

HARWIN

Instruction Sheet

IS-29

Hand Crimp Tool Z80-294 (M22520/1-01)



CRIMP CONTACT INFORMATION

This Hand Crimp Tool has been designed for use with the following Datamate Mix-Tek Power Crimp Sockets [when used with Positioner Z80-295 (TP1663)]:

- M80-328 Female power crimp contact for 18 AWG wire (used in Mix-Tek female crimp connectors)
- M80-329 Female power crimp contact for 20 AWG wire (used in Mix-Tek female crimp connectors)
- M80-338 Male power crimp contact for 18 AWG wire (used in Mix-Tek male crimp connectors)
- M80-339 Male power crimp contact for 20 AWG wire (used in Mix-Tek male crimp connectors)

GENERAL INFORMATION

The Hand crimp tool Z80-294 (M22520/1-01) consists of a basic hand tool, which should be used with a positioner.

The contact is correctly crimped when the tool is free to open at the fully closed position, i.e., when the ratchet releases. The tool cannot be opened without completing the cycle.

TOOL PREPARATION

1. Check that the tool is in the open position.
2. Place positioner assembly onto retainer ring with the 2 socket head screws lined up with tapped holes.
3. After positioner assembly is seated against retainer ring, tighten socket head screws with 9/64 Inch (3.57mm) hex key.
4. Check Table 1 for the correct crimp tool setting of the wire size you wish to crimp.
5. Remove the safety clip from the selector knob (do not discard).
6. Lift and turn the selector knob until the correct crimp tool setting is lined up with the "Sel. No." arrow. Lower the selector knob, ensuring the locating peg lines up with a notch.
7. Install the safety clip back into the selector knob.

CRIMPING PROCEDURE

1. Ensure that the wire to be crimped is within the specified range of sizes for the contact and the crimp tool. Failure to use the specified wire size will result in poor quality crimps and possible tool damage.

Contact	Crimp Type	Wire Gauge (AWG)	Stranding (mm)	Crimp Tool Setting	Minimum pull-off force
M80-328	Power Crimp	18	19/0.26	7	50N
M80-338					
M80-329		200	19/0.20		
M80-339					

Table 1 - Crimp Tool Settings and Forces

2. Cut the end of the cable to be terminated so that there is a clean cut end (Figure A). Strip the cable to the correct length (Figure B). We recommend that when the wire is stripped, it is clamped or supported close to the stripping area - this will prevent insulation slippage. Suitable wire strippers (such as a PTFE wire stripper) must be used. This should result in all the strands lying together neatly. If the lay of the strands is disturbed, it may be re-imposed with a slight twist.

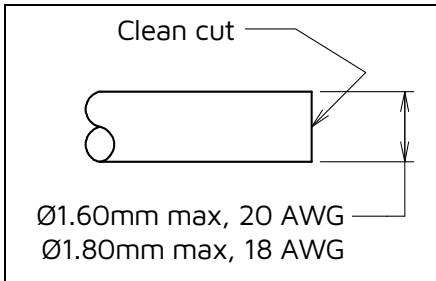


Figure A - Clean cut end

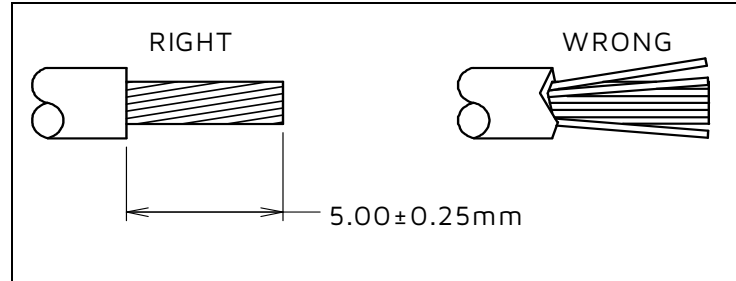


Figure B - Strip wire

3. Position the crimp socket fully into the positioner, with the crimp barrel uppermost.
4. Load the terminated end of the cable into the crimp barrel of the socket. Ensure the wire is fully home, with all strands in place (see Figure C).

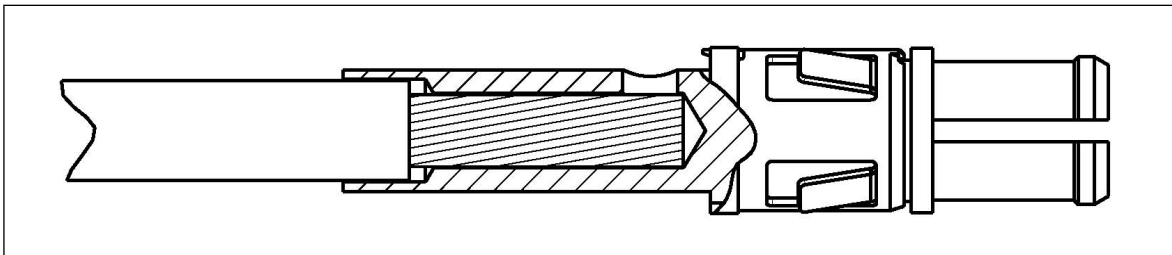


Figure C - All strands in inner crimp bore

5. Squeeze the handles of the crimp tool fully together, until the ratchet releases. The handle will return to the open position. Remove the crimped socket and wire. Using the sight hole on the side wall of the socket, ensure that adequate insertion of strands into the crimp socket has been achieved.
6. Crimp joints should be checked for:
 - a) Correct combination of cable, tool setting and crimp termination.
 - b) Correctness of form and location of crimp.
 - c) Freedom of fracture, rough edges and flash.
 - d) Adequate insertion of all conductor strands in the crimp barrel.
 - e) Absence of damage to the conductor or the insulation.



CARE OF TOOL

There is virtually no maintenance required for the Z80-294 (M22520/1-01) tool. However, it is good practice to keep the indenter tips free of residual colour band deposits and other debris. A small wire brush may be used for this purpose.

We strongly recommend that you:

1. **DO NOT** immerse tools in any cleaning solution.
2. **DO NOT** spray oil into tool to lubricate.
3. **DO NOT** attempt to disassemble tool or make repairs.

This is a precision crimp tool and should be handled as such.

