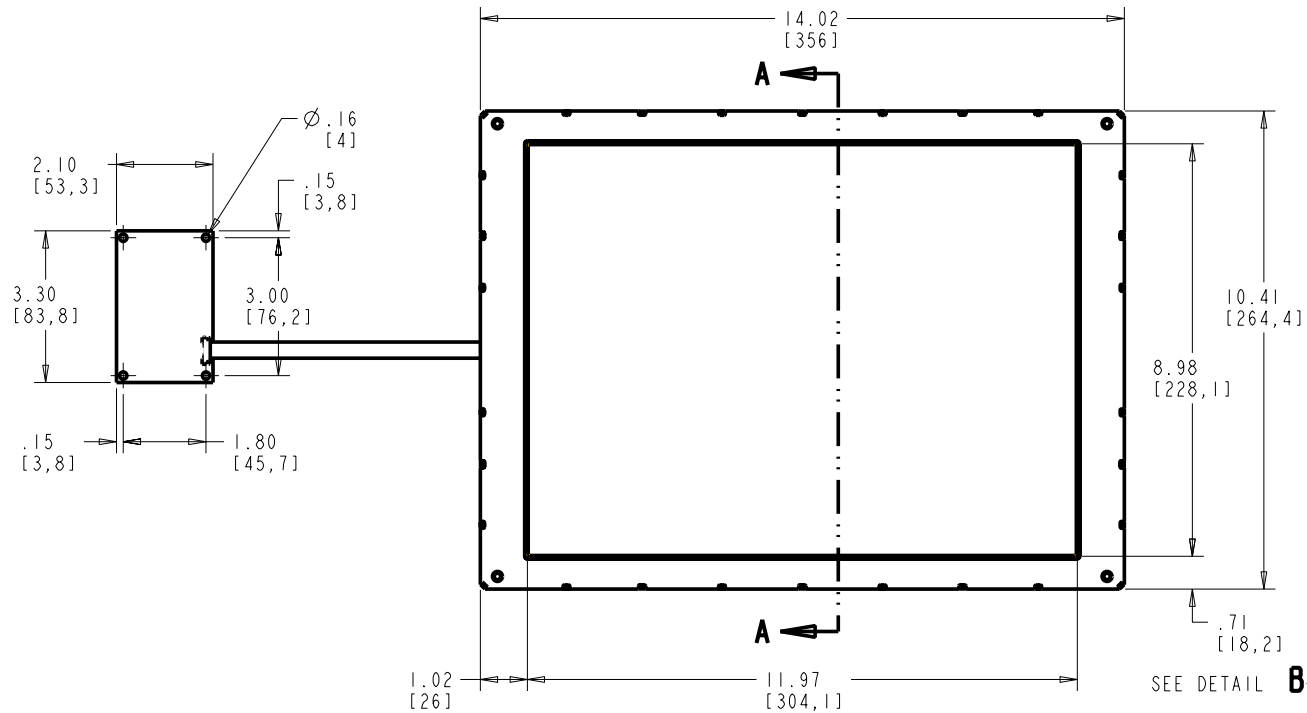


PROPRIETARY TO ELO TOUCHSYSTEMS, INC. AND SHALL NOT BE DISCLOSED OTHER THAN TO NECESSARY EMPLOYEES OR SUPPLIERS WITHOUT THE EXPRESS WRITTEN CONSENT OF ELO TOUCHSYSTEMS, INC.

CARROLL TOUCH TOUCHSCREEN

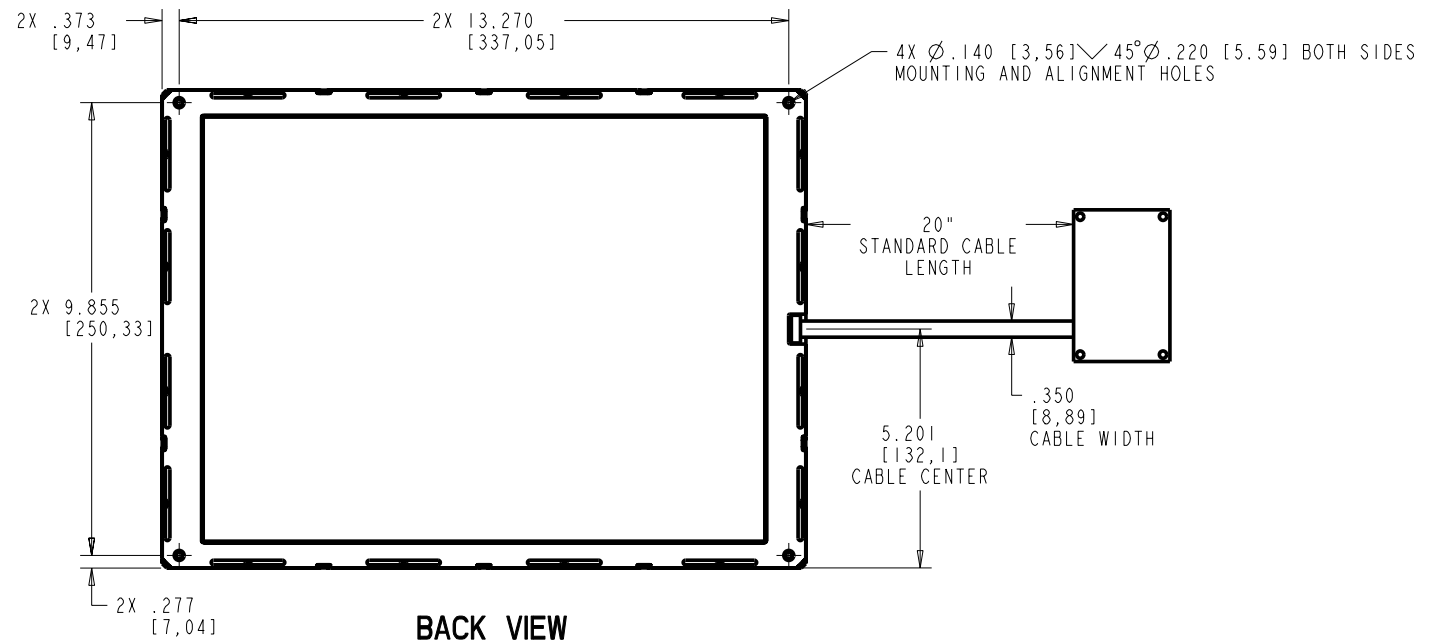
SCN-CT-FLT15.0-ODX-OXX-L-R

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



FRONT VIEW

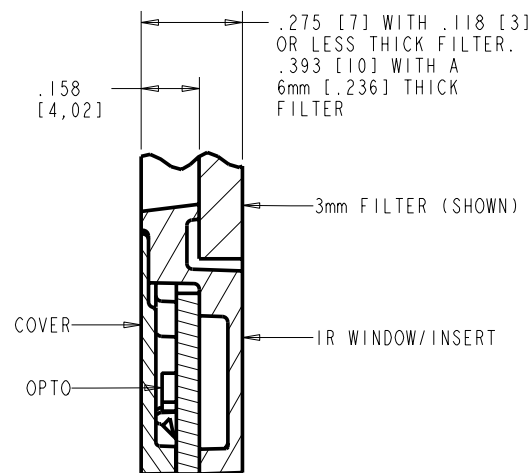
SECTION A-A



BACK VIEW

PIN OUT FOR P2 CONNECTOR ON CONTROLLER			
SIGNAL NAME	DB-9 PIN	P2 PIN	SOURCED BY
-DCD	1	1	c+lr
-DSR	6	2	c+lr
RXD	2	3	c+lr
-RTS	7	4	host
TXD	3	5	host
-CTS	8	6	c+lr
-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

POTENTIAL DISPLAYS AND MEASUREMENTS

MANUFACTURER	DISPLAY MODEL	ACTIVE AREA X	ACTIVE AREA Y	OUTSIDE X	OUTSIDE Y

PIP NUMBER	DESCRIPTION	FILTER TYPE
D87587-001	SCN-CT-FLT15.0-OD3-000-L-R	FILTERLESS
E71023-001	SCN-CT-FLT15.0-OD4-001-L-R	3mmTHK,ANTI-GLARE GLASS FLTR
568484-001	SCN-CT-FLT15.0-OD3-003-L-R	3mm THICK, ACRYLIC
I81132-001	SCN-CT-FLT15.0-OD2-016-L-R	6mm THK,ANTI-GLARE GLASS FLTR

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-FLT15.0-ODX-OXX-L-R
METRIC		TOLERANCES ARE: DECIMALS ANGLES ±1/2° X: ±0.50 X: ±0.25 FRACTIONS ±1/32	CHECK DATE	DESIGN A.GRICE DATE 04.10.06
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION		
ProfE .prt/.asm MS600371.ICD.15LP.ASM ProfE .dwt MS600371.ICD.15LP.DRW		SIZE D SCALE 1/2 SHEET 1 OF 4 DWG. NO. MS600371 REV A		

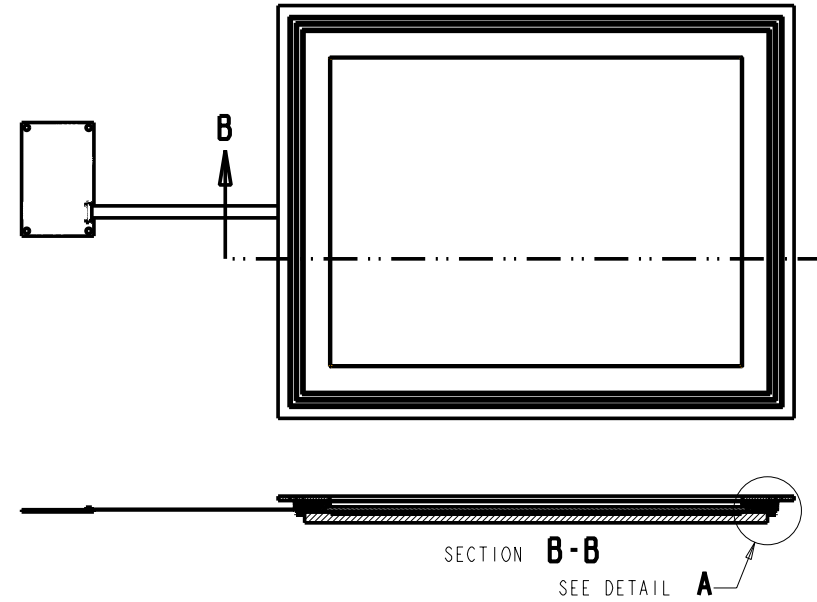
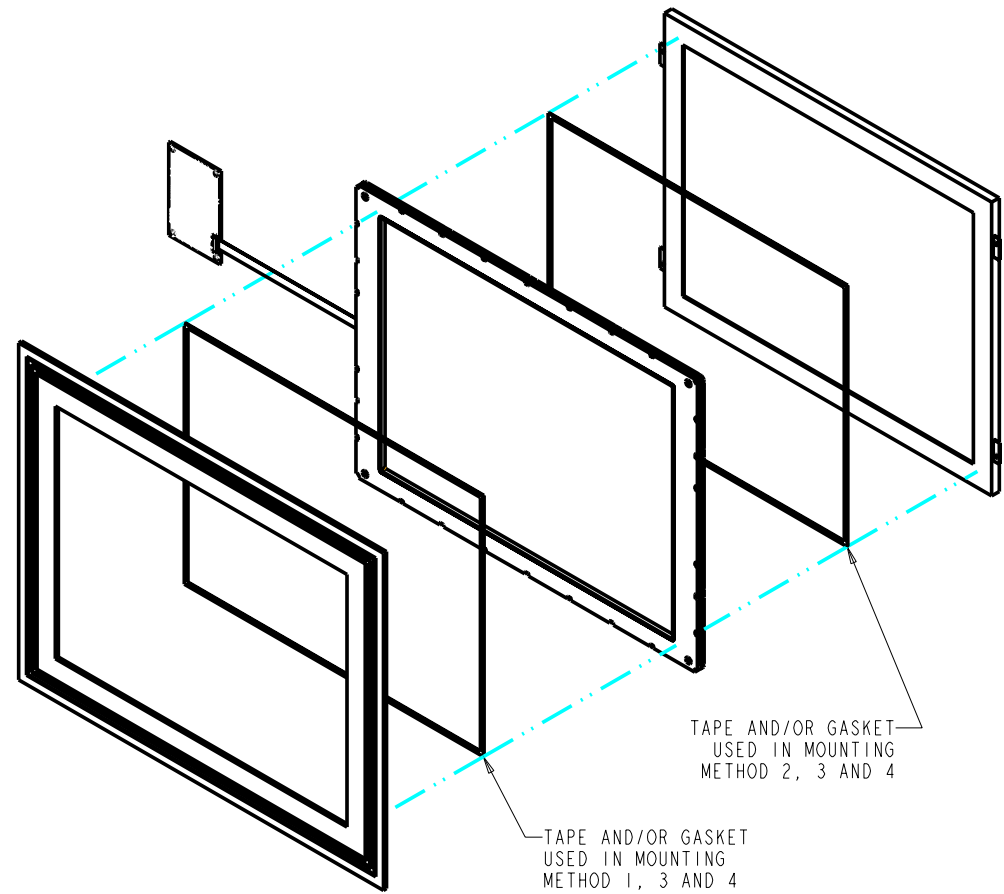
SHT. OF 4 REV A

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CARROLL TOUCH TOUCHSCREEN

SCN-CT-FLT15.0-ODX-OXX-L-R

MOUNTING METHODS



NOTE: WHENEVER APPLICABLE THE GASKET SHOULD BE MOUNTED TO THE TOUCH SYSTEM, FOR EASE OF INSTALLATION.

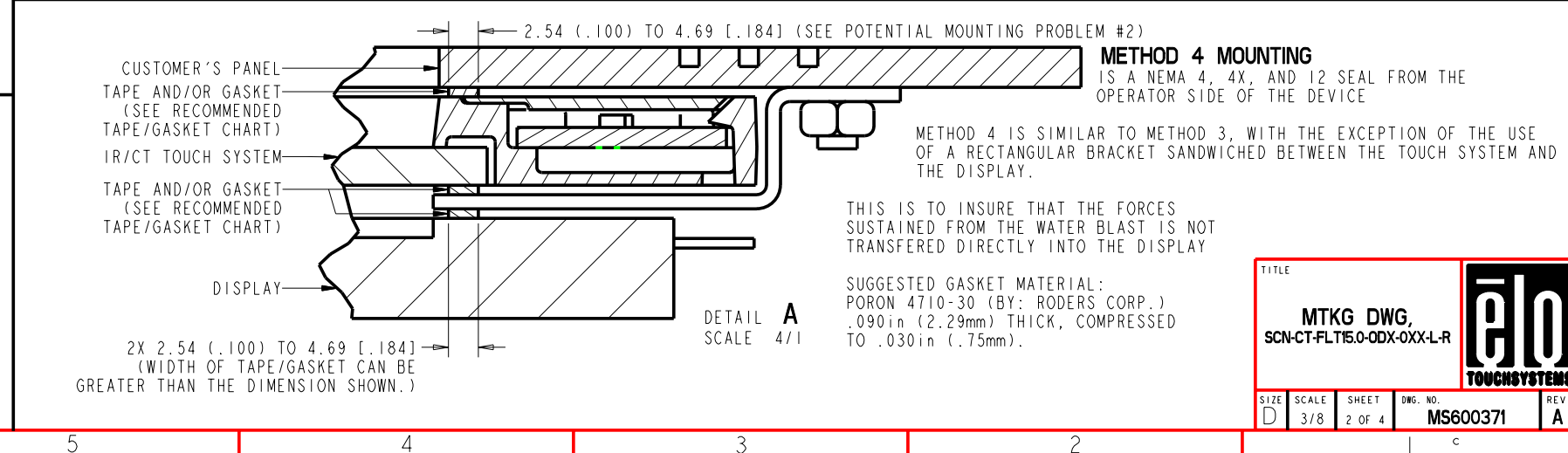
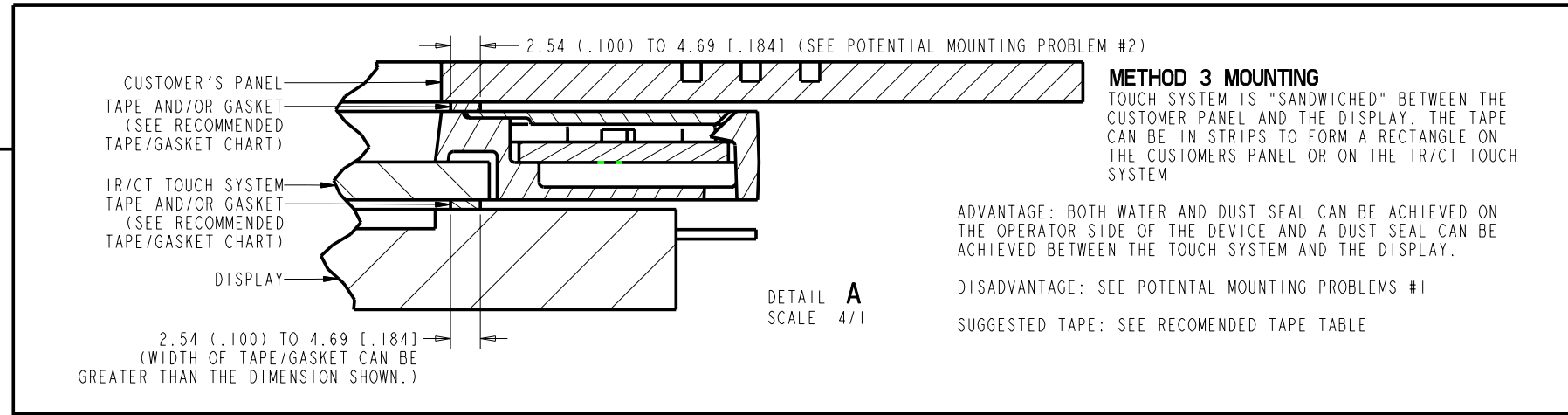
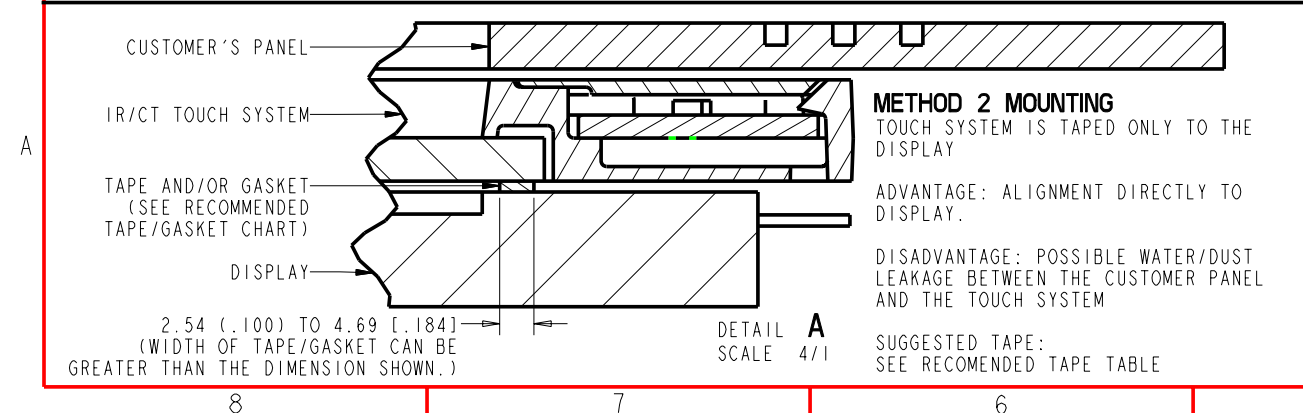
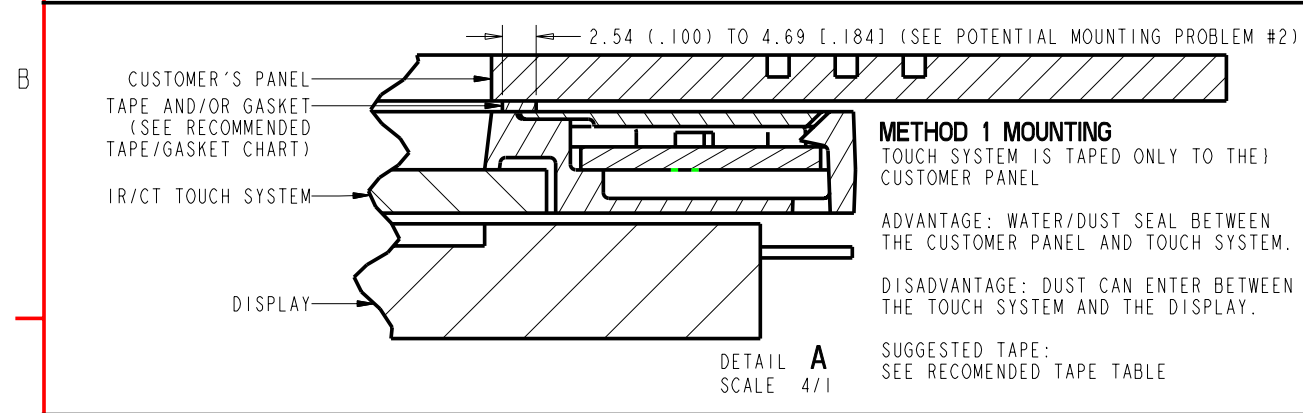
RECOMMENDED TAPES/GASKETS

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)

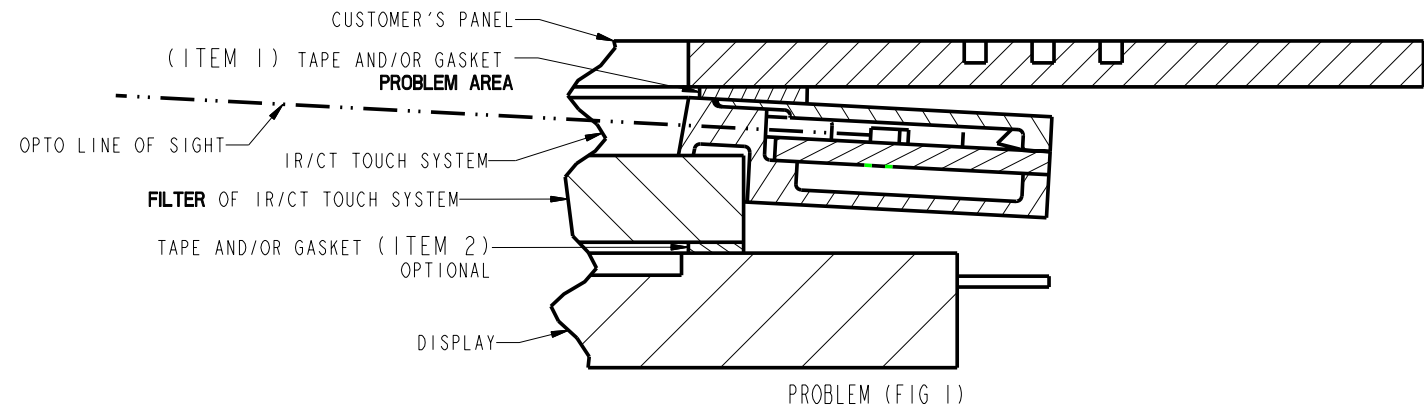


TITLE
MTKG DWG,
SCN-CT-FLT15.0-ODX-OXX-L-R

SIZE 3/8 SCALE 2 OF 4 SHEET Dwg. NO. MS600371 REV A

POTENTIAL MOUNTING PROBLEMS

POTENTIAL MOUNTING PROBLEM #1



GASKET (ITEM 1) TOO WIDE

PROBLEM (FIG 1): WHEN THE FILTER IS GREATER THAN 3mm IN THICKNESS A SPACE IS CREATED BETWEEN THE PLASTIC PART OF THE TOUCH SYSTEM AND THE DISPLAY. THUS, THE PROPER OPTO ALIGNMENT IS NOT ACHIEVED DUE TO EXTRA WIDTH OF TAPE/GASKET MOUNTED TO THE CUSTOMER PANEL. SEE SOLUTIONS BELOW.

SOLUTION (FIG 2)

SOLUTION (FIG 2): MAKE THE GASKET (ITEM 1) SO THAT THE INSIDE OPENING DOES NOT PROTRUDE PAST THE EDGE OF THE TOUCH SYSTEM (EDGE 1) WHEN COMPRESSED 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)

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

GASKET INTERFERENCE INTO OPTO LINE OF SIGHT (FIG 4)

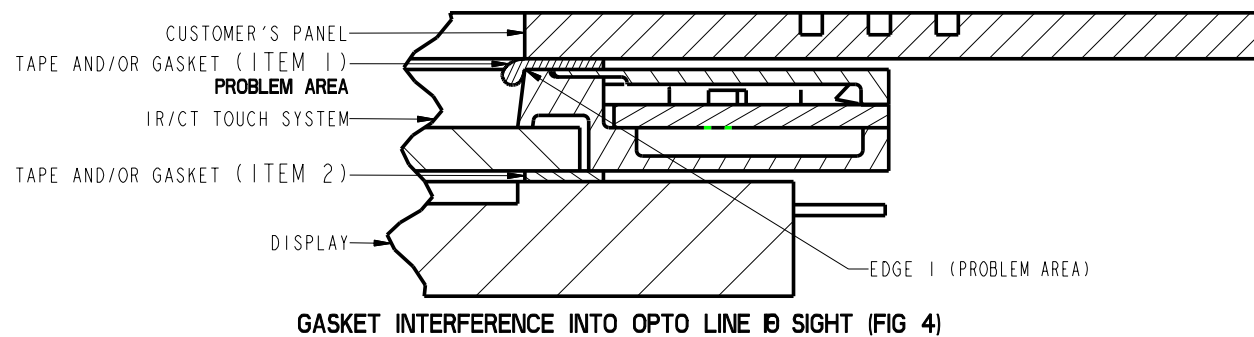
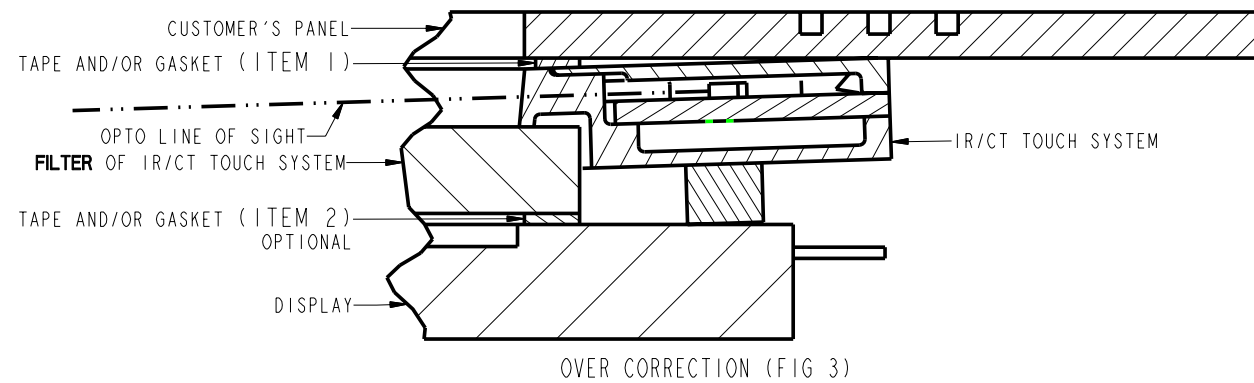
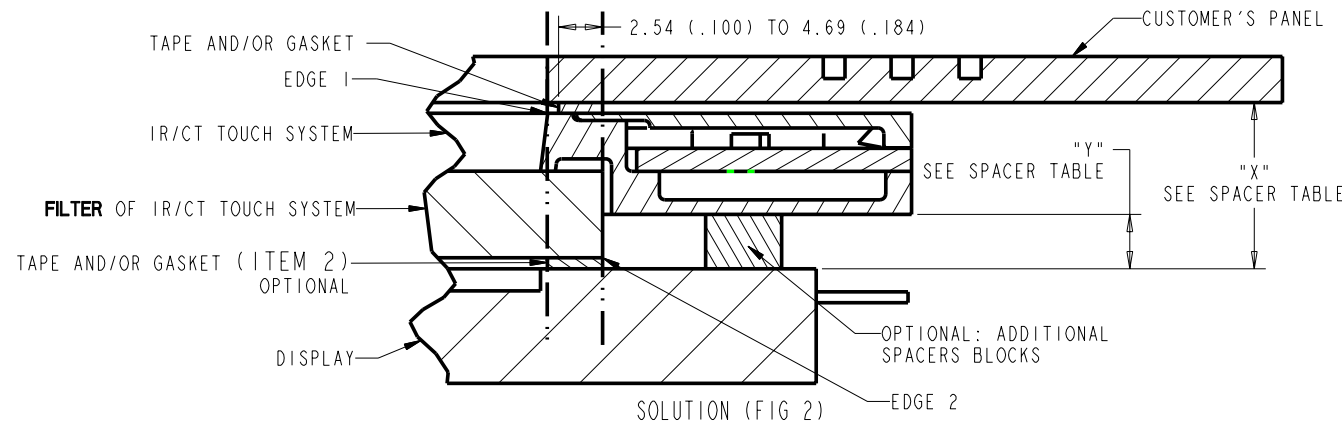
PROBLEMS: (AS SEEN IN FIG 4)
1) WHEN THE GASKET IS COMPRESSED IT MAY BLEED OVER INTO THE LINE OF SIGHT OF THE OPTO'S, CAUSING SIGNAL OBSTRUCTION.
2) WHEN THE GASKET IS COMPRESSED IT MAYBE CUT, BY EDGE 1 OF THE TOUCH SYSTEM TEARING THE GASKET AND CAUSING WATER LEAKAGE.

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.

SPACER TABLE FOR FIG 2

DISTANCE "X"	SPACER LENGTH "Y"
7mm	3mm
8mm	4mm
9mm	5mm

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



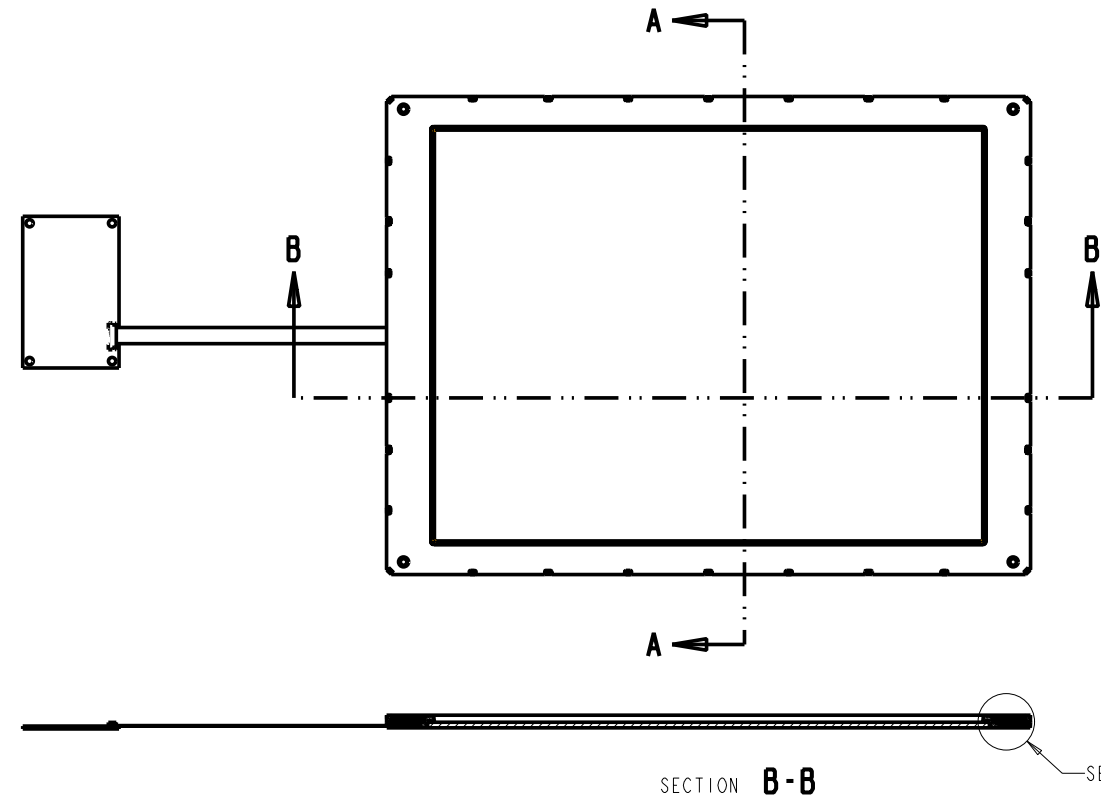
POTENTIAL MOUNTING PROBLEM #2

TITLE				
MTKG DWG, SCN-CT-FLT15.0-ODX-OXX-L-R				
SIZE	SCALE	SHEET	DWG. NO.	REV
D	1/2	3 OF 4	MS600371	A

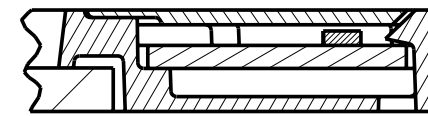
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CARROLL TOUCH TOUCHSCREEN

SCN-CT-FLT15.0-ODX-OXX-L-R



ADHERING A FILTER TO A NO-FILTER CT TOUCH SYSTEM



DETAIL D
SCALE 4/1

SECTION A-A

SECTION B-B

STEP 1

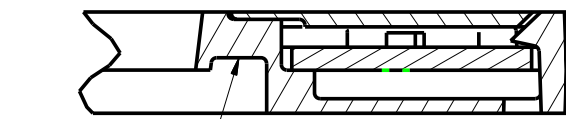
APPLY ADHESIVE AND FILTER IN ACCORDANCE TO CT SPECIFICATION 2000-0375. SEE FIGURE 1. FILTER SIZE FOR THE 17LP IS 9.24 [234,7] X 12.23 [310,6]

STEP 2

AFTER CURING REMOVE EXCESS ADHESIVE FROM ASSEMBLY IN ACCORDANCE TO SPECIFICATION CT 2000-0375 SEE FIGURE 2.

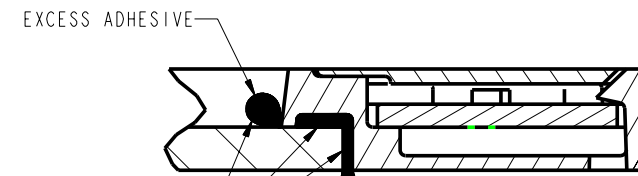
STEP 3

THE FINAL ASSEMBLY SHOULD LOOK LIKE FIGURE 4.



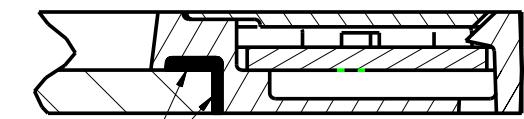
APPLY ADHESIVE AND FILTER

FIGURE 1



EXCESS ADHESIVE
CURED ADHESIVE

FIGURE 2

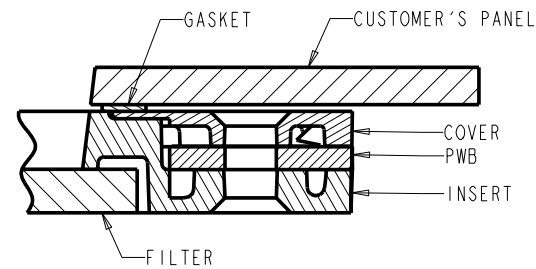


CURED ADHESIVE

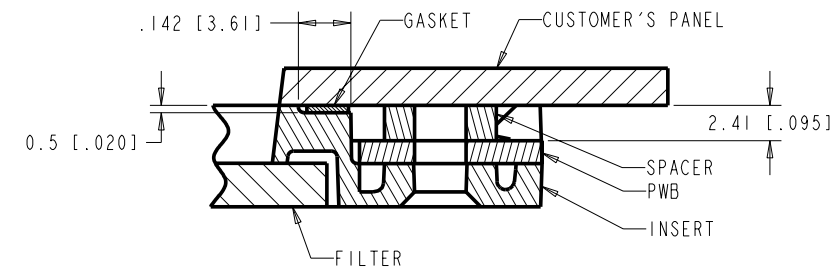
FIGURE 3

MOUNTING THE TOUCH SYSTEM USING ALIGNMENT HOLES AND NO COVER

MAY BE ACHIEVED BY THE USE OF A SPACER TO OBTAIN THE STABILITY, RIGIDITY AND PROPER OPTO ALIGNMENT.



CROSS SECTION OF THE DESIGN CONFIGURATION WITH THE OPTO COVER INSTALLED.



CROSS SECTION OF THE DESIGN CONFIGURATION WITH THE OPTO COVER REMOVED AND SPACER INSTALLED.

TITLE
MTKG DWG,
SCN-CT-FLT15.0-ODX-OXX-L-R



SIZE	SCALE	SHEET	DWG. NO.	REV
D	1/2	4 OF 4	MS600371	A

SHT 4 OF 4 REV A