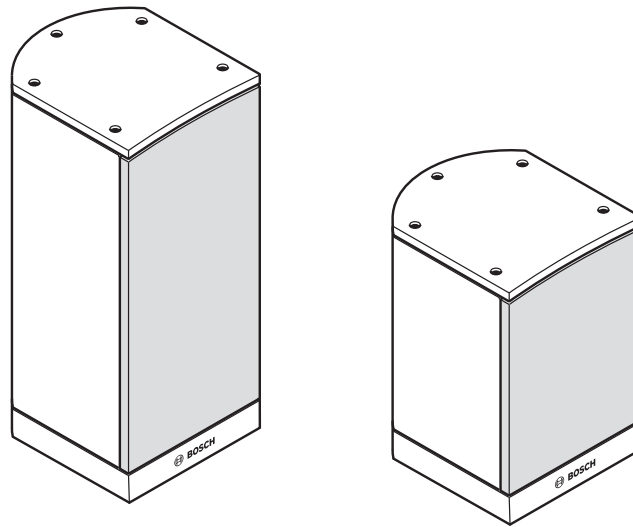


# Metal Cabinet Loudspeakers



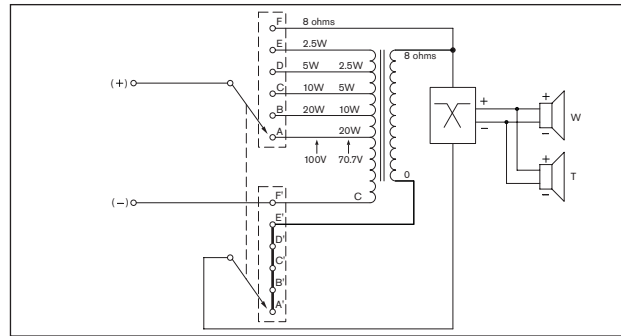
en | Instructions for Use  
LB1-UM20E-x  
LB1-UM50E-x



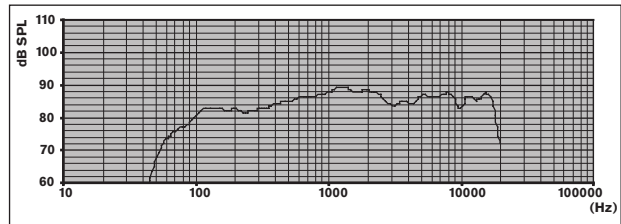
**BOSCH**

**Technical performance acc. to IEC 60268-5 - LB1-UM20E-x**

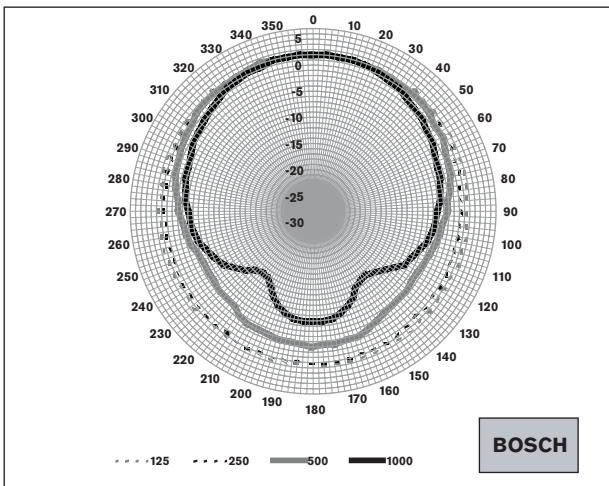
<b>Electrical</b>	
Maximum power	30 W
Rated power	20 W (20 · 10 · 5 · 2.5 W)
Sound pressure level at rated power / 1W (1 kHz, 1 m)	101 dB / 88 dB
Opening angle at 1 kHz/4 kHz (-6 dB)	
horizontal	174 / 136 degrees
vertical	127 / 141 degrees
Effective freq. range (-10 dB)	90 Hz to 20 kHz
Rated voltage	12.65 / 70 / 100 V
Rated impedance	8 / 250 / 500 Ohm
Connection	3-pole screw terminal block
<b>Mechanical</b>	
Dimensions (H x W x D)	274x160x180 mm (10.78x6.29x7.08 in)
Speaker diameters	134.5 mm (5") woofer 25.4 mm (1") dome tweeter
Color	Charcoal (RAL 7021) (D) White (RAL 9010) (L)
Material	Aluminium (cabinet and front grille) ABS (top, and bottom coverplate)
Weight	3.88 kg (8.55 lb)
<b>Environmental</b>	
Operation temperature	-25 °C to +55 °C (-13 °F to + 131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to + 158 °F)
Relative humidity	< 95%
<b>Certification and Approvals</b>	
Safety	acc. to EN 60065
Water protection	acc. to EN 60529, IP65
Self-extinguishing ABS	acc. to UL 94 V 0



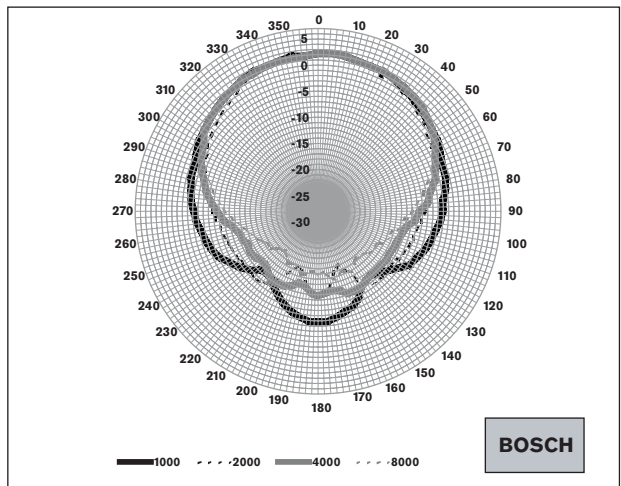
**Circuit diagram**



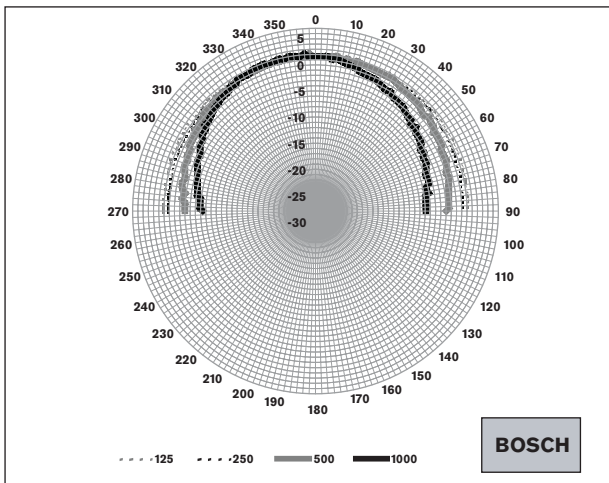
**Frequency response**



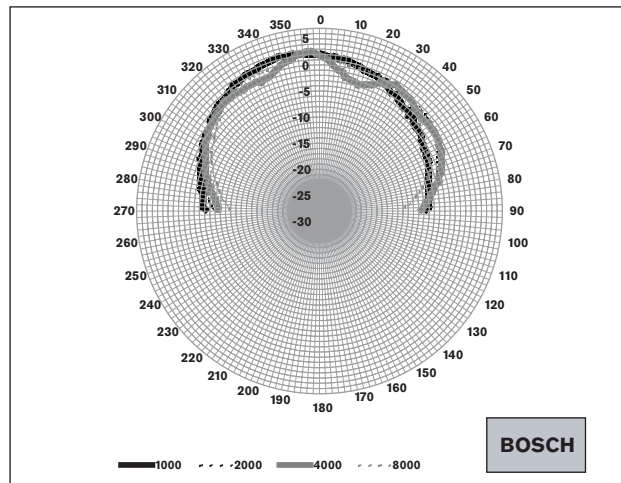
**Polar diagram horizontal**  
(measured with pink noise)



**Polar diagram horizontal**  
(measured with pink noise)



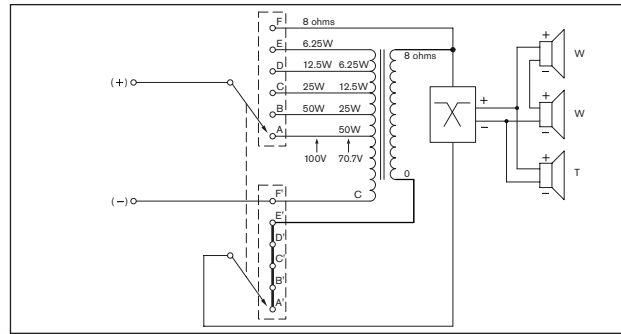
**Polar diagram vertical**  
(measured with pink noise)



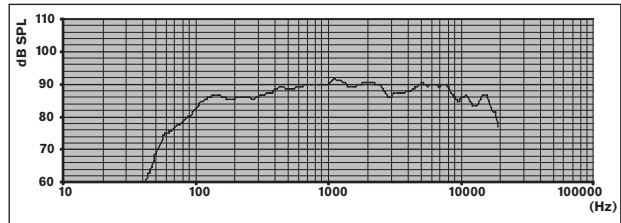
**Polar diagram vertical**  
(measured with pink noise)

**Technical performance acc. to IEC 60268-5 - LB1-UM50E-x**

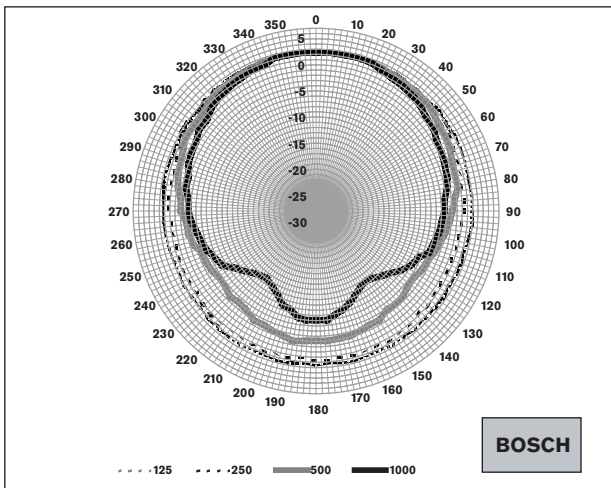
<b>Electrical</b>	
Maximum power	75 W
Rated power	50 W (50 - 25 - 12.5 - 6.25 W)
Sound pressure level at rated power / 1W (1 kHz, 1 m)	108 dB / 91 dB
Opening angle at 1 kHz/4 kHz (-6dB)	
horizontal	186 / 126 degrees
vertical	84 / 62 degrees
Effective freq. range (-10 dB)	90 Hz to 20 kHz
Rated voltage	20 / 70 / 100 V
Rated impedance	8 / 100 / 200 Ohm
Connection	3-pole screw terminal block
<b>Mechanical</b>	
Dimensions (H x W x D)	405x160x180 mm (15.94x6.29x7.08 in)
Speaker diameters	134.5 mm (5") woofer 25.4 mm (1") dome tweeter
Color	Charcoal (RAL 7021) (D) White (RAL 9010) (L)
Material	Aluminium (cabinet and front grille) ABS (top, and bottom coverplate)
Weight	5.58 kg (12.30 lb)
<b>Environmental</b>	
Operation temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	< 95%
<b>Certification and Approvals</b>	
Safety	acc. to EN 60065
Water protection	acc. to EN 60529, IP65
Self-extinguishing ABS	acc. to UL 94 V 0



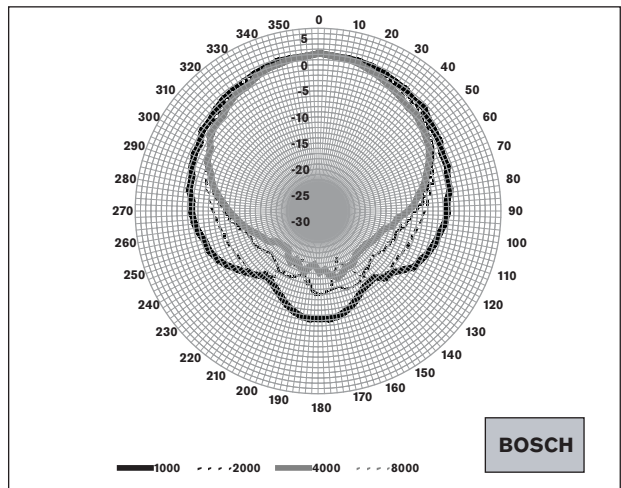
**Circuit diagram**



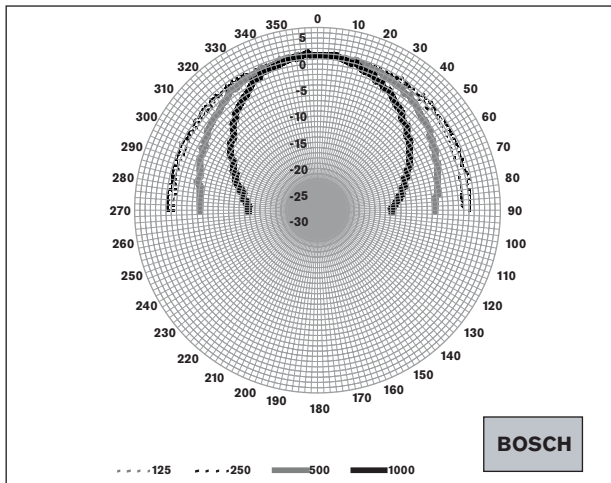
**Frequency response**



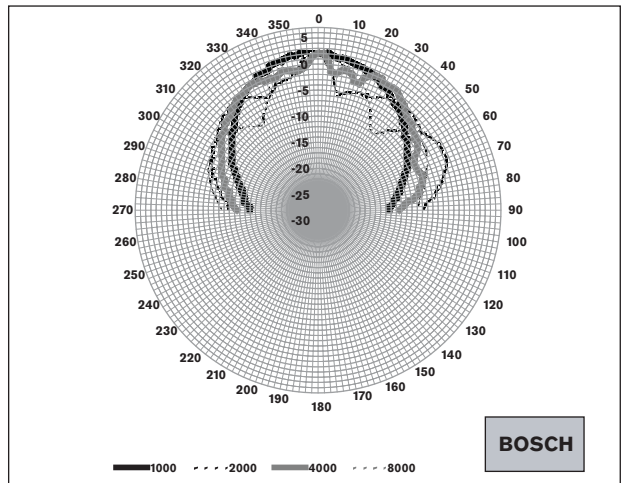
**Polar diagram horizontal**  
(measured with pink noise)



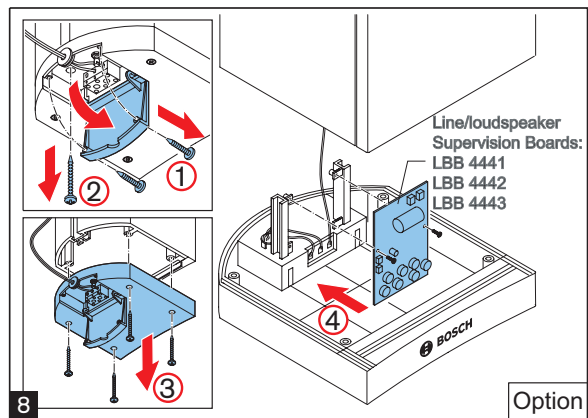
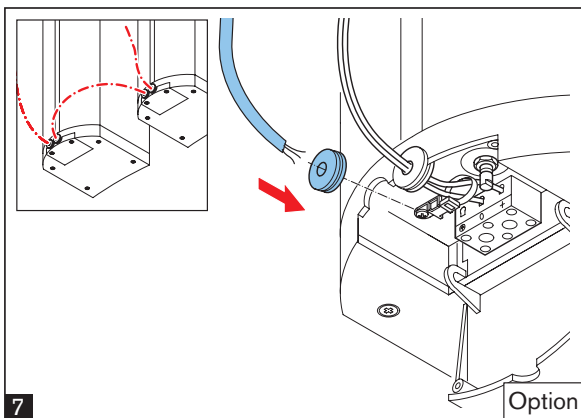
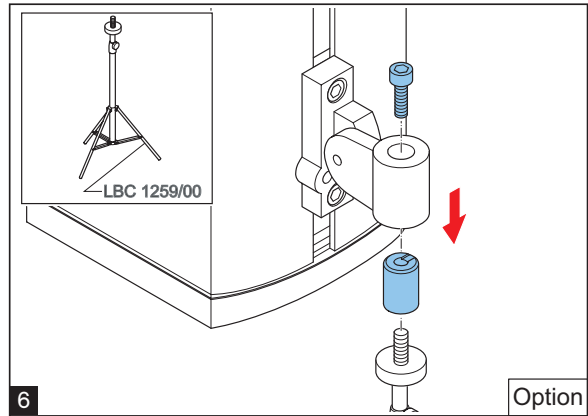
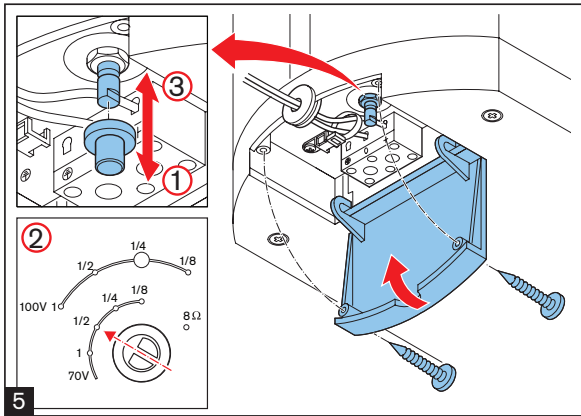
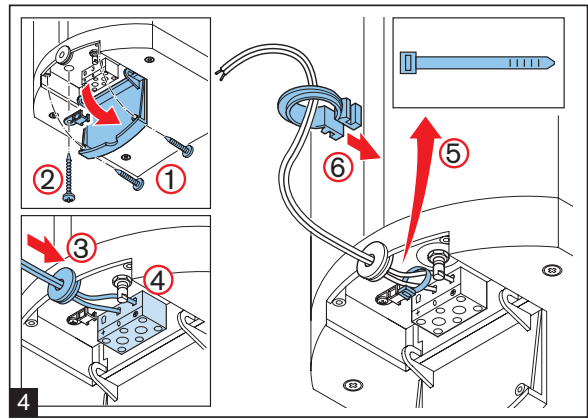
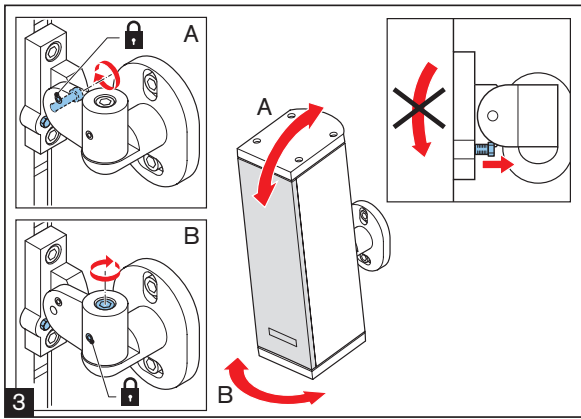
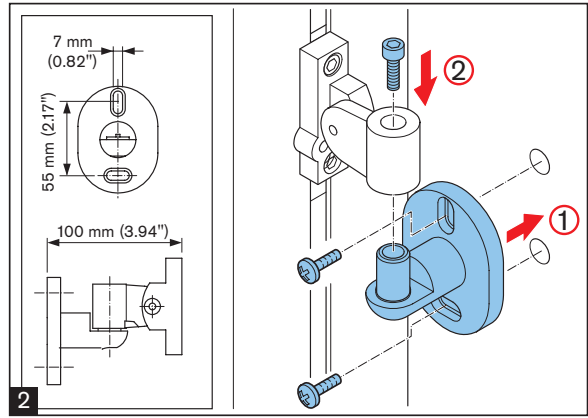
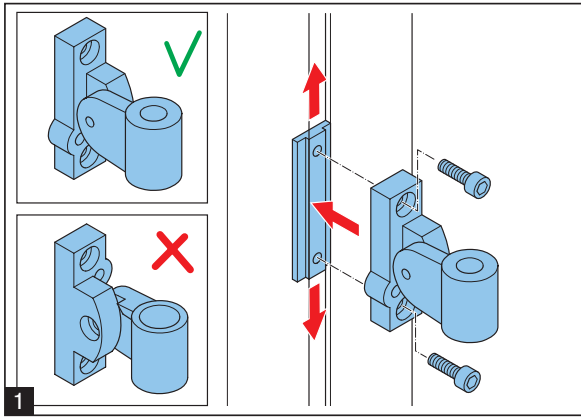
**Polar diagram horizontal**  
(measured with pink noise)

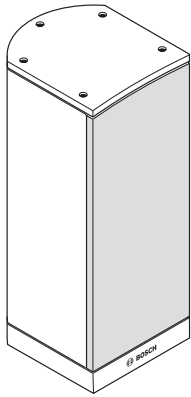


**Polar diagram vertical**  
(measured with pink noise)

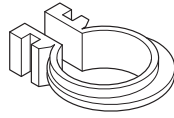


**Polar diagram vertical**  
(measured with pink noise)

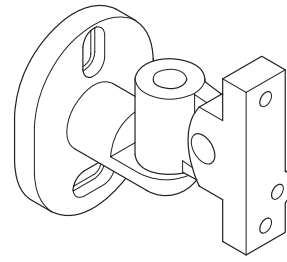




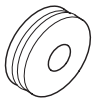
1x



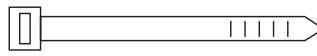
1x



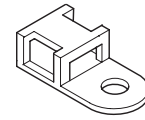
1x



2x



2x



2x

