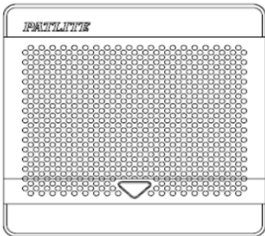
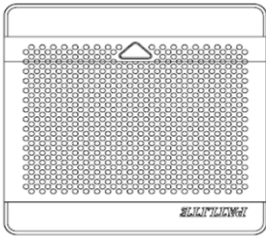
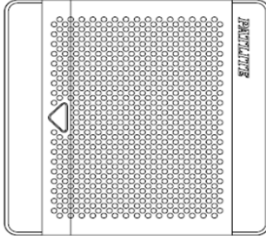


SPECIFICATIONS

[General Specifications]

Model	BK-24□-□	BK-100□-□	BK-220□-□
Rated voltage	12V - 24V DC	100V AC 50/60Hz	220V AC 50/60Hz
Operating Voltage Range	10.8~26.4V DC	Rated Voltage ±10%	
Power Consumption	Max. 7W	Max. 8W	Max. 8W
Sound pressure Level	Max.95dB or more. Mounted to a 300mm x 300mm base at a distance of 1m. in front of the base surface playing sound 05 (Rapid Hi-Low), with volume adjustable. ※Sound level of message will vary with the surrounding environment. ※BK-24 type has lower sound presser level when used with power supply voltage 17V or less.		
Signal input Method	Level Hold (plays while COM terminal and CH terminal are short circuited)		
Channel Input Type	Bit Input (Select Sound Groups A to H) Binary Input (Select Sound Groups P)		
Number of Playback sounds	Bit Input : 8 / Binary Input : 32		
Playback start up time	300ms or less (In case of signal line startup) 500ms or less (In case of power supply startup)		
Channel priority order	CH8 > CH7 > CH6 > CH5 > CH4 > CH3 > CH2 > CH1 (for Bit input Mode)		
Operating Ambient Temperature	-20°C ~ +50 °C		
Operating Ambient Humidity	Less than 85 % (No condensation)		
Storage Ambient Temperature	-20°C ~ +50 °C		
Storage Ambient Humidity	Less than 85 % (No condensation)		
Mounting Direction	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Upright</p> </div> <div style="text-align: center;">  <p>Inverted</p> </div> <div style="text-align: center;">  <p>Sideways</p> </div> </div> <p style="text-align: center;">Indoor : Upright, sideways and inverted mounting Use Upright if water splashing is present Outdoor : Upright direction Only</p>		
Protection Rating	IP54 (IEC 60529) Upright direction for Panel Mount only		
Vibration Resistance	45m/s ²	19.6m/s ²	
	At 30Hz in directions from back and front, left and right for 2 hours each, up and down for 4 hours		
Insulation Resistance	More than 1MΩ at 500VDC between live part and non-current carrying metallic part		
Withstand Voltage	500V AC	1,000V AC	1,500V AC
	Applied for 1 min between terminals and chassis without breaking insulation		

Sound type	Type A							
Sound List	01	Beep (slow intermittent horn)	09	Stutter + Bell	17	London bridge is falling down	25	Amaryllis
	02	Stutter (rapid intermittent horn)	10	Synthesized Melody	18	Holdiridia	26	Symphony No.40
	03	Bell (clear highpitched bell)	11	Chime	19	Mary had a little Lamb	27	Silent Lakeside
	04	Yelp (rapid siren)	12	Call sign	20	The camptown Races	28	Mountain musician
	05	Rapid Hi-Lo	13	For Elise	21	Cuckoo	29	Romance De Amour
	06	Melody Chime	14	Maiden's Prayer	22	Blacksmith in the village	30	Petrouchka
	07	Synthesized Piano	15	Minuet	23	On the Avignon bridge	31	Grandfather's Clock
	08	Synthesized Bell	16	Annie Laurie	24	Daydream Believer	32	Ave Maria

Sound group	Group	※1 A	B	C	D
	CH1	For Elise	Mary had a little Lamb	Amaryllis	Grandfather's Clock
	CH2	Maiden's Prayer	The camptown Races	Symphony No.40	Ave Maria
	CH3	Minuet	Cuckoo	Silent Lakeside	Daydream Believer
	CH4	Annie Laurie	Blacksmith in the village	Mountain musician	London bridge is falling down
	CH5	London bridge is falling down	On the Avignon bridge	Romance De Amour	Bell (clear highpitched bell)
	CH6	Holdiridia	Daydream Believer	Petrouchka	Yelp (rapid siren)
	CH7	Chime	Chime	Chime	Synthesized Piano
	CH8	Call sign	Call sign	Call sign	Synthesized Bell
	Group	E	F	G	※2 H
	CH1	Romance De Amour	Mary had a little Lamb	Beep (slow intermittent horn)	The camptown Races
	CH2	The camptown Races	Symphony No.40	Stutter (rapid intermittent horn)	Cuckoo
	CH3	Minuet	Holdiridia	Bell (clear highpitched bell)	Petrouchka
	CH4	Ave Maria	Daydream Believer	Yelp (rapid siren)	Grandfather's Clock
	CH5	Stutter + Bell	Rapid Hi-Lo	Rapid Hi-Lo	London bridge is falling down
	CH6	Synthesized Melody	Melody Chime	Melody Chime	Mary had a little Lamb
	CH7	Synthesized Piano	Synthesized Piano	Synthesized Piano	Silent Lakeside
	CH8	Synthesized Bell	Synthesized Bell	Synthesized Bell	Mountain musician
	Group	I~O	P		
	CH1	The sound 5. "Rapid Hi-Lo"	32 sounds of the Sound 01~32 are playable by using CH 1 ~CH 6. (Binary input)		
	CH2				
	CH3				
	CH4				
	CH5				
CH6					
CH7					
CH8					

※1 Factory default setting

※2 Sounds can be chosen from the 32 sound list and combine freely using an SD card (Type:SDV-2GP□ Sold separately)

Sound type		Type C							
Sound List	01	Beep (slow intermittent horn)	09	Stutter + Bell	17	Amairono Kamino Otome	25	I Don't Want to Miss a Thing	
	02	Stutter (rapid intermittent horn)	10	Synthesized Melody	18	Les Champs-Elysees	26	Yozorano Mukou	
	03	Bell (clear highpitched bell)	11	Chime	19	Canon	27	Aiwa Katsu	
	04	Yelp (rapid siren)	12	Call sign	20	Rara Sanshain	28	Truth	
	05	Rapid Hi-Lo	13	Can't Take My Eyes off of You	21	Uchuusenkan Yamato	29	Gattsudaze	
	06	Melody Chime	14	Top of the World	22	Oshiete	30	Odoru Ponpokorin	
	07	Synthesized Piano	15	The Entertainer	23	Makenaide	31	Imasugu Kisu Mi	
	08	Synthesized Bell	16	Amazing Grace	24	Gonna Fly Now(Theme for "Rocky")	32	Haruyo Koi	
Sound group	Group	※1 A		B	C	D			
	CH1	Can't Take My Eyes off of You		Canon	I Don't Want to Miss a Thing		Imasugu Kisu Mi		
	CH2	Top of the World		Rara Sanshain	Yozorano Mukou		Haruyo Koi		
	CH3	The Entertainer		Uchuusenkan Yamato	Aiwa Katsu		Uchuusenkan Yamato		
	CH4	Amazing Grace		Oshiete	Truth		Rara Sanshain		
	CH5	Amairono Kamino Otome		Makenaide	Gattsudaze		Can't Take My Eyes off of You		
	CH6	Les Champs-Elysees		Gonna Fly Now(Theme for "Rocky")	Odoru Ponpokorin		Gonna Fly Now(Theme for "Rocky")		
	CH7	Chime		Chime	Chime		Chime		
	CH8	Call sign		Call sign	Call sign		Call sign		
	Group	E		F	G	※2 H			
	CH1	Amairono Kamino Otome		Beep (slow intermittent horn)	Odoru Ponpokorin		Rara Sanshain		
	CH2	Makenaide		Stutter (rapid intermittent horn)	Aiwa Katsu		Uchuusenkan Yamato		
	CH3	Gattsudaze		Stutter + Bell	Truth		Odoru Ponpokorin		
	CH4	Top of the World		Synthesized Melody	Les Champs-Elysees		Imasugu Kisu Mi		
	CH5	Canon		Synthesized Piano	Amazing Grace		Amairono Kamino Otome		
	CH6	Haruyo Koi		Synthesized Bell	Yozorano Mukou		Les Champs-Elysees		
	CH7	Chime		Chime	Chime		Aiwa Katsu		
	CH8	Call sign		Call sign	Call sign		Truth		
	Group	I~O		P					
	CH1	The sound 5. "Rapid Hi-Lo"		32 sounds of the Sound 01~32 are playable by using CH 1~CH 6. (Binary input)					
	CH2								
	CH3								
	CH4								
	CH5								
CH6									
CH7									
CH8									
※1 Factory default setting ※2 Sounds can be chosen from the 32 sound list and combine freely using an SD card (Type:SDV-2GP□ Sold separately)									

Drawing No.	Rev.	Page
BK-100-W18	E	5/7

Sound type	Type D							
Sound List	01	Beep (slow intermittent horn)	09	Chime	17	Saafu Tengoku Sukii Tengoku	25	Wiegenlied
	02	Stutter (rapid intermittent horn)	10	Call sign	18	Iro Howaitoburendo	26	Rudolph the Red-nosed Reindeer
	03	Bell (clear highpitched bell)	11	Runner	19	Happy Birthday	27	She Wore a Yellow Ribbon
	04	Yelp (rapid siren)	12	Mamotte Agetai	20	Hi Ho	28	Oh My Darling Clementine
	05	Rapid Hi-Lo	13	Oribiao Kikinagara	21	I've been working on the Railroad	29	Yellow Rose of Texas
	06	Melody Chime	14	A September	22	Bear Song	30	Yankee Doodle
	07	Synthesized Piano	15	Doyoubino Koibito	23	Toys Go Cha Cha Cha	31	When the Saints Go Marching In
	08	Synthesized Bell	16	Akino Kehai	24	Konnako Irukana	32	Londonderry Air

Sound group	Group	※1 A	B	C	D
	CH1	Runner	Happy Birthday	She Wore a Yellow Ribbon	Yellow Rose of Texas
	CH2	Mamotte Agetai	Hi Ho	My Darling Clementine	Yankee Doodle
	CH3	Oribiao Kikinagara	I've been working on the Railroad	Yellow Rose of Texas	When the Saints Go Marching In
	CH4	A September	Bear Song	Yankee Doodle	Londonderry Air
	CH5	Doyoubino Koibito	Toys Go Cha Cha Cha	When the Saints Go Marching In	Beep (slow intermittent horn)
	CH6	Akino Kehai	Konnako Irukana	Londonderry Air	Stutter (rapid intermittent horn)
	CH7	Saafu Tengoku Sukii Tengoku	Wiegenlied	Runner	Chime
	CH8	Iro Howaitoburendo	Rudolph the Red-nosed Reindeer	Mamotte Agetai	Call sign
	Group	E	F	G	※2 H
	CH1	Runner	Saafu Tengoku Sukii Tengoku	Doyoubino Koibito	Hi Ho
	CH2	Iro Howaitoburendo	Konnako Irukana	I've been working on the Railroad	I've been working on the Railroad
	CH3	Wiegenlied	Oribiao Kikinagara	She Wore a Yellow Ribbon	Yankee Doodle
	CH4	Hi Ho	Iro Howaitoburendo	Yankee Doodle	When the Saints Go Marching In
	CH5	Bell (clear highpitched bell)	Rapid Hi-Lo	Yelp	Saafu Tengoku Sukii Tengoku
	CH6	Yelp (rapid siren)	Melody Chime	Synthesized Bell	Iro Howaitoburendo
	CH7	Chime	Chime	Chime	She Wore a Yellow Ribbon
	CH8	Call sign	Call sign	Call sign	My Darling Clementine
	Group	I~O	P		
	CH1	The sound 5. "Rapid Hi-Lo"	32 sounds of the Sound 01~32 are playable by using CH 1~CH 6. (Binary input)		
	CH2				
	CH3				
	CH4				
	CH5				
CH6					
CH7					
CH8					

※1 Factory default setting

※2 Sounds can be chosen from the 32 sound list and combine freely using an SD card (Type:SDV-2GP□ Sold separately)

Sound type	Type E							
Sound List	01	Beep (slow intermittent horn)	09	Stutter + Bell	17	Inverted Revellie	25	Annie Laurie
	02	Stutter (rapid intermittent horn)	10	Synthesized Melody	18	Galactic Motor	26	London bridge is falling down
	03	Bell (clear highpitched bell)	11	Chime	19	Ringing Phone	27	Mary had a little Lamb
	04	Yelp (rapid siren)	12	Call sign	20	Two Tone	28	The camptown Races
	05	Rapid Hi-Lo	13	Train Ride	21	Alarm Clock	29	Amaryllis
	06	Melody Chime	14	Galloping Hi-Lo	22	Ringing Hi-Lo	30	Symphony No.40
	07	Synthesized Piano	15	Alien Chatter	23	For Elise	31	Ave Maria
	08	Synthesized Bell	16	Falling Crystals	24	Minuet	32	Grandfather's Clock

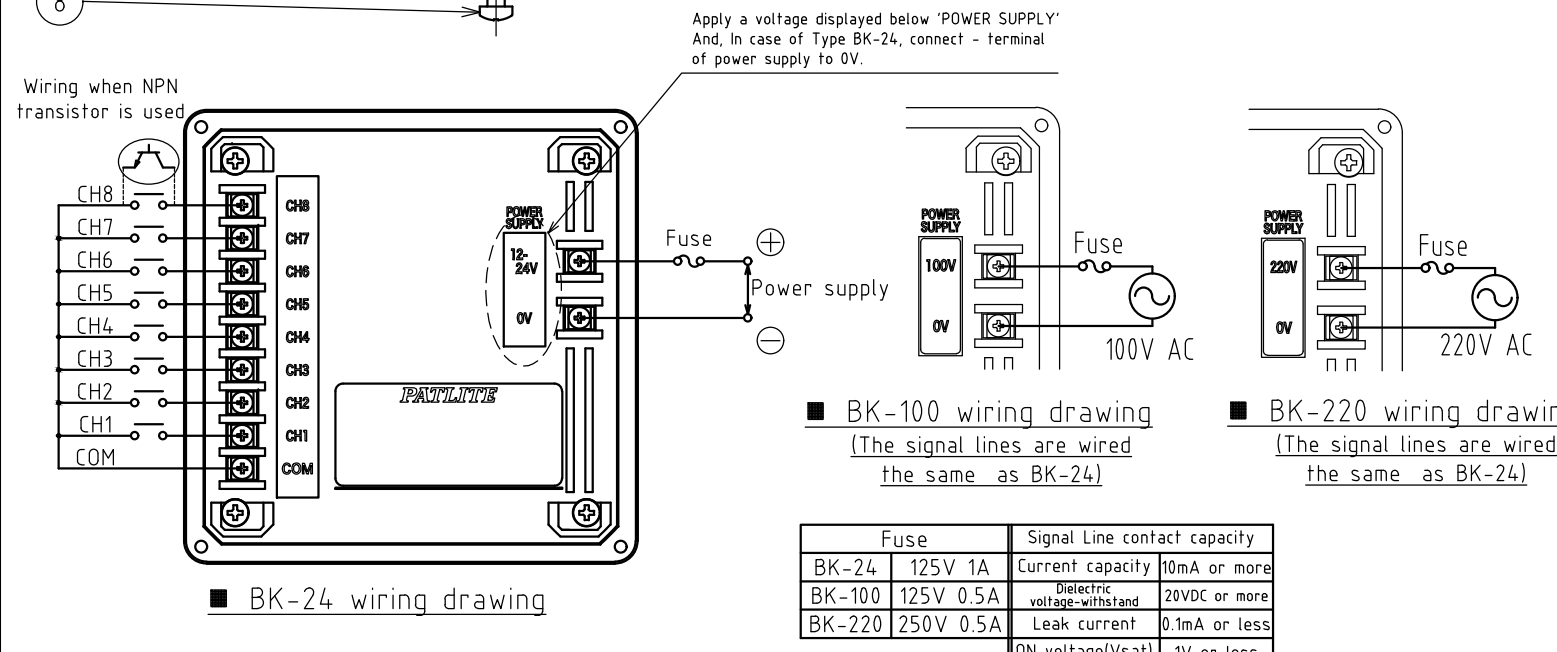
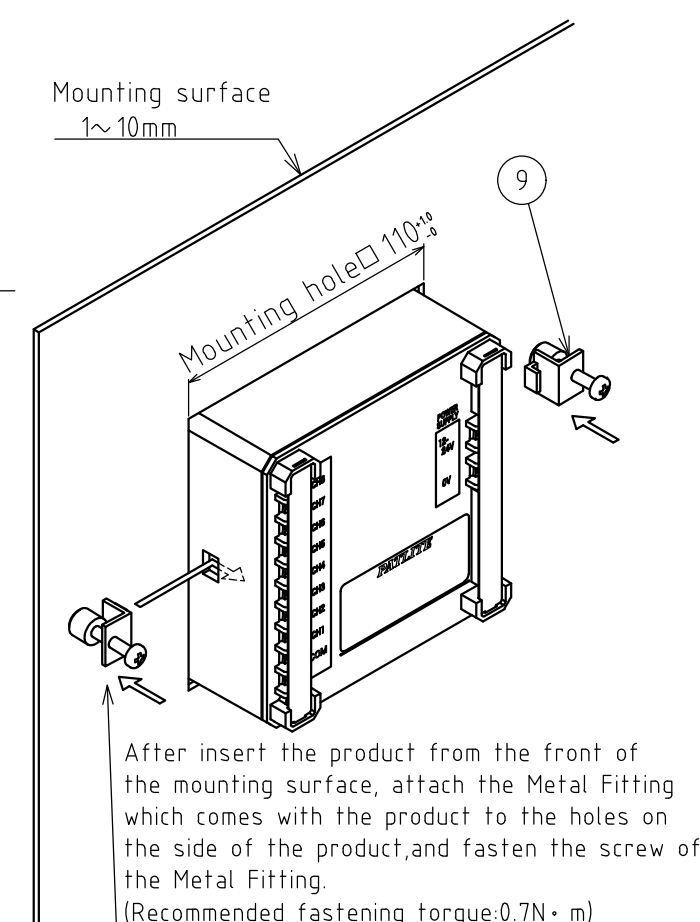
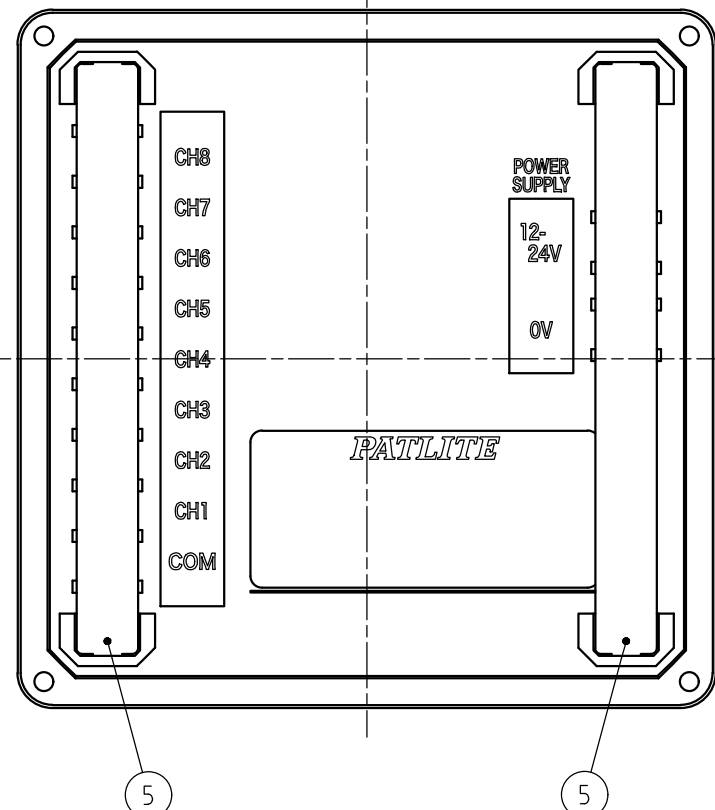
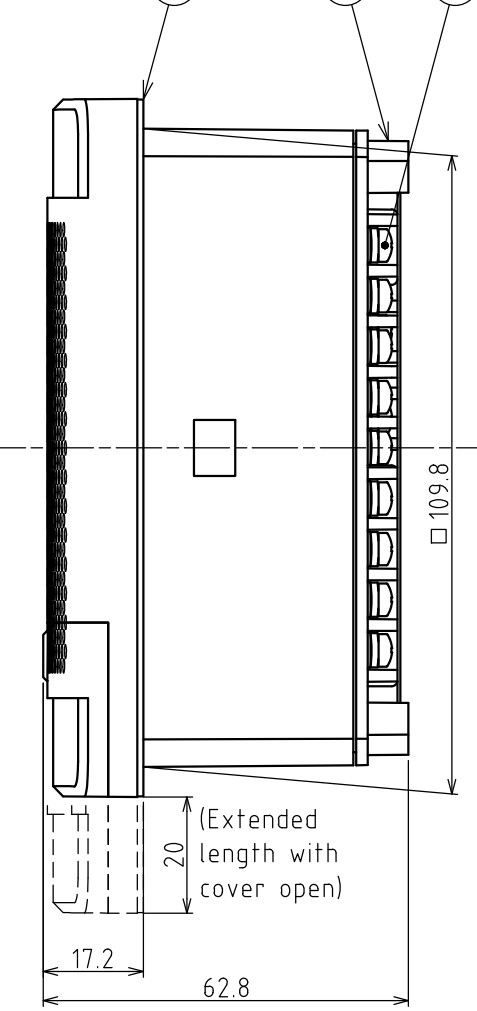
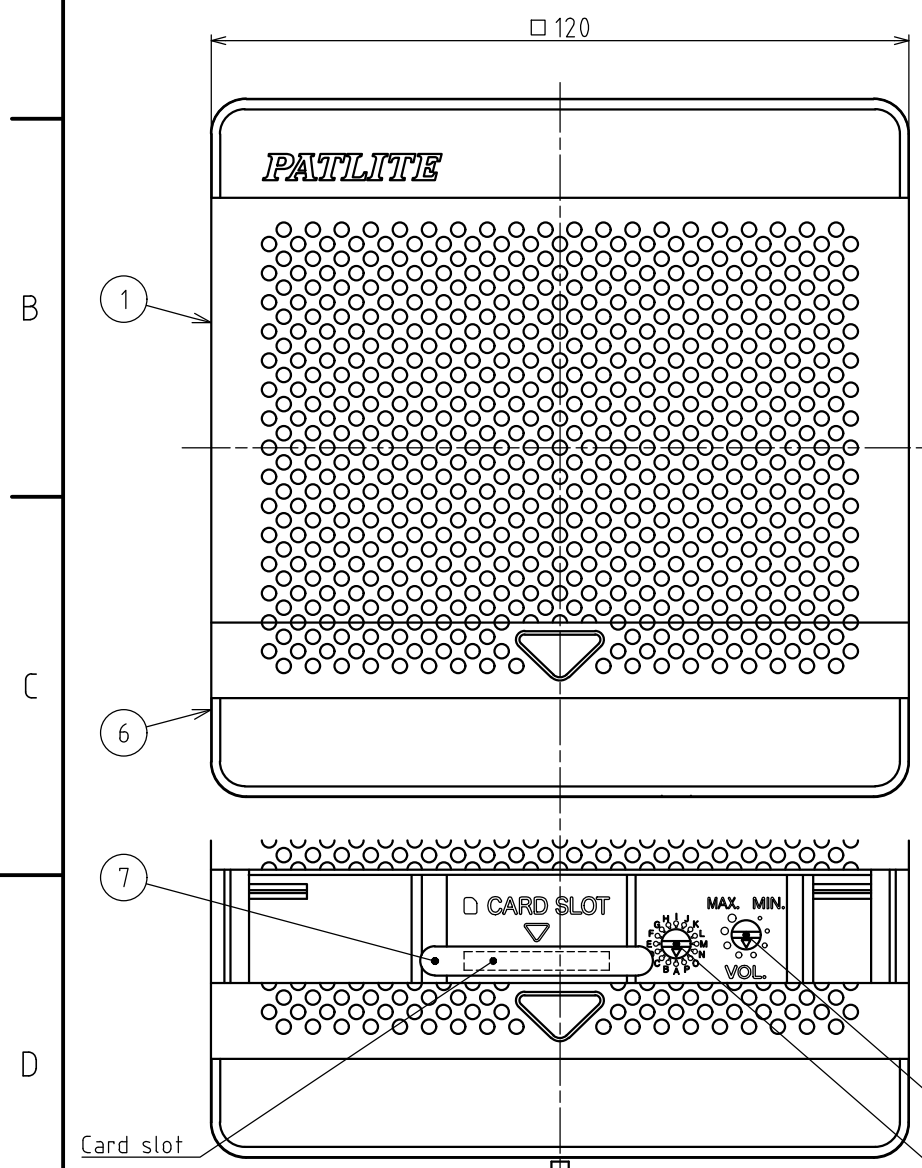
Sound group	Group	※1 A	B	C	D
	CH1	For Elise	Minuet	For Elise	Alien Chatter
	CH2	Minuet	Annie Laurie	London bridge is falling down	Falling Crystals
	CH3	Annie Laurie	Amaryllis	Mary had a little Lamb	Inverted Revellie
	CH4	London bridge is falling down	Symphony No.40	The camptown Races	Galactic Motor
	CH5	Mary had a little Lamb	Grandfather's Clock	Amaryllis	Ringing Phone
	CH6	The camptown Races	Ave Maria	Grandfather's Clock	Two Tone
	CH7	Chime	Chime	Chime	Alarm Clock
	CH8	Call sign	Call sign	Call sign	Ringing Hi-Lo
	Group	E	F	G	※2 H
	CH1	Train Ride	Rapid Hi-Lo	Beep (slow intermittent horn)	Two Tone
	CH2	Galloping Hi-Lo	Chime	Stutter (rapid intermittent horn)	Alarm Clock
	CH3	Inverted Revellie	Stutter (rapid intermittent horn)	Bell (clear highpitched bell)	Symphony No.40
	CH4	Galactic Motor	Ringing Phone	Yelp (rapid siren)	Ave Maria
	CH5	Alarm Clock	Stutter + Bell	Rapid Hi-Lo	Inverted Revellie
	CH6	Ringing Hi-Lo	Synthesized Melody	Melody Chime	Galactic Motor
	CH7	Synthesized Piano	Synthesized Piano	Synthesized Piano	Mary had a little Lamb
	CH8	Synthesized Bell	Synthesized Bell	Synthesized Bell	The camptown Races
	Group	I~O	P		
	CH1	The sound 5. "Rapid Hi-Lo"	32 sounds of the Sound 01~32 are playable by using CH 1~CH 6. (Binary input)		
	CH2				
	CH3				
	CH4				
	CH5				
CH6					
CH7					
CH8					

※1 Factory default setting

※2 Sounds can be chosen from the 32 sound list and combine freely using an SD card (Type:SDV-2GP□ Sold separately)

指定 公差 General tolerance	角度公差 ±[°]			寸法公差 ±[mm]							
	短辺 長さ Length of short side	~	~100	6	30	120	300	1000			
	精 f	1	0.5	0.3	0.1	中 m	0.1	0.3	0.5	0.7	1
	粗 v	3	1.5	1	0.5	粗 c	0.3	0.5	1	1.2	2

図番 Drawing No.	BK-100-W18	
改訂 Rev.	年月日 Date	改訂履歴 Revisions



9	Metal Fitting	2	Optional
8	Cross Recessed Pan Head Screw with Spring Washer	1	M3X6
7	Slot waterproof rubber	1	EPDM
6	Front cover	1	ABS
5	Terminal cover	2	PC, t=0.5
4	Terminal block	11	M3X6
3	Rear cover	1	ABS
2	Waterproof packing	1	CR, t=1.0
1	Case	1	ABS
番号 No.	部品名 Part Name	数量 Qty.	記事 Remarks

機種 Model	BK-24/100/220	特注 No. S.P.No.	-	図名 Name	Outer Dimension Drawing
品目コード Part No.	-	尺度 Scale	-	三角法 3rd Angle P.	単位 Unit mm

* Apply a voltage for the signal line.
Failure to do so may be damaged to the product.