

# Thermal Printhead (for EasyCoder PF2i, PF4i, PF4i Compact Industrial, and PM4i)

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### Introduction

This Installation Instructions booklet describes how to install a replacement printhead in an EasyCoder PF2i, PF4i, PF4i Compact Industrial, or PM4i printer. The illustrations shows installation in an EasyCoder PF4i printer, but the same principles apply to all printers mentioned above, even if the width of the printhead or the appearance of the print mechanism differ to some extent.

If the printer is fitted with an optional printhead spring (EasyCoder PF4i only), the spring must be removed to allow the printhead to be pulled out and refitted after the replacement printhead has been installed.



When installing a printhead, make sure that the printhead density and alignment is the same as in the one you replace and that the printhead is designed for the type of printer in which you are going to install it. Printheads designed for EasyCoder F2, F4, or F4 Compact Industrial do NOT work!

# Why does the printhead wear out?

When the media is fed past the printhead, small resistor elements (dots) on the printhead are electrically charged and thereby heated. The heat from the dots is transferred to the direct thermal paper or the thermal transfer ribbon so as to form the dot pattern which makes up the text, images, or bar codes.

Printhead wear-out is an inevitable process which applies to all thermal printers regardless of brand. During printing, the dots must be heated and cooled off very rapidly, which in combination with mechanical abrasion sooner or later will wear out the printhead, making the printout gradually weaker. Some dots may even cease to produce any imprint.

# **Simple Precautions**

Some simple measures can be taken by the user to prevent premature wear-out:

Clean the printhead regularly, as described in the User's Guide. Not
only will a dirty printhead produce an inferior printout, but any residue on the dots will prevent heat to dissipate through the media.

### EasyCoder PF2i, PF4i, PF4i Compact Industrial, and PM4i

- Follow the recommendations regarding Paper Type or Media Sensitivity setup in the User's Guide. Too much energy to the printhead will wear it out rapidly.
- Do not use higher Print Speed setting than necessary.
- Low ambient temperature requires more energy to the printhead dots than room temperatures and will therefore cause more wear to the printhead. High print speed accelerates the wear. Thus, at low temperatures, select as low a print speed as acceptable.
- Do not use a higher Contrast setting than necessary.
- Do not use a higher printhead pressure than necessary.
- Never print outside the media path. Dots that are not in contact with the media will not be cooled properly.
- When using media with less than full width, be careful to adjust the
  printhead lift arm so there is an even pressure across the media. Not
  only will an uneven pressure impair the printout quality, but it may
  also prevent the dots from being properly cooled. Moreover, a sharp
  outer media edge in direct contact with the printhead may cause
  excessive mechanical wear on some dots, which may be visible when
  printing on wider media later.
- When using preprinted labels or labels with some type of varnish or non-standard top coating for direct thermal printing, use original Intermec labels or inks recommended by leading manufacturers of direct thermal media. The labels must not contain any aggressive substances such as chloride or grinding substances such as titanium dioxide.
- Only use original Intermec transfer ribbons or ribbons recommended by Intermec.



Always switch off the power while replacing the printhead. The printer must be restarted before it automatically resets itself for the characteristics of the new printhead.

## **Installation Instructions**

(For illustrated instructions, refer to the printer's User's Guide).

- 1 Switch off the power to the printer.
- 2 Open the side door (and the front door, if any).
- 3 Turn the printhead lift lever clockwise to raise the printhead.
- 4 Remove any remaining media and transfer ribbon.
- 5 Hold the pressure arm and press down the printhead bracket so it comes free from the magnet in the pressure arm.
- 6 Disconnect the printhead bracket by twisting it out of the print mechanism and pull it out as far as the cables allow.
- 7 Disconnect the cables from the printhead. Note the snap-lock on the inner connector. Pull at the connectors—not at the cables.
- 8 Check that the label on the new printhead corresponds to the label on the old one and connect the two cables to the replacement printhead.
- **9** Fit the printhead so the "fingers" engage the headlift shaft. Check that the cables run freely.
- 10 Turn the printhead lift lever counterclockwise so the magnet engages the printhead bracket.
- 11 Switch on the power, so the printer can reset itself to the characteristics of the new printhead.
- 12 Load a new supply of media and ribbon as described in the printer's User's Guide.

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