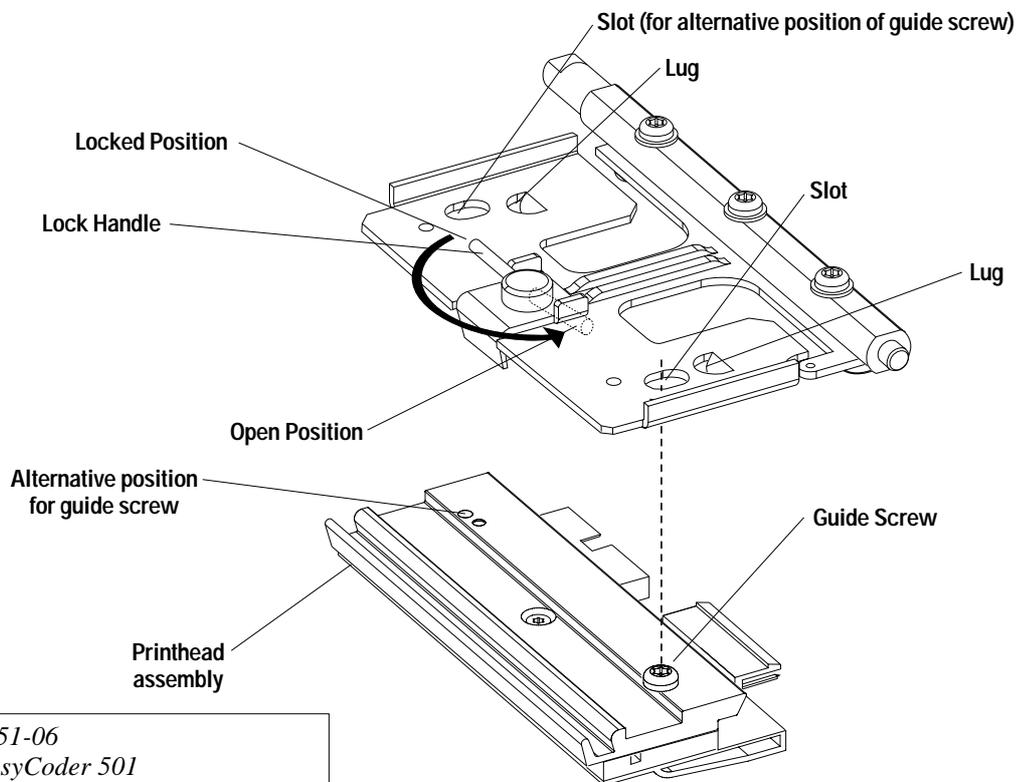


## PRINTHEAD REPLACEMENT

*The quick-mount thermal printhead is designed to be easy to replace:*

- Turn off the printer.
- Open the front hatch and right-hand door.
- Lift the printhead.
- Remove the transfer ribbon, if any.
- Turn the lock handle counter-clockwise to *open* position, see illustration.
- The printhead assembly will now be free. Remove it carefully as far as the cables allow.
- Remove the two printhead cables. Pull at the connectors rather than the cables!
- If you want to change the position of the printhead, move the #T20 Torx screw to its alternative position.
- Connect the two cables to the new printhead.
- Fit the replacement printhead assembly back into the bracket so the guide screw fits into its slot and the rear end of the adapter is held by the two lugs.
- Turn the locking handle clockwise to *locked* position.
- Put back the transfer ribbon, if any. Check that the printhead cables do not interfere with the ribbon.
- Lower the printhead.
- Turn on the power. At power-up, the printer will automatically reset itself to the characteristics of the printhead in regard of head resistance and density.
- Close the front hatch and right-hand door and the printer is ready for operation.
- If the printer refuses to start up, there may be an unfortunate combination of CPU board and printhead. This will only occur in printers manufactured before September 30, 1996, see page 4.
- When replacing an “old type” 8 dots/mm printhead (part No. 1-010010-91, see page 2) with a new one, you will need to check the paper type setup. Too high energy setting may shorten the life of the printhead. Refer to page 3 for instructions.



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UBI EasyCoder 501  
Printhead Replacement Instructions  
Edition 7, August 1997

*Continued!*



# UBI EasyCoder 501 – Installation Instructions

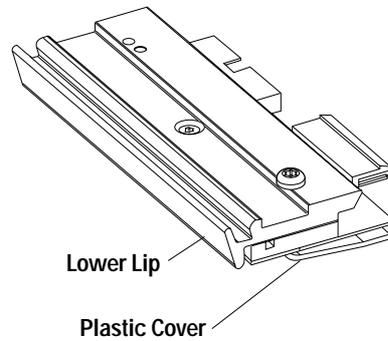
## PRINTHEAD REPLACEMENT, cont'd.

### Identifying Printhead Type

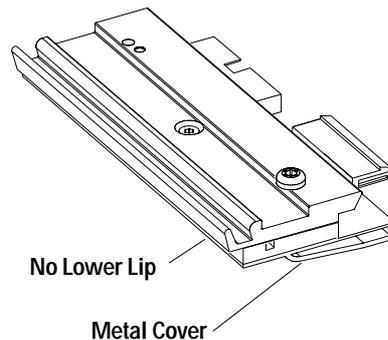
In September 1996, UBI switched to another brand of 8 dots/mm printheads for its range of EasyCoder 501 printers (EasyCoder 501, EasyCoder 501 E, and EasyCoder 501 SA). Note that this change did **not** include 11.81 dots/mm printheads. UBI believes that the new brand will offer better printout quality, better chemical resistance and better resistance against electrostatic discharges. However, the new printhead requires less energy and is not fully compatible with some early versions of EasyCoder 501 printers.

To identify the printhead in your printer, compare with the drawings below:

#### “Old” Printhead (Part No. 1-010010-91)



#### “New” Printhead (Part No. 1-010010-92)



This booklet is only delivered with replacement printheads of the new brand (part No. 1-010010-92).

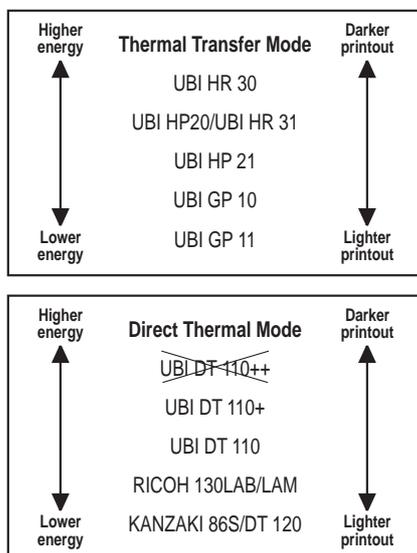
## PRINTHEAD REPLACEMENT, cont'd.

### Adjusting the Setup

When switching from a printhead of the old brand to the new one, make sure that the paper type setup corresponds to the direct thermal paper or transfer ribbon loaded in your printer, see the EasyCoder 501 Technical Manual.

#### **Warning!**

Do **not** use the setting *UBI DT110++*, which provides too much energy for the new printhead and will cause a premature wear-out. If you cannot produce enough blackness without using the extreme setting, something else is wrong, e.g. misalignment between printhead and pressing roller, or the direct thermal paper is too thick or too cold or have a general bad quality.



If you are not sure what type of direct thermal paper or transfer ribbon you are using, you could use this method:

1. Set the Contrast setup to medium (5).
2. Start with the Paper Type setting for the mode in question with the lowest energy (see tables to the left) and print Test label #1.
3. Check the pattern. All dots should be visible but must not bleed or flow together.
4. If the blackness is too weak, try next higher setting and check the test label pattern. Go on until you get a blackness that is barely acceptable to the human eye.
5. Fine-adjust using the Contrast setup and the head pressure knobs (stronger pressure increases the blackness and vice versa).

#### **Note:**

- There is a trade-off between life length on one hand and blackness (high energy) and high printhead pressure on the other. Often, a higher energy setting and/or a higher printhead pressure than needed is used, which may shorten the life of the printhead.
- Blackness is perceived differently by the human eye and a scanner because they use different wavelengths. This means that a bar code that looks extremely black to the human eye is not necessarily better to scan. Factors like glossiness, distance etc. play a more important role.

## PRINTHEAD REPLACEMENT, cont'd.

### Troubleshooting

#### Problem:

Printer refuses to start up after printhead replacement.

#### Cause:

The combination of one type of 8 dots/mm printhead (Part No. 1-010010-92) and the “old” CPU board (Part No. 1-040700-28) causes an electrical mis-match that will prevent the printer from starting up. Such CPU boards were installed in EasyCoder 501 printers manufactured before September 30, 1996.

CPU boards with part No. 1-040700-29 or later in combination with 8 dots/mm printheads with part No. 1-01010-91 or with any 12 dots/mm printheads do **not** cause this problem.

#### Remedy:

The problem is easy to fix and do not require any special skills. First make sure that the printhead really is of the type 1-010010-92 **and** that the CPU board really is of the type 1-040700-28. If only one of these two conditions is fulfilled, do **not** cut the line.

#### How to identify the printhead:

Printhead 1-010010-92 has a **metal** cover protecting its circuitry (not plastic) and the lower lip on the front of the adapter plate is removed, see page 2.

#### How to identify the CPU board:

Issue a UBI Fingerprint instruction to read the version:

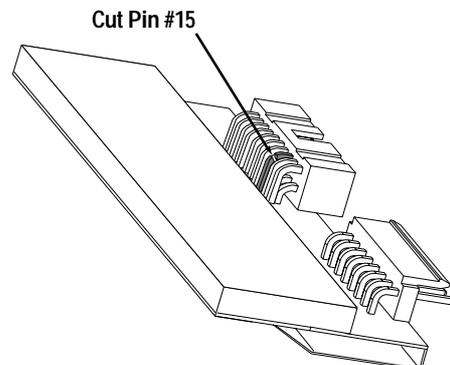
**PRINT VERSION\$( 2 ) ↵**

- If #3 is returned, you have CPU board 1-040700-28.
- If any other value is returned, you have another type of CPU board.

If you cannot issue any UBI Fingerprint instructions, turn off the power, unplug the power cord and carefully remove the left-hand cover. Without touching anything inside, read the number at the top centre of the CPU board. If this number is 040700-01, you have CPU board 1-040700-28. Put back the cover.

#### What to do:

Cut off pin 15 on the replacement printhead. Compare with the picture and make sure that you cut the correct pin (third from the right in the upper row when viewing the connector's back side).



**CAUTION!**  
The electronics compartment contains wires and circuits with dangerous voltage!  
Turn off power and unplug power cord.