

OPERATOR'S QUALITY CHECK PROCEDURE FOR AMP * TERMI-POINT * CLIP APPLICATION

GP 2019

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INTRODUCTION

This publication is intended for use by tool operators as an in-process inspection procedure for TERMI-POINT clip applications. To assure a satisfactory level of quality during clip applications, the tool operator should visually inspect every clip application and should perform nondestructive clip retention (tensile pull) tests, as described in the following procedure.

NOTE: AMP recommends use of this procedure as an essential part of an effective quality control program, but this procedure alone is no substitute for such a program. Refer to AMP publication GP 1920, "Quality Control Procedure for AMP TERMI-POINT Clip Applications", for guidance in establishing a suitable quality control program.

PART I CLIP APPLICATIONS FOR .022" x .036" POST SIZE

1. CHECK TERMINATION

Refer to Figure 1 and check clip application for the following criteria:

- (a) Stripped wire must be visible at end of clip, but must not extend more than 3/64".
- (b) Insulation must not be visible between wire and post at contact area (back end of clip).
- (c) Insulation support at front end of clip must retain wire.
- (d) Metal-to-metal contact must exist between wire and post.
- (e) Full length of clip curls must grip the post.

2. CHECK POSITION

Refer to Figure 2 and check clip position on post for the following criteria:

- (a) First clip on post must not bottom on panel or on chamfer of post.
- (b) First clip on post must allow wire clearance to panel equal to or greater than insulation diameter.
- (c) Additional clips on post may seat on each other but must not override.
- (d) Last clip on post must not be positioned closer than 1/16" (ref.) (3/64" min.) to top of post.

NOTE: When using AMP TERMI-POINT automatic wiring machines, check clip positioning for conformance to AMP Product Specification 115-26010.

3. CHECK CLIP RETENTION (PULL TEST)

The first five clip terminations applied by each operator on every shift should be checked with AMP nondestructive Pull Test Tool, Part No. 69358-6. Also, whenever a reel of clips or a spool of wire is changed, or when a clip splice is encountered, each operator should again pull test the first five terminations applied.

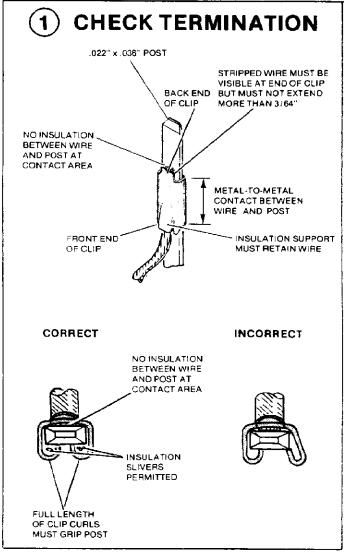


Figure 1

NOTE: Refer to IS 1933, supplied with pull test tool for tool particulars.

- (a) Hook tip of test tool squarely against ends of curls a front end of clip. See Figure 3.
- b) Maintain alignment of tool with post and pull slowly until green indicator ring on tool is in line with from of tool. This represents a pull test force of 0.50 pounds. Clip may slide, but it must not slide more than 1/2 clip length before indicator ring appears.

NOTE: Lateral movement of clip during test does no affect quality of termination, provided that full length of clip curls continue to grip the post. Clips that move more than 1/2 clip length during test should be rejected, a new clip applied, and the pull test repeated.

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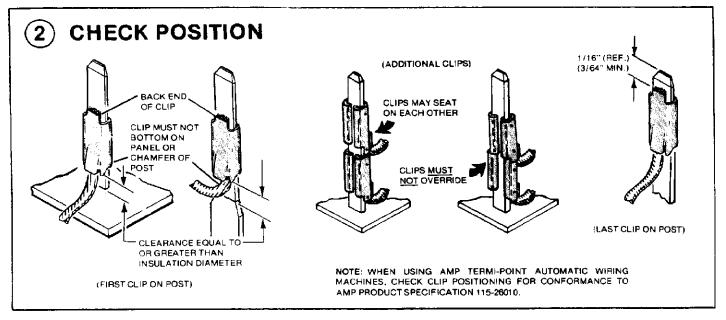


Figure 2

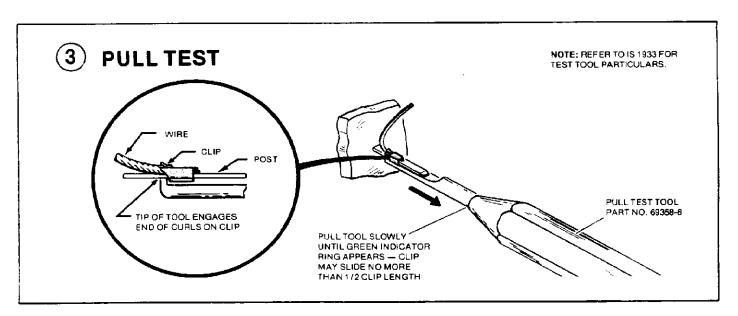


Figure 3

PART II CLIP APPLICATIONS FOR .031" x .062" POST SIZE

1. CHECK TERMINATION

Refer to Figure 4 and check clip application for the following criteria:

- (a) Stripped wire must be visible at end of clip, but must not extend more than 1/16".
- (b) Insulation must not be visible between wire and post at contact area (back end of clip).
- (c) Insulation support at front end of clip must retain wire.
- (d) Metal-to-metal contact must exist between wire and post.
- (e) Full length of clip curls must grip the post.

2. CHECK POSITION

Refer to Figure 5 and check clip position on post for the following criteria:

- (a) First clip on post must not bottom on panel or on chamfer of post.
- (b) First clip on post must allow wire clearance to panel equal to or greater than insulation diameter.
- (c) Additional clips on post may seat on each other but must not override.
- (d) Last clip on post must not be positioned closer than 1/16" (ref.) (3/64" min.) to top of post.

NOTE: When using AMP TERMI-POINT automatic wiring machines, check clip positioning for conformance to AMP Product Specification 115-26010.

3. CHECK CLIP RETENTION (PULL TEST)

The first five clip terminations applied by each operator on every shift should be checked with AMP nondestructive Pull Test Tool, Part No. 69358-2. Also, whenever a reel of clips or a spool of wire is changed, or when a clip splice is encountered, each operator should again pull test the first five terminations applied.

NOTE: Refer to IS 1933, supplied with pull test tool, for tool particulars.

- (a) Hook tip of test tool squarely against ends of curls at front end of clip. See Figure 6.
- (b) Maintain alignment of tool with post and pull slowly until yellow indicator ring on tool is in line with front of tool. This represents a pull test force of 2.25 pounds. Clip may slide, but it must not slide more than 1/2 clip length before indicator ring appears.

NOTE: Lateral movement of clip during test does not affect quality of termination, provided that full length of clip curls continue to grip the post. Clips that move more than 1/2 clip length during test should be rejected, a new clip applied, and the pull test repeated.

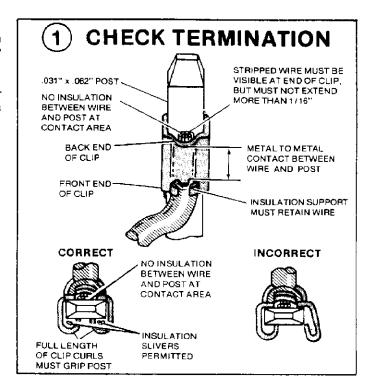


Figure 4

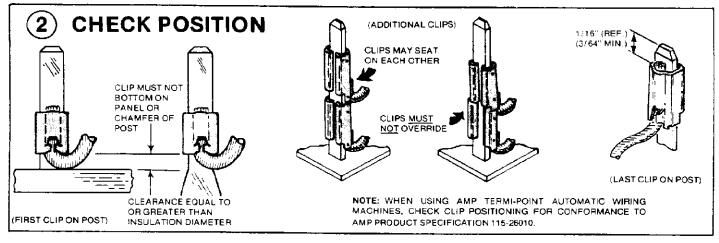


Figure 5

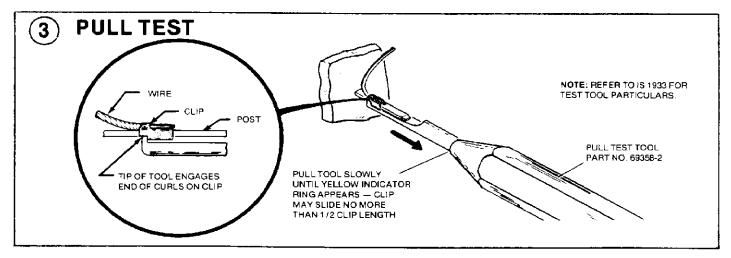


Figure 6