODEL 614 X1 & MODEL 614 X2

INSTALLATION GUIDE

SEPTEMBER 12, 2012

LIQUID SOLIDS CONTROL, INC.

P.O. Box 259

Upton, MA 01568 U.S.A.

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LIQUID SOLIDS CONTROL *DIVISION* OF LIQUID SOLIDS CONTROL, INC.

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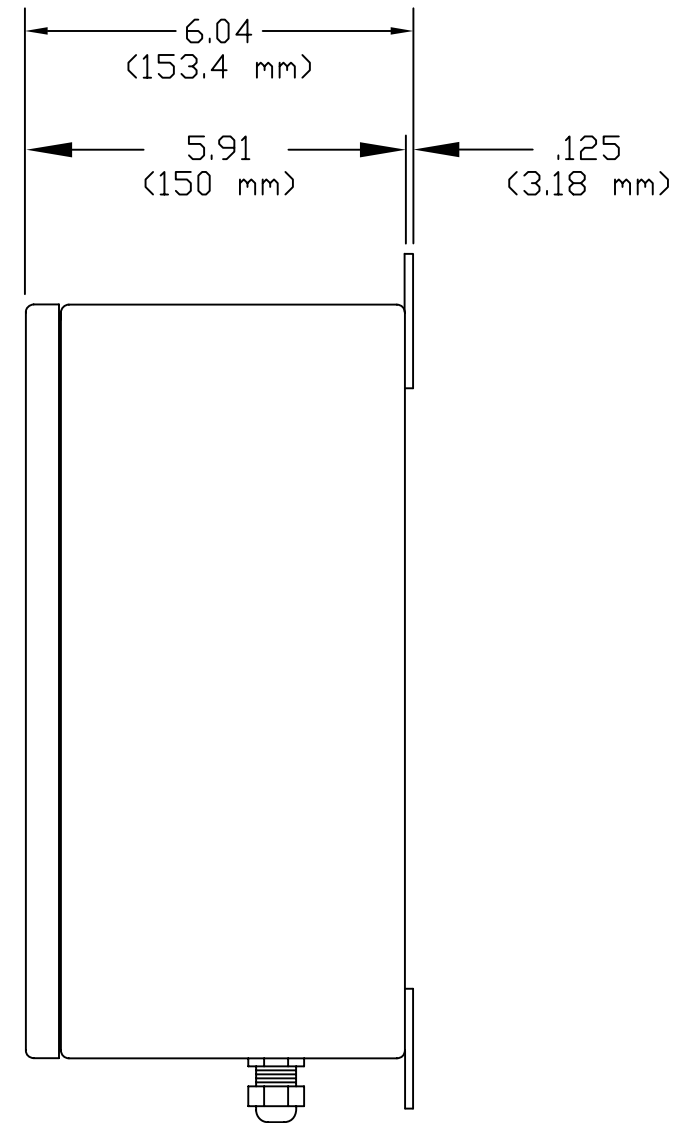
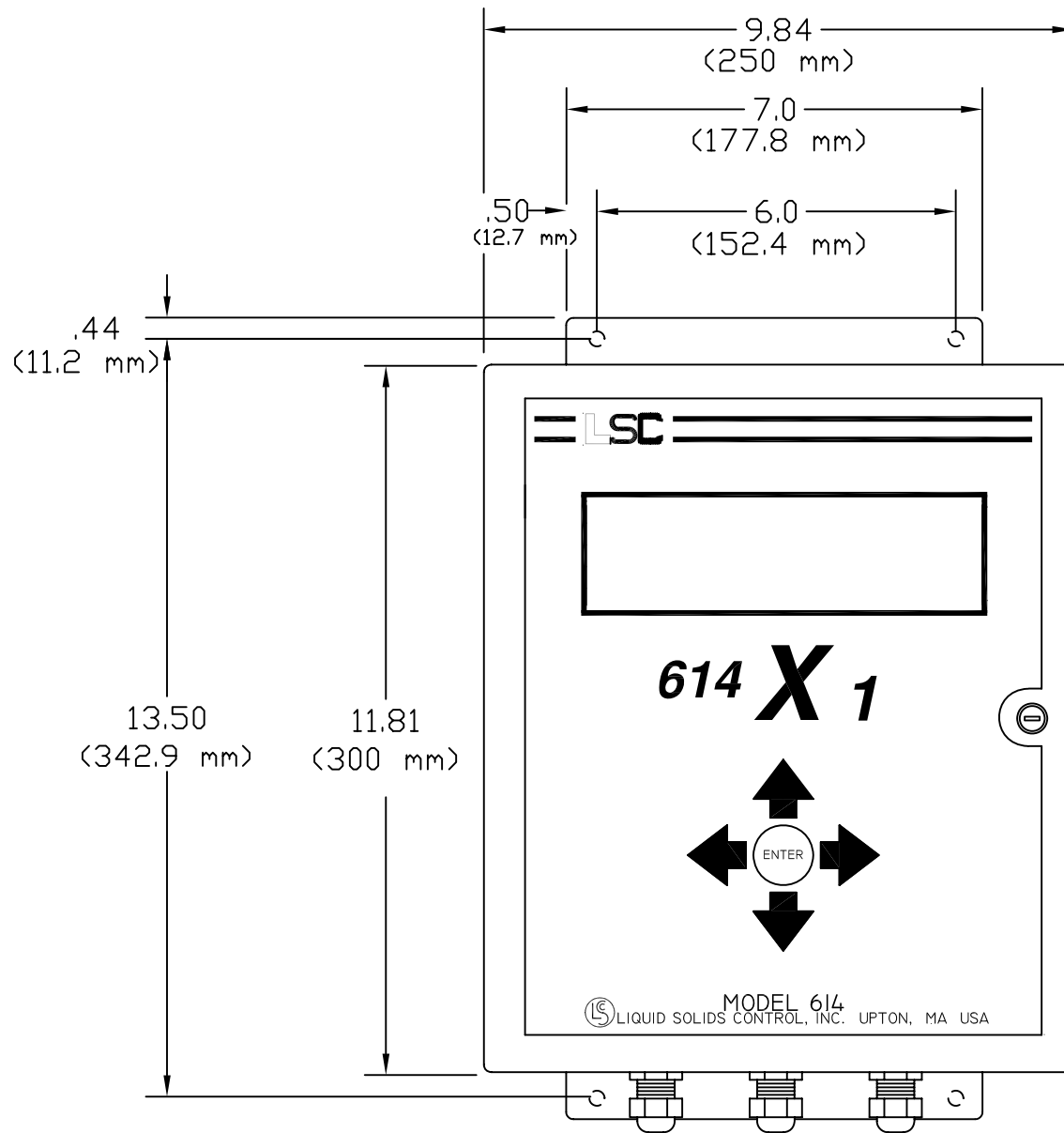
Email: canada@liquidsolidscontrol.com

NOTE:

This is a basic guide to install the model 614 process refractometer.

Full instruction manuals can be downloaded @ liquidsolidscontrol.com

If you need any further information please contact us.



NOTES:
1.BASIC DIMENSION ARE IN INCHES

LIQUID SOLIDS CONTROL, INC.					
TOLERANCES (AS NOTED)	DECIMAL + .005 - .005	FRACTIONAL + 1/64 - 1/64	ANGULAR + 1° - 1°	SCALE	DRAWN BY: Amy E. Daigh
DESCRIPTION				REV.	APPROVED BY:
INSTALLATION, MODEL 614				REV.	
REV.B ADDED mm				DWG #	
rev.a=stationary brackets				B	614501

4 3 2 1

D

D

C

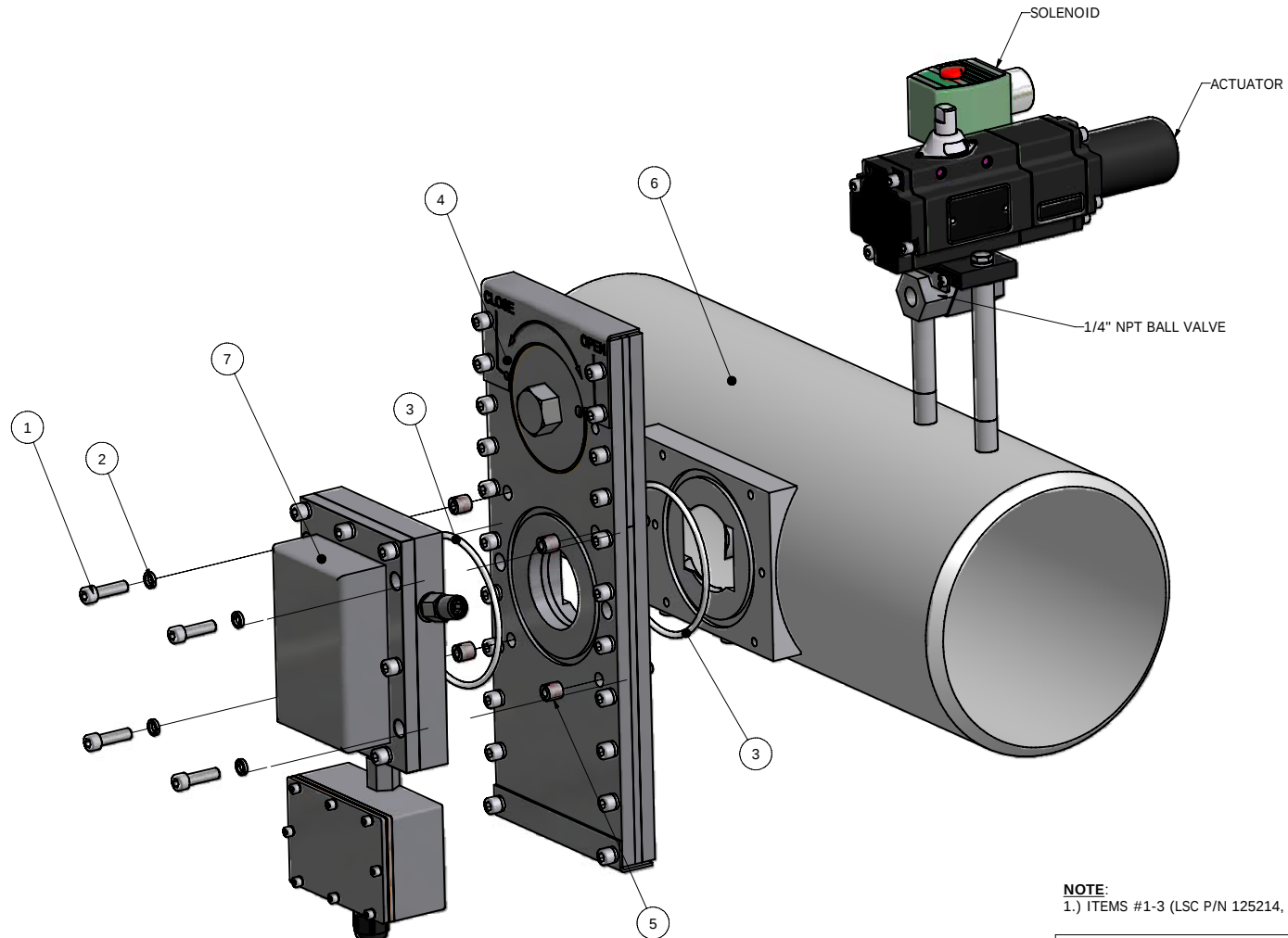
C

B

B

A

A



NOTE:

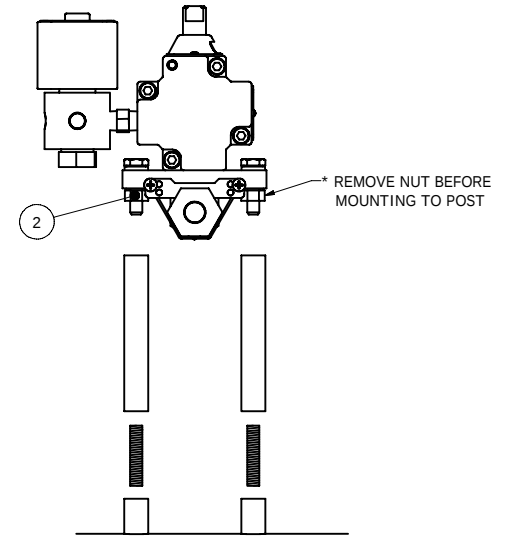
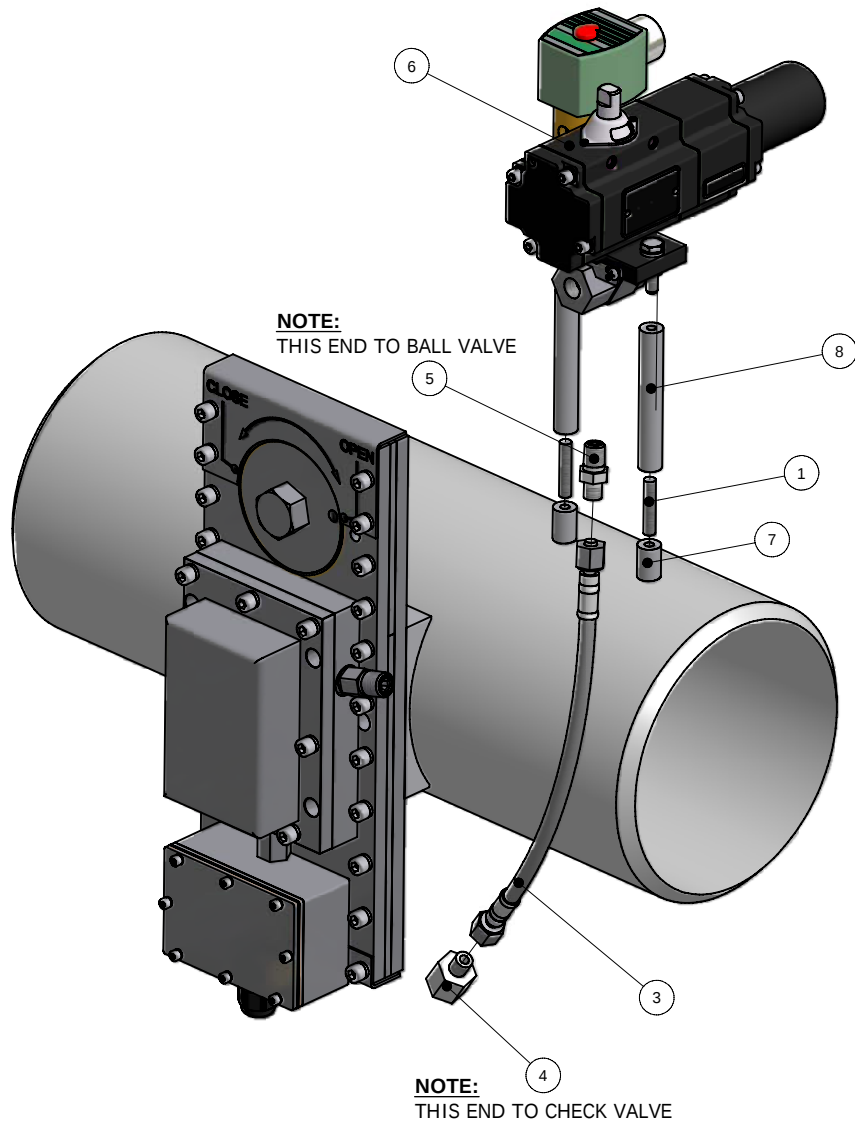
1.) ITEMS #1-3 (LSC P/N 125214, 125830, 640040) ARE INCLUDED IN 725912 KIT

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	125214	SCREW, SOCKET HEAD CAP 1/4-20 x 7/8
2	4	125830	WASHER, HIGH COLLAR 1/4"
3	2	640040	"O" RING
4	1	829246-2205	GATE ADAPTOR ISOLATION VALVE
5	4	829233	INSERT, THREADED
6	1		PIPE WELDEMENT
7	1		PRISM WASH SENSING HEAD

DRAWN JOSEPH BOISVERT	6/15/2009	LIQUID SOLIDS CONTROL, INC.		
CHECKED M. SWEENEY	6/23/2009	TITLE		
QA		INSTALLATION: GATE AND BALL VALVE		
MFG M. SWEENEY	6/23/2009	DWG NO		
APPROVED M. SWEENEY	6/23/2009	614530		
SIZE C		SCALE 1/2		REV NONE
		SHEET 1 OF 2		

4 3 2 1

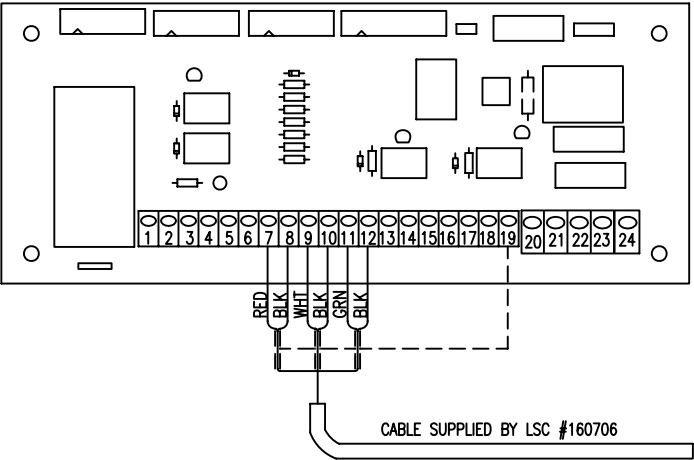
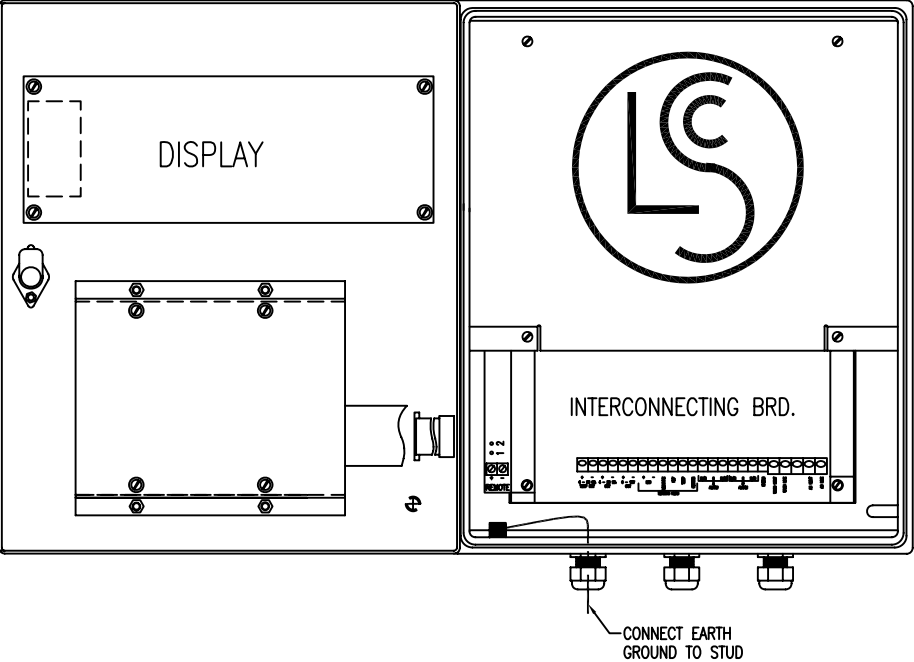




Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	125305	SCREW, SKT SET CUP PT 1/4-20 x 1/4
2	2	125850	NUT, NEX 1/4-20 *REMOVE FROM BALLVALVE BEFORE MOUNTING
3	1	190202	HOSE, FLEXIBLE 12" LG
4	1	190260	CONN, FEMALE 316 SS
5	1	190261	CONN, MALE 316 SS
6	1	190302	BALL VALVE W/ SOLENOID
7	4	690101	STUB, POST
8	2	690408	POST, BALL VALVE 4"
		690608	POST, BALL VALVE 6"
		690808	POST, BALL VALVE 8"

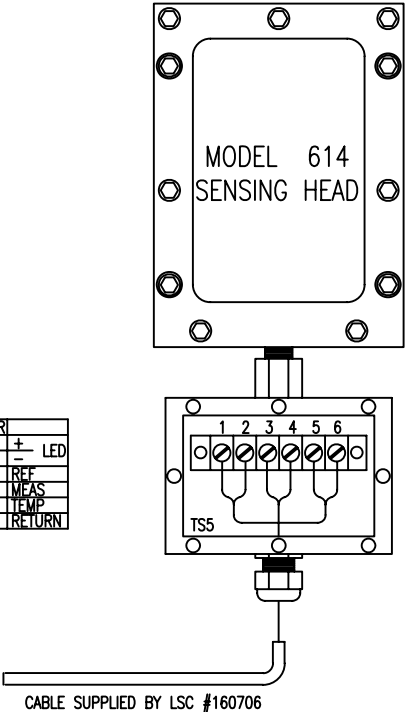
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MFG M. SWEENEY	6/23/2009	SIZE		
APPROVED M. SWEENEY	6/23/2009	C		
		DWG NO		
		614530		
		REV		
		NONE		
		SCALE		
		1/2		
		SHEET 2 OF 2		

INTERNAL VIEW MODEL 614



1	+	TEMP OUT
2	-	
3	+	4 - 20 mA OUT
4	-	
5	+	0 - 10 V OUT
6	-	
7	+	LED
8	-	
9	MEAS	INTERCONNECTING
10	REF	CABLE
11	TEMP	
12	RET	
13	NC	
14	C	"A" ALARM
15	NO	
16	NC	
17	C	"B" ALARM
18	NO	
19	SHIELD	
20	WASH NEUT	PRISM
21	WASH LINE	WASH
22		
23	AC NEUT	AC INPUT
24	AC LINE	

TS5	COLOR	
1	RED	+
2	BLK	-
3	BLK	REF
4	WHT	MEAS
5	GRN	TEMP
6	BLK	RETURN



CABLE SUPPLIED BY LSC #160706

SEE CHART "D"

SEE CHART "B"

TO GROUND STUD
IN CABINET

SEE CHART "A"

SEE CHART "C"

SOLENOID

PRISM WASH VALVE W/
ACTUATOR
& SOLENOID

GREEN LIQUOR PROBE

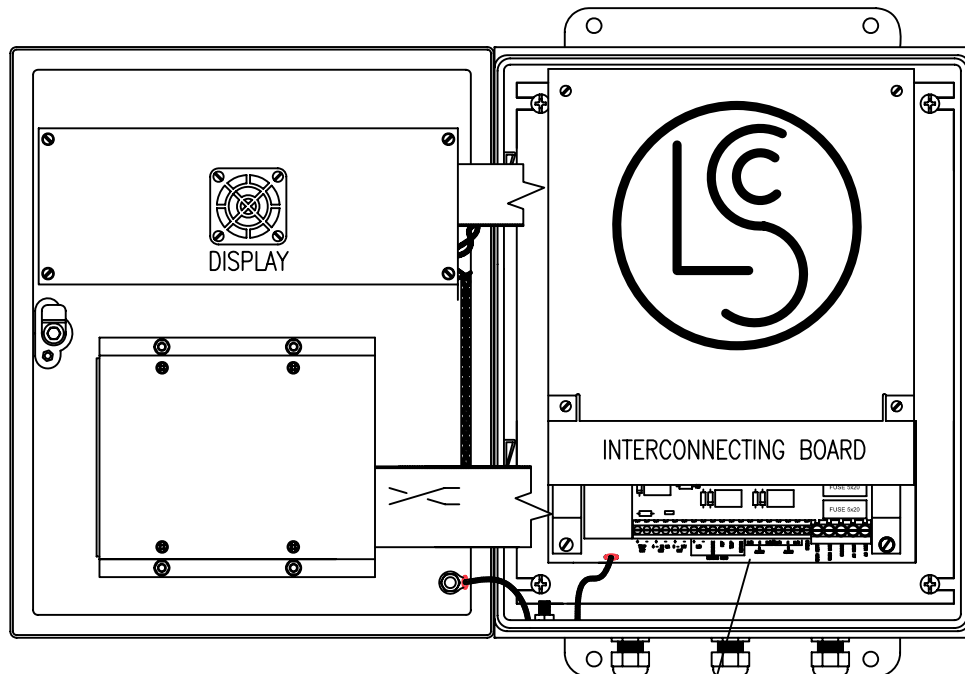
PROBE WIRING JUNCTION BOX
(SHOWN WITHOUT COVER)

CHART "A"	
INTERCONNECTING CABLE	
LED+	RED
LED-	BLACK
MEAS	WHITE
REF	BLACK
TEMP	GREEN
RET	BLACK

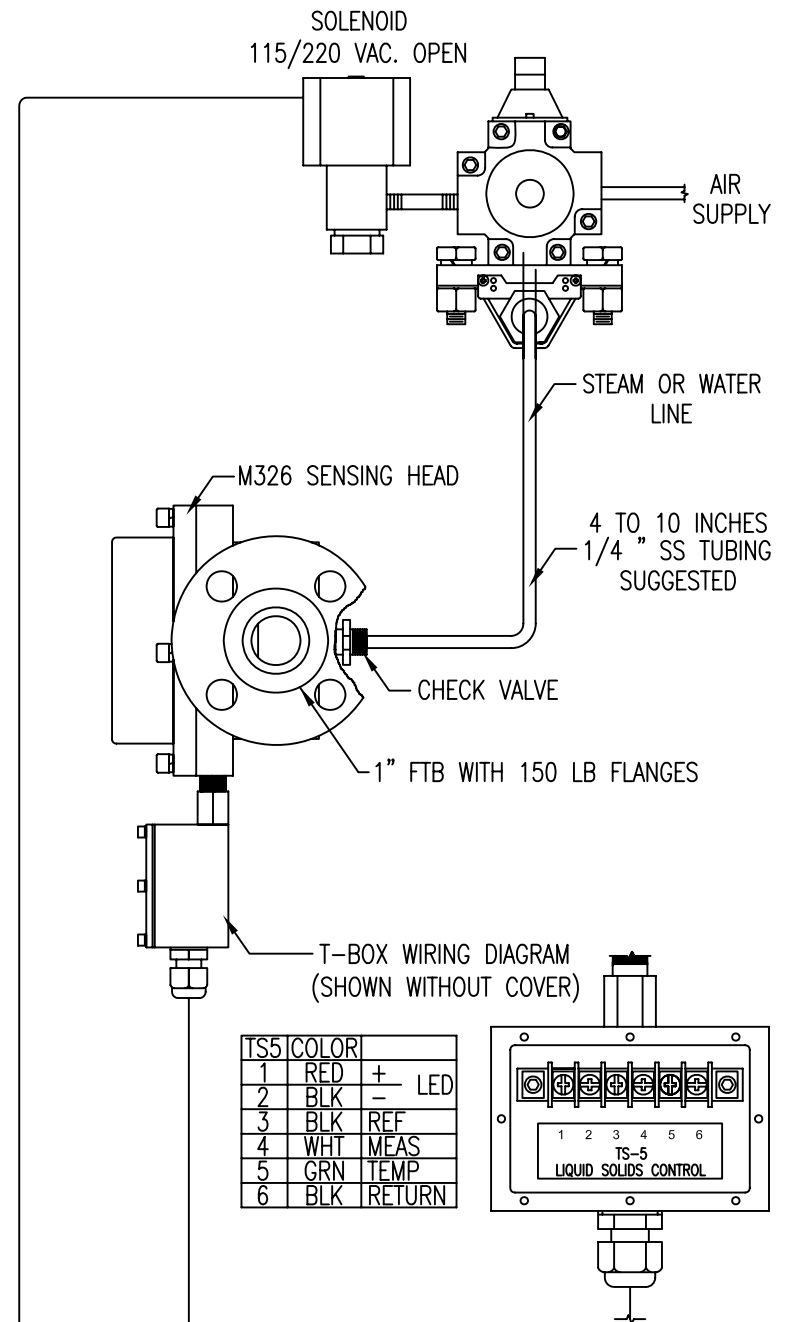
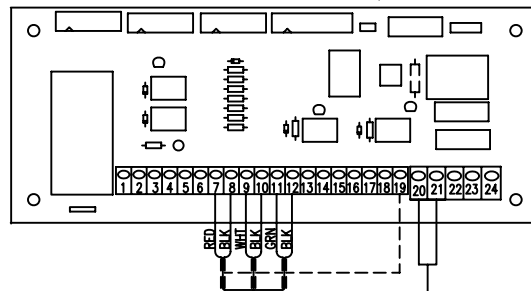
CHART "B"	
AC INPUT & PRISM WASH	
AC LINE	AC
AC NEUT	AC
AC GND	INPUT
WASH LINE	PRISM
WASH NEUT	WASH

CHART "C"	
ENET CONNECTION	
TX+	ETHERNET
TX-	ETHERNET
RX+	CONNECTION
RX-	CONNECTION
±	0-10 V
±	OUT
±	4-20 mA
±	OUT

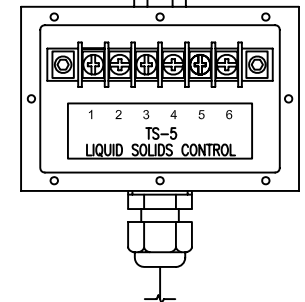
CHART "D"	
PRISM WASH FAILURE ALARM	
N/C	NORMALLY CLOSED
COM	COMMON
N/O	NORMALLY OPEN



1	+	TEMP OUT
2	-	
3	+	4 - 20 mA OUT
4	-	
5	+	0 - 10 V OUT
6	-	
7	+	LED
8	-	
9	MEAS	INTERCONNECTING
10	REF	CABLE
11	TEMP	
12	RET	
13	NC	
14	C	"A" ALARM
15	NO	
16	NC	
17	C	"B" ALARM
18	NO	
19	SHIELD	
20	WASH NEUT	PRISM
21	WASH LINE	WASH
22		
23	AC NEUT	AC INPUT
24	AC LINE	



TS5	COLOR	
1	RED	+
2	BLK	-
3	BLK	REF
4	WHT	MEAS
5	GRN	TEMP
6	BLK	RETURN



LIQUID SOLIDS CONTROL, INC.									
DECIMAL TOLERANCES (AS NOTED)	FUNCTIONAL ±.005 ±.003	ANGULAR ±1/64	SCALE N/A	DRAWN BY: JOSEPH BOISVERT	DATE: 7-28-10				
DESCRIPTION M-614 SENSING HEAD INSTALLATION W/ PW					SHEET 1 OF 1				
DWD # 614615-FTB-PW					REV. NONE				