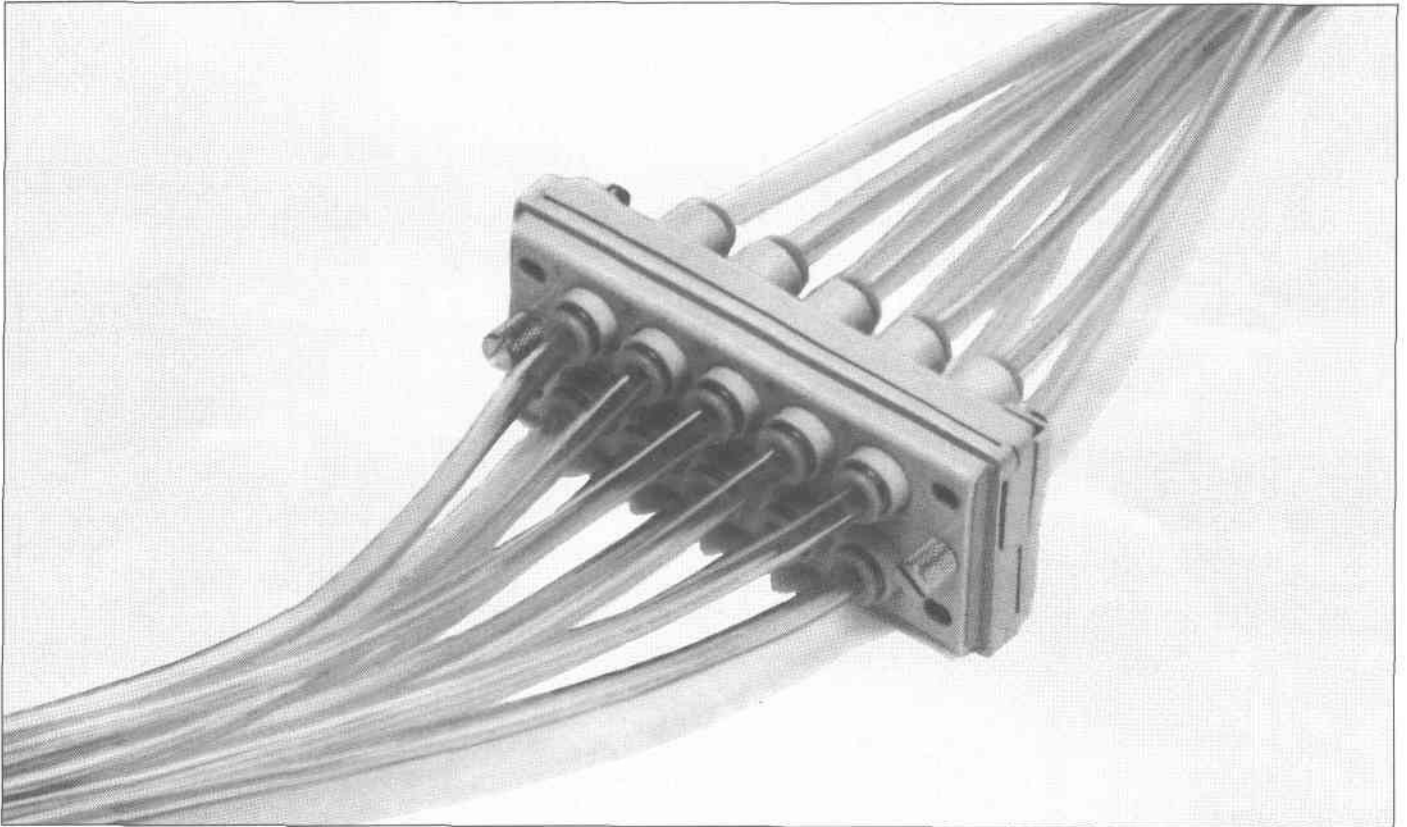




**SMC Pneumatics, Inc.**

# Rectangular Multi-Connector

## Series KDM



Multi-connector is effective in labor savings for separate transportation of the panel and the machine. Excellent for exchanging panels when a failure occurs.

# Rectangular Multi-Connector Series KDM

## Substantial reduction in mounting area

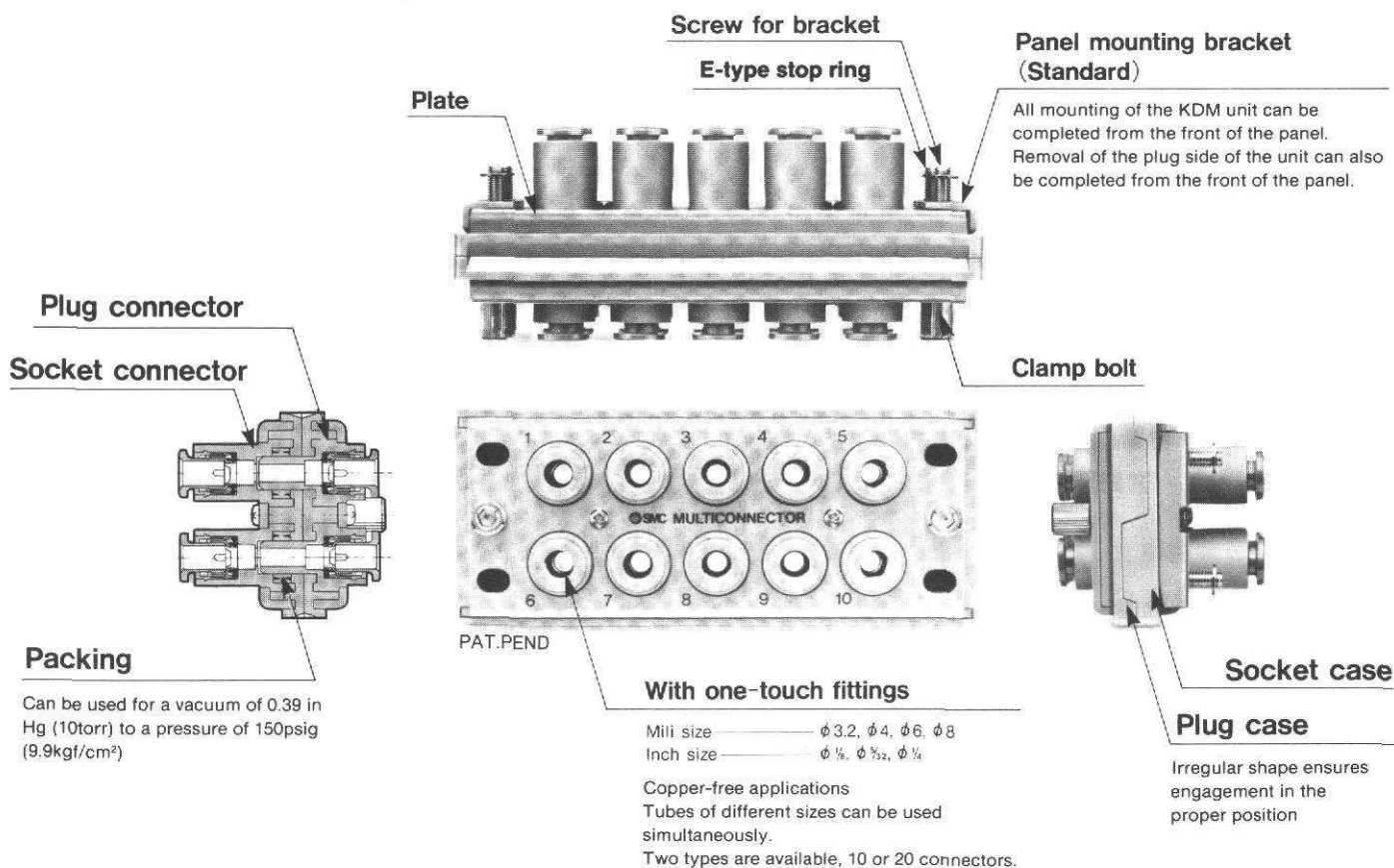
In comparison with a panel requiring many bulkhead unions, this model needs only a small mounting area.

## One-touch connection/disconnection of multi-connector unit.

Multiple tubes can be connected/disconnected in a one-touch operation without error. Man-hours for connection/disconnection is reduced substantially.

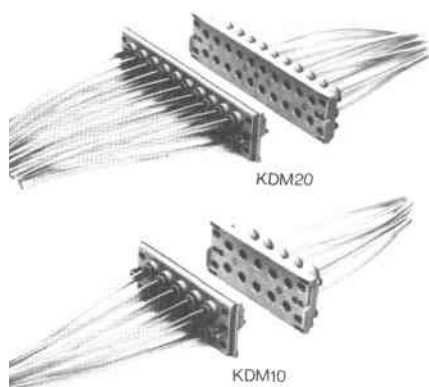
## One-touch tube connection

One-touch fittings substantially reduces man-hours when inserting tubing. No cumbersome nut and ferrul to contend with.





# Rectangular Multi-Connector Series KDM



## Model

Number of connecting tubes	Tube O. D.		Model	Weight (oz.)	Color of release button
10	Mili size	$\phi 3.2$	KDM10-23	10.6 (300gf)	Blue
		$\phi 4$	KDM10-04		
		$\phi 6$	KDM10-06		
	Inch size	$\phi 8$	KDM10-08		Red
		$\phi \frac{1}{8}$	KDM10-01		
		$\phi \frac{5}{32}$	KDM10-03		
20	Mili size	$\phi 3.2$	KDM20-23	18.3 (520gf)	Blue
		$\phi 4$	KDM20-04		
		$\phi 6$	KDM20-06		
	Inch size	$\phi 8$	KDM20-08		Red
		$\phi \frac{1}{8}$	KDM20-01		
		$\phi \frac{5}{32}$	KDM20-03		
		$\phi \frac{1}{4}$	KDM20-07		

## Applicable Tubing

Tube material		Nylon, Soft nylon, Polyurethane, Polyethylene
Tube O. D.	Mili Size	$\phi 3.2, \phi 4, \phi 6, \phi 8$
	Inch Size	$\phi \frac{1}{8}, \phi \frac{5}{32}, \phi \frac{1}{4}$

## Specifications

Media	Air
Max. operating pressure	150psig (9.9kgf/cm <sup>2</sup> )
Operating vacuum	0.39in Hg~ (10torr~)
Proof pressure	215psig (15kgf/cm <sup>2</sup> )
Ambient and media temperature	32-140° F (0~60° C)

## Principal Element Material

Plug case, Socket case		Polyacetal
Plate, Bracket		SPCC Plating
Plug connector. Socket connector	Body	PBT
	Chuck	SUS304
	Guide	C3604BD with Electroless nickel plating
	Collet Release bushing	Polyacetal
	Packing	NBR
Clamp bolt, Screw for bracket, Phillips head machine screw		SWRM with Nickel Plating
E-type stop ring		SUS304

## Parts No.

No. of connecting tubes	Tube O.D.	Model		Color of release button
		Plug	Socket	
10	φ3.2	KDM10P-23	KDM10S-23	Blue
	φ4	KDM10P-04	KDM10S-04	
	φ6	KDM10P-06	KDM10S-06	
	φ8	KDM10P-08	KDM10S-08	
	φ $\frac{1}{8}$	KDM10P-01	KDM10S-01	Red
	φ $\frac{3}{32}$	KDM10P-03	KDM10S-03	
	φ $\frac{1}{4}$	KDM10P-07	KDM10S-07	
20	φ3.2	KDM20P-23	KDM20S-23	Blue
	φ4	KDM20P-04	KDM20S-04	
	φ6	KDM20P-06	KDM20S-06	
	φ8	KDM20P-08	KDM20S-08	
	φ $\frac{1}{8}$	KDM20P-01	KDM20S-01	Red
	φ $\frac{3}{32}$	KDM20P-03	KDM20S-03	
	φ $\frac{1}{4}$	KDM20P-07	KDM20S-07	

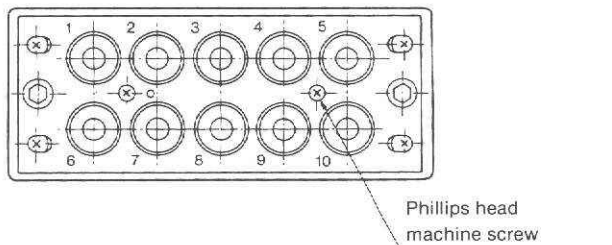
## Mixing sizes of plug connectors and socket connectors

The rectangular multi-connector permits connector exchange in any desired position. This allows use of different size of tubes in one multi-connector.

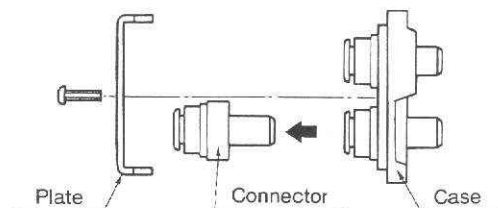
## Parts No.

Connector	Tube O.D.	Model	Color of release button
Plug connector	φ3.2	KDMP-23	Blue
	φ4	KDMP-04	
	φ6	KDMP-06	
	φ8	KDMP-08	
	φ $\frac{1}{8}$	KDMP-01	Red
	φ $\frac{3}{32}$	KDMP-03	
	φ $\frac{1}{4}$	KDMP-07	
Socket connector (With packing)	φ3.2	KDMS-23	Blue
	φ4	KDMS-04	
	φ6	KDMS-06	
	φ8	KDMS-08	
	φ $\frac{1}{8}$	KDMS-01	Red
	φ $\frac{3}{32}$	KDMS-03	
	φ $\frac{1}{4}$	KDMS-07	

- ① Loosen the Phillips head machine screw using a Phillips type screwdriver to remove the plate from the case.



- ② After exchanging connectors in desired positions, re-affix the plate with a Phillips type screwdriver to the case.



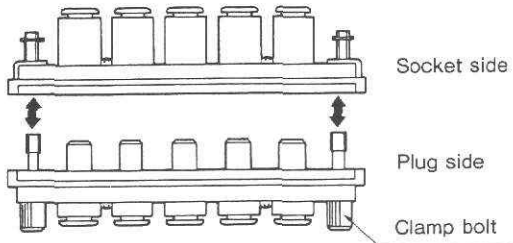
## Precautions

- When using a brand of tube other than SMC, be careful of the tolerance of the tube's O.D.
  - Nylon tube . . . . . ±0.004" (±0.1mm)
  - Soft nylon tube . . . ±0.004" (±0.1mm)
  - Polyurethane tube . . . . . +0.006", -0.008" (+0.15,-0.2mm)
  - Polyethylene tube . . . . . ±0.004" (±0.1mm)
 (Some commercially available tubes will not satisfy the above tolerance requirements.)
- The bending radius of the tube in the vicinity of the fitting should be at least the minimum bending radius of the tube.  
(For details of minimum bending radius, see Air Fittings and Tubing catalog.)
- For fluids other than air, please contact the SMC representative nearest you.

## How to Use

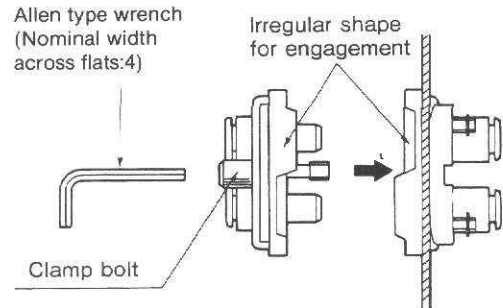
### Preparation

Loosen the clamp bolt to separate the plug side from the socket side.



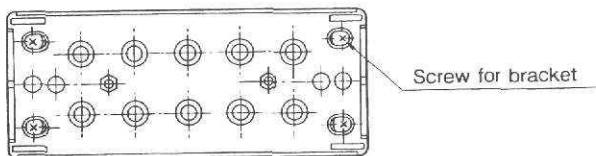
### Connection

Put together the irregular faces for engagement and connect the plug case to the socket. After tightening the clamp bolt by hand, tighten it further with an Allen type wrench (nominal width across flats:4).

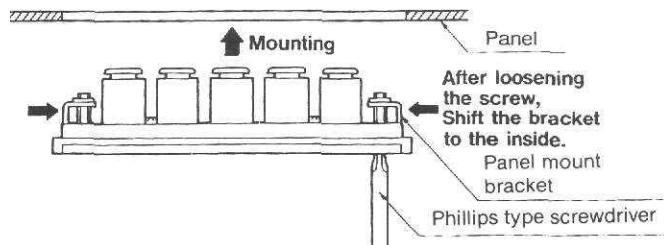


### Panel mounting

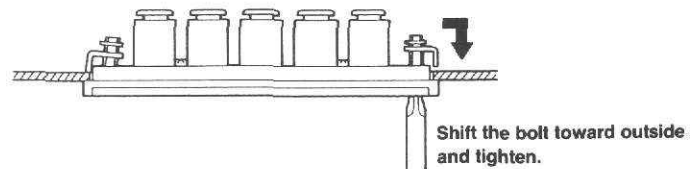
Loosen (4) screws for the panel mounting bracket on the socket side using a Phillips screwdriver (JIS nominal No.2) until the stop ring touches the bracket.



Shift the panel mounting bracket to the inside (Move the screw for bracket in the longitudinal direction of the slot) and put the connector in the panel mount cut out. (Panel mount cut out, see page 4.)



③ Shift the bolt for the bracket toward the outside. Tighten the bolt with a Phillips type screwdriver to attach the socket case to the panel.



### REMOVAL FROM PANEL

Loosen the screw for the bracket until the bracket touches the stop ring.

Shift the bracket to the inside to remove the connector from the panel.

## Installation and Removal of One-touch Fittings

### Installing Tube

Cut the tube perpendicularly, being careful not to damage the outside face, use tube cutter TKA-1. (Do not cut the tube with pliers, nippers, snippers, utility knife, etc.)

Grasp the tube, then slowly push it until it comes to a dead-end. Then pull it back gently to make sure that it has a positive seal.

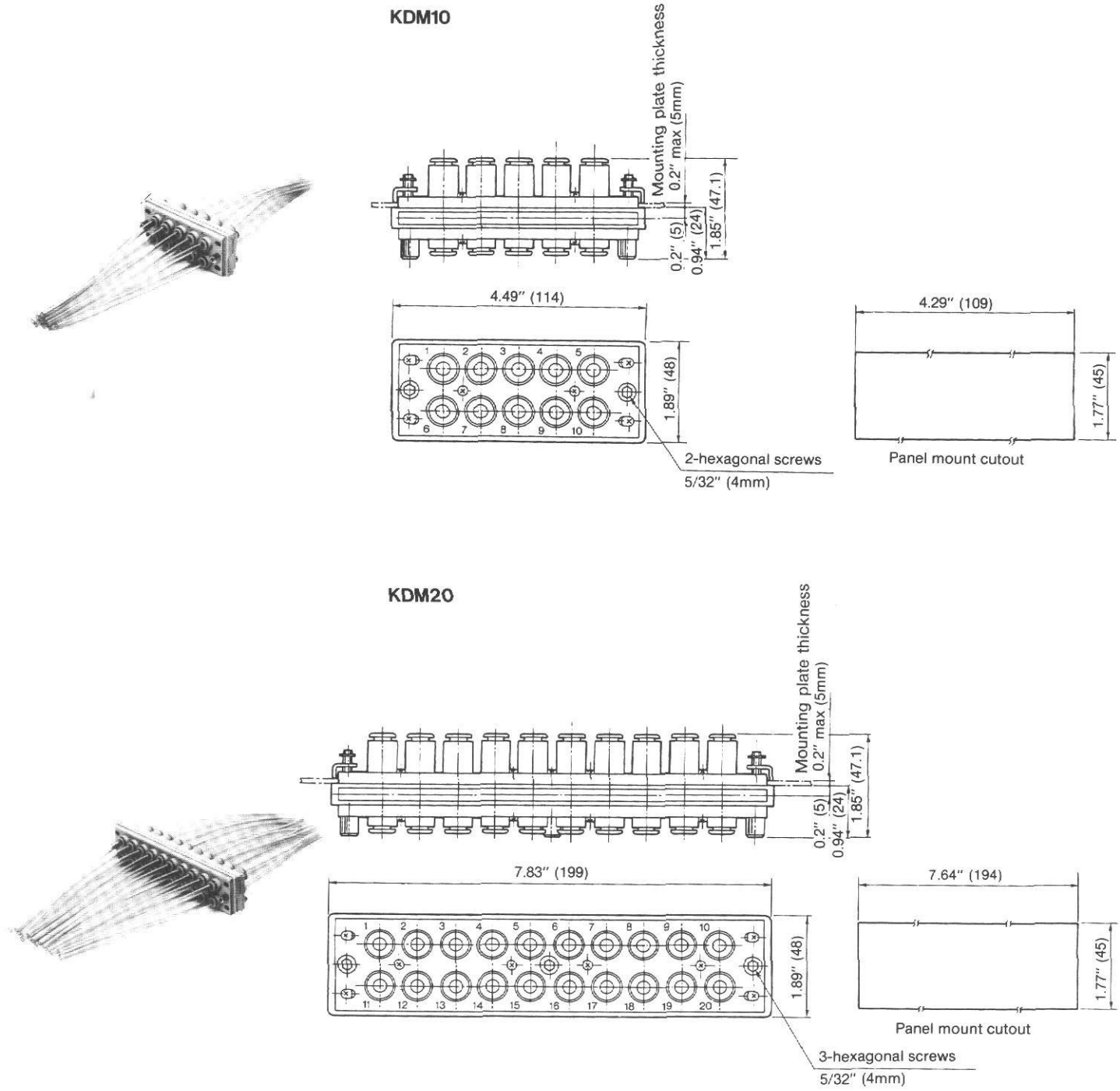
### Removing Tube

① Push in evenly on the release button.

② Pull out the tube while keeping the release button depressed. (If the release button is not held down, the tube cannot be withdrawn.)

③ To reuse the tubing, cut off the previously lodged portion of the tube.

Dimensions



## Made-To-Order Specifications

### Mixed tube size type

If you want to place a special order for a mixed tube size type, other than standard type, please refer to the specifications.

### Tube size

Tube size (O.D.)	Number of connecting	Part No.
Ø10	6	IN-254-52
Ø12	6	IN-254-53

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