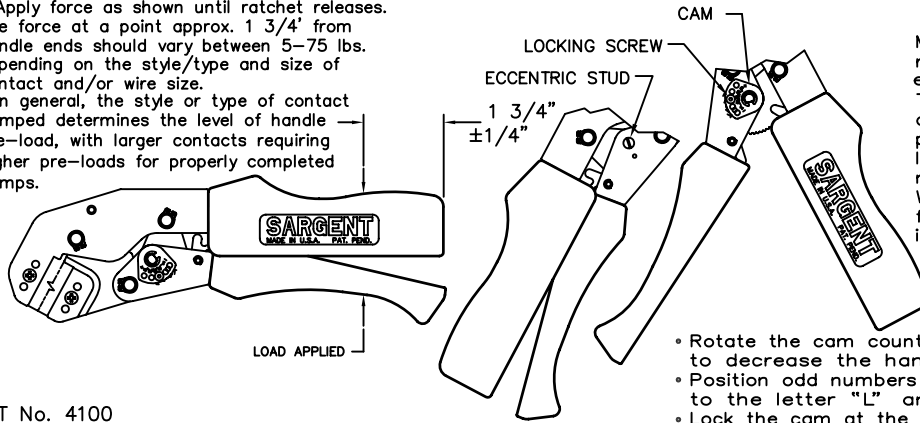


# SARGENT

# 4100 CRIMP TOOL OPERATING PROCEDURE

Apply force as shown until ratchet releases. The force at a point approx. 1 3/4' from handle ends should vary between 5-75 lbs. depending on the style/type and size of contact and/or wire size.

In general, the style or type of contact crimped determines the level of handle pre-load, with larger contacts requiring higher pre-loads for properly completed crimps.



PART No. 4100  
(TOOL FRAME)

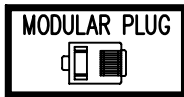
### TOOL MAINTENANCE

Maintenance and inspection should be performed regularly. Tool should be wiped clean with special emphasis on the crimping cavities.

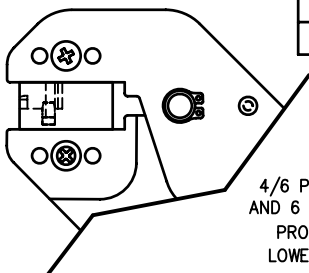
Tool may be cleaned by immersing in a suitable commercial solvent or cleaner which does not attack paints or plastic material. The tool should be re-lubricated after cleaning using a light film of a medium weight oil on bearing surfaces and pivot pins. When not in use, keep handles closed to prevent objects from becoming lodged in the crimping dies and store in a clean dry area.

### ECCENTRIC ADJUSTMENT

- To adjust the tool to obtain the proper force values, open the handles and remove the cam locking screw with a 1/16" hex wrench.
- Rotate the cam counterclockwise to increase handle load or clockwise to decrease the handle load.
- Position odd numbers on the cam in the locking screw hole adjacent to the letter "L" and even numbers adjacent to the letter "T".
- Lock the cam at the desired handle load setting and remeasure force. Continue adjustment if necessary.



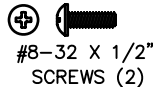
CAT No.	NUMBER POSITIONS	MOD. PLUGS ACCOMODATED
4100-06	4/6 POSITION	RJ-11
4100-06LB	6 POSITION	RJ-11 LONGBODY
4100-08	8 POSITION	RJ-45
4100-10	10 POSITION	10 POSITION



4/6 POSITION DIES AND 6 POSITION DIES PROVIDED WITH LOWER DIE ONLY



8 & 10 POSITION DIES PROVIDED WITH TOP SPACER, BOTTOM DIE, RIVETS & SCREW



#8-32 X 1/2" SCREWS (2)  
5/32 X 1/2" FLAT HD. RIVETS (2)

PART No. 4100-06 SHOWN

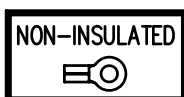
Strip cable according to manufacturer's specifications.

Insert cable fully into connector. Place connector in die, end of modular plug butting against back of die cavity, and close tool completing crimp cycle. Grasp cable near connector and lift and pull to remove cable/plug assembly. Inspect crimp to assure all contacts are crimped and strain relief portion is latched. Test by holding plug and pulling firmly on cable.

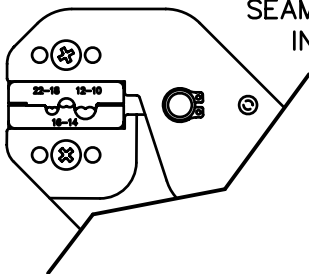
THE TOOL IS EQUIPPED WITH A RATCHET MECHANISM TO ASSURE RELIABLE CRIMP TERMINATIONS.

A RATCHET RELEASE LEVER IS PROVIDED TO ALLOW FOR REMOVAL OF AN INCORRECTLY PLACED OR OVERSIZE CONNECTOR.

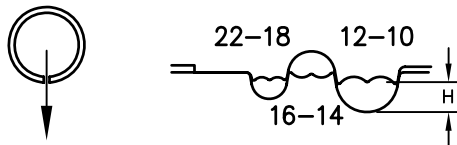
ADJUST RATCHET RELEASE HANDLE FORCE TO **5-15 LBS.** FOR MODULAR PLUGS AS INSTRUCTED ABOVE IN ECCENTRIC ADJUSTMENT SECTION.



22-10 AWG



SEAM GOES DOWN INTO NEST



GAGING		
NEST	HEIGHT	UL (LBS)
22-18	.079-.075	8, 20
16-14	.095-.091	30, 50
12-10	.127/.123	70, 80

GAGING WITH WIRE SOLDER

PART No. 4100-25

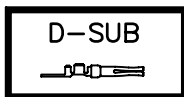
THE NON-INSULATED CRIMP DIE CRIMPS STANDARD NON-INSULATED RING, FORK AND SPADE BRAZED AND UNBRAZED CONNECTORS AS WELL AS MISCELLANEOUS OTHER TYPES OF NON-INSULATED CONNECTORS.

ALL CRIMPS SHOULD BE TESTED FOR ACCEPTABLE TENSILE VALUES FOR THE PARTICULAR TERMINAL AND WIRE BEING USED AND COMPARED AGAINST ACCEPTED STANDARDS (UL OR MIL). VALUES FOR THE INTENDED WIRE SIZES ARE LISTED AND SHOULD BE CHECKED WITH AN APPROPRIATE TENSILE TESTING MACHINE OR OTHER DEVICE.

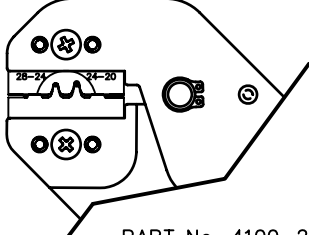
THE TOOL IS EQUIPPED WITH A RATCHET MECHANISM TO ASSURE RELIABLE CRIMP TERMINATIONS.

A RATCHET RELEASE LEVER IS PROVIDED TO ALLOW FOR REMOVAL OF AN INCORRECTLY PLACED OR OVERSIZE CONNECTOR.

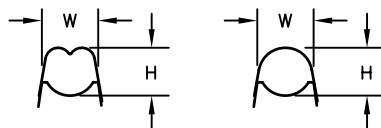
ADJUST RATCHET RELEASE HANDLE FORCE TO **15-30 LBS.** FOR OPEN BARREL TERMINALS AS INSTRUCTED IN THE ECCENTRIC ADJUSTMENT SECTION.



28-20 AWG



PART No. 4100-27



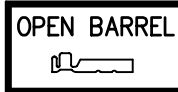
NEST	CONDUCTOR	INSULATION
	HEIGHT	HEIGHT
28-24	.027/.025	.041 MAX.
24-20	.029/.027	.062 MAX.

GAGING WITH WIRE SOLDER

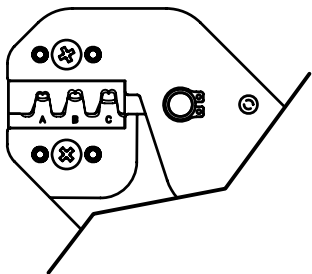
NOTE: SHOULD OVERCRIMPING OF CONTACT RESULT- ADJUST RATCHET RELEASE FORCE TO **30-50 LBS.** FOR D-SUB. STYLE CONTACTS.

GAGE CRIMPS WITHIN SPECIFICATIONS- ADJUST HANDLE PRE-LOADS ACCORDINGLY.

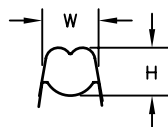
REFER TO ECCENTRIC ADJUSTMENT PROCEDURE ABOVE.



22-10 AWG



PART No. 4100-30 SHOWN  
PART No. 4100-29 SIMILAR EXCEPT  
FOR WIRE SIZES



4100-30 GAGING INFORMATION

NEST	WIRE SIZE	COND. JAW	
		HEIGHT	WIDTH
A	22-18 AWG	.034 NOM.	.107 NOM.
B	16-14 AWG	.042 NOM.	.111 NOM.
C	12-10 AWG	.070 NOM.	.134 NOM.

4100-29 GAGING INFORMATION

NEST	WIRE SIZE	COND. JAW	
		HEIGHT	WIDTH
A	16-20 AWG	.054-.046	.075-.071
B	14-16 AWG	.062-.055	.087-.083
C	22-30 AWG	.030-.025	.067-.063

GAGING WITH WIRE SOLDER

EARLY DESIGN CRIMP DIES HAD TO BE PINNED IN PLACE FOR PROPER OPERATION USING THE FOUR DOWEL PINS PROVIDED.

TAP PINS IN PLACE WHILE ALIGNING DIE/SPACER HOLES WITH HOLES IN TOOL FRAME.

REPEAT PROCEDURE FOR LOWER DIE.

REPLACE THE #8-32 SCREWS AS SHOWN.

LATER DESIGNS HAVE DIE HALVES PINNED TOGETHER AND ARE HELD IN PLACE BY THE CENTER SCREW ONLY.

THE TOOL IS EQUIPPED WITH A RATCHET MECHANISM TO ASSURE RELIABLE CRIMP TERMINATIONS.

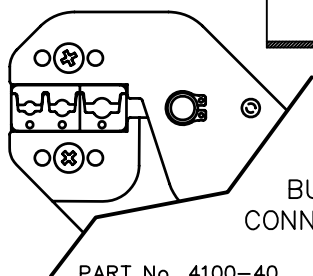
A RATCHET RELEASE LEVER IS PROVIDED TO ALLOW FOR REMOVAL OF AN INCORRECTLY PLACED OR OVERSIZE CONNECTOR.

**15-30 LBS.**

ADJUST RATCHET RELEASE HANDLE FORCE TO FOR OPEN BARREL TERMINALS AS INSTRUCTED IN THE ECCENTRIC ADJUSTMENT SECTION.

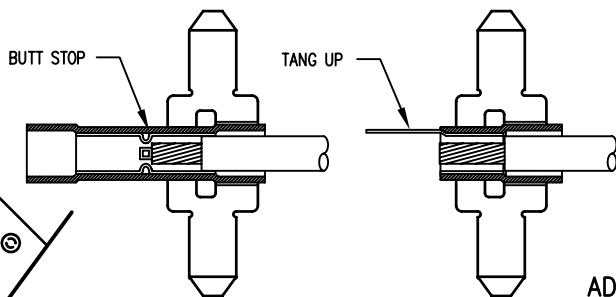


RED 18-22 BLUE 14-16  
YELLOW 10-12



PART No. 4100-40

DIE FRONT VIEW



BUTT or SPLICE  
CONNECTOR LOCATION

INSULATED  
CONNECTOR LOCATION

NOTE: 4100-20 & -22 INSULATED TERMINAL DIES CRIMP CONDUCTOR PORTION ONLY!

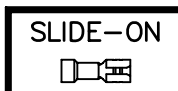
Select the appropriate nest for the terminal or wire splice being crimped.

Position terminal or splice as shown in diagram. Close tool carefully until jaws grip the terminal without distortion.

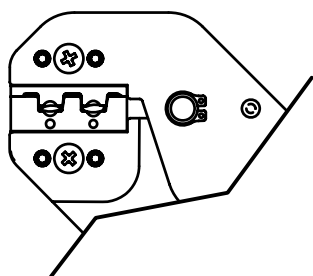
Insert the properly stripped wire into the terminal. Holding the wire in place close the tool past the ratchet release position and allow the jaws to spring open.

Remove and inspect the crimp.

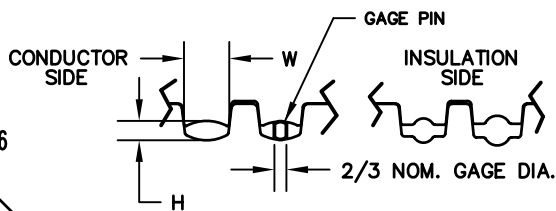
ADJUST RATCHET RELEASE HANDLE FORCE TO **30-50 LBS.** FOR INSULATED TERMINALS AS INSTRUCTED IN THE ECCENTRIC ADJUSTMENT SECTION DEPENDING ON WIRE SIZE AND CONNECTOR OR BRAND AND STYLE OR TYPE.



RED 18-22 BLUE 14-16



PART No. 4100-41



GAGING INFORMATION

NEST	CONDUCTOR		INSULATION	
	H	W	H	W
22-18 RED	.100 NOM.	.220 REF.	.135 NOM.	.240 REF.
16-14 BLUE	.108 NOM.	.240 REF.	.165 NOM.	.260 REF.

\*GAGING USING FLATTED GO/NO GO PINS WITH TOOL CLOSED TO LAST TOOTH OF RATCHET

SELECT THE APPROPRIATE NEST FOR THE TERMINAL BEING CRIMPED.

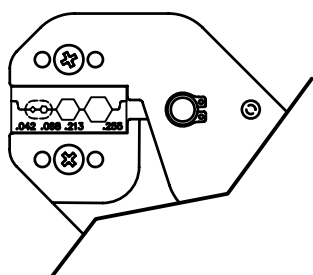
POSITION THE TERMINAL WITH INSULATION SIDE TOWARDS THE FRONT OF THE TOOL.

CLOSE THE TOOL CAREFULLY UNTIL THE JAWS GRIP THE TERMINAL WITHOUT DISTORTION.

INSERT THE PROPERLY STRIPPED WIRE INTO THE TERMINAL. HOLDING THE WIRE IN PLACE, CLOSE THE TOOL PAST THE RATCHET RELEASE POSITION AND ALLOW THE JAWS TO OPEN.

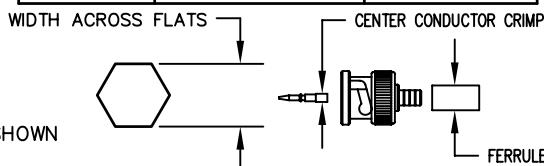
REMOVE AND INSPECT THE CRIMP.

ADJUST RATCHET RELEASE HANDLE FORCE TO **60-75 LBS.** FOR SLIDE-ON TERMINALS AS INSTRUCTED IN THE ECCENTRIC ADJUSTMENT SECTION.



PART No. 4100-66 SHOWN

CAT No.	CAVITY HEX. (EXCEPT WHERE NOTED)	CABLES ACCOMMODATED
4100-66	.042(SQ),.068,.213 & .255	RG58/59/62 (PVC)
4100-67	.042(SQ),.068,.255 & .324	RG58/59 & 8281
4100-68	.076(2) & .429	TWINAXIAL
4100-69	.068,.080,.100 & .429	RGB/11
4100-72	.324 & .360	CATV
4100-75	.151, .178 & .213	FIBER OPTIC
4100-76	.050(SQ),.044(SQ),.206(RD) & .239(RD)	RG58/59 (ROUND)
4100-78	.100, .128 & .429	RGB
4100-79	.128, .151, .178	SC & ST FIBER OPTIC



Strip cable according to manufacturer's specifications. Select proper hex cavity for size of cable being used. Crimp center conductor in area shown. Assemble connector and crimp outer ferrule.

THE TOOL IS EQUIPPED WITH A RATCHET MECHANISM TO ASSURE RELIABLE CRIMP TERMINATIONS.

A RATCHET RELEASE LEVER IS PROVIDED TO ALLOW FOR REMOVAL OF AN INCORRECTLY PLACED OR OVERSIZE CONNECTOR.

ADJUST RATCHET RELEASE HANDLE FORCE TO **30-50 LBS.** DEPENDING ON SIZE OF CONNECTOR & CABLE. LARGER CONNECTORS REQUIRE HIGHER HANDLE PRE-LOADS TO ASSURE A SECURE AND SYMMETRICAL CRIMP. MEASURE EACH CRIMP ACROSS THE FLATS AND ADJUST THE HANDLE PRE-LOAD TO OBTAIN SYMMETRY WITHIN .003.

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