

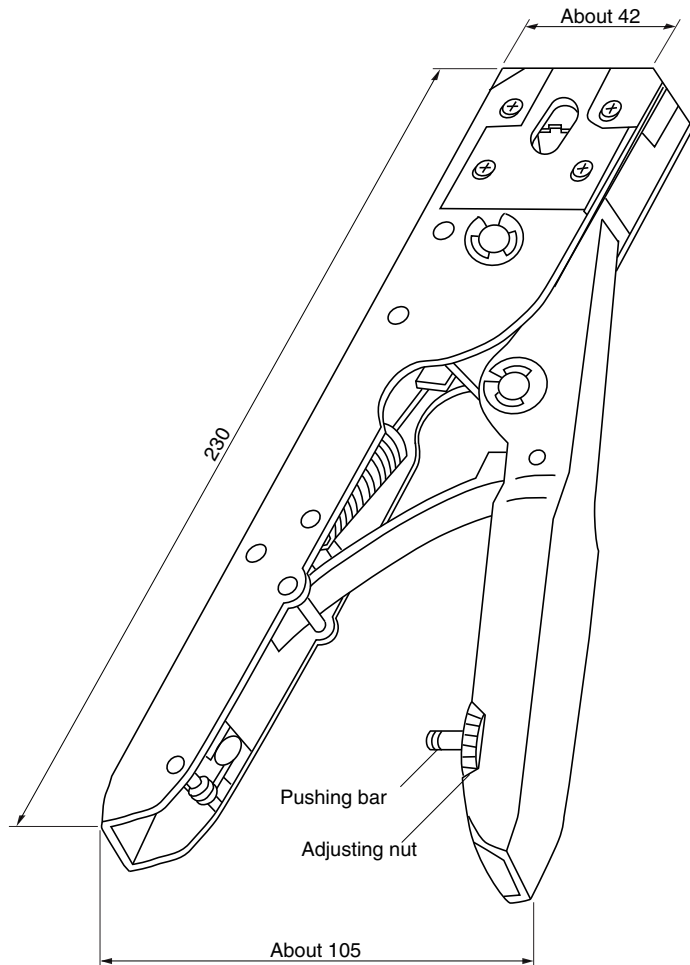
Crimping tool

This manual describes how to properly handle the crimping tool manufactured by HONDA TSUSHIN KOGYO CO., LTD.

1. Characteristics

1. Compact light-weight crimping tool.
2. The crimping tool is easy to use because the gap between the fully opened handles is small for operator comfort.
3. Eccentric force movement from the handle to the anvil enables anyone to easily crimp wires and terminals.
4. Additional force is not required when the ratchet is released.
5. The attached cable stopper ensures proper crimping.
6. The adjustable crimp height ensures appropriate crimping. (*1)

(*1. The crimp height has been adjusted at the factory. However, it may change due to long-term use. When changed, correct the crimp height by using the pushing bar and adjusting nut. (The longer pushing bar increases the crimp height, and the shorter pushing bar decreases it.)



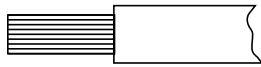
2. Notes on Use

1. Verify that the crimping tool matches the size of the terminal or wire to be crimped before using the tool. (All the tools have similar appearances. However, a tool can only be used for the applicable terminals.)
2. Check the validity of the crimp height after the wire is crimped.
3. Do not remove the screws from the tool and do not disassemble the tool. Otherwise, a failure may occur. (Repair of the tool with any parts manufactured by another company may also cause a failure.)
4. Do not abuse the tool.
5. If you want to use a special wire, please contact a sales person or the Engineering Department.

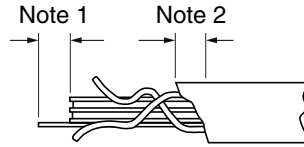
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|-----------------|
| Tools |
| Crimping |
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| |

Crimping tool

3. Condition of Stripped Wire



Properly stripped wire



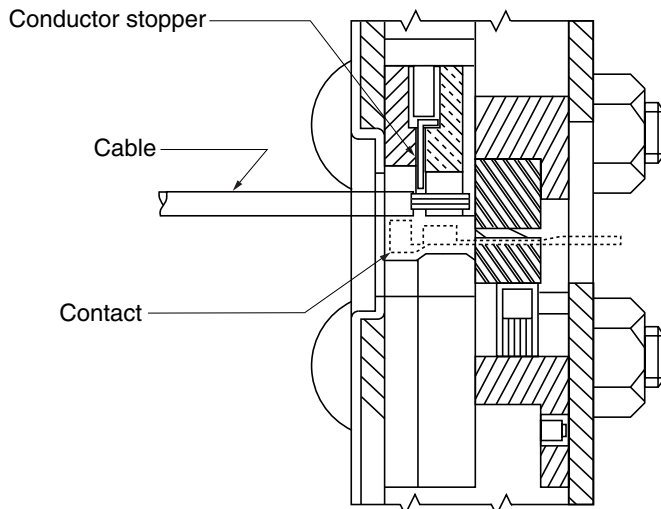
Note1: Do not use wire whose strands are cut or irregular.
Note2: Do not use wire which is not neatly stripped, strip the wire correctly before using.

4. Use of Manual Crimping Tool

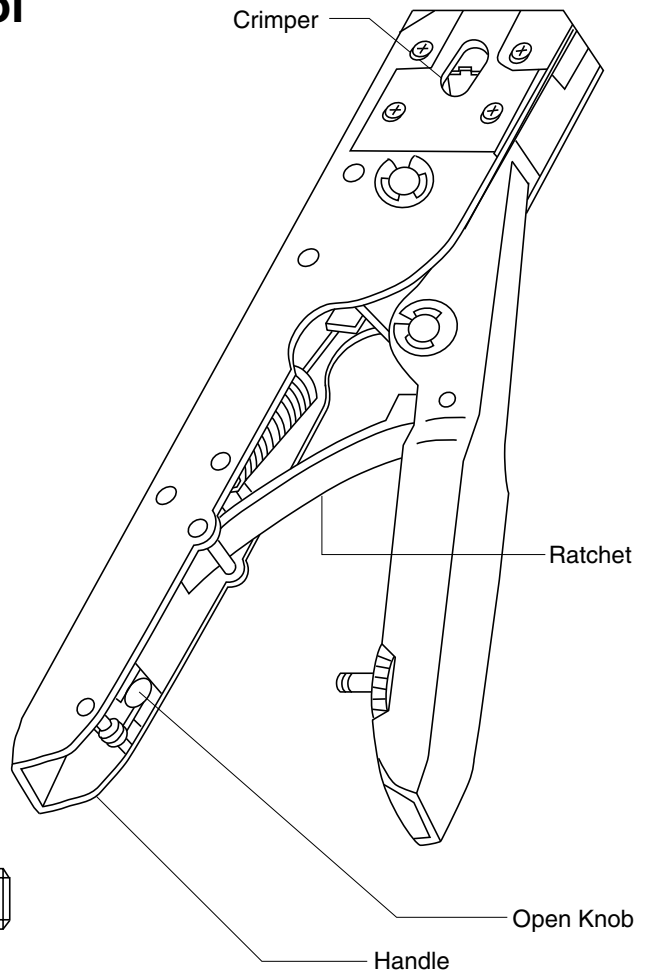
1. Open the handle, then insert a contact into the crimper according to the detailed diagram of the crimper.
2. Close the handle so far as the terminal and barrel are not deformed. Insert the cable to the conductor stopper, then close the handle until the ratchet is released.
3. When reopening the handle, the crimped contact can easily be removed.
4. If the handle is required to be opened during crimping, press the open knob.

Maintenance

1. Regularly lubricate the driving part in order to reduce the abrasion on that part.
Note: Do not lubricate the crimping part.
2. Remove the excess from wire stripping and scrap metal from the cable stopper. This scrap material may cause operation problems.



Detailed diagram of crimper

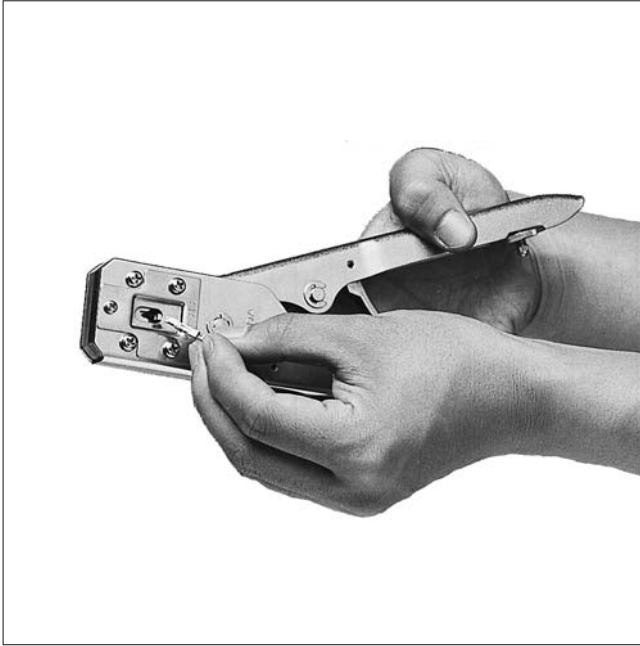


Crimping tool

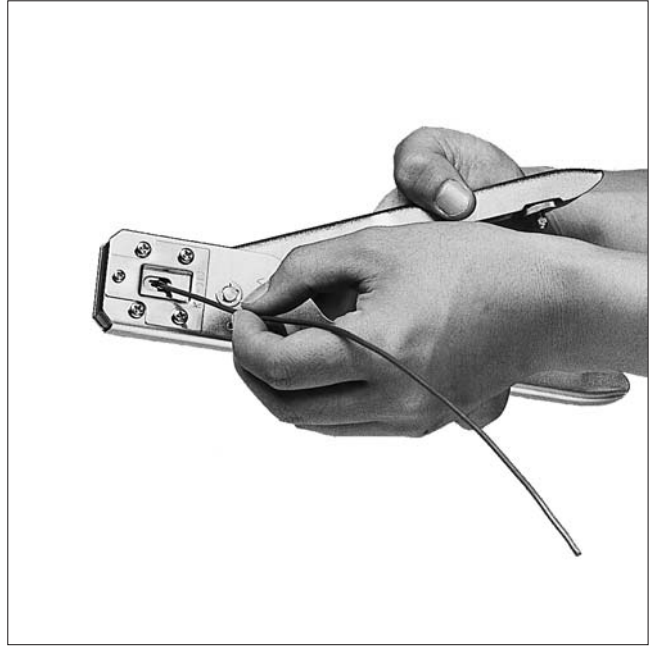
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| Tools |
| Crimping |
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5. Crimping

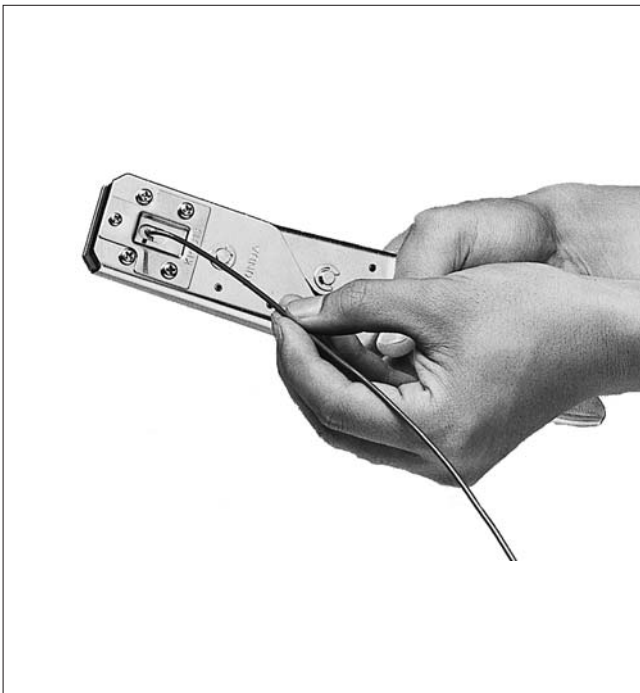
1. Inserting a contact



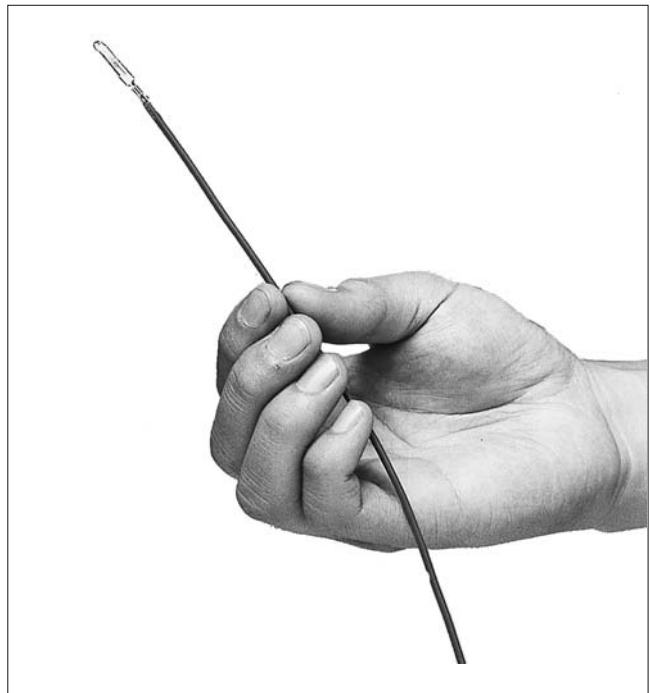
2. Inserting a cable



3. Crimping

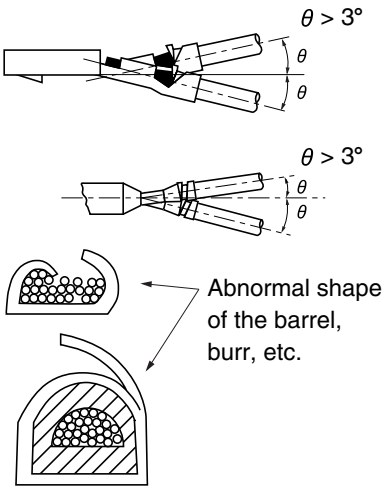
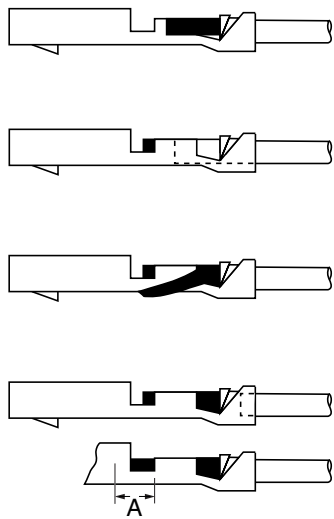


4. Crimped contact



Crimping tool

6. Examples of Improper Crimping

| Item | Condition | Cause |
|---|---|--|
| 1. Incorrect crimp height at the wire barrel section | The crimp height measured according to the diagram of crimp height measurement indicates the value outside the standard range. | Abrasion or looseness in the tool (The crimping tool must be properly adjusted.), or use of a non-standard wire. |
| 2. Improper crimping of the insulation | There is a space between the outside diameter of the insulation and barrel, and the wire is not secured in position. | Abrasion or looseness in the tool, or use of a non-standard wire. |
| 3. Deformation on the contact 3.1 Deflection 3.2 Twisting 3.3 Deformation of the barrel |  <p>$\theta > 3^\circ$</p> <p>$\theta > 3^\circ$</p> <p>Abnormal shape of the barrel, burr, etc.</p> | Chip, abrasion or deformation of the knife edge (crimper and anvil) |
| 4. Improper crimping 4.1 Incomplete insertion 4.2 Insertion of covered wire 4.3 Conductor forced out of the wire barrel 4.4 Overstripping |  <p>A</p> | <p>The conductor is not completely inserted into the wire barrel.</p> <p>The length of the stripped wire is shorter than the standard length. Or, the wire covering is digging into the wire barrel because too long a wire has been inserted.</p> <p>The conductor is being forced out of the wire barrel.</p> <p>The covered part of the wire is crimped only on one side because the stripped part is longer than the standard length.</p> <p>The covered part of the wire has the standard length, however, the dimensions A is 1.5mm or more.</p> |
| 5. Dispersion of the crimp heights. | The crimping position of the tool is unstable. | Even if the handle is not completely closed the ratchet releases because of abrasion and deformation. |
| 6. Abnormal state of the crimping tool. | The ratchet cannot be released even if the handle is completely closed. | The ratchet is deformed or several springs are broken. |

Note: When the above improper crimping occurs, contact a sales person or the Engineering Department.

IDC tool
LPC series, HKP series

| Series name | LPC series | | | HKP series |
|------------------------|--|--|--|--|
| Name of crimping tool | KP-339S | KP-339N | KP-339L | KP-309 |
| Part number | LPC-F113S-50R LPC-F113S-500R LPC-F114S-50R LPC-F114S-500R | LPC-F113N-50R LPC-F113N-500R LPC-F114N-50R LPC-F114N-500R | LPC-F113L-50R LPC-F113L-500R LPC-F114L-50R LPC-F114L-500R | HKP-F113 HKP-F413 |
| For use with wire size | AWG #32 | AWG #28 ∩ AWG #32 | AWG #22 ∩ AWG #26 | AWG #24 ∩ AWG #28 |
| Max outside diameter | ø0.6 | ø1.0 | ø1.1 | ø1.5 |
| Extraction tool | LPC-RF | | | HKP-KF |
| Strip length | 1.8 ^{±0.2} | | | 4.0 ^{±0.3} |
| Tensile strength | #32 4.4N MIN. | #32 4.4N MIN. #30 4.9N MIN. #28 12.7N MIN. | #26 21.6N MIN. #24 35.3N MIN. #22 52.9N MIN. | #24 35.3N MIN. #26 21.6N MIN. #28 12.7N MIN. |
| Crimp height | AWG #14 | | | |
| | AWG #16 | | | |
| | AWG #18 | | | |
| | AWG #20 | | | |
| | AWG #22 | | 0.79mm ∩ 0.83mm | |
| | AWG #24 | | 0.77mm ∩ 0.81mm | 0.76mm ∩ 0.82mm |
| | AWG #26 | | 0.75mm ∩ 0.79mm | 0.74mm ∩ 0.80mm |
| | AWG #28 | | 0.61mm ∩ 0.65mm | 0.71mm ∩ 0.77mm |
| | AWG #30 | | 0.58mm ∩ 0.62mm | |
| | AWG #32 | 0.56mm ∩ 0.60mm | 0.56mm ∩ 0.60mm | |

IDC tool
HKP series, MRP series

| Series name | HKP series (Thin cable) | Mini HKP series | Mini HKP series (Thin cable) | MRP series | | |
|------------------------|--|--|--|--|-----------------------|--|
| Name of crimping tool | KP-309D | KP-325 | KP-325D | KP-308 | | |
| Part number | HKP-F213A HKP-F313A | HKP-F513B HKP-F613B | HKP-F713B | MRP-F112 MRP-F113 | MRP-M112 MRP-M113 | |
| For use with wire size | AWG #28 ∩ AWG #32 | AWG #24 ∩ AWG #28 | AWG #28 ∩ AWG #32 | AWG#24 ∩ AWG#28 | | |
| Max outside diameter | ø0.8 | ø1.5 | ø0.8 | ø1.5 | | |
| Extraction tool | HKP-KF | HKP-RF | | MRP-MF | | |
| Strip length | 4.0 ^{±0.3} | 4.5 ^{±0.3} | | 3.7 ^{±0.3} | | |
| Tensile strength | #28 12.7N MIN. #30 5.9N MIN. #32 4.4N MIN. | #24 35.3N MIN. #26 21.6N MIN. #28 12.7N MIN. | #28 12.7N MIN. #30 5.9N MIN. #32 4.4N MIN. | #24 35.3N MIN. #26 21.6N MIN. #28 12.7N MIN. | | |
| Crimp height | AWG #14 | | | | | |
| | AWG #16 | | | | | |
| | AWG #18 | | | | | |
| | AWG #20 | | | | | |
| | AWG #22 | | | | | |
| | AWG #24 | | 0.81mm ∩ 0.87mm | | 0.85mm ∩ 0.91mm | |
| | AWG #26 | | 0.77mm ∩ 0.83mm | | 0.81mm ∩ 0.87mm | |
| | AWG #28 | 0.67mm ∩ 0.72mm | 0.74mm ∩ 0.80mm | 0.68mm ∩ 0.74mm | 0.78mm ∩ 0.84mm | |
| | AWG #30 | 0.65mm ∩ 0.69mm | | 0.66mm ∩ 0.72mm | | |
| | AWG #32 | 0.63mm ∩ 0.67mm | | 0.64mm ∩ 0.70mm | | |

**IDC tool
PCL series**

| Series name | | PCL series | | | |
|------------------------|---------|---|-----------------------|-----------------------|-----------------------|
| Name of crimping tool | | KP-PCL-346MEN | KP-PCL-346FAN | KP-PCL-346FBN | KP-PCL-346FCN |
| Part number | | PCL-A-M313 PCL-A-M313A | PCL-A-F413 | PCL-A-F413 | PCL-A-F413 |
| For use with wire size | | AWG#24 ∩ AWG#26 | AWG#18 | AWG#16 | AWG#14 |
| Max outside diameter | | ∅1.22 ^{±0.1} ~ ∅1.45 ^{±0.1} | ∅3.7 | | |
| Extraction tool | | PCL-AM1 | AMQ-RT2 | | |
| Strip length | | 3.7 | 5.0 | | |
| Tensile strength | | #26 21.6N MIN. #24 35.3N MIN. | #18 110.7N MIN. | #16 133.3N MIN. | #14 155.8N MIN. |
| Crimp height | AWG #14 | | | | 1.65mm ∩ 1.75mm |
| | AWG #16 | | | 1.45mm ∩ 1.55mm | |
| | AWG #18 | | 1.31mm ∩ 1.41mm | | |
| | AWG #20 | | | | |
| | AWG #22 | | | | |
| | AWG #24 | 0.85mm ∩ 0.91mm | | | |
| | AWG #26 | 0.81mm ∩ 0.87mm | | | |
| | AWG #28 | | | | |
| | AWG #30 | | | | |
| | AWG #32 | | | | |

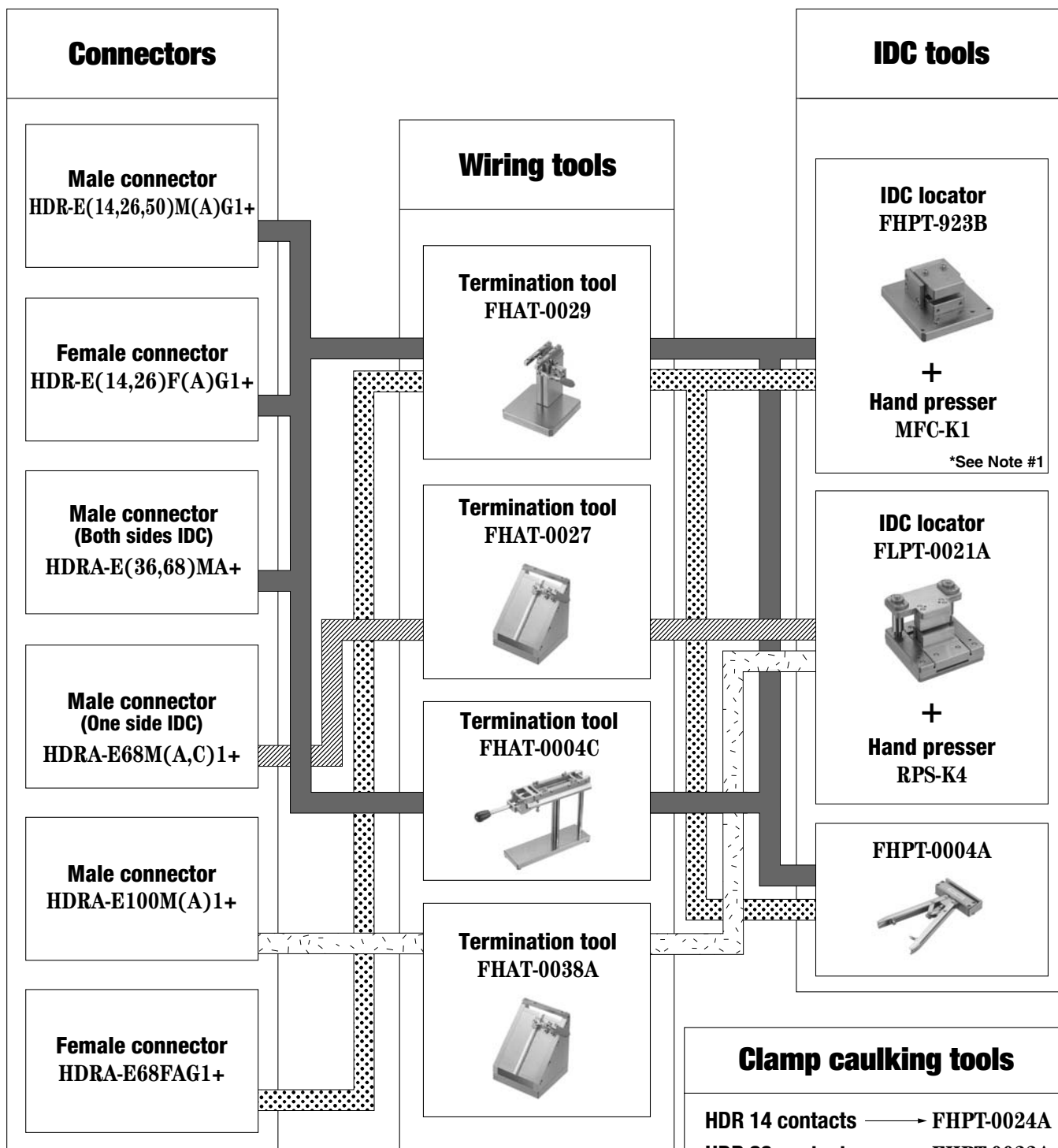
**IDC tool
PCL series**

| | | | | | |
|-------------------------------|----------------|-----------------------|-----------------------|-----------------------|---|
| Series name | | PCL series | | | |
| Name of crimping tool | | KP-PCL-346MAN | KP-PCL-346MBN | KP-PCL-346MCN | KP-PCL-346MDN |
| Part number | | PCL-A-M413 | PCL-A-M413A | PCL-A-M413B | PCL-A-M313 PCL-A-M313A |
| For use with wire size | | AWG#18 | AWG#16 | AWG#14 | AWG#26 ∩ AWG#28 |
| Max outside diameter | | ø3.7 | | | ø1.22 ^{±0.1} ~ ø1.45 ^{±0.1} |
| Extraction tool | | PCL-AM1 | | | |
| Strip length | | 5.0 | | | 3.7 |
| Tensile strength | | #18 110.7N MIN. | #16 133.3N MIN. | #14 155.8N MIN. | #28 12.7N MIN. #26 21.6N MIN. |
| Crimp height | AWG #14 | | | 1.65mm ∩ 1.75mm | |
| | AWG #16 | | 1.45mm ∩ 1.55mm | | |
| | AWG #18 | 1.31mm ∩ 1.41mm | | | |
| | AWG #20 | | | | |
| | AWG #22 | | | | |
| | AWG #24 | | | | |
| | AWG #26 | | | | 0.81mm ∩ 0.87mm |
| | AWG #28 | | | | 0.75mm ∩ 0.79mm |
| | AWG #30 | | | | |
| | AWG #32 | | | | |

IDC tool
HDR series, HDRA series

Tools

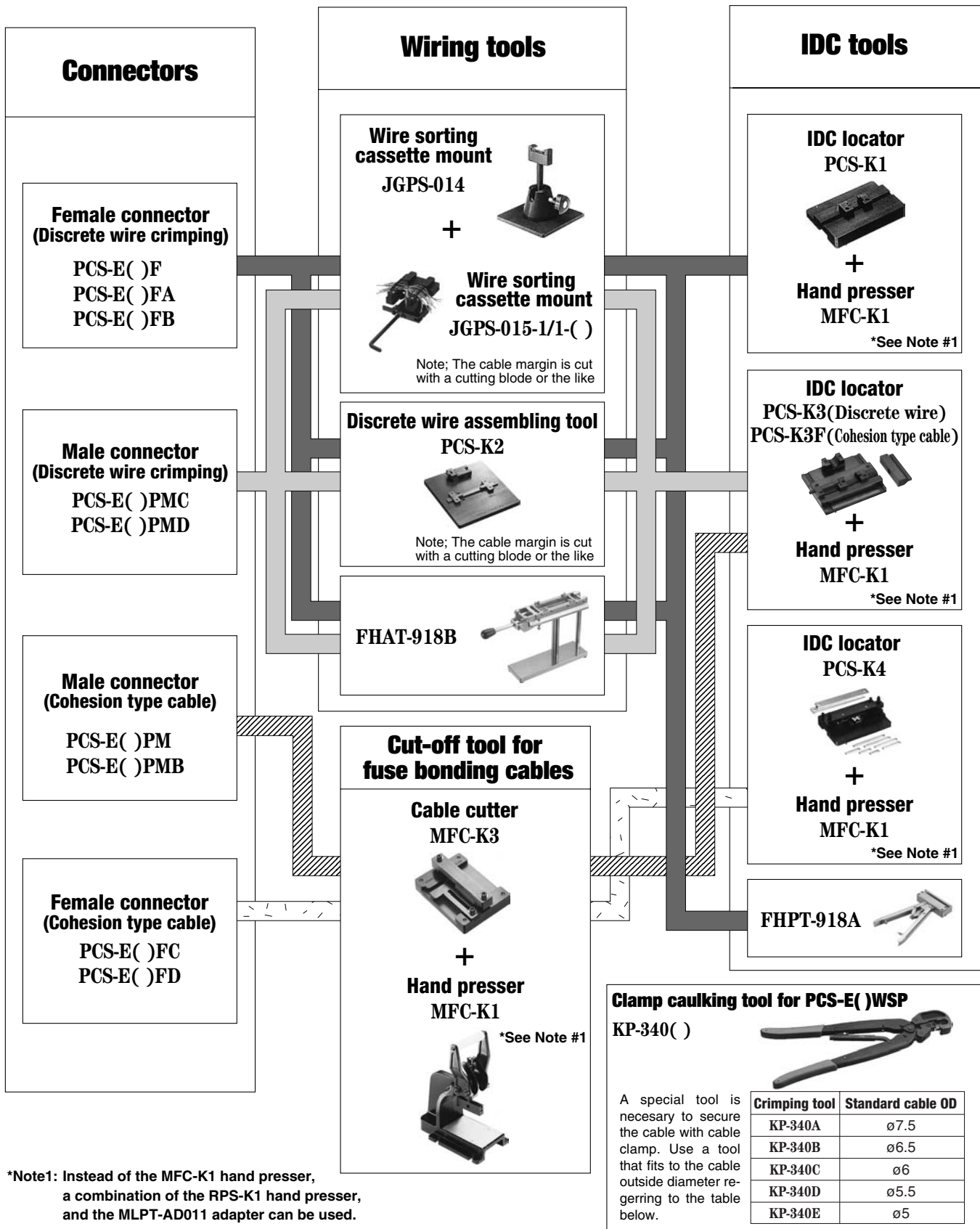
IDC



*Note1: Instead of the MFC-K1 hand presser, a combination of the RPS-K1 hand presser, and the MLPT-AD011 adapter can be used.

IDC tool
PCS series

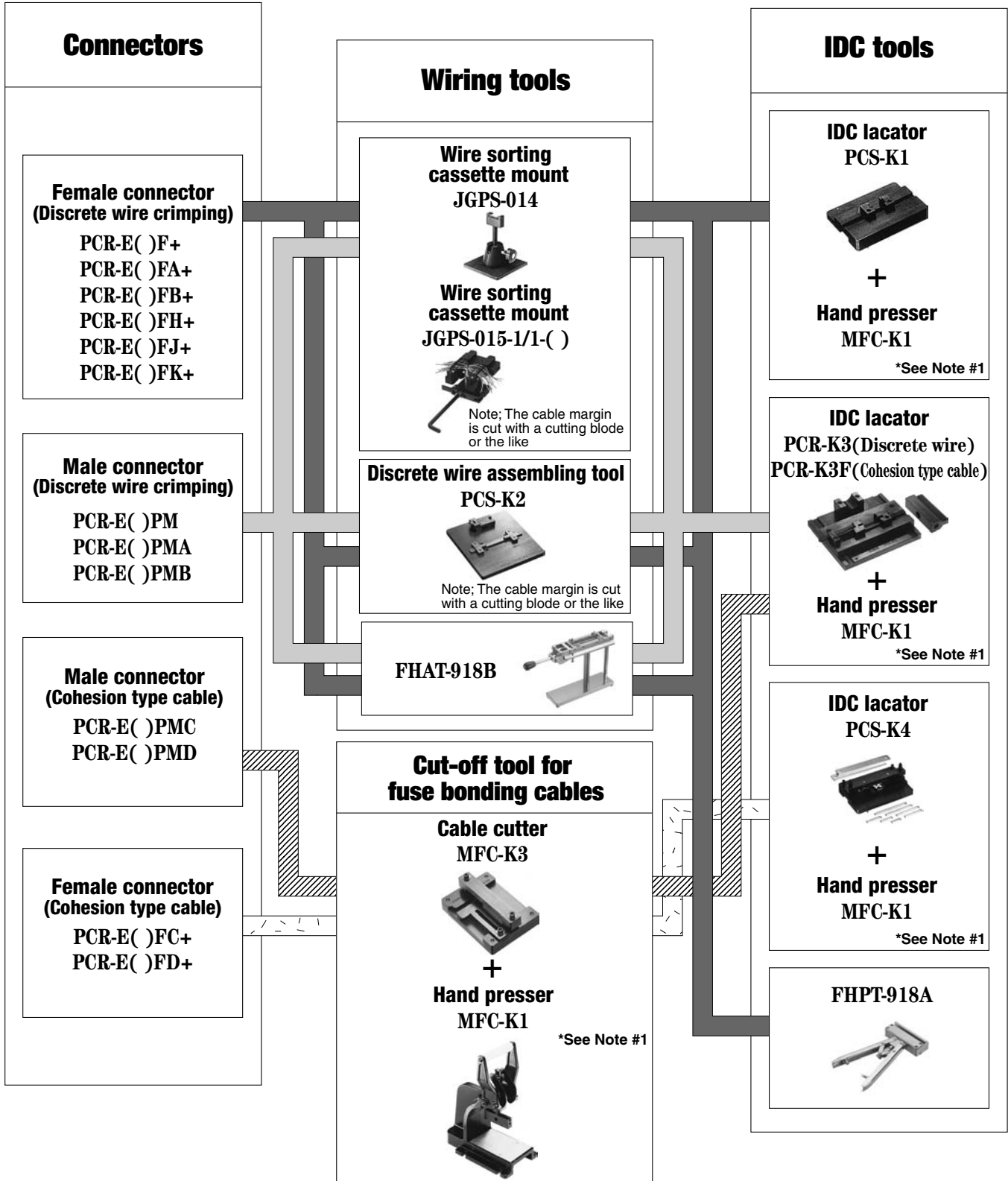
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| Tools |
| IDC |
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*Note1: Instead of the MFC-K1 hand presser, a combination of the RPS-K1 hand presser, and the MLPT-AD011 adapter can be used.

IDC tool
PCR series

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| Tools |
| IDC |
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*Note1: Instead of the MFC-K1 hand presser, a combination of the RPS-K1 hand presser, and the MLPT-AD011 adapter can be used.

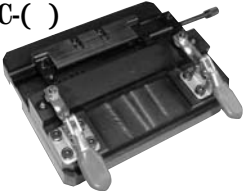
IDC tool
RPS series

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| Tools |
| IDC |
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● For 1.27mm pitch flat cable

Cable side socket connector RPS-()FK+

IDC lacator
FLPT-0003C-()



+ Hand presser
MFC-K1

*See Note #1


| Part No. | Content |
|----------------|--|
| FLPT-0003C-() | Locator Pressure block Dummy key |
| FLPT-0003C-R | Locator |
| RPS-K1-() | Dummy key |
| FLPT-0003C-P | Pressure block |

● For 0.635mm pitch flat cable

with Cable relief
Cable side
Through type
Socket connector
RPS-D()RF()+

Cable side
Through type
Socket connector
RPS-D()F()+

IDC lacator
FLPT-0001A



+ Hand presser
RPS-K4

| Part No. | Content |
|----------------|------------------------------------|
| FLPT-0001A | Locator Guide Pressure block |
| FLPT-0001ARP | Locator, Pressure block |
| FLPT-0001AR | Locator |
| FLPT-0001AG | Guide |
| FLPT-0001A-() | Pressure block |

with Cable relief
Cable side
Close end type
Socket connector
RPS-D()RFC()+

Cable side
Close end type
Socket connector
RPS-D()FC()+

IDC lacator
FLPT-0002A



+ Hand presser
RPS-K4

| Part No. | Content |
|----------------|------------------------------------|
| FLPT-0002A | Locator Guide Pressure block |
| FLPT-0002ARP | Locator, Pressure block |
| FLPT-0002AR | Locator |
| FLPT-0002AG | Guide |
| FLPT-0002A-() | Pressure block |

*Note1: Instead of the MFC-K1 hand presser, a combination of the RPS-K1 hand presser, and the MLPT-AD011 adapter can be used.

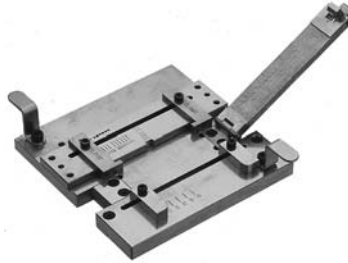
**IDC tool
LPC-B series**

Female connector (Flat Cable)

LPC-B()FA()
LPC-B()RFA()

Pressure block
LPC-K3

IDC locator
LPC-K1



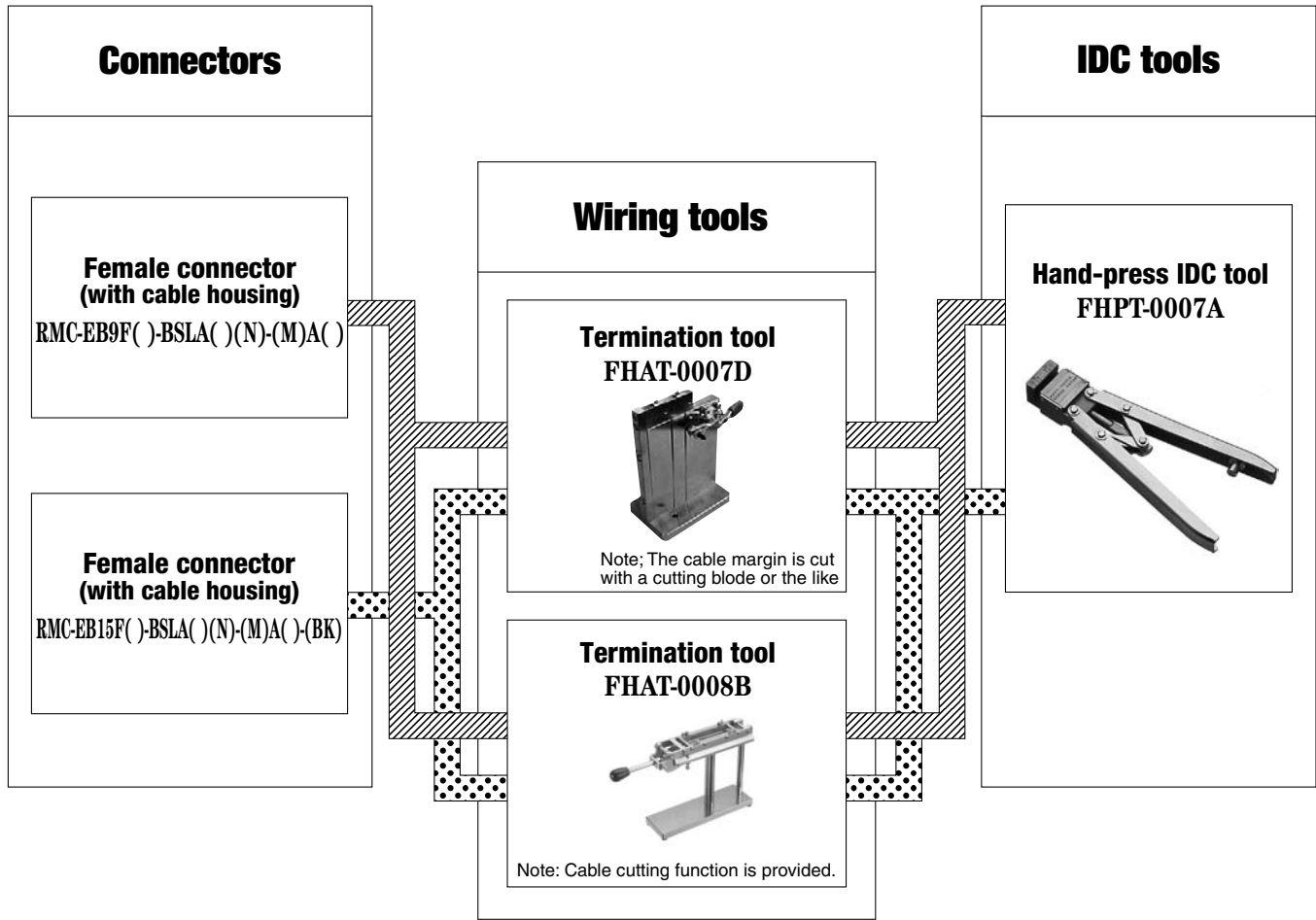
Hand presser
RPS-K4



Base plate
MLPT-0013A-LPC

IDC tool
RMC series

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| Tools |
| IDC |
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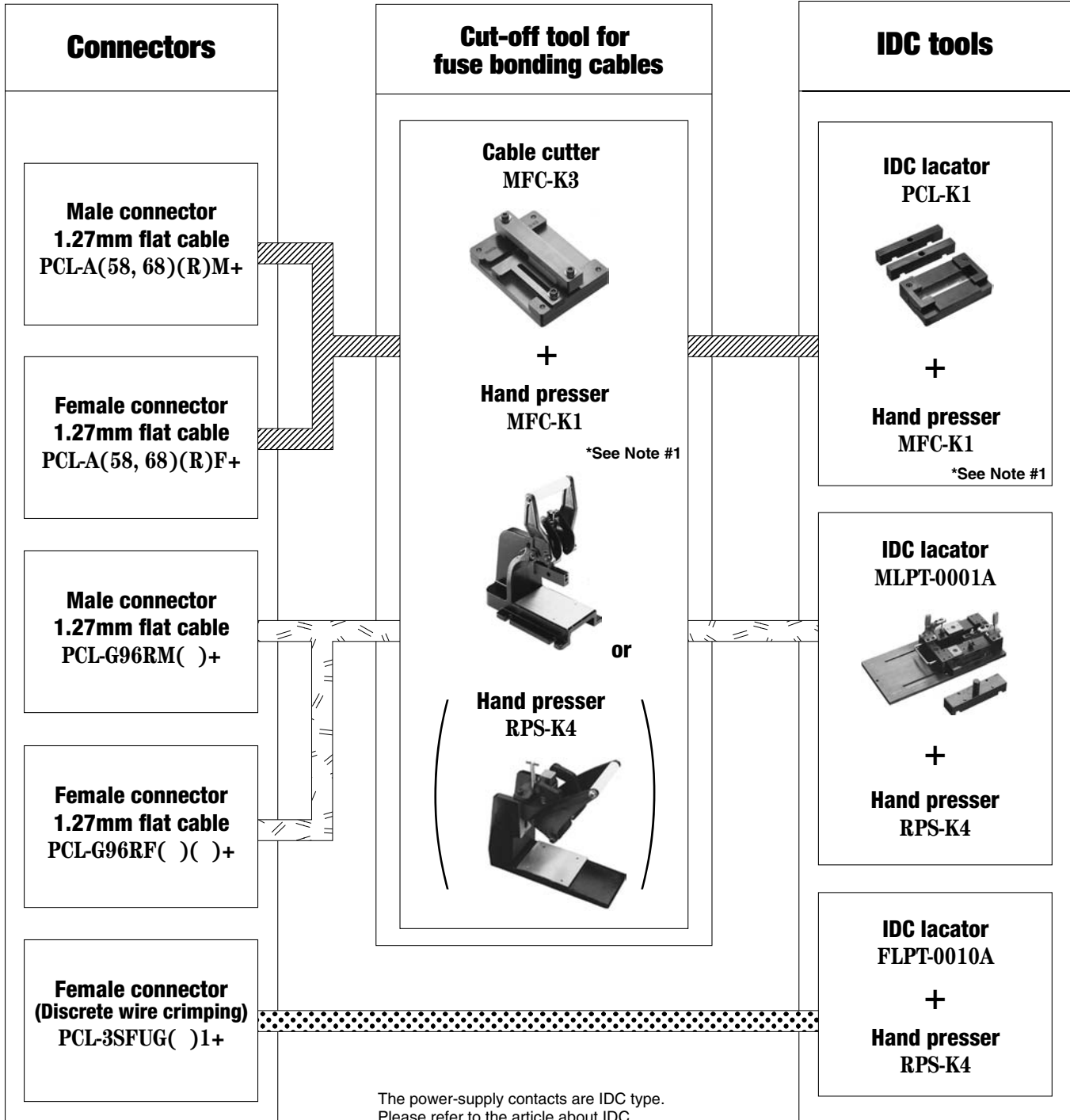


Clamp caulking tools

| | | | |
|-----------------|---|--------------|--|
| RMC 9 contacts | → | FHPT-0006B-A | |
| RMC 15 contacts | → | FHPT-0001C-B | |

IDC tool
PCL series

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|--------------|
| Tools |
| IDC |
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*Note1: Instead of the MFC-K1 hand presser, a combination of the RPS-K1 hand presser, and the MLPT-AD011 adapter can be used.