## BGA Socket Solder Process

The BGA socket can be soldered to your raw board when you solder all of the other surface-mount components, or afterward, as described in this process sheet.

1 Check the fit and alignment of the paper solder stencil on the target system before removing the adhesive back from the stencil.

2 Using scissors, trim the paper solder stencil to fit in the available space on the target board. Leave as much of the stencil intact as possible.

NOTE: Your BGA pattern and socket shape may be different from the ones shown in this document.
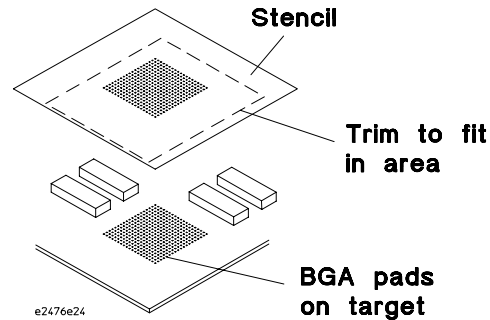
3 Once the stencil is trimmed to the proper size, remove its adhesive back. Carefully align the stencil on the target board and press it down. The stencil is properly aligned when all stencil holes are completely filled with PCB pads, or when the PCB pads are all centered in the stencil holes. If misaligned, lift the stencil, realign, and press it down again.
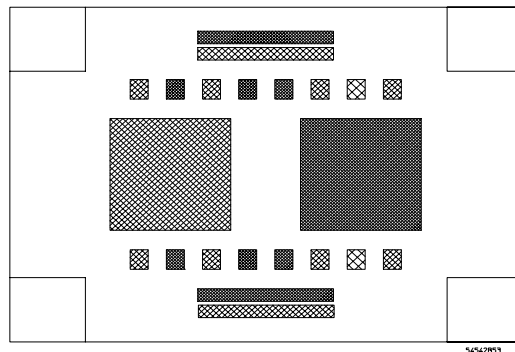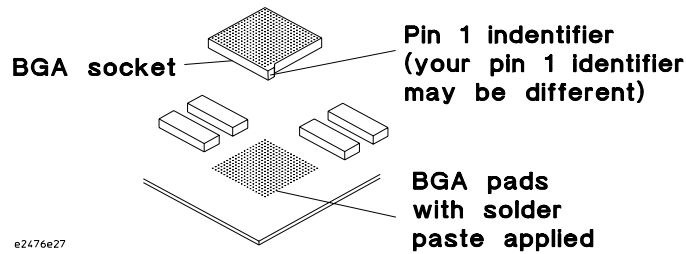

4 Apply a generous amount of solder paste along one edge of the stencil (see other side).

5 Use the beveled edge of the squeegee to spread the paste across the stencil with one smooth motion. Apply enough pressure on the squeegee to clear most of the paste from the top of the stencil. If more paste is needed, apply it as in Step 4 and make another pass with the squeegee (see other side).

Squeegee

Solder paste

Beveled
side

Correct solder paste

No

No   No

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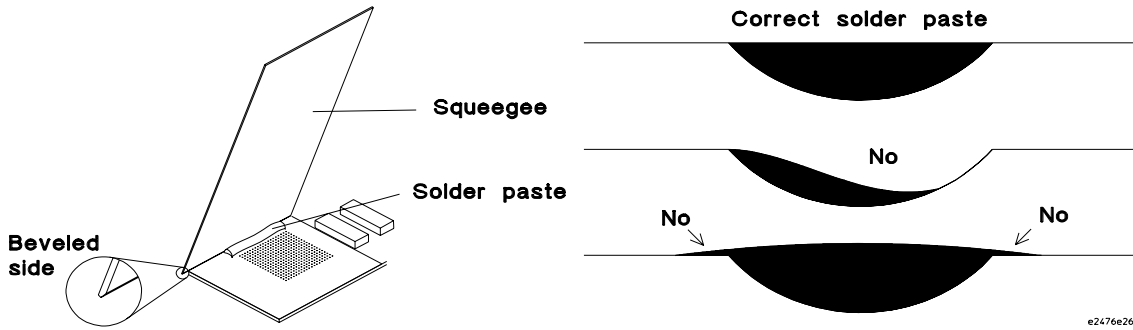
CAUTION: Do not paint the paste onto the stenciled surface. This may lift portions of the stencil and cause excessive paste to form under the stencil.

6   When the paste is spread completely across the stencil, carefully remove the stencil. Remove excess paste from the stencil and target system, if necessary. The stencil may be reused for two or three more socket installations.

7   Place the socket on the target system, being careful to align the socket solder balls with the BGA pads on the target system.

BGA socket

Pin 1 indentifier
(your pin 1 identifier
may be different)

BGA pads
with solder
paste applied

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CAUTION: Take special care to align socket pin 1 with BGA pin 1 on the target system. Install the extender or male-to-male header in the socket as described in the preprocessor or analysis probe manual. Do not plug anything in the socket without the extender or header.

8   Use a standard surface-mount heating process to re-flow the solder paste.

9   Clean the solder paste from your tools with isopropyl alcohol.

RECOMMENDED SOLDER PASTE

Surface Mount Solder Cream, 63/37 N. C. Stencil,
Melting Point 179-191 degrees C, Part Number 6-SN63-575-E.