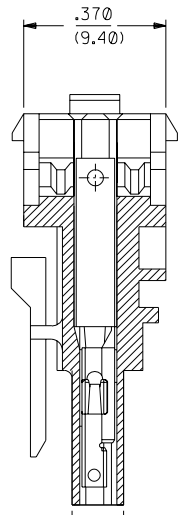
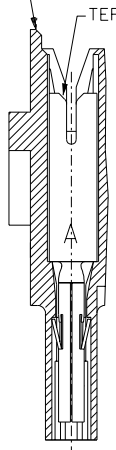


HOUSING MATERIAL: 94V-0 UNFILLED POLYESTER MATERIAL COLOR: WHITE

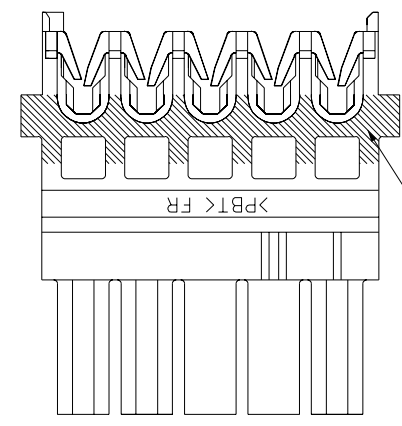
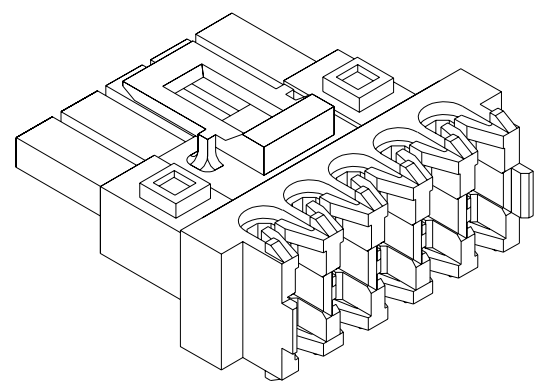


SECTION A-A



SECTION B-B

TERMINAL MATERIAL: PHOSPHOR BRONZE



SEE NOTE 9

**NOTES:**

1. ASSEMBLY NO. 71694-15\*\* SHOWN FOR ILLUSTRATION.
2. MATES WITH PART NUMBER 71690-\*\*\*\*.
3. SEE FOLLOWING PAGES FOR PART NUMBERS AND THEIR CONFIGURATIONS.
4. FINISHES (SEE CHART):  
 TIN OVERALL - .000100/(0.00254) MINIMUM TIN OVERALL, OVER NICKEL UNDERPLATING OVERALL.  
 15 GOLD - .000015/(0.00038) MINIMUM SELECT GOLD AND .000150/(0.00380) MINIMUM SELECT TIN OVER NICKEL UNDERPLATING OVERALL.
5. ITEM NOS. PRECEDED BY AN \*X\* IN THE CHART ARE NOT AVAILABLE.
6. RECOMMENDED FOR USE WITH UL STYLE # 1007 WIRE.
7. PART CONFORMS TO SPECIFICATION NO. PS-71690-001.
8. MATERIAL RECYCLING LOGO TO BE LOCATED ON SIDE OF PART.
9. IDT SLOT IDENTIFIER COLOR STRIPE TO BE LOCATED ON THIS SURFACE. ID PER CHART BELOW.

WIRE GAUGE	ID COLOR
18	FLRSCNT MAGENTA
20	BLUE
22	GREEN
24	BLACK

10. OPTIONAL COVER NUMBERS: 71161-\*\*-01 (FEED THRU) OR \*\*-02 (FEED TO VERSION).
11. SEE SMES-71690-0000 FOR TERMINATION SPECIFICATIONS.
12. PACKAGE PER PK-71690-0000.

**NOTE FOR LEAD FREE CONVERSION:**

THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO ROHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC". CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH LEAD.

N	LEAD FREE CONV ECN UCP2004-2042 ADAMS 04/04/21
M	CHANGE PROD SPEC ECR UDT2001-0195 KMS 9/22/2000
L	ADD 6 CKT MIXED UDT2000-0266 RFOX 99/9/15
K	ADD .010 MAX RADIUS UDT1999-0448 KAS 98/12/15
J	ADD VOIDS, MIXED AWG UDT1999-0310 SCHAFFER 98/11/11
II	CUST 5; NO STRIPE PER ECN U80368 ELO 97/7/25
I	ADD CUSTOM COLOR PER ECN U71576 ELO 97/6/16
H	MAT'L COLOR CHANGE PER ECN U71026 ELO 97/2/26
G	18 AWG CLR CHANGE PER ECN U70413 ELO 10/23/96
5	N
4	N
3	N
2	N
1	N
FI	REVISED PER ECN U61366 05/01/96 TSE
F	ADD WHITE MAT'L EAGLES ECN U61098 96/03/05 BMS

MFG, SH, REV, LTR, REVISIONS

REVISE ONLY ON CAD SYSTEM

DIMENSIONS SHOWN (METRIC) INCH	
UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°	
3 PLAGE ± .010	---
2 PLAGE ± .014	± 0.25
1 PLAGE ---	± 0.36

**MOLEX INCORPORATED**

71694-15\*\*

MINI-FIT IDT SINGLE ROW RECEPTACLE SALES ASSEMBLY

SEE CHART

SDA-71694-\*\*\*\*

DATE: 01/28/93

FILE NAME: 571694X1.DEN

SCALE: 4:1

DRWG. BY: RWB	CHK'D. BY: SAS
APP'D. BY:	SCALE: 4:1

DRWG. NO.:	DATE:
U.S.A.:	U.S.A.:
1 OF 5	01/28/93

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.

13 12 11 10 9 8 7 6 71694 4 3 2 1

CKT SIZE	ST A	ASSEMBLY ITEM NUMBER	WIRE AWG	WIRE DESCRIPTION	DIMENSION A		DIMENSION B		DIMENSION C		PLATING SEE NOTE 4
					INCH	(MM)	INCH	(MM)	INCH	(MM)	
12		71694-2301	18	SOLID, FUSED, STRANDED	2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)	TIN OVERALL
12		71694-2303	20		2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)	
12		71694-2304	22		2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)	
12		71694-2305	24		2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)	
12		71694-2307	18		2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)	15 GOLD
12		71694-2309	20	2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)		
12		71694-2310	22	2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)		
12		71694-2311	24	SOLID, FUSED, STRANDED	2.144	(54.45)	2.032	(51.60)	1.8194	(46.20)	

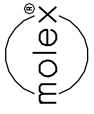
N	SEE SHEET I
H	SEE SHEET I
F	SEE SHEET I
E	SEE SHEET I
C	SEE SHEET I
A	SEE SHEET I
4	SEE SHEET I
2	SEE SHEET I
1	SEE SHEET I

MFG.	SH.	REV.	LTR.	REVISIONS
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REVISE ONLY ON CAD SYSTEM

DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		TITLE MINI-FIT IDT SINGLE ROW RECEPTACLE SALES ASSEMBLY	
5 PLACE ± .010 ---	INCH METRIC	MOLEX INCORPORATED	SHEET NO. DATE 4 03/10/93
2 PLACE ± .014 ± 0.25		U.S.A.	
1 PLACE --- ± 0.36			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		PART NO. DRWG. NO. SEE CHART SDA-71694-****	
DRWG. BY: RWB	CHK'D. BY: SAS	FILE NAME: S71694X4	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.
APP'D. BY:	SCALE:	U.S.A.	DIV. SIZE: TC   C

13 12 11 10 9 8 7 6 5 4 3 2 1



**MOLEX INCORPORATED**  
LISLE, ILL. 60532 U.S.A.

## WIRE TERMINATION SPECIFICATION

### 1.0 APPLICABLE DRAWINGS:

THIS SPECIFICATION APPLIES TO A-71690 AND A-71694 SERIES OF INSULATION DISPLACEMENT CONNECTORS.

### 2.0 SCOPE:

THIS SPECIFICATION IS DESIGNED TO INSURE THE PROPER TERMINATION AND PERFORMANCE OF THE A-71690 AND A-71694 SERIES OF INSULATION DISPLACEMENT CONNECTORS.

### 3.0 GENERAL:

THE .1654/(4.20) CENTER INSULATION DISPLACEMENT CONNECTOR SYSTEM IS DESIGNED TO INTERCONNECT DISCRETE WIRE AS OUTLINED IN THIS SPECIFICATION.

### 4.0 CONDUCTOR REQUIREMENTS:

#### 4.1 CONDUCTOR SIZE IDENTIFICATION:

CONDUCTOR SIZE	CONDUCTOR STYLE	HOUSING ID COLOR (SEE FIG. 4)	TERMINAL ID HOLE POSITION (SEE FIG.8; SHT.5)
18 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	RED	POSITION 1
20 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	BLUE	POSITION 2
22 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	GREEN	POSITION 3
24 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	BLACK	POSITION 4

RECOMMENDED UL STYLE: 1007, 1061

#### 4.2 INSULATION REQUIREMENTS:

INSULATION DIAMETER: .090 MAX

INSULATION HARDNESS: 85 MAX ON THE SHORE A SCALE

### 5.0 TERMINATION REQUIREMENTS:

#### 5.1 CABLE INSERTION DEPTH:

THE CABLE SHOULD BE INSERTED TO DEPTH OF .140/(3.56)\* FROM THE TOP OF THE HOUSING TO THE TOP OF THE WIRE (SEE FIGURE 2). WIRE MUST BE LOCATED BELOW THE BOTTOM OF EAGLES.

\* TERMINATION DEPTH FOR THE 24 AWG WIRES IN THE FOLLOWING ASSEMBLIES TO BE .138±.005/(3.51±0.13); 71690-6008 AND 71694-2402.

STRAIN RELIEF

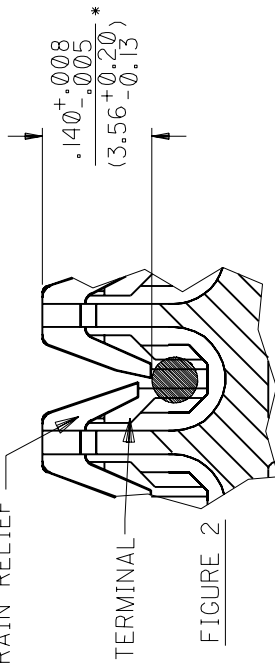
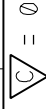


FIGURE 2

REV.	B	A	B	B	B
SHT.	1	2	3	4	5

FILE NAME  
T71690X1



C = 0

= 0

REVISE ONLY ON CAD SYSTEM

REV. B

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SHT. 1 OF 5

DRWG. NO. SMES-71690-0000

DRWG. NO. SMES-71690-0000



## WIRE TERMINATION SPECIFICATION

### 5.2 WIRE CUT OFF

IN THE FEED-TO VERSION THE WIRE MUST BE DISPLACED IN BOTH INSULATION DISPLACEMENT SLOTS AND MUST PROTRUDE THROUGH THE SECONDARY SLOT BY  $(1.52)/.060$  MIN. AS SHOWN IN FIGURE 3.

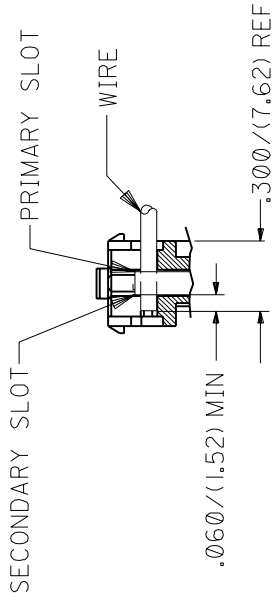


FIGURE 3

### 5.3 HORIZONTAL PULL OUT FORCE

THE CONNECTOR MUST MAINTAIN THE FOLLOWING MIN. PULL OUT VALUES WHEN A FORCE IS APPLIED AT A RATE OF 1 INCH PER MINUTE TO THE CABLE IN A DIRECTION PERPENDICULAR TO THE INSULATION DISPLACEMENT SECTION. AS SHOWN IN FIGURE 4. (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO TESTING).

AWG	PULL FORCE
18 AWG	14.0 LBS. MIN.
20 AWG	TBD
22 AWG	TBD
24 AWG	8.0 LBS. MIN.

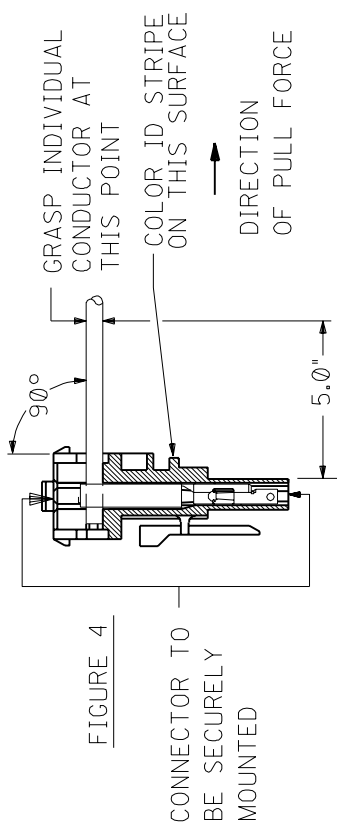


FIGURE 4

### 5.4 VERTICAL PULL OUT FORCE

THE CONNECTOR MUST MAINTAIN THE FOLLOWING MIN. PULL OUT VALUES WHEN A FORCE IS APPLIED AT A RATE OF 1 INCH PER MINUTE TO THE CABLE IN A DIRECTION PARALLEL TO THE INSULATION DISPLACEMENT SECTION. AS SHOWN IN FIGURE 5. (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO TESTING).

AWG	PULL FORCE
18 AWG	5.0 LBS. MIN.
20 AWG	TBD
22 AWG	TBD
24 AWG	2.4 LBS. MIN.

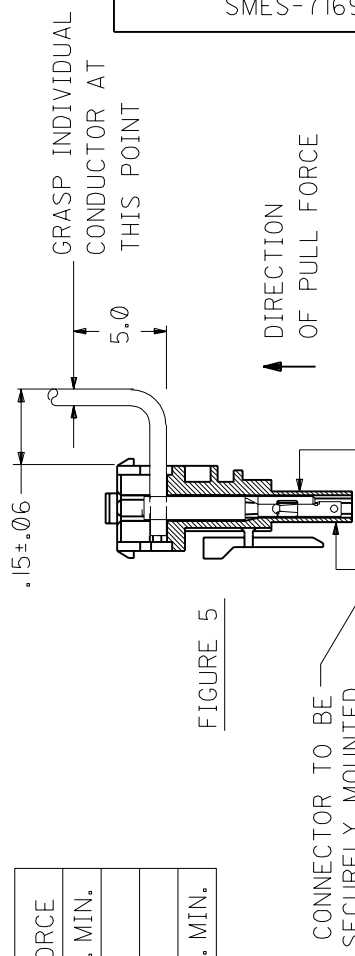


FIGURE 5

REV.

SHT.

FILE NAME  
T71690X2

REVISE ONLY ON CAD SYSTEM

REV.

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SHT.

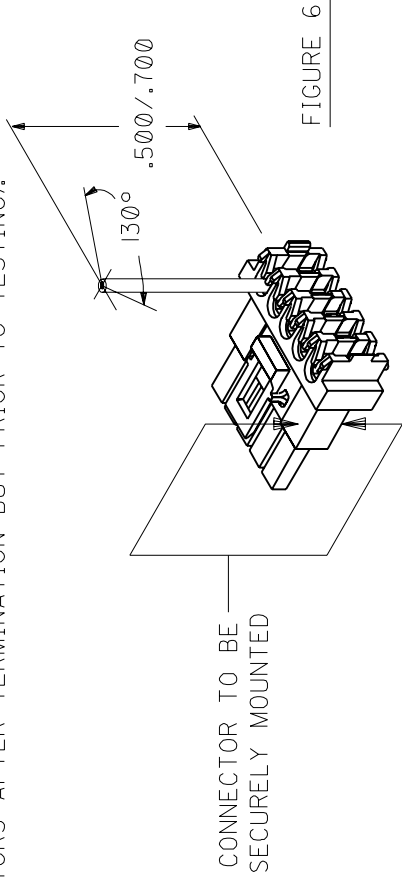


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## WIRE TERMINATION SPECIFICATION

### 5.5 TORSIONAL RESISTANCE:

CONNECTOR MUST WITHSTAND A MAXIMUM TWIST ON A TERMINATED CABLE OF 130° WITHOUT DISTURBING THE INSULATION DISPLACEMENT INTERFACE IN THE PRIMARY OR SECONDARY SLOTS (SEE FIGURE 3) (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO TESTING).

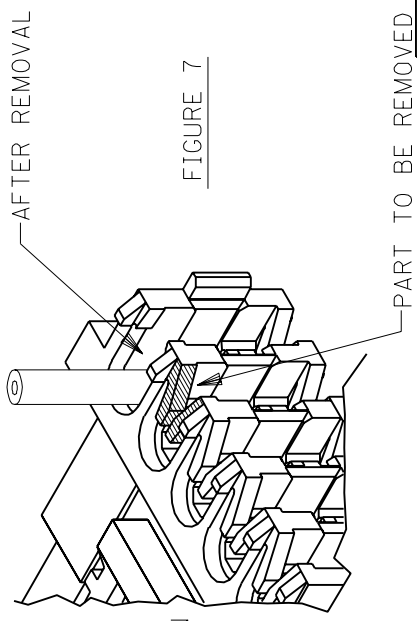


### 5.6 VISUAL INSPECTION:

AFTER TERMINATION, INSULATION DISPLACEMENT SECTION OF THE TERMINAL TO BE FREE OF TOOL MARKS FROM TERMINATION EQUIPMENT.

### 6.0 TERMINATION EVALUATION PROCEDURE:

STEP 1 - STRAIN RELIEF REMOVAL  
REMOVE SHADED PORTION OF THE STRAIN RELIEF USING A RAZOR BLADE



### STEP 2 - REMOVAL OF TERMINAL

INSERT THE REMOVAL TOOL (#HT60630A) INTO THE FRONT OF OF THE CONNECTOR (AROUND THE TERMINAL) TO DEPRESS LOCK TANGS. PUSH THE TERMINAL/WIRE OUT THE BACK OF THE CONNECTOR.

DRWG. NO. SMES-71690-0000

REV.

SHT.

FILE NAME  
T71690X3



= 0



= 0

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REV.

B

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SHT.

3

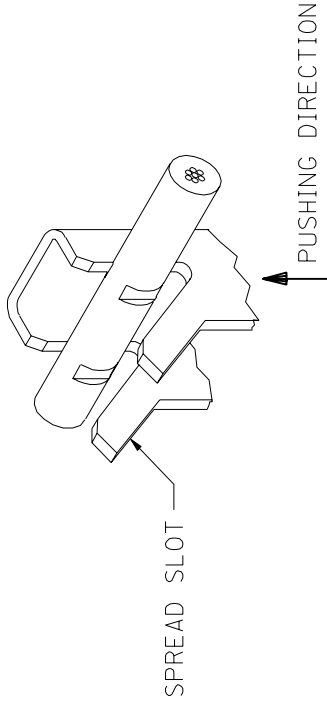
DRWG. NO. SMES-71690-0000



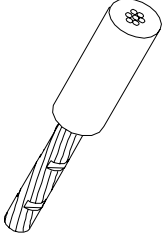
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## WIRE TERMINATION SPECIFICATION

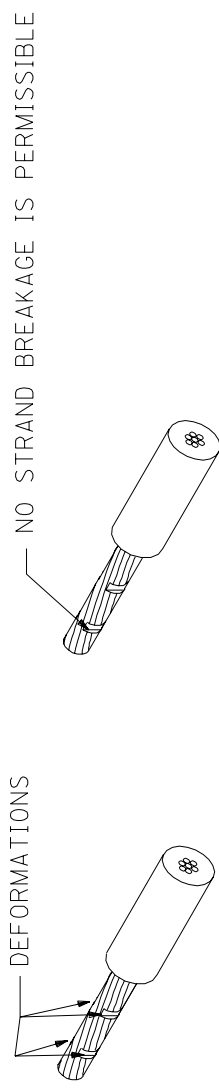
STEP 3 -CONDUCTOR REMOVAL  
USING A SMALL PAIR OF PLIERS SPREAD THE I.D.T. SLOT  
AND REMOVE CONDUCTOR BY PUSHING IN DIRECTION SHOWN



STEP 4 -REMOVING INSULATION  
INSULATION TO BE REMOVED WITHOUT DISTURBING I.D.T. AREA



STEP 5 -CONDUCTOR INSPECTION  
FOUR DEFORMATION POINTS MUST BE CLEARLY VISIBLE WHEN  
USING 10X MAGNIFICATION



DRWG. NO. SMES-71690-0000

DRWG. NO. SMES-71690-0000

REV.

SHT.

FILE NAME  
T71690X4

□ = 0    ▲ = 0

REVISE ONLY ON CAD SYSTEM

REV. B

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SHT. 4



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## WIRE TERMINATION SPECIFICATION

LTR.	REVISIONS
A	RELEASED PER ECR U51189 09/15/95 SAS
B	UPDATED PER ECR U70308 ELO 09/20/96

### STEP 1 -REMOVAL OF TERMINAL

INSERT THE REMOVAL TOOL(\*HT60630A) INTO THE FRONT OF OF THE CONNECTOR (AROUND THE TERMINAL) TO DEPRESS LOCK TANGS.  
PUSH THE TERMINAL/WIRE OUT THE BACK OF THE CONNECTOR.

### STEP 2 -WIRE GAGE PER CHART

ID LETTER	WIRE GAGE
D	18 AWG
C	20 AWG
B	22 AWG
A	24 AWG

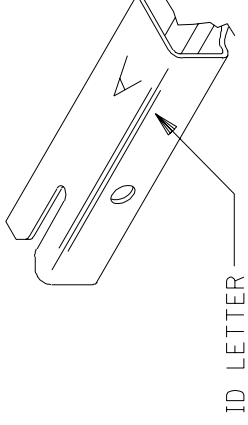


FIGURE 8

DRWG. NO. SMES-71690-0000

DRWG. NO. SMES-71690-0000

REV.

SHT.

FILE NAME  
T71690X5

□ = 0    ▲ = 0

REVISE ONLY ON CAD SYSTEM

REV. B

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SHT. 5