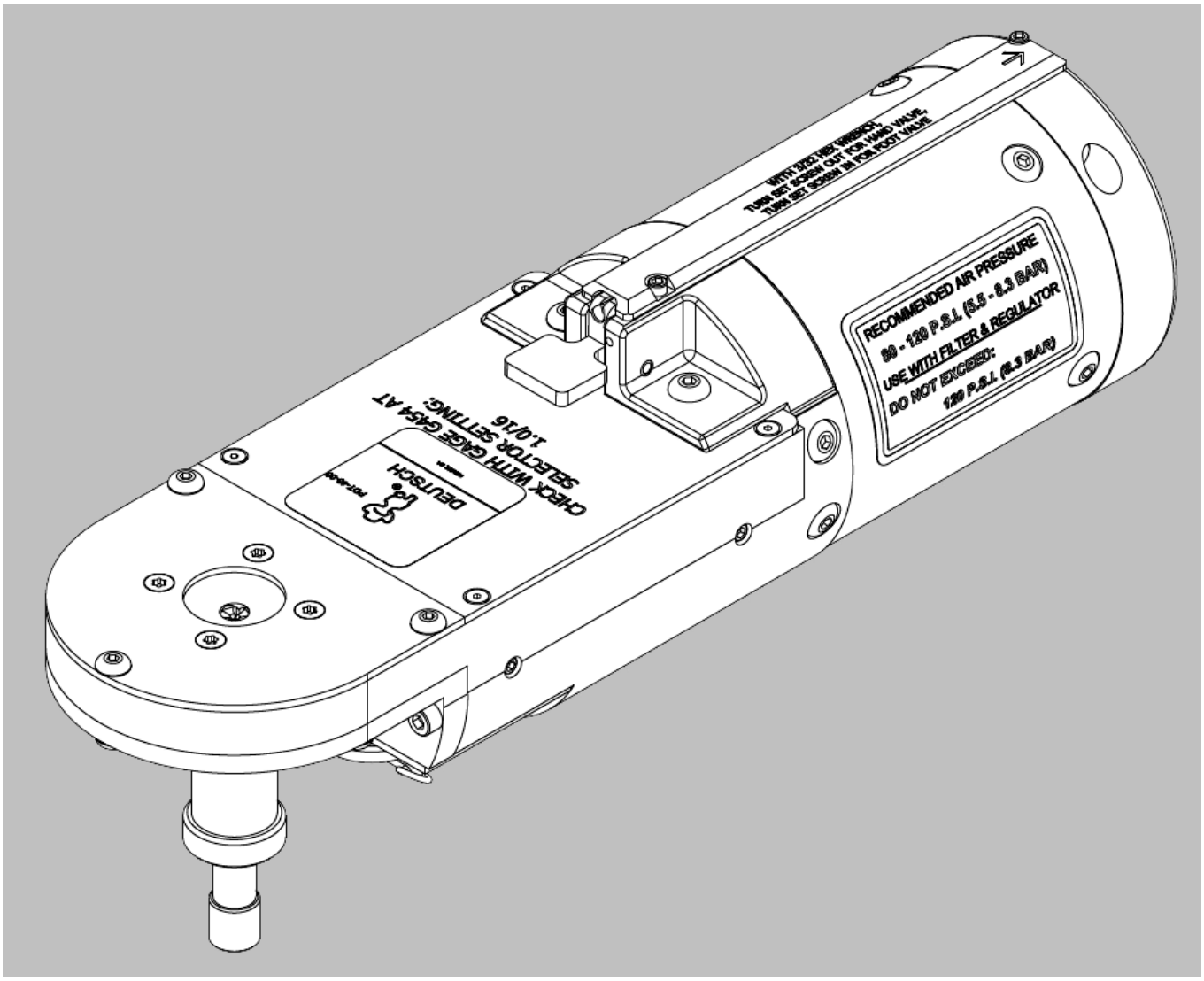
Figure 1: DEUTSCH Field Maintenance Crimp Tool PDT-48-00



1. INTRODUCTION

The PDT-48-00 is a Pneumatic DEUTSCH Tool version of the HDT-48-00 (Hand DEUTSCH Tool).

- The PDT-48-00 is for **production** crimps.
- The HDT-48-00 is for **field repairs** only.

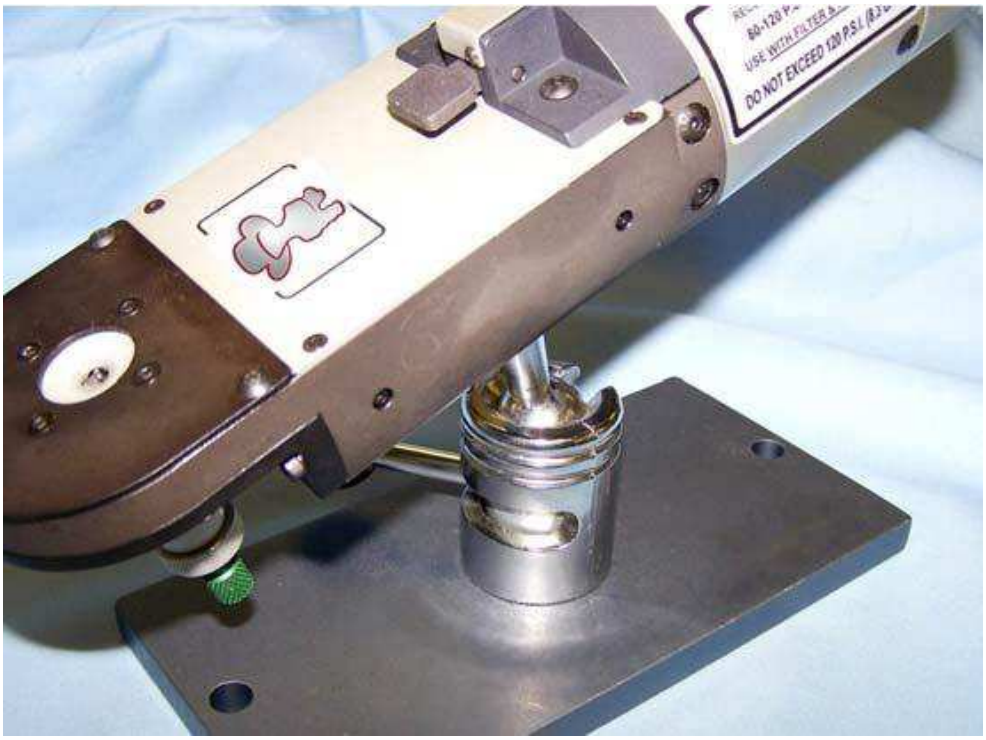
NOTE
Dimensions in this instruction sheet are in millimeters with [inches in brackets]. Figures are for reference only and are not drawn to scale.

Read these instructions thoroughly before crimping connectors.

2. INSTALLATION

1. Use hardware to secure the base of the bench mount. This reduces the risk of damage from the tool falling onto the operator or the floor.
2. Adjust the bench mount for efficiency and ergonomics.
   a. Loosen by rotating the knob lever.
   b. Move the tool to the desired position.
   c. Lock the ball mount by rotating the knob lever.

Figure 2: Ergonomics adjustment bench mount with locking arm to select tool angle



3. CRIMPING WITH TOOL PDT-48-00

3.1. Wire selection

Use Envelope Drawing PDT-48-00 for all wire/contact combinations. Table 1 simplifies popular sizes.

NOTE
The dial position is normally the same as the wire size (see Envelope Drawing for exceptions).

Table 1: Wire sizes

Contact size	Contact part number	Wire range AWG [mm²]	Strip length in. [mm]
20 pin 20 socket	0460-202-20** 0462-201-20**	20 [0.50]	.156-.218 [3.96-5.54]
16 pin 16 socket	0460-202-16** 0462-201-16**	16, 18, 20 [1.5, 1.0, 0.75, 0.50]	.250-.312 [6.35-7.92]
	0460-202-16** 0462-201-16**	14 [2.50, 2.00]	
12 pin 12 socket	0460-202-12** 0462-201-12**	12, 14 [3.0, 2.5, 2.0]	.222-.284 [5.64-7.21]

****:** The contact part number ends with a two- or three-digit plating code. This code indicates the metal with which the contact is plated (Table 2).

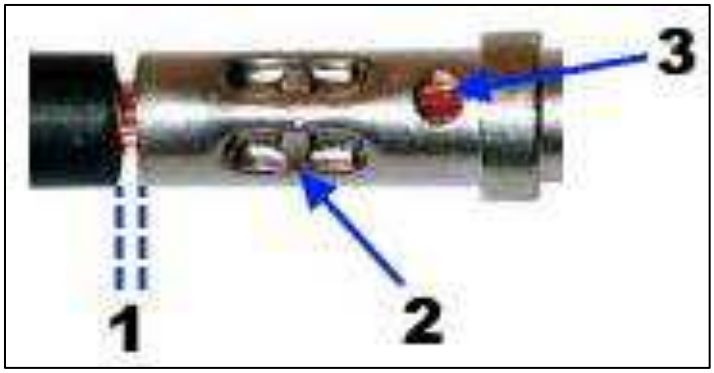
Table 2: Plating codes

Plating code	Metal
31	Gold
141	Nickel

3.2. Wire preparation

1. Strip the wire to the appropriate length (Table 1).
2. Check for missing, nicked, or damaged strands.
3. Verify sufficient wire length by checking that **all** wire strands are inside the crimp barrel and visible at the inspection hole (Figure 3).

Figure 3: Verifying wire length



1 .025 to .100" [0.63 to 2.54 mm] gap between crimp barrel and insulation
2 Crimp is centered between end of wire barrel and inspection hole
3 Strands are visible through inspection hole

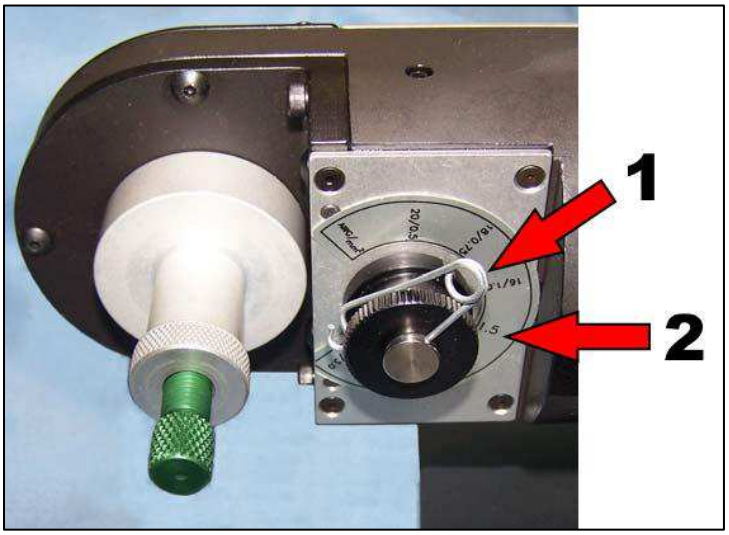
3.3. Adjusting the tool

1. Cycle the tool to open the indenters.
2. Remove the locking clip (Figure 4).
3. Raise and rotate the dial (Figure 4) to select a wire size.
   - Minimum 22 AWG [0.35 mm²]
   - Maximum 12 AWG [3.00 mm²]

NOTE
The tool must be open prior to selecting a wire size.

4. Reinstall the locking clip.

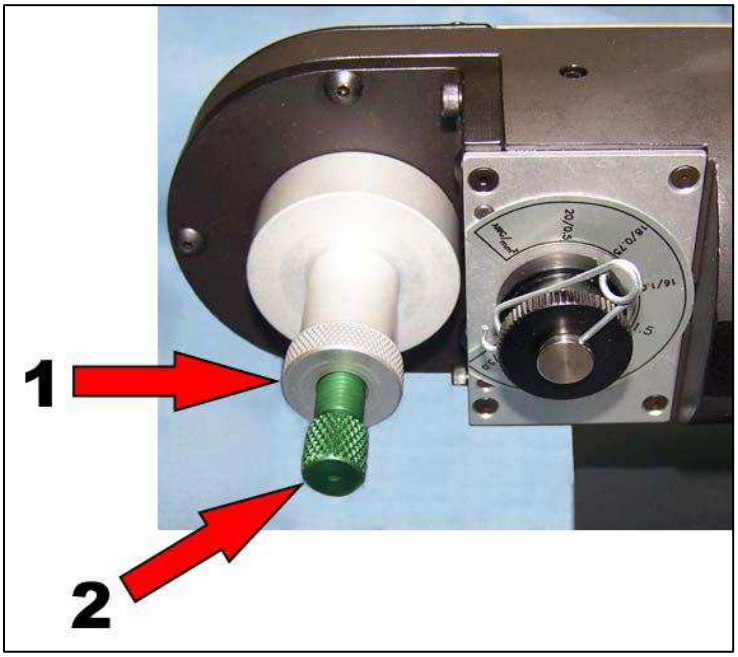
Figure 4: Dial and locking clip



1 Locking clip
2 Wire size selection dial

5. Loosen the locking ring (Figure 5).
6. Adjust the contact depth locator (Figure 5) to produce crimps as shown in Figure 3 by performing test crimps using the procedure described in section 1.4.
7. Tighten the locking ring.

Figure 5: Locator and locking ring



1 Locking ring
2 Contact depth locator

3.4. Crimping procedure

1. Open the tool by squeezing the tool handles until the ratchet releases (allowing the tool handles to fully open).
2. Place the contact into the tool.
3. Insert the stripped wire into the contact.
4. While holding the wire in place, depress and hold the trigger until the contact or ferrule is fully deformed and the tool indenters stop moving.
5. Release the trigger to allow the indenters to return to the resting position.
6. Remove the crimped contact from the tool.

4. MAINTENANCE AND INSPECTION

4.1. Maintenance

- Clean tool and remove debris regularly.
- Check for missing or loose hardware.
- Do **not** immerse tool in cleaners. Vacuum or wipe clean.
- Do **not** spray oil into tool to lubricate. Use in-line lubricator.
- Do **not** open tool or make repairs. Doing so voids your warranty.

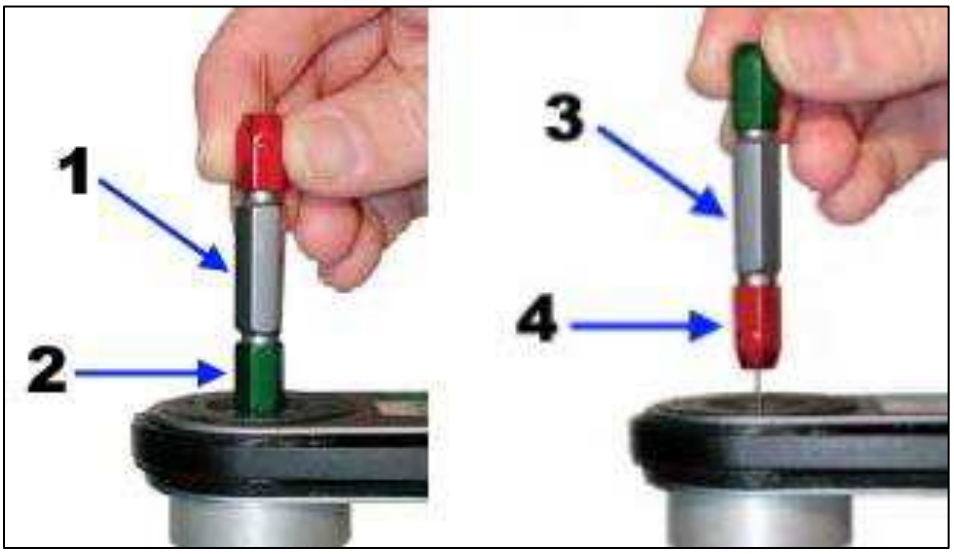
Use gage G454 (Figure 6) in dial position 16/1.0 to check wear. Under normal conditions, this check should be performed monthly. Check more often with high-volume use.

Figure 6: Gage G454

NOTE
Never close the tool on gage G454. This damages the indenters and voids the warranty. Close the tool first, then insert gage G454.

NOTE
Do not use gage G454 with the HDP-400 Power Crimper.

Figure 7: GO and NO-GO gaging



1 Fully inserted G454
2 Green end (GO)
3 Gage should not insert any further
4 Red end (NO-GO)

4.2. Air supply

The air supply is 80 to 120 PSI (5.5 to 8.3 BAR) and needs filter, dryer, and regulator. Lubricator is recommended. Check hoses and fittings for integrity and fix leaks as required.

The inlet port has a ¼" NPT fitting. Apply thread sealing tape or compound to avoid leakage or damage. Adjust 1/16" hex set screw OUT for a hand valve or IN for a foot switch.

Figure 8: Air fittings

5. REPLACEMENT AND REPAIR

If parts are damaged or worn excessively, they must be replaced. Order replacement parts through your TE representative. You can also order parts by any of the following methods:

- Go to TE.com and click the **Shop TE** link at the top of the page.
- Call 800-522-6752.
- Write to:

  CUSTOMER SERVICE (038-035)
  TE CONNECTIVITY CORPORATION
  PO BOX 3608
  HARRISBURG PA 17105-3608

For customer repair services, call 800-522-6752.

6. REVISION SUMMARY

Revisions to this instruction sheet include:

Replaced Figure 1 with a more accurate drawing.