

Basic Guide to Terminal Crimping

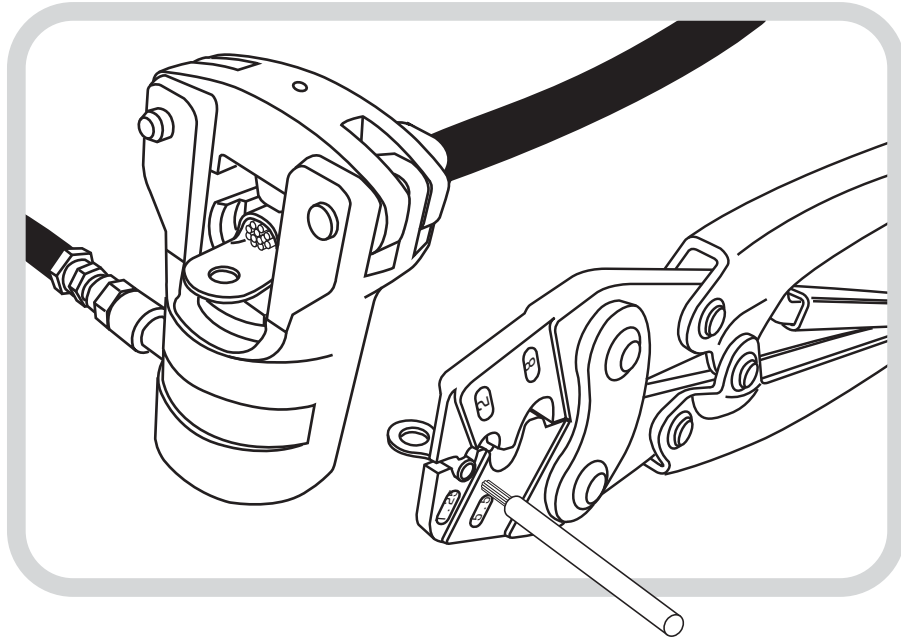


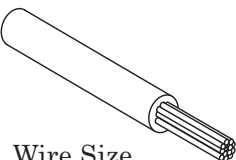
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Have you ever experienced wire snap, wire slip-off or insulation deterioration because you used the wrong crimping tool or installation method?

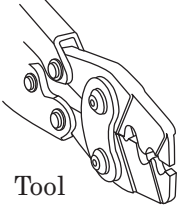
1 Selection Process



Wire Size

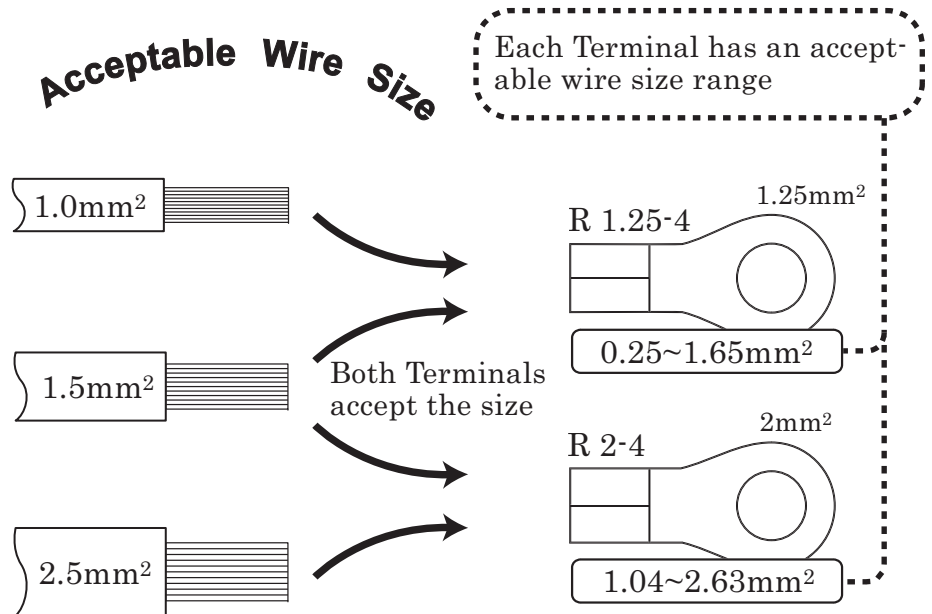


Terminal



Tool

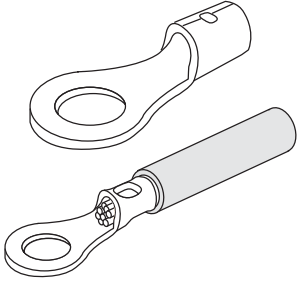
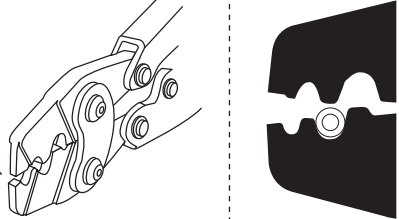
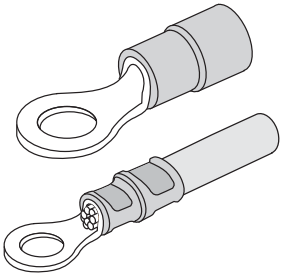
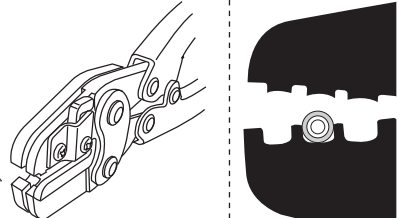
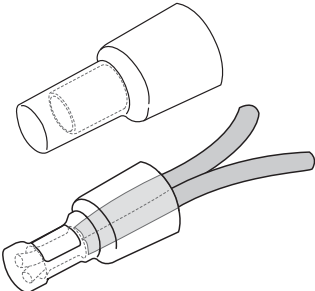
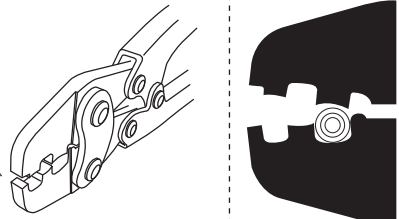
① The correct terminal size is dictated by the size of the wire you are using.



! NOTE If the wire size is below the range, it may cause the wire to slip out of the terminal. Example: select R2-4 for 1.0mm². If you select a terminal too small for the wire the wire may split the barrel. An example of this would be if you selected a R1.25-4 terminal to use with a 2.5mm² wire.

② How to Select the Correct Tool

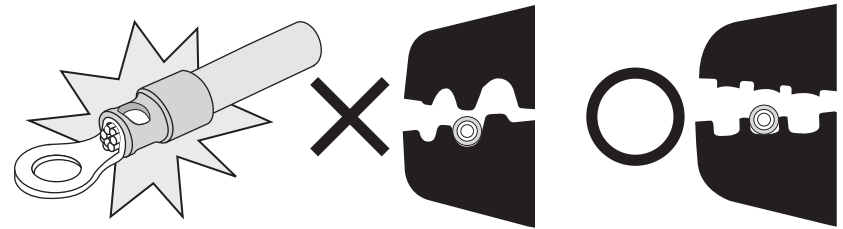
You should select the tool based on the size and type of the terminal you are going to use.

terminal	Tool Selection
<p data-bbox="129 357 441 384">Non-Insulated Terminal</p> 	<p data-bbox="555 453 645 517">Single Jaw</p>  <p data-bbox="533 639 987 692">Crimp the center of the barrel by the indenter</p>
<p data-bbox="152 761 396 788">Insulated Terminal</p> 	<p data-bbox="555 857 645 920">Double Jaws</p>  <p data-bbox="524 1043 1039 1096">Crimp the center of the barrel and the insulation at the same time as shown left.</p>
<p data-bbox="219 1165 344 1192">Close End</p> 	<p data-bbox="555 1260 645 1324">Single Jaw</p>  <p data-bbox="528 1449 976 1501">Crimp the center of the crimp barrel as shown left.</p>



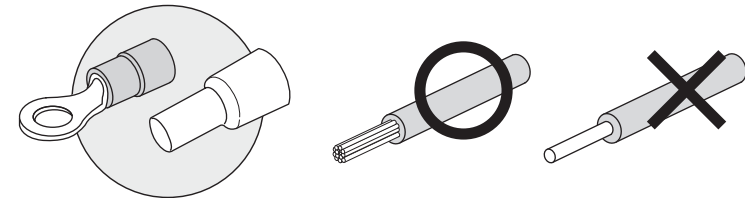
DO NOT CRIMP AN INSULATED TERMINAL USING A TOOL FOR NON-INSULATED TERMINALS.

The crimp will split the insulator and expose the metal which can cause an electrical short circuit.



DO NOT CRIMP AN INSULATED TERMINAL WITH A SOLID COPPER WIRE INSERTED.

Only stranded copper wire is acceptable. For solid copper wire select the non-insulated terminal and add an insulation cap.



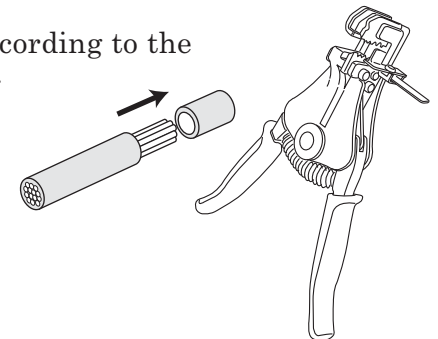
Insulated Terminal

2 CRIMPING INSTRUCTIONS

① Strip the Wire

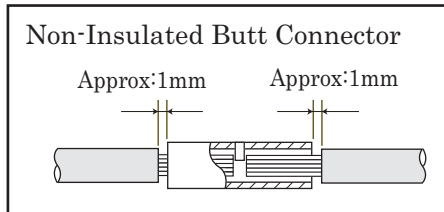
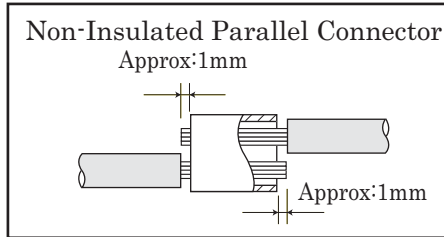
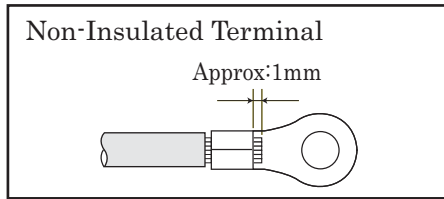
Strip the wire to be crimped according to the instructions for each wire type.

The length of the insulation to be removed is dependant on the terminal type and shape used.



Wire is passed the barrel.

Wire insulation does not touch the barrel.



Open End Connector
The conductor should extend approx. 1.5-3.5mm from the end connector.

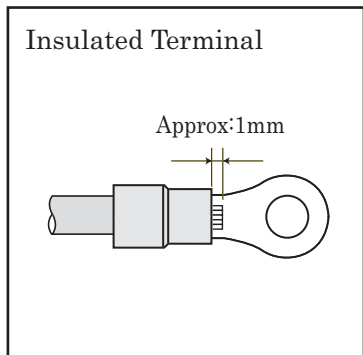
(a) + (1.5~3.5mm) a

Combine the tip of the conductors by making sure the ends are even and twisting with pliers 2-3 times

Cover the crimped end connector with insulation tape

Closed End Connector

The length between the sleeve and the end of the insulator varies by type. Strip each wire to reach the end of the insulator.



Easy Entry Method

Our insulator has a funnel shaped wire entry for faster and easier wire insertion

Funnel Entry

Example of Part Number TMEX 1.25-4

② Crimping Instructions Continued

★ Select the die for the crimping tool according to the terminal size

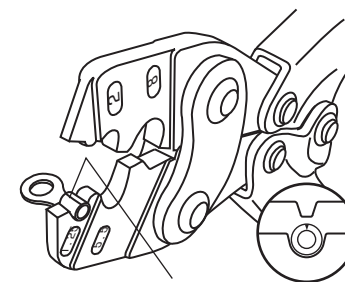
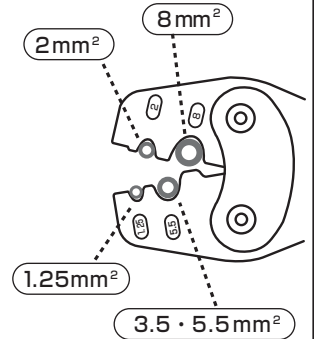
Example R1.25-4

The terminal is placed in the nest at the point marked 1.25.

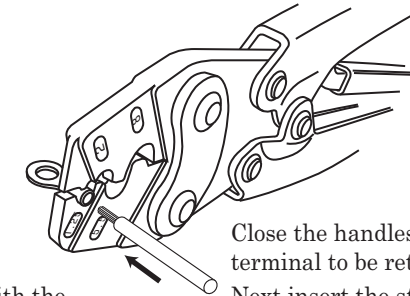
Use the Non-Insulated Terminal Crimping Tool (NH 1)

0.75mm²

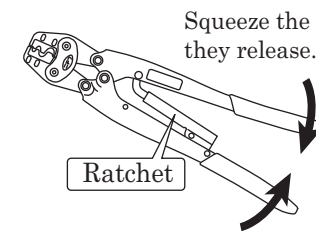
Use the appropriate wire size for 1.25mm² terminals.(0.25mm²~1.65mm²)



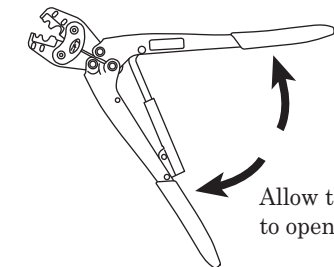
Place the terminal in the nest with the brazed seam facing the indenter.



Close the handles slightly for the terminal to be retained by the die. Next insert the stripped wire into the terminal barrel.



Squeeze the handles until they release.

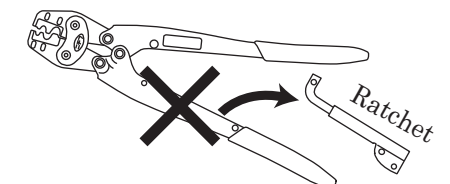


Allow the handles to open.



DO NOT REMOVE THE RATCHET.

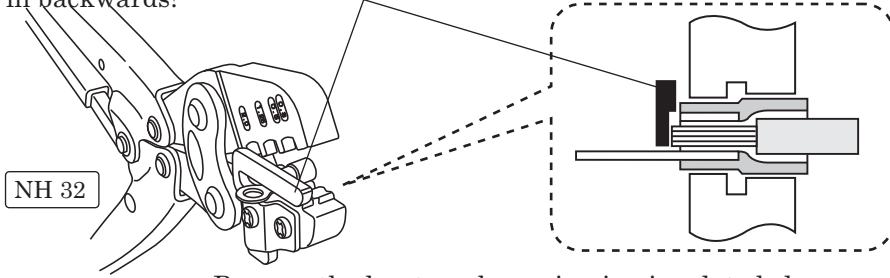
The ratchet mechanism avoids insufficient crimp.



! CRIMPING INSTRUCTIONS FOR INSULATED TERMINAL
 The tool for the insulated terminal has double jaws. One jaw crimps the wire barrel and the other crimps the insulation.

Do not put the terminal in backwards!

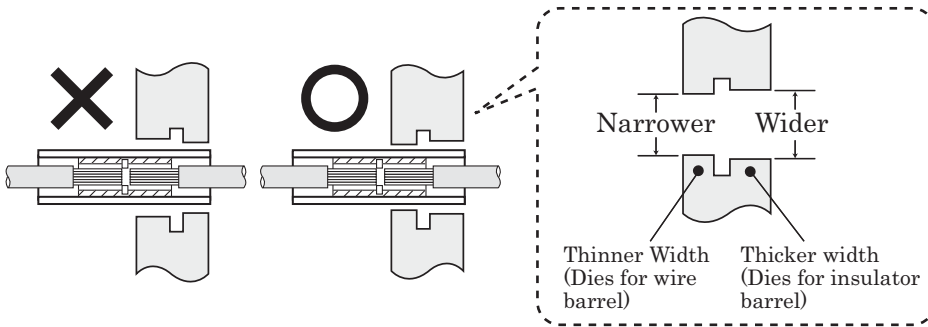
Locator: Helps to fix a good crimp position.



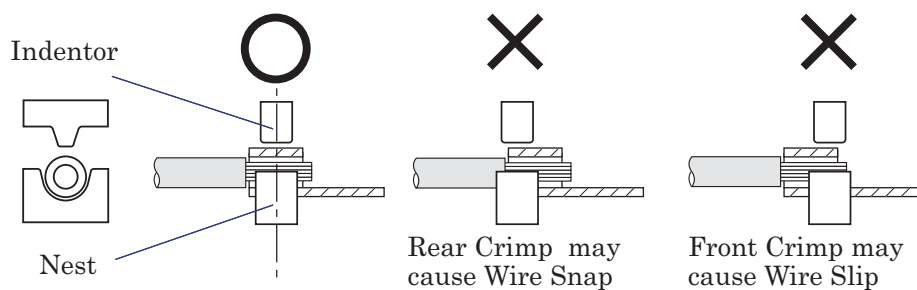
NH 32

Remove the locator when crimping insulated sleeves, pin and disconnects.

! Using the wrong dies or reversing the terminal placement will cause insufficient crimping. Insufficient crimping may cause wire slippage.



! CRIMP THE CENTER OF THE WIRE BARREL



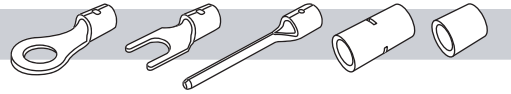
NON INSULATED TERMINAL	INSULATED TERMINAL
CROSS SECTIONAL AREA 	CROSS SECTIONAL AREA
Non-Insulated Parallel Connector 	Insulated Terminal
Non-insulated Butt Connector 	Insulated Butt Connector

③ Inspection

NoN INSULATED TERMINAL	INSULATED TERMINAL	JUDGEM ENT
		○ Good Crimp
		✗ WRONG
		✗ WRONG
		✗ WRONG
		✗ WRONG

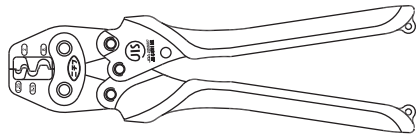
3 TOOL SELECTION INSTRUCTIONS

For non-insulated terminals



● NH 1 395g/235mm

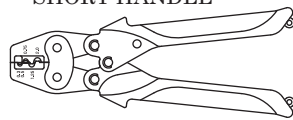
Applicable terminal sizes: 1.25mm²~8mm²



● NH 69 250g/180mm

Applicable terminal sizes: 0.3/0.5mm²~2mm²

SHORT HANDLE

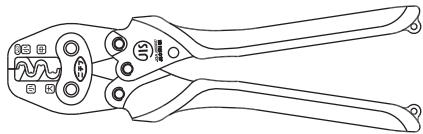


Open End Connector



● NHE 4 410g/240mm

Applicable Part Numbers : E-S, E-M, E-L

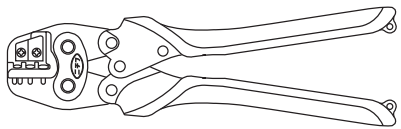


For Insulated Terminals



● NH 32 450g/240mm

Applicable terminal sizes : 0.3/0.5mm² ~ 2mm²

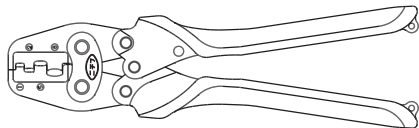


For Closed End



● NH 38 430g/250mm

Applicable terminal sizes : CE 1/CE 2/CE 5/CE 8



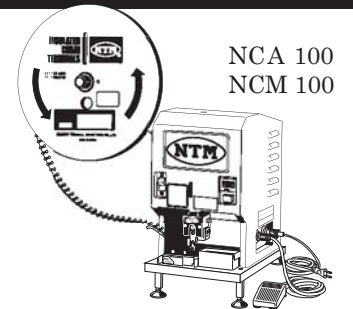
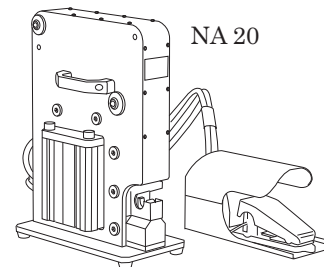
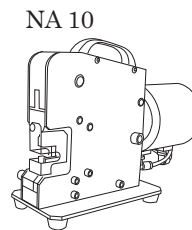
※The tools may be subject to model change

LARGER NON-INSULATED TERMINAL · COMPRESSION TERMINAL T-CONNECTOR

Crimping of larger terminals is accomplished by using a hand hydraulic tool, battery operated hydraulic tool or combination of crimp head and hydraulic pump.

<p>Non-insulated terminal</p>	<p>Hand hydraulic tool</p>	<p>Battery operated hydraulic tool</p>
<p>T-Connector</p>	<p>Hand hydraulic tool</p>	<p>Crimp Head Motor Driven Hydraulic Pump</p>
<p>Compression Terminal</p>	<p>Crimp Head Hand hydraulic tool</p>	<p>Motor Driven Hydraulic Pump</p>

PNEUMATIC TOOL ICT PNEUMATIC/ELECTRIC CRIMP MACHINE



Applicable terminal sizes

- non-insulated terminals 0.3/0.5 ~ 5.5mm²
- Insulated Terminals 0.3/0.5 ~ 5.5mm²

- non-insulated terminals 8 ~ 60mm²

- non-insulated terminals 0.3/0.5 ~ 5.5mm²
- Insulated Terminals 0.3/0.5 ~ 5.5mm²