

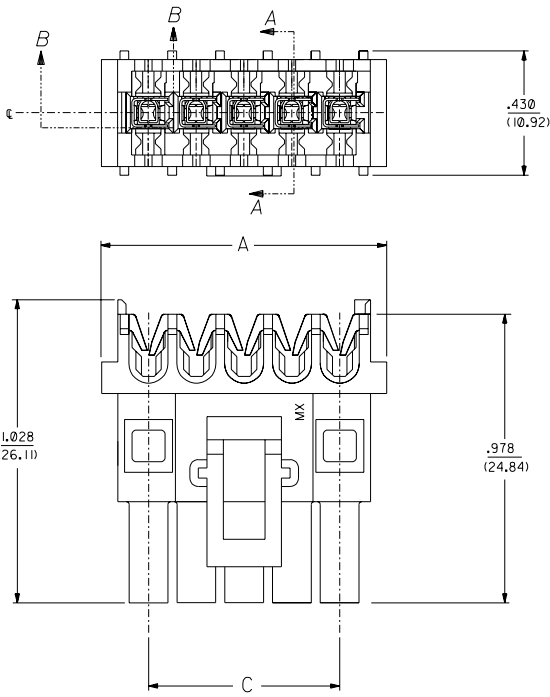
## Excellent Integrated System Limited

Stocking Distributor

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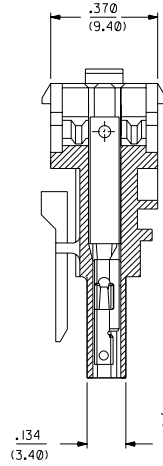
[Molex Connector Corporation](#)  
[71694-2201](#)

For any questions, you can email us directly:  
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

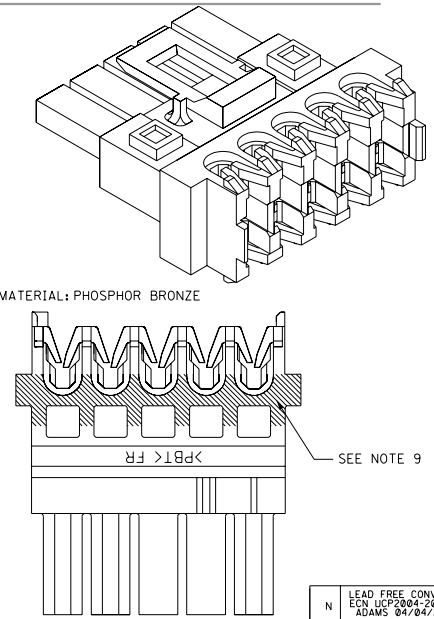


HOUSING MATERIAL: 94V-0 UNFILLED POLYESTER  
MATERIAL COLOR: WHITE

TERMINAL MATERIAL: PHOSPHOR BRONZE



SECTION A-A SECTION B-B



**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 - .00015/(0.0038) 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.

REV.	SH.	REV.	LTR.	REVISIONS
5	N			
4	N	FI		REVISED PER ECN U61366 05/01/96 TSE
3	N			
2	N	F		ADD WHITE MAT'L EAGLES ECN U61098 96/03/05 SWS
1	N			

DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		REVISE ONLY ON CAD SYSTEM	
± PLATE ± .010	---	TITLE: MINI-FIT IDT SINGLE ROW RECEPTACLE SALES ASSEMBLY	
± PLATE ± .014	± 0.25	MOLEX INCORPORATED SHEET NO. DATE	
± PLATE ---	± 0.36	1 OF 5 01/28/93	
DRAFT - WIRE SPECIFIABLE MUST REMAIN WITHIN DIMENSIONS		PART NO. DRG. NO.	
DRG. NO. RWB CHK'D. BY SAS		SEE CHART SDA-71694-****	
APP'D. BY SCALE 4:1		FILE NAME: 51694X1.DWG. THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. IT SHALL NOT BE USED WITHOUT WRITTEN PERMISSION. TFC	



Distributor of Molex Connector Corporation: Excellent Integrated System Limited

Datasheet of 71694-2201 - CONN RECEPT 11POS .165 AWG18 TIN

Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

CKT SIZE	STAT	ASSEMBLY ITEM NUMBER	WIRE AWG	WIRE DESCRIPTION	DIMENSION A		DIMENSION B		DIMENSION C		PLATING SEE NOTE 4
					INCH	(MM)	INCH	(MM)	INCH	(MM)	
7		71694-1801	18	SOLID, FUSED, STRANDED	1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	TIN OVERALL
7		71694-1803	20		1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	
7		71694-1804	22		1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	
7		71694-1805	24		1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	
7		71694-1807	18		1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	I5 GOLD
7		71694-1809	20		1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	
7		71694-1810	22		1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	
7		71694-1811	24		1.317	(33.45)	1.205	(30.60)	0.9924	(25.20)	
8		71694-1901	18		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	TIN OVERALL
8		71694-1903	20		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	
8		71694-1904	22		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	
8		71694-1905	24		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	
8		71694-1907	18		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	I5 GOLD
8		71694-1909	20		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	
8		71694-1910	22		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	
8		71694-1911	24		1.482	(37.65)	1.370	(34.80)	1.1578	(29.40)	
9		71694-2001	18		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	TIN OVERALL
9		71694-2003	20		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	
9		71694-2004	22		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	
9		71694-2005	24		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	
9		71694-2007	18		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	I5 GOLD
9		71694-2009	20		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	
9		71694-2010	22		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	
9		71694-2011	24		1.648	(41.85)	1.535	(39.00)	1.3232	(33.60)	
10		71694-2101	18		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	TIN OVERALL
10		71694-2103	20		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	
10		71694-2104	22		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	
10		71694-2105	24		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	
10		71694-2107	18		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	I5 GOLD
10		71694-2109	20		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	
10		71694-2110	22		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	
10		71694-2111	24		1.813	(46.05)	1.701	(43.20)	1.4886	(37.80)	
11		71694-2201	18		1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	TIN OVERALL
11		71694-2203	20		1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	
11		71694-2204	22		1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	
11		71694-2205	24		1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	
11		71694-2207	18		1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	I5 GOLD
11		71694-2209	20		1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	
11		71694-2210	22		1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	
11		71694-2211	24	SOLID, FUSED, STRANDED	1.978	(50.25)	1.866	(47.40)	1.6540	(42.00)	

N	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
I	SEE SHEET I

MFG. SH.		REV.	LTR.	REVISIONS
DIMENSIONS SHOWN (METRIC) INCH				
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE AS FOLLOWS				
3 PLACE ± .010	---	---	---	---
2 PLACE ± .014	± 0.25	---	---	---
1 PLACE ---	± 0.36	---	---	---
DRAFT WHEN APPLICABLE MUST REMAIN WITH DIMENSIONS				
DRG. BY: RWB	CHKD. BY: SAS	TITLE: MINI-FIT IDT SINGLE ROW RECEPTACLE SALES ASSEMBLY		
APP'D. BY:	SCALE: 1:1	REVISE ONLY ON CAD SYSTEM		
PART NO. 71694-2201		MOLEX INCORPORATED		SHEET NO. 3
SEE CHART		DATE 03/10/93		U.S.A.
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. TC				

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

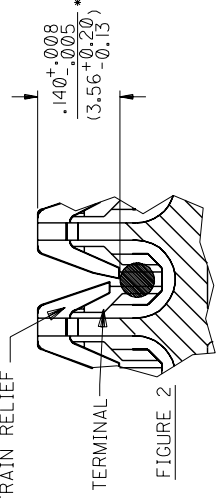
**5.0 TERMINATION REQUIREMENTS:**

**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



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

FILE NAME: T71690X1

▽ = 0

▶ = 0

REVISE ONLY ON CAD SYSTEM

REV.

SHT.

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DRWG. NO. SMES-71690-0000

DRWG. NO. SMES-71690-0000

REV. B

SHT. 1 OF 5



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## 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.

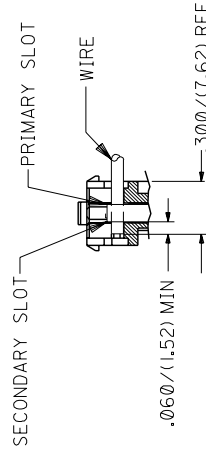


FIGURE 3

**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.

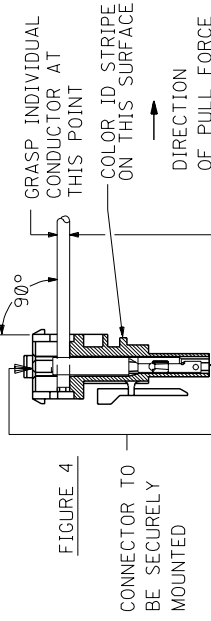


FIGURE 4

**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.

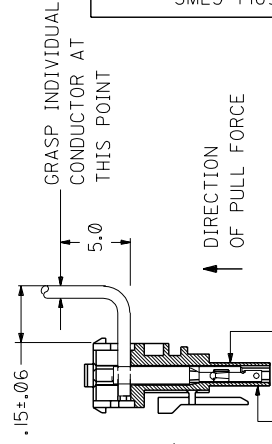


FIGURE 5

DRWG. NO. SMES-71690-0000

REV.  
SHT.

FILE NAME	REV.	SHT.
T71690X2	A	2

REVISIONS  
REVISION ONLY ON CAD SYSTEM

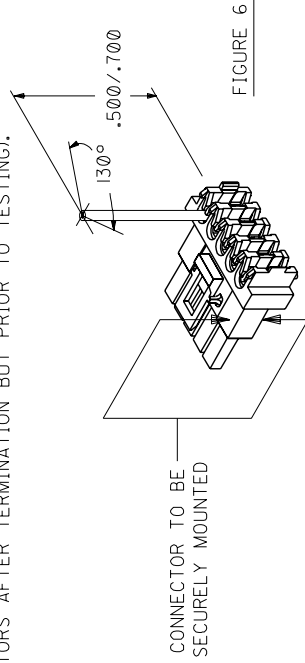
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WIRE TERMINATION SPECIFICATION

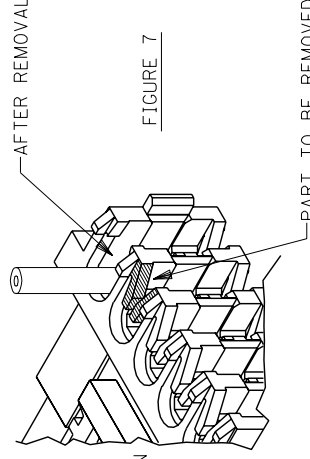
5.5 TORSIONAL RESISTANCE:  
CONNECTOR MUST WITHSTAND A MAXIMUM TWIST ON A TERMINATED CABLE OF 130° WITHOUT DISTURBING THE INSULATION DISPLACEMENT INTERFACE IN THE PRIMARY OR SECONDARY SLOTS (SEE FIGURE 3) (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO TESTING).



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

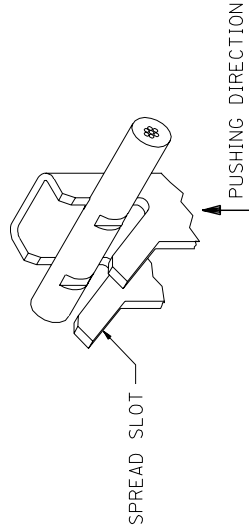
REV.					
SHT.					
FILE NAME	T71690X3	▽ = 0	▲ = 0	REVISE ONLY ON CAD SYSTEM	REV. B
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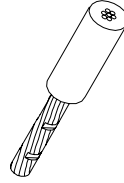
**molex**  
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WIRE TERMINATION SPECIFICATION

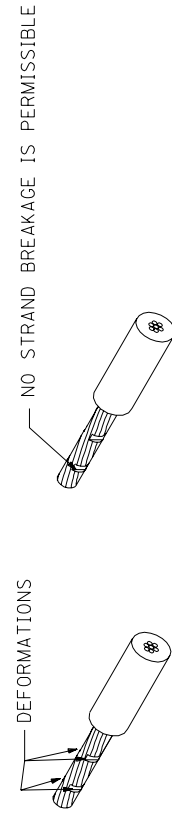
STEP 3 -CONDUCTOR REMOVAL  
 USING A SMALL PAIR OF PLIERS SPREAD THE I.D.T. SLOT  
 AND REMOVE CONDUCTOR BY PUSHING IN DIRECTION SHOWN



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

REV.  
 SHT.

FILE NAME  
 T71690X4

REV. B  
 SHT. 4

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LITSE, ILL. 60532 U.S.A.

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

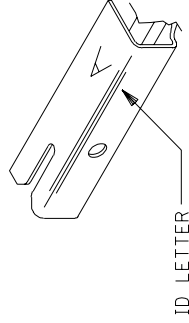


FIGURE 8

DRWG. NO. SMES-71690-0000

DRWG. NO. SMES-71690-0000

REV.  
SHT.  
T71690X5

REV.	SHT.	REVISE ONLY ON CAD SYSTEM
B	5	

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