

PE07-029

Attachment 30

Thumb nut attached PC Board Cover



ENGINEERING RELEASE NOTICE

A Subsidiary of **FREIGHTLINER**
CORPORATION

ERN#: ECR_3338-1

PART STATUS CODE

- A Inactivate w/o Replacement
- B Manufacturing Change
- C Purchased
- D Pattern/Fixture - New/Change
- E Tooling - New/Change
- F Service
- G New Part
- H Inactivate
- I Reactivate
- J Increase Usage
- K Decrease Usage

- L Revision of Drwg, Asm, Etc...
- M Obsolete
- N Delete From Std Per Opt.
- O Prev. Adv. Released
- P Chart Change
- Q New Ref, Install, Chart, etc...
- R Reference Drwg, Asm, etc...
- S PPAP Required
- T PPAP Approved
- U PPAP Waived

PPAP Levels

- 1 Level 1
- 2 Level 2
- 3 Level 3
- 4 Level 4
- 5 Level 5

STOCK DISPOSITION CODES

- A Use, No Reorder
- B Rework
- C Don't Use, Dispose Of Best Way
- D Don't Use Prior to PPAP Approval

USAGE TYPE CODES

- STD Standard
- STD-ASM Standard Assembly
- ASM-CMPT Component of assembly
- OPT-ASM Optional Assembly
- OPT Optional
- REF Reference

PLANT CODES

- 1 Main Body Assembly
- 2 Fairfield
- 5 Chassis Assembly
- 9 Minotour Assembly
- T CL100 Assembly
- 2A B2 Assembly

PART CODES

- A Running Change
- B New Option
- C CON Pending

ERN CLASS: Regular
ERN AUTHOR: CHRIS BELL
REF. NUMBER:

RELEASED DATE: 1/22/2007
CHK'D/RELEASED BY: RB
BODY/CHASSIS INTERFACE:

REASON FOR RELEASE

REVISING CABLE OPENING ON PC BOARD COVER BACK TO PREVIOUS DIMENSION BECAUSE THE TOOLMAKER IS UNABLE TO MAKE THE CHANGE REQUESTED.

					Usage Information				New Parts Only			
Status Codes	Part Number	Description	Drawing	Rev	Usage Type	Model / Opt# / Asm #	Qty / UOM	SDC	Plant Code	Shop Address	Appr. Initial	Part Code
CL	134172	PC BOARD COVER, THUMB NUT ATTACHED		B	N/A							A

ECR_3338-1



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CORPORATION

PART STATUS CODE

- A Inactivate w/o Replacement
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- E Tooling - New/Change
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- G New Part
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- Q New Ref, Install, Chart, etc...
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- T PPAP Approved
- U PPAP Waived

PPAP Levels

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- 2 Level 2
- 3 Level 3
- 4 Level 4
- 5 Level 5

STOCK DISPOSITION CODES

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- B Rework
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USAGE TYPE CODES

- STD Standard
- STD-ASM Standard Assembly
- ASM-CMPT Component of assembly
- OPT-ASM Optional Assembly
- OPT Optional
- REF Reference

PLANT CODES

- 1 Main Body Assembly
- 2 Fairfield
- 5 Chassis Assembly
- 9 Minotour Assembly
- T CL100 Assembly
- 2A B2 Assembly

PART CODES

- A Running Change
- B New Option
- C CON Pending

ERN#:

ECR_3587-1

ERN CLASS:

Regular

ERN AUTHOR:

CHRIS BELL

REF. NUMBER:

RELEASED DATE:

4/9/2007

CHK'D/RELEASED BY:

RB

BODY/CHASSIS INTERFACE:

REASON FOR RELEASE

REVISING GROOVES TO ALLOW MORE ROOM FOR COMPONENTS. ALSO CHANGING TO HIGHER TEMP NATURAL STYRENE.

Status Codes	Part Number	Description	Drawing	Rev	Usage Information			New Parts Only				
					Usage Type	Model / Opt# / Asm #	Qty / UOM	SDC	Plant Code	Shop Address	Appr. Initials	Part Code
L	134172	PC BOARD COVER, THUMB NUT ATTACHED		C	N/A							A

ECR_3587-1



ENGINEERING RELEASE NOTICE

A Subsidiary of **FREIGHTLINER**
CORPORATION

ERN#: ECR_3799-1

PART STATUS CODE

- A** Inactivate w/o Replacement
- B** Manufacturing Change
- C** Purchased
- D** Pattern/Fixture - New/Change
- E** Tooling - New/Change
- F** Service
- G** New Part
- H** Inactivate
- I** Reactivate
- J** Increase Usage
- K** Decrease Usage

- L** Revision of Drwg, Asm, Etc...
- M** Obsolete
- N** Delete From Std Per Opt.
- O** Prev. Adv. Released
- P** Chart Change
- Q** New Ref, Install, Chart, etc...
- R** Reference Drwg, Asm, etc...
- S** PPAP Required
- T** PPAP Approved
- U** PPAP Waived

PPAP Levels

- 1** Level 1
- 2** Level 2
- 3** Level 3
- 4** Level 4
- 5** Level 5

STOCK DISPOSITION CODES

- A** Use, No Reorder
- B** Rework
- C** Don't Use, Dispose Of Best Way
- D** Don't Use Prior to PPAP Approval

USAGE TYPE CODES

- STD** Standard
- STD-ASM** Standard Assembly
- ASM-CMPT** Component of assembly
- OPT-ASM** Optional Assembly
- OPT** Optional
- REF** Reference

PLANT CODES

- 1** Main Body Assembly
- 2** Fairfield
- 5** Chassis Assembly
- 9** Minotour Assembly
- T** CL100 Assembly
- 2A** B2 Assembly

PART CODES

- A** Running Change
- B** New Option
- C** CON Pending

ERN CLASS: Regular
ERN AUTHOR: CHRIS BELL
REF. NUMBER:

RELEASED DATE: 5/21/2007
CHK'D/RELEASED BY: RB
BODY/CHASSIS INTERFACE:

REASON FOR RELEASE

REVISED SOME DIMENSIONS AND TOLERANCES TO EASE QC ISSUES FOR PRODUCTION BY THE VENDOR (PMW).

Status Codes	Part Number	Description	Drawing	Rev	Usage Information			New Parts Only				
					Usage Type	Model / Opt# / Asm #	Qty / UOM	SDC	Plant Code	Shop Address	Appr. Initials	Part Code
L	134172	PC BOARD COVER, THUMB NUT ATTACHED		D	N/A							A

ECR_3799-1



ENGINEERING RELEASE NOTICE

A Subsidiary of **FREIGHTLINER**
CORPORATION

ERN#: **ECR_2897-1**

PART STATUS CODE

- | | |
|---------------------------------------|--|
| A Inactivate w/o Replacement | L Revision of Drwg, Asm, Etc... |
| B Manufacturing Change | M Obsolete |
| C Purchased | N Delete From Std Per Opt. |
| D Pattern/Fixture - New/Change | O Prev. Adv. Released |
| E Tooling - New/Change | P Chart Change |
| F Service | Q New Ref, Install, Chart, etc... |
| G New Part | R Reference Drwg, Asm, etc... |
| H Inactivate | S PPAP Required |
| I Reactivate | T PPAP Approved |
| J Increase Usage | U PPAP Waived |
| K Decrease Usage | |

PPAP Levels

- | |
|------------------|
| 1 Level 1 |
| 2 Level 2 |
| 3 Level 3 |
| 4 Level 4 |
| 5 Level 5 |

STOCK DISPOSITION CODES

- | |
|---|
| A Use, No Reorder |
| B Rework |
| C Don't Use, Dispose Of Best Way |
| D Don't Use Prior to PPAP Approval |

USAGE TYPE CODES

- | |
|---------------------------------------|
| STD Standard |
| STD-ASM Standard Assembly |
| ASM-CMPT Component of assembly |
| OPT-ASM Optional Assembly |
| OPT Optional |
| REF Reference |

PLANT CODES

- | |
|-----------------------------|
| 1 Main Body Assembly |
| 2 Fairfield |
| 5 Chassis Assembly |
| 9 Minotour Assembly |
| T CL100 Assembly |
| 2A B2 Assembly |

PART CODES

- | |
|-------------------------|
| A Running Change |
| B New Option |
| C CON Pending |

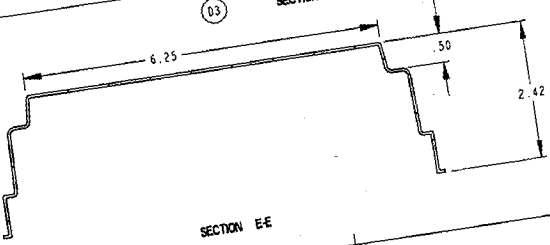
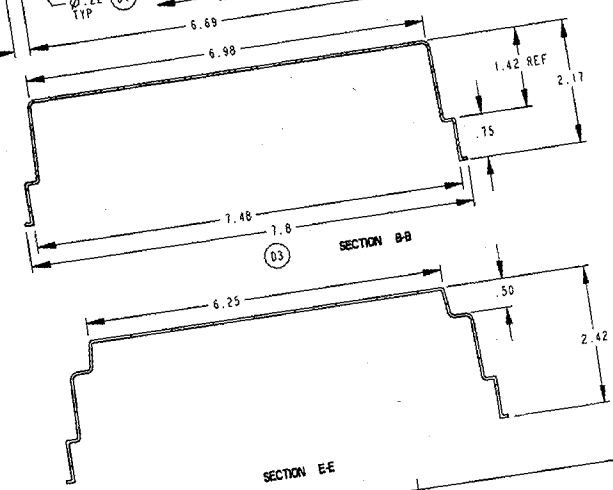
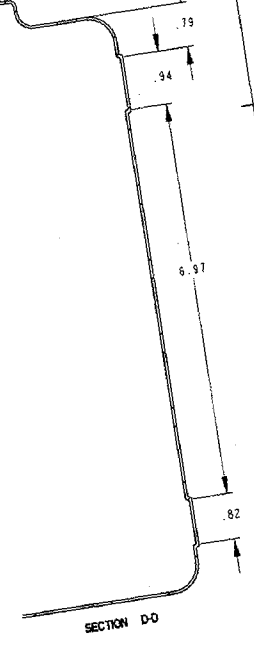
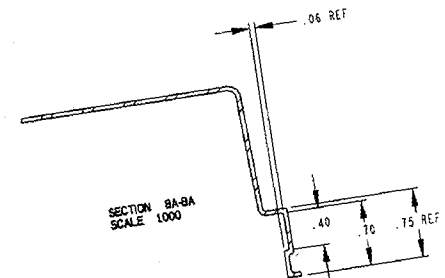
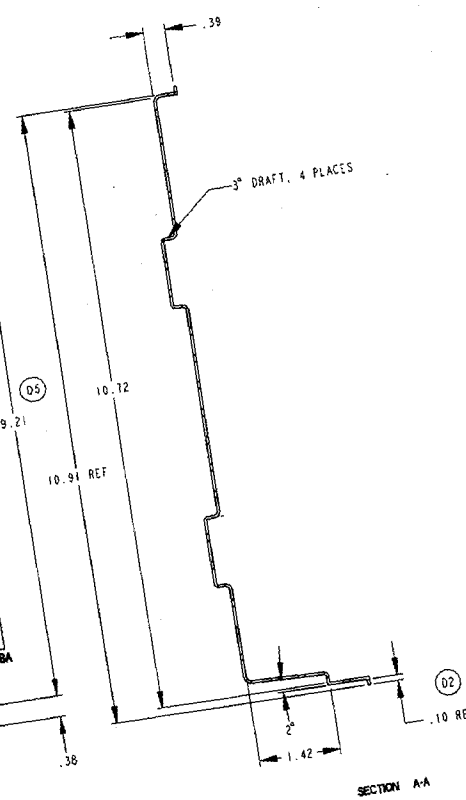
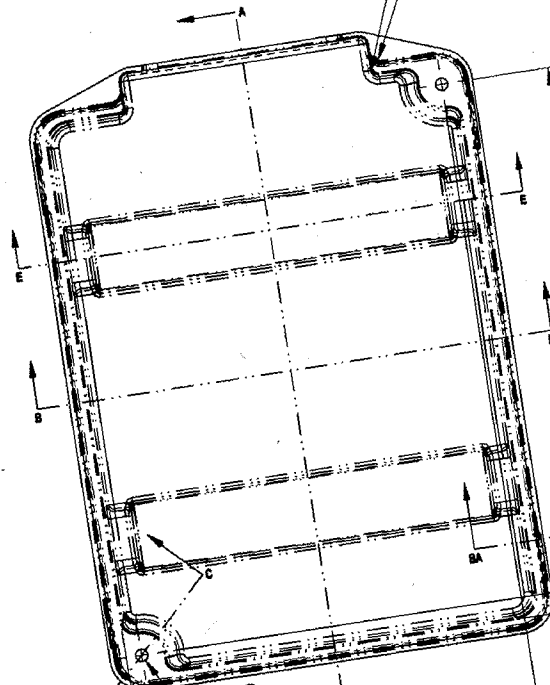
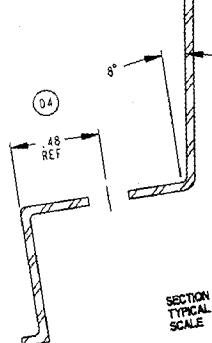
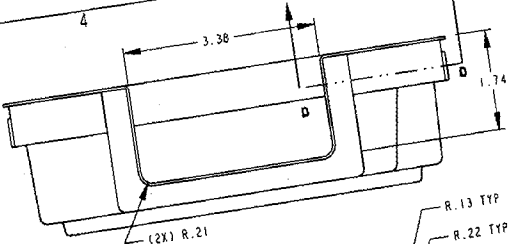
ERN CLASS: **Regular**
ERN AUTHOR: **CHRIS BELL**
REF. NUMBER:

RELEASED DATE: **12/8/2006**
CHK'D/RELEASED BY: **RB**
BODY/CHASSIS INTERFACE:

REASON FOR RELEASE

RELEASING NEW ATTACHMENT METHOD FOR PC BOARD AND PC BOARD COVER. THIS INVOLVES A CHANGE TO THE PC BOARD SUBASSEMBLY.

Status Codes	Part Number	Description	Drawing	Rev	Usage Information				New Parts Only				
					Usage Type	Model / Opt# / Asm #	Qty / UOM	SDC	Plant Code	Shop Address	Appr. Initial	Part Code	
L	52006276	ELECTRICAL ACCESS PANEL INSTALLATION, HDX & EF		E	N/A								C
CG	134173	THUMB NUT, 10-24 THREAD, PLASTIC		A	Asm-Cmpt	52006276	4	EA		21200			C
J	27120361	NUT - #10-24, HEX			Asm-Cmpt	52006276	4	EA					C
K	27161739	SCREW-TAPPING, 14 X 1 1/2"			Asm-Cmpt	52006276	4	EA					C
J	29900018	MACHINE SCREW, #10-24 X 2.00			Asm-Cmpt	52006276	4	EA					C
K	67000298	RUBBER SCREW CAP, 1/4, BLACK RUBBER, .080 THICK			Asm-Cmpt	52006276	4	EA					C
CG	134172	PC BOARD COVER, THUMB NUT ATTACHED		A	Ref	REPLACES 52007444				21200			C
CH	52007444	PC BOARD COVER, SNAP-ON		E	Ref	REPLACED BY 134172			C				C



PRIME IMPAX 450 SPECIFICATIONS:
 Specific Gravity - 1.05 g/cc
 Melt Flow @ 200°C/5000g - 2.5 g/10 min
 Tensile Strength @ Yield - 2,900 psi
 Tensile Modulus - 275,000 psi
 Elongation @ Break - 10%
 Flexural Modulus - 300,000 psi
 Impact Strength, notched Izod @ 73°F - 2.1 (1-lb/in)
 Heat Deflection Temperature @ 264 psi - 183°F
 Vicat Softening Point - 210°F

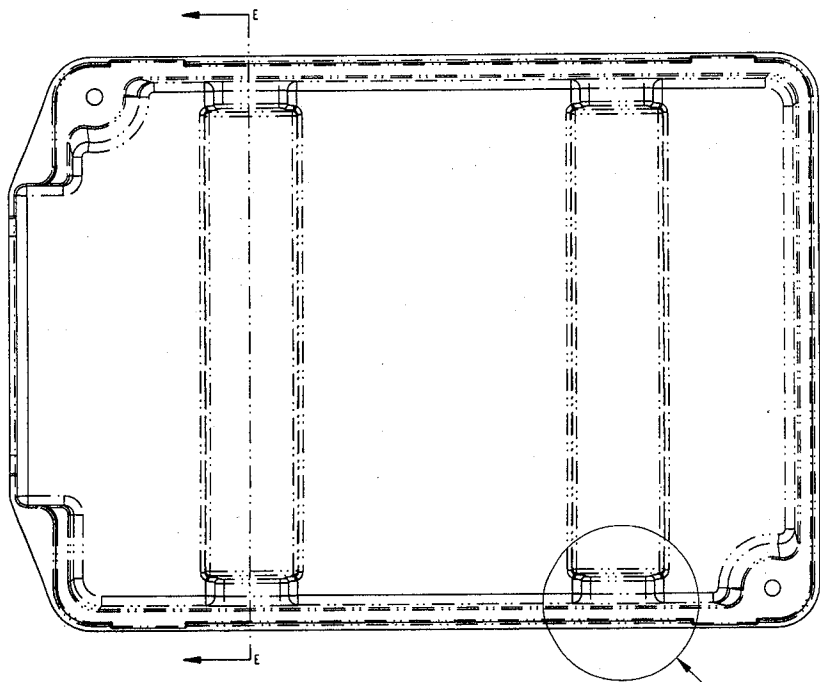
- NOTES:**
- 1) MATERIAL: PRIME IMPAX 450. GENERAL POLYSTYRENE .040" STARTING
 - 2) BLANK: N/A
 - 3) CALCULATED WEIGHT: .235 LBS.
 - 4) BURRS: N/A
 - 5) FINISH: SMOOTH
 - 6) COLOR: NONE ADDED
 - 7) BENDS: N/A
 - 8) WELDS: N/A
 - 9) REFERENCE: N/A

D	1) .22 WAS .220.
	2) .10 REF WAS .10.
	3) 7.8 WAS 7.77.
	4) .48 REF WAS .48.
	5) REVISED HOLE DIMENSIONING SCHEME.
	*REV C ECR. 3581-144

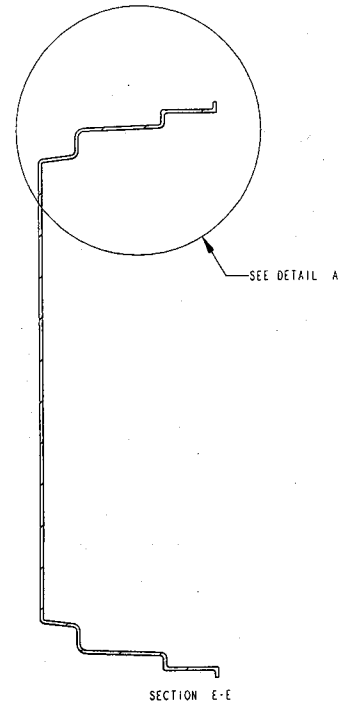
REVISION		THOMAS BUILT BUS	
THIRD ANGLE PROJECTION	DECIMAL ± .01 .015 .02 .03 .04	HIGH POINT, NC	FRACTION ± 1/16 1/8 1/4 3/8 1/2
PC BOARD COVER THUMB NUT ATTACHED			
DRW. 10/3/04	CLB	MATERIAL: SEE W	
CR-D10/3/04	ORL	SIZE C	DWG.
ENGR/DESIGNER		D. SZO	

ALL DIMENSIONS REFERENCE PART CONTROLLED BY 3D CAD FILE

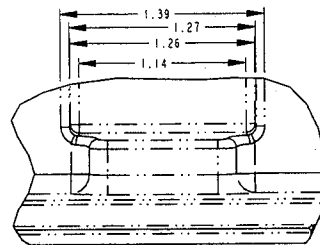
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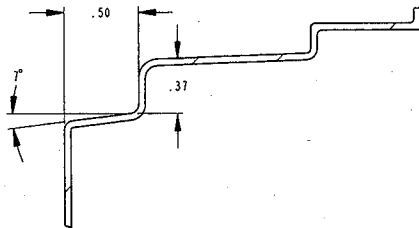
SCALE 0.800



SECTION E-E



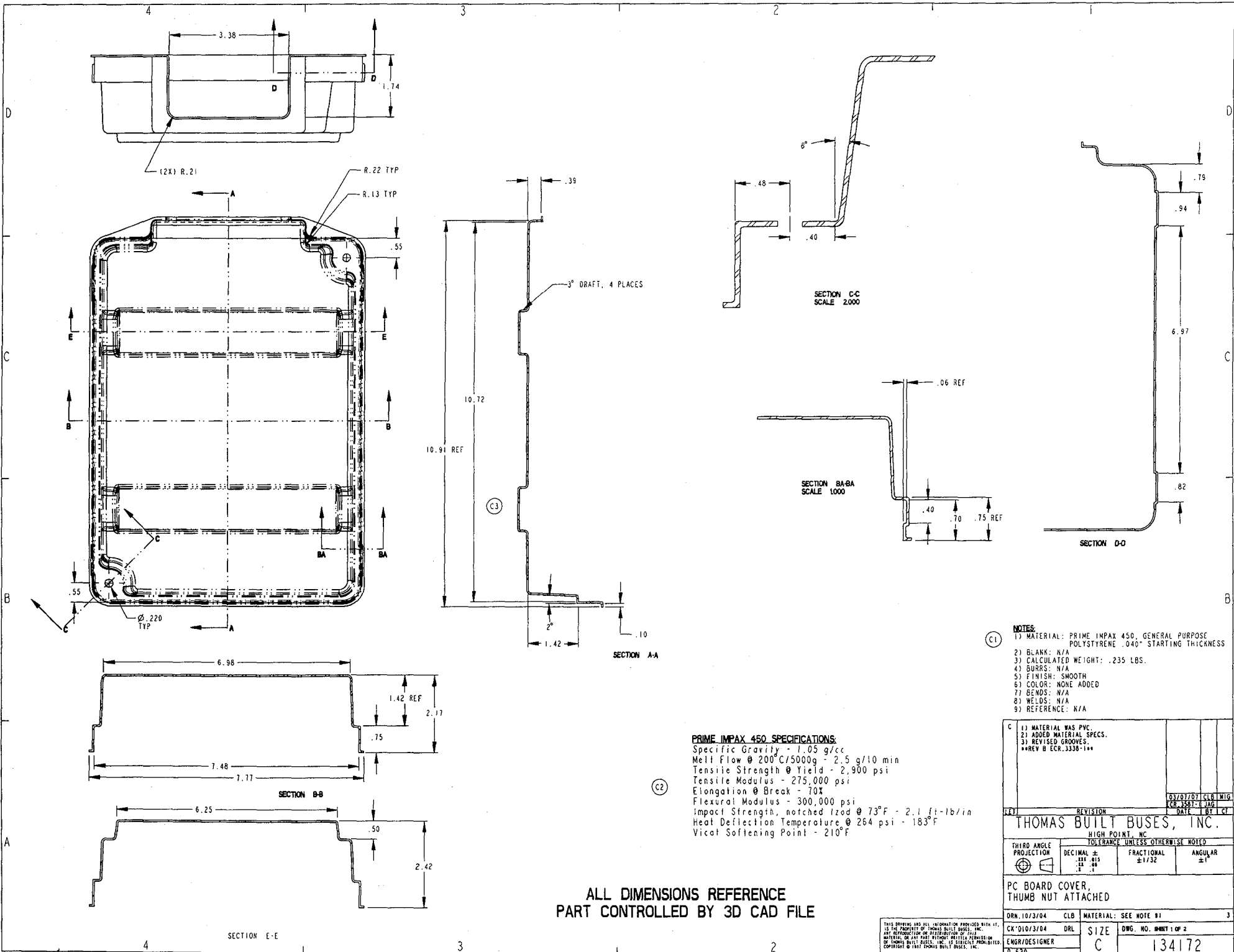
DETAIL B
SCALE 1.600



DETAIL A
SCALE 1.600

1) .22 WAS .220. 2) .10 REF WAS .10. 3) 7.8 WAS 7.77. 4) .48 REF WAS .48. 5) REVISED HOLE DIMENSIONING SCHEME. **REV C ECR.3587-1**				047/18707	CLB	MIG	
				CCR-3199-1	JAG		
				DATE	1	BY	CF
THOMAS BUILT BUSES, INC. HIGH POINT, NC TOLERANCE UNLESS OTHERWISE NOTED							
THIRD ANGLE PROJECTION	DECIMAL ± .005	FRACTIONAL ± 1/32	ANGULAR ± 1°				
PC BOARD COVER, THUMB NUT ATTACHED							
DRN. 10/3/04	CLB	MATERIAL: SEE NOTE #1		3			
CK'D 10/3/04	DRL	SIZE	DWG. NO. SHEET 2 OF 2				
ENGR/DESIGNER		C	134172				
U. 620							

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PRIME IMPAX 450 SPECIFICATIONS
 Specific Gravity - 1.05 g/cc
 Melt Flow @ 200°C/5000g - 2.5 g/10 min
 Tensile Strength @ Yield - 2,900 psi
 Tensile Modulus - 275,000 psi
 Elongation @ Break - 70%
 Flexural Modulus - 300,000 psi
 Impact Strength, notched Izod @ 73°F - 2.1 ft-lb/in
 Heat Deflection Temperature @ 264 psi - 183°F
 Vicat Softening Point - 210°F

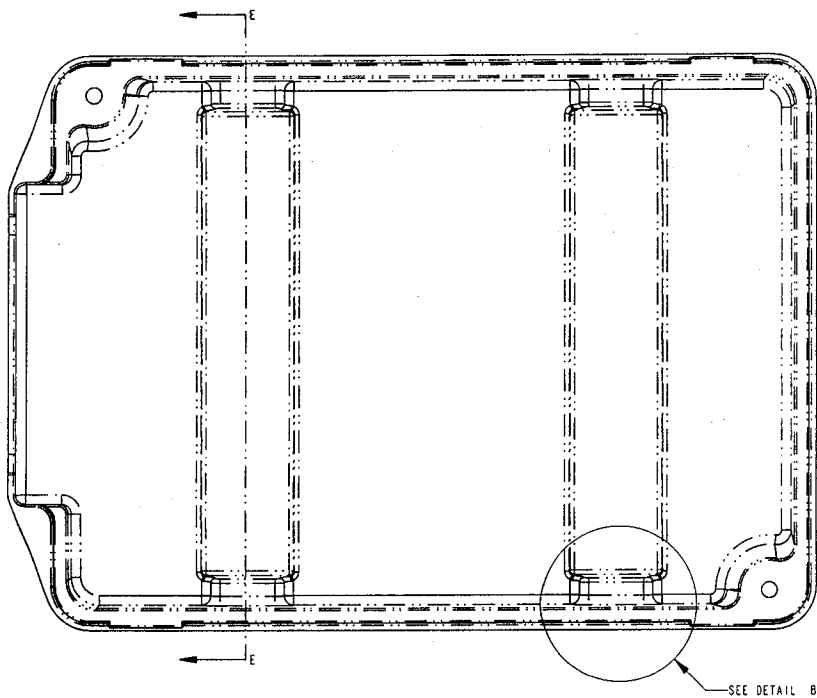
- NOTES:**
- 1) MATERIAL: PRIME IMPAX 450, GENERAL PURPOSE POLYSTYRENE .040" STARTING THICKNESS
 - 2) BLANK: N/A
 - 3) CALCULATED WEIGHT: .235 LBS.
 - 4) BURRS: N/A
 - 5) FINISH: SMOOTH
 - 6) COLOR: NONE ADDED
 - 7) BENDS: N/A
 - 8) WELDS: N/A
 - 9) REFERENCE: N/A

C		1) MATERIAL WAS PVC.		
		2) ADDED MATERIAL SPECS.		
		3) REVISED GROOVES.		
		REV B ECR.3338-1		
		03/01/07	CLB	MIG
			JAG	

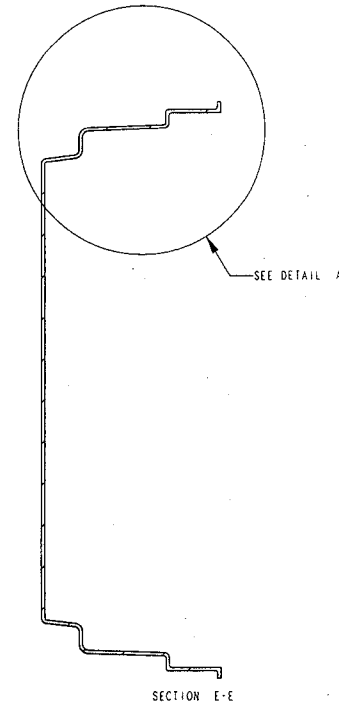
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THIRD ANGLE PROJECTION	DECIMAL ± .001 .015 ± .01	FRACTIONAL ± 1/32	ANGULAR ± 1°	DATE	BY
PC BOARD COVER, THUMB NUT ATTACHED					
DRN. 10/3/04	CLB	MATERIAL: SEE NOTE #1			3
CK'D 10/3/04	ORL	SIZE	DWG. NO. DWG 1 OF 2		
ENGR/DESIGNER		C	134172		
D. 520					

ALL DIMENSIONS REFERENCE PART CONTROLLED BY 3D CAD FILE

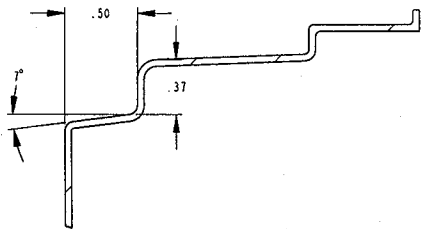
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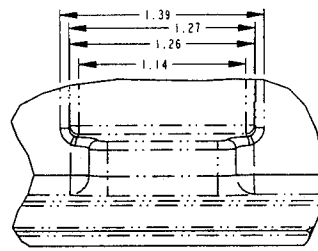
SCALE 0.800



SECTION E-E



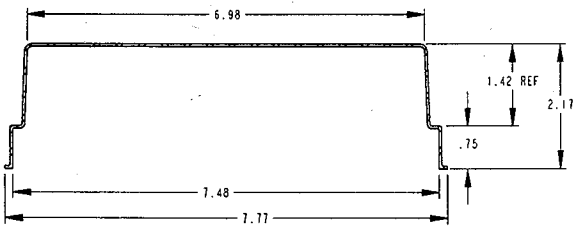
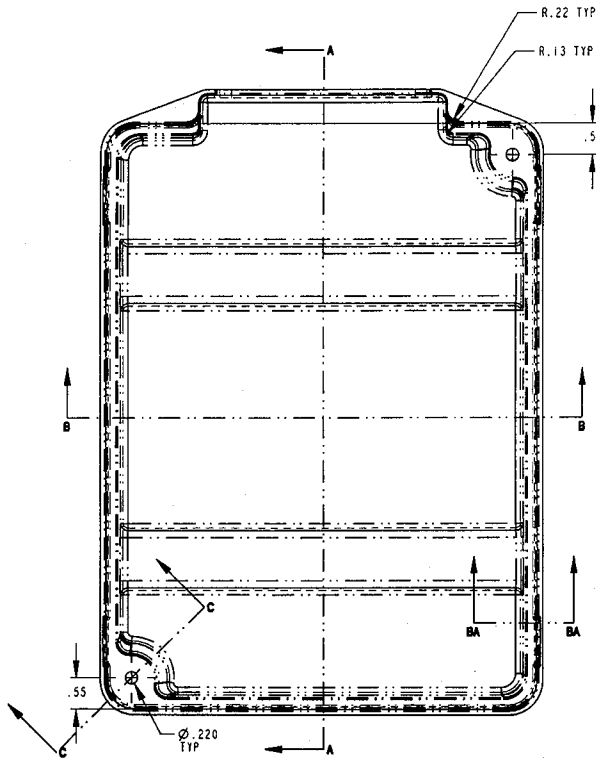
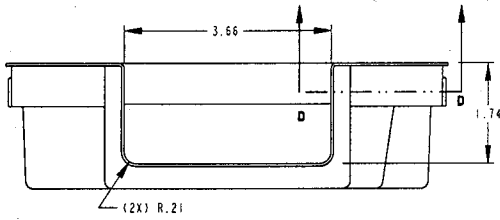
DETAIL A
SCALE 1.600



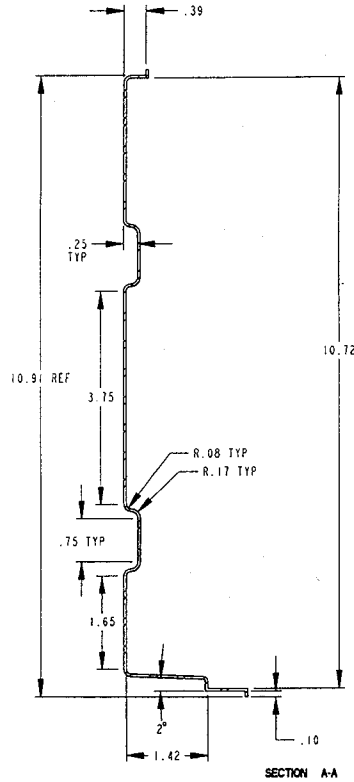
DETAIL B
SCALE 1.600

1) MATERIAL WAS PVC. 2) ADDED MATERIAL SPECS. 3) REVISED GROOVES. **REV D ECR. 3338-19**		03/07/07	CLB	MIG
		CR	3587	E JAG
THOMAS BUILT BUSES, INC. HIGH POINT, NC TOLERANCE UNLESS OTHERWISE NOTED		DATE	BY	CHK
THIRD ANGLE PROJECTION	DECIMAL ± FRAC ±	FRACTIONAL ±	ANGULAR ±	
PC BOARD COVER, THUMB NUT ATTACHED				
DRN. 10/3/04	CLB	MATERIAL: SEE NOTE #1		3
CK'D 10/3/04	DRL	SIZE	DWG. NO. SHEET 2 OF 2	
ENGR/DESIGNER		C	134172	
T. 620				

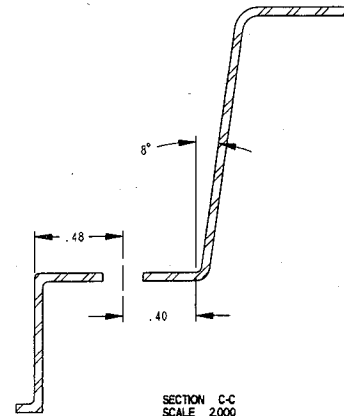
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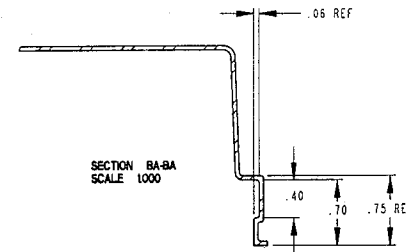
SECTION BB



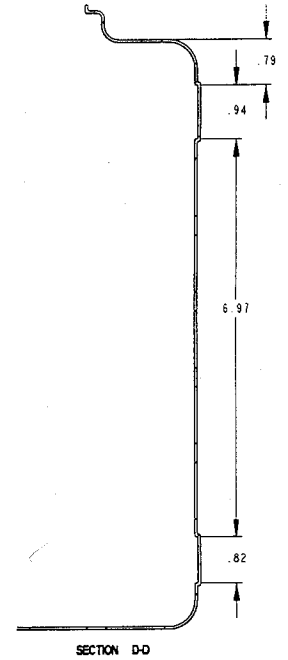
SECTION A-A



SECTION C-C
SCALE 2000



SECTION BA-BA
SCALE 1000



SECTION D-D

- NOTES:
- 1) MATERIAL: PVC, PLASTIC .040" STARTING THICKNESS
 - 2) BLANK: N/A
 - 3) CALCULATED WEIGHT: .231 LBS.
 - 4) BURRS: N/A
 - 5) FINISH: SMOOTH
 - 6) COLOR: CLEAR/TRANSPARENT
 - 7) BENDS: N/A
 - 8) WELDS: N/A
 - 9) REFERENCE: N/A

A RELEASED. REPLACES 52007444.		11/03/06 CLB MIG	
		PCB 2897-11 JAG	
DATE		BY	
THOMAS BUILT BUSES, INC. HIGH POINT, NC TOLERANCE UNLESS OTHERWISE NOTED			
THIRD ANGLE PROJECTION	DECIMAL ± .005	FRACTIONAL ± 1/32	ANGULAR ± 1°
PC BOARD COVER, THUMB NUT ATTACHED			
DRN. 10/3/04	CLB	MATERIAL: SEE NOTE #1	5
CK'D 10/3/04	DRL	SIZE C	DWG. NO. DWBT 1 OF 1
ENGR/DESIGNER		134172	
D. 620			

ALL DIMENSIONS REFERENCE
PART CONTROLLED BY 3D CAD FILE

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