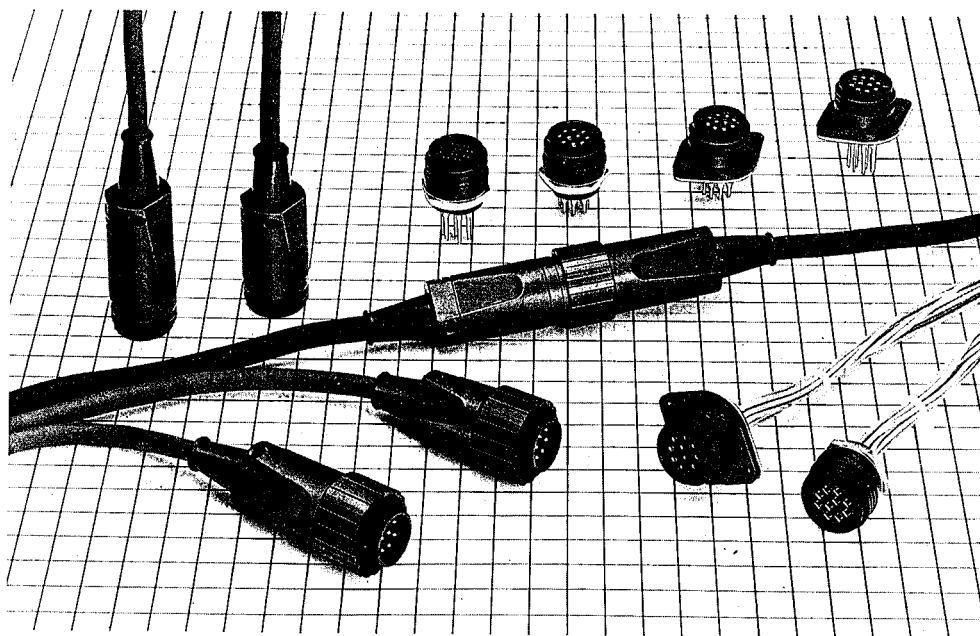


## RM215T·315T SERIES PLASTIC 10 PIN VIDEO CONNECTORS

### Introduction

RM215T series and RM315T series are newly developed 10 pin circular connectors primarily for Video Equipment applications. To cope with small size and light weight tendency in video decks and cameras, HIROSE now introduces this newly designed RM215T series and RM315T

series with plastic body. Keeping complete compatibility with current meter RM15T series, the RM215T and RM315 series offer application to wide range of products. Both crimp and dip solder versions are available.



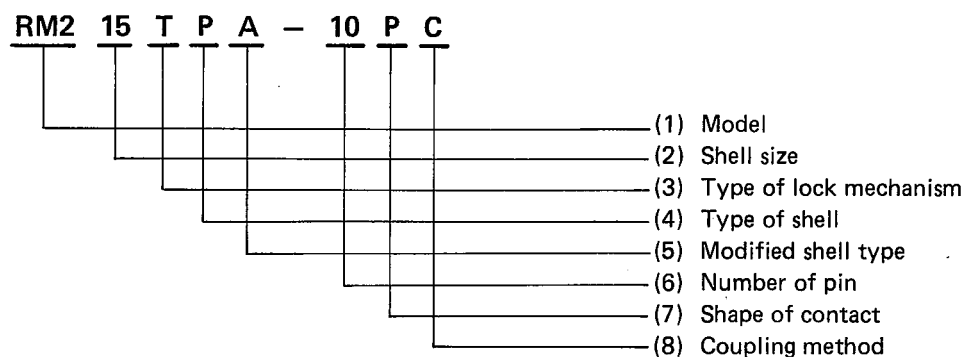
### Features

1. Electrically and mechanically strong glass-filled polycarbonate, UL94V-0, is used for connector body.
2. The weight is about 40% less than current metal types.
3. Mating Key is made of metallic material to offer long life stable performance even in coupling onto current metal RM15T series.
4. Two types of connector body, long and short in length, are available for the plug and jack. A receptacle can be mounted with either flange method or with a hexagon nut and each of these methods is supplied with either crimp contacts or dip solder contacts.
5. The simple and refined appearance with black matte finish offers a good appearance to any equipment.
6. A flange method receptacle is supplied with 45 degree rotated flange with tapping screws for two mounting positions to enhance space and labor saving.

## Material and Finish

Description	Material	Finish
Molding and insulator	Glass-filled polycarbonate (UL94V-0)	(Black)
Male pin	Phosphor bronze	Silver plated
Female pin	Phosphor bronze	Silver plated

## Ordering Information



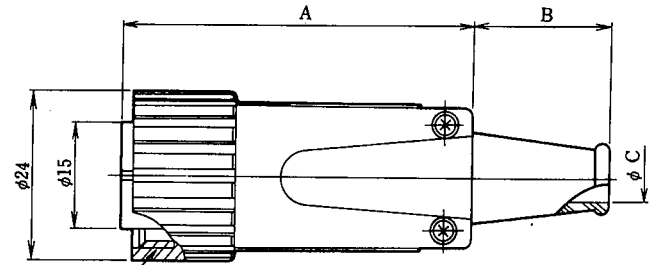
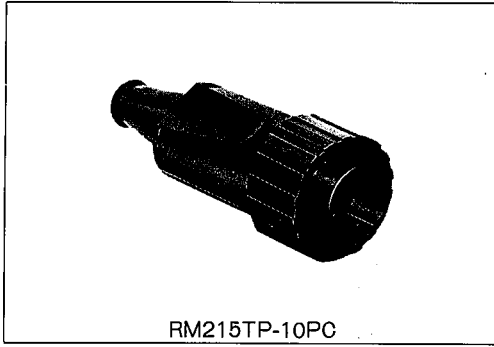
- (1) Model  
Round Miniature series name  
There are two types in RM series, RM2 and RM3.
- (2) Shell size  
Sizes are shown external diameter of mating.  
RM2 and RM3 is available only for 15 size.
- (3) Type of lock mechanism  
T is shown as screw coupling system.
- (4) Shell types  
P: Plug  
R: Receptacle  
J: Jack
- (5) Modified shell identification  
If the molding is different from standard type, modified marks is given as A, B and so on.

- (6) Number of pin  
This connector only available 10 pin.
- (7) Shape of contact  
P: Pin  
S: Socket
- (8) Coupling method of pin  
C: Crimp  
D: Dip  
B: Dip  
E: Dip

# RM215T Type Connectors

## Plug

(Crimp type)

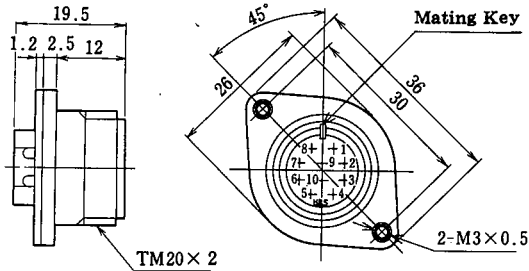
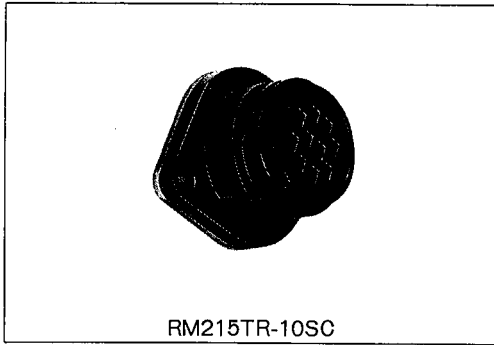


TM20 x 2 (An example in shape)

HRS No.	Part No.	A	B	φC	No. of Pin	Weight
109-2001-0	RM215TP-10PC	50	20	6.8	10	18g
109-2002-2	RM215TPA-10PC	41	15	8	10	16g
109-2002-2-01	RM215TPA-10PC(01)	41	15	6.8	10	16g

## Flange Type Receptacle

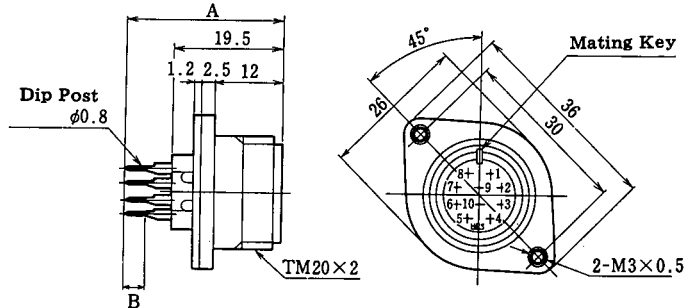
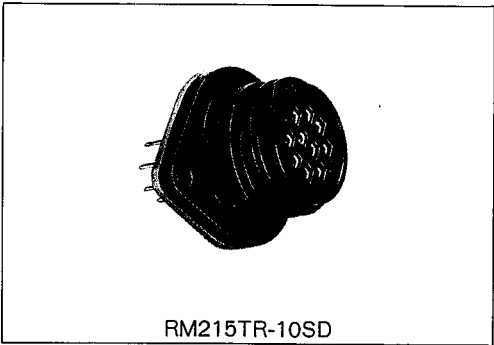
(Crimp type)



HRS No.	Part No.	No. of pins	Weight
109-2004-8	RM215TR-10SC	10	11g

Remark: For the mounting hole, see page 66.

(Dip Soldering type)

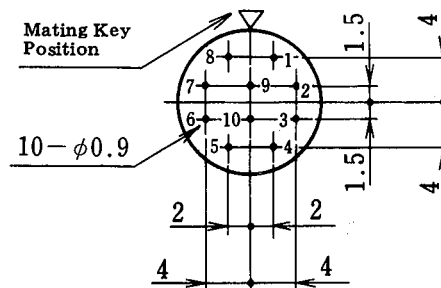


(An example in shape)

HRS No.	Part No.	A	B	No. of pins	Weight
109-2005-0	RM215TR-10SD	27.8	3.8	10	12g
109-2006-3	RM215TR-10SB	32.3	8.3	10	12g

Remark: For the mounting holes, see page 66.

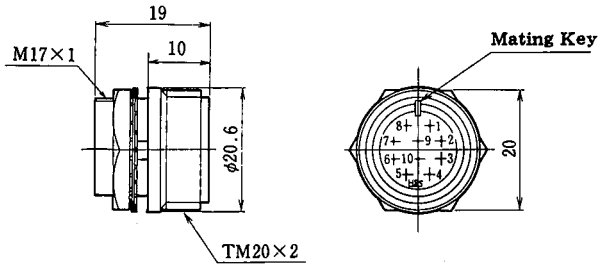
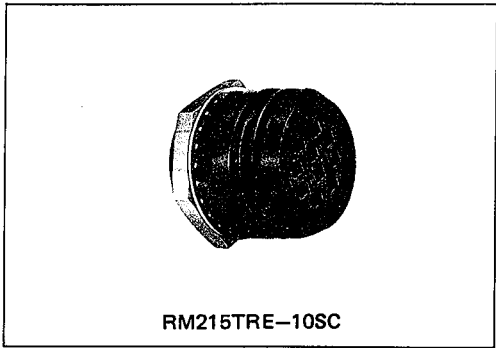
## Dip Soldering Pattern



Remark: Dimensional tolerance of dip post arrangement is recommended  $\pm 0.05$ .

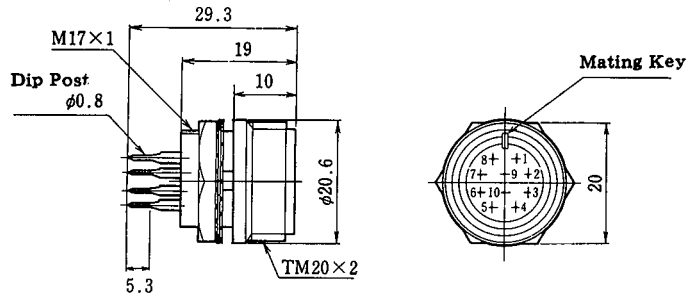
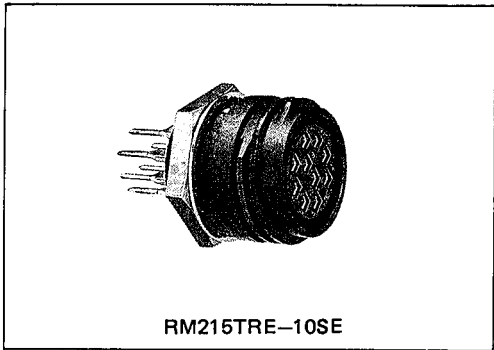
## Hexagon Nut Type Receptacle

(Crimp type)



HRS No.	Part No.	No. of pins	Weight
109-2018-2	RM215TRE-10SC	10	9g

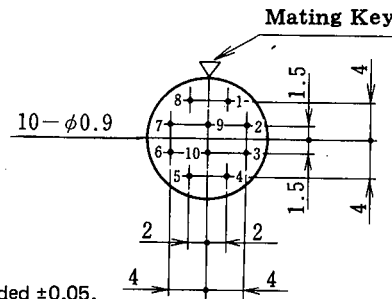
(Dip Soldering type)



HRS No.	Part No.	No. of pins	Weight
109-2015-4	RM215TRE-10SE	10	10g

Remark: For the mounting holes, see page 66.

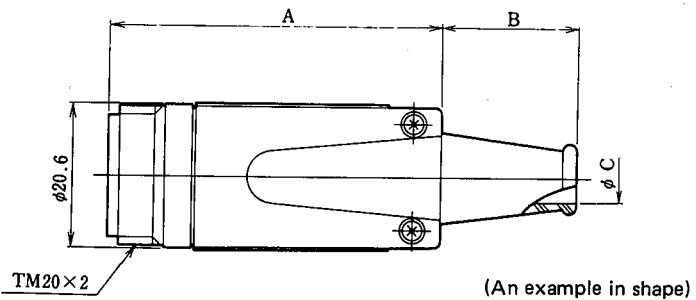
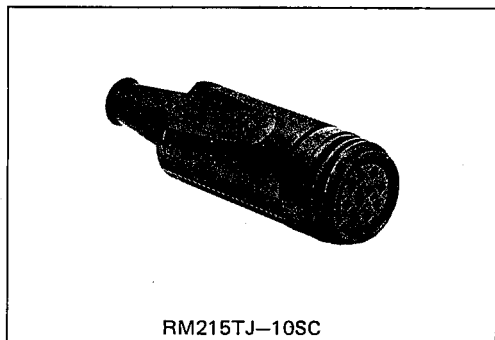
Dip Soldering Pattern



Remark: Dimensional tolerance of dip post arrangement is recommended  $\pm 0.05$ .

## Jack

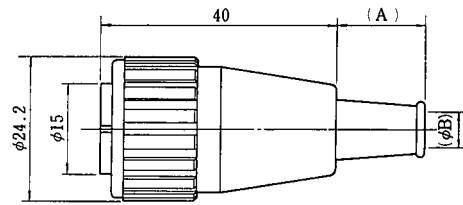
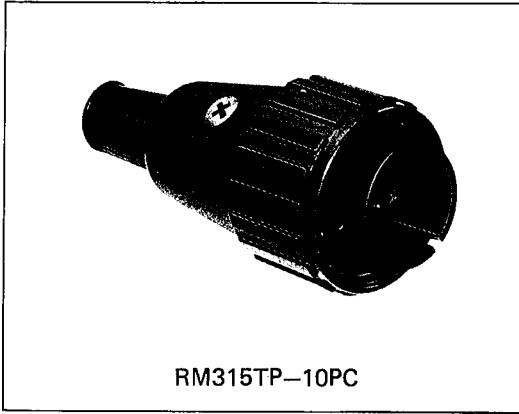
(Crimp type)



HRS No.	Part No.	A	B	$\phi C$	No. of pins	Weight
109-2010-0	RM215TJ-10SC	47	20	6.8	10	18g
109-2011-3	RM215TJA-10SC	38	15	8	10	16g

## RM315T Series Plug

### Crimp type

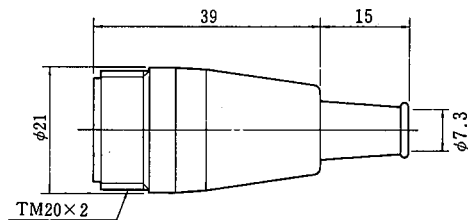
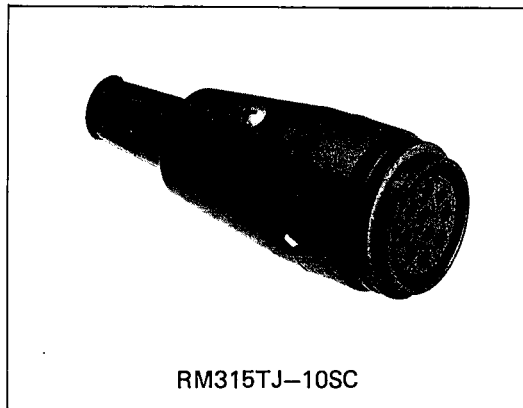


(An example in shape)

HRS No.	Part No.	A	φB	Weight
109-3001-5	RM315TP-10PC	15	7.3	11g
109-3006-9	RM315TPE-10PC	17	6.3	11g

## Jack

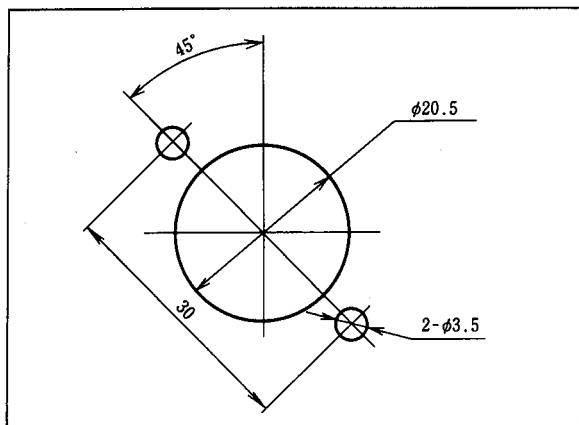
### Crimp type



HRS No.	Part No.	Weight
109-3002-8	RM315TJ-10SC	11g

## Mounting Cutout

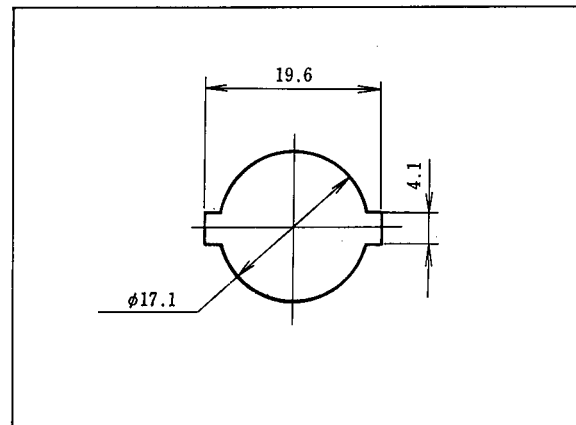
### RM215TR Flange type



#### ○ Applicable Connector

HRS No.	Part No.
109-2004-8	RM215TR-10SC
109-2005-0	RM215TR-10SD
109-2006-3	RM215TR-10SB

### RM215TRE Hexagon Nut type



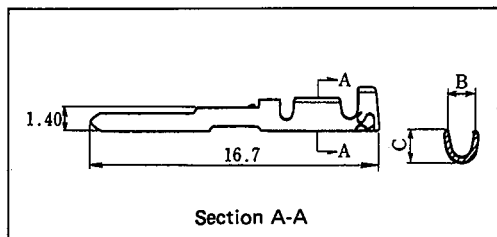
#### ○ Applicable Connector

HRS No.	Part No.
109-2018-2	RM215TRE-10SC
109-2015-4	RM215TRE-10SE

- Note 1. Above appearance shows the panel surface and the mating key is located on top position.
2. The applicable panel thickness for a flange type receptacle is maximum 5mm, because this type is mounted on the back surface of panel.
3. The applicable panel thickness for a hexagon nut fastening type is maximum 6 mm and minimum 3 mm.

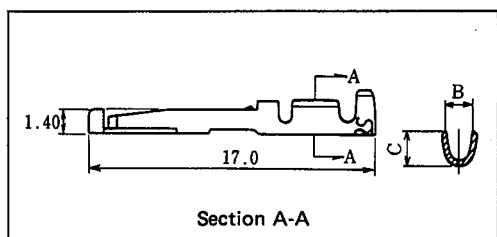
## Contact

### Male pin



Type	HRS No.	Part No.	B	C	Applicable wire
Loose contact	109-0668-7	RM-PC-112	1.6	2	AWG#20~#24
	109-0672-4	RM-PC-122	1.45	1.5	AWG#24~#28
Chain contact	109-0670-9	RM-PC-212	1.6	2	AWG#20~#24
	109-0674-0	RM-PC-222	1.45	1.5	AWG#24~#28

### Female pin



Type	HRS No.	Part No.	B	C	Applicable wire
Loose contact	109-0669-0	RM-SC-112	1.6	2	AWG#20~#24
	109-0673-7	RM-SC-122	1.45	1.5	AWG#24~#28
Chain contact	109-0671-1	RM-SC-212	1.6	2	AWG#20~#24
	109-0675-2	RM-SC-222	1.45	1.5	AWG#24~#28

Note: Loose-piece pins are available in pack. Each pack contains 100 pieces.

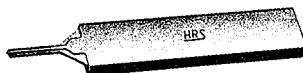
Reel pins are available, one reel contains 8,000 pieces.

## Tools

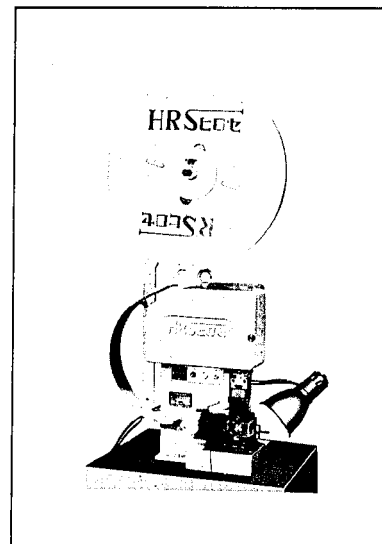
Type	HRS No.	Part No.	Applicable cable
Hand crimp tool	150-0006-1	RM-TC-11	AWG#20~#24
	150-0007-4	RM-TC-12	AWG#24~#28
Auto crimp tool	—	CM-103	—
Extraction tool	150-0008-7	RM-TP	—



**Hand Crimp Tool**



**Extraction Tool**



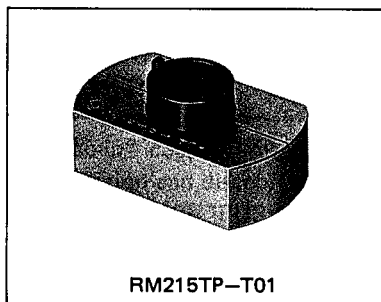
**Auto Crimp Tool CM-103**

## Connector Assembly Tools (RM215T Type)

In assembling a plug or a jack, follow the procedure indicated in the next page using the tools shown below.

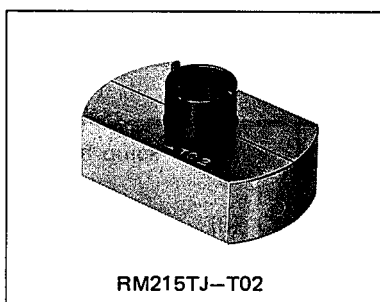
Type	HRS No.	Part No.	Applicable connector
Plug fastening tool	150-0013-7	RM215TP-T01	109-2001-0 RM215TP-10PC
			109-2002-2 RM215TPA-10PC
Jack fastening tool	150-0014-0	RM215TJ-T02	109-2010-0 RM215TJ-10SC
			109-2011-3 RM215TJA-10SC
Spanner	150-0015-2	RM215-T03	109-2001-0 RM215TP-10PC
			109-2010-0 RM215TJ-10SC
Spanner for short body	150-0016-5	RM215A-T04	109-2002-2 RM215TPA-10PC
			109-2011-3 RM215TJA-10SC

**(Plug Fastening Tool)**



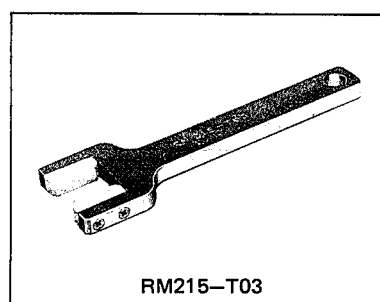
**RM215TP-T01**

**(Jack Fastening Tool)**



**RM215TJ-T02**

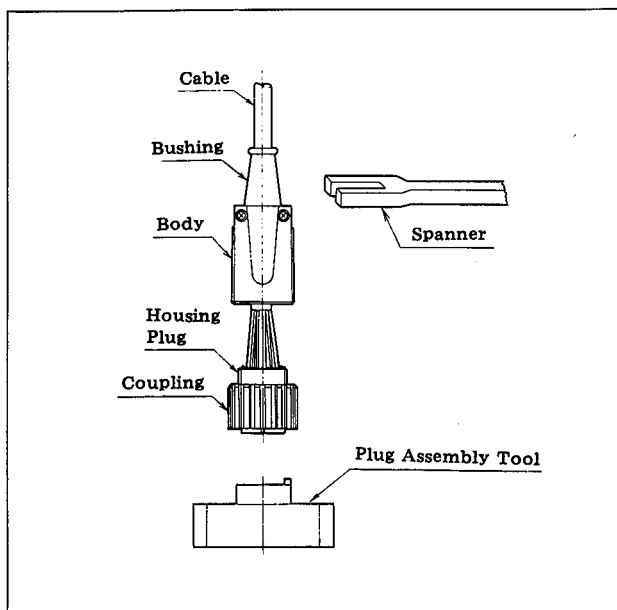
**(Spanner)**



**RM215-T03**

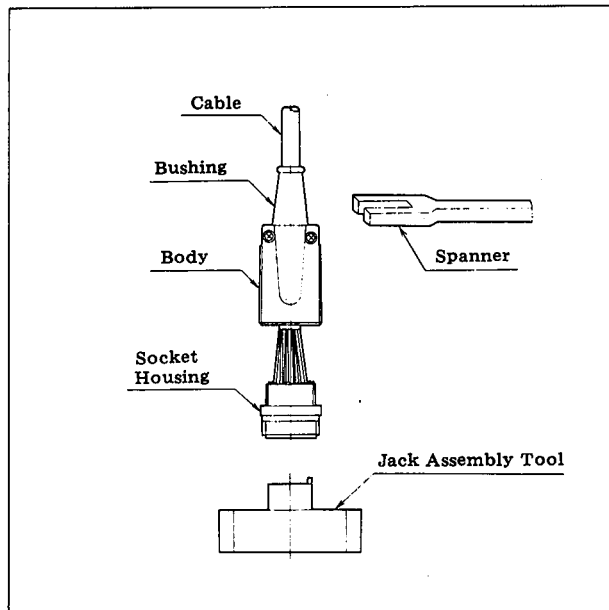
## Assembling Procedure

### ○ Plug



1. Prepare the cable end for crimping and pass the cable through Bushing, and then crimp the Contacts to each wire.
2. Pass the crimped cable through Connector Body and Coupling. And each crimped contact is inserted to Plug Housing.
3. Fix the Plug Housing on the Assembly Tool (RM215TP-T01) and fasten Connector Body with Fastening Wrench (RM215-T03 or RM215A-T04). Recommendable fastening torque is 20–40 kg/cm.
4. Final step is to clamp the cable with screws. (about 2kg/cm)

### ○ Jack



1. Prepare the cable end for crimping and pass the cable through Bushing, and then crimp the Contacts to each wire.
2. Pass the crimped cable through Connector Body and then each crimped contact is inserted to Socket Housing.
3. Fix the Socket Housing on the Assembly Tool (RM215TJ-T02) and fasten Connector Body with Fastening Wrench (RM215-T03 or RM215A-T04). Recommendable fastening torque is 20–40 kg/cm.
4. Final step is to clamp the cable with screws. (about 2kg/cm force recommended)

## Contact Arrangement

Contact Arrangement	
No. of pin	10
Withstanding Voltage	AC 1000V for a minute
Current Rating	5A (at AWG20 cable)
Insulation Resistance	1000MΩ (MIN. at DC 500V)
Contact Resistance	7mΩ (MAX. at DC 1A)
Applicable Cable	AWG#20~24(big Barrel) AWG#24~28(small Barrel)

- Note 1. The contact arrangement shown on the left shows the mating surface of a Receptacle or a Jack.
2. The value of Voltage Withstanding is test voltage. The voltage rating in general use shall be lower than one third of the value.