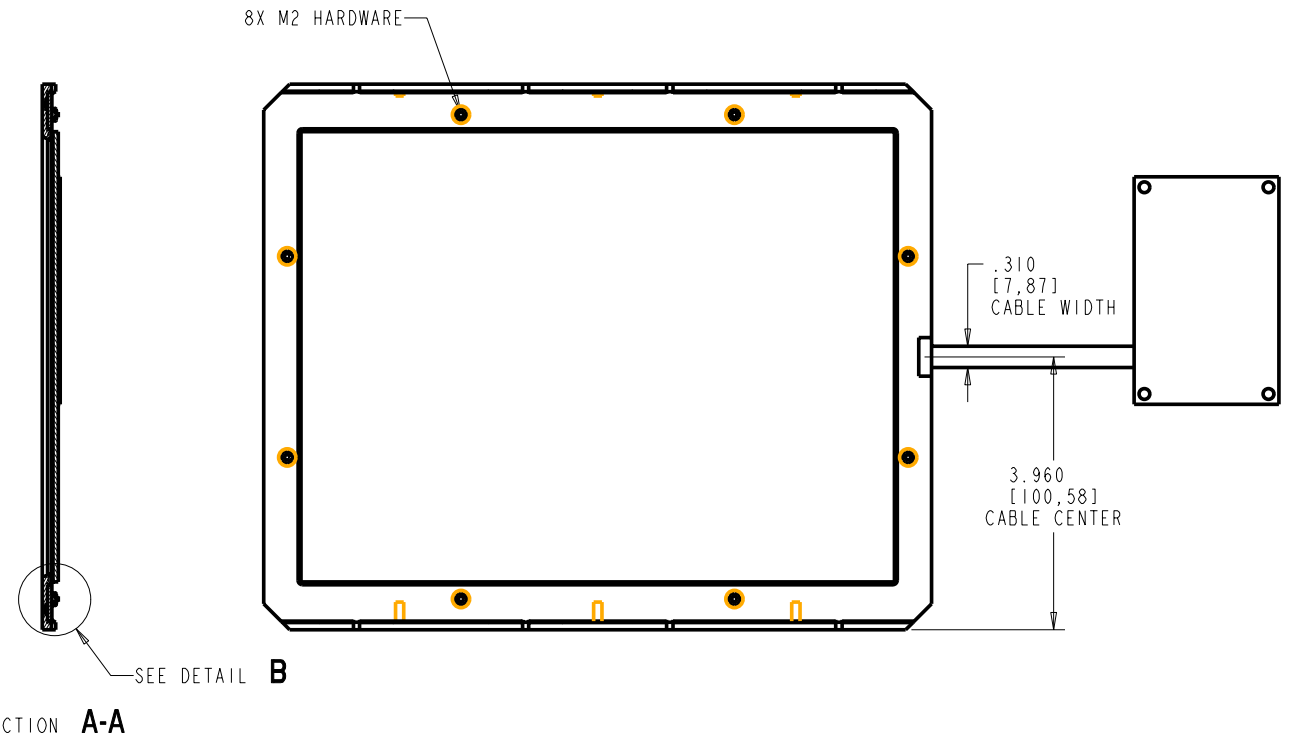
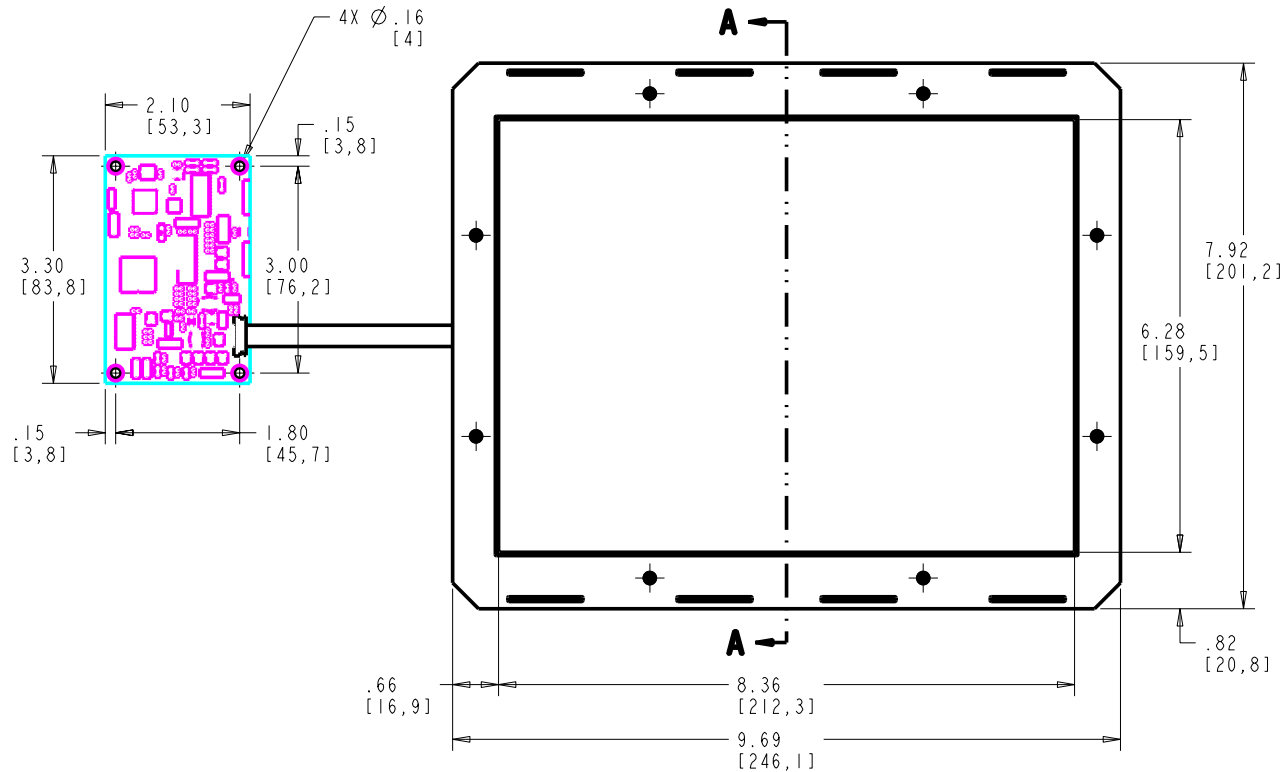


PROPRIETARY TO ELO TOUCHSYSTEMS, INC. AND SHALL NOT BE DISCLOSED OTHER THAN TO NECESSARY EMPLOYEES OR SUPPLIERS WITHOUT THE EXPRESS WRITTEN CONSENT OF ELO TOUCHSYSTEMS, INC.

**CARROLL TOUCH TOUCHSCREEN**

**SCN-CT-FLT10.4-ODX-OXX-L-R**

REVISIONS					
REV	ZONE	BY	DESCRIPTION	DATE	APPROVED
A	--	HAG	RELEASED PER ECO 5899	05.02.06	CCB

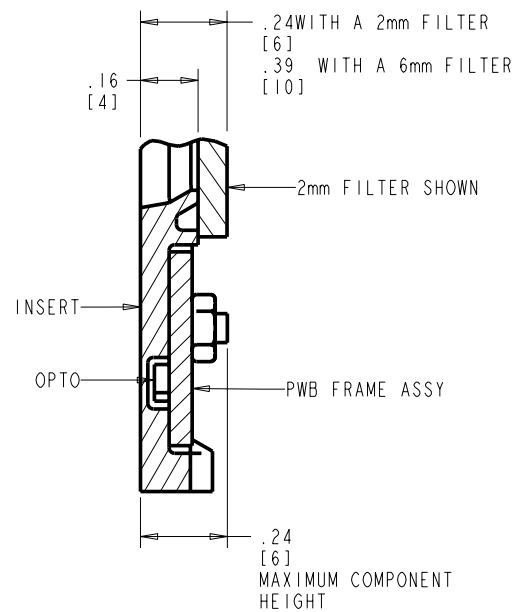


**POTENTIAL DISPLAYS AND MEASUREMENTS**

MANUFACTURE	DISPLAY MODEL	ACTIVE AREA X	ACTIVE AREA Y	OUTSIDE X	OUTSIDE Y

PIN OUT FOR P2 CONNECTOR ON CONTROLLER			
SIGNAL NAME	DB-9 PIN	P2 PIN	SOURCED BY
-DCD	1	1	ctrl
-DSR	6	2	ctrl
RXD	2	3	ctrl
-RTS	7	4	host
TXD	3	5	host
-CTS	8	6	ctrl
-DTR	4	7	host
RI	9	8	n/u
SG	5	9	com
n/u	n/c	10	n/u

PIN OUT FOR P4 CONNECTOR ON CONTROLLER		
SIGNAL NAME	P4 PIN	SIGNAL FUNCTION
+REGULATED PWR	1	+5 VOLTS DC +/-5%
PWR COM	2	SUPPLY VOLTAGE NEGATIVE
RESERVED	3	NO CONNECTION ALLOWED
PWR COM	4	SUPPLY VOLTAGE NEGATIVE
LED REMOTE	5	
n/c	6	KEY LOCATION
n/c	7	
FRAME GROUND	8	
-RESET	9	OPEN = NORMAL OPERATION SHORT TO PWR COM = HARDWARE RESET
RESERVED	10	NO CONNECTION ALLOWED



DETAIL B  
SCALE 4/1

PIP NUMBER	DESCRIPTION	FILTER TYPE
103314-001	SCN-CT-FLT10.4-OD2-018-L-R	FILTERLESS
D43059-001	SCN-CT-FLT10.4-OD2-000-L-R	2.3mm THICK GLASS FILTER
966618-001	SCN-CT-FLT10.4-OD2-002-L-R	2mm THICK ACRYLIC FILTER
D62027-001	SCN-CT-FLT10.4-OD3-001-L-R	3mm THK, TEMPERED ANTI-GLARE GLASS FILTER
F24568-001	SCN-CT-FLT10.4-OD2-016-L-R	6mm THICK GLASS FILTER
I17888-001	SCN-CT-FLT10.4-OD2-006-L-R	4.5mm THICK POLYCARBONATE FILTER

ITEM NO.	QTY REQ'D	DRAWING OR PART NO.	DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
PART. NO. SEE CHART		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS	DRAWN A.GRICE DATE 04.10.06	TITLE MTKG DWG, SCN-CT-FLT10.4-ODX-OXX-L-R
INCH		TOLERANCES ARE:	CHECK DATE	
DO NOT SCALE DRAWING		DECIMALS: .XX ± .030 ANGLES: ±1/2° FRACTIONS: .XXX ± .020 .XXXX ± .010	DESIGN A.GRICE DATE 04.10.06	
THIRD ANGLE PROJECTION				
PROF: .prt/.asm MS600369.ICD.10LP.IDLEAIRE.PRT		SIZE D SCALE 3/4 SHEET 1 OF 4		DWG. NO. MS600369 REV A
PROF: .dwt MS600369.ICD.10LP.IDLEAIRE.DRW		© ELO TOUCHSYSTEMS		

SHT. OF 4 REV A

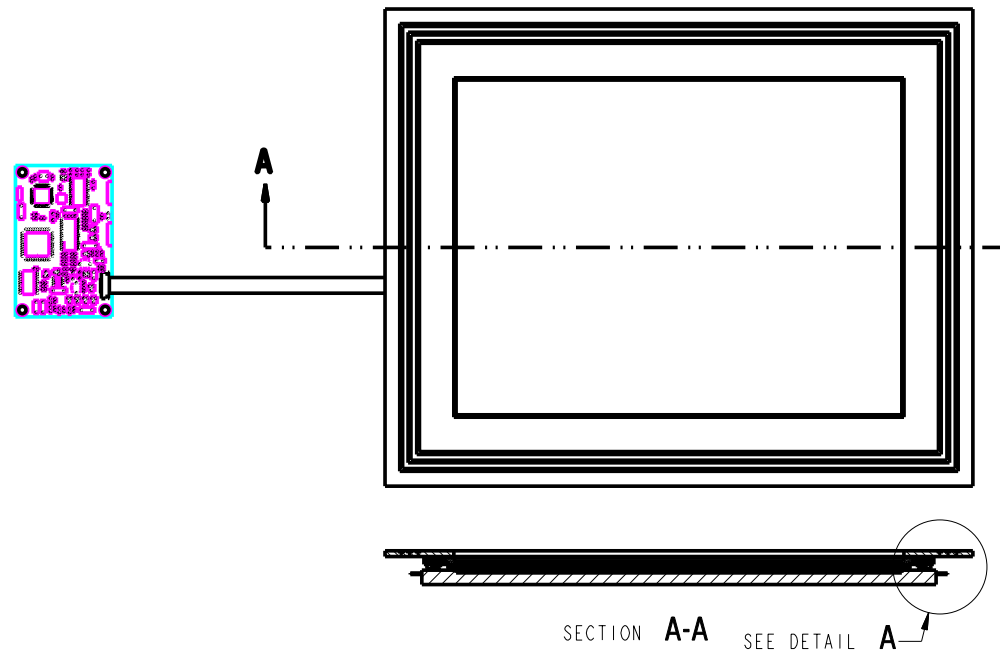
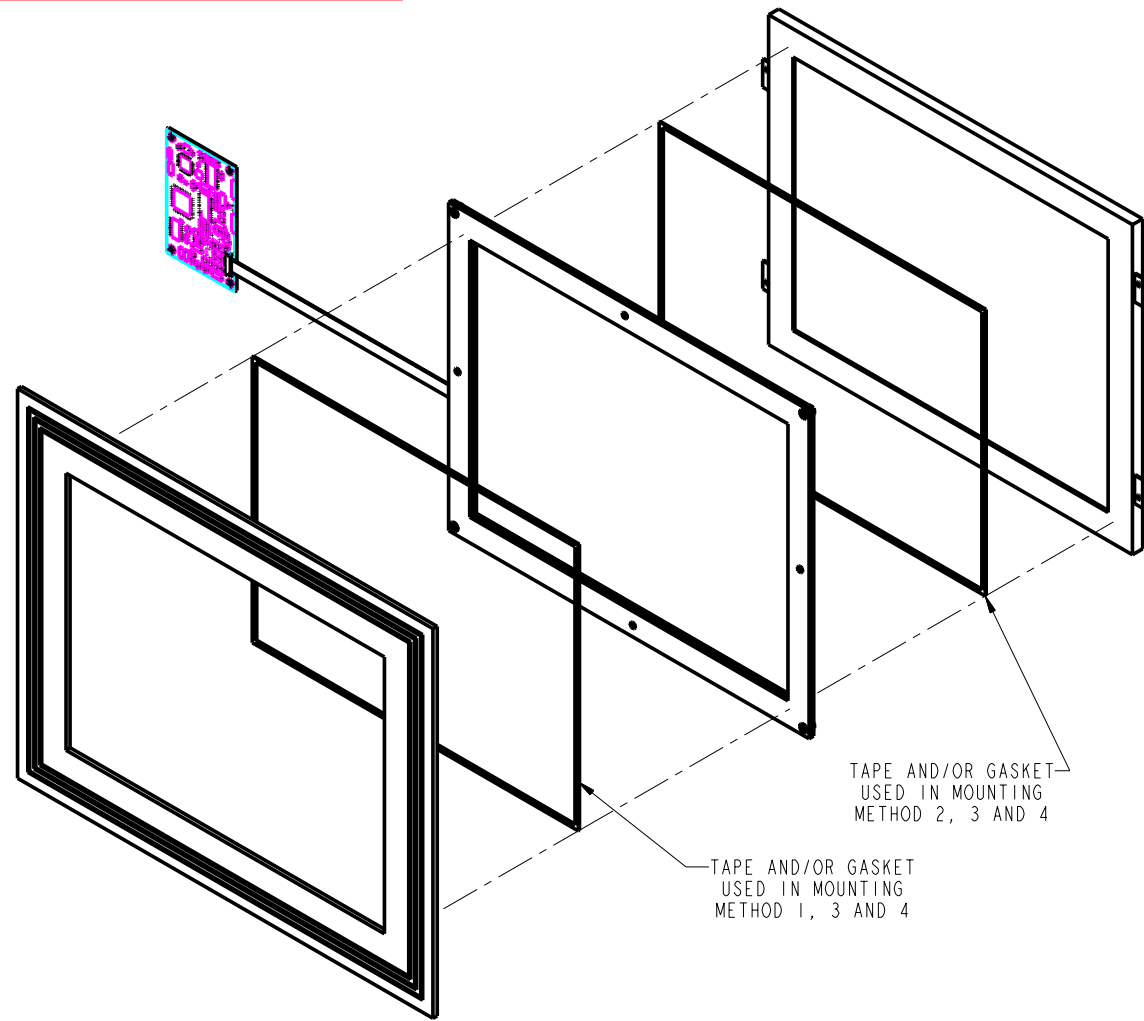
PROPRIETARY TO ELO TOUCHSYSTEMS, INC. AND SHALL NOT BE DISCLOSED OTHER THAN TO NECESSARY EMPLOYEES OR SUPPLIERS WITHOUT THE EXPRESS WRITTEN CONSENT OF ELO TOUCHSYSTEMS, INC.

**CARROLL TOUCH TOUCHSCREEN**

**SCN-CT-FLT10.4-ODX-OXX-L-R**

**MOUNTING METHODS**

THE ASSEMBLY SHOWN ON SHEETS 2 THRU 3 IS A REPRESENTATION OF THE MOUNTING METHODS OF THE 10.4"LP.



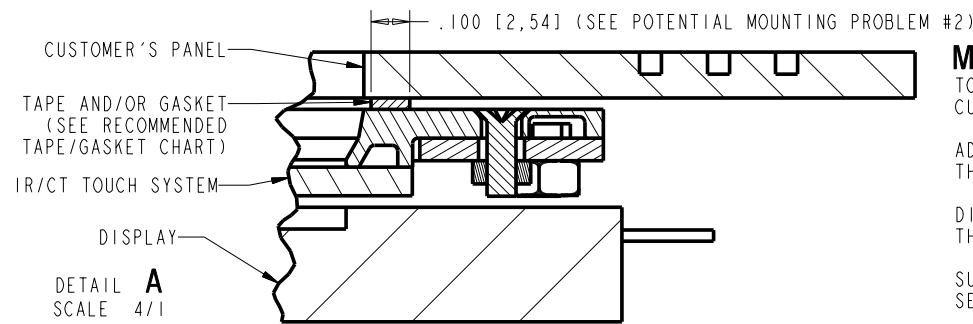
**RECOMMENDED TAPES/GASKETS**

**BETWEEN CUSTOMER PANEL AND TOUCH SYSTEM**  
(DOUBLE AND SINGLE SIDED ADHESIVE TAPE)

MOUNTING METHOD	MFG	MFG PART NUMBER	THICKNESS	COMPRESSED THICKNESS
1, 2 AND 3	3M	9500PL	.005 in (0.13 mm)	.005 in (0.13 mm)
	3M	4920	.015 in (0.4 mm)	.015 in (0.4 mm)
	EASTERN	2032AB	.032 in (0.8 mm)	.025 in (0.64 mm)
4	ROGERS CORP	4701-30	.09 in (2.29 mm)	.03 in (0.76 mm)

**BETWEEN DISPLAY AND TOUCH SYSTEM**  
(SINGLE SIDED ADHESIVE TAPE ONLY)

MOUNTING METHOD	MFG	MFG PART NUMBER	THICKNESS	COMPRESSED THICKNESS
2, 3 AND 4	ROGERS CORP	4701-30	.09 in (2.29 mm)	.03 in (0.76 mm)



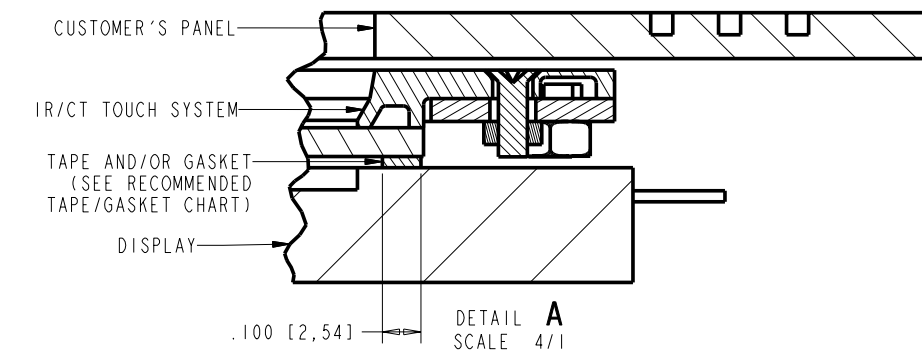
**METHOD 1 MOUNTING**

TOUCH SYSTEM IS TAPED ONLY TO THE CUSTOMER PANEL

ADVANTAGE: WATER/DUST SEAL BETWEEN THE CUSTOMER PANEL AND TOUCH SYSTEM.

DISADVANTAGE: DUST CAN ENTER BETWEEN THE TOUCH SYSTEM AND THE DISPLAY.

SUGGESTED TAPE: SEE RECOMMENDED TAPE TABLE



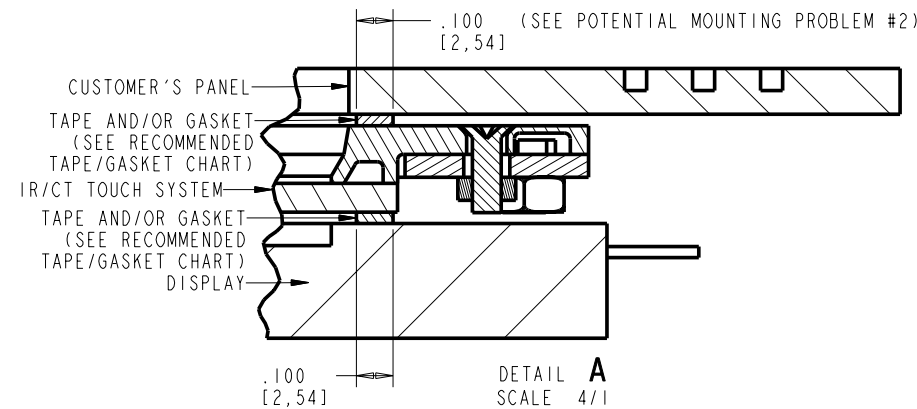
**METHOD 2 MOUNTING**

TOUCH SYSTEM IS TAPED ONLY TO THE DISPLAY

ADVANTAGE: ALIGNMENT DIRECTLY TO THE DISPLAY

DISADVANTAGE: A POSSIBLE WATER/DUST LEAKAGE BETWEEN THE CUSTOMER PANEL AND THE TOUCH SYSTEM.

SUGGESTED TAPE: SEE RECOMMENDED TAPE TABLE



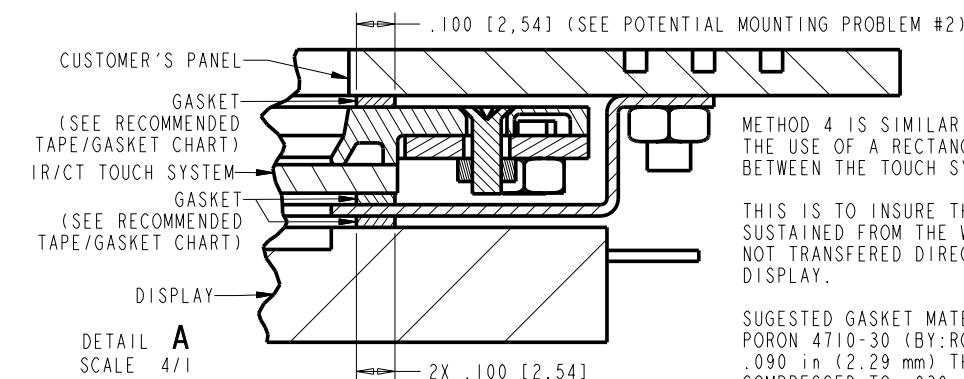
**METHOD 3 MOUNTING**

TOUCH SYSTEM IS "SANDWICHED" BETWEEN THE CUSTOMER PANEL AND THE DISPLAY. THE TAPE CAN BE IN STRIPS TO FORM A RECTANGLE ON THE CUSTOMERS PANEL OR ON THE IR/CT TOUCH SYSTEM

ADVANTAGE: BOTH WATER AND DUST SEAL CAN BE ACHIEVED ON THE OPERATOR SIDE OF DEVICE AND A DUST SEAL CAN BE ACHIEVED BETWEEN THE TOUCH SYSTEM AND THE DISPLAY.

DISADVANTAGE: SEE POTENTIAL MOUNTING PROBLEMS #1

SUGGESTED TAPE: SEE RECOMMENDED TAPE TABLE



**METHOD 4 MOUNTING**

IS A NEMA 4, 4X AND 12 SEAL FROM THE OPERATOR SIDE OF THE DEVICE.

METHOD 4 IS SIMILAR TO METHOD 3, WITH THE EXCEPTION OF THE USE OF A RECTANGULAR BRACKET SANDWICHED BETWEEN THE TOUCH SYSTEM AND THE DISPLAY.

THIS IS TO INSURE THAT THE FORCES SUSTAINED FROM THE WATER BLAST IS NOT TRANSFERED DIRECTLY INTO THE DISPLAY.

SUGESTED GASKET MATERIAL: PORON 4710-30 (BY: ROGERS CORP.) .090 in (2.29 mm) THICK, COMPRESSED TO .030 in (0.76 mm).

TITLE  
**MTKG DWG,**  
**SCN-CT-FLT10.4-ODX-OXX-L-R**

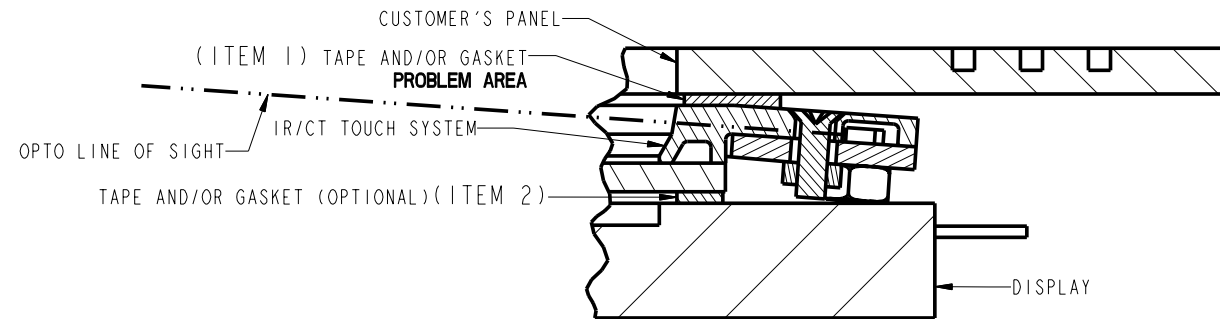


SIZE	SCALE	SHEET	DWG. NO.	REV
D	3/4	2 OF 4	MS600369	A

SHT 2 OF 4 REV A

# POTENTIAL MOUNTING PROBLEMS

POTENTIAL MOUNTING PROBLEM #1



PROBLEM (FIG 1)

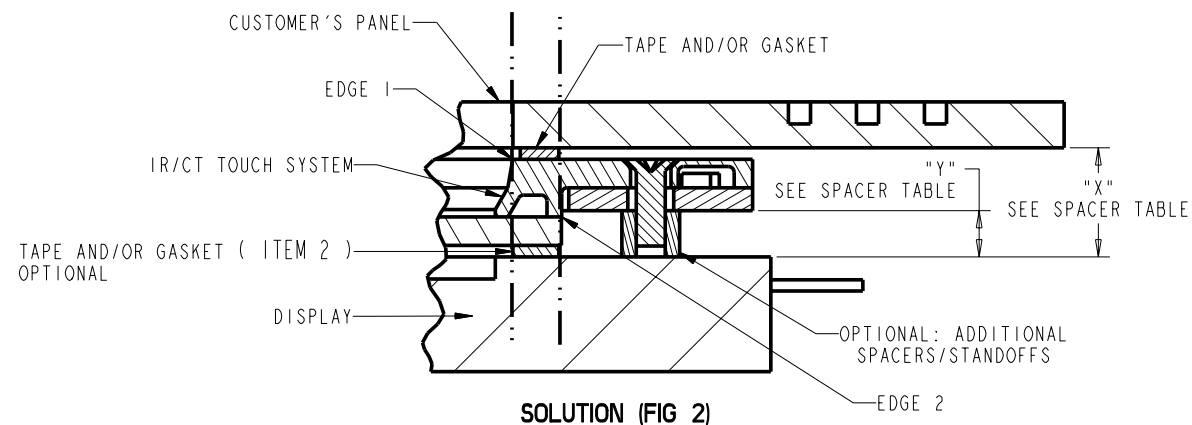
## GASKET (ITEM 1) TOO WIDE

**PROBLEM (FIG 1): THIS DESIGN CAUSES THE TOUCH SYSTEM TO TILT.** THE PROPER OPTO ALIGNMENT IS NOT ACHIEVED DUE TO TAPE/GASKET MOUNTED TO CUSTOMER PANEL IS TOO WIDE. SEE SOLUTIONS BELOW.

**SPACER TABLE FOR FIG 2**

DISTANCE "X"	SPACER LENGTH "Y"
6mm	3mm
7mm	4mm
8mm	5mm

\* PROVIDES .5mm OVER CORRECTION WHICH SLIGHTLY ENHANCES OPTICAL SIGNAL

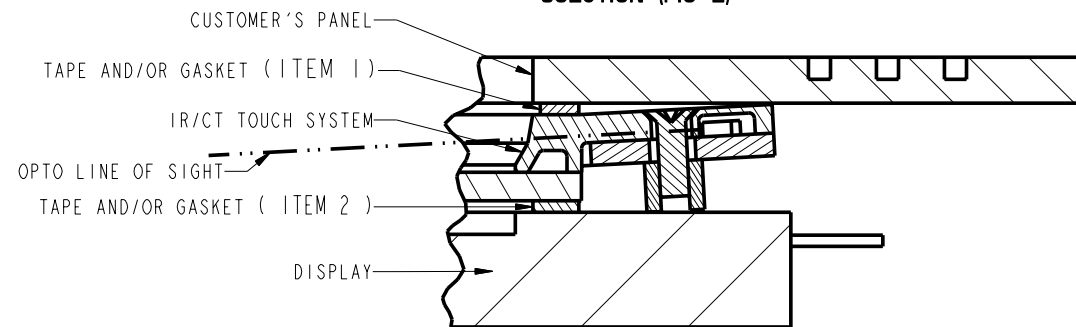


SOLUTION (FIG 2)

## SOLUTION (FIG 2)

SOLUTION (FIG 2): MAKE THE GASKET (ITEM 1) SO THAT THE INSIDE OPENING LINES UP WITH THE EDGE OF THE TOUCH SYSTEM (EDGE 1) AND THE OUTER OPENING LINES UP WITH THE OUTER EDGES OF THE FILTER (EDGE 2).

RECOMMENDED SPACER INSTALLATION WITH THE SOLUTION SEE TABLE FOR SPACER LENGTH.

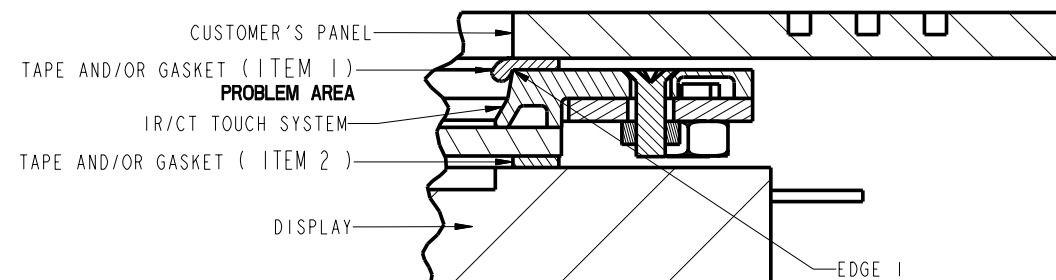


OVER CORRECTION (FIG 3)

## OVER CORRECTION (FIG 3)

SPACER INSTALLATION MAY CAUSE SLIGHT OVER CORRECTION OF OPTO LINE OF SIGHT (FIG 3). CORRECTION SHOULD BE LESS THAN 1mm.

POTENTIAL MOUNTING PROBLEM #2



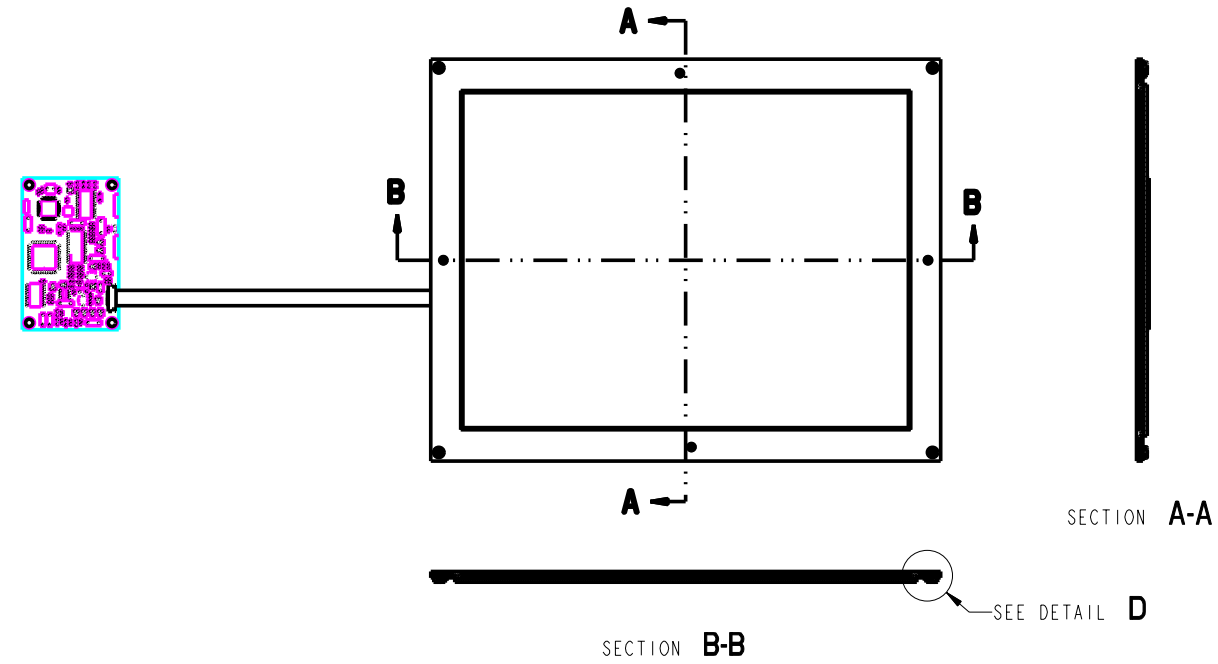
GASKET INTERFERENCE INTO OPTO LINE OF SIGHT (FIG 4)

## GASKET INTERFERENCE INTO OPTO LINE OF SIGHT (FIG 4).

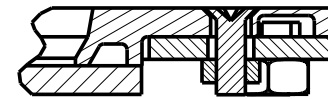
**PROBLEM:** WHEN THE GASKET IS COMPRESSED IT MAY BLEED OVER INTO THE LINE OF SIGHT OF THE OPTO'S AS SEEN IN FIG 4.

**SOLUTION:** SET THE GASKET AWAY FROM EDGE 1 ABOUT .5mm TO 1mm (AS SEEN IN FIG 3) TO PROVIDE OPTIMUM GASKET EXPANSION DURING COMPRESSION WITHOUT BLEEDING OVER EDGE 1 INTO THE OPTO'S LINE OF SIGHT OR CUT GASKET OFF SO OPTO LINE OF SIGHT IS NOT OBSTRUCTED.

TITLE		MTKG DWG, SCN-CT-FLT10.4-ODX-OXX-L-R			Dwg. No. MS600369 REV A
SIZE	SCALE	SHEET	DWG. NO.		
D	3/4	3 OF 4	MS600369	REV	A



ADHERING A FILTER TO A  
NO-FILTER CT TOUCH SYSTEM



DETAIL D  
SCALE 4/1

- STEP 1**  
APPLY PROTECTIVE TAPE TO THE TOUCH SYSTEM AS SHOWN IN FIGURE 1, BETWEEN CIRCUIT BOARDS AND INSERT ON ALL 4 SIDES, LAY THE TAPE OVER THE CIRCUIT BOARDS, TO PROTECT THE CIRCUITRY FROM THE ADHESIVE DURING APPLICATION AND CURING.
- STEP 2**  
APPLY ADHESIVE AND FILTER IN ACCORDANCE TO CT SPECIFICATION 2000-0340. SEE FIGURE 2. FILTER SIZE FOR THE 12LP IS 6.53 in (165.86 mm) X 8.61 in (218.69 mm).
- STEP 3**  
AFTER CURING REMOVE TAPE AND ADHESIVE FROM ASSEMBLY IN ACCORDANCE TO SPECIFICATION CT 2000-0340. SEE FIGURE 3.
- STEP 4**  
THE FINAL ASSEMBLY SHOULD LOOK LIKE FIGURE 4.

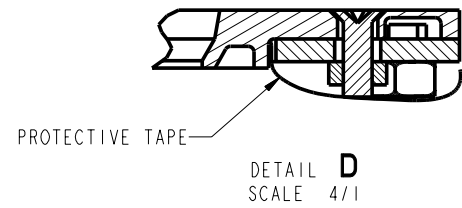


FIGURE 1

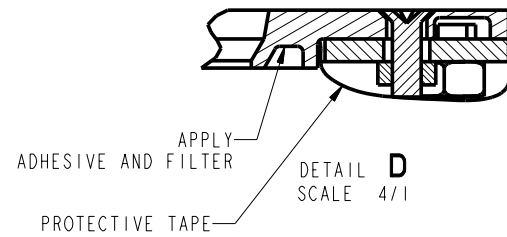


FIGURE 2

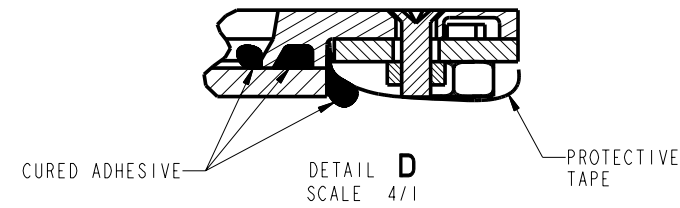


FIGURE 3

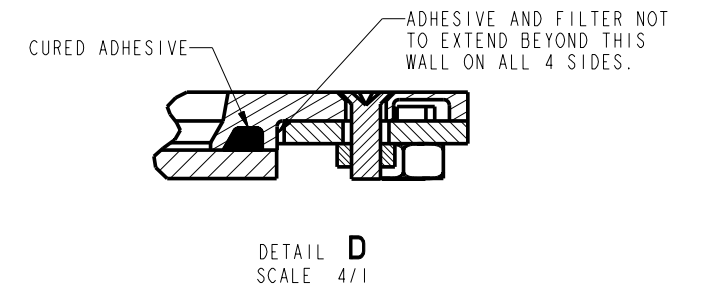


FIGURE 4

TITLE  
MTKG DWG,  
SCN-CT-FLT10.4-ODX-OXX-L-R



SIZE	SCALE	SHEET	DWG. NO.	REV
D	3/4	4 OF 4	MS600369	A