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| Japan Aviation Electronics Industry, Ltd. Connector Division | | | | Number | T 7 0 3 2 6 3 - E | | | Page 1/9 | |
| Spec: | | | | Original issued: Feb. 14 , 2001 | | | | | |
| TITLE: Crimp Data for Series FI-C3-A1 / FI-XC3-1 / FI-AC3-1 / FI-RC3-1A / FI-RC3-1B contacts | | | | Rev. | Date | DCN-No. | Prep | Chkd | Appd |
| | | | | 2 | Sep.18.2003 | 053322 | D.TSURUTA | S.SHIMIZU | A.IWASAKI |
| | | | | 3 | Nov.20.2003 | 053790 | S.SHIMIZU | - | A.IWASAKI |
| ISSUED: 2ND PRODUCTION Engineering Dept. | | | | 4 | Jun.20.2005 | 057605 | T.OOKAWA | S.SHIMIZU | A.IWASAKI |
| Prepared | Checked | Approved | Approved | | | | | | |
| F.Kawano | K.KOIDE | A.IWASAKI | Y.NOSE | | | | | | |



CAUTION

- Check that operation manual T703000-01E (applicator) is provided in addition to this manual. If not, contact us.
- Be sure to read T703000-01E before operation since all safety precautions are described in it.
- Properly keep this operation manual and T703000-01E near the applicator so that anyone can refer to them at anytime.
- Be sure to use the machine by following the instructions given in this operation manual and T703000-01E. Otherwise, we will not be responsible for any accidents that may result.
- Don't to repair or adjust, without the procedure specified with this operation manual, it cause is to brake the tool or product the rejected items. If you feel the tool abnormally or brake the tool, please inquire our shop or tool service, and repair it.

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1. Applicator

Part description of the applicator used : 350-FI-2B

(Applicable Press No.CP210-1B · CP215-4B)

2. Part description of applicable contact and wire

Applicable wire is stranded 7 annealed copper. conductors. Using not specified wire, please ask us whether the wire is usable or not.

| Contact part description | Applicable wire | Insulation diameter |
|--------------------------|--------------------|----------------------|
| FI-C3-A1-15000 | AWG#28 thru AWG#32 | φ 0.45 thru φ 0.9mm |
| FI-XC3-1-15000 | AWG#30 thru AWG#36 | φ 0.45 thru φ 0.75mm |
| FI-AC3-1-15000 | AWG#30 thru AWG#36 | Less than φ 0.5mm |
| FI-RC3-1A-15000 | AWG#30 thru AWG#32 | φ 0.44 thru φ 0.6mm |
| FI-RC3-1B-15000 | | |

Note :The crimper,anvil and crimp condition differ in each contact.

For details,please refer to paragraph 4.

3. Applicable wire , insulation diameter , and insulation stripped length

3-1. Applicable wire

Vinyl insulated wire

3-2. Insulation stripped length

Insulation stripped length: 1.3 thru 1.7mm

Note :Please make sure that the insulation stripped length is within the above dimension.

At the time , inspect if wire is not damaged , cut , or disheveled.

If so , remove or remedy it.

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4.Crimp data by contact type

4-1.FI-C3-A1

4-1-1.Applicable crimper,anvil

| | | | | |
|------------------|------------------|---------------|--------------------|---------------|
| | Insulation anvil | Wire anvil | Insulation crimper | Wire crimper |
| Part discription | 725-03161-030 | 725-03200-031 | 725-03200-032 | 725-03200-033 |
| Inscribed NO. | 161-30 | 200-31 | 200-32 | 200-33 |

4-1-2.Applicable wire,crimp height,crimp tensile strength,Disk set mark

| Disk Set Mark | Wire Size (AWG) | Crimp Height Range (mm) | Min.Crimp Tensile Strength (N) |
|---------------|-----------------|-------------------------|--------------------------------|
| C | AWG#28 | 0.45 thur 0.50 | 13.1N |
| D | AWG#30 | 0.43 thur 0.48 | 9.8N |
| E | AWG#32 | 0.40 thur 0.45 | 5.8N |

4-1-3Crimp height adjustment disc set mark, Insulation cam set mark and Insulation diameter

| Insulation Cam set Mark | | 1~3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|---------------------------|-----|-----------------|-------------|-------------|-------------|---|
| C | Disc set Mark | | | | | | |
| | Insulation Dia. | — | ϕ 0.90~0.8 | ϕ 0.7 | ϕ 0.6 | ϕ 0.5 | — |
| D | Insulation Support Height | — | 1.05 | 0.95 | 0.85 | 0.75 | — |
| | Insulation Dia. | — | ϕ 0.9~0.75 | ϕ 0.65 | ϕ 0.55 | ϕ 0.45 | — |
| E | Insulation Support Height | — | 1.05 | 0.95 | 0.85 | 0.75 | — |
| | Insulation Dia. | — | ϕ 0.9~0.75 | ϕ 0.65 | ϕ 0.55 | ϕ 0.45 | — |
| | Insulation Support Height | — | 1.00 | 0.90 | 0.80 | 0.70 | — |

Note: The figures shown in above table are not specified values, but for reference purposes only.

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4-2.FI-XC3-1,FI-AC-3-1,FI-RC3-1A&FI-RC3-1B

4-2-1. Applicable crimper,anvil

| | Insulation anvil | Wire anvil | Insulation crimper | Wire crimper |
|------------------|------------------|---------------|--------------------|---------------|
| Part discription | 725-03249-030 | 725-03249-031 | 725-03249-032 | 725-03249-033 |
| Inscribed NO. | 249-30 | 249-31 | 249-32 | 249-33 |

4-2-2.Applicable wire,crimp height,crimp tensile strength,Disk set mark

| Disk Set Mark | Wire Size (AWG) | Crimp Height Range (mm) | Min.Crimp Tensile Strength (N) |
|---------------|-----------------|-------------------------|--------------------------------|
| C | AWG#30 | 0.40 thur 0.45 | 9.8N |
| D | AWG#32 | 0.375 thur 0.425 | 5.8N |
| E | AWG#36 | 0.35 thur 0.40 | 1.9N |

4-2-3.Crimp height adjustment disc set mark, Insulation cam set mark and Insulation diameter FI-XC3-1

| Insulation Cam set Mark Disc set Mark | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|---------------------------|---|-------------|-------------|-------------|-------------|---|---|---|
| C | Insulation Dia. | — | $\phi 0.75$ | $\phi 0.7$ | $\phi 0.6$ | $\phi 0.5$ | — | — | — |
| | Insulation Support Height | — | 1.0 | 0.9 | 0.8 | 0.7 | — | — | — |
| D | Insulation Dia. | — | — | $\phi 0.65$ | $\phi 0.55$ | $\phi 0.45$ | — | — | — |
| | Insulation Support Height | — | — | 0.85 | 0.75 | 0.65 | — | — | — |
| E | Insulation Dia. | — | — | — | $\phi 0.55$ | $\phi 0.45$ | — | — | — |
| | Insulation Support Height | — | — | — | 0.7 | 0.6 | — | — | — |

FI-AC3-1

| Insulation Cam set Mark Disc set Mark | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|---------------------------|---|---|---|---|---|-------------|---|---|
| C | Insulation Dia. | — | — | — | — | — | $\phi 0.5$ | — | — |
| | Insulation Support Height | — | — | — | — | — | 0.5 | — | — |
| D | Insulation Dia. | — | — | — | — | — | $\phi 0.45$ | — | — |
| | Insulation Support Height | — | — | — | — | — | 0.5 | — | — |
| E | Insulation Dia. | — | — | — | — | — | $\phi 0.45$ | — | — |
| | Insulation Support Height | — | — | — | — | — | 0.5 | — | — |

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FI-RC3-1A & FI-RC3-1B

| Insulation Cam set Mark | 1~2 | 3 | 4 | 5~7 |
|---------------------------|-----|-------|-------|-----|
| Insulation diameter. | | φ 0.6 | φ 0.5 | |
| Insulation Support Height | | 0.85 | 0.75 | |

Note1: Be sure to make the insulation height under 0.53mm on FI-AC3.

(Over 0.53mm is not acceptable due to the insulation diameter of housing. It is 0.54mm.)

Note2: The figures shown in above table are not specified values, but for reference purposes only.

5. Notes in operation

5-1

FI series contacts are so small in size, it may happen that a crimper strikes against an anvil and they become damaged when making crimping with a contact and wire being not installed.

To maintain the quality, be sure to make crimping with a contact and wire being installed.

5-2

It is not easy to locate a wire with a wire stopper because the applicable wires this contact are very thin.

It is recommended that a wire is put on the contact barrel in advance before making crimping.

5-3

This tool can use for FI-C3-A1, FI-XC3, FI-AC3, FI-RC3-1A and FI-RC3-1B by changing the crimper, anvil

When this tool is delivered, the specified crimper, anvil has built in already.

To purchase another crimper, anvil. please make sure the proper part number according to the assembly procedure of contact or following chart..

| Contact \ Crimper, anvil | Insulation anvil | Wire anvil | Insulation crimper | Wire crimper |
|--------------------------------|------------------|---------------|--------------------|---------------|
| FI-C3-A1 | 725-03161-030 | 725-03200-031 | 725-03200-032 | 725-03200-033 |
| FI-XC3·AC3-1 ·RC3-1A·RC3-1B | 725-03249-030 | 725-03249-031 | 725-03249-032 | 725-03249-033 |

| | | | |
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6. Check of the crimped contact

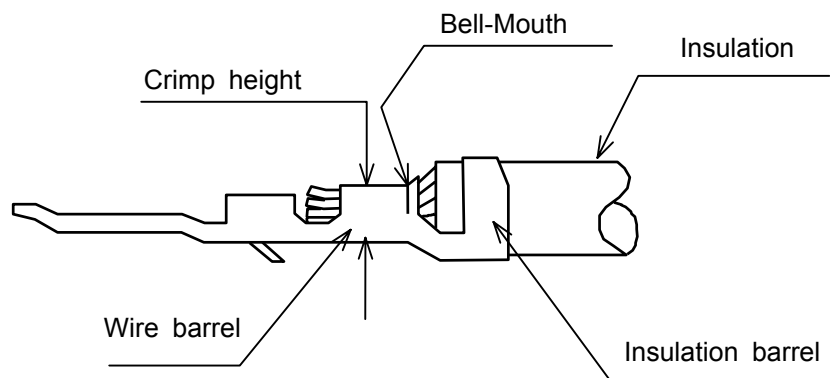
This paragraph provides criteria of discrimination of “ Proper ” crimped contact after crimping operation.

For detail information about this ,please refer to manual JAHL.

Proper Crimped Contact:

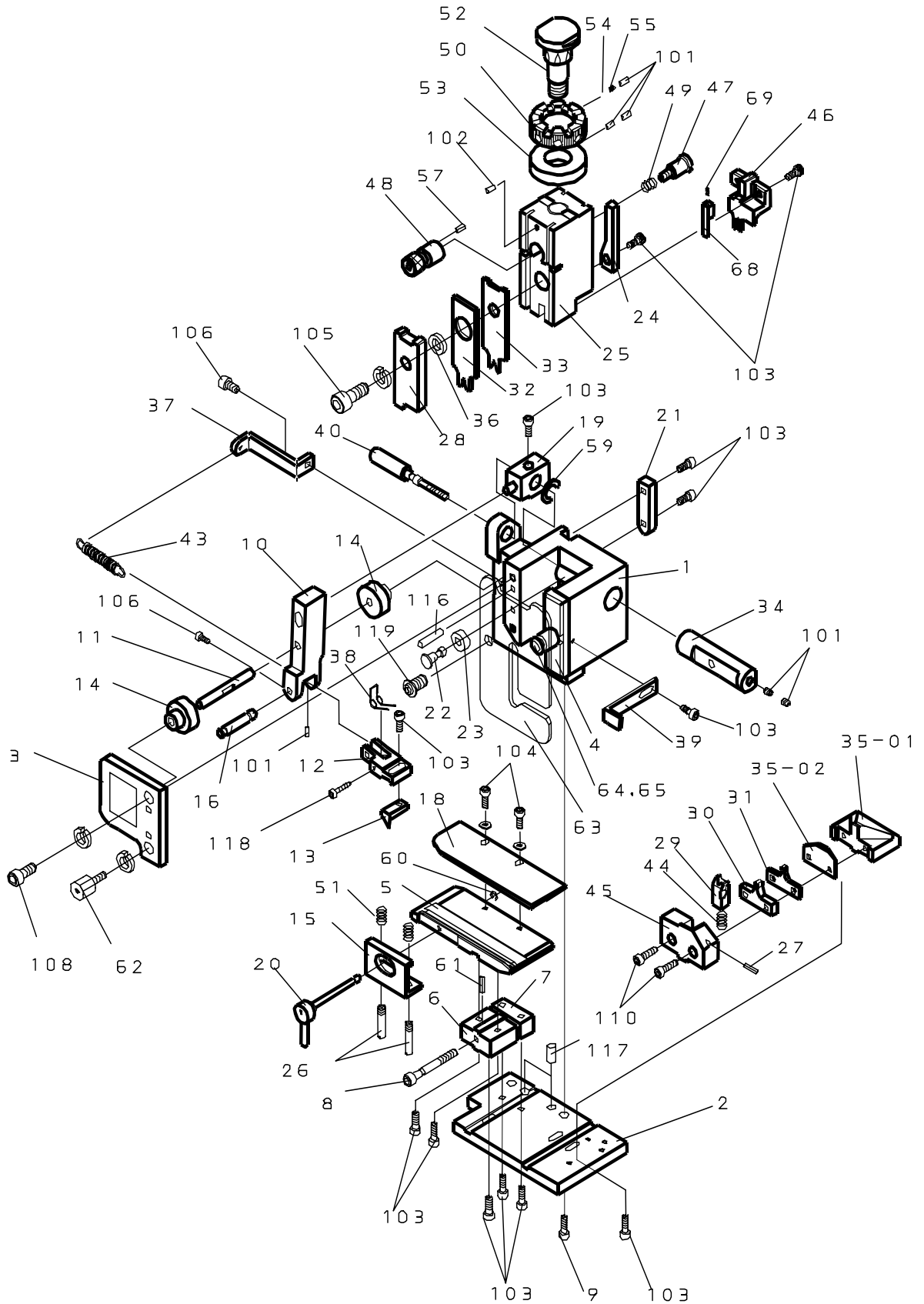
“ Proper crimped contact ” is crimped as shown below.

- (1) Crimp height is satisfied with crimp standard.(refer to para.4)
- (2) Wire strands tip is extended from the wire barrel.
- (3) Wire insulation does not intrude into the wire barrel.
- (4) Wire strands do not protrude between the wire barrel and the insulation barrel.
- (5) Wire insulation is wrapped in the insulation barrel.
- (6) Bell-mouth(not crimped part)is formed.
- (7) Crimped surface is not got too rough.



BLOWN-UP VIEW OF APPLICATOR

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PARTS LIST OF APPLICATOR

| INDEX NO. | DESCRIPTION | PARTS NO. | QTY |
|-----------|-------------------------------|------------------|-----|
| 1 | Applicator body | 743-03005-001 | 1 |
| 2 | Base plate | 722-03013-002 | 1 |
| 3 | Left slide guide | 722-03005-003 | 1 |
| 4 | Right slide guide | 722-03004-004 | 1 |
| 5 | Contact feed plate | 722-03005-005 | 1 |
| 6 | Adjusting plate | 743-03004-006 | 1 |
| 7 | Fixed plate | 743-03004-007 | 1 |
| 8 | Adjusting screw | 701-03004-008 | 1 |
| 9 | Applicator set screw | 750-03004-009 | 2 |
| 10 | Feed lever | 742-03005-010 | 1 |
| 11 | Feed lever shaft | 708-03005-011 | 1 |
| 12 | Feed finger holder | 734-03004-012 | 1 |
| 13 | Feed finger | 732-03004-013 | 1 |
| 14 | Pivot bush | 710-03005-014 | 2 |
| 15 | Contact pressure plate | 723-03005-015 | 1 |
| 16 | Pin for feed | 704-03005-016 | 1 |
| 17 | | | |
| 18 | Feed plate cover | 722-03263-018 | 1 |
| 19 | Pivot block | 743-03004-019 | 1 |
| 20 | Lift cam unit | 700-03004-020 | 1 |
| 21 | Key | 723-03004-021 | 1 |
| 22 | Roller pin | 704-03004-022 | 1 |
| 23 | Roller | 711-03004-023 | 1 |
| 24 | Feed actuating cam | 741-03004-024 | 1 |
| 25 | Crimper holder | 743-03081-025 | 1 |
| 26 | Screw for contact hold | 701-03004-026 | 2 |
| 27 | Spring pin for movable cutter | | 1 |
| 28 | Front actuator unit | 700-03092-028 | 1 |
| 29* | Front movable cutter | 726-03263-029 | 1 |
| 30 | Insulation anvil | Refer to para 4 | 1 |
| 31 | Wire anvil | " | 1 |
| 32 | Insulation crimper | " | 1 |
| 33 | Wire crimper | " | 1 |
| 34 | Feed actuating lever | 742-03004-034 | 1 |
| 35-01 | Anvil block | 743-03247-035-01 | 1 |
| 35-02 | Anvil spacer | 720-03263-035-02 | 1 |
| 36 | Insulation spacer | 711-03092-036 | 1 |
| 37 | Feed spring bracket | 744-03005-037 | 1 |
| 38 | Twisted spring | 762-03004-038 | 1 |

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| INDEX NO. | DESCRIPTION | PARTS NO. | QYT |
|-----------|------------------------------------|---------------|-----|
| 39 | Wire stopper unit | 700-03263-039 | 1 |
| 40 | Feed adjusting shaft | 708-03004-040 | 1 |
| 43 | Feed spring | 762-03004-043 | 1 |
| 44 | Cutter spring | 762-03004-044 | 1 |
| 45 | Cutter block | 743-03092-045 | 1 |
| 46 | Positioner | 724-03263-046 | 1 |
| 47 | Set-screw for insulation cam | 701-03004-047 | 1 |
| 48 | Insulation cam unit | 700-03004-048 | 1 |
| 49 | Spring for insulation cam | 762-03004-049 | 1 |
| 50 | Crimp-height adjusting disk | 715-03023-050 | 1 |
| 51 | Contact pressure spring | 762-03004-051 | 2 |
| 52 | Crimp-height locating shaft | 708-03004-052 | 1 |
| 53 | Spacer | 715-03132-053 | 1 |
| 54 | Locating ball | 765-03004-054 | 1 |
| 55 | Spring for locating ball | 762-03004-055 | 1 |
| 57 | Locating pin for insulation cam | | 1 |
| 59 | E-ring for feed adjusting shaft | 754-03004-059 | 1 |
| 60 | E-ring for cam shaft | 754-03004-060 | 1 |
| 61 | Pin for adjusting screw | | 1 |
| 62 | Bolt for safety cover | 701-03005-062 | 1 |
| 63 | Safety cover | 748-03005-063 | 1 |
| 64 | Fastening screw for safety cover | 701-03005-064 | 1 |
| 65 | Collar | 711-03005-065 | 1 |
| 68 | Wire pressure | 727-03247-068 | 1 |
| 69 | Wire pressure spring | 762-03247-069 | 1 |
| 101 | Screw with hexagonal hole | M4×4 | 7 |
| 102 | " | " | 2 |
| 103 | Bolt with hexagonal hole | M4×10 | 11 |
| 104 | " | " | 4 |
| 105 | " | M8×20 | 1 |
| 106 | " | M5×10 | 1 |
| 107 | " | M3×4 | 1 |
| 108 | " | M6×15 | 4 |
| 110 | " | M4×30 or 35 | 2 |
| 116 | Knock pin | φ 5×20 | 2 |
| 117 | " | φ 6×15 | 2 |
| 118 | Bolt with hexagonal hole | M3×15 | 1 |
| 119 | Cross head screw assembling washer | M4×10 | 1 |