

All illustrations and information contained in this instruction sheet are based on the latest product information available at the time of publication.

1. INTRODUCTION

This instruction sheet provides instructions on product application and a maintenance and inspection procedure for:

COAXICON★ CRIMPING DIES			
59879-1	69231-2	69494-1	69231-3
(For Use In Hand Tool 69710 Or Pneumatic Tool 69365)			

These tools are used to crimp AMP★ twin standard contacts.

Basic instructions on the use of the tools are provided in Section 2, "Instructions". Section 3 features a contact "Crimp Inspection" procedure. Section 4 contains a "Maintenance and Inspection Procedure" which will enable you to establish and maintain a die certification program.

Information pertaining to the contacts, such as cable stripping dimensions and assembly of component parts, is included on instructions packaged with the contacts.

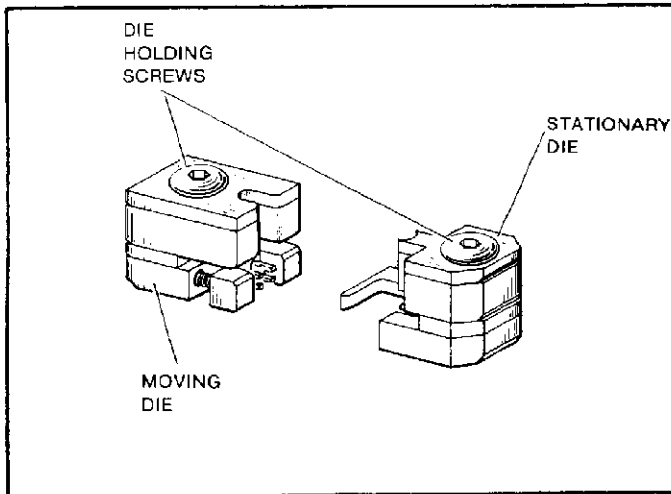


Figure 1

2. INSTRUCTIONS

- (a) Place crimping dies in tool. See IS 2905 for inserting dies in hand tool 69710; or CM 1983 for inserting dies in pneumatic tool 69365.
- (b) Die assemblies have three sets of crimping dies—one for inner wire barrels of contacts, one for braid section of ferrule and another for outer insulation section of ferrule. See Figure 2. All three crimps are made at the same time.
- (c) Place contact in upper crimping die as shown in Figure 3.
- (d) Line up crimping ports with barrel crimping dies.
- (e) Push contact "up" so that upper barrel crimping dies enter crimping ports and ferrule bottoms against braid-ferrule crimping die. See Figure 3.
- (f) Ensure lower barrel crimping dies are lined up with crimping ports.

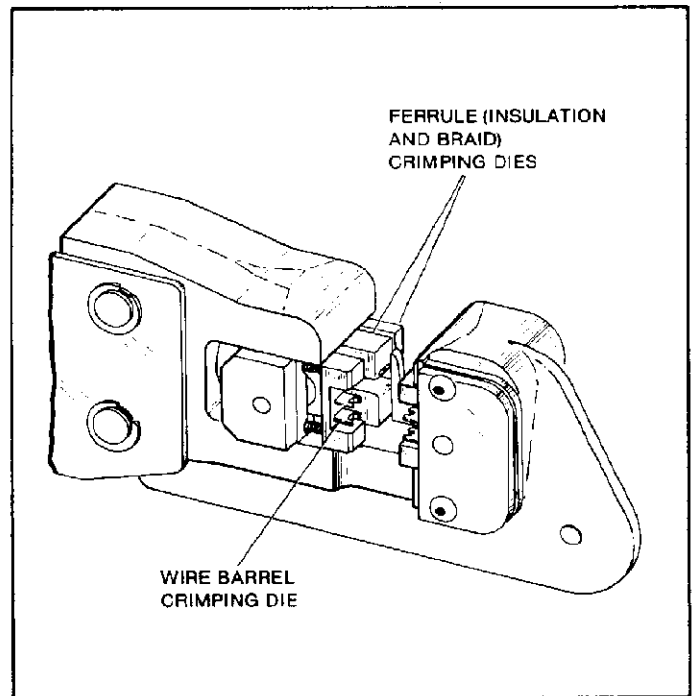


Figure 2

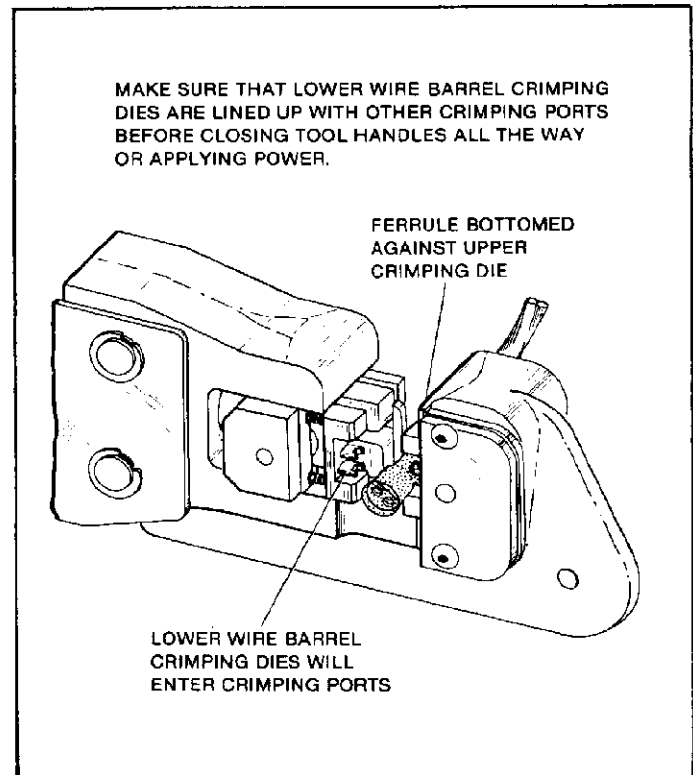


Figure 3

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- (g) If hand tool No. 69710 is being used, observe lower (spring-loaded) crimping die as handles are closed part way. When wire barrel crimping dies have entered crimping ports, close handles until CERTI-CRIMP[★] ratchet releases to complete crimp.
- (h) If pneumatic tool No. 69365 is to be used, manual take-up attachment No. 307569-1 should be installed on tool. This device will allow lower crimping die to be manually closed on the contact while observing entrance of wire barrel crimping dies in crimping ports. Refer to instruction sheet shipped with manual take-up attachment No. 307569-1 for installation instructions for this accessory. Proceed as follows after take-up attachment has been installed. This procedure also applies to tool No. 69365-2.

1. Place contact on stationary die as previously described. See Figures 3 and 4.
2. Pull handle on take-up attachment forward to close die on contact.
3. After dies have entered crimping port, crimping button can be pressed to complete crimp.

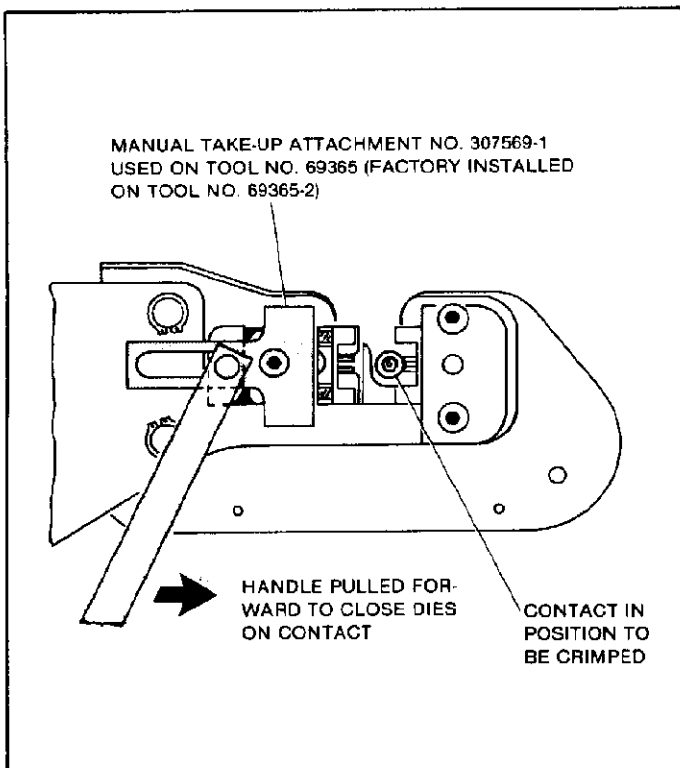


Figure 4

3. CRIMP INSPECTION

Inspect crimped contacts by checking the features described in Figure 5.

Use only the contacts that meet the conditions shown in the "ACCEPT" column.

"REJECT" contacts can be avoided through careful use of the instructions in Section 2, and by performing regular die maintenance as instructed in Section 4.

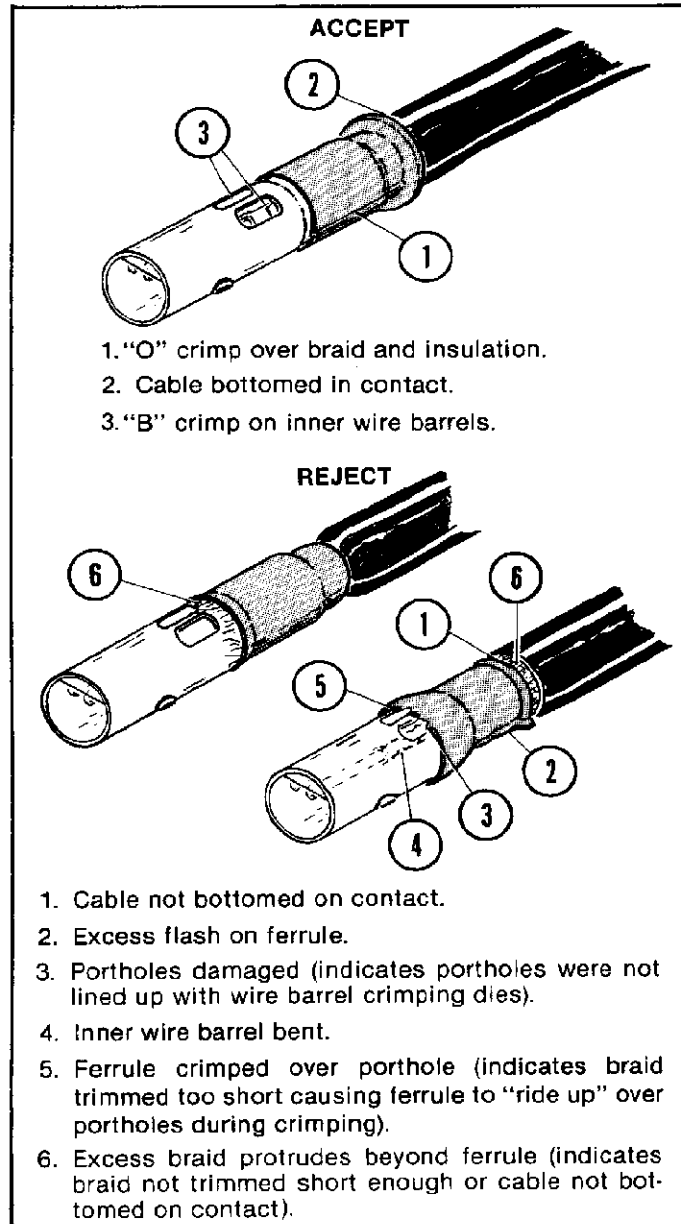


Figure 5

4. MAINTENANCE/INSPECTION PROCEDURE

AMP recommends that a maintenance/inspection program be performed periodically to ensure dependable and uniform terminations. Inspect dies at least once a month. Frequency of inspection may be adjusted to suit your requirements through experience.

Frequency of inspection is dependent upon:

1. The care, amount of use, and handling of the dies.
2. Type and size of products being crimped.
3. Skill level of the operator.
4. Presence of abnormal amounts of dust and dirt.
5. Your own established standards.

All dies are thoroughly inspected prior to shipment. Because of the possibility of damage during shipment, new dies should be inspected in accordance with instructions in Section 4 when the dies are received in your plant.

Due to the precision design, it is important that no parts of these dies be interchanged except those replacement parts listed in Figure 12.

4.1 CLEANING

- (a) Immerse dies in degreasing compound to remove accumulated dirt, grease, and foreign matter. Ensure that degreasing compound to be used does not attack paint or plastic.

NOTE: When suitable degreasing compound is not available, dies may be wiped clean with a lint-free cloth.

- (b) Remove remaining degreasing compound with a lint-free cloth.
- (c) Relubricate dies as instructed in paragraph 4.3 before placing them back in service.

4.2 VISUAL INSPECTION

- (a) Visually inspect dies for missing pins or retaining rings. If parts are missing or defective, refer to Figure 12 for customer replaceable parts.
- (b) Visually inspect die closure surfaces for flattened, pitted, or chipped conditions. Although dies may gage within permissible limits, worn or damaged die closure surfaces are objectionable and can affect crimp quality. Examples of possible damage to die closure surfaces are shown in Figure 6.

4.3 LUBRICATION

- (a) Lubricate all pins, pivot points and bearing surfaces with a good grade S.A.E. No. 20 nondetergent motor oil, as follows:
 - Dies used in daily production-lubricate daily.
 - Dies used daily (occasionally)-lubricate weekly.
 - Dies used weekly-lubricate monthly.
- (b) Wipe excess oil from dies, particularly from die closure area. Oil transferred from die closure area onto certain terminations may affect electrical characteristics of an application.

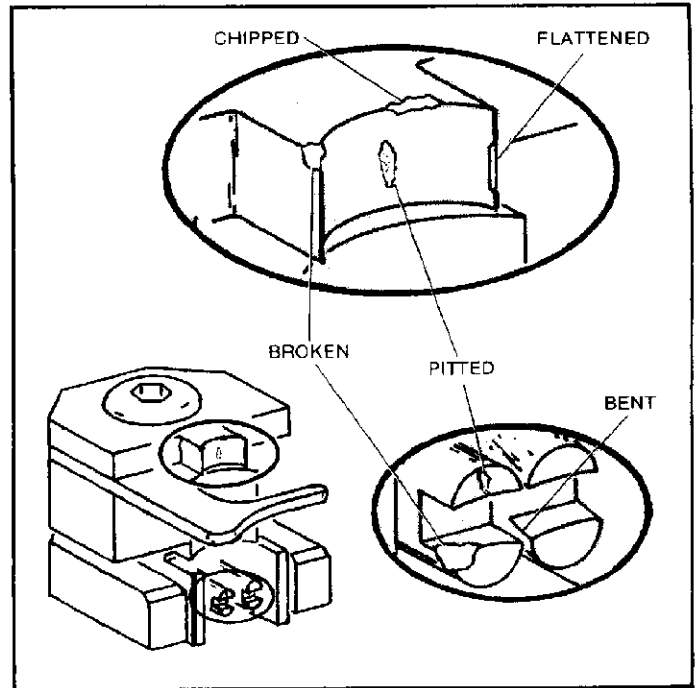


Figure 6

4.4 DIE CLOSURE INSPECTION

Every die assembly is inspected for proper die closure before shipment. However, inspection of die closure for excessive wear is required periodically. Die closure inspection is accomplished using GO/NO-GO plug gages. AMP neither manufactures nor sells plug gages. Suggested plug gage designs and GO/NO-GO dimensions for plug gage members are given in Figures 7 through 9.

4.4.1 Wire Barrel and Ferrule (Insulation) Dies

- (a) Remove oil or dirt from die closure and plug gage members.
- (b) When using pneumatic tool, reduce air supply pressure to a range between 15-20 p.s.i. Actuate tool to bottom dies.

When using hand tool, close handles of tool until dies bottom. Do not apply additional pressure to tool handles.

SUGGESTED PLUG GAGE DESIGN-WIRE BARREL DIES						
DIE ASS'Y NUMBER	DIE CLOSURE DIM'S "A"†		GAGE MEMBER†† DIM'S. "B" DIA.		DIM. "C"	
	GO	NO-GO	GO	NO-GO		
59879-1	.0400	.0440	.0400-.0403	.0439-.0440	1.000	
69231-2	.0360	.0400	.0360-.0363	.0399-.0400	1.000	
69494-1	.0360	.0400	.0360-.0363	.0399-.0400	1.000	
69231-3	.0360	.0400	.0360-.0363	.0399-.0400	1.000	

†Die closure dimensions apply when jaws are bottomed but not under pressure.

††Material—Tool Steel.

Figure 7

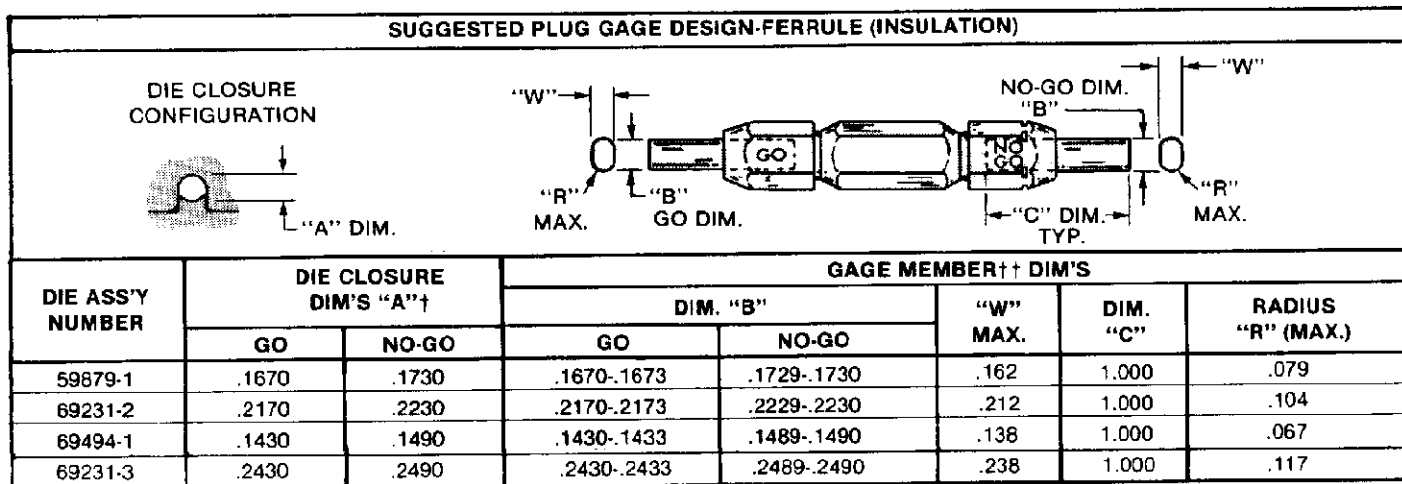


Figure 8

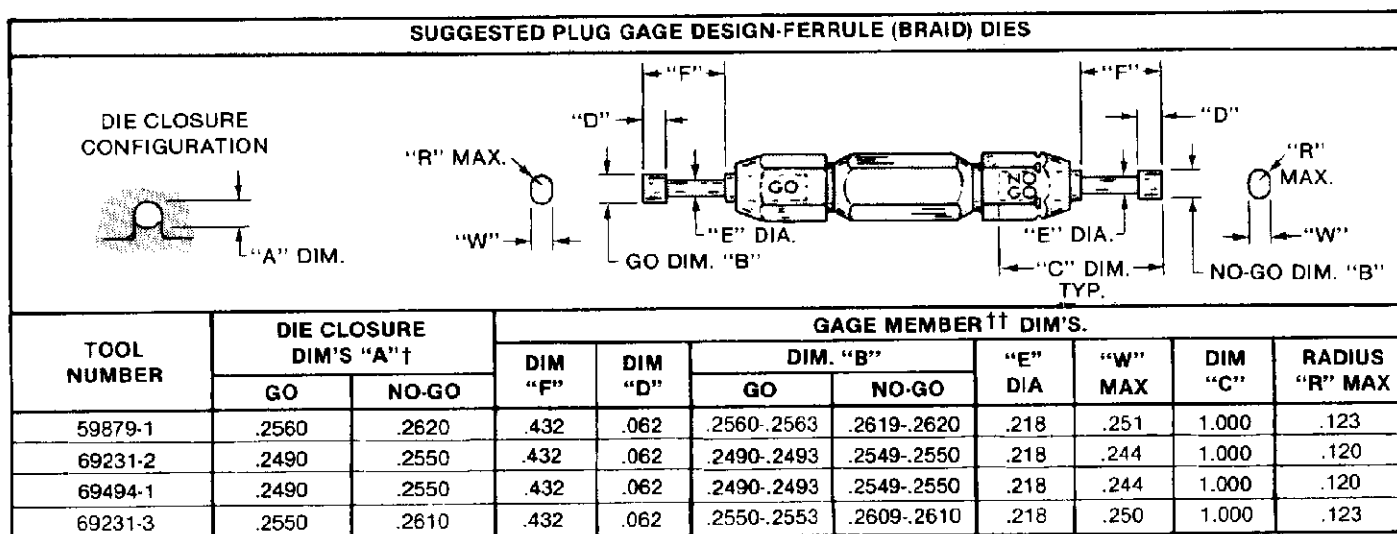


Figure 9

† Die closure dimensions apply when jaws are bottomed but not under pressure.
 †† Material—Tool Steel.

- (c) With crimping dies bottomed, check wire barrel die closure using proper plug gage. See Figure 7. Hold gage in straight alignment with tool and carefully try to insert, without forcing, the GO member. See Figure 10. GO member must pass completely through crimp die closure.
- (d) Try to insert NO-GO member. The NO-GO member may enter partially, but may not pass completely through the length of the die closure. See Figure 10.
- (e) Check the ferrule (insulation) die closure, using the proper plug gage (Figure 8), in same manner as steps (b) through (d). See Figure 11, Detail A.

4.4.2 Special Gage For Ferrule (Braid) Die

Tools containing ferrule crimp dies with a larger O.D. for braid than for insulation require a gage of special design. See Figure 9.

- (a) To use this gage, open crimping dies and locate end of gage member in area between wire barrel dies and ferrule (braid) crimp dies. Shank of member will be located in ferrule (insulation) die closure. See Figure 11, Detail B.
- (b) Close handles of tool and proceed as described in steps (b) thru (d) of previous section by pulling gage in

ferrule (braid) crimp die closure. See Figure 11, Detail B.
 If you find that the tool crimping dies do not conform with GO/NO-GO gage conditions, contact your local AMP field representative.

4.5 CERTI-CRIMP RATCHET INSPECTION

The CERTI-CRIMP ratchet featured on AMP hand tools is checked to make certain that the ratchet does not release prematurely, allowing the dies to open before the jaws have fully bottomed. To check for proper functioning of the ratchet:

- (a) Thoroughly clean bottoming surfaces of jaws.
- (b) Perform test crimp using maximum wire load. While performing test crimp, squeeze handles until ratchet is free, but DO NOT RELAX PRESSURE ON TOOL HANDLES; attempt to insert .001" shim between bottoming surfaces of jaws. If .001" shim cannot be inserted between bottoming surfaces of jaws, CERTI-CRIMP ratchet is satisfactory. If .001" shim can be inserted completely between bottoming surfaces, jaws are not properly bottoming; contact your local AMP field representative.

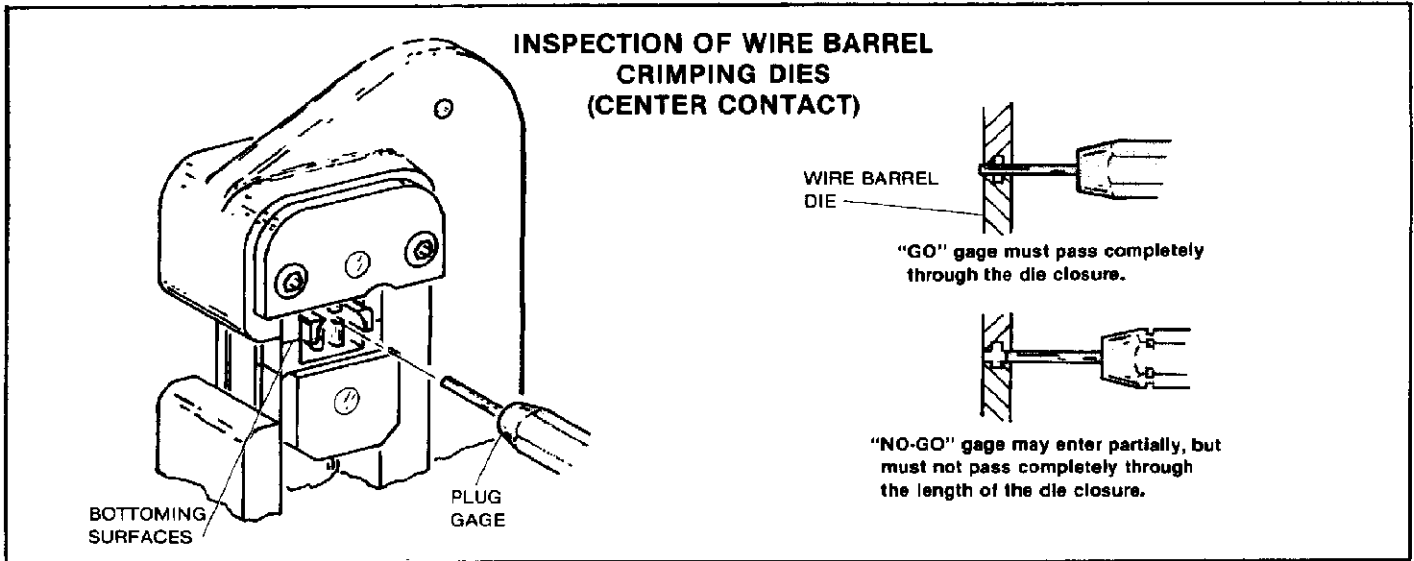


Figure 10

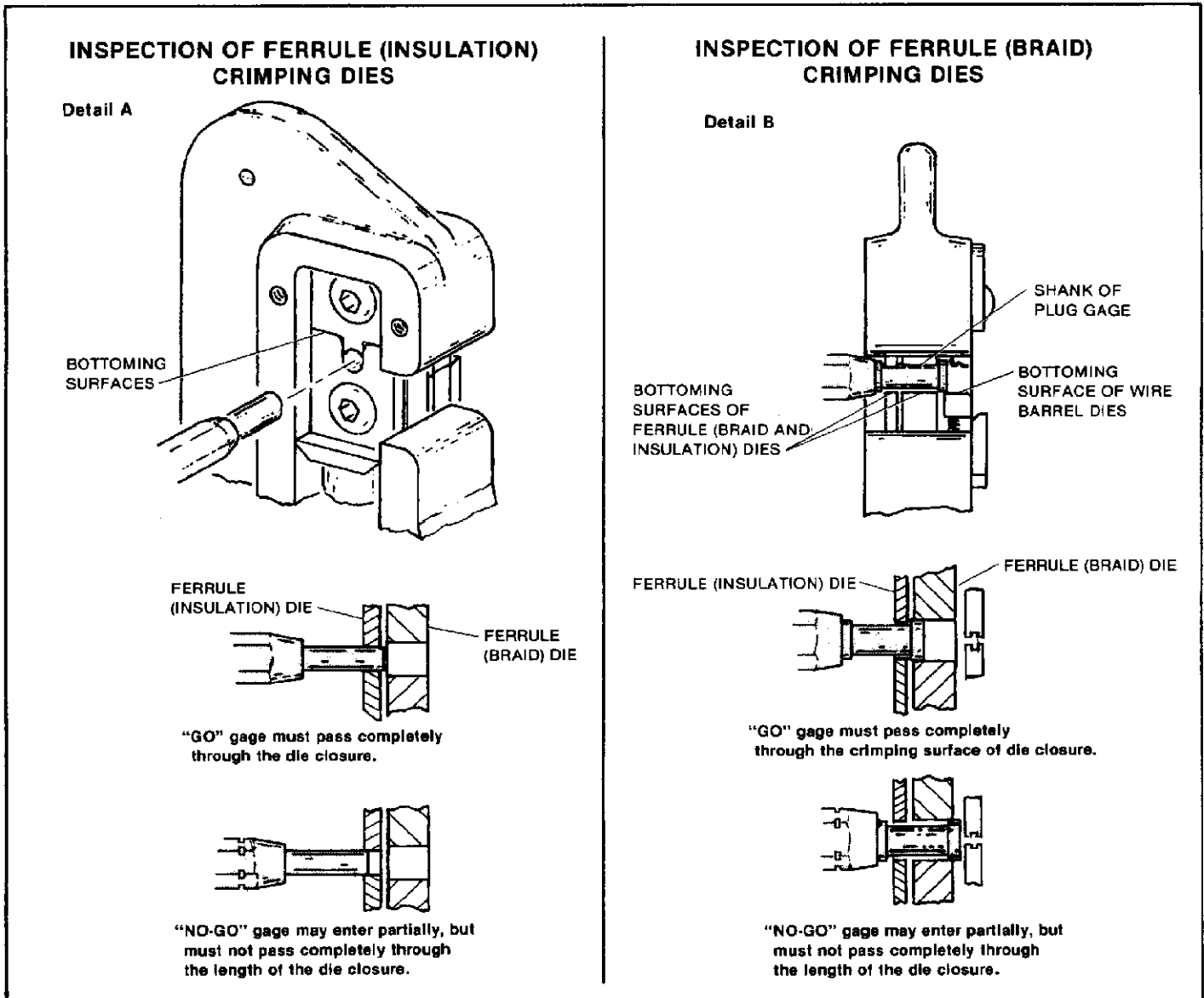
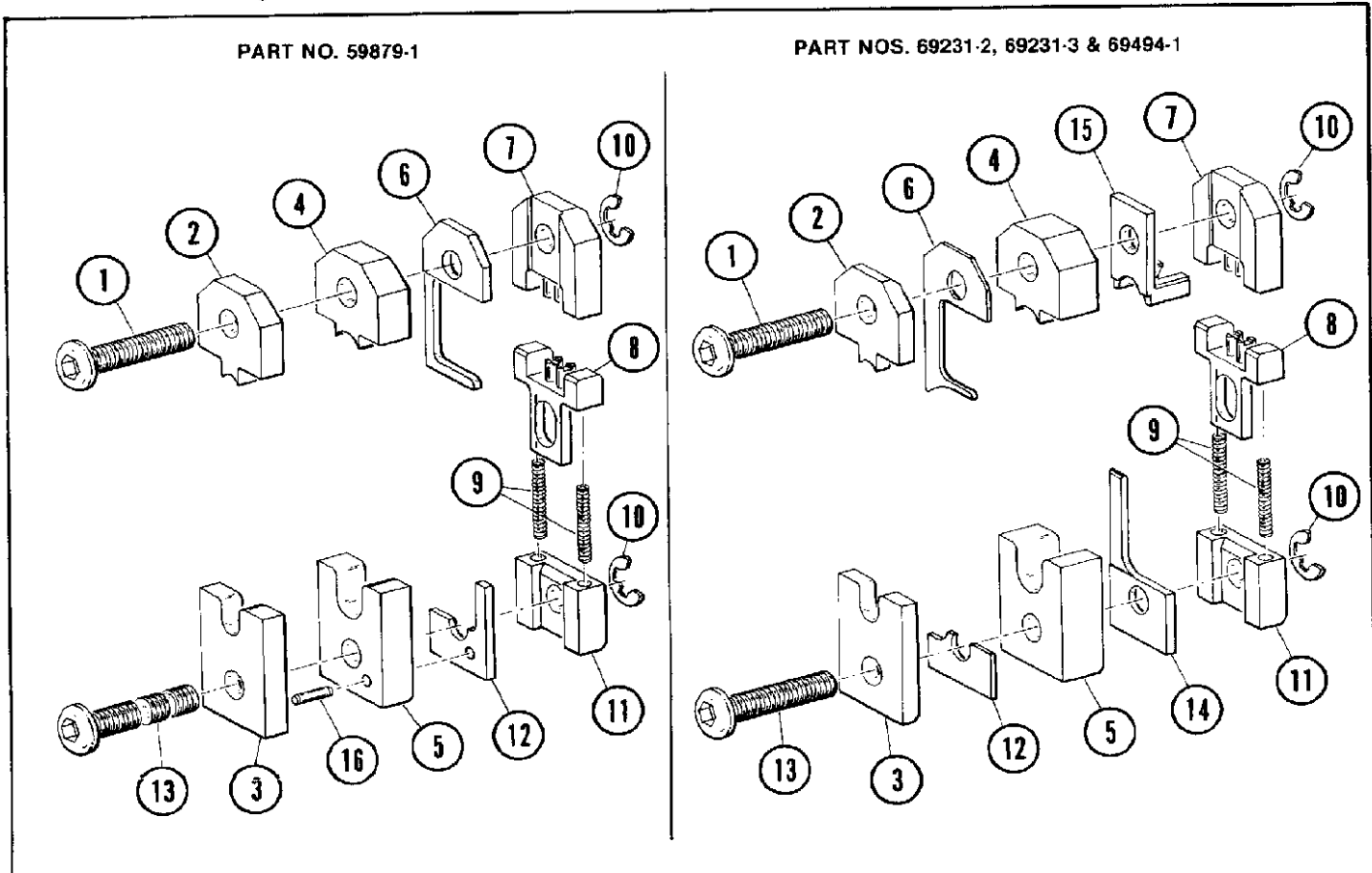


Figure 11

4.6 REPLACEMENT PARTS

It may be advantageous to stock certain replaceable parts to prevent loss of production time. Figure 12 lists the customer replaceable parts that can be purchased from AMP Incorporated. Parts other than those listed on Figure 12 must be replaced by AMP In-

corporated to ensure proper CERTI-CRIMP ratchet adjustment. For tool repair service or CERTI-CRIMP ratchet adjustment, tool should be returned to AMP Incorporated, Tool Repair Service, 1523 N. Fourth Street, Harrisburg, Pennsylvania 17105, or to a wholly owned subsidiary of AMP Incorporated.



ITEM NO.	DESCRIPTION	QTY.	PART NUMBER			
			59879-1	69231-2	69494-1	69231-3
1	SCREW, SPECIAL	1	306131-9	1-306593-2	1-306593-1	7-306131-3
2	INSULATION DIE, UPPER	1	2-306539-9	1-306539-7	306539-1	2-306539-8
3	INSULATION DIE, LOWER	1	3-306540-0	1-306540-7	306540-1	2-306540-8
4	BRAID DIE, UPPER	1	1-306541-8	306541-8	306541-8	306541-8
5	BRAID DIE, LOWER	1	1-306542-8	1-306540-7	306540-1	306542-8
6	EJECTOR	1	2-306113-3	2-306113-4	2-306113-4	2-306113-4
7	INNER WIRE BARREL DIE, UPPER	1	306201	306201	306201	306201-1
8	INNER WIRE BARREL DIE, LOWER	1	306545	306545	306545	306545-1
9	SPRING	2	305182	305182	305182	305182
10	RING, RETAINING	2	1-21046-3	1-21046-3	1-21046-3	1-21046-3
11	BARREL, BLOCK	1	306543-3	30643-3	306543-3	306543-3
12	SPACER, SPECIAL	1	9-305832-8	9-305832-7	9-305832-7	9-305832-7
13	SCREW, SPECIAL	1	59590-3	1-306593-2	1-306593-2	4-59576-8
14	SPACER	1	—	306203	306203	306203
15	GUIDE	1	—	1-306112-8	1-306112-8	1-306112-8
16	PIN, SLOTTED	1	21028-2	—	—	—

Figure 12

REL. DATE	REV. DATE	APPROVALS	
4-5-72	9-21-81	ENG. <i>Dallas Schaefer</i>	PUB. <i>Paul Felty</i>