

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0022280120](#)  
**Status:** **Active**  
**Description:** 2.54mm (.100") Pitch KK® Header, Breakaway, Vertical, with Friction Lock, 12 Circuits, Tin (Sn) Plating

**Documents:**

[3D Model](#) [Product Specification PS-10-07 \(PDF\)](#)  
[Packaging Specification \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Drawing \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

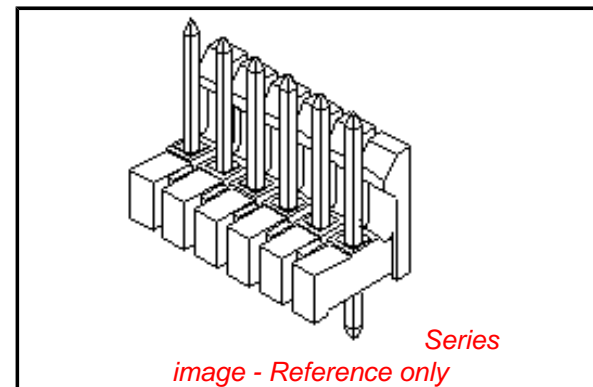
**General**

Product Family PCB Headers  
 Series [42227](#)  
 Application Wire-to-Board  
 Product Name KK®

**Physical**

Breakaway Yes  
 Circuits (Loaded) 12  
 Circuits (maximum) 12  
 Color - Resin Black  
 Durability (mating cycles max) 25  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Lock to Mating Part Yes  
 Material - Metal Brass  
 Material - Plating Mating Tin  
 Material - Plating Termination Tin  
 Material - Resin Nylon  
 Number of Rows 1  
 Orientation Vertical  
 PC Tail Length (in) 0.120 In  
 PC Tail Length (mm) 3.05 mm  
 PCB Locator No  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.60 mm  
 Packaging Type Bag  
 Pitch - Mating Interface (in) 0.100 In  
 Pitch - Mating Interface (mm) 2.54 mm  
 Plating min: Mating (µin) 100  
 Plating min: Mating (µm) 2.5  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.5  
 Polarized to Mating Part No  
 Polarized to PCB No  
 Shrouded No  
 Stackable No  
 Temperature Range - Operating 0°C to +75°C  
 Termination Interface: Style Through Hole

**Electrical**



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**Halogen-Free Status**

**Not Reviewed**

**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**China RoHS**



**Search Parts in this Series**

[42227Series](#)

**Mates With**

[2695](#) , [6471](#) , [7880](#) , [4455](#) , [7720](#)

Current - Maximum per Contact	4A
Voltage - Maximum	250V

**Solder Process Data**

Duration at Max. Process Temperature (seconds)	5
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	235

**Material Info**

Old Part Number	42227-0012
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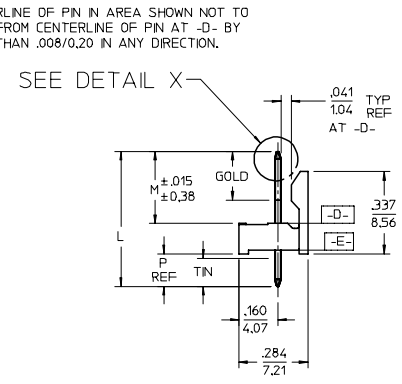
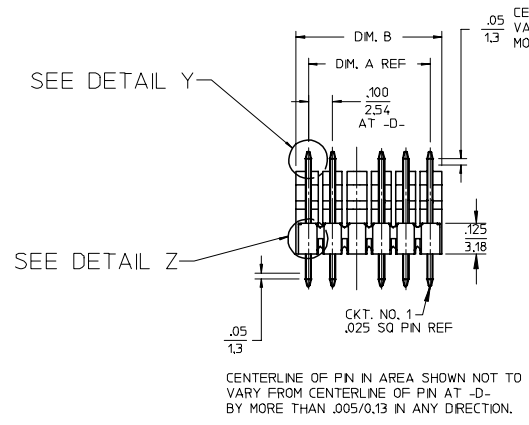
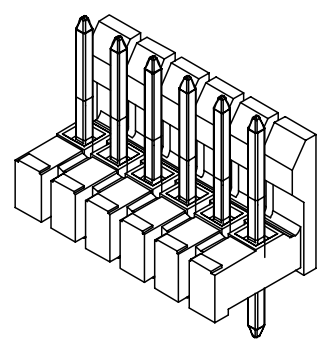
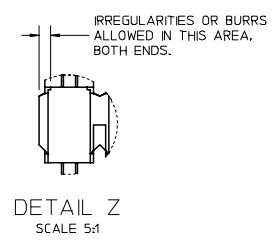
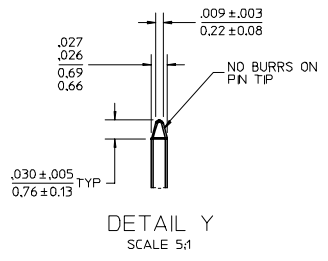
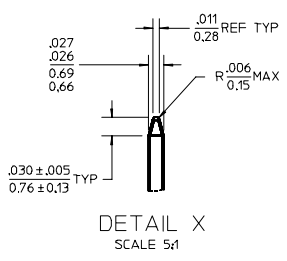
**Reference - Drawing Numbers**

Product Specification	PS-10-07
Sales Drawing	SD-42227-001

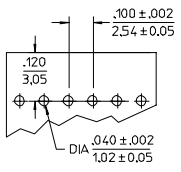
This document was generated on 03/22/2010

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CKT	DM A	DM B
2	.100/2.54	.200/5.08
3	.200/5.08	.300/7.62
4	.300/7.62	.400/10.16
5	.400/10.16	.500/12.70
6	.500/12.70	.600/15.24
7	.600/15.24	.700/17.78
8	.700/17.78	.800/20.32
9	.800/20.32	.900/22.86
10	.900/22.86	1.000/25.40
11	1.000/25.40	1.100/27.94
12	1.100/27.94	1.200/30.48
13	1.200/30.48	1.300/33.02
14	1.300/33.02	1.400/35.56
15	1.400/35.56	1.500/38.10
16	1.500/38.10	1.600/40.64
17	1.600/40.64	1.700/43.18
18	1.700/43.18	1.800/45.72
19	1.800/45.72	1.900/48.26
20	1.900/48.26	2.000/50.80
21	2.000/50.80	2.100/53.34
22	2.100/53.34	2.200/55.88
23	2.200/55.88	2.300/58.42
24	2.300/58.42	2.400/60.96
25	2.400/60.96	2.500/63.50
26	2.500/63.50	2.600/66.04
27	2.600/66.04	2.700/68.58
28	2.700/68.58	2.800/71.12
29	2.800/71.12	2.900/73.66
30	2.900/73.66	3.000/76.20
31	3.000/76.20	3.100/78.74
32	3.100/78.74	3.200/81.28
33	3.200/81.28	3.300/83.82
34	3.300/83.82	3.400/86.36
35	3.400/86.36	3.500/88.90
36	3.500/88.90	3.600/91.44



- NOTES:
- MATERIAL: GLASS FILLED NYLON, 94V-0, COLOR: BLACK
  - FINISH:
    - (154) \*OVERALL TIN: .000100/0.00254 MIN, OVER .000050/0.00127 MIN NICKEL.
    - (208) SELECT GOLD: .000015/0.00038 MIN, \*SELECT TIN: .000100/0.00254 MIN, OVERALL NICKEL UNDERPLATE: .000050/0.00127 MIN.
    - (228) SELECT GOLD: .000030/0.00076 MIN, \*SELECT TIN: .000100/0.00254 MIN, OVERALL NICKEL UNDERPLATE: .000050/0.00127 MIN.
  - \*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 TIN-LEAD PLATING
  - PRODUCT SPECIFICATION PS 10-07.
  - PACKAGING INFORMATION: SEE TABLES
  - KINK PIN SPECIFICATION: SEE SMES-42003
  - HEADERS ARE NOT STACKABLE ON .100/2.54 CENTERS.
  - SOLDERABILITY PER SMES-152.
  - PIN PUSH OUT FORCE: 3 LBS. MIN.



RECOMMENDED PC BOARD LAYOUT

<b>ADD DETAIL VIEWS</b> EC NO: UCP2005-0488 DRW: JLOWE 2005/08/04 CHKD: ADERR 2005/08/04 APPR: FSWJTH 2005/08/05 K3	<b>QUALITY SYMBOLS</b> ▽=0 ▽=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> IN/MM		SCALE 2:1	DESIGN UNITS INCH	
		4 PLACES ± --- ± ---	3 PLACES ± --- ± .010	DRAWN BY JSCHAFFER	DATE 2004/03/18	TITLE .100 FRICTION LOCK BREAKAWAY HEADER ASSY		
		2 PLACES ± 0.25 ± .014	1 PLACE ± 0.36 ± ---	CHECKED BY KSAMIEC	DATE 2004/03/18	MOLEX INCORPORATED		
		ANGULAR ±1/2°		APPROVED BY MARGULIS	DATE 2004/03/18	DOCUMENT NO. SD-42227-001		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART	SHEET NO. 1 OF 4		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

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A-42227-0002/0036					
HEADER NUMBER:	41411				
PIN NUMBER:	42663-AXA154				
PIN LENGTH: L	.540/13.72				
MATING LENGTH: M	.295/7.49				
GOLD POINT: G	N/A				
PC TAIL LENGTH: P	.120/3.05				
TIN: T	OVERALL				
CKTS:	2-36				
KINKS:	NO				
REMOVED BACKWALLS:	NO				
VOIDED CKTS:	NONE				
PACKAGING:	BULK 40873-0056				
CKTS	MATERIAL NUMBER	ENG NUMBER	CKTS	MATERIAL NUMBER	ENG NUMBER
02	22-28-0020	A-42227-0002	20	22-28-0200	A-42227-0020
03	22-28-0030	A-42227-0003	21	22-28-0210	A-42227-0021
04	22-28-0040	A-42227-0004	22	22-28-0220	A-42227-0022
05	22-28-0050	A-42227-0005	23	22-28-0230	A-42227-0023
06	22-28-0060	A-42227-0006	24	22-28-0240	A-42227-0024
07	22-28-0070	A-42227-0007	25	22-28-0250	A-42227-0025
08	22-28-0080	A-42227-0008	26	22-28-0260	A-42227-0026
09	22-28-0090	A-42227-0009	27	22-28-0270	A-42227-0027
10	22-28-0100	A-42227-0010	28	22-28-0280	A-42227-0028
11	22-28-0110	A-42227-0011	29	22-28-0290	A-42227-0029
12	22-28-0120	A-42227-0012	30	22-28-0300	A-42227-0030
13	22-28-0130	A-42227-0013	31	22-28-0310	A-42227-0031
14	22-28-0140	A-42227-0014	32	22-28-0320	A-42227-0032
15	22-28-0150	A-42227-0015	33	22-28-0330	A-42227-0033
16	22-28-0160	A-42227-0016	34	22-28-0340	A-42227-0034
17	22-28-0170	A-42227-0017	35	22-28-0350	A-42227-0035
18	22-28-0180	A-42227-0018	36	22-28-0360	A-42227-0036
19	22-28-0190	A-42227-0019			

A-42227-0037/0071					
HEADER NUMBER:	41411				
PIN NUMBER:	42663-AXB208				
PIN LENGTH: L	.540/13.72				
MATING LENGTH: M	.295/7.49				
GOLD POINT: G	.180/4.57				
PC TAIL LENGTH: P	.120/3.05				
TIN: T	.135/3.43				
CKTS:	2-36				
KINKS:	NO				
REMOVED BACKWALLS:	NO				
VOIDED CKTS:	NONE				
PACKAGING:	BULK 40873-0056				
CKTS	MATERIAL NUMBER	ENG NUMBER	CKTS	MATERIAL NUMBER	ENG NUMBER
02	22-28-0021	A-42227-0037	20	22-28-0201	A-42227-0055
03	22-28-0031	A-42227-0038	21	22-28-0211	A-42227-0056
04	22-28-0041	A-42227-0039	22	22-28-0221	A-42227-0057
05	22-28-0051	A-42227-0040	23	22-28-0231	A-42227-0058
06	22-28-0061	A-42227-0041	24	22-28-0241	A-42227-0059
07	22-28-0071	A-42227-0042	25	22-28-0251	A-42227-0060
08	22-28-0081	A-42227-0043	26	22-28-0261	A-42227-0061
09	22-28-0091	A-42227-0044	27	22-28-0271	A-42227-0062
10	22-28-0101	A-42227-0045	28	22-28-0281	A-42227-0063
11	22-28-0111	A-42227-0046	29	22-28-0291	A-42227-0064
12	22-28-0121	A-42227-0047	30	22-28-0301	A-42227-0065
13	22-28-0131	A-42227-0048	31	22-28-0311	A-42227-0066
14	22-28-0141	A-42227-0049	32	22-28-0321	A-42227-0067
15	22-28-0151	A-42227-0050	33	22-28-0331	A-42227-0068
16	22-28-0161	A-42227-0051	34	22-28-0341	A-42227-0069
17	22-28-0171	A-42227-0052	35	22-28-0351	A-42227-0070
18	22-28-0181	A-42227-0053	36	22-28-0361	A-42227-0071
19	22-28-0191	A-42227-0054			

REV: <b>K</b>	SEE SHEET 1	TITLE: <b>.100 FRICTION LOCK BREAKAWAY HEADER ASSY.</b>	SHEET No. <b>- 2 -</b>
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DOCUMENT NUMBER: <b>SD- 42227 -001</b>	CREATED / REVISED BY: <b>S. LINEHAN 03/04/2004</b>	CHECKED BY: <b>K.SAMIEC 03/04/2004</b>	APPROVED BY: <b>Y. MARGULIS 03/04/2004</b>
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A-42227-0072/0106					
HEADER NUMBER:		41411			
PIN NUMBER:		42663-AXB228			
PIN LENGTH: L		.540/13.72			
MATING LENGTH: M		.295/7.49			
GOLD POINT: G		.180/4.57			
PC TAIL LENGTH: P		.120/3.05			
TIN: T		.135/3.43			
CKTS:		2-36			
KINKS:		NO			
REMOVED BACKWALLS:		NO			
VOIDED CKTS:		NONE			
PACKAGING:		BULK 40873-0056			
CKTS	MATERIAL NUMBER	ENG NUMBER	CKTS	MATERIAL NUMBER	ENG NUMBER
02	22-28-0022	A-42227-0072	20	22-28-0202	A-42227-0090
03	22-28-0032	A-42227-0073	21	22-28-0212	A-42227-0091
04	22-28-0042	A-42227-0074	22	22-28-0222	A-42227-0092
05	22-28-0052	A-42227-0075	23	22-28-0232	A-42227-0093
06	22-28-0062	A-42227-0076	24	22-28-0242	A-42227-0094
07	22-28-0072	A-42227-0077	25	22-28-0252	A-42227-0095
08	22-28-0082	A-42227-0078	26	22-28-0262	A-42227-0096
09	22-28-0092	A-42227-0079	27	22-28-0272	A-42227-0097
10	22-28-0102	A-42227-0080	28	22-28-0282	A-42227-0098
11	22-28-0112	A-42227-0081	29	22-28-0292	A-42227-0099
12	22-28-0122	A-42227-0082	30	22-28-0302	A-42227-0100
13	22-28-0132	A-42227-0083	31	22-28-0312	A-42227-0101
14	22-28-0142	A-42227-0084	32	22-28-0322	A-42227-0102
15	22-28-0152	A-42227-0085	33	22-28-0332	A-42227-0103
16	22-28-0162	A-42227-0086	34	22-28-0342	A-42227-0104
17	22-28-0172	A-42227-0087	35	22-28-0352	A-42227-0105
18	22-28-0182	A-42227-0088	36	22-28-0362	A-42227-0106
19	22-28-0192	A-42227-0089			

A-42227-0107/0141					
HEADER NUMBER:		41411			
PIN NUMBER:		42663-BAA154			
PIN LENGTH: L		.555/14.10			
MATING LENGTH: M		.295/7.49			
GOLD POINT: G		N/A			
PC TAIL LENGTH: P		.135/3.43			
TIN: T		OVERALL			
CKTS:		2-36			
KINKS:		YES			
REMOVED BACKWALLS:		NO			
VOIDED CKTS:		NONE			
PACKAGING:		BULK 40873-0056			
CKTS	MATERIAL NUMBER	ENG NUMBER	CKTS	MATERIAL NUMBER	ENG NUMBER
02	22-28-0023	A-42227-0107	20	22-28-0203	A-42227-0125
03	22-28-0033	A-42227-0108	21	22-28-0213	A-42227-0126
04	22-28-0043	A-42227-0109	22	22-28-0223	A-42227-0127
05	22-28-0053	A-42227-0110	23	22-28-0233	A-42227-0128
06	22-28-0063	A-42227-0111	24	22-28-0243	A-42227-0129
07	22-28-0073	A-42227-0112	25	22-28-0253	A-42227-0130
08	22-28-0083	A-42227-0113	26	22-28-0263	A-42227-0131
09	22-28-0093	A-42227-0114	27	22-28-0273	A-42227-0132
10	22-28-0103	A-42227-0115	28	22-28-0283	A-42227-0133
11	22-28-0113	A-42227-0116	29	22-28-0293	A-42227-0134
12	22-28-0123	A-42227-0117	30	22-28-0303	A-42227-0135
13	22-28-0133	A-42227-0118	31	22-28-0313	A-42227-0136
14	22-28-0143	A-42227-0119	32	22-28-0323	A-42227-0137
15	22-28-0153	A-42227-0120	33	22-28-0333	A-42227-0138
16	22-28-0163	A-42227-0121	34	22-28-0343	A-42227-0139
17	22-28-0173	A-42227-0122	35	22-28-0353	A-42227-0140
18	22-28-0183	A-42227-0123	36	22-28-0363	A-42227-0141
19	22-28-0193	A-42227-0124			

REV:	<b>K</b>	SEE SHEET 1	TITLE:	<b>.100 FRICTION LOCK BREAKAWAY HEADER ASSY.</b>	SHEET No.	<b>- 3 -</b>
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DOCUMENT NUMBER:	<b>SD- 42227 -001</b>	CREATED / REVISED BY:	<b>S. LINEHAN 03/04/2004</b>	CHECKED BY:	<b>K.SAMIEC 03/04/2004</b>	APPROVED BY:	<b>Y. MARGULIS 03/04/2004</b>
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A-42227-0142/0176					
HEADER NUMBER:		41411			
PIN NUMBER:		42663-BAB208			
PIN LENGTH: L		.555/14.10			
MATING LENGTH: M		.295/7.49			
GOLD POINT: G		.180/4.57			
PC TAIL LENGTH: P		.135/3.43			
TIN: T		.135/3.43			
CKTS:		2-36			
KINKS:		YES			
REMOVED BACKWALLS:		NO			
VOIDED CKTS:		NONE			
PACKAGING:		BULK 40873-0056			
CKTS	MATERIAL NUMBER	ENG NUMBER	CKTS	MATERIAL NUMBER	ENG NUMBER
02	22-28-0024	A-42227-0142	20	22-28-0204	A-42227-0160
03	22-28-0034	A-42227-0143	21	22-28-0214	A-42227-0161
04	22-28-0044	A-42227-0144	22	22-28-0224	A-42227-0162
05	22-28-0054	A-42227-0145	23	22-28-0234	A-42227-0163
06	22-28-0064	A-42227-0146	24	22-28-0244	A-42227-0164
07	22-28-0074	A-42227-0147	25	22-28-0254	A-42227-0165
08	22-28-0084	A-42227-0148	26	22-28-0264	A-42227-0166
09	22-28-0094	A-42227-0149	27	22-28-0274	A-42227-0167
10	22-28-0104	A-42227-0150	28	22-28-0284	A-42227-0168
11	22-28-0114	A-42227-0151	29	22-28-0294	A-42227-0169
12	22-28-0124	A-42227-0152	30	22-28-0304	A-42227-0170
13	22-28-0134	A-42227-0153	31	22-28-0314	A-42227-0171
14	22-28-0144	A-42227-0154	32	22-28-0324	A-42227-0172
15	22-28-0154	A-42227-0155	33	22-28-0334	A-42227-0173
16	22-28-0164	A-42227-0156	34	22-28-0344	A-42227-0174
17	22-28-0174	A-42227-0157	35	22-28-0354	A-42227-0175
18	22-28-0184	A-42227-0158	36	22-28-0364	A-42227-0176
19	22-28-0194	A-42227-0159			

A-42227-0177/0211					
HEADER NUMBER:		41411			
PIN NUMBER:		42663-BAB228			
PIN LENGTH: L		.555/14.10			
MATING LENGTH: M		.295/7.49			
GOLD POINT: G		.180/4.57			
PC TAIL LENGTH: P		.135/3.43			
TIN: T		.135/3.43			
CKTS:		2-36			
KINKS:		YES			
REMOVED BACKWALLS:		NO			
VOIDED CKTS:		NONE			
PACKAGING:		BULK 40873-0056			
CKTS	MATERIAL NUMBER	ENG NUMBER	CKTS	MATERIAL NUMBER	ENG NUMBER
02	22-28-0025	A-42227-0177	20	22-28-0205	A-42227-0195
03	22-28-0035	A-42227-0178	21	22-28-0215	A-42227-0196
04	22-28-0045	A-42227-0179	22	22-28-0225	A-42227-0197
05	22-28-0055	A-42227-0180	23	22-28-0235	A-42227-0198
06	22-28-0065	A-42227-0181	24	22-28-0245	A-42227-0199
07	22-28-0075	A-42227-0182	25	22-28-0255	A-42227-0200
08	22-28-0085	A-42227-0183	26	22-28-0265	A-42227-0201
09	22-28-0095	A-42227-0184	27	22-28-0275	A-42227-0202
10	22-28-0105	A-42227-0185	28	22-28-0285	A-42227-0203
11	22-28-0115	A-42227-0186	29	22-28-0295	A-42227-0204
12	22-28-0125	A-42227-0187	30	22-28-0305	A-42227-0205
13	22-28-0135	A-42227-0188	31	22-28-0315	A-42227-0206
14	22-28-0145	A-42227-0189	32	22-28-0325	A-42227-0207
15	22-28-0155	A-42227-0190	33	22-28-0335	A-42227-0208
16	22-28-0165	A-42227-0191	34	22-28-0345	A-42227-0209
17	22-28-0175	A-42227-0192	35	22-28-0355	A-42227-0210
18	22-28-0185	A-42227-0193	36	22-28-0365	A-42227-0211
19	22-28-0195	A-42227-0194			

REV: <b>K</b>	SEE SHEET 1	TITLE: <b>.100 FRICTION LOCK BREAKAWAY HEADER ASSY.</b>	SHEET No. <b>- 4 -</b>
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DOCUMENT NUMBER: <b>SD- 42227 -001</b>	CREATED / REVISED BY: <b>S. LINEHAN 03/04/2004</b>	CHECKED BY: <b>K.SAMIEC 03/04/2004</b>	APPROVED BY: <b>Y. MARGULIS 03/04/2004</b>
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