USE GUIDELINES

The JRready Tools ACT-LY-16DT Crimper is designed to crimp the Deutsch DT/Amphenol A Series 16# Stamped&Formed Contacts from 18AWG~14AWG(0.75mm² to 2mm²)



RECOMENDED CAVITY FOR WIRE GAUGE

Product Type	Wire Range				
	Cavity	METRIC (mm²)	AWG	Strip Length Range (mm [in.])	Recommended Insulation Diameter Range (mm [in.])
Deutsch DT Series Amphenol A Series 16# Stamped&Formed Contacts	1	0.75-1.0	18	4.45±0.64 [.175±.025]	1.90-3.81 [.075-.150]
	2	1.0-1.5	16		
	3	1.5-2.0	14		

P/N:106-14-01**, 106*-14-10**, 106*-16-01**, 106*-16-07**, and 106*-16-09**:*
*when * = 0, P/N is PIN contact; when * = 2, P/N is SOCKET contact*
*** = PLATING CODE;*
Recommended to use JRready terminals.JRready terminals undergo rigorous performance testing.
When used with JRready's specially-designed tooling（ACT-LY-16DT）,
Crimp wire harnesses can be assured to meet the stringent testing and performance requirements of the original manufacturer.

Figure 1

1. INTRODUCTION

ACT-LY-16DT Hand Crimping Tool Assembly consists of Frame ACT-LY and Die Assembly ACT-16DT. Equipped with a Locator Block.The tool assembly is used to crimp the terminals listed in Figure 1.

Read these instructions thoroughly before using the tool assembly.

2. DESCRIPTION

The tool frame features a stationary jaw and handle, a moving jaw and handle, and an adjustable ratchet to ensure fully crimping. The tool frame holds the die assembly. See Figure 1.

The die assembly consists of an anvil、indenter and a locator. When closed, the dies form three crimping chambers. Locator is used to locate the location of the terminal position, which is installed on the front of the Crimper body. Die retaining screws are used to secure the dies in the tool frame. See Figure 2.

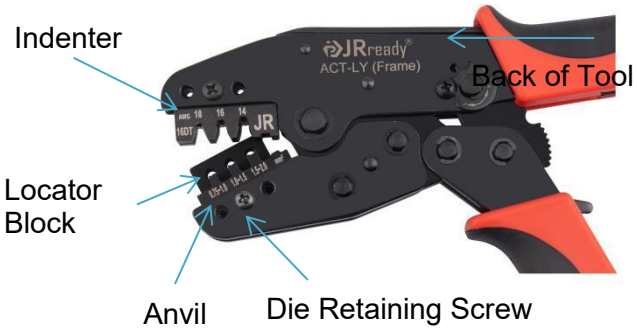


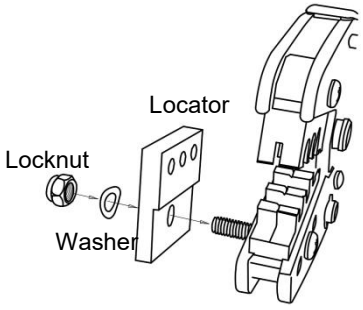
Figure 2

3. INSTALLATION AND REMOVAL OF DIE ASSEMBLY

1. Close the tool handles until the ratchet releases, then allow the handles to open fully.

NOTE
The ratchet has detents that create audible clicks as the tool handles are closed.

2. Remove the two die retaining screws from the tool jaws.
3. Place the anvil in the moving jaw so that the marked surface faces outward. Insert the die retaining screw(SIZE:M4X22L) through the hole of the moving jaw and the anvil,tighten the screw just enough to hold the anvil in place. DO NOT completely tighten the screw.
4. Place the indenter in the stationary jaw,Make sure the assembly direction is consistent with envil. Insert the die retaining screw(SIZE:M4X12L) through the hole of the stationary jaw and the indenter ,tighten the screw just enough to hold the indenter in place. DO NOT completely tighten the screw.
5. Carefully close the tool handles, making sure the anvil and indenter align properly. Continue closing the tool handles until the ratchet engages sufficiently to hold the anvil and indenter in place, then tighten both die retaining screws.
6. Place the locator Block on the front of tool through the Anvil screw, adjust locator direction to ensure that the flange of the Locator hangs on the edge of the jaw, in turn mount washer and locknut, then fixed. Do not tighten the screws too tightly, and ensure that the Locator can move up and down slightly.(Ref Following Figure)



7. When disassemble, close the tool handles until the ratchet releases, remove the two die retaining screws, then remove the locator and slide the dies out of the tool jaws.

4. CRIMPING PROCEDURE [REFERENCE FIGURE 3]

NOTE
This tool is provided with a crimp adjustable feature. Initially, the crimp height of a sample terminal should be verified in accordance with Section 5.

1. Refer to Figure 1 and select wire of the specified size and insulation diameter.

   Strip the wire to the length indicated in Figure 1, taking care not to nick or cut wire strands.

2. Hold the tool so that the back (wire side) is facing you. Squeeze tool handles together and allowthem to open fully.

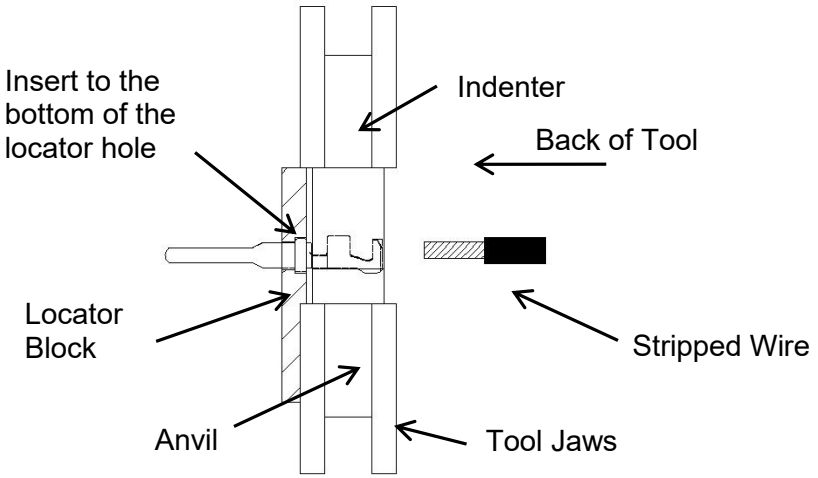


Figure 3

3. Place the terminal in the proper crimping chamber (match the wire area you are using) .Make sure that the terminal is fully inserted into the bottom of the Locator Block. **Note**: The wire barrel should be at the back of the tool.
4. Hold the terminal in position make sure it does not rotate, and squeeze the tool handles together until ratchet engages sufficiently to hold the terminal wing. DO NOT deform the wire barrel.
5. Insert the stripped wire into the wire barrel and hold the wire in place, squeeze the tool handles together until the ratchet releases.

   Allow the tool handles to open and remove the crimped terminal.
6. Inspect the terminal crimp height according to Section 5.

5. CRIMP HEIGHT INSPECTION

5.1 Recommend Crimping Height & Width
In order to obtain the best mechanical properties and conductor compression persentage(CCP),The wire barrel crimp height(CH) and width(CW) must be within the dimensions provided in Figure 4.

Inspection of Wire Barrel Crimp Section

Metric	AWG	Crimp Height(mm [in.])	Cimp Width(mm [in.])
0.75mm²	18AWG	1.20-1.37[.047-.054]	2.45-2.55[.096-.100]
1.0mm²	/	1.25-1.42[.049-.056]	
/	16AWG	1.35-1.52[.053-.060]	
1.5mm²	/	1.40-1.57[.055-.062]	
2.0mm²	14AWG	1.48-1.68[.058-.066]	

If the crimp height conforms to the dimension, the tool and die assembly are considered dimensionally correct. If it does not, adjust the crimp height according to Section 6. If the adjustment does not result in an acceptable crimp height, the die assembly or tool may have to be replaced.

Figure 4

You can test the quality of crimping through the tensile tester. The attached table provides the average tensile force of JRready Crimping Samples, all of which meet the minimum pull-off force standard specified in TE 108-151000.

The cable pull-out forces requirement will have to be the following:

Metric	AWG	JRready Measured Pull-out Force	TE 108-151000 Requirements
2.0mm²	14AWG	282N	111N
1.50mm²	/	274N	111N
/	16AWG	254N	111N
1.0mm²	/	208N	111N
/	18AWG	168N	111N
0.75mm²	/	151N	111N

Figure 5

5.2 Terminal Crimping Height Measured Method[Figure 6]

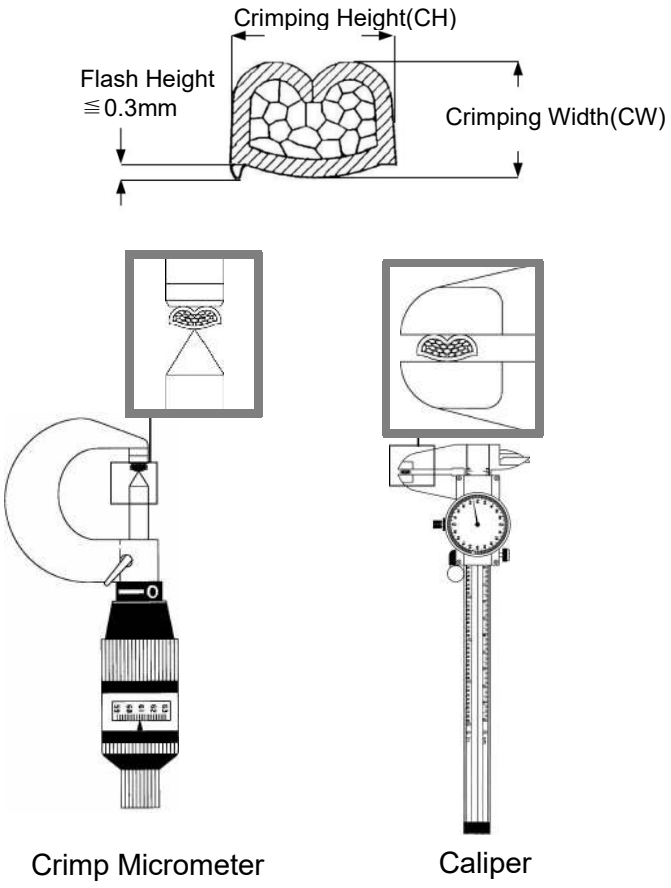
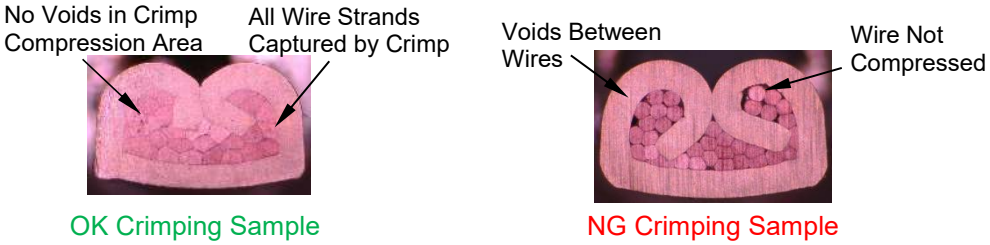


Figure 6

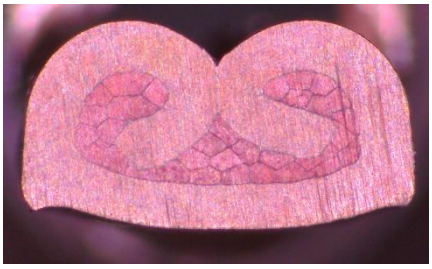
Crimp Micrometer
This is a micrometer specifically designed to measure crimp height. The measurement is taken in the center of the crimp so the conductor bell mouth does not influence it. It has a thin blade that supports the top of the crimp while a pointed section determines the bottom radial surface.

Caliper
A gauge, consisting of two opposing blades. It used for measuring linear dimensional attributes.

5.3 Crimping profile & Tension Measured Values[Figure 7]

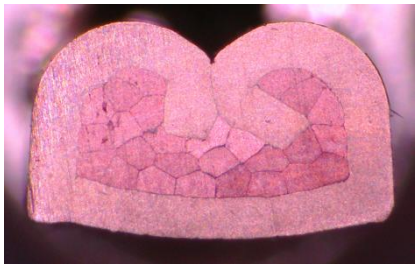


The following Profiles shown Crimping Samples of ACT-LY-16DT Crimper.



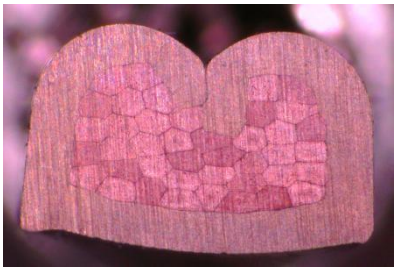
18AWG Pull-Out Force 168N
TE 108-15151000 Standard 111N

1060-14-01** / 1062-14-01**
1060-14-10** / 1062-14-10**
1060-16-01** / 1062-16-01**
1060-16-07** / 1062-16-07**
1060-16-09** / 1062-16-09**



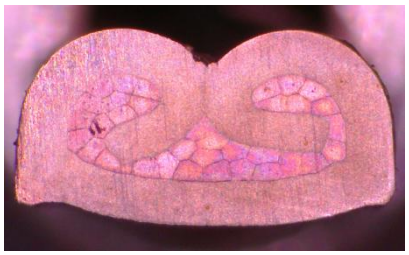
16AWG Pull-Out Force 254N
TE 108-15151000 Standard 111N

1060-14-01** / 1062-14-01**
1060-14-10** / 1062-14-10**
1060-16-01** / 1062-16-01**
1060-16-07** / 1062-16-07**
1060-16-09** / 1062-16-09**



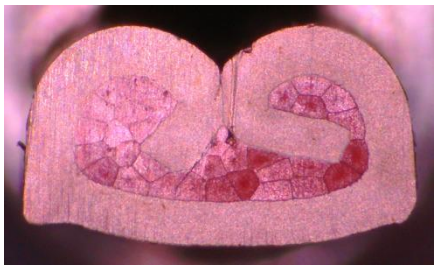
14AWG Pull-Out Force 282N
TE 108-15151000 Standard 111N

1060-14-01** / 1062-14-01**
1060-14-10** / 1062-14-10**
1060-16-01** / 1062-16-01**
1060-16-07** / 1062-16-07**
1060-16-09** / 1062-16-09**



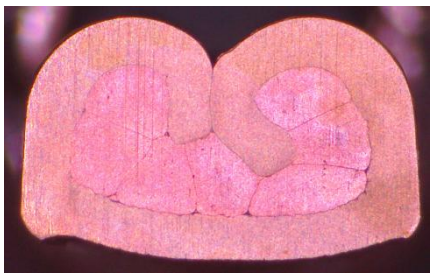
0.75mm² Pull-Out Force 151N
TE 108-15151000 Standard 111N

1060-14-01** / 1062-14-01**
1060-14-10** / 1062-14-10**
1060-16-01** / 1062-16-01**
1060-16-07** / 1062-16-07**
1060-16-09** / 1062-16-09**



1.0mm² Pull-Out Force 208N
TE 108-15151000 Standard 111N

1060-14-01** / 1062-14-01**
1060-14-10** / 1062-14-10**
1060-16-01** / 1062-16-01**
1060-16-07** / 1062-16-07**
1060-16-09** / 1062-16-09**



1.5mm² Pull-Out Force 274N
TE 108-15151000 Standard 111N

1060-14-01** / 1062-14-01**
1060-14-10** / 1062-14-10**
1060-16-01** / 1062-16-01**
1060-16-07** / 1062-16-07**
1060-16-09** / 1062-16-09**

Figure 7

6. RATCHET ADJUSTMENT [FIGURE8]

The tool ratchet mechanism features an adjustment wheel with "+-" settings. The adjustment wheel controls the amount of handle pressure exerted on the jaws during crimping. Check the crimp height according to Section 5. If the crimp height is not acceptable, adjust the crimp height as follows:

1. Remove the lockscrew from the ratchet adjustment wheel.
2. With a screwdriver, adjust the ratchet wheel from the front of the tool.
3. Observe the ratchet adjustment wheel.

   *If a tighter (smaller) crimp height is required, rotate the adjustment wheel counterclockwise to "+" direction.
   *If a looser (larger) crimp height is required, rotate the adjustment wheel clockwise to "-" direction.
4. Re-assemble the lockscrew.
5. Make a sample crimp.

   If the crimp height is acceptable, the adjustment setting is correct. If the crimp height is unacceptable, continue to adjust the ratchet, and again measure a sample crimp.

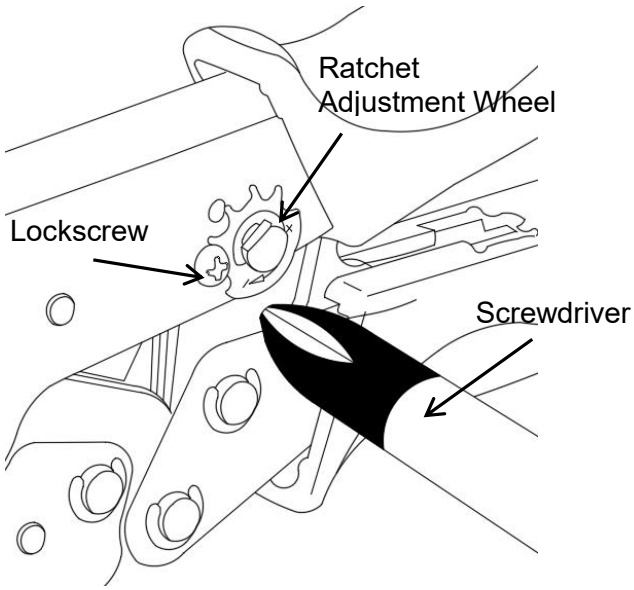


Figure 8

7. MAINTENANCE AND INSPECTION

7.1. Maintenance

Ensure that the tool frame and dies are clean by wiping them with a clean, soft cloth. Remove any debris with a clean, soft brush. Do not use objects that could damage any components. When not in use, keep tool handles closed to prevent objects from becoming lodged in the dies, and store in a clean, dry area.

7.2. Visual Inspection

Inspection of the dies should be made on a regular basis to ensure that they have not become worn or damaged. Inspect the crimping chambers for flattened, chipped, worn, or broken areas. If damage or abnormal wear is evident, the dies must be replaced. Refer to Figure 9 is the Dies compatible with the ACT-LY frame.

Dies compatible with ACT-LY Frame

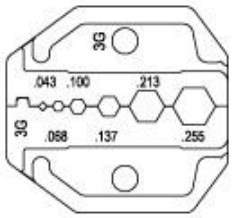
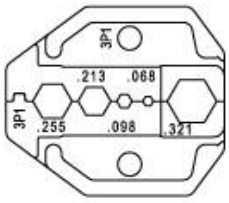
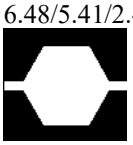
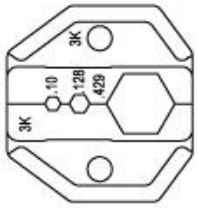
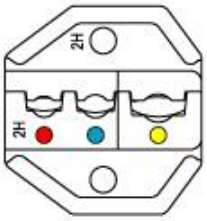
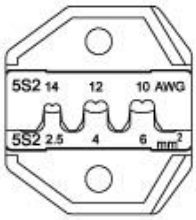
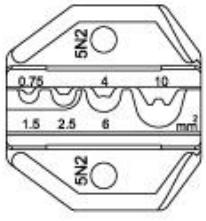
	Die P/N	Specifications	Crimping cable size&Terminal Type
	ACT-3G	.043"/.068"/.100"/.137"/.213"/.255" 1.09/1.73/2.54/3.48/5.41/6.48mm 	RG58，59，62，174，Fiber Optic 
	ACT-3P1	.255"/.213"/.098"/.068"/.321" 6.48/5.41/2.49/ 1.73/8.15mm 	RG58，59，62，6 
	ACT-3K	.0100"/.128"/.429" 2.54/3.25/10.90mm 	RG8，11，174，179，213，LMR400 
	ACT-2H	AWG 22-16/16-14/12-10 DIN 0.5-1.5/1.5-2.5/4-6 mm² 	Insulated terminal 
	ACT-5S2	AWG 14/12/10 DIN 2.5/4/6 mm² 	MC4 Solar terminal 
	ACT-5N2	AWG 18-16/14/12-10/8 DIN 0.75-1.5/2.5/4-6/10 mm² 	Non-insulated terminal 

Figure 9