

SURE-SEAL[®] connectors are an expanding series of low cost, UL (E8572A) and CSA (LR23182-3) recognized, environmental connectors.

One-Piece Molded Bodies

The Sure-Seal connector incorporates a very simple one-piece molded body. No other parts — other than contacts — are needed to assemble a complete connector.

Polarized Against Mismates

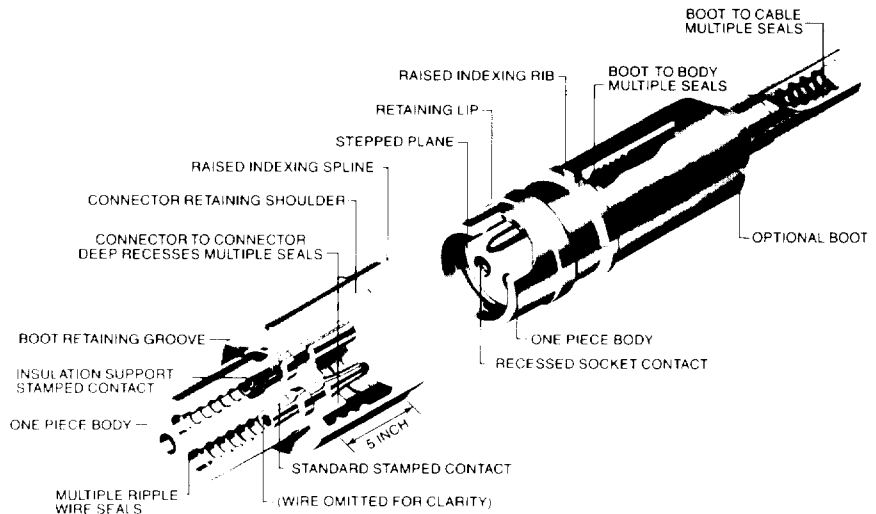
Sure-Seal Connector mating faces are constructed with two stepped planes; the plug and receptacle must be properly oriented in order for the contacts to engage. For "blind" mating a raised indexing rib and matching raised indexing spline has been added to the plug and receptacle.

Wide Wire Gage and Cable Accommodations

Ideally suited to be terminated on SAE-J1128 wires of size 14, 16 and 18 AWG, wire sizes with insulation in the range of .100 (2.54) to .147 (3.73) inches, termination to multi-conductor jacketed cables in the range of .208 (5.28) to .380 (9.65) inches diameter, and can be terminated to three different wire ranges with total environmental sealing still assured.

SURE-SEAL[®] Connectors are also tailored to fit into such areas as automotive, industrial, marine, recreation, household appliance, solar energy and agriculture applications.

The one-piece molded body and rugged multiple moisture seals make the SURE-SEAL[®] connector a natural for applications where outside contaminants must be excluded.



Water Submersible

Not just splash proof, but truly submersible for short periods of time. The Sure-Seal connector has been successfully tested in up to three feet of 5% water saline solution. **Note: Although Sure-Seal can withstand submersion, it is not designed to be used as an underwater connector.**

Resistant to Harsh Commercial/Industrial Environments

Sure-Seal connectors are designed to meet temperatures from -40°C to +105°C under conditions of high humidity severe vibration, ice and mud. Sealing integrity is still maintained with exposure to brake fluid, gasoline, diesel fuel, anti-freeze, ultraviolet, ozone, steam cleaning under normal operating conditions.

Low Installed Cost

ITT Cannon's Sure-Seal connectors are designed to be terminated by the O.E.M. The O.E.M. being the termination facility gives complete in-house capability! The total installed cost is what counts.

Low Cost Stamped Contacts

Without sacrificing quality, the cost of Sure-Seal connectors is kept low by using stamped contacts available on reels in a continuous strip for use on the industry accepted ABT-500 or ABT-607 semi automatic crimp press. All contacts utilize a "B" type crimp.

Field Serviceable

When necessary, Sure-Seal connectors can be changed, modified or re-wired in the field.

Performance and Material Specifications

ELECTRICAL DATA

Contact Resistance	10 Milliohms maximum
Current Rating*	Sure-Seal test currents range from 85 amps in Power Sure-Seal to 15 amps in Sure-Seal, down to 8 amps in Mini-Sure-Seal; 85°C
Insulation Resistance	100 Megohms minimum
Dielectric Withstanding Voltage	1,200 VAC at sea level
Wire Range	14 AWG to 18 AWG Sure Seal — 18 AWG & 20 AWG Mini-Sure-Seal
Wire Insulation Sealing Range	.100 (2.54) minimum; .147 (3.73) maximum Sure-Seal .055 (1.40) minimum; .071 (1.80) maximum Mini-Sure-Seal

ACCESSORIES

Protective Seal Boot	Seals cabled wire jackets to connector housing
Connector Clamp	Clamps plug and receptacle in mated condition
Connector Grommet	Provides for panel mounting of either plug or receptacle
Flanged Versions	Provides for bulkhead mounting with four screws

*For total current carrying capacity of connectors with multiple wires in bundles, refer to derating curves in CS-155.

MATERIALS AND FINISHES

Plug	Elastomeric material
Receptacle	Elastomeric material
Contacts	Copper alloy, tin-lead plate, standard Silver plate, optional Gold plate, optional
Socket Contact Sleeves	Stainless steel, passivated

MECHANICAL

Crimp Contacts	Semi-automatic or hand crimpable
Contact Positions	1 thru 10 inclusive
Polarization	Stepped plane positive polarization and visual polarization
Contact Retention	7.5 lbs. minimum
Contact Insertion	From rear with single hand tool, or simultaneous insertion of multiple crimped contacts with semi-automatic insertion machine

How to Order

Component Part Numbers

Insert Arrangement	Plug Housing	Receptacle Housing	Boot	Clip/Clamp	Color	Grommet
SS1*	120-1832-000	120-1833-000	N/A	026-0452-000	Black	N/A
SS1*4	120-1905-000	120-1903-000	N/A	026-0450-000	Natural	N/A
SS1*8	120-1906-000	120-1904-000	N/A	026-0450-000	Natural	N/A
SS2*	120-1807-000	120-1804-000	317-1398-000	029-0263-000	Red	351-1640-000
SSF2P	120-8552-200**	N/A	317-1398-000	N/A	Black	N/A
MSS2*	120-8552-100	120-8551-100	N/A	N/A	N/A	N/A
SS3*	120-1808-000	120-1805-000	317-1397-000	029-0262-000	Yellow	351-1641-000
SSF3P	120-8552-201**	120-1805-000	317-1397-000/ 317-1399-000	N/A	Black	N/A
MSS3*	120-8552-101	120-8551-101	N/A	N/A	N/A	N/A
SS4*	120-1809-000	120-1806-000	317-1399-000/ 317-1397-000	029-0262-000	Yellow	351-1641-000
SSF4P	120-8662-202**	120-1806-000	317-1399-000/ 317-1397-000	N/A	Black	N/A
MSS4*	120-8552-102	120-8551-102	N/A	N/A	N/A	N/A
SS5*	120-1841-000	120-1839-000	317-8657-000			
SS6*	120-1842-000	120-1840-000	317-8657-000	026-0450-000	Natural	351-1633-000
SS7*	120-1873-000	120-1874-000	317-8657-000			
SS8*	120-1865-000	120-1866-000	N/A	026-0451-000	Black	351-1634-000
SSF8P	120-8552-305***	120-1866-000		N/A	Black	N/A
SS9*	120-1867-000	120-1868-000	N/A	026-0451-000	Black	351-1634-000
SSF9P	120-8552-306***	120-1868-000		N/A	Black	N/A
SS10*	120-1869-000	120-1870-000	N/A	026-0451-000	Black	351-1634-000
SSF10P	120-8552-307***	120-1870-000		N/A	Black	N/A

*Add R for Receptacle, P for Plug.
 **Order metal mounting flange, 066-8516-000.
 ***Order metal mounting flange, 066-8516-002.

Contacts: See applicable section for various options.

Ordering Example:

120-1804-000	Receptacle body	1 ea.
317-1398-000	Boot	1 ea. (optional)
030-2196-000	Contact, Pin	1 ea.
031-1267-000	Contact, Socket	1 ea.

Contact Part Numbers (See page 152 for SS, 154 for MSS)

		Pin	Socket
Non-Insulation Support Sure-Seal	Individual*	030-2196-000	031-1267-000
	Reels of 5000	110238-0040	110238-0085
Insulation Support Sure-Seal	Individual*	030-2196-001	031-1267-001
	Reels of 5000	110238-0195	110238-0194
Mini Sure-Seal	Individual*	330-8672-100	031-8703-100
	Reels of 5000	MSS 121348-100	MSS 121347-100

*Loose piece available from distribution only.

Note: High temperature versions of molded bodies to meet temperatures up to 150°C with stamped contacts having selective silver or gold plate are available. Please contact the factory or your local Cannon sales office or distributors for ordering nomenclature.

Test Criteria

Sealing Capability	3 foot depth immersion in 5% salt solution, room ambient
Weather, Ozone and Ultraviolet Resistance	In accordance with ASTM D-1149 (100 pphm) and ASTM D-1171 (outdoor exposure)
Industrial Gas	Equivalent to MIL-C-23216, para. 4.6.13.
Durability	50 cycles mating and unmating
Salt Spray	In accordance with MIL-STD-202D, Method 101D
Humidity	95% at 203°F (95°C) 1000 hours
Dry Heat	221°F (105°C) for 1000 hours
Vibration	10 to 55 Hz, .06" DA, 1 hour, Y (radial) and Z (longitudinal) axes
Shock	50g, 11ms, 30 cycles, Y (radial) and Z (longitudinal) axes

Test Data

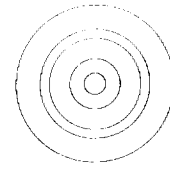
Typical: Power Sure-Seal, Flange Sure-Seal, and Mini Sure-Seal are essentially the same except for mechanical and amperage capacity differences. Sure-Seal products are designed to meet ITT Cannon specification CS155. Items of most general interest to users and designers are listed below. With its current capability and larger size, Power Sure-Seal contacts and currents are covered in CS-169.

Test Description	Reference Paragraph	Requirements																																				
Environmental Sealing	3.5.1	Sure-Seal connectors when mated shall form an environmental seal against water, moisture, aqueous solutions, oils and certain chemicals as well as dust and dirt. Tests include immersion in 3 feet depth in water solution containing 5% salt.																																				
Contact Tensile Strength - Crimp	3.6.12	The minimum tensile load required to separate the wire from the contact, either by pulling the wire out of the crimp joint or breaking the wire within the crimp joint, shall not be less than the applicable limits as specified. Wire breakage, or contact damage not due to crimping, at less than tensile loads shall not constitute a failure. Crimp Tensile Strength, Pounds Minimum																																				
		<table border="1"> <thead> <tr> <th>Wire Size AWG</th> <th>Without Insulation Support Contacts</th> <th>With Insulation Support Contacts</th> <th>Wire Size AWG</th> <th>Without Insulation Support Contacts</th> <th>With Insulation Support Contacts</th> <th>Wire Size AWG</th> <th>Without Insulation Support Contacts</th> <th>With Insulation Support Contacts</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>140</td> <td>—</td> <td>10</td> <td>80</td> <td>—</td> <td>18</td> <td>25</td> <td>25</td> </tr> <tr> <td>6</td> <td>100</td> <td>—</td> <td>14</td> <td>35</td> <td>35</td> <td>20</td> <td>—</td> <td>20</td> </tr> <tr> <td>8</td> <td>90</td> <td>—</td> <td>16</td> <td>35</td> <td>35</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Wire Size AWG	Without Insulation Support Contacts	With Insulation Support Contacts	Wire Size AWG	Without Insulation Support Contacts	With Insulation Support Contacts	Wire Size AWG	Without Insulation Support Contacts	With Insulation Support Contacts	4	140	—	10	80	—	18	25	25	6	100	—	14	35	35	20	—	20	8	90	—	16	35	35			
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6	100	—	14	35	35	20	—	20																														
8	90	—	16	35	35																																	
Insulation Resistance	4.4.1	Properly assembled and mated connectors shall be tested in accordance with MIL-STD-202, Method 302, except a potential of 500 ± 15 volt DC shall be used. The resistance shall be measured between adjacent pairs of contacts (or contacts to ground for SS-1) and shall not be less than 100 megohms. If the specimen has been immersed in fluid in the preceding test, it shall be placed wet on a conducting surface and insulation resistance measured within 5 minutes between each contact and also between each contact and the conducting surface (except for SS-1 to be measured contact to ground while immersed).																																				
Dielectric Withstanding Voltage	4.4.2	Assembled and mated connectors shall show no evidence of breakdown between adjacent contacts (or contact to ground for SS-1) when tested in accordance with MIL-STD-202, Method 301, and a test voltage of 1200 ± 15 volts A.C.																																				
Contact Resistance	4.4.3	The contact resistance of mated contacts shall be such that the resistance measured across the contacts and 5/8" behind the crimp junction shall not exceed 10 milliohms. Test current to be 1 amp, and MIL-STD-202, Method 307.																																				
Shock	4.4.4	Mated connectors properly mounted shall be subjected to the shock test in accordance with MIL-STD-202, Method 213B, CONDITION B. The shock test shall be repeated three (3) times in each of X, Y & Z axis. Suitable means shall be employed to monitor the current flow. Current discontinuity of 1 microsecond or more, disengagement of the mated connectors, evidence of cracking, breaking or loosening of parts shall be cause for rejection.																																				
Vibration	4.4.5	Properly assembled and mated connectors shall be mounted to the vibration table, with the wire leads strapped to a vibrating member approximately 3 inches from each end of the connector body and vibrated with a peak-to-peak amplitude of .25 inch across a frequency range of 5 to 39Hz, and a ± 20g acceleration across 39 to 55Hz, swept up in one minute and down in another minute. The vibration shall be swept up and down for a total of 36 hours under the following conditions: Six (6) hours at 180°F (82°C) along the longitudinal axis Six (6) hours at 180°F (82°C) along a perpendicular axis Six (6) hours at room temperature along the longitudinal axis Six (6) hours at room temperature along a perpendicular axis Six (6) hours at -40°F (-40°C) along the longitudinal axis Six (6) hours at -40°F (-40°C) along a perpendicular axis The connectors shall be connected in a series circuit with a minimum of 0.1 ampere flowing through the contacts. Electrical continuity shall be continually monitored. Breaks in continuity longer than one microsecond shall be cause for rejection.																																				
Durability	4.4.6	The connectors shall be subjected to 25 cycles of mating and unmating at 10°C and another 25 cycles at 50°C. There shall be no evidence of damage to the contacts, the contact plating, the insulators or sealing rings, which would be detrimental to connector function.																																				
Contact Retention	4.4.7	With the connector plug or receptacle held firmly, an axial dead weight of 7.5 lbs. shall be imposed on each wire for one minute without the contacts being dislodged from the connector. Plugs and receptacles to be tested separately.																																				
Maintenance Aging	4.4.8	Each wired receptacle and plug shall be subjected to 5 cycles of contact insertion and extraction in the same cavity using the approved tools. Plug and receptacle are to be tested separately. After the 5 cycles of insertion and extraction, each plug and receptacle in turn will be subjected to the contact retention test of 6 lbs. per paragraph 4.4.7.																																				
Connector Separating Force	4.4.11	Using an assembled and mated connector with the receptacle held firmly by the wires, a load shall be applied to the wires of the plug until the connector is completely separated. The rate of loading shall be one inch per minute. The sample shall fall within the limits specified as follows:																																				
		<table border="1"> <thead> <tr> <th rowspan="2">Connector Size</th> <th colspan="2">Unmating Forces (lbs.)</th> <th rowspan="2">Connector Size</th> <th colspan="2">Unmating Forces (lbs.)</th> </tr> <tr> <th>Max.</th> <th>Min.</th> <th>Max.</th> <th>Min.</th> </tr> </thead> <tbody> <tr> <td>SS-1</td> <td>12</td> <td>6</td> <td>SS-4</td> <td>20</td> <td>9</td> </tr> <tr> <td>SS-2</td> <td>15</td> <td>6</td> <td>SS-5/7</td> <td>30</td> <td>10</td> </tr> <tr> <td>SS-3</td> <td>18</td> <td>8</td> <td>SS-8/10</td> <td>55</td> <td>10</td> </tr> </tbody> </table>	Connector Size	Unmating Forces (lbs.)		Connector Size	Unmating Forces (lbs.)		Max.	Min.	Max.	Min.	SS-1	12	6	SS-4	20	9	SS-2	15	6	SS-5/7	30	10	SS-3	18	8	SS-8/10	55	10								
Connector Size	Unmating Forces (lbs.)			Connector Size	Unmating Forces (lbs.)																																	
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SS-2	15	6	SS-5/7	30	10																																	
SS-3	18	8	SS-8/10	55	10																																	
Solvent Resistance		Wired and mated connectors shall be subjected to the applicable fluids for the length of time specified. Following the test the connectors shall be immersed to a depth of 3 feet in salt water for 24 hours at room temperature. At the completion of the salt water immersion test and while still immersed insulation resistance shall be measured. Failure to meet the insulation resistance requirements shall be cause for rejection.																																				
	4.4.13	Gasoline Splash 1 second dip — 3 minute air dry for 80 cycles at room ambient temperature.																																				
	4.4.14	Diesel Fuel Splash 1 second dip — 3 minute air dry for 80 cycles at room ambient temperature.																																				
	4.4.15	Automotive Lubricating Oil Immersed in S.A.E. 30 weight lubricating oil for 1 hour.																																				
	4.4.16	Antifreeze Immersed at 120°F (49°C) for 48 hours.																																				
	4.4.17	Brake Fluid Immersed at room ambient temperature for 24 hours.																																				
	4.4.18	Automatic Transmission Fluid Immersed at 120°F (49°C) for 48 hours.																																				
	4.4.19	Gasoline Vapor Immersed in a gasoline vapor atmosphere at room temperature for 48 hours.																																				
Weather and Ozone Resistance	4.4.20	Wired and properly mated connectors shall be subjected to ozone test per ASTM D-1149 except that 100 ppm of ozone shall be used. The duration of the test shall be 7 days. Outdoor exposure to be conducted per ASTM D-1171. The connector shall show no cracking or other degradation which would result in loss of sealing integrity.																																				
High Temperature Long-Term	4.4.23	Wired mated connectors shall be tested in accordance with MIL-STD-202 Method 108A, Test Condition D at 105°C for 1000 hours. Following the test, they shall be subjected to 3 feet salt water immersion for 24 hours. While immersed, insulation resistance shall be determined. Failure to meet the insulation resistance requirement shall be cause for rejection.																																				

CAUTION: "Sure-Seal connectors are rated for use between temperatures of -40 to +105 degrees Celsius. However, if a Sure-Seal connector is exposed for long periods of time to temperatures exceeding 85 degrees Celsius and is unmated, it may lose its environmental sealing integrity upon remating. Thus, we recommend that both the plug and receptacle be replaced if environmental sealing is required after remating."

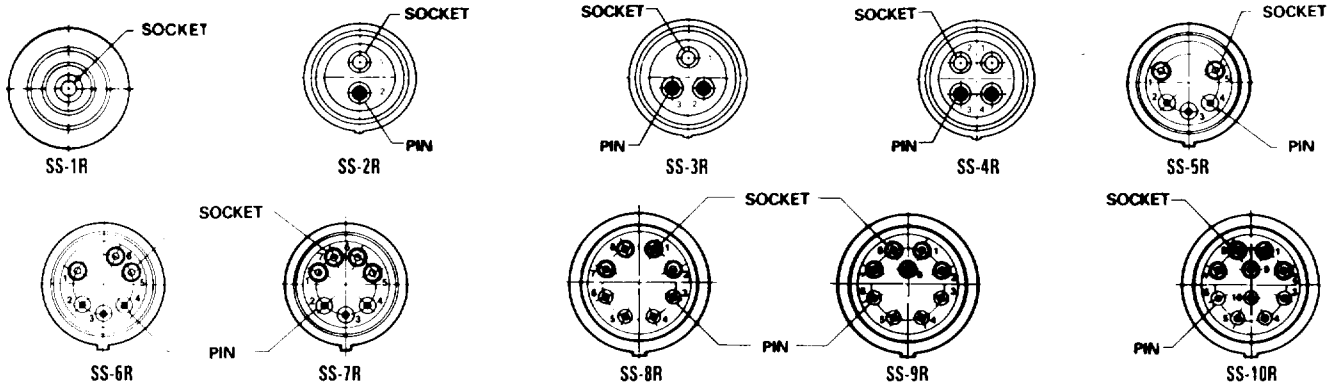
Contact Arrangements

Power Sure-Seal
Viewed from plug, engaging end.
(Drawing not to scale)

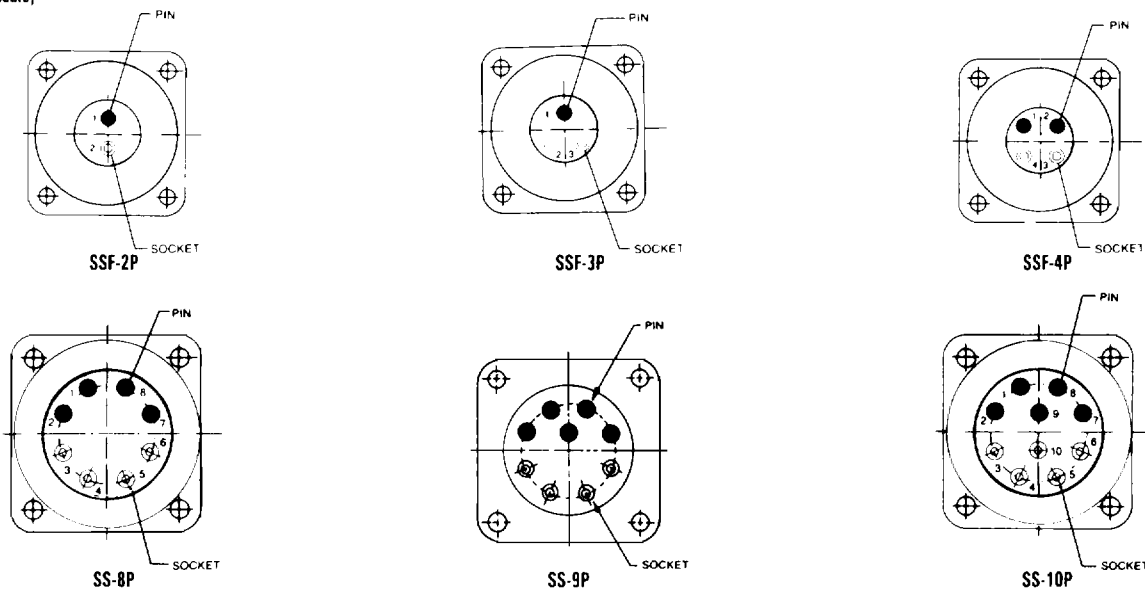


SSIR-4 & P-4
SSIR-8 & P-8

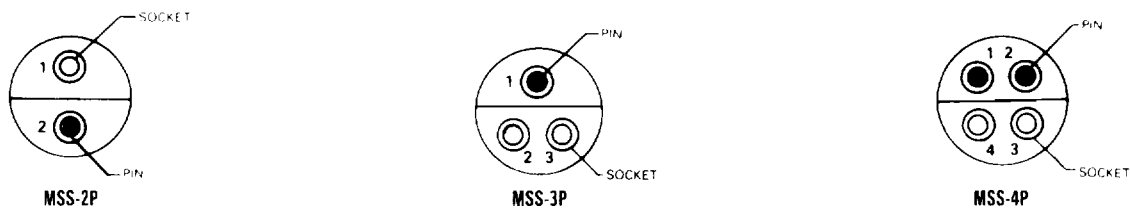
Sure-Seal
Rear view, receptacle side. (Ref: Index key down)
(Drawing not to scale)



Flanged Sure-Seal
Rear view, plug side (Ref: Index key down)
(Drawing not to scale)



Mini-Sure-Seal
Rear view, plug side (Ref: Index key down)
(Drawing not to scale)

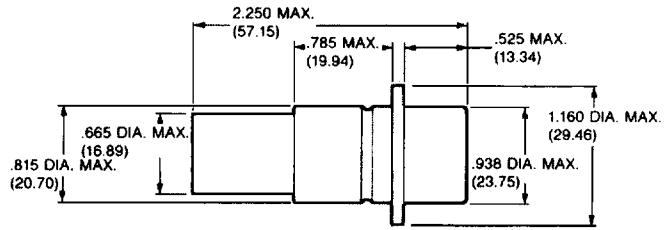


Sure-Seal® Power

SS1P

Accommodates VE AWG #4 through #10.

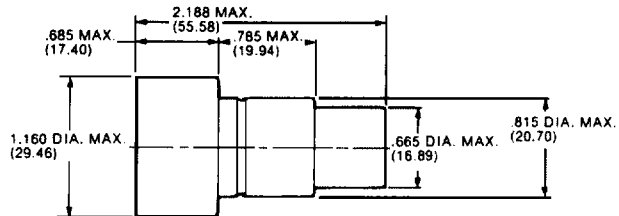
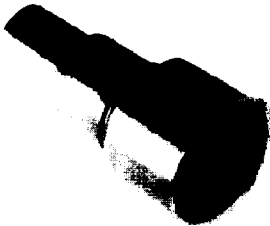
Plug



Body Identifier	Part Number	AWG Size
SS1P-4	120-1905-000	#4 or #6
SS1P-8	120-1906-000	#8 or #10

SS1R

Receptacle



Body Identifier	Part Number	AWG Size
SS1R-4	120-1903-000	#4 or #6
SS1R-8	120-1904-000	#8 or #10

Contacts – Power

Stamped

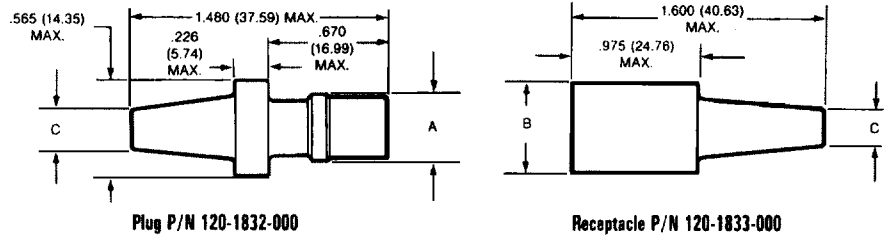
Contact Size	Wire Gauge	Part Number
4	4 AWG Pin	031-1293-000
4	4 AWG Socket	031-1295-000
4	6 AWG Pin	031-1292-000
4	6 AWG Socket	031-1294-000
8	8 AWG Pin	031-1297-000
8	8 AWG Socket	031-1299-000
8	10 AWG Pin	031-1296-000
8	10 AWG Socket	031-1298-000

Machined

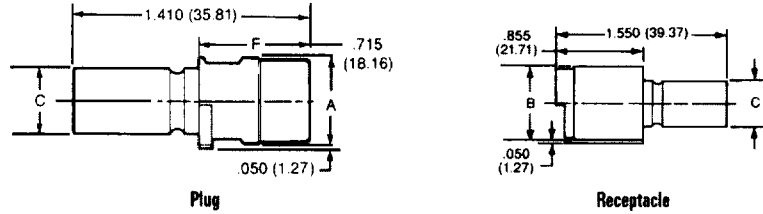
Contact Size	Wire Gauge	Part Number
4	4 AWG Pin	030-2245-002
4	4 AWG Socket	031-1295-001
4	6 AWG Pin	030-2245-001
4	6 AWG Socket	031-1294-001
8	8 AWG Pin	030-2244-001
8	8 AWG Socket	031-1299-001
8	10 AWG Pin	030-2244-002
8	10 AWG Socket	031-1298-001

Sure-Seal®

SS1

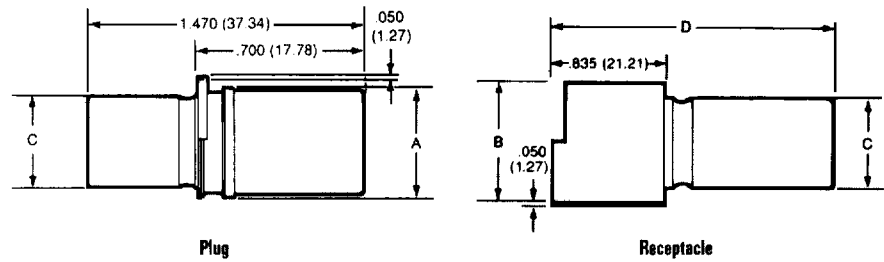


SS2-SS4



Body Identifier	Plug Number	Receptacle Number	A Dia. Max.	B Dia. Max.	C Max.
SS1	120-1832-000	120-1833-000	.395 (10.03)	.565 (14.35)	.250 (6.35)
SS2	120-1807-000	120-1804-000	.550 (13.97)	.710 (18.03)	.430 (10.92)
SS3	120-1808-000	120-1805-000	.600 (15.24)	.760 (19.30)	.500 (12.70)
SS4	120-1809-000	120-1806-000	.600 (15.24)	.760 (19.30)	.500 (12.70)

SS5-SS10



Body Identifier	Plug Number	Receptacle Number	A Dia. Max.	B Dia. Max.	C Max.	D Max.
SS5	120-1841-000	120-1839-000	1.010 (25.65)	1.160 (29.46)	.810 (20.57)	1.610 (40.89)
SS6	120-1842-000	120-1840-000	1.010 (25.65)	1.160 (29.46)	.810 (20.57)	1.610 (40.89)
SS7	120-1873-000	120-1874-000	1.010 (25.65)	1.160 (29.46)	.810 (20.57)	1.610 (40.89)
SS8	120-1865-000	120-1866-000	1.135 (28.83)	1.285 (32.64)	.935 (23.75)	1.625 (41.27)
SS9	120-1867-000	120-1868-000	1.135 (28.83)	1.285 (32.64)	.935 (23.75)	1.625 (41.27)
SS10	120-1869-000	120-1870-000	1.135 (28.83)	1.285 (32.64)	.935 (23.75)	1.625 (41.27)

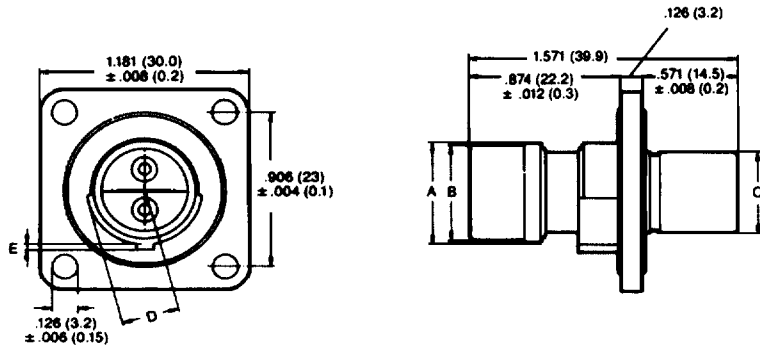
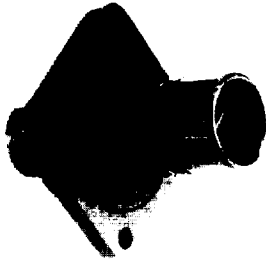
Contact Arrangements – Page 149

Semi-Automatic Tooling – Pages 223-224

Sure-Seal® Flanged

SSF2, F3, F4
2-3-4 Contacts

(Plug Only)



Contact Arrangements – Page 149

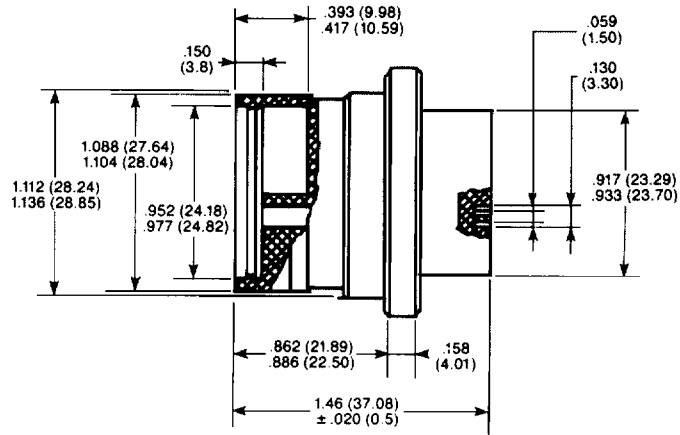
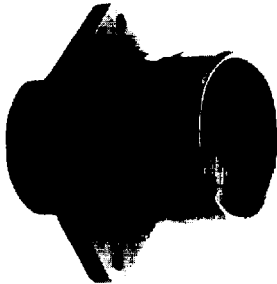
Semi-Automatic Tooling – Page 223-224

See Flange #066-8516-000

Shell Size	Flange Size	Part Number	A Dia. .012 (0.3)	B Dia. .008 (0.2)	C Dia. .012 (0.3)	D Dia. .012 (0.3)	E Dia. .008 (0.2)
SSF2P	14S	120-8552-200	0.547 (13.9)	0.524 (13.3)	0.425 (10.8)	0.307 (7.8)	0.039 (1.0)
SSF3P	14S	120-8552-201	0.598 (15.2)	0.583 (14.8)	0.484 (12.3)	0.315 (8.0)	0.020 (0.5)
SSF4P	14S	120-8552-202	0.598 (15.2)	0.583 (14.8)	0.484 (12.3)	0.354 (9.0)	0.039 (1.0)

SSF8, F9, F10
8-9-10 Contacts

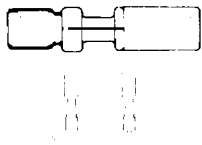
(Plug Only)



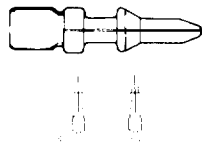
See Flange #066-8516-002

Contacts – Sure-Seal

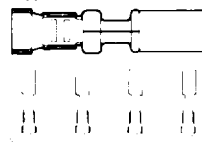
Non-Insulation Support Socket



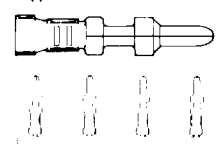
Non-Insulation Support Pin



Insulation Support Socket



Insulation Support Pin

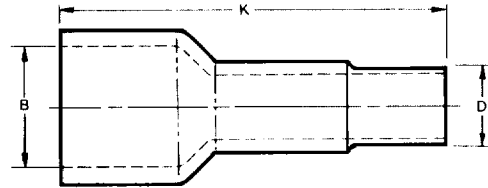


Description	Non-Insulation Support		Insulation Support	
	Reel P/N	Individual P/N*	Reel P/N	Individual P/N*
Pin, Tin Lead Plate	110238-0040	030-2196-000	110238-0195	030-2196-001
Socket, Tin Lead Plate	110238-0085	031-1267-000	110238-0194	031-1267-001
Pin, Silver Plate	110238-0439	030-2196-007	110238-0410	030-2196-005
Socket, Silver Plate	110238-0441	031-1267-006	110238-0407	031-1267-004
Pin, Gold Plate	110238-0440	030-2196-008	110238-0409	030-2196-006
Socket, Gold Plate	110238-0442	031-1267-007	110238-0408	031-1267-005

*Individual contacts available only through Distribution.

Accessories

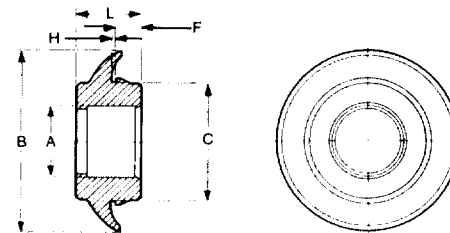
Boot



Used With Body Identifier	Part Number	B Dia.	Cable O.D.	K Ref.	D Dia.
SS-2	317-1398-000	.435 (11.05)	.208-.228 (5.28-5.79)	2.05 (52.07)	.380 (9.65)
SS-3 or SS-4	317-1397-000	.504 (12.80)	.220-.240 (5.59-6.10)	2.05 (52.07)	.380 (9.65)
SS-3 or SS-4	317-1399-000	.504 (12.80)	.345-.380 (8.76-9.65)	2.05 (52.07)	.500 (12.70)
SS-5, -6, -7	317-8657-000	1.063 (27.0)	.283-.331 (7.2-8.4)	2.441 (62.00)	.492 (12.50)
SS-8, -9, -10	---	---	---	---	---

Sealing Plug: Part Number 225-0093-000 (will maintain integrity of environmental seal if all cavities are not used).

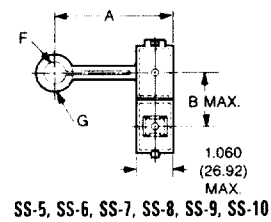
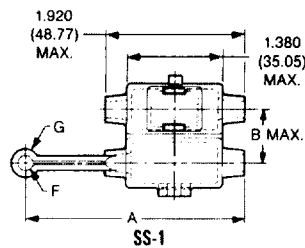
Grommet



Used With Body Identifier	Part Number	A Dia. Max.	B Dia. Max.	C Dia. Max.	F Max.	H Ref.	L Max.
SS-2	351-1640-000	.410 (10.41)	1.275 (32.39)	.755 (19.18)	.230 (5.84)	.055 (1.40)	.690 (17.53)
SS-3, or 4	351-1641-000	.475 (12.06)	1.275 (32.39)	.755 (19.18)	.230 (5.84)	.055 (1.40)	.690 (17.53)
SS-5, 6 or 7	351-1633-000	.765 (19.43)	2.200 (55.88)	1.445 (36.70)	.315 (8.00)	.065 (1.65)	.810 (20.57)
SS-8, 9 or 10	351-1634-000	.890 (22.61)	2.200 (55.88)	1.445 (36.70)	.315 (8.00)	.065 (1.65)	.810 (20.57)

Note: SS-2, 3 or 4 recommended panel hole diameter to be 25 / 32 X .060 material. SS-5 thru -10 recommended panel hole diameter to be 1-1/2 X .060 material. **These diameters are for reference only.**

Clip/Clamp



Used With Body Identifier	Part Number	Colors	A Max.	B	C	D	E Dia.	F Max.	G Max.
SS-1C	026-0452-000	Black	3.200 (80.00)	.740 (18.80)	—	—	—	.210 (5.33)	.390 (9.91)
SS-2C	029-0263-000	Red	—	.890 (22.61)	1.000 (25.40)	.420 (10.67)	420 (10.67)	—	—
SS-3C, 4C	029-0262-000	Yellow	—	.930 (23.62)	1.050 (26.67)	.450 (11.43)	480 (12.19)	—	—
SS-5C, 6C, 7C	026-0450-000	Natural	3.045 (77.34)	1.395 (35.43)	—	—	—	610 (15.49)	.910 (23.11)
SS-8C, 9C, 10C	026-0451-000	Black	3.045 (77.34)	1.520 (38.61)	—	—	—	660 (16.76)	.960 (24.38)

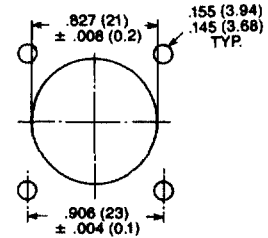
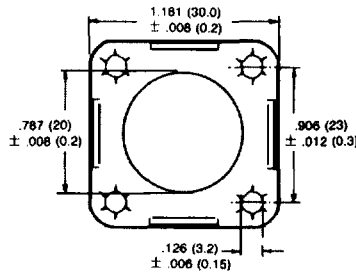
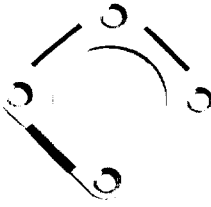
Sealing Plug, Sure-Seal

Thermoplastic, Color: Natural
Part Number: 225-0093-000



Accessories (Continued)

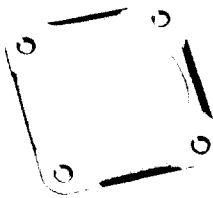
Mounting Plate
SSF2, 3 & 4



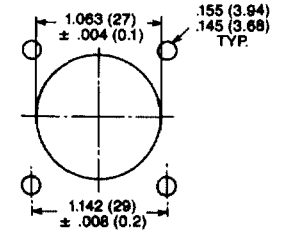
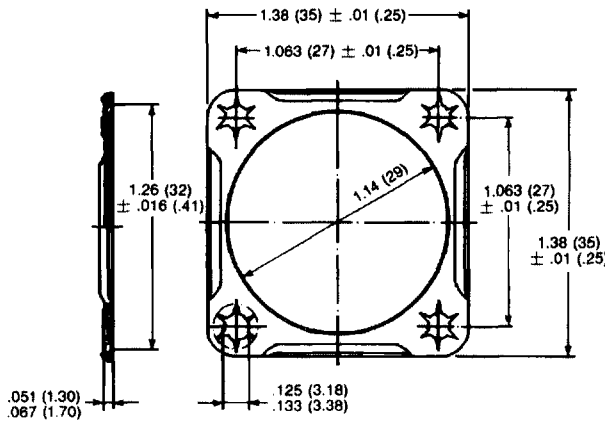
Mounting Dimensions

Steel, Zinc Finish
Part Number: 066-8516-000

Mounting Plate
SSF8, 9 & 10



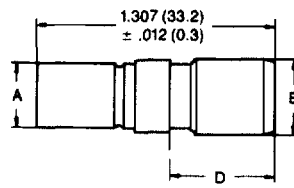
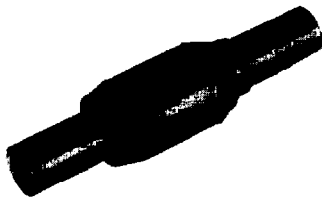
Steel, Zinc Finish
Part Number: 066-8516-002



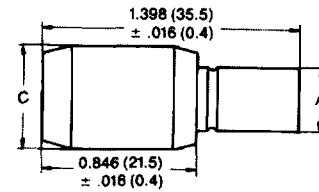
Mounting Dimensions

Mini-Sure-Seal®

MSS2, 3, 4



Plug



Receptacle

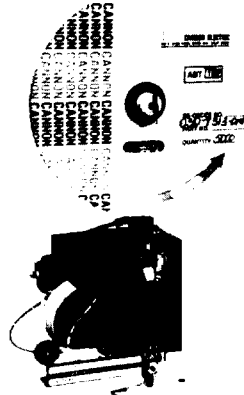
Shell Size	Plug Part Number	Receptacle Part Number	A + .006 (0.15) Dia.	B - .008 (0.2) Dia.	C - .012 (0.3) Dia.	D ± .012 (0.3) Dia.
MSS2 P/R	120-8552-100	120-8551-100	0.323 (8.2)	0.378 (9.6)	0.528 (13.4)	0.642 (16.3)
MSS3 P/R	120-8552-101	120-8551-101	0.346 (8.8)	0.409 (10.4)	0.563 (14.3)	0.528 (13.4)
MSS4 P/R	120-8552-102	120-8551-102	0.346 (8.8)	0.433 (11.0)	0.591 (15.0)	0.528 (13.4)

Contacts – Mini-Sure-Seal

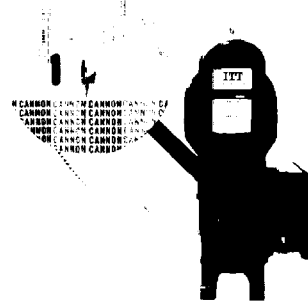
Stamped With Insulation Support		Pins	Sockets	Wire hole fillers
MINI SURE-SEAL 0.5 – 0.75 mm ²	Individual*	330-8672-100	031-8703-100	225-1012-000
	On reels, 5000 pcs.	121348-0100	121347-0100	

*Individual contacts available only through Distribution.

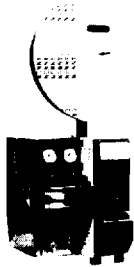
Semi-Automatic Machines



ABT-607
Semi-Automatic Crimp Machine



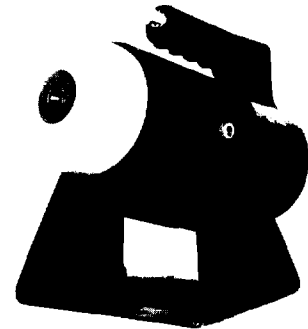
ABT-500-UCCD-SS — Crimp Only
Semi-Automatic Crimp Machine
ABT-500
Strip-Crimp Machine



ABT-620-UCCS
Strip-Crimp Machine



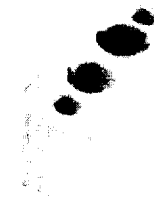
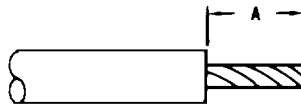
CBIT-SS-150
Semi-Automatic Bench
Insertion Machine



CBT 600B
Air Operated Crimp Tool

See pages 223-224 for tooling machine specifications.

Wire Preparation



Wire Stripping

Contact	AWG Wire Sizes	A Dim
Standard Sure-Seal	14-18	.185 (4.70) .220 (5.59)
Insulation Support Sure-Seal	14-18	.155 (3.94) .185 (4.70)
Mini-Sure-Seal	20	.118 (3.00) .130 (3.30)

Support Blocks

Description	Part Number	
CIF-SS-1	317-1408-002	
CIF-SS-2	317-1408-001	
CIF-SS-3-4	317-1408-000	
CIF-SS-5-6-7	317-1408-003	
CIF-SS-8-9-10	317-1408-004	
	Plug	Receptacle
CIF-MSS 2	CT 195-8508-013	CT 195-8508-014
CIF-MSS 3	CT 195-8508-015	CT 195-8508-016
CIF-MSS 4	CT 195-8508-017	CT 195-8508-018

Contacts

Stamped Power Contacts

4 AWG Pin or Socket	Tool Assy. #070340-0001
6 AWG Pin or Socket	Tool Assy. #070340-0001
8 AWG Pin or Socket	Tool Assy. #070340-0003
10 AWG Pin or Socket	Tool Assy. #070340-0004

Power Machined Contacts

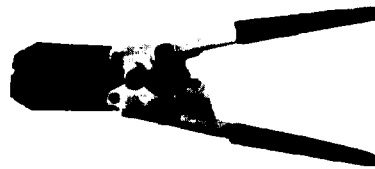
Tool, CBT-600 B	995-0001-193
Crimp Head, CCH-4-1 For 4 and 6 GA Pin/Socket	995-0001-192
Crimp Head, CCH-8-1 For 8 and 10 GA Pin/Socket	995-0001-187
Locator 4 & 6 AWG Pin	995-0001-895
Locator 4 & 6 AWG Socket	995-0001-896
Locator 8 & 10 AWG Pin	995-0001-893
Locator 8 & 10 AWG Socket	995-0001-894

Hand Crimp Tools

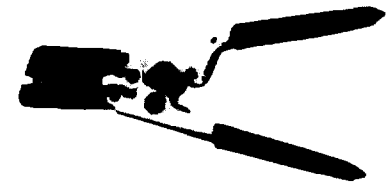
Sure-Seal

The CCT-SS and CCT-SS-2 hand crimp tools are designed to crimp individual Sure-Seal contacts on wire sizes 14, 16 and 18 AWG. Each cycle is ratchet-controlled (the tool must be completely closed before it can be re-opened) to assure a satisfactory crimp each time. Over and under crimps are eliminated.

These tools are for use where the requirements are for low to moderate volume quantities, and for on-site applications where semi-automatic tools cannot be practically used.

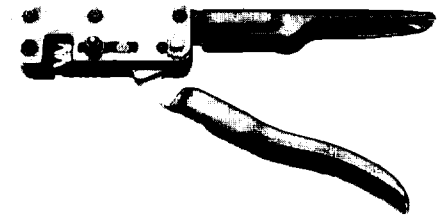


CCT-SS
For Standard Contacts.
Part No. 995-0001-745.



CCT-SS-2
For Insulation Support Contacts.
Part No. 995-0001-904.

Mini Sure-Seal



CCT-MSS/SS-20
Part Number: 121586-0085

Contact Insertion Tools

Sure-Seal



CIT-SS-14
For Non-Insulation Support Contacts
Part No. 070235-0001



CIT-SS-10
For Insulation Support Contacts
Part No. 070306-0000

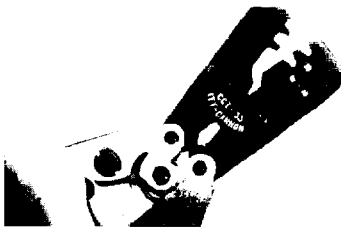
Mini Sure-Seal



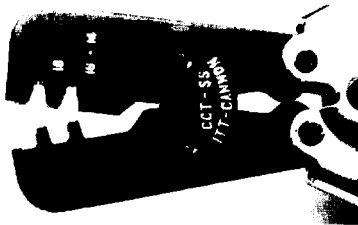
CIT-MSS-1
Part Number: 121086-3023

Assembly Instructions

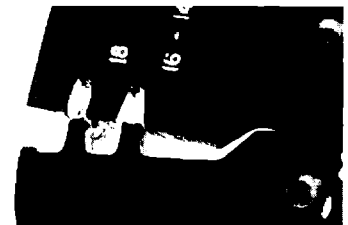
CRIMP TOOL OPERATION



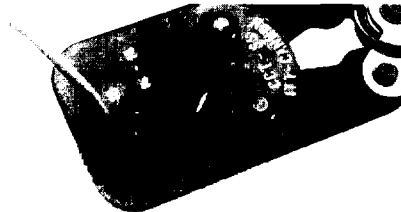
1. Hold the crimp tool in an open position and select the proper crimp cavity for the wire size to be crimped.



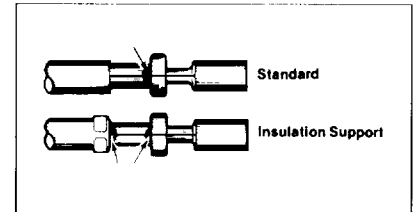
2. When using the insulation support contact crimp tool, the insulation side is toward you.



3. Insert the contact into the crimp tool from the back side with the crimp wing flush with the top of the tool. Close the crimp tool so that it gently holds the contact in place.

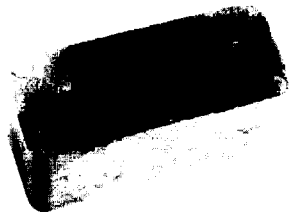


4. Insert the stripped wire into the crimp area until it bottoms, and firmly squeeze the handle until the crimp jaw ratchet releases.



5. Examples of proper crimp terminations are shown above. Arrows indicate inspection areas which insure wire has been properly located prior to crimping.

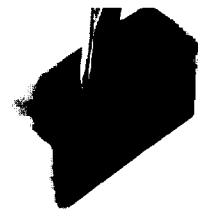
CONTACT INSERTION



1. Place the insulator into the proper holding block. (For jacketed cable slip the wire bundle through the connector boot first).



2. Using the proper insertion tool (standard for standard contacts and insulation support for insulation support contacts) position the wire in the tip of the tool so that the tool tip butts up against the contact shoulder.



3. Insert the wired contact and tool tip into the insulator and with a firm and even pressure push down to the tool stop (isopropyl alcohol may be used as a lubricant).



4. Remove the tool and pull back lightly on the wire to make sure the contact is properly seated. Repeat this operation with the remainder of the contacts to be inserted.



5. After all contacts are inserted remove the connector from the holding block. (For jacket cable push the boot up over connector.)

CONTACT EXTRACTION



Grasp wire with the hand and pull firmly. (For jacket cable remove the boot from the plug or receptacle connector.)