

URGENT INFORMATION SUPPLEMENT  
SPlicing INDIVIDUAL CONDUCTORS

1. GENERAL

- 1.1 The purpose of this UIS is to transfer the method of splicing the emergency alarm system leads from Section 802 (rated minus) to this section.
- 1.2 The splicing of Fire Detection (FD), 20BH and 14 Ga. Wire may be performed utilizing the KS-21256 Solder Sleeves. The use of 100A metal splicing sleeves are still considered approved and an alternate method of splicing.

2. INSTRUCTIONS

- 2.1 Add new Paragraphs 4.5 through 4.53 for splicing FD to FD, FD to BH and FD to 14 Ga. They shall read as follows:

4.5 EMERGENCY ALARM SYSTEM: The "solder sleeve" type splices shall be made as shown in Figures 13 and 14. The splices shall be located so that it will not be placed under the varnish impregnated sleeving used to protect the FD wires from the metal framework.

4.51 FD TO FD TYPE SPLICES made in the following manner:

- a) Cut the ends of the FD wires clean and push back the loose insulation about one inch and hold it in place with a clip or R-1616 Clothes Pin.
- b) Bring the two ends of the FD wire together so that they overlap 1/4 inch (min) and then slide the splice sleeve (KS-21256 L-22) over the two leads so that the solder ring is approximately centered as shown in Figure 13 (Step 2).
- c) Slide the insulation of the wires under the splice sleeve a minimum of 1/8 inch at both ends of the splice. It may be necessary to trim the loose wire insulation prior to inserting it under the sleeve-hold the insulation in place with the R-1616 Clothes Pins.

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NOTICE - NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL  
SYSTEM EXCEPT UNDER WRITTEN AGREEMENT

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- d) Using the R-4444 Heat Shrink Tool, apply heat to the splice area being sure that: 1) The sleeve shrinks down and grips the insulation of the wires. 2) The solder ring breaks down and fuses to the solder of the FD wires, however, be sure the solder does not flow to a point where it completely liquifies and runs out the ends of the splice. 3) The splice area is not scorched, seared or blackened to a point where it is impossible to view the finished splice. 4) The wire insulation is not charred or burnt.
- e) After the splice operation has been completed, view it to see that the connection is properly fused and that it is properly insulated. If there is any doubt about the protection, apply a half-lapped layer or PVC tape over the splice area.

4.52 The FD to 20BH wire splice should be made in the following manner:

- a) Remove approximately 1/2 inch of insulation from the 20 gauge lead and apply the KS-21256 L-21 splice sleeve over the lead as shown in Figure 14, Step 1.
- b) Cut the end of the FD wire clean and push back the insulation about one inch, hold it in place with a clip or R-1616 Clothes Pin.
- c) Bring the two bare wire ends together so that they overlap a minimum of 1/4 inch and then slide the splice sleeve over the two leads so the solder ring is approximately centered as shown in Figure 14, Step 2.
- d) Slide the insulation of the wires under the splice sleeve a minimum of 1/8 inch at both ends of the splice. It may be necessary to trim the loose wire insulation of the FD wire prior to inserting it under the sleeve—hold the insulation in place with the R-1616 Clothes Pin.
- e) Using the R-4444 Heat Shrink Tool, apply heat to the splice area being sure that: 1) The sleeve shrinks down and grips the insulation of the wires. 2) The solder ring breaks down and flows around the 20 Ga lead, also be sure the solder ring fuses with the solder of the FD wire. 3) Be sure the solder does not flow to a point where it runs out the end of the splice. 4) The splice area is not scorched, seared or blackened to a point where it is impossible to view the finished splice. 5) The wire insulation is not charred or burnt.
- f) After the splice operation has been completed, view it to see that the connection is properly fused and that it is properly insulated. If there is any doubt about the protection, apply a half-lapped layer of friction tape shellacked or half-lapped layer of PVC tape over the splice area.

4.53 FD TO 14 Ga WIRE This type of splice shall be made according to Paragraphs 4.51 (a) thru (c) and Figure 13.

Engineering Planning Manager  
(Installation)

Attachment  
Figures 13 and 14.

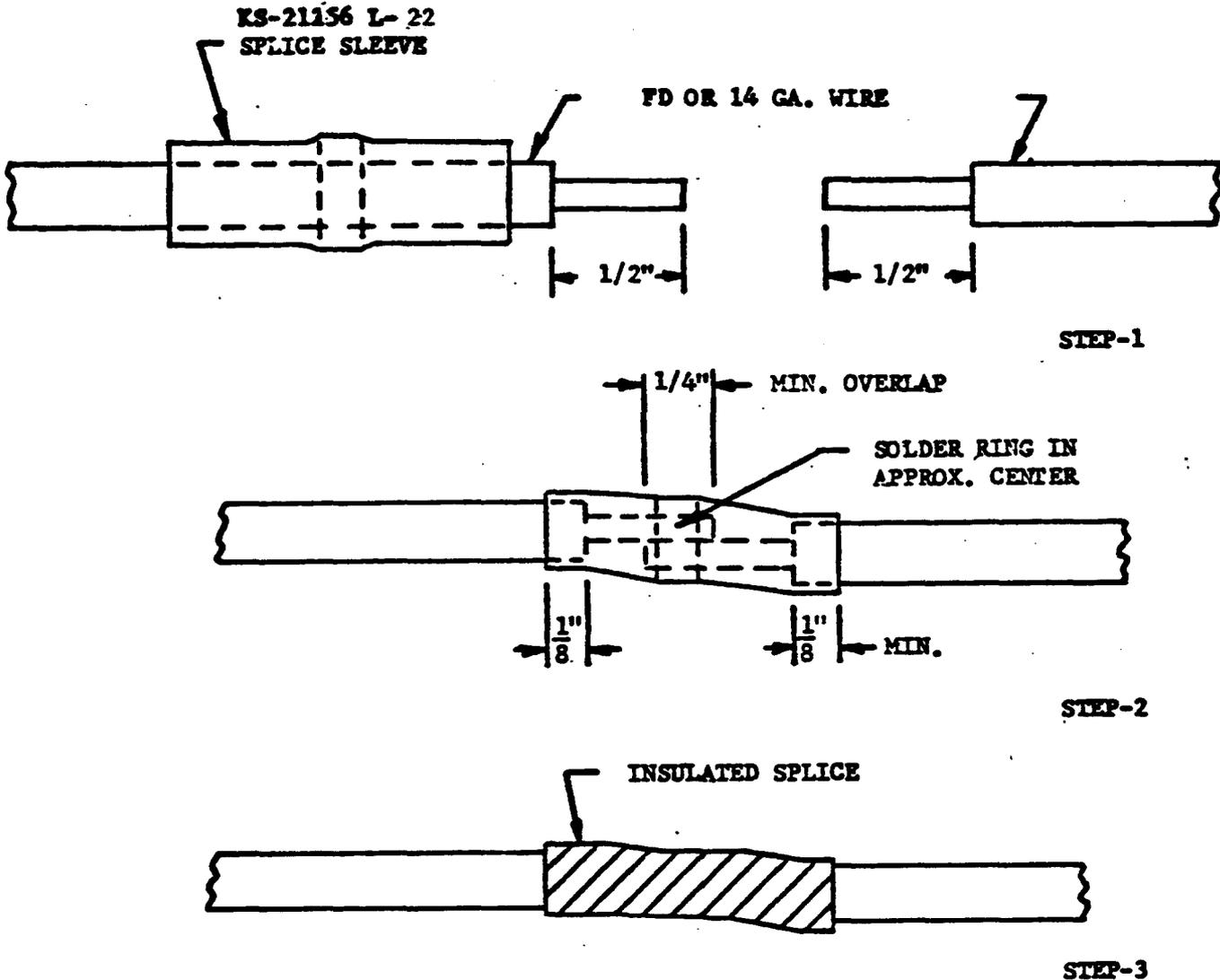


FIG. 13 METHOD OF SPLICING FD TO FE, FD TO 14 GA OR 14 GA TO 14 GA

NOTES:

1. REMOVE APPROXIMATELY 1/2" OF INSULATION FROM THE 14 GA WIRE OR PUSH BACK THE SLEEVING OF THE FD WIRE AND HOLD IN PLACE. (STEP 1)
2. PUSH THE TWO BARE WIRE LEAD ENDS TOGETHER AND OVERLAP AT LEAST 1/4". (STEP 2)
3. SLIDE THE KS-21256 L-22 SPLICE SLEEVE OVER THE BARE WIRES SO THAT THE SOLDER RING IS CENTERED. THE SLEEVE MUST OVERLAP THE INSULATION AT LEAST 1/8" BOTH ENDS. NO BARE WIRE PROTRUDING OUT THE ENDS OF THE SPLICE SLEEVE. (STEP 2)
4. APPLY HEAT TO THE SPLICE SLEEVE USING THE R-4444 HEAT GUN - BE SURE NO SOLDER RUNS OUT THE ENDS OF THE SPLICE AREA. (STEP 3)
5. BE SURE SPLICE AREA IS NOT SCORCHED, OR BLACKENED TO A POINT WHERE IT IS IMPOSSIBLE TO VIEW THE FINISHED SPLICE.
6. DO NOT BURN OR CHAR THE WIRE INSULATION.

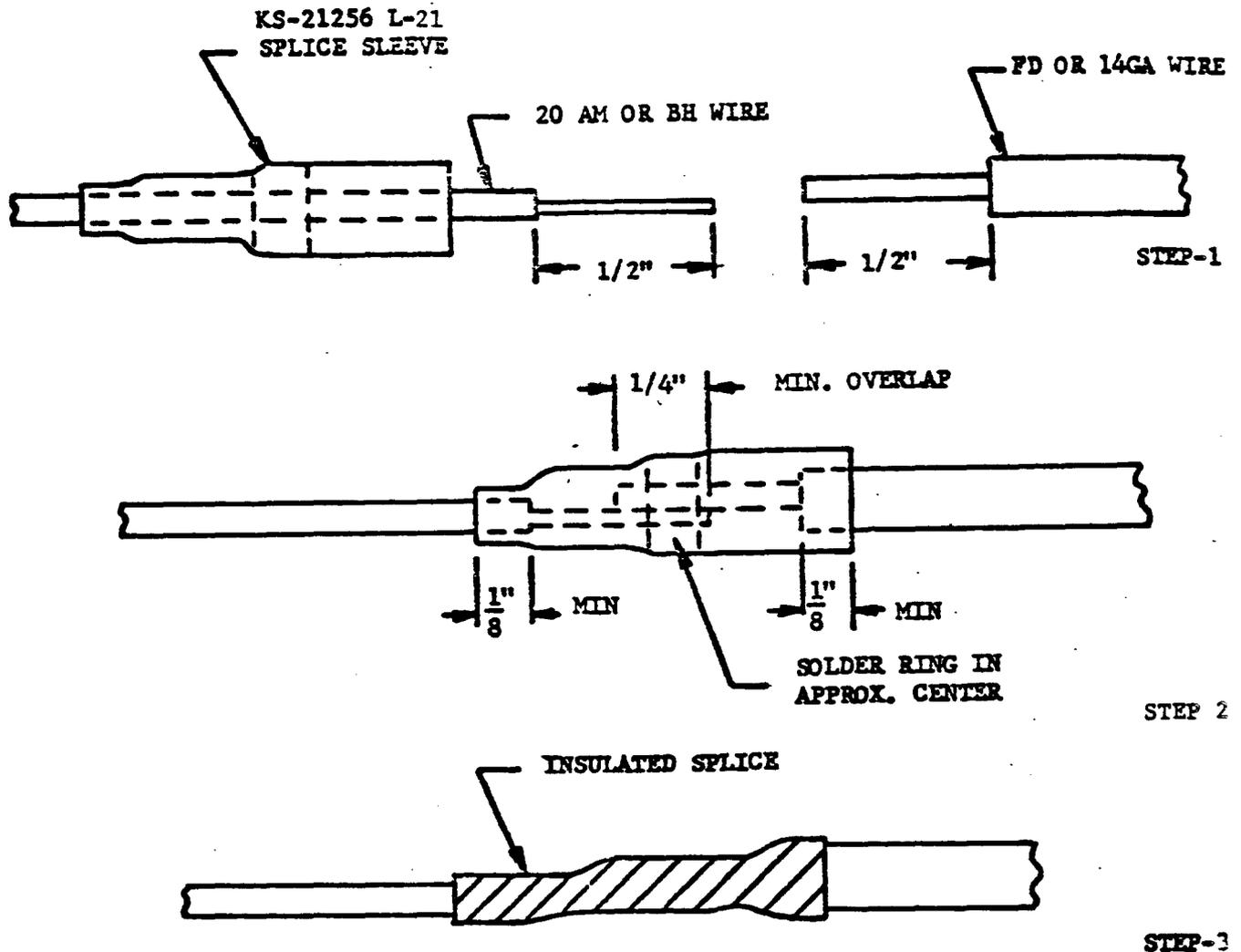


FIG. 14 METHOD OF SPLICING 20 AM OR BH WIRE  
TO FD OR 14 GA WIRE

**NOTES:**

1. REMOVE APPROXIMATELY 1/2" OF INSULATION FROM THE 20 OR 14 GA WIRES - PUSH SLEEVING BACK ON THE FD WIRE AND HOLD IN PLACE. (STEP 1)
2. PUSH THE TWO BARE WIRE LEAD ENDS TOGETHER AND OVERLAP AT LEAST 1/4". (STEP 2)
3. SLIDE THE KS-21256 L-21 SPLICE SLEEVE OVER THE BARE WIRE SO THAT THE SOLDER RING IS CENTERED. SLEEVE MUST OVERLAP THE INSULATION AT LEAST 1/8" AT BOTH ENDS - NO BARE WIRE PROTRUDING OUT THE ENDS OF THE SPLICE. (STEP 2)
4. APPLY HEAT TO THE SPLICE SLEEVE USING THE R-4444 HEAT GUN BEING SURE NO SOLDER RUNS OUT THE ENDS OF THE SPLICE AREA. (STEP 3)
5. BE SURE SPLICE AREA IS NOT SCORCHED, OR BLACKENED TO A POINT WHERE IT IS IMPOSSIBLE TO VIEW THE FINISHED SPLICE.
6. DO NOT BURN OR CHAR THE WIRE INSULATION.