

PATLITE®

New Frontiers in Safety, Security and Comfort.

sensorMATIC
SPECIALIST&SOLUTIONS

Sensormatic srl - Via della Beverara 13 - 40131 Bologna - Italia
Tel. +39 051 6353 511 - Fax +39 051 6345 925 - www.sensormatic.it

GENERAL CATALOG



www.patlite.com



New Products



BSV-L

Voice Annunciator



87 dB at 1m

15 Channels (Binary)

520 Seconds

IP54

□ 75

NPN/PNP
Open-collector

Now more playback time for longer, or more messages.

FEATURES

- Sound reduction
- Use the SD card to change messages while out in the field or set up modes for the right application.
- It complies with Europe's environment-friendly RoHS Directivem, conforms to the CE requirements and UL Listed.
- Can be used with transistor driven inputs. (Either NPN or PNP)
- A compact design with only a thickness of 19.9mm.
- Two installation choices of panel or wall mount with a Protection Rating of IP54 (Only for front panel mount attachment).
- The volume control is accessible from the front with maximum output of 87dB (at 1m).

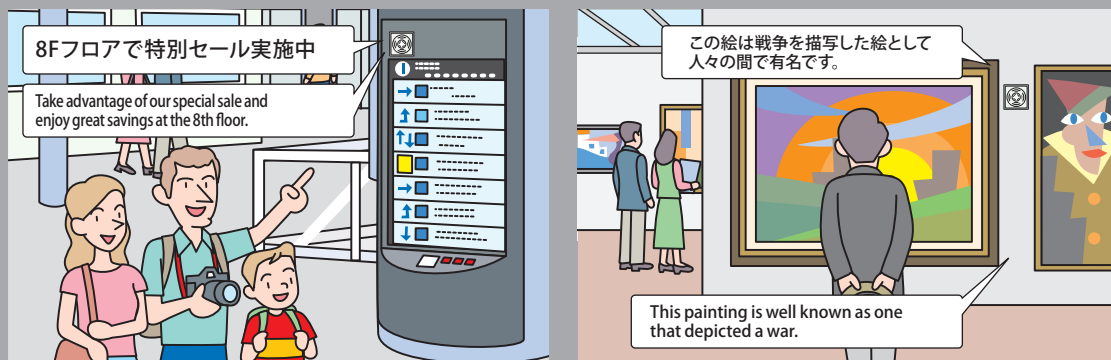
Use it for multilingual messages



- Scene: Stores, Hotels, public transportation, tourist resort spots
- Application: Announce Events, Emergency Service, Museums, etc.

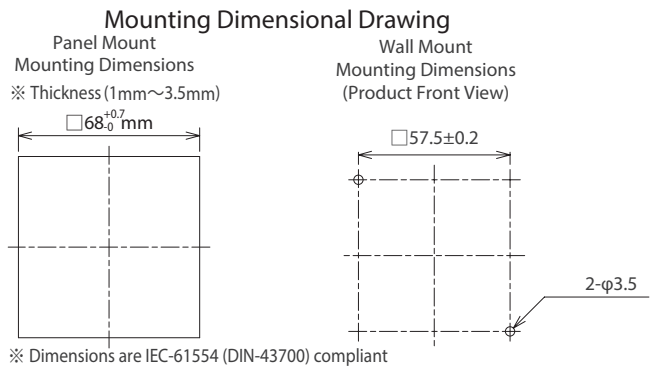
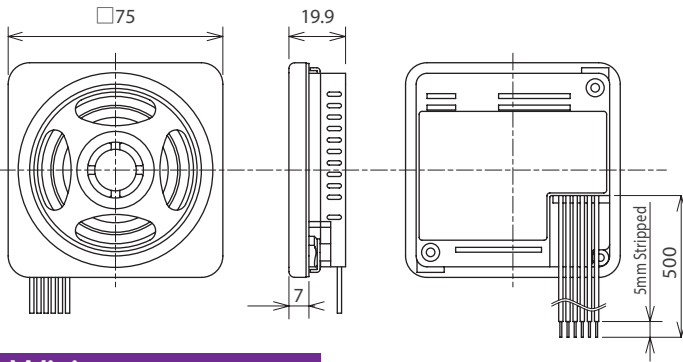


With a four-language playback, it gives 4 times as many messages.

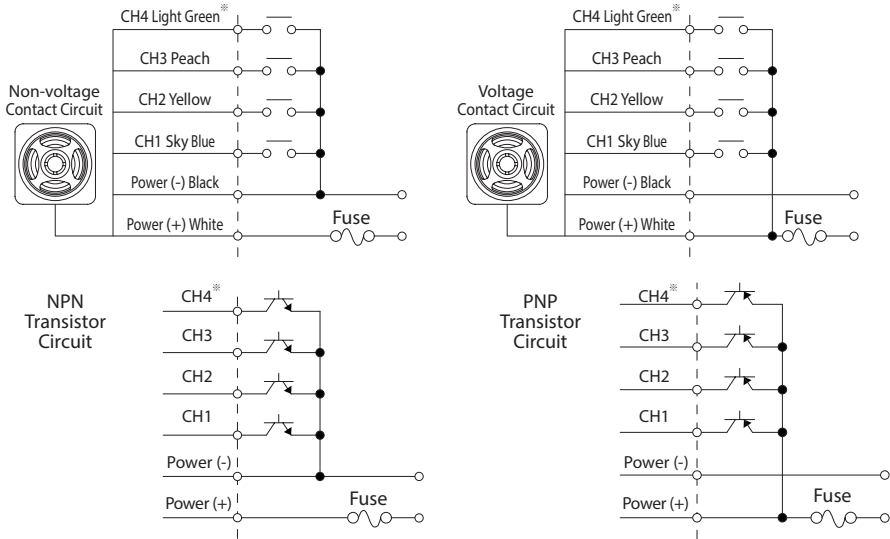


The support for multilingual communication is increasing due to the improvement in service at commercial establishments, such as for transportation, tourist resort, etc. and the audio assistance has been increased by more languages, such as Japanese, English, Chinese and Korean; therefore about 4 times the amount of playback time is needed. With the BSV-L model, a maximum of 520 seconds in playback is easy to support several multilingual messages.

Dimensions (Unit: mm)



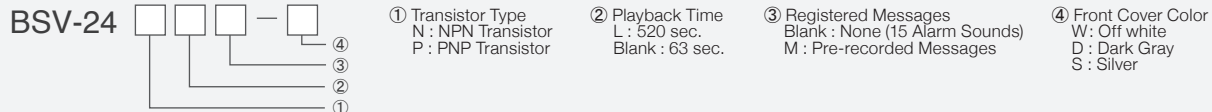
Wiring



Specifications and How to Order

■ 520sec. Model

Specifications																					
Model	Transistor Type	Rated Voltage	Operating Voltage Range	Power Consumption	Sound Level	Operating Temperature Range	Max. Playback Time	Playback Channels	Protection Rating	Mass	Front Cover Color	Recorded Data									
BSV-24NLM-W/D	NPN Transistor	DC 12-24V	DC10.8V to 26.4V	3.5W	Max. 87dB (at 1m) 1kHz Sine Wave	-10°C to +50°C (RH 85% or less)	520sec.	4 (Bit Input) 15 (Binary Input) ※When using the Sound Reduction Function, the inputs become: 3 (Bit Input) 7 (Binary Input)	IP54 (Only for Panel Mount in the Upright Position) In accordance with IEC 60529	100g ±10%	Off white (-W) Dark Gray (-D)	Voice									
BSV-24NLM-S											Silver (-S)										
BSV-24NL-W/D											Off white (-W) Dark Gray (-D)	Alarm									
BSV-24NL-S											Silver (-S)										
BSV-24PLM-W/D	PNP Transistor										DC 12-24V	DC10.8V to 26.4V	3.5W	Max. 87dB (at 1m) 1kHz Sine Wave	-10°C to +50°C (RH 85% or less)	520sec.	4 (Bit Input) 15 (Binary Input) ※When using the Sound Reduction Function, the inputs become: 3 (Bit Input) 7 (Binary Input)	IP54 (Only for Panel Mount in the Upright Position) In accordance with IEC 60529	100g ±10%	Off white (-W) Dark Gray (-D)	Voice
BSV-24PLM-S																				Silver (-S)	
BSV-24PL-W/D																				Off white (-W) Dark Gray (-D)	Alarm
BSV-24PL-S																				Silver (-S)	



With the built-in SD card slot, MP3 data rewriting can be done with an SD card. In addition, rewriting or editing MP3 data files is possible with or without the exclusive PATLITE Playlist Editor 2 Application software.

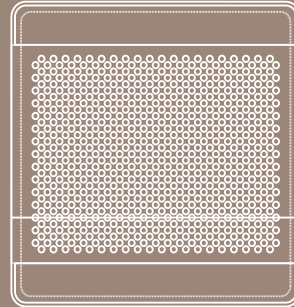
Options

PATLITE Playlist Editor 2 (Free Download)

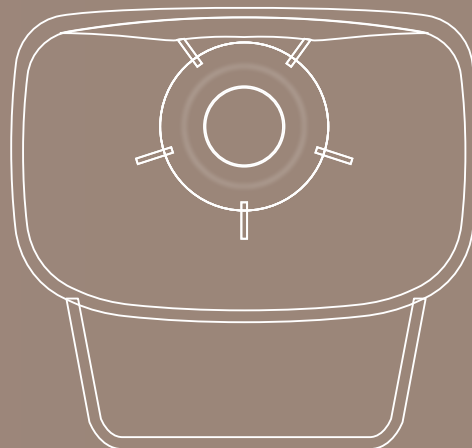
SD Card (2 GB) SDV-2GP

(OS: Windows® 2000/XP/Vista/Windows 7/Windows 8)

- > The new PATLITE Playlist Editor 2 is required to change the audio message data for this product.
- > The SD Card does not contain any data.



Alarm Products





Signal Horn

CE (AC/DC 24V Only)

90dB at 1m (BM-H Type)

2 Channels

IP34 (BM-D Front Only)

Ø30

**NPN/PNP
Open-collector**



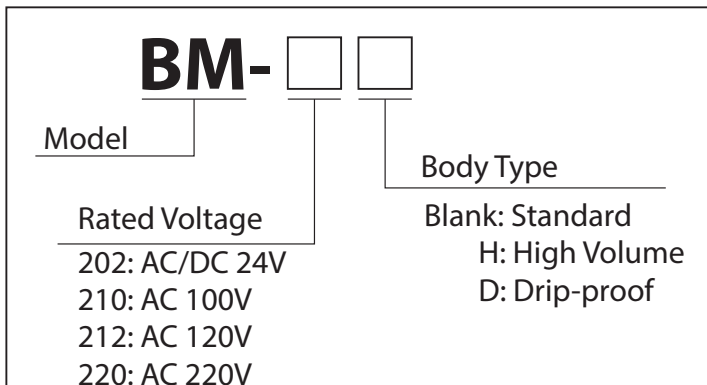
Compact Signal Horn designed to integrate with control panel, switchboard and other production equipment applications.

FEATURES

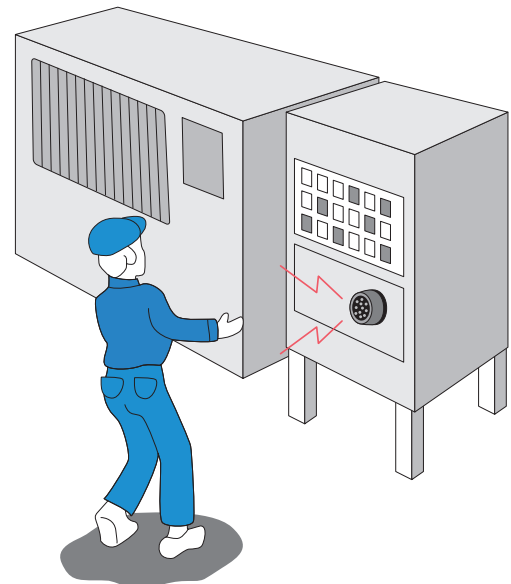
- Built-in Alarm with an audible sound of up to 90dB (at 1m*1).
- Has two selectable alarm sound patterns.
- Three Types to choose from; Standard (BM), High Volume (BM-H), Drip-proof (BM-D)
- Body is compact and lightweight (100g).
- The 24V type is compatible with NPN and PNP inputs.
- Has the CE mark and conforms to the requirements for the EC directive. (For AC/DC 24V only.)

*1 Model BM-H: 90dB (at 1m); Model BM: 85dB (at 1m); Model BM-D: 80dB (at 1m)

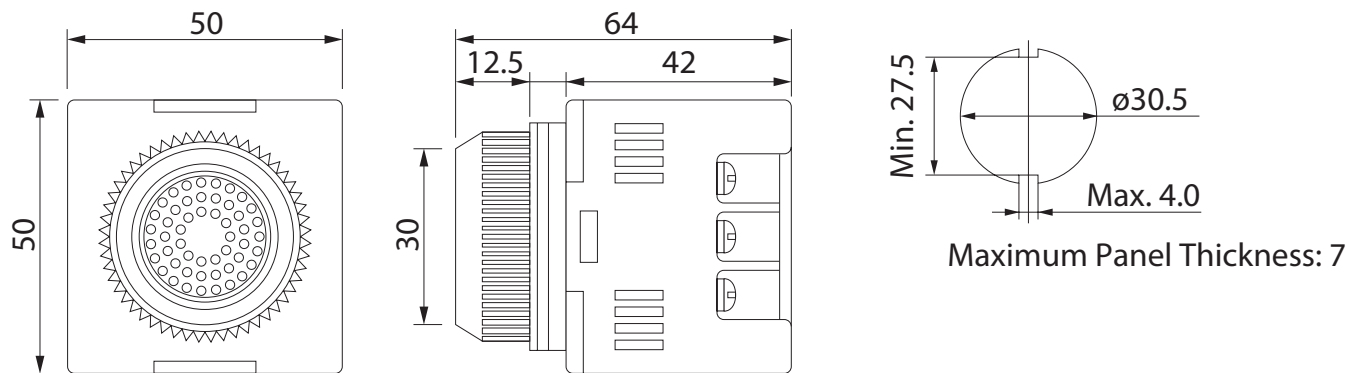
How to Order



Application Example

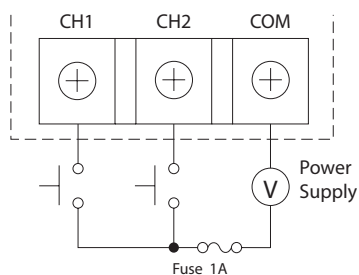


Dimensions (Unit: mm)



Wiring

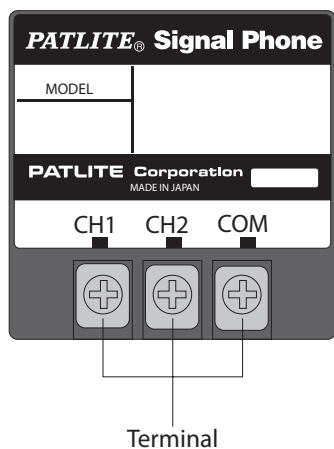
Terminal Bus Input



• Channel Priority

CH1 > CH2
 CH1 has priority when CH2 and CH1 are activated simultaneously

Rear View



External Contact Capacity : No less than 100mA
Auxiliary Input : Voltage Contact
Input Channels : 2

Specifications

Type	Model	Rated Voltage	Voltage Range	Power Consumption	Max. Volume (at 1m)	Operating Temperature Range	Protection Rating	Mass
Standard	BM -202	AC/DC 24V	AC/DC 22V-26V	0.4W	80dB	-10°C - +60°C (RH 85% or less)	IP30	100g
	BM -210	AC 100V	AC 90V-110V	2.5W	85dB			
	BM -220	AC 220V	AC 200V-240V	3.5W				
High Volume	BM -202H	AC/DC 24V	AC/DC 22V-26V	0.4W	85dB			
	BM -210H	AC 100V	AC 90V-110V	2.5W	90dB			
	BM -212H	AC 120V	AC 108V-132V					
	BM -220H	AC 220V	AC 200V-240V				3.5W	
Drip-proof	BM -202D	AC/DC 24V	AC/DC 22V-26V	0.4W	75dB		IP34	
	BM -210D	AC 100V	AC 90V-110V	2.5W	80dB			
	BM -220D	AC 220V	AC 200V-240V	3.5W				

BD-A

Audible Alarm



AC/DC 24V Only



AC/DC 24V Only

90dB at 1m
4 Channels / 32 Sounds
IP54
□80
**NPN
Open-collector**


The BD Series can play melodies, chimes and alarms with variable audible control and a compact, but loud speaker.

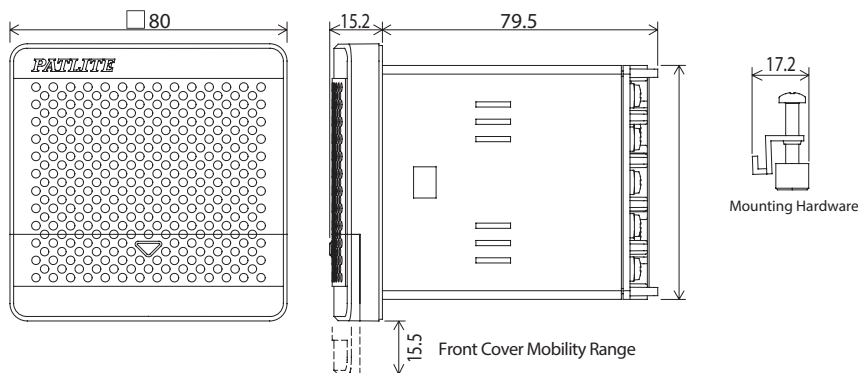
FEATURES

- Maximum output level of 90dB (at 1m) is suitable for use in a noisy factory.
- 32 pre-recorded sounds in one unit to be used for various applications.
- Sound output level and sound group can be selected by rotary switches stored behind the front panel for easier operation, even after installation.
- Select a sound group to playback 4 pre-recorded sounds.
- A new sound group can be created from the 32 sounds by using an optional memory card (sold separately).
- Compliant with the RoHS directive
- Has the CE mark and conforms to the requirements (for 12V/24V type) for the EC directive.
- Is a UL recognized component (File No. E24210).

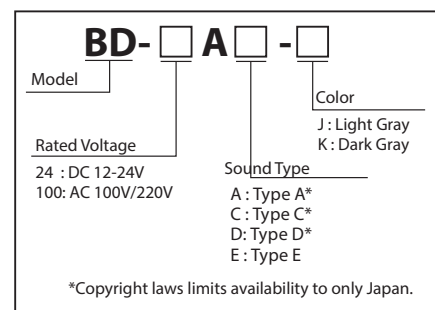
AVAILABLE BY SPECIAL ORDER

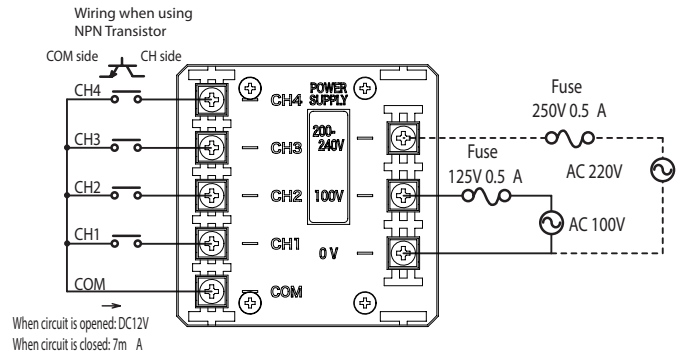
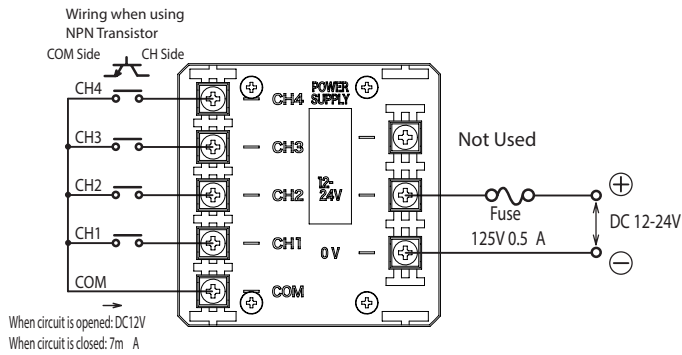
- Binary input controlled 15 sound playback model.
- PNP open collector transistor type.

Dimensions (Unit: mm)



How to Order





Melody List

Type A		(Japan Only)	
Beep (slow intermittent)	Stutter (rapid intermittent)	Bell (clear high-pitch)	Yelp (rapid siren)
Rapid Hi-Lo	Melody Chime	Synthesized Piano	Synthesized Bell
Stutter + Bell	Synthesized Melody	Chime	Call Sign
Fur Elise	Maiden's Prayer	Bach Minuet in Gmaj	Annie Laurie
London Bridge is falling down	Hol-di-ri-Dia	Mary had a little Lamb	Camptown Races
Cuckoo Song	Village Blacksmith	On the Bridge of Avignon	Daydream Believer
Amaryllis	Mozart Symphony No. 40	Quiet Lakeside	Ich bin ein Musikante
Spanish Romance	Katyusha	Grandfather's Clock	Ave Maria

Type D		(Japan Only)	
Beep (slow intermittent)	Stutter (rapid intermittent)	Bell (clear high-pitch)	Yelp (rapid siren)
Rapid Hi-Lo	Melody Chime	Synthesized Piano	Synthesized Bell
Runner	Mamotte Agetai	Chime	Call Sign
Iribiao Kikinagara	September	Doyoubino Koibito	Akino Kehai
Saafu Tengoku Sukii Tengoku	Iro White-blend	Happy Birthday	Hi Ho
I've been working on the Railroad	The Bear Song	Toys Go "Cha-cha-cha"	Konnako Irukana
Schubert's Lullaby	Rudolph the red-nosed Reindeer	She Wore a Yellow Ribbon	My Darling, Clementine
Yellow Rose of Texas	Yankee Doodle	When the Saints Go Marching In	Londonderry Air

Type C		(Japan Only)	
Beep (slow intermittent)	Stutter (rapid intermittent)	Bell (clear high-pitch)	Yelp (rapid siren)
Rapid Hi-Lo	Synthesized Melody	Synthesized Piano	Synthesized Bell
Stutter + Bell	Synthesized Melody Chime	Chime	Call Sign
Can't take my eyes off of you	Top of the World	The Entertainer	Amazing Grace
Amairono Kamino Otome	Les Champs-Elysees	Canon	Rara Sunshine
Uchuusenkan Yamamoto	Oshiete	Makenaide	Gonna Fly Now (Theme from "Rocky")
I don't Wanna Miss a Thing	Yozorano Mukou	Aiwa Katsu	Haruyo Koi
Gattsudaze	Odoru Ponpokorin	Imasugu Kisu Mi	Truth

Type E		(Worldwide)	
Beep (slow intermittent)	Stutter + Bell	Inverted Reveille	Annie Laurie
Stutter (rapid intermittent)	Synthesized Melody	Galactic Motor	London Bridge is falling down
Bell (clear high-pitch)	Chime	Ringing Phone	Mary had a little Lamb
Yelp (rapid siren)	Call Sign	Two Tone	Camptown Races
Rapid Hi-Lo	Train Ride	Alarm Clock	Amaryllis
Melody Chime	Galloping Hi-Lo	Ringing Hi-Lo	Mozart Symphony No. 40
Synthesized Piano	Alien Chatter	Fur Elise	Ave Maria
Synthesized Bell	Falling Crystals	Bach Minuet in Gmaj	Grandfather's Clock

Specifications

Model	BD-24A □ - □	BD-100A □ - □
Rated Voltage	DC 12V - 24V	AC 100V/AC 220V (50/60Hz)
Operating Voltage Range	DC 10.8V- 26.4V	AC 100V ±10%/AC 220V ±10%
Operating Temperature Range	-20°C - +55°C	
Relative Humidity	85% RH (No Condensation)	
Power Consumption	Maximum 4.0W	Maximum 5.5W
Volume	Adjustable up to a maximum of 90dB (at 1m) when flushmounted. (Volume may be less, depending on surrounding environment and playback sound)	
Input Method	Bit Input	
Input Signal Duration	Continuous	
Boot-up Time	Input Voltage: 1 sec. or less Channel Signal Input: 170msec or less	
Channels	4 Channels	
Recorded Sound	32 Melodies and Alarm Sounds	
Sound Group	16 Patterns (A to P)	
Protection Rating	IP54 (When flush-mounted, Upright direction Only)	
Vibration Resistance	19.6m/s ²	
Mass (Tolerance ±10%)	160g	180g

Use of Copyrighted Material

PATLITE Corporation has not applied for permission to use certain copyrighted music or songs recorded for Type-A, Type-C, and Type-D melody charts outside of Japan. Therefore, please contact the local copyright association for permission before using the product in case this product is used outside of Japan. Melody charts Type-E is recommended for use outside of Japan as this playlist does not include copyrighted music or songs, and permission is not required.

BK



Audible Alarm



AC/DC 24V Only



AC/DC 24V Only

95dB at 1m

8 Channels / 32 Sounds

IP54

□120

NPN
Open-collector

The BK Series can play melodies, chimes and alarms with variable audible control and a compact but loud speaker.

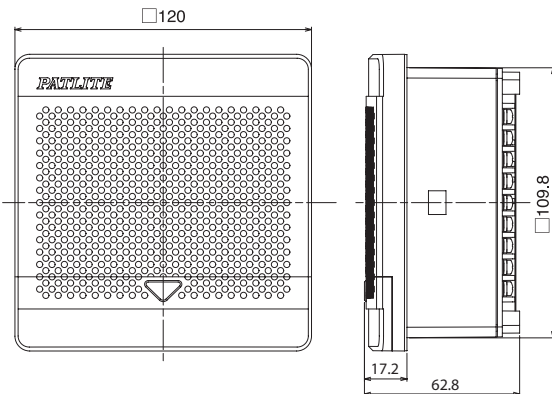
FEATURES

- 32 pre-recorded sounds in one unit to be used for various applications.
- Maximum output level of 95dB (at 1m) is suitable for use in a noisy factory.
- Rotary switch to easily change sound groups and adjust volume output from the front panel, even after installation.
- Use bit input to select a sound group to playback 8 pre-recorded sounds.
- A new sound group can be created from the 32 sounds by using an optional memory card (sold separately).
- Compliant with the RoHS directive
- Has the CE mark and conforms to the requirements (for 12V/24V type) for the EC directive.
- Is a UL recognized component (File No. E24210).

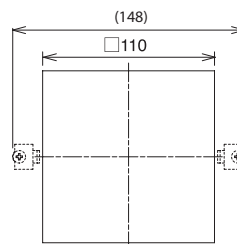
AVAILABLE BY SPECIAL ORDER

- PNP open collector transistor type.

Dimensions (Unit: mm)

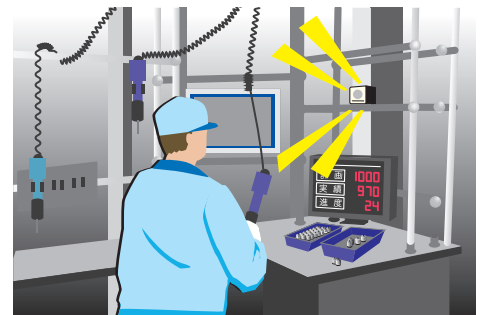


Mounting Dimensions



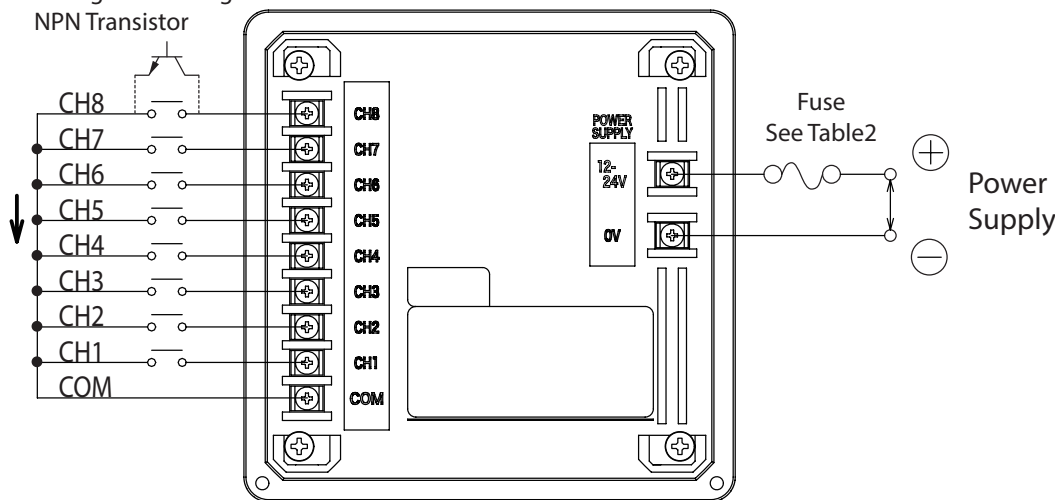
How to Order

BK-□□-□		Color
Model		J: Light Gray K: Dark Gray
Rated Voltage		Sound Type
24 : DC 12-24V		A : Type A*
100: AC 100V		C : Type C*
220: AC 220V		D : Type D*
		E : Type E
*Copyright laws limits availability to Japan only.		



Wiring

Wiring when using NPN Transistor



Melody List

Type A		(Japan Only)	
Beep (slow intermittent)	Stutter (rapid intermittent)	Bell (clear high-pitch)	Yelp (rapid siren)
Rapid Hi-Lo	Melody Chime	Synthesized Piano	Synthesized Bell
Stutter + Bell	Synthesized Melody	Chime	Call Sign
Fur Elise	Maiden's Prayer	Bach Minuet in Gmaj	Annie Laurie
London Bridge is falling down	Hol-di-ri-Dia	Mary had a little Lamb	Camptown Races
Cuckoo Song	Village Blacksmith	On the Bridge of Avignon	Daydream Believer
Amaryllis	Mozart Symphony No. 40	Quiet Lakeside	Ich bin ein Musikante
Spanish Romance	Katyusha	Grandfather's Clock	Ave Maria

Type D		(Japan Only)	
Beep (slow intermittent)	Stutter (rapid intermittent)	Bell (clear high-pitch)	Yelp (rapid siren)
Rapid Hi-Lo	Melody Chime	Synthesized Piano	Synthesized Bell
Runner	Mamotte Agetai	Chime	Call Sign
Iribiao Kikinagara	September	Doyubino Koibito	Akino Kehai
Saafu Tengoku Sukii Tengoku	Iro White-blend	Happy Birthday	Hi Ho
I've been working on the Railroad	The Bear Song	Toys Go "Cha-cha-cha"	Konnako Irukana
Schubert's Lullaby	Rudolph the red-nosed Reindeer	She Wore a Yellow Ribbon	My Darling, Clementine
Yellow Rose of Texas	Yankee Doodle	When the Saints Go Marching In	Londonderry Air

Type C		(Japan Only)	
Beep (slow intermittent)	Stutter (rapid intermittent)	Bell (clear high-pitch)	Yelp (rapid siren)
Rapid Hi-Lo	Synthesized Melody	Synthesized Piano	Synthesized Bell
Stutter + Bell	Synthesized Melody Chime	Chime	Call Sign
Can't take my eyes off of you	Top of the World	The Entertainer	Amazing Grace
Amairono Kamino Otome	Les Champs-Elysees	Canon	Rara Sunshine
Uchuusenkan Yamamoto	Oshiete	Makenaide	Gonna Fly Now (Theme from "Rocky")
I don't Wanna Miss a Thing	Yozorano Mukou	Aiwa Katsu	Haruyo Koi
Gattsudaze	Odoru Ponpokorin	Imasugu Kisu Mi	Truth

Type E		(Worldwide)	
Beep (slow intermittent)	Stutter + Bell	Inverted Reveille	Annie Laurie
Stutter (rapid intermittent)	Synthesized Melody	Galactic Motor	London Bridge is falling down
Bell (clear high-pitch)	Chime	Ringling Phone	Mary had a little Lamb
Yelp (rapid siren)	Call Sign	Two Tone	Camptown Races
Rapid Hi-Lo	Train Ride	Alarm Clock	Amaryllis
Melody Chime	Galloping Hi-Lo	Ringling Hi-Lo	Mozart Symphony No. 40
Synthesized Piano	Alien Chatter	Fur Elise	Ave Maria
Synthesized Bell	Falling Crystals	Bach Minuet in Gmaj	Grandfather's Clock

Specifications

Model	BK-24 □	BK-100 □	BK-220 □
Rated Voltage	DC 12V-24V	AC 100V (50/60Hz)	AC 220V (50/60Hz)
Operating Voltage Range	DC 10.8V- 26.4V	AC 100V ±10%	AC 220V ±10%
Operating Temperature Range	-20°C - +50°C		
Relative Humidity	85% RH (No Condensation)		
Power Consumption	Maximum 12W	Maximum 10W	Maximum 11W
Volume	Adjustable up to a maximum of 95dB (at 1m) when flushmounted. (Volume may be less, depending on surrounding environment and playback sound)		
Input Method	Bit Input, Binary Input		
Input Signal Duration	Continuous		
Boot-up Time	Input Voltage: 1 sec. or less Channel Signal Input: 170msec or less		
Channels	Bit: 4 Channels; Binary: 32 Channels		
Recorded Sound	32 Melodies and Alarm Sounds		
Sound Group	16 Patterns (A to P)		
Protection Rating	IP54 (When flush-mounted, Upright direction Only)		
Vibration Resistance	45m/s ²	19.6m/s ²	
Mass (Tolerance ±10%)	350g	530g	

Use of Copyrighted Material

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Melody/Alarm Horn



(M3 Not Included)



(12/24V Only)

110dB at 1m

32 Channels (Binary)

IP65

NPN/PNP
Open-collector

Cable

Terminal



Exceptional Sound Quality Field Programmable Melody/Alarm Horn

FEATURES

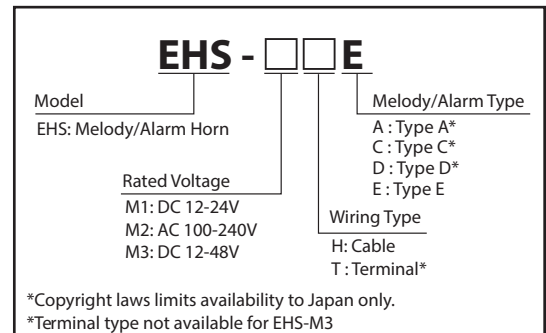
- EHS comes with 32 preloaded melody and alarm sounds with adjustable volume up to 110dB (at 1m).
- Ideal for plant-wide notification, public address and process control.
- Robust, indoor and outdoor use with vibration resistance up to 4.5G.
- Protection Rating of IP65.
- UL464, CSA-C22.2 NO.205-M1983, FCC Part 15 Subpart B Class 4.
- CE, RoHS Compliant (EHS-M1 Only).

EHS vs EHV (Functionality Comparisons)

Model	Onboard Sounds	MP3 Playback	Playback Modes	No. of Playback Channels
EHS	32 Sounds	No	1 Mode	8 ch Bit Input/ 32 ch Binary Input
EHV	63 Sounds	Yes*	4 Modes	8 ch Bit Input/ 63 ch Binary Input

* Internal Memory size of 2 Mbytes, maximum playback of 220 seconds at a 64kbit/sec rate

How to Order



Specifications

EHS

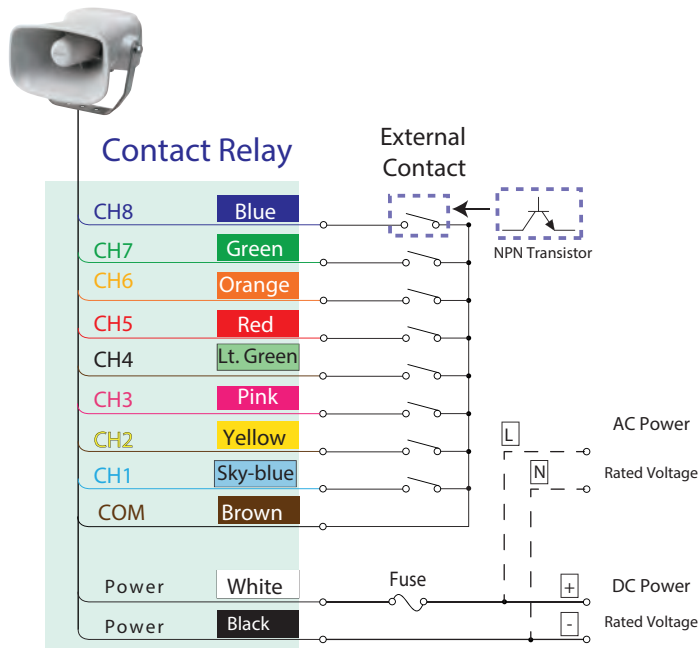
Model	Rated Voltage	Voltage Range	Power Consumption	Sound Pressure	Operating Temperature Range	No. of Playback Messages	Protection Rating	Wiring Type	Mass
EHS- M1H	DC 12 - 24V	DC 10.8V to 35V	5.0W (DC24V NPN, Non-voltage Contact)	Alarm: Max. 110dB (at 1m)	-20°C to +50°C (85% RH or less)	Bit Input: 8 Binary Input: 32	IP65	Cable	1.25kg
EHS- M1T			5.9W (DC24V PNP, Voltage Contact)					Terminal	
EHS- M3H	DC 12 - 48V	DC 10V to 60V	5.1W (DC48V NPN, Non-voltage Contact)					Cable	1.15kg
EHS- M2H			AC 100 - 240V					AC 90V to 264V	6.9W (AC240V NPN, Non-voltage Contact)
EHS- M2T	Terminal								

Notes:

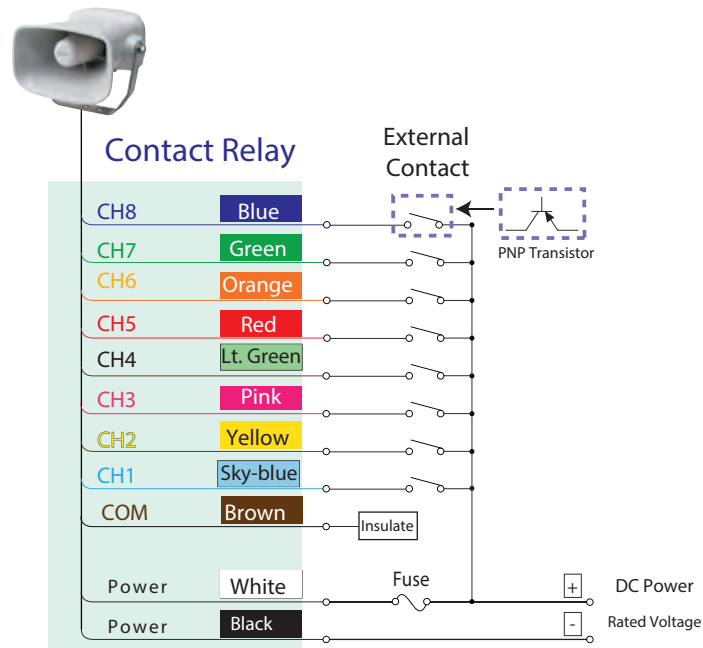
- The sound pressure level is based on measurements under controlled conditions (voice-synthesized 1 kHz sine wave played back from a distance of 1 meter), therefore the surrounding environmental conditions and message content will result in different values for the sound pressure level.
- Even when starting two or more units simultaneously, a lag will occur during message playback.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thompson Licensing

Wiring

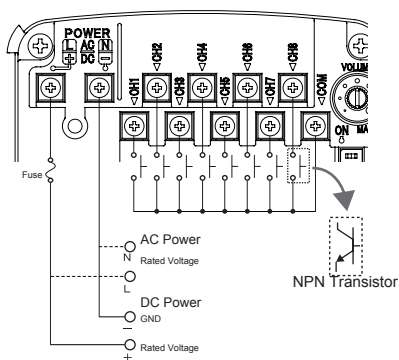
Non-voltage (NPN) Wiring



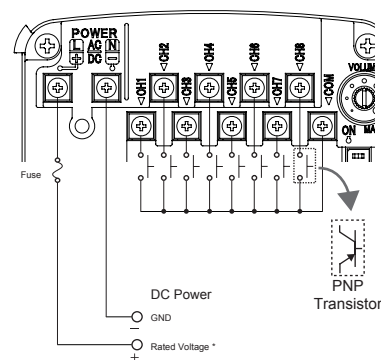
PNP Wiring



Terminal (NPN)



Terminal (PNP)



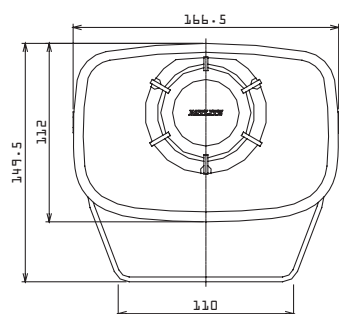
Transistor Capacity (NPN & PNP)	
Current Capacity	$I_c \geq 15\text{mA}$
Current Leakage	$I_L \leq 0.1\text{mA}$
Withstand Voltage	$V_c \geq 35\text{V}$
ON Voltage (V_{sat})	Less than 1V

Recommended Fuse	
Rated Voltage	250V
Rated Current	1A
Fuse Type	Standard

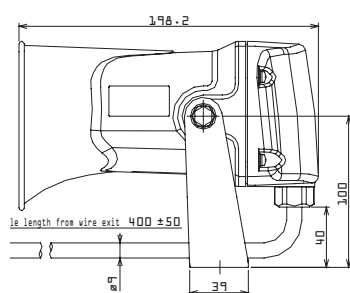
Maximum Inrush Current	
EH-M1	12.5A
EH-M2	23.0A
EH-M3	45.0A

Dimensions (Unit: mm)

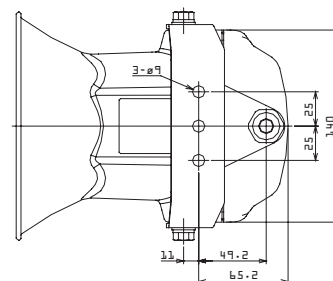
Front View

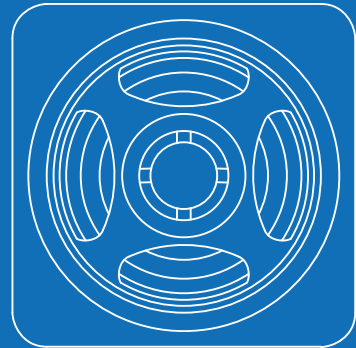


Side View

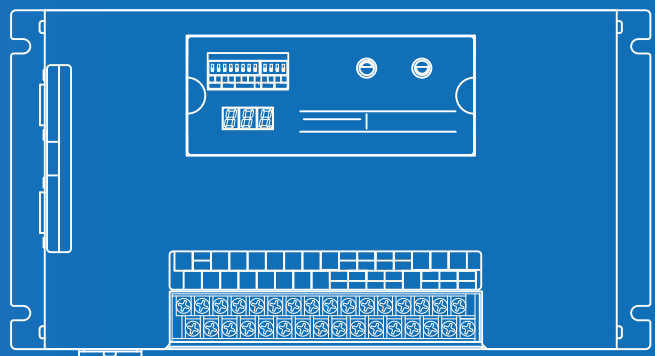


Underside View





Voice & Sound



BDV

Voice Annunciator



(BDV-15JF Only)

87 dB at 1m

15 Channels (Binary)

63 Seconds

IP54 (Upright Only)

80

NPN
Open-collector

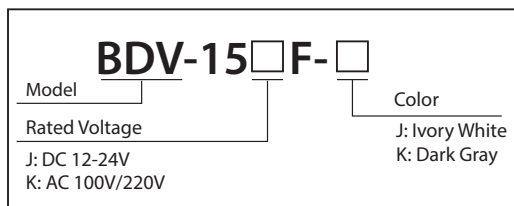


Excellent sound quality with MP3 playback! This panel-mounted MP3 voice annunciator uses SD cards*, allowing messages to be changed easily. (*Recommended: SDV-2GP)

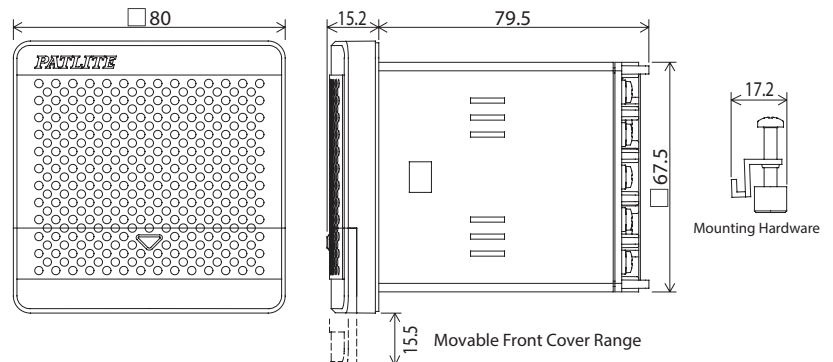
FEATURES

- Only Flush-mounting style available.
- Able to produce a loud sound of up to 87 dB (at 1m) despite its compact size
- A volume control on the front panel provides an easy way to adjust the sound volume.
- The use of an SD card allows message changes without uninstalling the device.
- Environmentally friendly since the unit complies with the EU RoHS Directives.
- Several playback modes are available for various applications.
- Includes binary input as a standard option for selecting up to 15 messages.
- Supports input selection using NPN open-collector transistor.
- The unit complies with EU Directives and includes the CE mark (BDV-15JF only)
- Two colors are available for selecting the best color match for the installation.
- Protection rating: IP54 (only the front panel when flush-mounted)

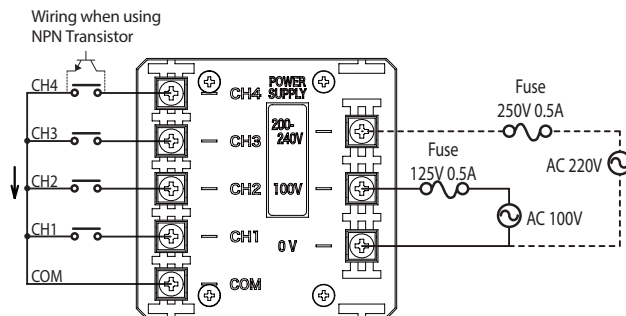
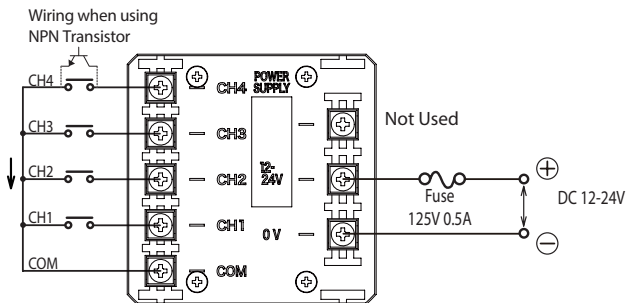
How to Order



Dimensions (Unit: mm)



Wiring Diagram



Playback Modes

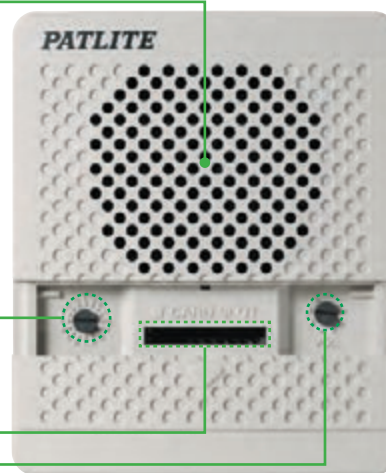
Mode Selector Switch

Several playback modes for a combination of applications.

A	Bit Input Mode	Plays back up to 4 messages using Channels 1 to 4.
B	Binary Input Mode	Plays back up to 15 messages using Channels 1 to 4.
C	Bit Input/ Volume Reduction Mode	Plays back up to 3 messages using Channels 1 to 3. When Channel 4 receives an input, the volume is reduced by about -10dB.
D	Binary Input/ Volume Reduction Mode	Plays back up to 7 messages using Channels 1 to 3. When Channel 4 receives an input, the volume is reduced by about -10dB.
E	Bit Input/ Priority Message Playback Mode	Plays back up to 7 messages using Channels 1 to 3. If a message input occurs during playback of another message, the message will stop and allow the input message to play back.
F	Binary Input/ Priority Message Playback Mode	Plays back up to 15 messages using Channels 1 to 4. If a message input occurs during playback of another message, the message will stop and allow the input message to play back.
G	Bit Input/ Hold Message Playback Mode	Plays back up to 4 messages using Channels 1 to 4. As long as the input is held on, the message is played back, once the input is removed, the message playback stops.
H	Binary Input/ Hold Message Playback Mode	Plays back up to 15 messages using Channels 1 to 4. As long as the input is held on, the message is played back, once the input is removed, the message playback stops.
I - P	Test Playback Mode	Plays back Message No. 1

Up to 87dB (at 1m)

Despite its slim appearance, it is able to produce a maximum of 87dB (at 1m). (Actual sound level will depend on sound type and surrounding operating conditions.)



Volume Control

The volume is easily accessible from the front for adjustment.

Memory Card Slot

With an SD Card, messages can be changed while the unit is still mounted.

Options

PATLITE Playlist Editor 2
(Free Download)

SD Card
(2 GB)
SDV-2GP



(OS: Windows® 2000/XP/Vista/Windows 7/Windows 8)

- > The new PATLITE Playlist Editor 2 is required to change the audio message data for this product.
- > The SD Card does not contain any data.

Specifications

Model	Rated Voltage	Operating Voltage Range	Power Consumption	Sound Level (Max.)	Voice File	Operating Temperature Range	Maximum Playback Time	No. of Playback Inputs	Protection Rating	Mass
BDV-15JF	DC 12-24V	DC 10.8V - 26.4V	4W	87dB* (at 1m)	MPEG- Audio Layer (MP3) Standard Bit Rate: 64kb/s Fs=44.1kHz	-10 - +50°C (RH less than 85%)	63 sec.	Bit: 4 Binary: 15	IP54 (Panel Mount)	220g
BDV-15KF	AC 100/220V	AC 100V ±10% AC 220V±10%	5W							340g

Notes:

- Actual sound level will depend on sound type and surrounding operating conditions.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thompson Licensing

BKV

Voice Annunciator



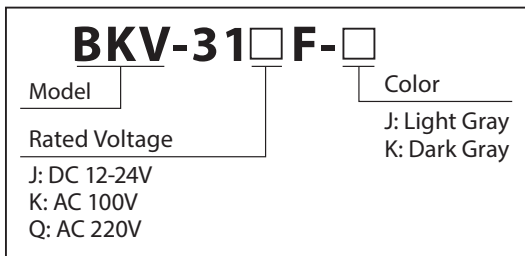
- 95dB at 1m
- 31 Channels (Binary)
- 63 Seconds
- IP54 (Upright Only)
- 120
- NPN Open-collector

Excellent sound quality with MP3 playback! This panel-mounted MP3 voice annunciator uses SD cards,* allowing messages to be changed easily. (*Recommended: SDV-2GP)

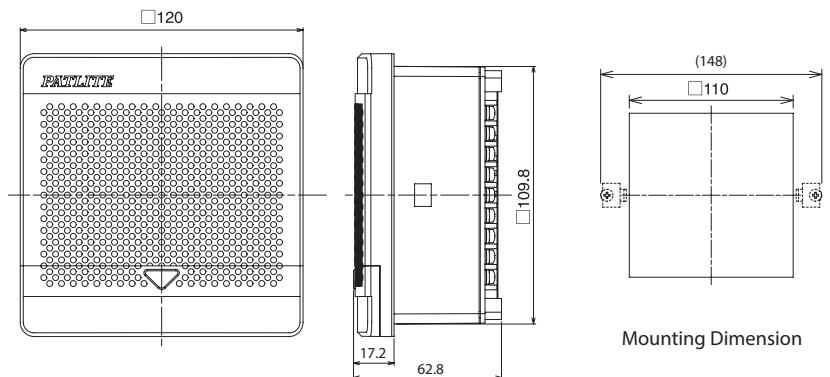
FEATURES:

- Only Flush-mounting style available.
- Able to produce a loud sound of up to 87 dB (at 1m) despite its compact size
- A volume control on the front panel provides an easy way to adjust the sound volume.
- The use of an SD card allows message changes without uninstalling the device.
- Environmentally friendly since the unit complies with the EU RoHS Directives.
- Several playback modes are available for various applications.
- Includes binary input as a standard option for selecting up to 15 messages.
- Supports input selection using NPN open-collector transistor.
- The unit complies with EU Directives and includes the CE mark (BKV-15JF only)
- Two colors are available for selecting the best color match for the installation.
- Protection rating: IP54 (only the front panel when flush-mounted)

How to Order



Dimensions (Unit: mm)



Playback Modes

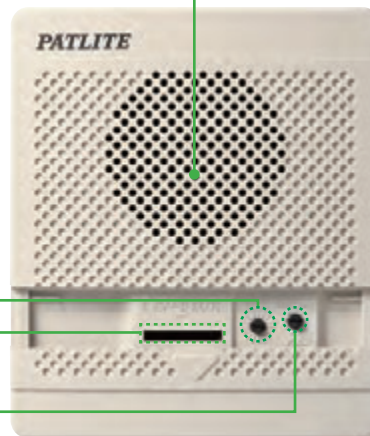
Mode Selector Switch

Several playback modes for a combination of applications.

A	Bit Input Mode	Plays back up to 5 messages using Channels 1 to 5.
B	Binary Input Mode	Plays back up to 31 messages using Channels 1 to 5.
C	Bit Input/Volume Reduction Mode	Plays back up to 4 messages using Channels 1 to 4. When Channel 5 receives an input, the volume is reduced by about -15dB.
D	Binary Input/Volume Reduction Mode	Plays back up to 15 messages using Channels 1 to 4. When Channel 5 receives an input, the volume is reduced by about -15dB.
E	Bit Input/Priority Message Playback Mode	Plays back up to 5 messages using Channels 1 to 5. If a message input occurs during playback of another message, the message will stop and allow the input message to play back.
F	Binary Input/Priority Message Playback Mode	Plays back up to 31 messages using Channels 1 to 5. If a message input occurs during playback of another message, the message will stop and allow the input message to play back.
G	Bit Input/Hold Message Playback Mode	Plays back up to 5 messages using Channels 1 to 5. As long as the input is held on, the message is played back, once the input is removed, the message playback stops.
H	Binary Input/Hold Message Playback Mode	Plays back up to 31 messages using Channels 1 to 5. As long as the input is held on, the message is played back, once the input is removed, the message playback stops.
I-P	Test Playback Mode	Plays back Message No. 1

Up to 95dB (at 1m)

Despite its slim appearance, it is able to produce a maximum of 87dB (at 1m). (Actual sound level will depend on sound type and surrounding operating conditions.)



Volume Control

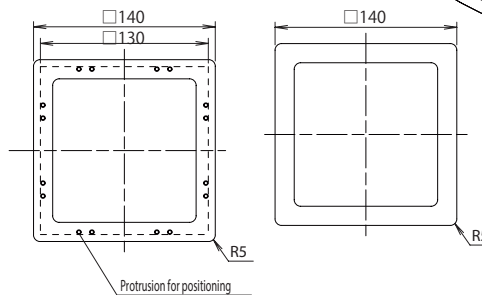
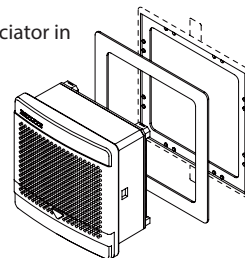
The volume is easily accessible from the front for adjustment.

Memory Card Slot

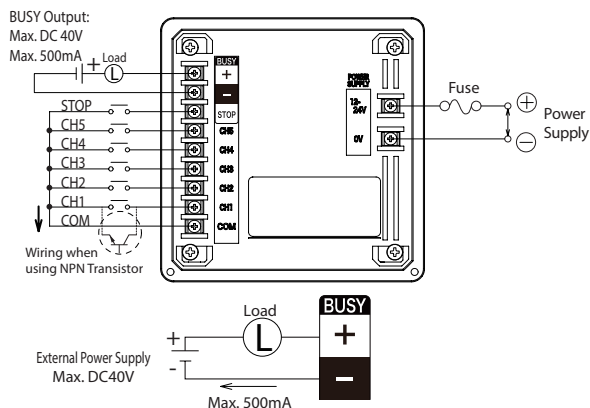
With an SD Card, messages can be changed while the unit is still mounted.

Optional Bracket (BK-001)

This bracket is used to install the annunciator in a place where holes have already been drilled for conventional PATLITE products. (φ133mm Type)



Wiring Diagram



Options

PATLITE Playlist Editor 2
(Free Download)

SD Card
(2 GB)
SDV-2GP



- (OS: Windows® 2000/XP/Vista/Windows 7/Windows 8)
- > The new PATLITE Playlist Editor 2 is required to change the audio message data for this product.
- > The SD Card does not contain any data.

Specifications

Model	Rated Voltage	Operating Voltage Range	Power Consumption	Sound Level (Max.)	Voice File	Operating Temperature Range	Maximum Playback Time	No. of Playback Inputs	Protection Rating	Mass
BKV-31JF	DC 12-24V	DC 10.8V - 26.4V	9W	95dB (at 1m)	MPEG- Audio Layer (MP3) Standard Bit Rate: 64kb/s Fs=44.1kHz	-10 - +50°C (RH less than 85%)	63 sec.	Bit: 5 Binary: 31	IP54 (Panel Mount)	350g
BKV-31KF	AC 100V	AC 100V ±10%	10W							530g
BKV-15KF	AC 220V	AC 220V ±10%								530g

Notes: - Actual sound level will depend on sound type and surrounding operating conditions.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thompson Licensing

BSV

Voice Annunciator



87 dB at 1m

15 Channels (Binary)

63 Seconds

IP54 (Upright Only)

□75

NPN/PNP
Open-collector



The unbelievably thin design for tighter installations.

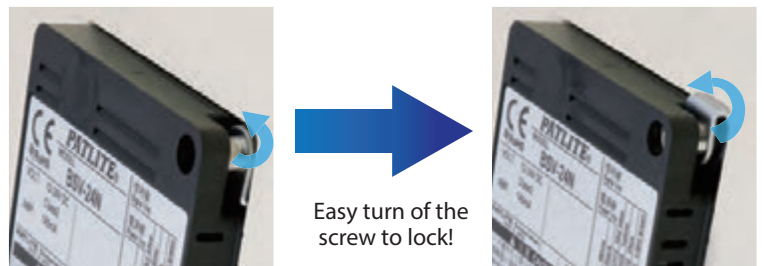
FEATURES

- Sound reduction is made with just one signal input. (Using the sound reduction function reduces the number of playback messages.)
- Diverse operational modes in combination with commands can be setup for the right application.
- The use of the SD card can allow changing messages while out in the field.
- Protection Rating of IP54 (Only for front panel mount attachment).
- Despite the thin shape, it has a maximum output of 87dB (at 1m).
- It complies with Europe's environment-friendly RoHS Directive.
- Can be used with transistor driven inputs. (Either NPN or PNP)
- A compact design with only a thickness of 19.9mm.
- Two installation choices of panel or wall mount.
- The volume control is accessible from the front.
- Listed by Underwriters Laboratories Inc.
- Conforms to the CE requirements.



Easy installation from the front.

With only the need to access the front cover, reduction in labor time and maintenance is simpler with easily removing the front cover for installation and volume adjustment, etc.



With the built-in SD card slot, MP3 data rewriting can be done with an SD card. In addition, rewriting or editing MP3 data files is possible with or without the exclusive PATLITE Playlist Editor 2 Application software.

Options

PATLITE Playlist Editor 2
(Free Download)

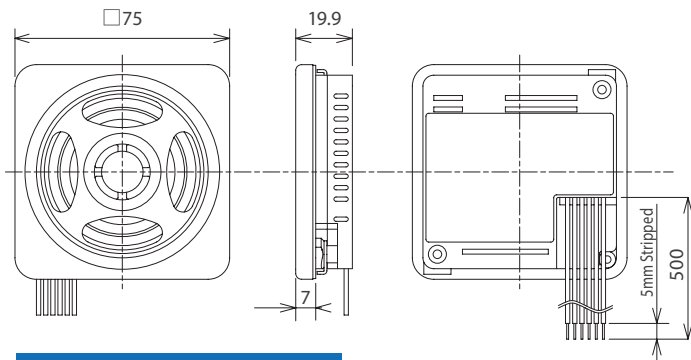
SD Card
(2 GB)
SDV-2GP

(OS: Windows® 2000/XP/Vista/Windows 7/Windows 8)

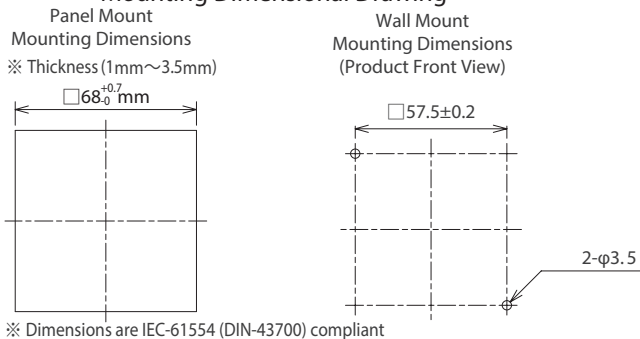
- > The new PATLITE Playlist Editor 2 is required to change the audio message data for this product.
- > The SD Card does not contain any data.



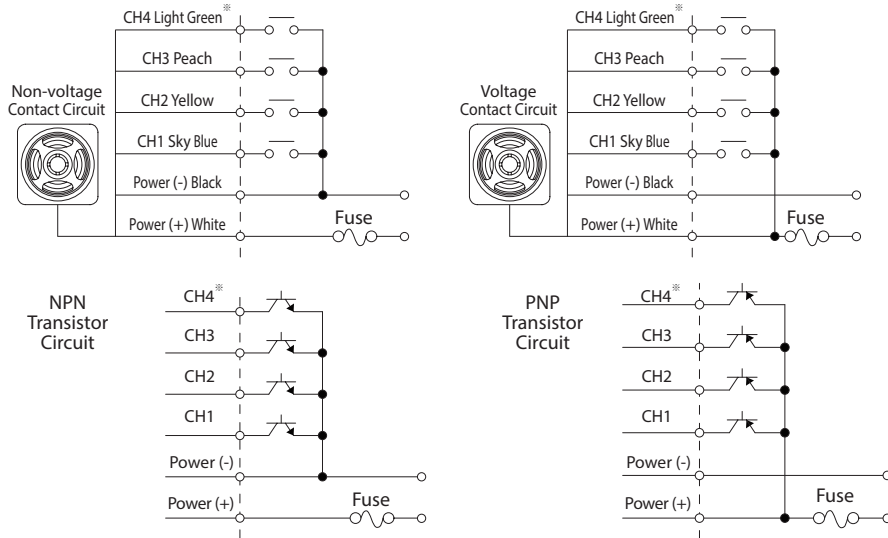
Dimensions (Unit: mm)



Mounting Dimensional Drawing



Wiring



Actual Size

Panel Mount



Wall Mount

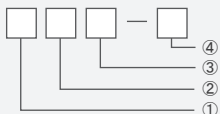


Specifications and How to Order

Specifications

Model	Transistor Type	Rated Voltage	Operating Voltage Range	Power Consumption	Sound Level	Operating Temperature Range	Max. Playback Time	Playback Channels	Protection Rating	Mass	Front Cover Color	Recorded Data
BSV-24NM-W/D	NPN Transistor	DC 12-24V	DC10.8V to 26.4V	3.5W	Max. 87dB (at 1m) 1kHz Sine Wave	-10°C to +50°C (RH 85% or less)	63sec.	4 (Bit Input) 15 (Binary Input) ※When using the Sound Reduction Function, the inputs become: 3 (Bit Input) 7 (Binary Input)	IP54 (Only for Panel Mount in the Upright Position) In accordance with IEC 60529	100g ±10%	Off white (-W) Dark Gray (-D)	Voice
BSV-24NM-S											Silver (-S)	
BSV-24N-W/D											Off white (-W) Dark Gray (-D)	Alarm
BSV-24N-S											Silver (-S)	
BSV-24PM-W/D	PNP Transistor	DC 12-24V	DC10.8V to 26.4V	3.5W	Max. 87dB (at 1m) 1kHz Sine Wave	-10°C to +50°C (RH 85% or less)	63sec.	4 (Bit Input) 15 (Binary Input) ※When using the Sound Reduction Function, the inputs become: 3 (Bit Input) 7 (Binary Input)	IP54 (Only for Panel Mount in the Upright Position) In accordance with IEC 60529	100g ±10%	Off white (-W) Dark Gray (-D)	Voice
BSV-24PM-S											Silver (-S)	
BSV-24P-W/D											Off white (-W) Dark Gray (-D)	Alarm
BSV-24P-S											Silver (-S)	

BSV-24



① Transistor Type
N : NPN Transistor
P : PNP Transistor

② Playback Time
L : 520 sec.
Blank : 63 sec.

③ Registered Messages
Blank : None (15 Alarm Sounds)
M : Pre-recorded Messages

④ Front Cover Color
W : Off white
D : Dark Gray
S : Silver

Notes:

- Actual sound level will depend on sound type and surrounding operating conditions.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thompson Licensing.

□ The method for data rewriting when not using the exclusive application software:

STEP-1 Make a data file with the PC.
※Allocate channel message data (*.mp3) in advance.

STEP-2 Copy the data to the SD Card

STEP-3 Insert the SD Card into the BSV

① Allocate messages for every channel...② Establish the operation mode...③ Control the sound reduction...

When using the exclusive application software, the combination of adjusting the volume of a message or separately making a volume adjustment is possible.

EHV



MP3 Alert/Melody/Alarm Horn



(M3 Not Included)



(12/24V Only)



110dB at 1m

63 Channels (Binary)

IP65

NPN/PNP
Open-collector

Cable



Terminal

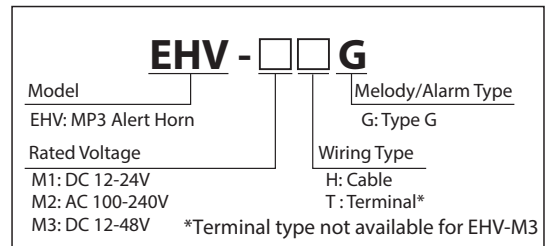


Exceptional Sound Quality Field-programmable MP3 Alarm

FEATURES

- EHV comes with 63 binary channels with adjustable volume up to 110dB (@ 1m).
- EHV offers a field-programmable MP3 function with a maximum of 220 sec. of recording time (@ 64bps), ideal for plant-wide notification and process control.
- Robust, indoor and outdoor use with vibration resistance up to 4.5G, ideal for public address.
- Compliant to UL464 (EHV-M3 Not Included), CSA-C22.2 NO.205-M1983, FCC Part 15 Subpart B Class 4.
- Protection Rating of IP65 and CE (EHV-M2 Not Included), RoHS Compliant.

How to Order



EHS vs EHV (Functionality Comparisons)

Model	Onboard Sounds	MP3 Playback	Playback Modes	No. of Playback Channels
EHS	32 Sounds	No	1 Mode	8 ch Bit Input/ 32 ch Binary Input
EHV	63 Sounds	Yes*	4 Modes	8 ch Bit Input/ 63 ch Binary Input

* Internal Memory size of 2 Mbytes, maximum playback of 220 seconds at a 64kbit/sec rate

4 Playback Modes

Normal Playback

Designated audio message is played back by distinctive signal input. Audio message is played back once in case of one shot input, and audio message is repeated when the signal is input continuously.

Latest Input Priority Playback

When a signal is input during a message playback, the current message playing back will be stopped, and the message of the signal input will be played instead.

Memory Playback

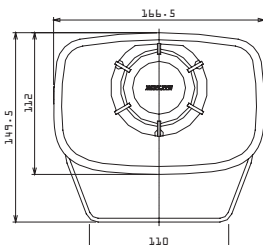
Up to 23 audio message inputs can be memorized in order of input. After one playback is finished, the next memorized audio message will be played back. The inputs exceeding the limit will not be memorized.

Momentary Playback

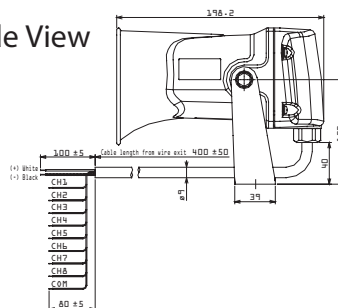
Audio message is played back only while the signal input is maintained. Playback will be stopped when the signal input is stopped.

Dimensions (Unit: mm)

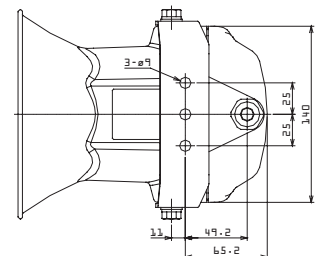
Front View



Side View

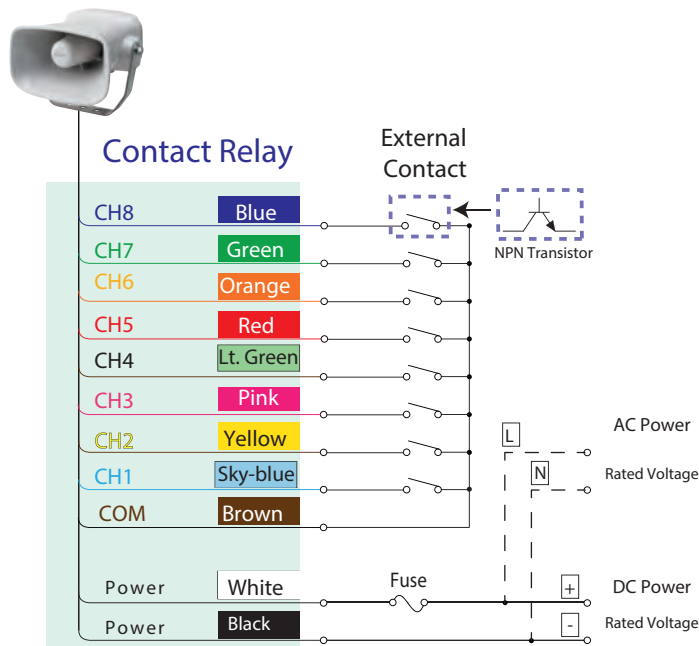


Underside View

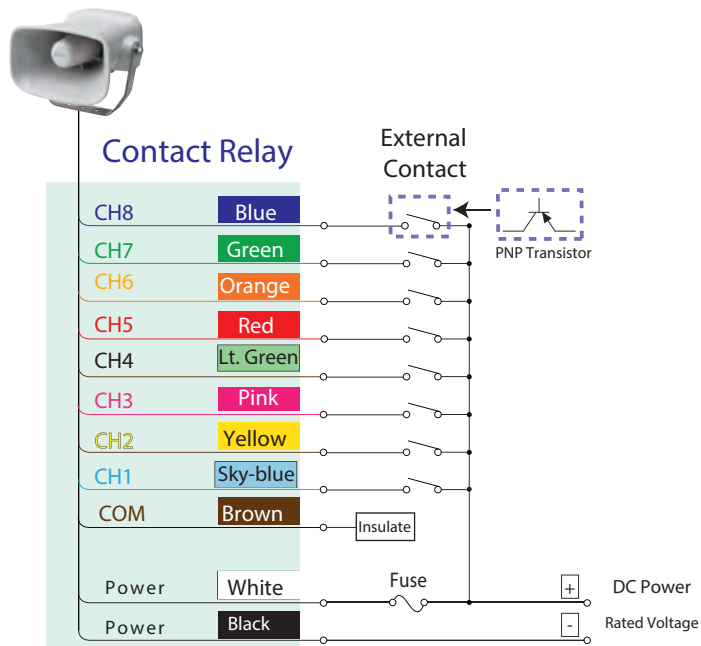


Wiring

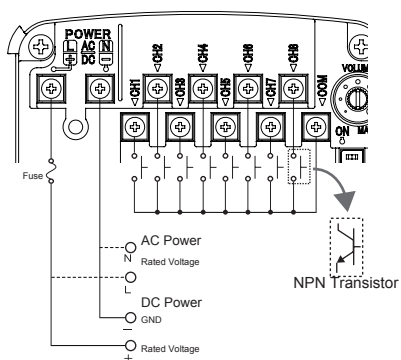
Non-voltage (NPN) Wiring



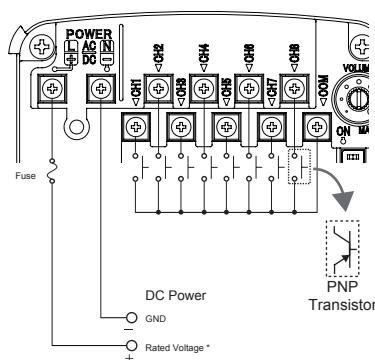
PNP Wiring



Terminal (NPN)



Terminal (PNP)



Transistor Capacity (NPN & PNP)	
Current Capacity	$I_c \geq 15\text{mA}$
Current Leakage	$I_l \leq 0.1\text{mA}$
Withstand Voltage	$V_c \geq 35\text{V}$
ON Voltage (V_{sat})	Less than 1V

Recommended Fuse	
Rated Voltage	250V
Rated Current	1A
Fuse Type	Standard

Maximum Inrush Current	
EH□-M1	12.5A
EH□-M2	23.0A
EH□-M3	45.0A

Specifications

EHV

Model	Rated Voltage	Voltage Range	Power Consumption	Sound Pressure	Operating Temperature Range	No. of Playback Messages	Protection Rating	Wiring Type	Mass	
EHV- M1H	DC 12 - 24V	DC 10.8V to 26.4V	4.0W (DC24V NPN, Non-voltage Contact)	Alarm: Max. 110dB (at 1m)	-20°C to +50°C (85% RH or less)	Bit Input: 8 Binary Input: 63	IP65	Cable	1.25kg	
EHV- M1T			5.0W (DC24V PNP, Voltage Contact)					Terminal		
EHV- M3H	DC 12 - 48V	DC 10V to 60V	5.6W (DC48V NPN, Non-voltage Contact)					MP3: Max. 105dB (at 1m)	Cable	1.15kg
EHV- M2H			AC 100 - 240V						AC 90V to 264V	5.3W (AC240V NPN, Non-voltage Contact)
EHV- M2T	Terminal									

Notes:

- The sound pressure level is based on measurements under controlled conditions (voice-synthesized 1 kHz sine wave played back from a distance of 1 meter), therefore the surrounding environmental conditions and message content will result in different values for the sound pressure level.
- Even when starting two or more units simultaneously, a lag will occur during message playback.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thompson Licensing

Get the Playlist Editor 2 (free from PATLITE)

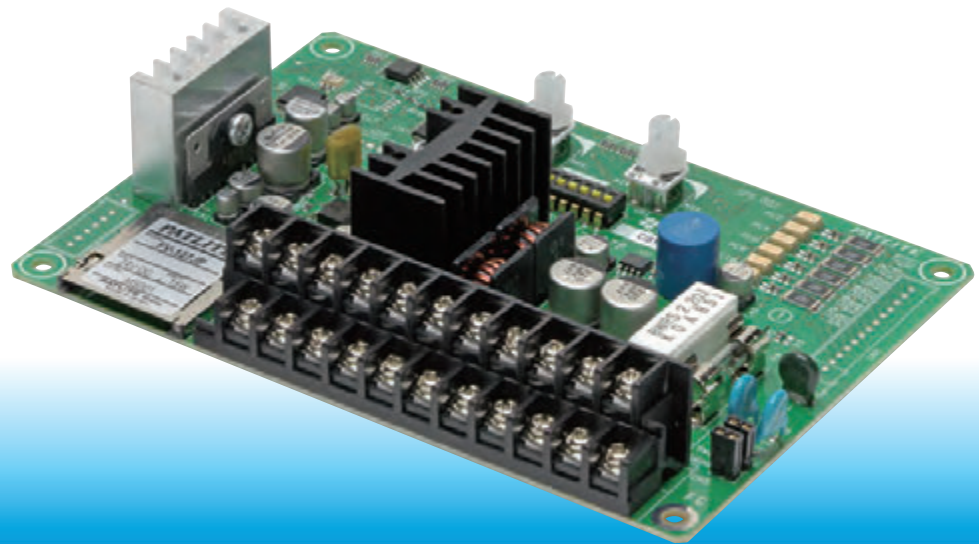
- Contact us by E-mail located on the back of this catalog.
- Convert any message into MP3 data and save it onto an SD Card (with the use of the Playlist Editor 2).
- Insert the SD Card into a PATLITE MP3 product for easy programming.

Application Software	Usable	Outline
PATLITE Playlist Editor 2	Yes	This is a newer version of the PATLITE Playlist Editor. A playlist package can be created and the MP3 data and channel function assignment for the product can be rewritten.
FV-Win	No	This product is not compatible with the playlist created by FV-Win or the PATLITE Playlist Editor. However, the playlist can be changed into a playlist package using the PATLITE Playlist Editor 2.
PATLITE Playlist Editor	No	

FV-127JP



MP3 File Playback Circuit Board



127 Channels (Binary)

8 Minutes

24VDC

**NPN
Open-collector**

Audio messages can be registered up to 127 channels, ideal for various equipment or facility purpose where the audio message assistance is required.

FEATURES

- High quality sound and long playback time.
- MP3 compressed audio file format enables long playback time and high quality sound.
- Approximately eight minutes worth of audio messages can be stored in the onboard memory.
- Capable of 240 minutes of message playback when using an SD card as external memory. (MP3 data at standard 64kbit/s rate and 128Mb SD Card)
- Audio messages can be overwritten and reprogrammed with the Playlist Editor 2 (free download) and optional SD Card.
- Data stored in the onboard memory can be extracted to the SD Card.
- 3 sound reduction levels of -10dB, -20dB and -30dB (at 1m) can be controlled by an external signal.
- Five different playback modes are available

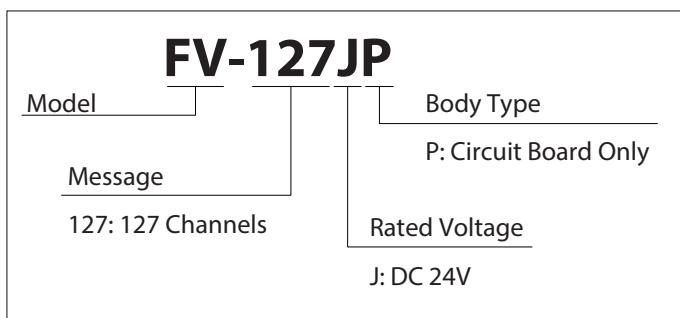
NOISE REDUCTION FEATURES

- Input delay can be selected (10ms or 50ms) to reduce noise
- Extending the delay to input a signal reduces noise
- Another noise countermeasure can include setting jumper pins

OTHER FEATURES

- Terminal block to provide safe and secure wire connections.
- Selectable speaker output (2W or 4W), AUX and BUSY Output terminals.
- Operating voltage range is from 19V to 29V DC (Rated Voltage: 24V DC)
- This product is compliant with the RoHS directive (DIRECTIVE 2002/95/EC)

How to Order



Options

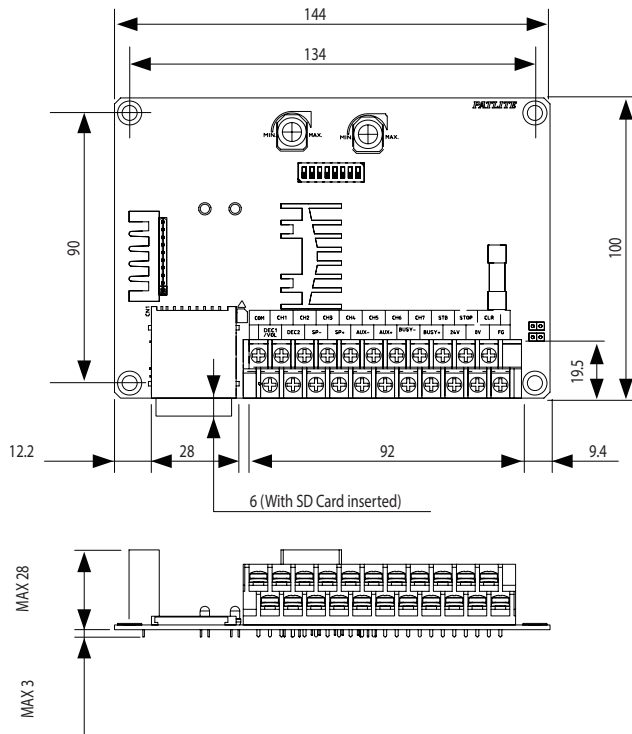
PATLITE Playlist Editor 2
(Free Download)

SD Card
(2 GB)
SDV-2GP

(OS: Windows® 2000/XP/Vista/Windows 7/Windows 8)

- > The new PATLITE Playlist Editor 2 is required to change the audio message data for this product.
- > The SD Card does not contain any data.





Normal Playback

Designated audio message is played back by distinctive signal input. Audio message is played back once in case of one shot input, and audio message is repeated when the signal is input continuously.

Memory Playback

Up to 23 audio message inputs can be memorized in order of input. After one playback is finished, the next memorized audio message will be played back. The inputs exceeding the limit will not be memorized.

Latest Input and Greater Channel Priority Playback

When the signal for a greater channel number is input during the message playback, the audio message being played back will be stopped, and previous audio message input will be played back. When the signal for the same or smaller channel number is input, the signal will not be accepted.

Momentary Playback

Audio message is played back only while the signal input is maintained. Playback will be stopped when the signal input is stopped.

Latest Input Priority Playback

When the signal is input during the message playback, the audio message being played back will be stopped, and the previous audio message input will be played back.

Specifications

General Specifications	
Model Name	FV-127JP
Rated Voltage	DC 24V
Operating Voltage Range	DC 19 to 29V
Wiring Method	M3 Terminal Bus
Power Consumption	Maximum 15W (1*)
Operating Temperature Range	-10 to 50°C
Storage Temperature	-40 to 80°C
Relative Humidity	85% RH or less
Operating Environment	Built-in Type Only
Installation Method	4 Screw Tie-down
Vibration Resistance	45m/s ² (30Hz forward and back/Left and right for 2hrs., up and down for 4hrs.)
Mass	160g ±10%
Outer Dimensions	144×100×28 [mm] (Lead Wires and Mounting Posts not included)
Audible Specifications	
Replay Message Number	For Binary: 127 For Bit Input: 7
Audio File Format	MPEG1-Audio Layer: (MP3)
Bit Rate	32kbit/s; 64kbit/s(Standard); 128kbit/s Fs=44.1kHz
Maximum PlaybackTime	On-board Memory (4MB): About 8 min (Recorded with standard bit rate) External Memory (SD Card): With 128MB about 240 min. (Standard Bit Rate Recording)
On-board Memory Size	4,360,191 byte
Audio Start-up Time	About 260ms (When sound mute not added at beginning and end of messages)
Audio Pause Time	Unless specified, 100ms sound mute added at beginning and end of messages
Compatible Memory Card	SD Card Recommended Part No.: SDV-2GP (Sold Separate)
Card Format	FAT16
Audio Rewrite Capability	Use with Patlite Playlist Editor 2 (Free Download) and an SD Card
Audio Rewrite Time	About 180 sec. (When changing the 4MB on-board memory)
Input / Output Specifications	
Signal Input Section	CH1, CH2, CH3, CH4, CH5, CH6, CH7, STB, CLR, STOP, DEC1/VOL, DEC2
Signal Input Priority	CLR Input > STOP Input > CH Input (Larger Channel takes Priority)
Sound Reduction Input	Speaker/AUX Output: Three Sound Reduction Levels of -10dB, -20dB, -30dB (1*)
Input Hold Time	More than 10ms or 50ms (Changeable Settings)
Signal Input Type	Non-voltage contact or NPN Open Collector
Speaker Output	8Ω compatible speaker of 4W or more, or 8Ω compatible speaker of 2W or more (Switchable Setting)
Maximum SoundPressure	Speaker Output at 4W: 105 dB; at 2W: 102dB (2*)
AUX Output	0dBV 600Ω (Adjustable with Volume Control or Sound Reduction Input)
BUSY Output	Maximum DC40V, 500mA

(1*) 1kHz Sine Wave Data Playback at -6dB

(2*) At 1m with 1kHz Sine Wave Data Playback and SPW-5E Speaker (Sold Separate)

Notes:

- This product complies with the RoHS directive (DIRECTIVE 2002/95/EC)
- Actual sound level will depend on sound type and surrounding operating conditions.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thompson Licensing