2006-Apr-3

Disassemble the floppy disk drive provided, and write a memo to the (ficticious) production manager of the manufacturer, describing the process of assembling the drive. Treat circuit boards as subassembly parts. Use the attached page of part photos for identifying individual parts and reference frames for each part.

Your memo should include:

- List of parts, including each type of fastener
- List of tools required to assemble
- Summary noting any special assembly methods required, any critical Key Characteristics, and number of steps that will be required.
- Assembly steps, in a clear and concise format, with specific frame translations and rotations (to nearest 0.1" or 2mm and 5°) needed to locate a part or subassembly on the base casting. Frame transformations are relative to the feature coordinate frames shown on the page of photos. You don't need to specify the entire trajectory of positioning a part, just the relative transform between the coordinate frame of each part and the base, or a part to another part when the part doesn't mount to the base casting.

Your memo should be free of misspellings, homonym substitutions and bad grammar.

I would suggest that you try out your instructions on a friend to see if they make sense and are of sufficient detail.

Return the floppy drive in reassembled condition, along with your typed memo on Friday. You will not receive a grade if you do not return the floppy drive!

Example instructions for one step:

## Step 1 – Head electronics PWA

Rotate main chassis (500010) 180° about the Y axis, so it is face down on the work surface. Position the Head Electronics PWA (300030) on the main chassis with its reference point approximately –103mm horizontally and –28mm vertically from the main chassis reference point. Fasten with two 100002 screws [see parts list for specs on screw]. The position of this PWA may require later vertical adjustment (Y axis) for alignment of the photo sensor.

