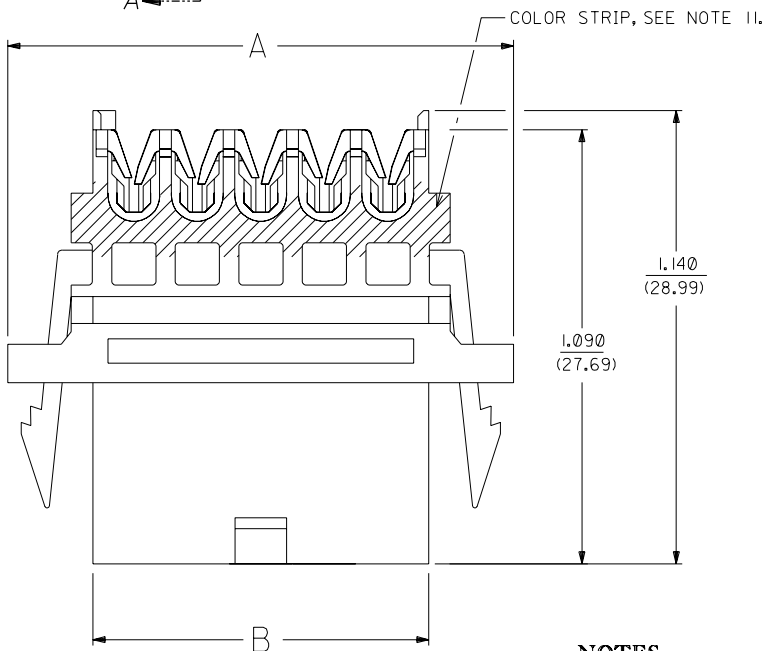
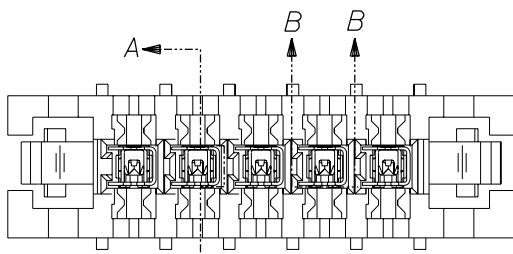
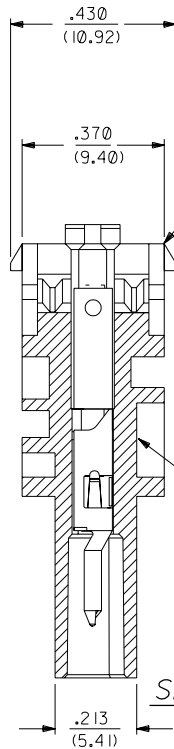
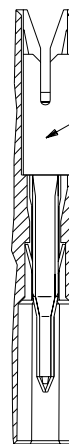


CKT. NO. 1 INDICATOR RIB



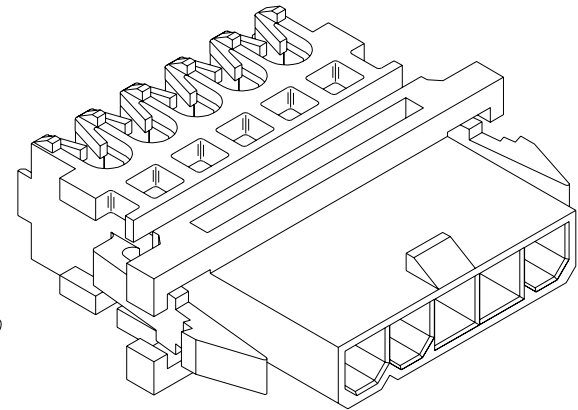
SECTION A-A



SECTION B-B

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

TERMINAL MATERIAL: PHOSPHOR BRONZE



NOTES:

- ASSEMBLY NO. 71690-23** SHOWN FOR ILLUSTRATION.
- MATES WITH PART NUMBER 71694-****.
- SEE SHEET 2 FOR PART NUMBERS AND THEIR CONFIGURATIONS.
- 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.
- ITEM NUMBERS PRECEDED BY AN "X" IN THE CHART ARE NOT AVAILABLE.
- RECOMMENDED FOR USE WITH UL # 1007 STYLE WIRE.
- OPTIONAL COVER NUMBERS: 71161-***01 (FEED THRU) OR -***02 (FEED TO VERSION).
- SEE SHEET 7 FOR PANEL CUTOUT DETAIL.
- PART CONFORMS TO SPECIFICATION NO. PS-71690-001.
- RECYCLE LOGO: >PBT< FR TO BE LOCATED IN THIS AREA.
- 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

- SEE SMES-71690-0000 FOR TERMINATION SPECIFICATIONS.
- 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.

L	LEAD FREE CONV. ECN UCP2004-2042 ADAMS 04/04/20
K	CHANGE PROD SPEC ECR UDT2001-0195 KMS 9/22/2000
J	ALL WHITE MAT'L PER EC # U71026 ELO 97/2/26
I	18 AWG CLR CHANGE PER ECR U70413 ELO 10/23/96
H	REVISED PER ECR U61437 PAR 05/15/96
G	REVISED PER ECR U61185 TSE 03/27/96
F	ADD GOLD ASSY'S PER ECR U51189 08/30/95 sds
E	REV CHARTS/D DIM PER ECR U60094 07/26/95 sds
8	J
7	L
6	L
5	L
4	L
3	L
2	L
1	L
8	J
7	L
6	L
5	L
4	L
3	L
2	L
1	L
8	J
7	L
6	L
5	L
4	L
3	L
2	L
1	L

MFG, SH, REV, LTR, REVISIONS

REVISE ONLY ON CAD SYSTEM

DIMENSIONS SHOWN (METRIC) INCH	
UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°	
INCH	METRIC
3 PLACE ± .010	---
2 PLACE ± .014	± 0.25
1 PLACE ---	± 0.36
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	
DRWG. BY RWB	CHK'D. BY SAS
APP'D. BY	SCALE 4: 1

TITLE	
MINI-FIT IDT SINGLE ROW PLUG SALES ASSEMBLY	
FILE NAME 571690X1 DEN	DATE 10/1/28/93
PART NO. SEE CHART	DRWG. NO. SDA-71690-****
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

I3		I2		I1		I0		9		8		7		6		71690		4		3		2		1	
J	CKT SIZE	S T A T	ASSEMBLY ITEM NUMBER	PANEL MOUNTS	WIRE AWG	WIRE DESCRIPTION	DIMENSION A		DIMENSION B		DIMENSION C		PLATING SEE NOTE 4												
							INCH	(MM)	INCH	(MM)	INCH	(MM)													
	8		71690-3401	NO	18	SOLID, FUSED STRANDED, STRANDED	1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	TIN OVERALL												
	8		71690-3403	NO	20		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3404	NO	22		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3405	NO	24		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)													
I	8		71690-3407	NO	18		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	I5 GOLD												
	8		71690-3409	NO	20		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3410	NO	22		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3411	NO	24		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)													
H	8		71690-3501	YES	18		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)	TIN OVERALL												
	8		71690-3503	YES	20		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3504	YES	22		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3505	YES	24		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3507	YES	18		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)	I5 GOLD												
	8		71690-3509	YES	20		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3510	YES	22		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)													
	8		71690-3511	YES	24		1.813	(46.05)	1.370	(34.80)	1.1578	(29.40)													
G	9		71690-3801	NO	18		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	TIN OVERALL												
	9		71690-3803	NO	20		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3804	NO	22		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3805	NO	24		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3807	NO	18		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	I5 GOLD												
	9		71690-3809	NO	20		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3810	NO	22		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3811	NO	24		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)													
F	9		71690-3901	YES	18		1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)	TIN OVERALL												
	9		71690-3903	YES	20		1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3904	YES	22		1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3905	YES	24		1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)													
E	9		71690-3907	YES	18		1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)	I5 GOLD												
	9		71690-3909	YES	20		1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3910	YES	22		1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)													
	9		71690-3911	YES	24	SOLID, FUSED STRANDED, STRANDED	1.978	(50.25)	1.535	(39.00)	1.3232	(33.60)													
D																									
C																									
B																									
A																									
I3		I2		I1		I0		9		8		7		6		5		4		3		2		1	

L	SEE SHEET I
H	SEE SHEET I
F	SEE SHEET I
E	SEE SHEET I
A	SEE SHEET I
4	SEE SHEET I
2	SEE SHEET I
1	SEE SHEET I

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

DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		TITLE	
INCH METRIC		MINI-FIT IDT SINGLE ROW PLUG ASSEMBLY	
5 PLACE ± .010 ---		SHEET NO. 5	
2 PLACE ± .014 ± 0.25		DATE 03/10/93	
1 PLACE --- ± 0.36		MOLEX INCORPORATED U.S.A.	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		PART NO. 115LEJLL 60532	
DRWG. BY RWB		DRWG. NO. SDA-71690-****	
CHKD. BY SAS		FILE NAME 571690X5	
APPR. BY		SCALE	
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.	
		DIV. TC	
		SIZE	



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

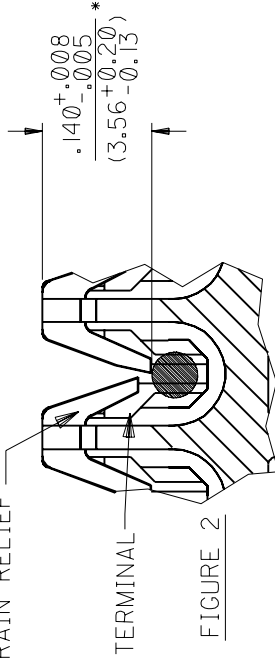


FIGURE 2

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

FILE NAME

T71690X1

▽ C = 0



▽ = 0

REVISE ONLY ON CAD SYSTEM

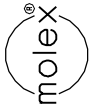
REV.

B

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SHT.

1 OF 5

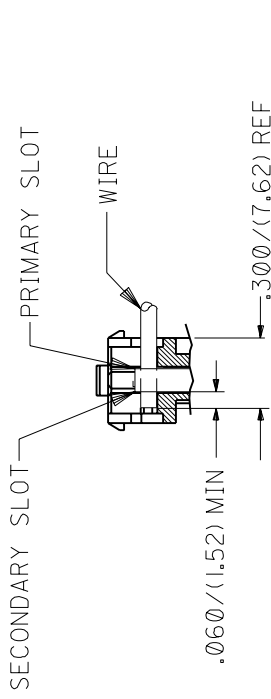


WIRE TERMINATION SPECIFICATION

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

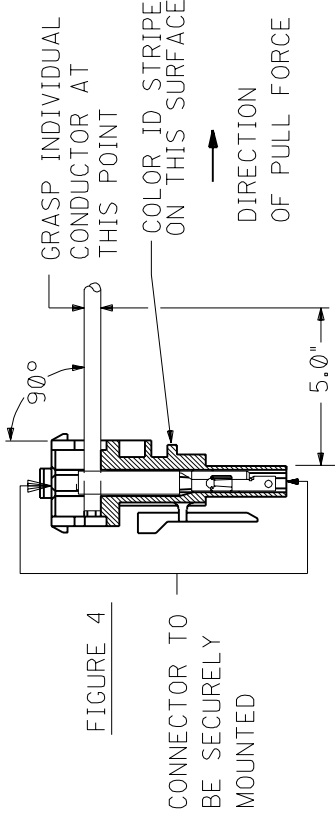


5.3 HORIZONTAL PULL OUT FORCE

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

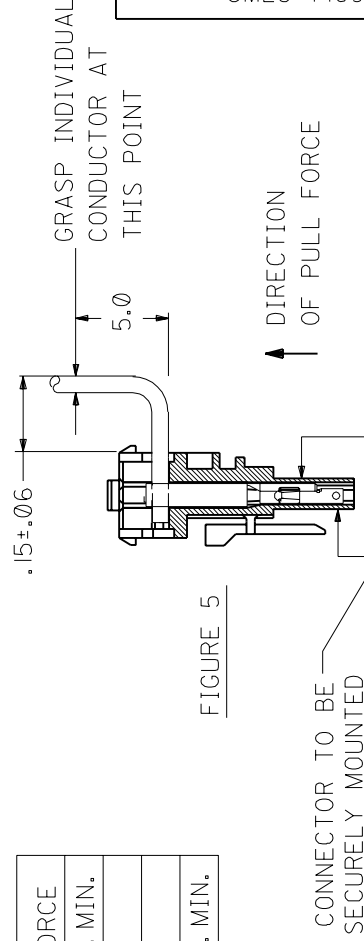


5.4 VERTICAL PULL OUT FORCE

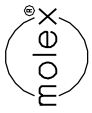
THE CONNECTOR MUST MAINTAIN THE FOLLOWING MIN. PULL OUT VALUES WHEN A FORCE IS APPLIED AT A RATE OF 1 INCH PER MINUTE TO THE CABLE IN A DIRECTION PARALLEL TO THE INSULATION DISPLACEMENT SECTION. AS SHOWN IN FIGURE 5. (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO 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.	FILE NAME	REVISION	REV.	SHT.
	T71690X2	0	A	2
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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).

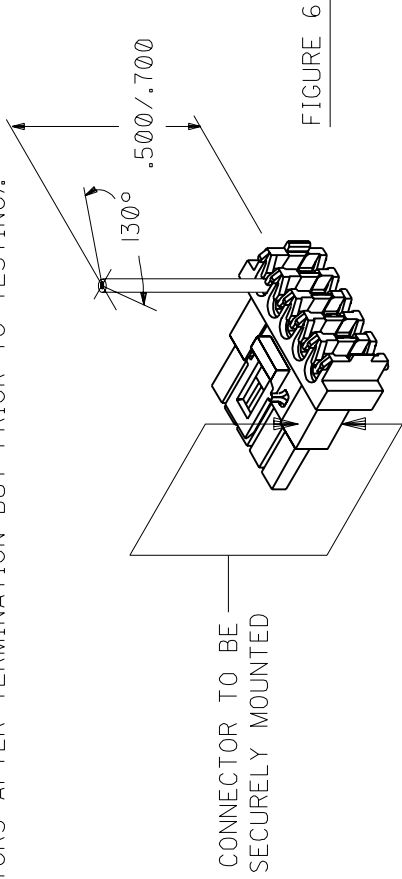


FIGURE 6

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

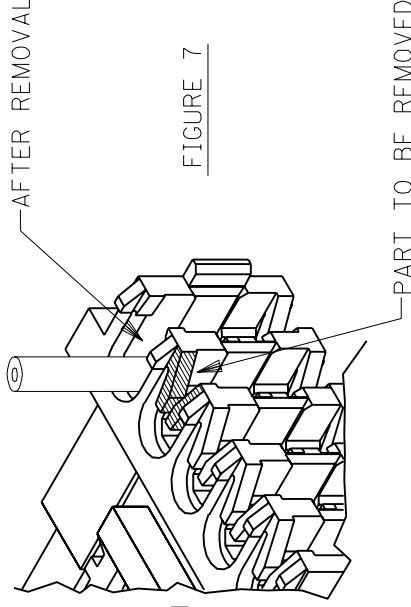


FIGURE 7

STEP 2 - REMOVAL OF TERMINAL

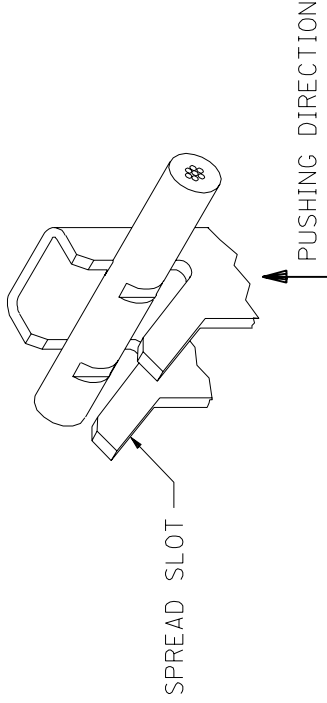
INSERT THE REMOVAL TOOL (#HT60630A) INTO THE FRONT OF OF THE CONNECTOR (AROUND THE TERMINAL) TO DEPRESS LOCK TANGS. PUSH THE TERMINAL/WIRE OUT THE BACK OF THE CONNECTOR.

REV.	REVISE ONLY ON CAD SYSTEM			REV.
SHT.				SHT.
FILE NAME T71690X3	∇ = 0	$\blacktriangle$ = 0		B
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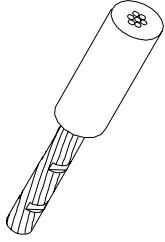


WIRE TERMINATION SPECIFICATION

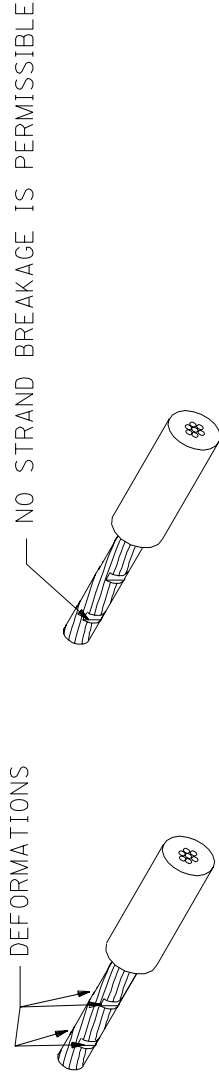
STEP 3 -CONDUCTOR REMOVAL
USING A SMALL PAIR OF PLIERS SPREAD THE I.D.T. SLOT
AND REMOVE CONDUCTOR BY PUSHING IN DIRECTION SHOWN



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



REV.

SHT.

FILE NAME
T71690X4

$\nabla = 0$ $\blacktriangle = 0$

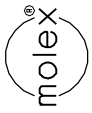
REVISE ONLY ON CAD SYSTEM

B

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MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.

SHT.

4



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

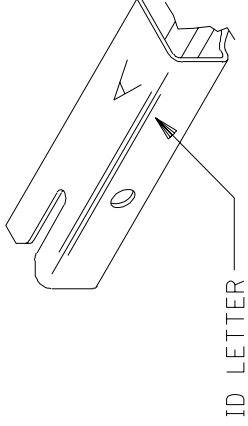


FIGURE 8

REV.
SHT.
FILE NAME T71690X5

REVISE ONLY ON CAD SYSTEM	REV.	B
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