



ASTRO TOOL CORP.

CONNECTOR ASSEMBLY TOOLING

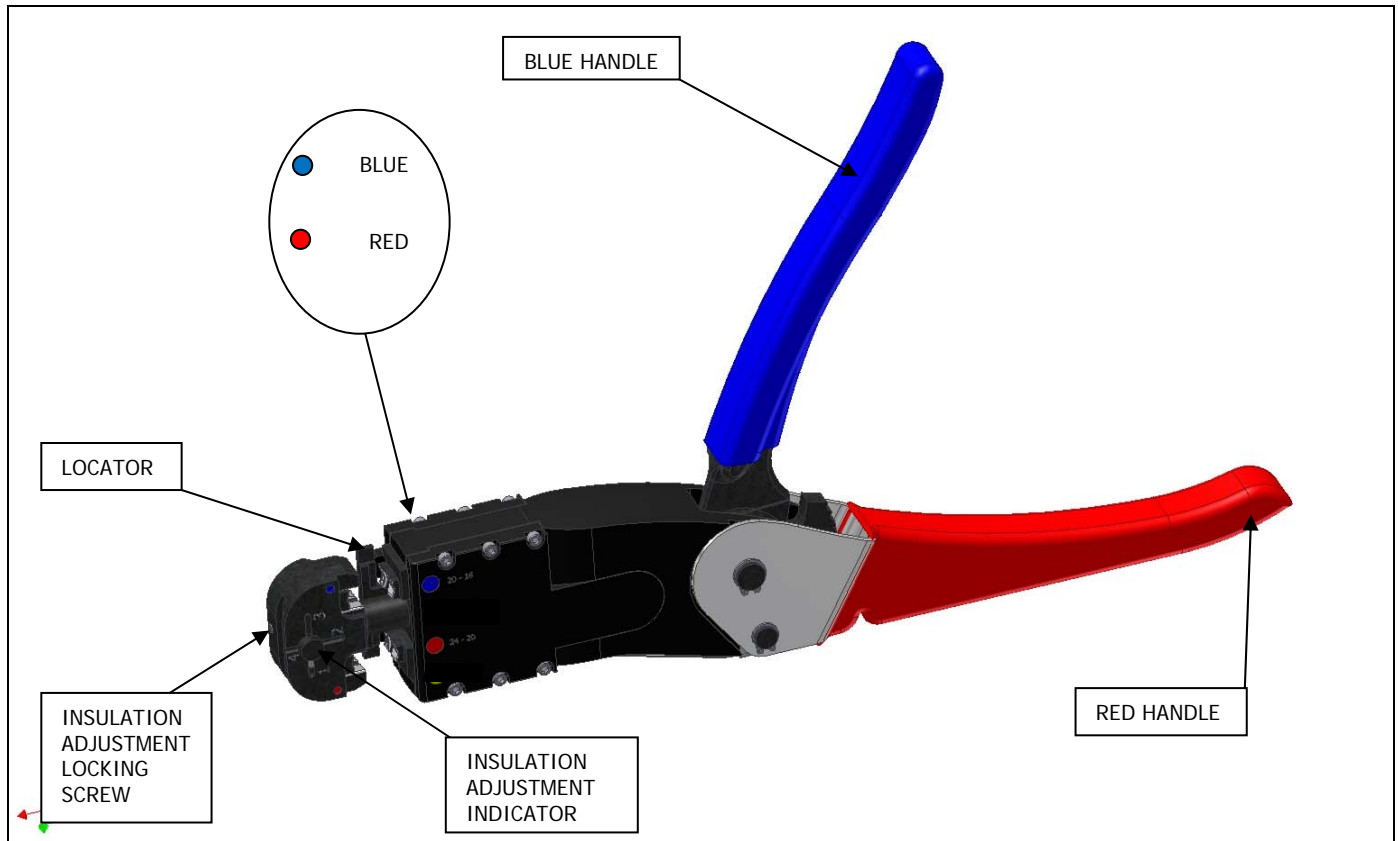


Figure 1

AMT4001 (M22520/40-1) CRIMP TOOL FOR TERMINALS

INTRODUCTION

This datasheet explains the use of Astro's "Crimp Tool for Terminals" AMT4001 (M22520/40-01) (See Figure 1). This tool is intended to crimp

insulated terminals manufactured to AS7928 (MIL-T-7928): including AS25036 (MS25036), and AS17143 (MS17143).



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GENERAL DESCRIPTION

The AMT4001 crimp tool has color coded handles to help match the color of the terminal being crimped with the correct crimp cavity. Additional color code information is on the tool's side plate.

The AMT4001 has an adjustable insulation crimp cavity that can be set at any one of four height settings depending on the insulation diameter of the terminal and wire to be crimped.

The spring loaded locators assist in correctly positioning the terminals in the crimp cavity.

The AMT4001 incorporates a tamper proof double action ratchet that once engaged will not release until the handles are closed fully and the crimp completed.

HANDLE AND DOT COLOR CODES

Note that the tools handles are color coded for the size terminal being crimped. The color coded terminal should be crimped in the corresponding colored cavity. For example, when crimping red coded insulated terminals the red crimp cavity on the red handle side of the tool should be used.

CRIMPING PROCEDURE

1. Strip wire to the dimension specified by the terminal manufacturer.
2. If the die cavity is not already open, close the tool handle until the ratchet releases and the die cavity opens.
3. Place the color coded terminal into the proper cavity of the crimp dies, so that the terminal tongue slides under the locator.
4. Close the tool handles until the terminal is held in place, but not crimped.
5. Insert the stripped wire into the terminal until the conductor butts against the locator.
6. Hold the wire in position and complete the crimp by closing the handles fully until the ratchet releases.



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INSULATION CRIMP ADJUSTMENT

Each tool has four insulation crimp positions.
(See Figure 1) To set the Insulation Crimp Height:

1. Loosen the insulation adjustment locking screw, and turn the indicator to position 4.(See Figure 1)
2. Load the terminal into the crimp cavity.
3. Insert an un-stripped wire into ONLY the insulation barrel of the terminal.
4. Perform a crimp, and remove the crimped terminal.
5. Bend the wire back and forth once. The terminal should retain a grip on the wire insulation.
6. If the wire pulls out, adjust to the next descending insulation crimp position.
7. Perform another crimp, and recheck the wire grip.
8. Repeat the adjustment as necessary until wire is gripped. DO NOT use a tighter setting than required.

9. Retighten the insulation adjustment locking screw.

INSPECTION AND GAGING

Astro recommends the user inspect and gage the tool periodically to ensure dependable and uniform terminations. Frequency of inspection and gaging is determined by the end user to suit their requirements through experience. Frequency of inspection and gaging is dependent upon:

1. The care, amount of use, and handling of the tool.
2. The type and size of the products being crimped.
3. The degree of operator skill.
4. The presence of abnormal amounts of dust, and dirt.
5. The user's own established standards.

GAGING THE CRIMP CAVITIES

<i>MS Part Number</i>	<i>Astro Part Number</i>	<i>Gage Type</i>	<i>Wire Size (AWG)</i>	<i>Gage Area</i>
M22520/43-01	AMTG4301	GO/NO-GO	22-16	Red Conductor Cavity
M22520/43-02	AMTG4302	GO/NO-GO	16-14	Blue Conductor Cavity
M22520/43-03	AMTG4303	GO/NO-GO	22-16	Red Insulation Cavity
M22520/43-04	AMTG4304	GO/NO-GO	16-14	Blue Insulation Cavity



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CONDUCTOR CAVITY

1. Close the tool handles fully, and hold them firmly closed.
2. Insert the appropriately sized GO gage (Green) member under the locator and into the conductor cavity, of the die (Red or Blue) you are trying to gage (See Figure 2).
3. The GO gage member should freely enter the die.
4. Attempt to insert the NO-GO gage (Red) member under the locator and into the conductor cavity, of the die (Red or Blue) you are trying to gage (See Figure 2).
5. The NO-GO gage (Red) member may enter slightly into the die cavity, but should not pass fully through the cavity. If the NO-GO gage (Red) member does enter the cavity fully, the die is worn and should be replaced.

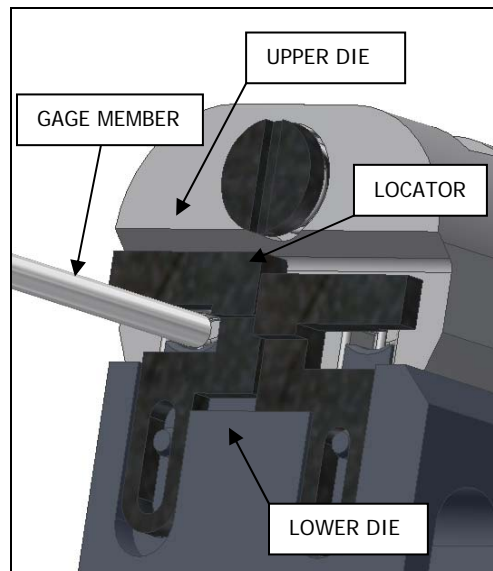


FIGURE 2

**CAUTION: DO NOT CRIMP THE GAGE MEMBER.
DOING SO MAY SERIOUSLY DAMAGE THE DIE SET!**



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INSULATION CAVITY

1. With the Insulation Adjustment Indicator on setting #1, close the tool handles fully, and hold them firmly closed.
2. Insert the appropriately sized GO gage (Green) member into the insulation cavity, of the die (Red or Blue) you are trying to gage (See Figure 3).
3. The GO gage (Green) member should freely enter the die.
4. With the Insulation Adjustment Indicator on setting #4, close the tool handles fully, and hold them firmly closed.
5. Attempt to insert the NO-GO gage (Red) member into the insulation cavity, of the die (Red or Blue) you are trying to gage (See Figure 3).
6. The NO-GO gage (Red) member may enter slightly into the die cavity, but should not pass fully through the cavity. If the NO-GO gage (Red) member does enter the cavity fully, the die is worn and should be replaced.

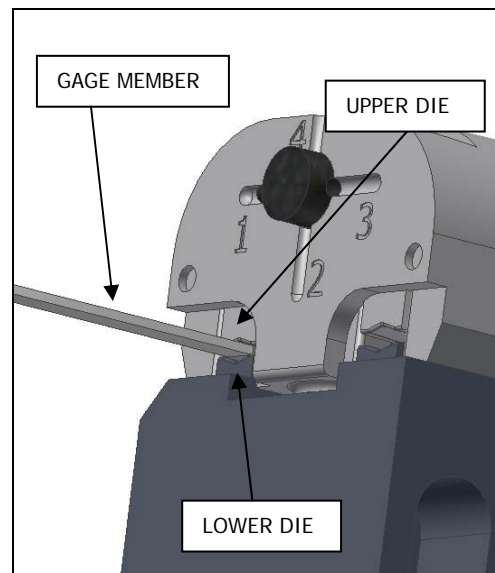


FIGURE 3

**CAUTION: DO NOT CRIMP THE GAGE MEMBER.
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MAINTENANCE

Astro offers complete refurbishing, and recalibration services.

Astro strongly recommends that you:

1. DO NOT immerse the tool in cleaning solution.
2. DO NOT spray oil into the tool to lubricate it.
3. DO NOT attempt to disassemble the tool, or make repairs.

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

This hand tool must not be used in any powered "press" as defined by OSHA CFR 1910.211 (46)

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