Assembly Instructions

Pin Crimping - Deutsch Stye Connector (DT/AT Series)

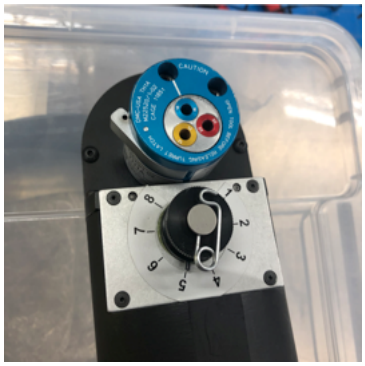
Components

Crimping Tool
WA27F

Male Pin (Crimped on wire)
Contact Size 16
AT60-202-16141

Female Pin (Crimped on wire)
Contact Size 16
AT62-201-16141

Tool Setup



1. The turret latch should be set to size 16 contact (blue). For 18AWG wire set the tool to #6 on the selector.

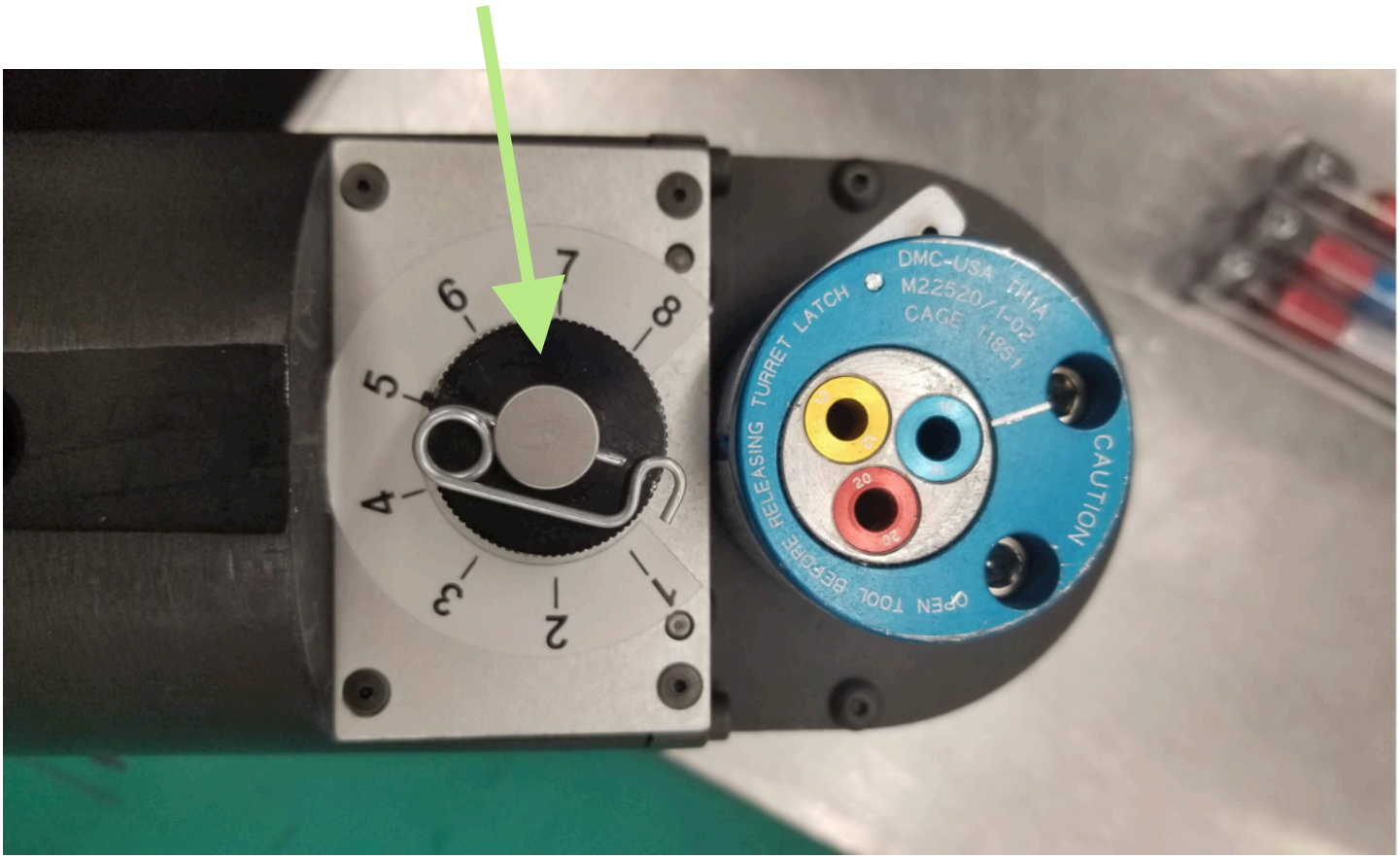
2. Ensure air pressure is between 80-120 PSI. Do not exceed 120 PSI.

3. Plug air hose into the crimping tool.

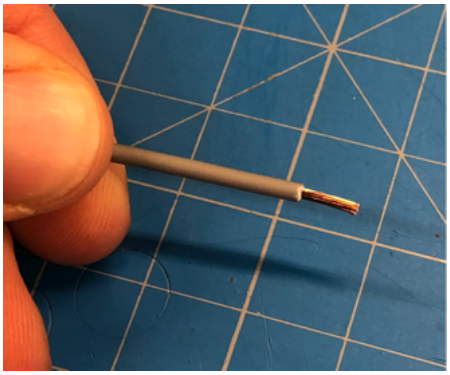
Tool Setup

Tool	Wire Type	Guage (AWG)	Tool Crimp Selector	Tensile Pass Value (lb)
WA27F	GXL	18	5	20
WA27F	Control Line (Senstech)	18	5	20
WA27F	Control Line (Senstech)	20	4	13.35

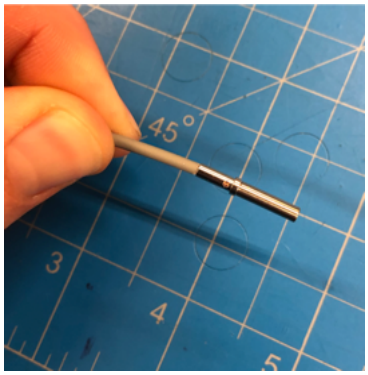
Confirm that crimp height selector is correct for wire type and guage. Refer to above chart



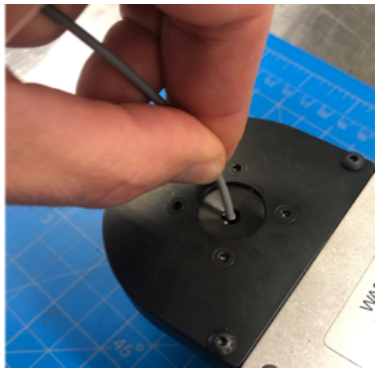
Crimping Instructions



4. Strip the wire to between .25-.31 inches.

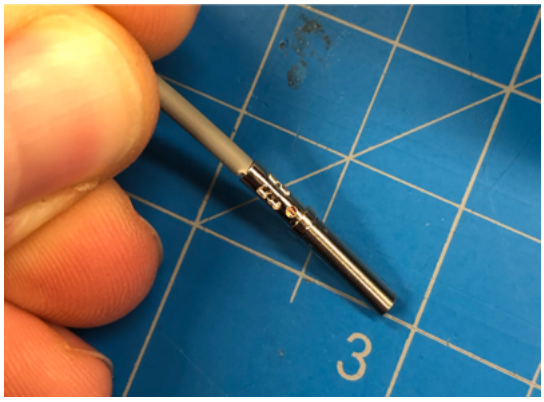


5. Insert pin onto the wire. Ensure all strands are inside the pin housing.



6. Insert pin into the crimper.

7. Depress the trigger to crimp the terminal.



8. Remove crimped wire from crimping tool and perform an inspection.

Crimp Inspection

1. The wire insulation should not have been damaged during the crimping process.

2. The conductor should be visible in the inspection hole of the contact.

3. The crimp barrel should have no sharp edges, cracked plating or cuts after the crimping process.

4. Tarnished or corroded contacts that were overlooked in the pre-assembly inspection should be cause for rejection.

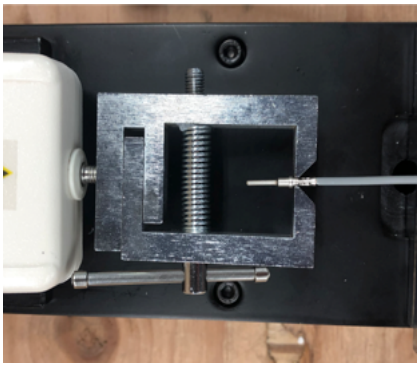
5. Wrongly positioned crimps, as determined by marks found on areas where no crimp deformation should be found, should be cause for rejection.

6. Under-crimping (indicated by loose conductor) or over-crimping (indicated by broken conductor strands or deformation of the conductor at the end of the terminal) should be cause to stop work. All production crimps made since the last inspection or pull test should then be rejected. Tool settings, wire size and contacts should be inspected to determine the cause of crimp failure.

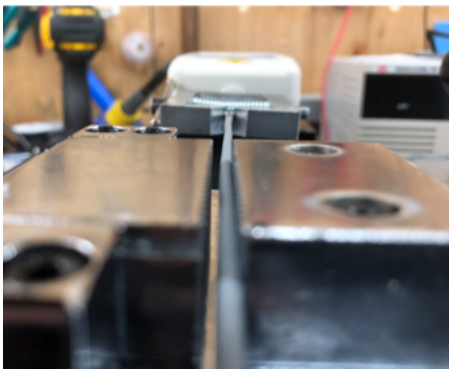
7. No attempt should be made to straighten bent contacts.

Tension Testing

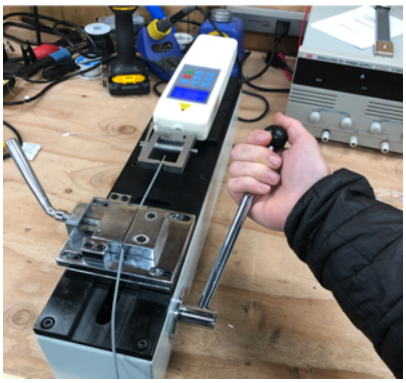
This test should be performed at the begining of each manufacturing run. 3 samples should be tested every hour of manfucturing for compliance.



1. Place crimped terminal into clamp. Secure the clamp behind the retaining feature on the pin.



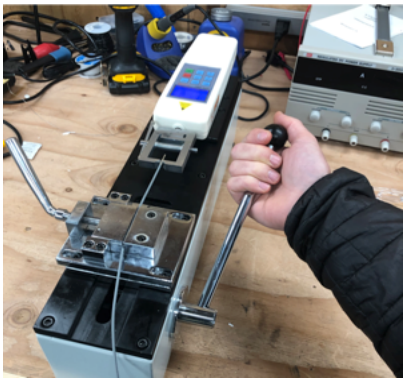
2. Pull the wire tight and clamp wire so it straight with the force gauge.



3. Release pressure on the handle.

4. Zero the force gauge.

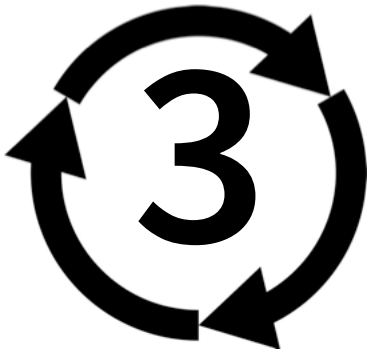
5. Set the force gauge to measure peak force.



6. Slowly pull the handle to exert tension on the wire.

Tension Testing

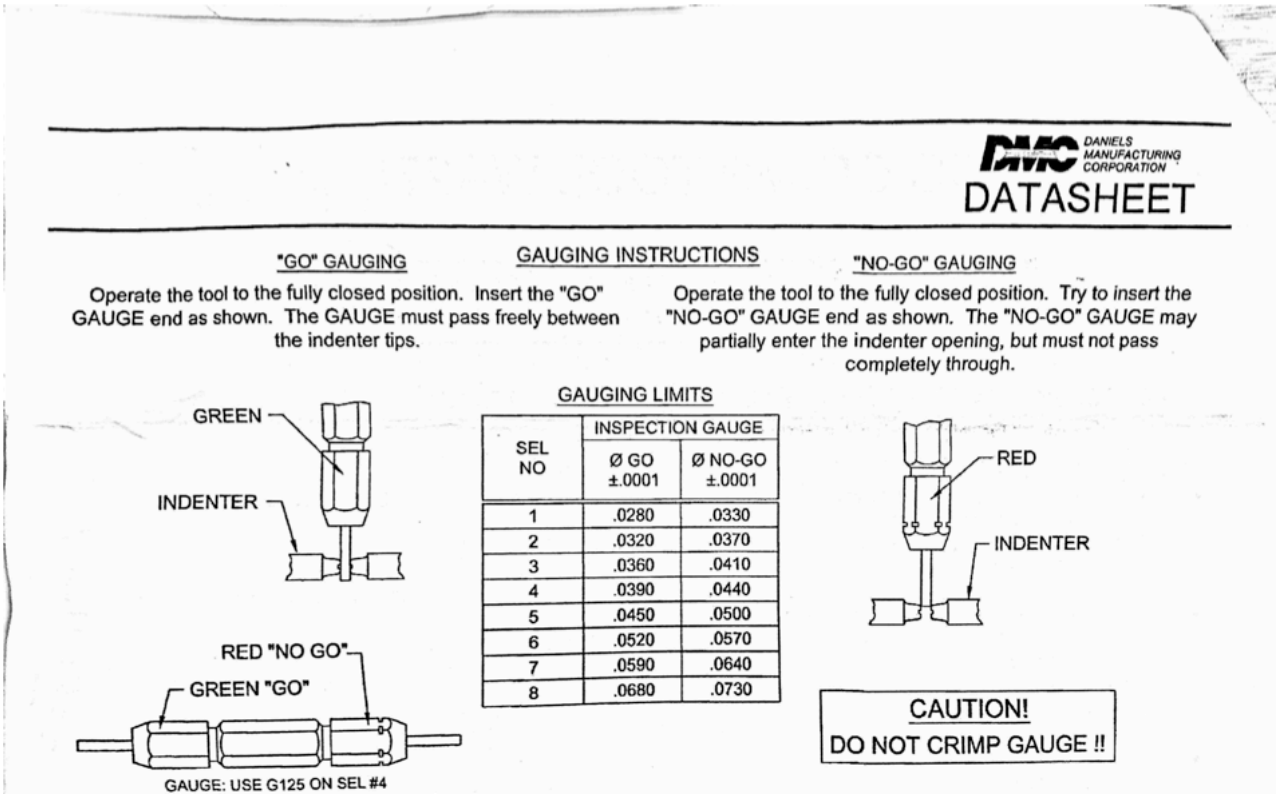
7. For 18 AWG the force reading should be at least 25 lbs (111 Newtons).



7. Repeat test 3 times. Record failure modes: wire break, wire pulls out of pin, wire breaks at pin.

Crimp Testing

At the begining of each day, you must run the following tests to ensure the crimping tool is properly set up.



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DATASHEET

"GO" GAUGING

Operate the tool to the fully closed position. Insert the "GO" GAUGE end as shown. The GAUGE must pass freely between the indenter tips.

GAUGING INSTRUCTIONS

"NO-GO" GAUGING

Operate the tool to the fully closed position. Try to insert the "NO-GO" GAUGE end as shown. The "NO-GO" GAUGE may partially enter the indenter opening, but must not pass completely through.

GREEN

INDENTER

RED "NO GO"

GREEN "GO"

GAUGE: USE G125 ON SEL #4

GAUGING LIMITS

SEL NO	INSPECTION GAUGE Ø GO ±.0001	Ø NO-GO ±.0001
1	.0280	.0330
2	.0320	.0370
3	.0360	.0410
4	.0390	.0440
5	.0450	.0500
6	.0520	.0570
7	.0590	.0640
8	.0680	.0730

RED

INDENTER

CAUTION!
DO NOT CRIMP GAUGE !!

Tool Crimp Selector	Go No-Go Gauge
6	G225
5	G224
4	G125