

# FOR BOARD-TO-CABLE CONNECTION

## 230R SERIES (CONFORMING TO SCSI)

### ■ FEATURES

- 1.27 mm (0.050 in.) × 2.54 mm (0.100 in.) pitch contact arrangement enables high-density mounting.
- Cables and connectors are assembled by means of discrete wire IDC.
- Terminals are spaced in a four-row staggered arrangement (2.54 mm (0.100 in.) × 1.905 mm (0.075 in.)).
- Knife-fork two-point contacts are highly reliable.
- One-touch lock types and screw lock types are available for fixing the board-side connector and the cable-side connector.
- The following connectors conform to the SCSI standards recommended by ANSI:
  - (1) Single-operation lock types
    - 50-contact type: Conforms to the A-cable connectors prescribed in SCSI-II and SCSI-III
    - 68-contact type: Conforms to the B-cable connectors prescribed in SCSI-II
  - (2) Screw lock types
    - 68-contact type: Conforms to the P/Q-cable connectors prescribed in SCSI-III

\* SCSI: Small Computer System Interface

### ■ SPECIFICATIONS

Item	Specifications
Operating temperature range	-55°C to +105°C
Current rating	DC 1 A
Voltage rating	AC 240 V
Contact resistance	30 mΩ max. (DC 6 V, 0.1A)
Insulation resistance	1000 MΩ min. (DC 500 V)
Dielectric withstand voltage	AC 750 V for 1 minute
Applicable wire (standard)	AWG #28 and #30 twisted-pair cables with φ 0.5 to 0.88 mm (0.020 to 0.035 in.) sheath diameter. (The applicable wires depend on the number of contacts. See the descriptions of IDC plugs and metal covers.)



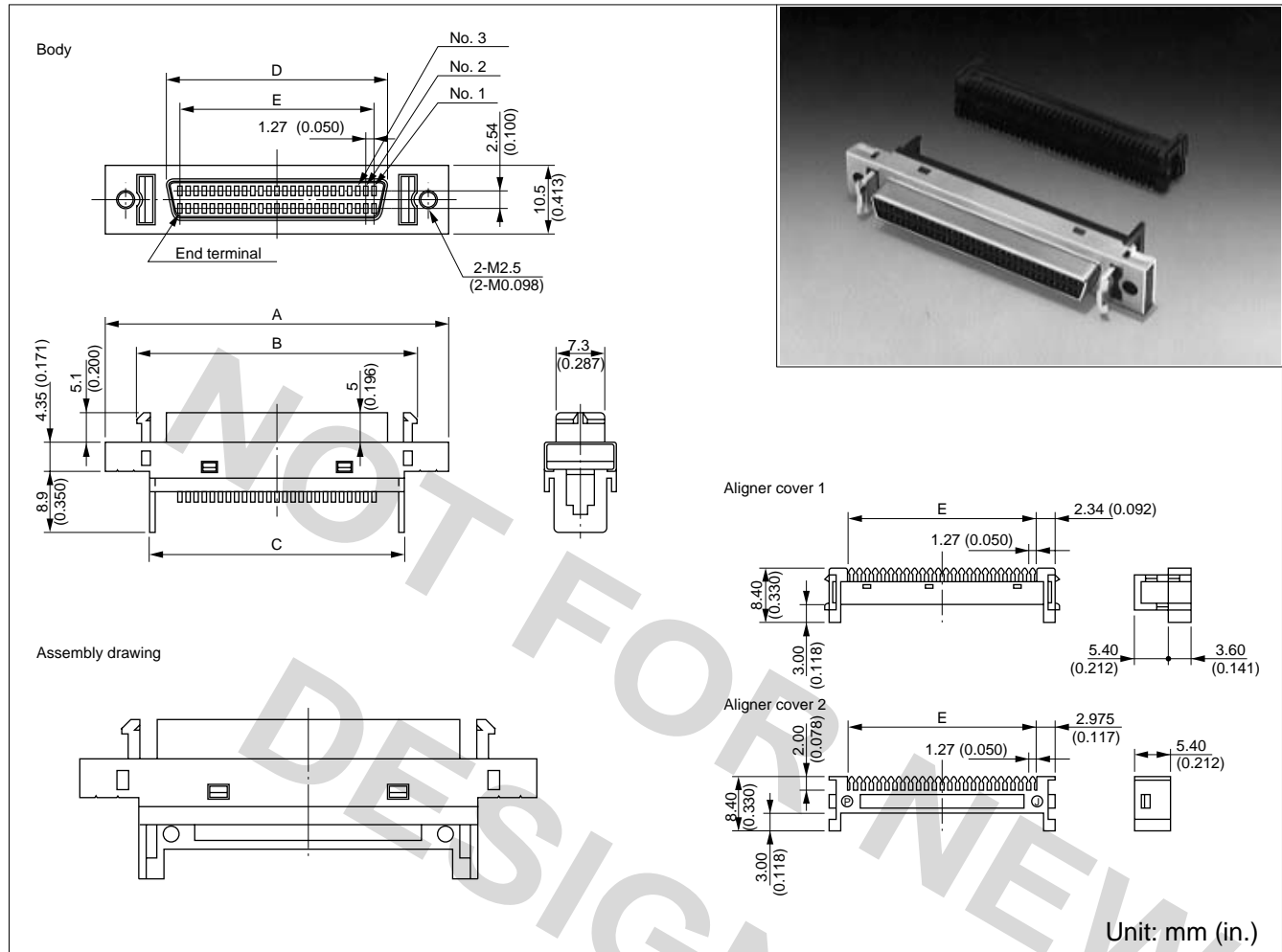
### ■ MATERIALS

Item	Materials	
Insulator	Polyester (UL94V-0)	
Conductor	Copper alloy	
Plating	Contact	Gold plating
	Terminal	Palladium plating

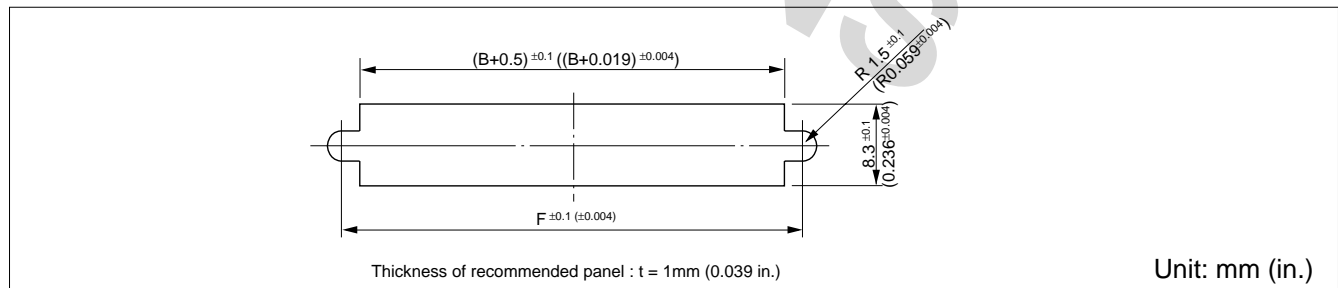
# 230R Series (Conforming to SCSI)

## CRIMP SOCKET (SINGLE-OPERATION LOCK TYPE)

### ■ DIMENSIONS



### ■ RECOMMENDED PANEL DIMENSIONS



### ■ PART NUMBERS AND DIMENSIONS

Number of contacts	Part number	Dimensions (mm)					
		A	B	C	D	E	F
50	FCN-237D050-G/CG	52.45 (2.064)	42.29 (1.664)	37.90 (1.492)	34.65 (1.364)	30.48 (1.200)	46.48 (1.829)
68	FCN-237D068-G/CG	63.88 (2.514)	53.72 (2.114)	49.33 (1.942)	46.08 (1.814)	41.91 (1.650)	57.91 (2.279)

This series includes connectors with No.2-56UNC screws for mounting panels. Specify a part number by replacing -G/CG at the end with -G/EG.

Example: FCN-237D050-G/EG

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## ■ PART NUMBERS AND DIMENSIONS

No. of Contacts	PART NUMBER	A	B	C	D	E	F	G
50	FCN-237D050-G/CG	52.45 (2.064)	42.29 (1.664)	37.90 (1.492)	34.65 (1.364)	30.48 (1.2)	46.48 (1.829)	2-M2.5
	FCN-237D050-G/EG	52.45 (2.064)	42.29 (1.664)	37.90 (1.492)	34.65 (1.364)	30.48 (1.2)	46.48 (1.829)	No. 2-65UNC
68	FCN-237D068-G/CG	63.88(2.515)	53.72 (2.114)	49.33 (1.942)	46.08 (1.814)	41.91 (1.65)	57.91 (2.279)	2-M2.5
	FCN-237D068-G/EG	63.88(2.515)	53.72 (2.114)	49.33 (1.942)	46.08 (1.814)	41.91 (1.65)	57.91 (2.279)	No. 2-65UNC

## ■ CABLE ASSEMBLY TOOL

Cable aligner and IDC tool are required for cable assembly.

Position Number	External Diameter of Applied Wire (mm)	Connector Part No	Cable Aligner		IDC Tool
			Hand Tool	Semi-Auto	
50	#28 or #30 (0.65-0.8)	FCN-237D050-G/CG	FCN-237T-T062/H	(see below*)	Hand press: FCN-237T-T109/H Head and Locator FCN-237T-T075/H
		FCN-237D050-G/EG			
68		FCN-237D068-G/CG			
		FCN-237D068-G/EG			

**Note:** There are

1. FCN-M550 series

Body: FCN-M551-120 (for 120V), FCN-M551-220 (for 220V)  
 Head: FCN-H550-1/A  
 Applicator: FCN-A550-1/A\*\*\* (\*\*\*) = Pos. no.: 050,068  
 Stand: FCN-D550

2. FCN-M560 series

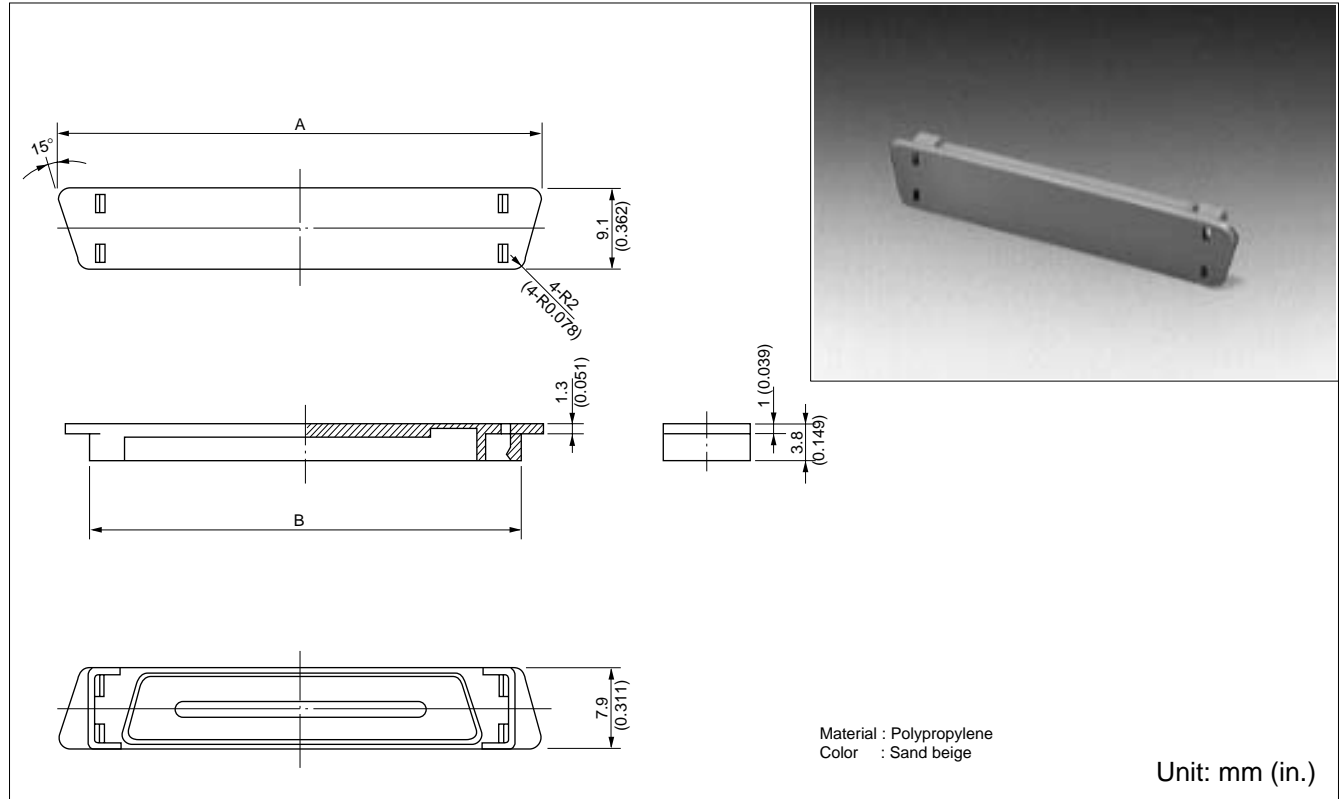
Body: FCN-M561-A  
 Controller: FCN-B561 (for 100V or 115V), FCN-B561-220 (for 220V)  
 Bed: FCN-P560-2/a  
 Adapter: FCN-K560-R-\*\*\* (\*\*\*) = Pos. no.: 050, 068

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## ACCESSORY (DUST CAP FOR SOCKET) <230R SERIES AND 240R SERIES>

Used to prevent dust from entering the contact section of a socket connector.

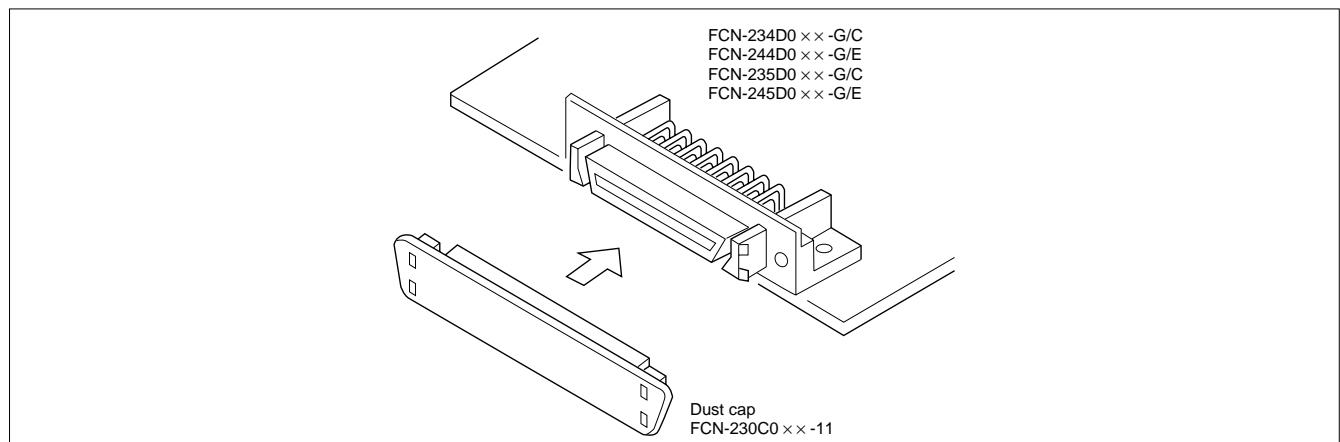
### ■ DIMENSIONS



### ■ PART NUMBERS AND DIMENSIONS

Number of contacts	Part number	Dimensions (mm)	
		A	B
28	FCN-230C028-11	35.7 (1.405)	30.1 (1.185)
36	FCN-230C036-11	40.8 (1.606)	35.2 (1.385)
50	FCN-230C050-11	49.7 (1.956)	44.1 (1.736)
68	FCN-230C068-11	61.1 (2.405)	55.5 (2.185)

### ■ APPLICATIONS



# 230R Series (Conforming to SCSI)

## CABLE ASSEMBLY TOOLS

The following tools are needed to assemble FCN-230/230R/240/240R series connectors.

- Cable aligner (semiautomatic cable aligner or hand tool)
- IDC tool

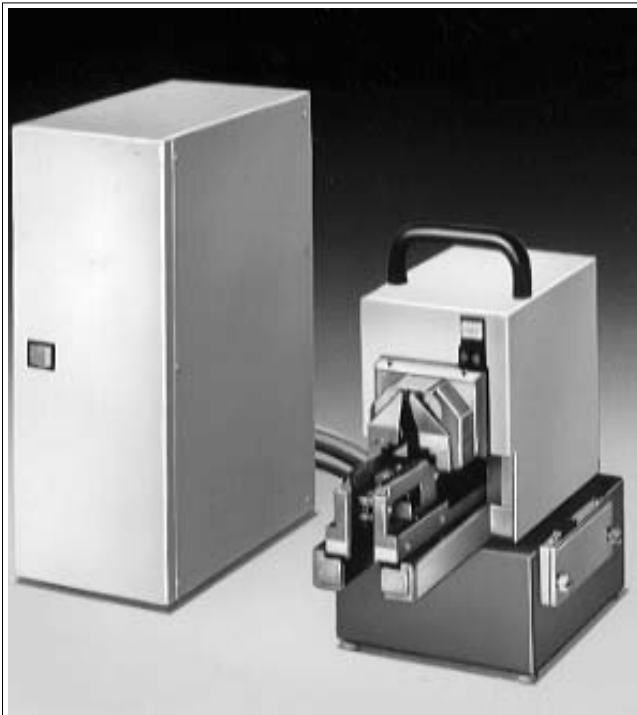
### 1. Cable Aligner

Item	Semiautomatic cable aligner			Hand tool
	Body/Controller	Bed	Adaptor	
FCN-237J	FCN-M561-A/C	FCN-P560-2/A	FCN-K560-A-xxx	FCN-237T-T062/H
FCN-237R			FCN-K560-R-xxx	
FCN-247J			FCN-K560-K-xxx	
FCN-247R		FCN-P560-2/J	FCN-K560-J-xxx	FCN-247T-T061/H

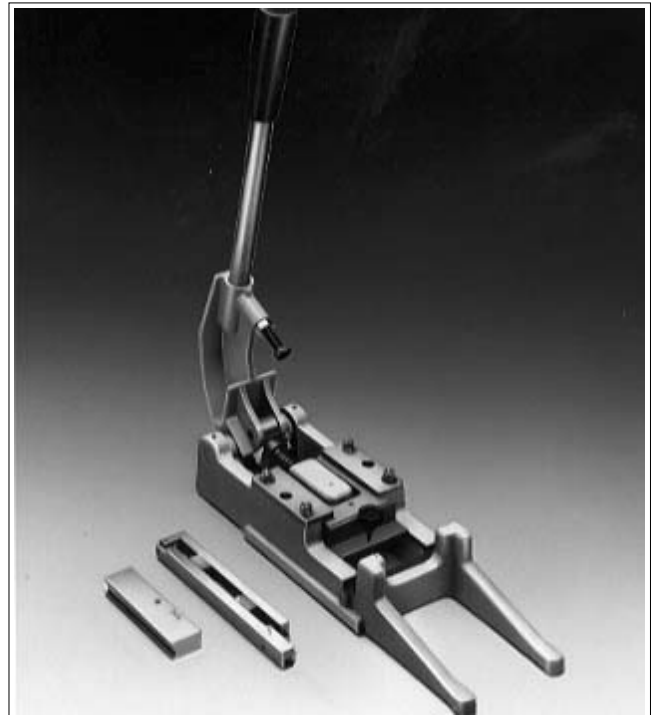
xxx indicates the number of contacts.

### 2. Insulation Displacement Connection (IDC) tool

Item	Hand press	Head/Table
FCN-237J	FCN-237T-T109/H	FCN-237T-T064/H
FCN-237R		FCN-237T-T067/H
FCN-237D		FCN-237T-T075/H
FCN-247J		FCN-247T-T066/H
FCN-247R		FCN-247T-T068/H
FCN-247D		FCN-247T-T077/H



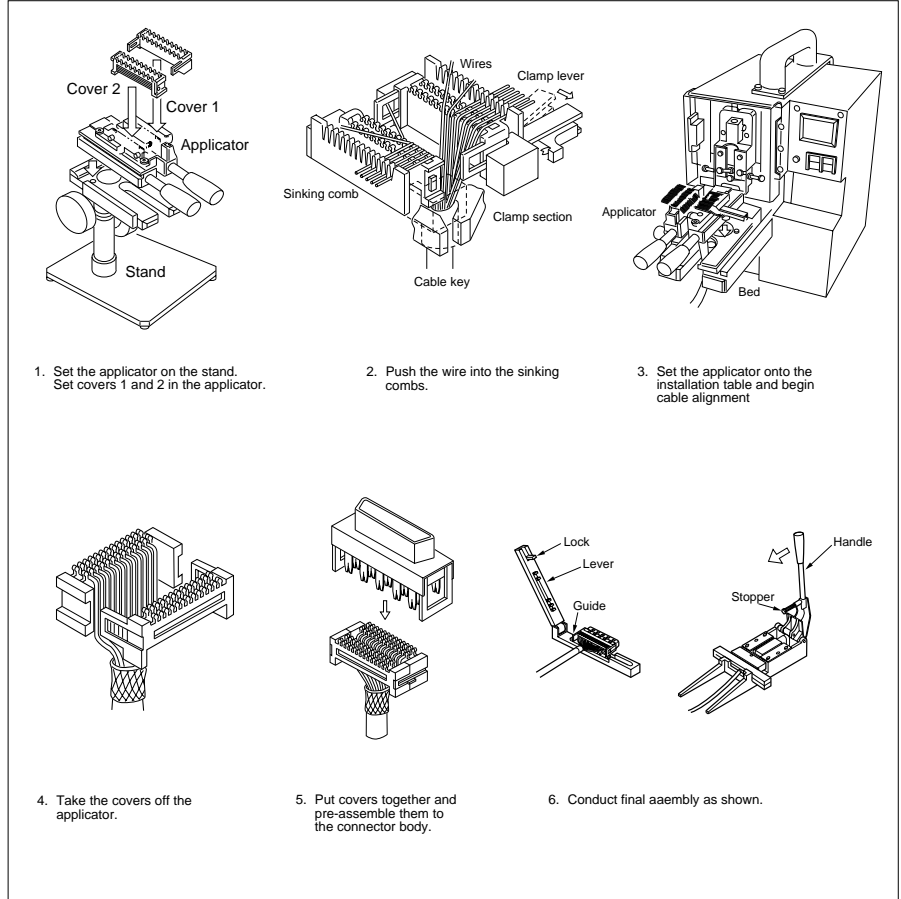
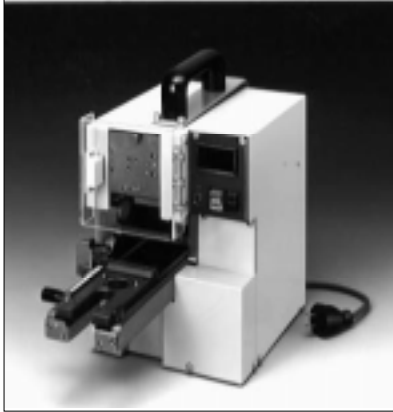
• Cable aligner



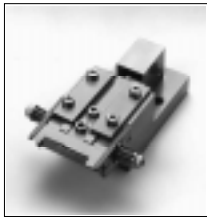
• Insulation displacement connection (IDC) tool

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**Semi-Automatic Tools  
Cable Aligning Machine  
Main Body (FCN-M551-120, FCN-M551-220)**



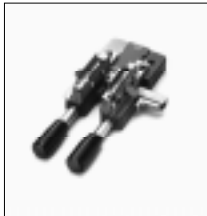
Head (FCN-H550-1/A)



Stand (FCN-D550)



Applicator (FCN-A550-1/A-xxx)



IDC Tool (FCN-237T-T109/H,  
FCN-237T-T067/H locator)



Pos No.	Applied Wire (wire Dia.: mm)	Connector Part number	Cable Aligner		IDC Tool
			Hand Tool	Semi-Auto	
20   68	#28 or #30 (0.8 to 0.88)	FCN-237R020-G/F   FCN-237R068-G/F	FCN-237T-T062/H   FCN-237t-t043/H	(See below*)	HAND PRESS: FCN-237T-T109/H HEAD & Locator: FCN-237T-T067/H
	#28 or #30 (0.5 to 0.65)	FCN-237R020-G/E   FCN-237R068-G/E			

Semi-automatic-Medium Level  
 Body: :FCN-M551-120  
 Head Assembly: :FCN-H550  
 Applicator: :FCN-A550-1/A-\*\*\*(\*\*\*: 020, 028, 036, 050, 068, 080)  
 Stand: :FCN-D550

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