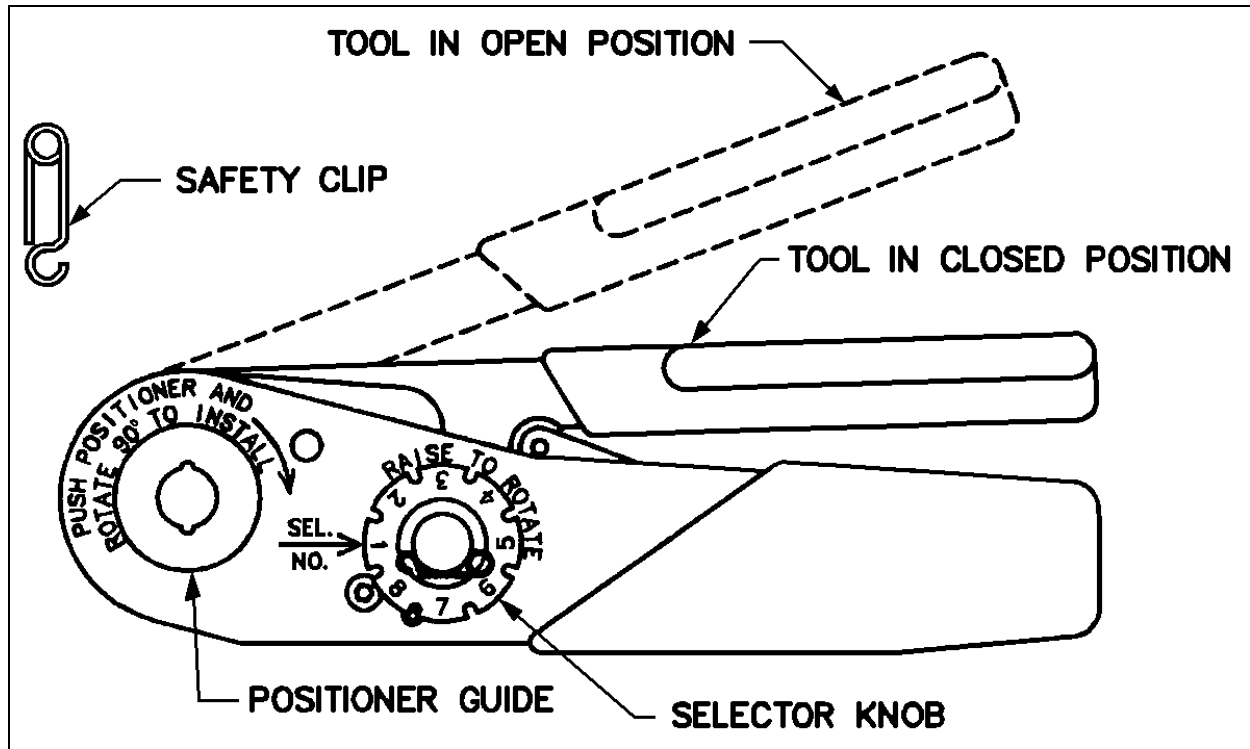# HARWiN

HAND CRIMP TOOL M22520/2-01

This Hand Crimp Tool has been designed for use with the following Datamate crimp sockets (when used with Positioner T5747):

M80-0110001 .... Large bore crimp socket (22 AWG), Tin shell/Gold clip
(used in M80-889XX01 and M80-899XX01)

M80-0110005 .... Large bore crimp socket (22 AWG), Gold shell/Gold clip
(used in M80-889XX05 and M80-899XX05)

M80-0130001 .... Small bore crimp socket (24-28 AWG), Tin shell/Gold clip
(used in M80-888XX01 and M80-898XX01)

M80-0130005 .... Small bore crimp socket (24-28 AWG), Gold shell/Gold clip
(used in M80-888XX05 and M80-898XX05)

The following Datamate Power Crimp Sockets can also be crimped (when used with Positioner Z80-058):

M80-0550001 .... Power crimp socket (18-20 AWG), Tin shell/Gold clip
(used in M80-716XX01 and M80-719XX01)

M80-0550005 .... Power crimp socket (18-20 AWG), Gold shell/Gold clip
(used in M80-716XX05 and M80-719XX05)

Customer Information Sheet
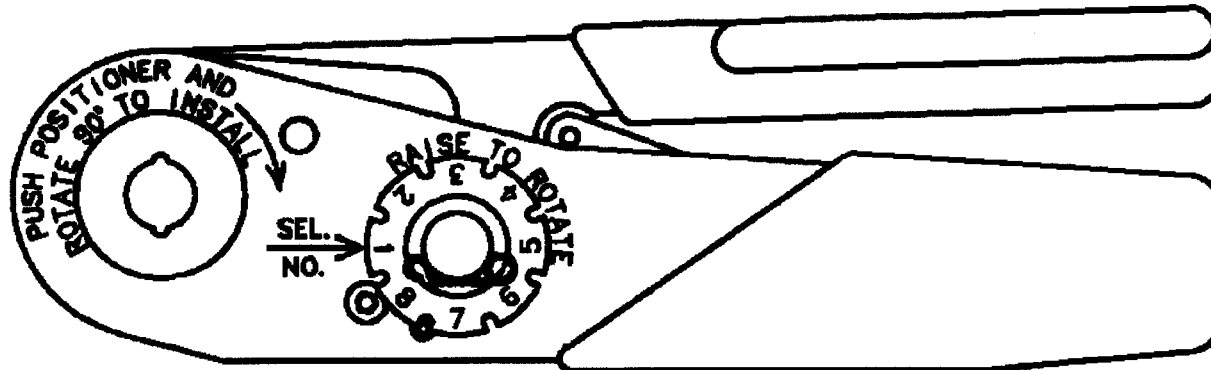
NOTES:
1. SEE INSTRUCTION SHEET IS-01 FOR INSTRUCTION ON USE OF TOOL.
2. MUST BE USED WITH A POSITIONER:

POSITIONER	CONTACT PART No.
T5747	M80-0110001
T5747	M80-0110005
T5747	M80-0130001
T5747	M80-0130005
Z80-058	M80-0550001
Z80-058	M80-0550005
ZK3609-00	K3606-06
ZK3609-00	K3607-T6

JAE	3	13.12.01	6346
NAME	ISS.	DATE	C/NOTE
APPROVED			
CHECKED:			
DRAWN:		J. KEIR	
CUSTOMER REF:			
ASSEMBLY DRG:			

TOLERANCES	
X. = ±1mm	
X.X = ±0.25mm	
X.XX = ±0.10mm	
X.XXX = ±0.01mm	
ANGLES = ±5°	
UNLESS STATED	

MATERIAL:

FINISH:

S/AREA:

TITLE:
DATAMATE HAND CRIMP TOOL

DRAWING NUMBER:
M22520/2-01

SHT
2
OF
2

The following Power Crimp Sockets can also be crimped (when used with Positioner ZK3609-00):

    K3606-06................Power crimp pin (18 AWG), Tin plated
    K3607-T6 ....Power crimp socket (18 AWG), Tin shell/ Tin clip

GENERAL INFORMATION

The Hand crimp tool M22520/2-01 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. Remove the safety clip from the positioner guide (do not discard).

2.   Insert the Positioner into the positioner guide and turn it 90° in the direction shown on the tool, until the bayonet pins lock.

3.   Install the safety clip back into the positioner guide (optional).

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.

Table 1

Contact	Crimp Type	Wire Gauge (AWG)	Stranding (mm)	Crimp Tool Setting	Minimum pull-off force
M80-01100XX	Large Bore	22	19/0.15	6	50N
M80-01300XX	Small Bore	24	7/0.2	6	44N
		26	19/0.1	6	25N
		28	7/0.125	6	12.5N
M80-05500XX	Power Crimp	20	19/0.2	8	85N
		18	19/0.26	8	140N
KF36XX	Power Crimp	18	Variable	8	142N

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) using a PTFE Wire stripper, preferably with adjustable rotating cutter. This should result in all the strands laying together neatly. If the lay of the strands is disturbed, it may be re-imposed with a slight twist.

Clean cut

Ø1.10 max (M80-XXX)
Ø1.80 max (K36XX)

RIGHT   WRONG

2.00 ±0.15 (M80-XXX)
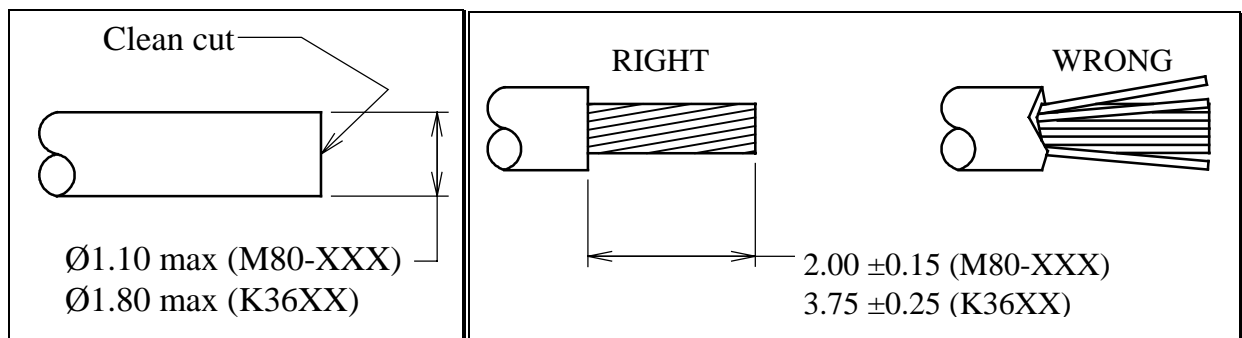3.75 ±0.25 (K36XX)

Figure A   Figure B

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).
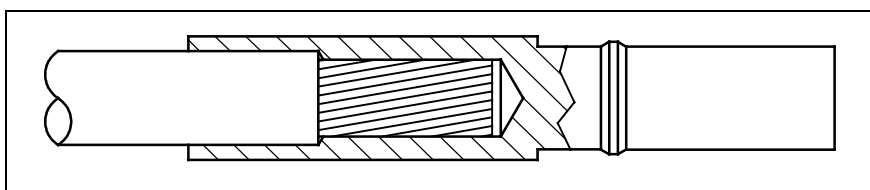

Figure C

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.

ASSEMBLY PROCEDURE

M80-XXX piece parts are assembled using the Assembly Tool T5748-19. See Instruction Sheet IS-02 for details on assembly.

K36XX piece parts are assembled using the Assembly Tool ZK3610-00. See Instruction Sheet IS-22 for details on assembly.

CARE OF TOOL

There is virtually no maintenance required for the M22520/2-01 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.