

Memorandum GM-3654

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Division 6 - Lincoln Laboratory  
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Lexington 73, Massachusetts

SUBJECT: PROCEDURE FOR STRIPPING WIRES FOR 64 x 64 MEMORY PLANE MODULES

TO: PRODUCTION CONTROL OFFICE

FROM: E. A. Guditz

DATE: 7 June 1955

APPROVED:   
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ABSTRACT: The required procedure for preparing and inspecting wires used in the construction of 64 x 64 memory plane modules has been recorded for the benefit of shop personnel and outside vendors.

Wire Stripping Procedure

- a. Thirty turns of #32 Q. F. wire are wound on a form.
- b. One end of the coil is cut. The other end is twisted and a handling wire is attached.
- c. The group of wires is passed through two pieces of plastic tubing approximately 5 1/2" long. The pieces are spaced apart from one another.
- d. One end of each tube is taped down with Scotch masking tape.
- e. Tape is applied to the other ends of the lengths of tubing in such a manner as to insure coverage of the desired length of insulation on the wire.
- f. The wire bundle is cut in the middle between the two lengths of tubing.
- g. One end of a bundle is immersed in a test tube of XVAR Stripping Solution up to the tape.
- h. The wires are worked with a pointed instrument to insure complete coverage with the XVAR. This procedure takes 4 minutes.

- i. The tape is removed on the end being worked and the wires brushed with an "acid" brush which has the bristles reduced to half length to increase the stiffness.
- j. The ends are brushed in an alcohol bath.
- k. The ends are immersed in a second alcohol bath and brushed with a Rush Eraser Company brush.
- l. The ends are immersed in a third alcohol bath and agitated.
- m. The ends are then immersed in a 4th alcohol bath for ten minutes.
- n. The wire is removed from the 4th alcohol bath and dried.
- o. The other ends of the wires are processed as in g through n.
- p. After the second set of ends have been processed through o, the entire bundle can lay in the 4th alcohol bath.
- q. Upon removal from the 4th alcohol bath the wires are dried.
- r. The ends are then dipped in "water dip laquer" to prevent oxidization.

Digit Plane Wire

Use #32 Quadruple Formex wire.

- a. Remove a few turns from the spool and strip the end for a length of about 1/2". Use XVAR followed by an alcohol rinse.
- b. Mark the wire size on a cardboard bobbin.
- c. Place the end of the wire in a slot on the bobbin.
- d. Place the bobbin on the winding mandrel.
- e. Wind 38 1/2 turns on the bobbin as indicated by the turns counter.
- f. Use a small piece of tape to secure the last turn to the bobbin.

- g. Wind 38 1/2 more turns on the bobbin.
- h. Cut the wire and strip the end as in a.
- i. Place the end of the wire in the slot on the bobbin.

Sense Wire

Use #34 Quadruple Formex wire.

- a. Mark the wire size on a cardboard bobbin.
- b. Place the end of the wire in a slot on the bobbin.
- c. Place the bobbin on the winding mandrel.
- d. Wind 33 turns on the bobbin as indicated by the turns counter.
- e. Use a small piece of tape to secure the last turn to the bobbin.
- f. Wind 33 more turns on the bobbin.
- g. Cut the wire and place the end in a slot on the bobbin.

Stripping the Sense and Digit Wires

Stripping wires already in the mat must be done with great care. Every precaution must be observed to ascertain that no stripping solution is spattered onto the mat. Every wire stripped must be thoroughly wiped with tissue soaked in alcohol.

Wire Inspection

The pre-cut and stripped coordinate driving wires must be inspected before use. They must be inspected as follows:

~~The insulated portion of each coordinate wire~~ shall in no case be longer than 6 9/32" nor shorter than 6 3/16". This check shall be performed with the aid of measuring gauges provided. The length of discolored insulation shall not exceed 1/64".

The pre-wound sense and digit wires must be inspected before use. They must conform in the following respects:

- a. Each half of the winding on the #32 bobbin must measure according to measuring gauge supplied.

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- b. Each half of the winding on the #34 bobbin must measure according to measuring guage supplied.
- c. The wire shall be free from kinks.

  
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