

## Step Attenuators



DC-18 GHz

Thumb Wheel and Panel Mount  
Step Attenuators

- Broadband DC-18 GHz
- Small Size
- Precision Construction/High Reliability
- Precision 1 dB or 10 dB steps, to 69 dB
- Panel Mount\* or Stand Alone

## Specifications

Type N (F), DC to 18 GHz

FREQUENCY RANGE (GHz)	MODEL	CONNECTOR	ATTENUATION (dB)	RESETTABILITY PER DRUM (dB)	POWER		VSWR (max.)	IMPEDANCE (ohms)	TEMPERATURE STABILITY (dB/dB/°C)
					AVERAGE (W)	PEAK (kW at duty cycle of 0.0001)			
DC-18	741	Type N (F)	0-9 in 1 dB steps	<0.05	2	0.2	1.50	50	0.0001
	4741	SMA (F)	0-9 in 1 dB steps	<0.05	2	0.2	1.50	50	0.0001
	743-60	Type N (F)	0-60 in 10 dB steps	<0.05	2	0.2	1.50	50	0.0001
	4743-60	SMA (F)	0-60 in 10 dB steps	<0.05	2	0.2	1.50	50	0.0001
	745-69	Type N (F)	0-69 in 1 dB steps	<0.05	2	0.2	DC-12.4 GHz: 1.50 12.4-18 GHz: 1.65	50	0.0001
	4745-69	SMA (F)	0-69 in 1 dB steps	<0.05	2	0.2	DC-12.4 GHz: 1.50 12.4-18 GHz: 1.65	50	0.0001

## Relative Attenuation Deviation (dB)

MODEL 741, 4741		MODEL 743-60, 4743-60		MODEL 745-69, 4745-69	
STEP (dB)	DEVIATION	STEP (dB)	DEVIATION	STEP (dB)	DEVIATION
0	0.5	0	0.5	0	1.0
1	±0.5	10	±0.5	1-9	±0.5
2	±0.5	20	±0.7	10-19	±1.0
3	±0.5	30	±0.9	20-29	±1.2
4	±0.5	40	±1.0	30-39	±1.4
5	±0.5	50	±1.3	40-49	±1.5
6	±0.5	60	±1.5	50-59	±1.9
7	±0.5			60-69	±2.0
8	±0.5				
9	±0.5				

\* Field-installable Mounting Kit must be purchased separately as Part No. **43017200**.  
Rack Mounting Kit accommodates all attenuator series housings.

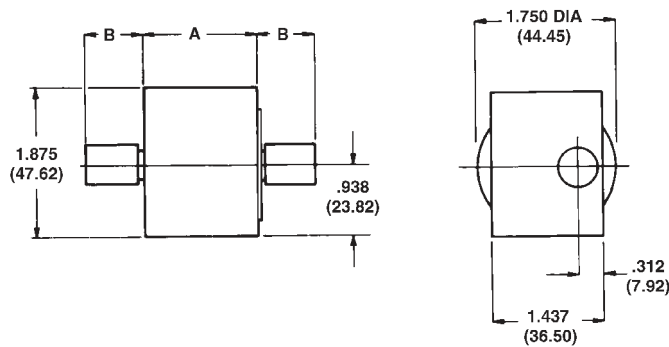


# Step Attenuators

## Ordering Information

1. Prefix "7" denotes Type N Stainless Steel Connectors (741, 743, 745).  
Prefix "47" denotes SMA Stainless Steel Connectors (4741, 4743, 4745).
2. All units are bidirectional.
3. Field-installable Mounting Kit must be purchased separately as Part No. 43017200.

## Outline Drawing



MODEL	A	B (max.)	CONNECTOR
741	1.125 (28.75)	.781 (19.83)	Type N (F)
743-60	1.437 (36.5)	.781 (19.83)	Type N (F)
745-69	2.250 (57.15)	.781 (19.83)	Type N (F)
4741	1.125 (28.75)	.437 (11.10)	Type SMA (F)
4743-60	1.437 (36.5)	.437 (11.10)	Type SMA (F)
4745-69	2.250 (57.15)	.437 (11.10)	Type SMA (F)

Dimensions in inches (mm in parentheses), unless otherwise specified.

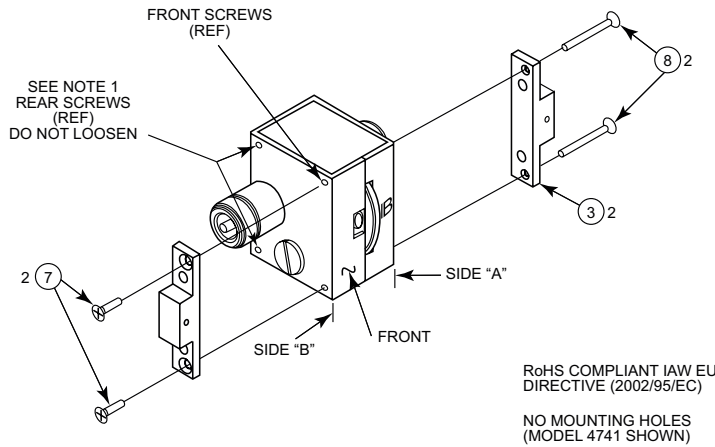
Connectors made without interference per MIL-STD-348.



# Step Attenuators

## Panel Mounting Brackets Installation Instructions

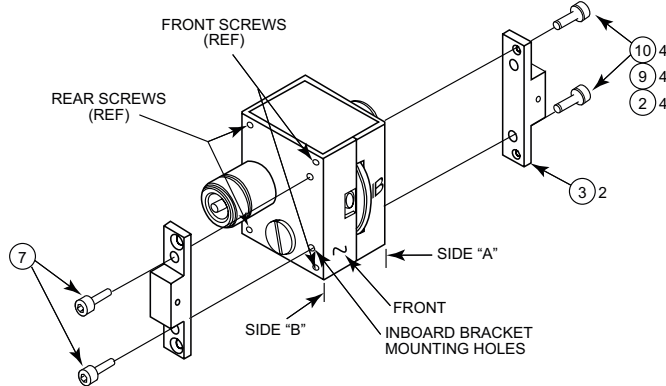
### For Older Devices without Mounting Holes:



This drawing gives instructions for installation of panel mounting brackets on a model 741, 4741, 743, 4743, 745, 4745, thumbwheel turret attenuator.

1. Working: from the front of side "A", remove the two FRONT screws. **DO NOT loosen or otherwise disturb the two rear screws.**
2. Install mounting bracket (item 3) using two flat head screws (item 8) as shown on side "A".
3. Install mounting bracket (item 3) using two flat head screws (item 7) as shown on side "B".
4. Make sure mounting brackets are flush with front of unit.

### For Newer Devices with Mounting Holes:



1. Working from the front of side "B", locate inboard bracket mounting holes.
2. Install bracket (item 3) using screw lock washer (item 10) and flat washer #6 (item 2). Carefully insert the screw assembly through the inboard mounting holes on the bracket and into the inboard screw holes on the housing.
3. Make sure the bracket is flush with the front of the unit and tighten the screws.
4. Repeat above steps for "A" side.

### Materials Supplied with Mounting Kit Part Number 43017200

FIND NO.	IDENT. NO.	DESCRIPTION	QTY. FOR MODELS 741, 4741, 743 and 4743	QTY. FOR MODELS 744 and 4745
10	535338136	LOCKWASHER #6	4	4
9	70152019	SCR, SOCKET HD. #632 x 3/8 L.	4	4
8	551959020	SCR, FLAT #4-40 x 7/8 LG.	2	—
8	551959019	SCR, FLAT HD. #4-40 x 3/4 LG.	—	2
7	551959015	SCR, FLAT HD. #4-40 x 3/8 LG.	2	—
7	551959022	SCR, FLAT HD. #4-40 x 1-1/4 LG.	—	2
3	42452200	BRACKET MOUNTING	2	2
2	515795805	WASHER, FLAT #6	4	4

### Suggested Cutouts

Dimensions in inches, unless otherwise specified.

