

INSTRUCTION MANUAL NO.	
IS-0048E	
ISSUED	1989-03-07
REVISED	2006-02-01
REV.	C

SPLASH PROOF CONNECTOR **CAP FITTING TOOL**

57147-6000: For 52266 Housing (for AVSS0.3)
57148-6000: For 52213 Housing (for AVSS0.3)
57170-6000: For 52266 Housing (for AVS0.3)
57171-6000: For 52213 Housing (for AVS0.3)

OPERATING MANUAL



Molex Japan Co., Ltd.

Molex Japan Co., Ltd.		Contents of Update		Instruction Manual No.		IS-0048E	
Title		Splash Proof Connector Cap Fitting Tool		Tool Number		57147-6000, 57148-6000 57170-6000, 57171-6000	
Rev.	Issued	Description					
0	1989/03/07	New creation release.					
A	1989/03/16	Added the parts list.					
B	2005/02/15	Revised to a bilingual version. ECN-JM50015					
C	2006/02/01	Error correction of tool number. ECN-JM60016				Prepared by	Y. Ishiwata
						Checked by	T. Yoshida
						Approved by	A. Horino

<Safety Precautions>

Please read the following before operating the tool.

1. Introduction

Thank you for choosing our **Splash Proof Connector Cap Fitting Tool**.

This document is prepared so that the tool is properly used.

Please take the time to read this manual, making sure you understand the operating procedures described herein before attempting to operate the tool.

2. Dangerous operations

- 1) Don't insert a part of your body or other foreign materials in the splash proof connector cap fitting tool (hereinafter referred to as the "tool") while you're operating the handle of a tool, as injury may result.
- 2) Beware of a handle when it is opened. Releasing a ratchet may cause the handle to open abruptly, resulting in injury.
- 3) Only users who have received adequate training on usage and safety from their manager, and have appropriate knowledge and skills must use the tool. Use by unfamiliar users may cause injury.

<Caution>

- 1) Unauthorized reproduction of this document in part or in whole is prohibited.
- 2) The contents of this document are subject to change without notice.
- 3) Molex Japan Co., Ltd. assumes no responsibility for losses resulting from use or misuse of this document.

<Safety Precautions>

Please read the following before operating the tool.

3. Careful handling

- 1) Carry out the cap fitting work with the acceptable connector after confirming the tool number.
- 2) Check the tool for any damage, and repair prior to use. There is fear that it causes a cap defective fitting.
- 3) Clean the tool regularly if used frequently.
- 4) Avoid storing the tool in extremes of temperature, or high-humidity environment.
- 5) Keep the tool in a place out of reach of children in order to prevent accidents.

4. Must not be carried out

- 1) Use the tool only for the cap fitting purpose. Don't use it in place of a hammer, pliers, or other tools. Don't remodel the tool. Parts damage may result in accident or injury.
- 2) Don't use a tool for unspecified connectors. Don't press fit an unspecified cap. Both may cause parts damage.
- 3) The ratchet mechanism of the tool is designed based on operation by the grip of the hand. Note that improper handling such as inserting it into other devices and opening the handle forcibly may decrease its capabilities and lifespan.

1. Description

This tool is a hand tool, which is designed for the cap fitting to the housing of a splash proof connector of Molex.

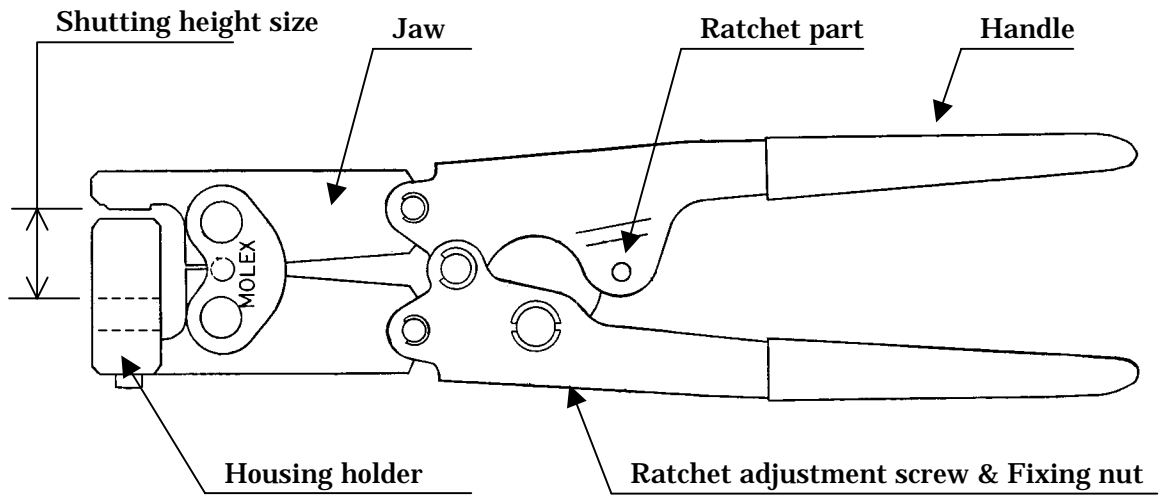
Please confirm the connector number on the hand tool before attempting to operate this tool, and carry out the cap fitting operation.

2. Tool Specification

- 1) Tool name: **Splash Proof Connector Cap Fitting Tool**
- 2) Tool number: **(1) 57147-6000
(2) 57148-6000
(3) 57170-6000
(4) 57171-6000**
- 3) Outer dimensions and weight: **230 (width) x 70 (depth) x 20 (thickness) mm, Approx. 500gf**
- 4) Management method: **The “shutting height size” between the housing holder and the lower jaw must be in the standard value when grips the handle enough to the operation end.**
- 5) Applicable terminal and housing: **2.5mm Pitch Mini Splash Proof connector**

Tool number	Housing ASS'Y	Circuits number	Terminal number	Applicable wire	Insulation outer diameter (mm)
57147-6000	52266 Plug housing	3-4	50147	AVSS0.3	1.4-1.7
57148-6000	52213 Receptacle housing	3-4	50148	AVSS0.3	1.4-1.7
57170-6000	52266 Plug housing	3-4	50147	AVS0.3	1.8
57171-6000	52213 Receptacle housing	3-4	50148	AVS0.3	1.8

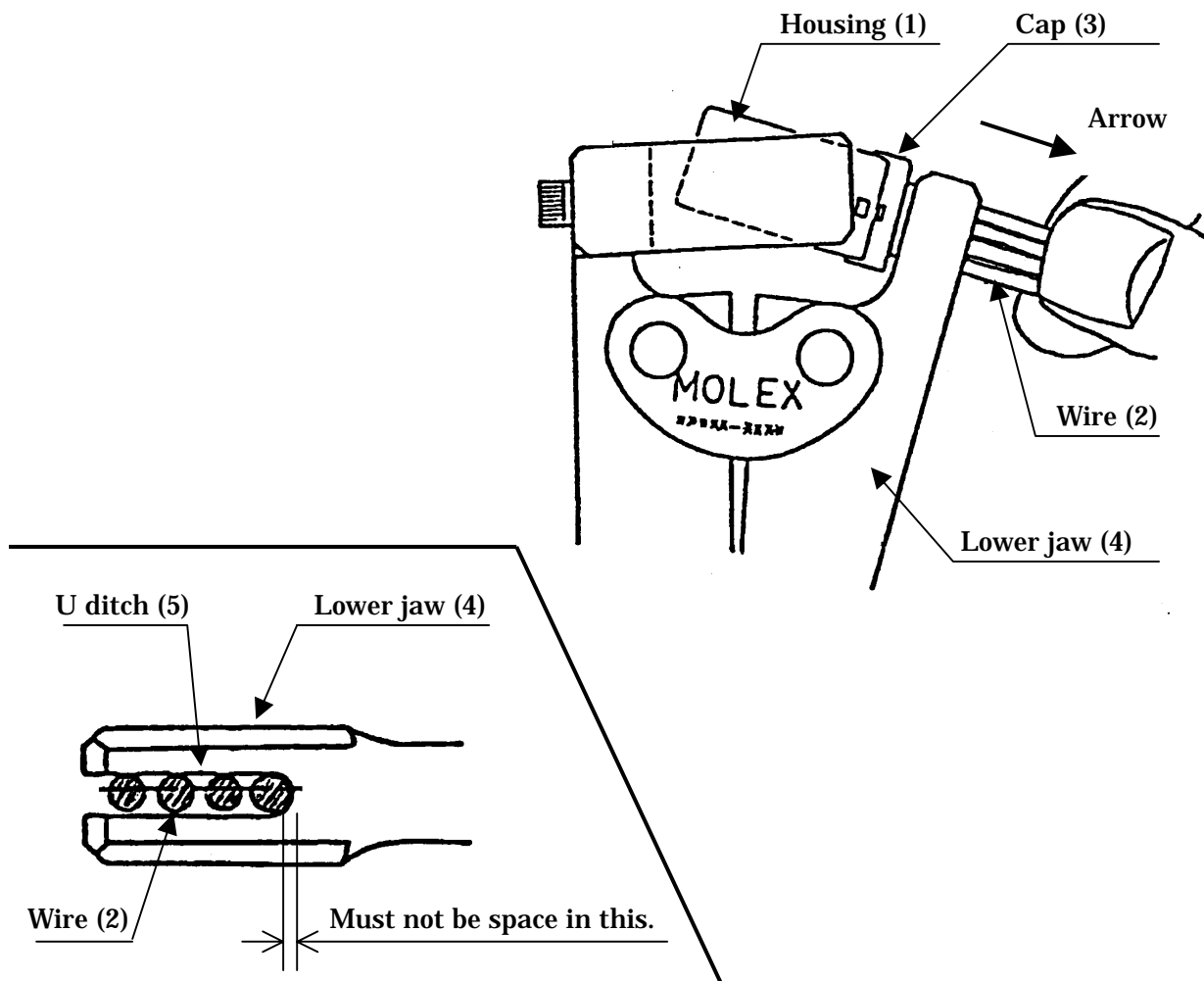
6) Tool appearance and parts name



3. Operation Method

- 1) Grip the handle of a tool lightly to put it into the state of a preliminary that the "ratchet" is caught of 1-3 teeth.
- 2) Set a housing assembly to the tool so that the "cap (3)" may become parallel to the "lower jaw (4)." At this time, the "wire (2)" installed in the lower jaw is pushed into the interior of the "U ditch (5)."
- 3) Pull the "wire (2)" to the "arrow" direction so that any space should not open between the "cap (3)" and the "lower jaw (4)" and the wire doesn't move by one hand, and grasp the handle until the ratchet comes off by the other hand.
- 4) After work, confirm that the cap is surely locked to the housing, and there are neither damage nor transformations in the housing and the cap.

"Note" The position in which the cap is locked to the housing by the size changes such as the housing, caps, and wires changes. Therefore, please adjust the ratchet of the tool used at a proper position before operation start.



4. Daily Maintenance

4.1. Daily Maintenance

1) Management of tool

Before a work start, please carry out the tool check in accordance with the “startup checklist” in this manual, and start work after checking that it satisfies a standard.

* Please record each check result simultaneously.

2) Removal of foreign substances

Since foreign substances such as dust and wire scrap adheres to a “connector holder”, etc. during operation, please remove a foreign substance timely.

* Neglect may become the cause that the cap pressing lock imperfection.

3) Cleaning of work end

Please wipe with a dry cloth lightly after cleaning a tool with compression air every day at the time of a work end. There is an effect that prevents rusting.

4) Lubrication

Please supply proper amount of the machine oil to the moveable points with the frequency of once a month.

5) Shutting height size

The shutting height size between the housing holder and the lower jaw must be in the standard value when grips the handle enough to the operation end. (Please refer the figure on the next page)

[Standard value of shutting height size]

57147-6000 & 57170-6000: 21.1±0.1 mm

57148-6000 & 57171-6000: 14.1±0.1 mm

4.2. Adjusting Method of Shutting Height Size

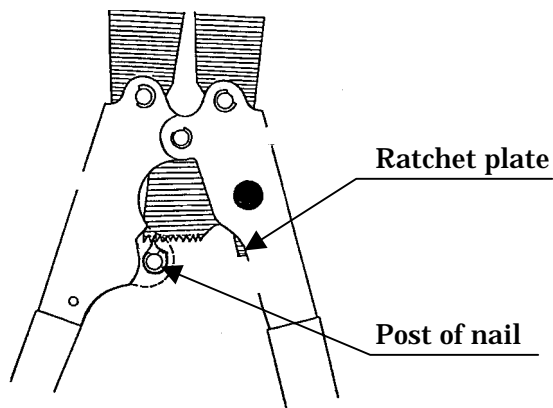
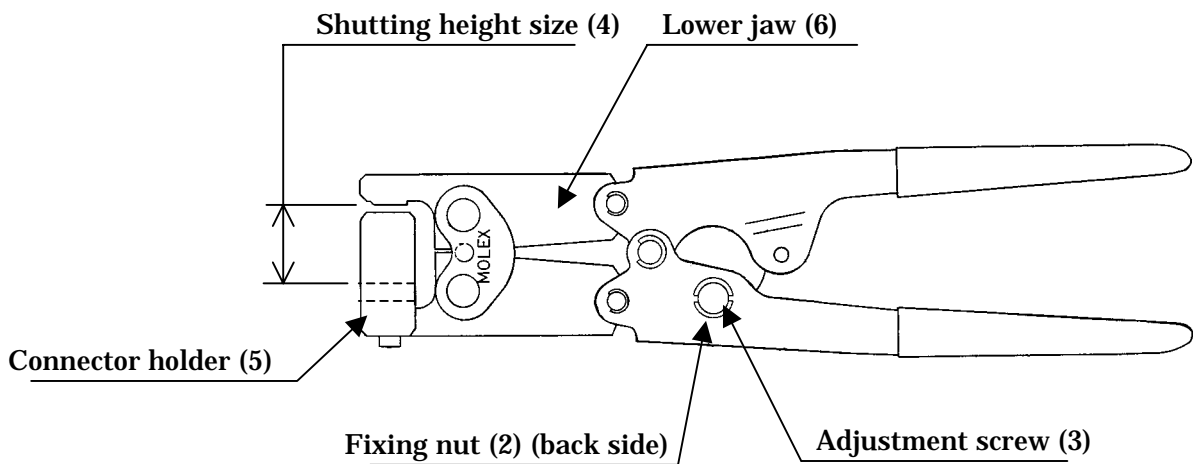
- 1) Loosen the “fixing nut (2)” by using the “spanner (1)” (back side) of the attachment.
- 2) Rotate the “adjustment screw (3)”, and adjust the “Shutting height size (4).”
 - Rotate to right: The jaw shuts a lot.
 - Rotate to left: The jaw shuts a little.

[Standard value of shutting height size]

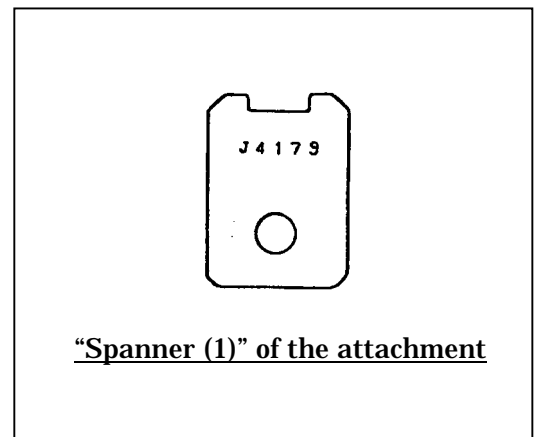
57147-6000 & 57170-6000: 21.1+/-0.1 mm

57148-6000 & 57171-6000: 14.1+/-0.1 mm

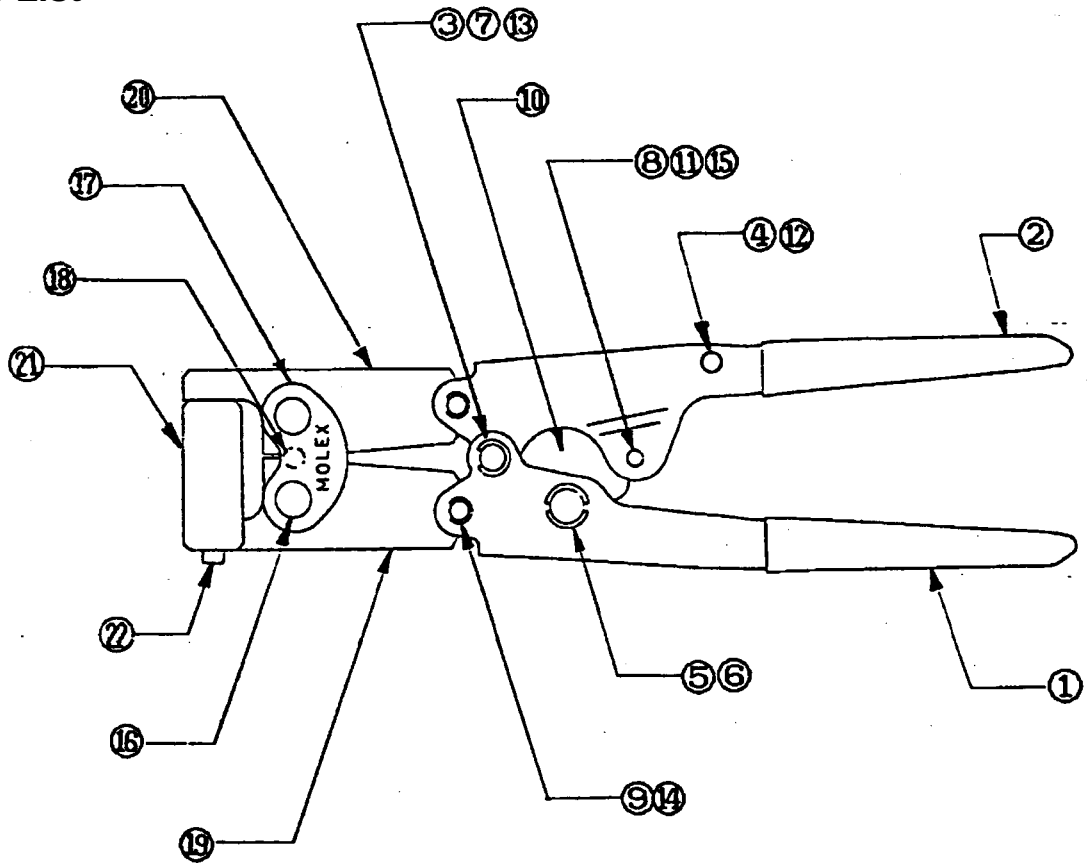
- 3) Tighten the “fixing nut (2)” when a proper size is obtained.



The post of the nail finally bumps to the ratchet plate.



5. Parts List



No.	Parts number	Parts Name	Q'ty	Remarks
	57147-1005	Handle ASS'Y	(1)	
1	J4174	Outside Handle	1	
2	J4170	Inside Handle	1	
3	J4163	Torsion Spring	1	
4	J4168	Ratchet Spring	1	
5	J4175	Adjustment Screw	1	
6	J4176	Nut	1	
7	J4161	Pivot Pin	1	
8	J4166	Ratchet pin	1	
9	J4177	Handle pin	2	
10	J57147-1004	Ratchet Plate	1	
11	J4165	Ratchet	1	
12	-	Spring Pin	1	Phi3x10L
13	-	E-ring	2	5mm
14	-	E-ring	4	3mm
15	-	E-ring	4	2.5mm
16	J4173	Rivet	2	
17	J4172	Link	2	
18	J4171	Insert Pivot Pin	2	
19	57147-1003	Upper Jaw	1	
20	57147-1002	Lower jaw	1	
	57170-1001	Lower jaw	1	
21	57147-1001	Housing Holder	1	
	57148-1001	Housing Holder	1	
22	-	Cap Screw	1	M4x12L

6. Splash Proof Connector Cap Fitting Tool Startup Checklist

[Applicable Tool] 57147-6000, 57148-6000: Splash Proof Connector Cap Fitting Tool (for AVSS0.3)
57170-6000, 57171-6000: Splash Proof Connector Cap Fitting Tool (for AVS0.3)

“Note” Please check the following matter before the commencement of work, and start operation after checking those without a problem.

No.	Checkpoint	Standard	Method/equipment	Check result
1	Shutting height size	[Standard value] 57147-6000: 21.1+/-0.1 mm 57148-6000: 14.1+/-0.1 mm	Measure with calipers.	
2	Cap fitting	The cap must surely be locked to the housing, and there must be neither damage nor transformations in the housing and the cap.	Check by trial operation.	
3	Crack of hosing	There are no crack and deformations by the hand tool in a housing and a cap.	Check visually.	
4	Article and dust	There are no article and dust in a housing holder.	Cleanup	

