

HANDLING PROCEDURES AND REMARKS FOR
CONNECTOR USED FOR FPC WITH 0.5MM PITCH
COPING WITH SMT
SFV--R-3/4STE-

1. SUMMARY OF THE CONNECTOR

1-1 Mounting Method of The Connector on P.C. Board

This connector applies the construction which copes with automatic mounting and SMT. Therefore please proceed reflow soldering after mounting it on P.C. Board by automatic mounting machine.

Packing style of connector	Plastic tape which cope with JIS C 0806
Automatic mounting machine	One by one system
Soldering	Reflow soldering (V.P.S. Infrared reflow system etc.)

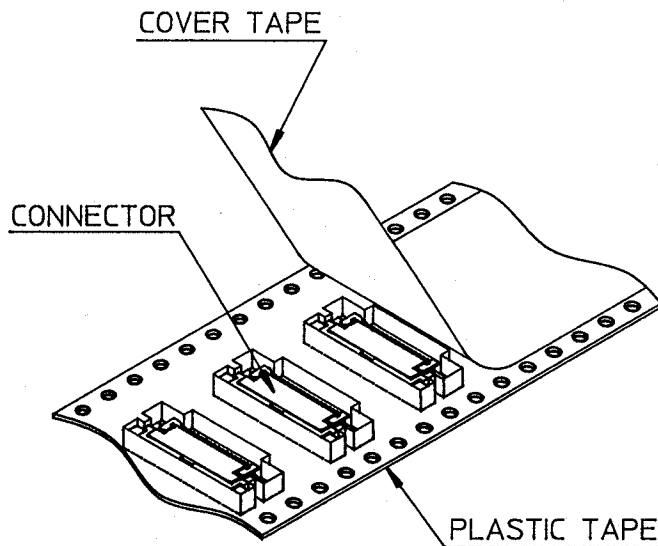
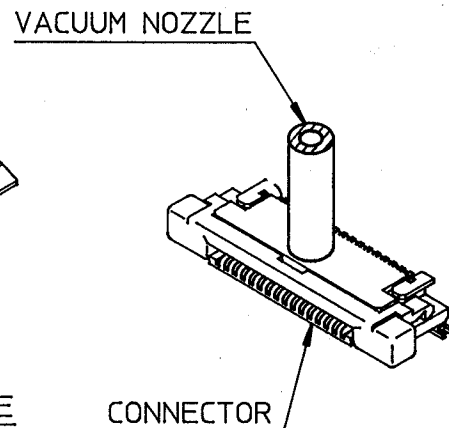
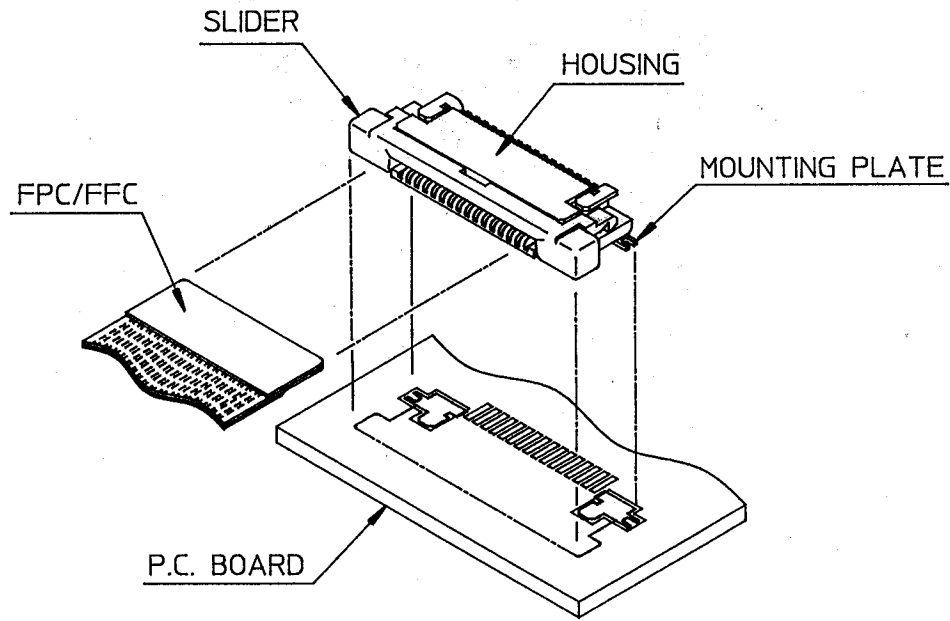


FIGURE FOR PLASTIC TAPE PACKING



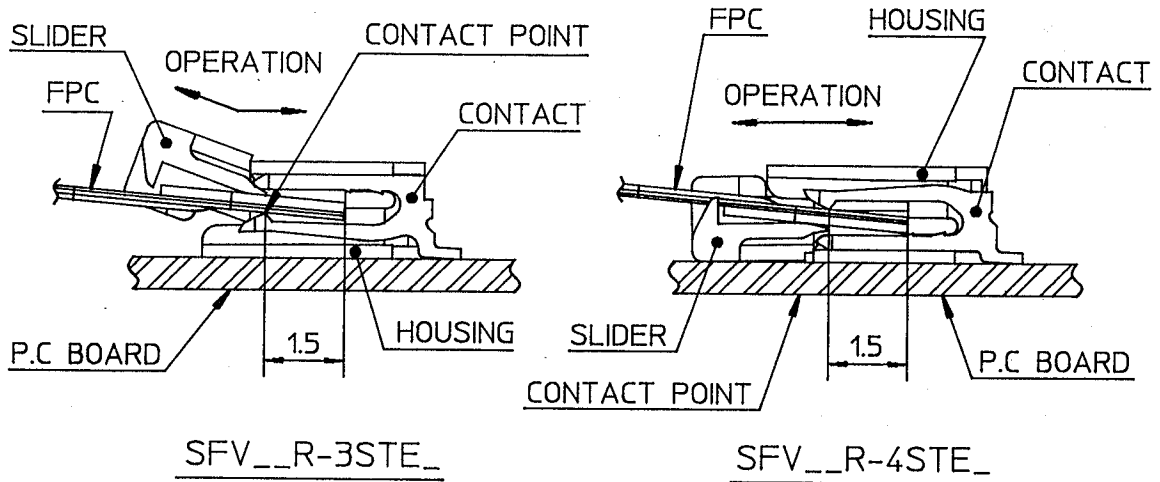
AUTOMATIC MOUNTING MACHINE: CHUCK MECHANISM



CONNECTOR MOUNTING FIGURE

Note) Please refer to the drawings attached to the specification for details of dimensions etc.

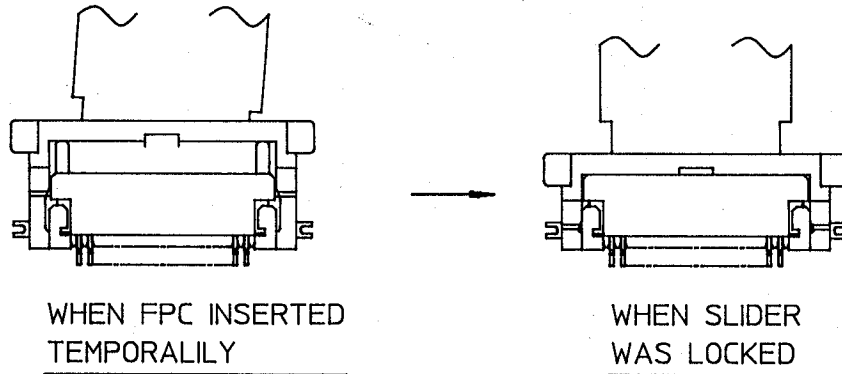
1-2 Internal Structure



1-3 Strong Point

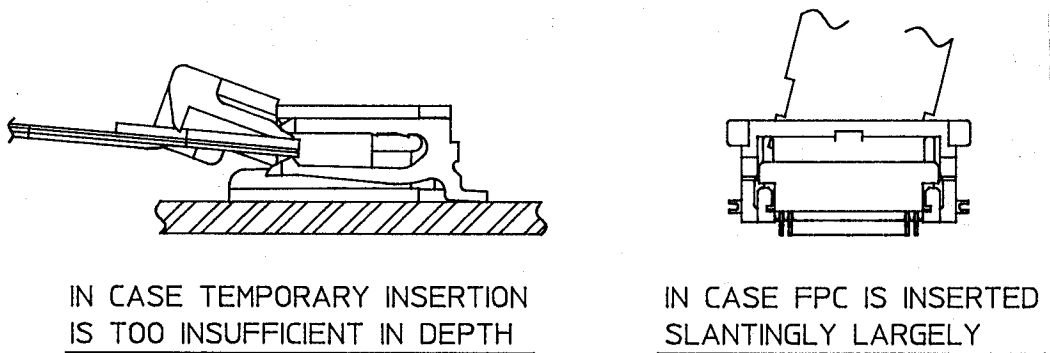
The merit of this connector is to apply cable-lock mechanism and the cable-lock mechanism provides the following advantages.

Slight angle slippage of FPC from vertical insertion line after insertion of FPC temporarily, can be corrected by slider-lock operation. (Prevention of FPC insufficient insertion).

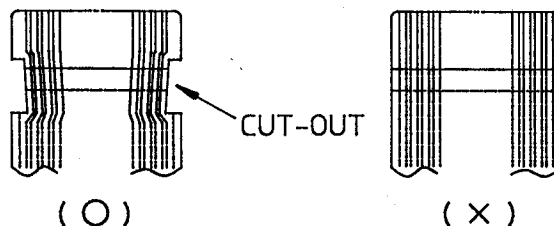


※ Remarks

- 1) In case of existing large slippage of FPC, in some cases, the slippage of FPC can not be corrected.



- 2) Please use FPC with cut-out as shown in the following figure by all means. (Please refer to the drawing attached to our specification for detail dimensions.)



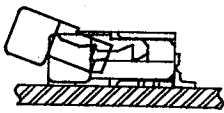
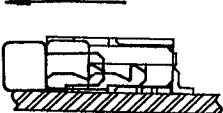


2. BASIC OPERATION PROCEDURES OF CONNECTOR

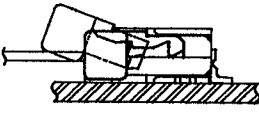
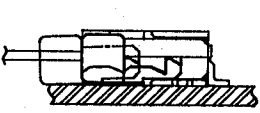
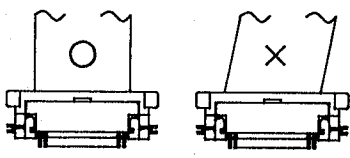
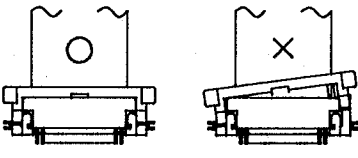
Conductor connections after soldered the connector on P. C. Board shall be done by the following procedures.
Pulling conductor forcibly in the condition of slider being locked must be avoided.

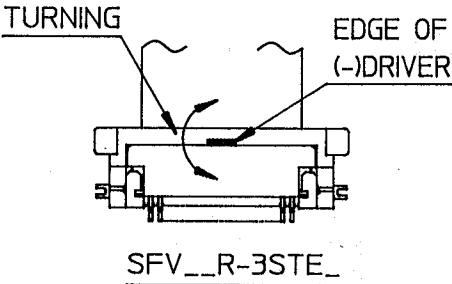
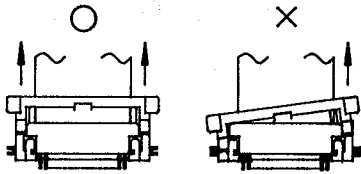
Works	No.	Operating Procedure
Connect- ing of conduc- tor	2-1	Provide open status by pulling slider
	2-2	Match connecting side of conductor to connecting side of connector.
	2-3	Fix temporarily by inserting conductor into card slot
	2-4	Provide lock status by pressing slider into
Removing of con- ductor	2-5	Provide open status by pulling slider
	2-6	Extract conductor to upper slant direction against P. C. Board

3. HANDLING PROCEDURE DETAILS AND REMARKS

No.	Procedure	Remarks
3-1	<p><u>Cream Solder Coating</u> Coat cream solder with adequate quantity on P. C. B. pattern. <Recommended cream solder> ● JIS Z 3282 H60A or H63A (Use solder contained with 2.5~3.0 wt% silver if necessary.) ● Solder particle : More than 325 mesh ● Flux : Inactive Rosin family flux</p>	<ul style="list-style-type: none"> ● Please refer to the drawings attached to the specification for recommended P. C. B. pattern dimensions. ● Please coat cream solder with adequate quantity by adjusting thickness of stencil.
3-2	<p><u>Mounting on P. C. Board</u> By using automatic mounting machine(one by one system) which copes with plastic tape packing, mount the connector on predetermined position on P. C. Board coated with cream solder.</p>	<ul style="list-style-type: none"> ● Please confirm carefully mounting accuracy of automatic mounting machine and dimensional accuracy of P. C. B. ● Positioning of connector on PCB must be made by positioning jig and contact terminal. ● Use by selecting adequate one for vacuum nozzle diameter of automatic mounting machine.

No.	Procedure	Remarks
3-3	<p><u>Reflow soldering</u></p> <p>1) Soldering method Solder by using reflow bath. <Recommended soldering condition></p> <ul style="list-style-type: none"> ● V. P. S. <ul style="list-style-type: none"> a) Preheat 150℃ 60~120 sec. b) Soldering 215℃ 10~30 sec. ● Infrared ray reflow or hot air reflow <ul style="list-style-type: none"> a) Preheat 150℃ 120 sec. b) Soldering peak 240℃ 215℃ 10~30 sec. <p>Note) Temperature shown above indicates it of contact terminal portion.</p> <p>2) Cleaning Cleaning of flux residue is recommended by considering the reliability of insulation resistance and corrosion characteristics after soldered.</p>	<ul style="list-style-type: none"> ● Set temperature on the surface of P.C.B. under 260℃.
3-4	<p><u>Connection of conductor</u> (FPC/FFC)</p> <p>1) Provide open status by operating slider. In this case, operate both edges of slider by all means. (Slider is fixed by keeping lift up condition on the slant. SFV__R-3STE_)</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <p>OPERATION</p>  <p>SFV__R-3STE_</p> </div> <div style="text-align: center;"> <p>OPERATION</p>  <p>SFV__R-4STE_</p> </div> </div>	<ul style="list-style-type: none"> ● When providing open status by operating slider, operate the both edges parallel until they stop perfectly. <div style="display: flex; justify-content: center; align-items: center; gap: 20px;"> <div style="text-align: center;"> <p>○</p>  </div> <div style="text-align: center;"> <p>×</p>  </div> </div>

No.	Procedure	Remarks
3-4	<p>2)Conductive side(Finger portion) of conductor is matched to contacting portion of conductor.</p> <p>3)Insert conductor from the inserting window of connector parallel until it hits against. (In this condition, connector is fixed temporarily.)</p> <p>4)After confirming that the conductor is inserted correctly, lock slider. In this case, confirm that both edges are locked securely by operating both edges of slider.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>OPERATION</p>  <p>SFV__R-3STE_</p> </div> <div style="text-align: center;"> <p>OPERATION</p>  <p>SFV__R-4STE_</p> </div> </div>	<ul style="list-style-type: none"> ● Make conductor vertically against slider by all means at the condition of being slider locked by inserting conductor. <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> ● At the condition of being slider locked, adjust so as not to have any gap at connecting portion of slider and main body. <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> ● Do not put excess force on conductor and connector at the condition of being conductor mated.

No.	Procedure	Remarks
3-5.	<p><u>Removing of conductor (FPC/FFC)</u></p> <p>1) Provide open status by operating slider. In this case, operate both edges of slider by all means. Also, for SFV__R-3STE_ (Lower contact type), operate by turning minus driver after putting into the slot for operating fixture.</p>  <p>SFV__R-3STE_</p> <p>2) Extract conductor to upper slant direction against P. C. Board.</p>	<ul style="list-style-type: none"> ● Excessive operation may cause break of slider. ● Remove conductor after making slider open status perfectly. 

4. OTHER REMARKS

- 1) Do not insert lead other than FFC, FPC, and probe etc. directly into contacting portion. Since CIC (Conducting P.C. Board) can not be used for this product, please consult us separately.
- 2) Do not make any soldering in the condition of being conductor mated.
- 3) Operating force of slider may become larger considerably if number of conductors increase.

5. STORAGE OF CONNECTOR

- 1) Avoid the places where dust, oil and water etc. are splashed or have direct sunshine. Solderability may be deteriorated if the connector is stocked for long time under high temperature, high humidity.
- 2) Preferable stock condition

Temperature : Less than 30 ℃
 Humidity : Less than 60 % RH
 Period : Within 3 months