

Voice Synthesizer  
Sprach-Synthesizer  
Synthétiseur vocal  
Sintetizzatore Vocale  
Sintetizador de voz

Installation Manual  
Installationsanleitung  
Manuel d'installation  
Manuale di installazione  
Manual de instalación

- Installation
- Wiring
- Installation
- Verkabelung
- Installation
- Câblage
- Installazione
- Cablaggio
- Instalación
- Cableado

TYPE BDV

**Notice to Customer** Thank you very much for purchasing our Patlite products.

- This product requires installation, wiring, and other related work. Be sure to ask an expert technician to perform these procedures.
- This installation manual is intended for the technician who performs the installation and wiring of the product.
- A separate user's manual is provided for customers who operate the product after installation. Be sure to read the user's manual before operating the product.

⚠ WARNING

Indicates an imminently dangerous condition: failure to follow the instructions may lead to death or serious injury.

- Request the installation and wiring to be accompanied by a professional contractor. If installation is done improperly, it may result in fire, electric shock, falling, or malfunction.

⚠ CAUTION

Indicates a potentially dangerous condition: failure to follow the instructions may lead to slight injury or property damage.

- Use a soft cloth dampened with water to clean the product. (Do not use thinner, benzine, gasoline or oil.)

**Hinweis an den Kunden** Vielen Dank, dass Sie unser Patlite-Produkt erworben haben.

- Dieses Produkt erfordert Installations-, Verkabelungs- und andere Arbeiten. Bitten Sie stets einen erfahrenen Techniker, diese Arbeiten durchzuführen.
- Diese Installationsanleitung richtet sich an die Techniker, die die Installation und Verkabelung für dieses Produkt ausführen.
- Für die Kunden, die das Produkt nach der Installation verwenden, steht eine separate Bedienungsanleitung zur Verfügung. Lesen Sie stets die Bedienungsanleitung, bevor Sie das Produkt verwenden.

⚠ WARNUNG

Weist auf eine unmittelbar gefährliche Situation hin: Die Nichtbefolgung der Anweisungen kann zum Tod oder zu einer schweren Verletzung führen.

- Bitten Sie professionelles Fachpersonal um die Ausführung der Installation und Verkabelung. Wenn die Installation nicht ordnungsgemäß ausgeführt wird, kann dies zu einem Feuer, Stromschlag, zum Herunterfallen oder zu einer Fehlfunktion führen.

⚠ VORSICHT

Weist auf eine potentiell gefährliche Situation hin: Die Nichtbefolgung der Anweisungen kann zu einer leichten Verletzung oder einem Sachschaden führen.

- Verwenden Sie ein weiches Tuch, das mit Wasser angefeuchtet, um ein Produkt zu reinigen. (Verwenden Sie keinen Verdünner, Benzin, Benzin oder Öl.)

**Avis au client** Nous vous remercions d'avoir acheté notre produit Patlite.

- Ce produit nécessite une installation, un câblage et d'autres travaux connexes. Assurez-vous de faire appel à un technicien expérimenté pour effectuer ces procédures.
- Ce manuel d'installation est destiné au technicien qui effectue l'installation et le câblage de l'appareil.
- Un mode d'emploi séparé est fourni aux clients qui utilisent le produit après l'installation. Veuillez à lire le manuel d'utilisation avant d'utiliser le produit.

⚠ AVERTISSEMENT

Indique une situation dangereuse imminente : le non-respect de ces consignes peut entraîner la mort ou des blessures graves.

- Demandez à ce que l'installation et le câblage soient effectués en présence d'un professionnel. Si l'installation est réalisée de façon incorrecte, il existe un risque d'incendie, de choc électrique, de chute ou de dysfonctionnement.

⚠ ATTENTION

Indique une situation potentiellement dangereuse : le non-respect de ces consignes peut entraîner de légères blessures ou des dommages matériels.

- Utilisez un chiffon doux imbibé d'eau pour nettoyer le produit. (N'utilisez pas de diluant, d'essence, d'essence ou d'huile.)

**Avviso al cliente** Grazie per aver acquistato il nostro prodotto Patlite.

- Questo prodotto richiede l'installazione, il collegamento elettrico e altri lavori. Assicurarsi di chiedere a un esperto tecnico di eseguire questi lavori.
- Questo manuale di installazione deve essere utilizzato dal tecnico che esegue l'installazione e il cablaggio elettrico del prodotto.
- Un manuale dell'utente separato è fornito per i clienti che utilizzano il prodotto dopo l'installazione. Assicurarsi di leggere il manuale dell'utente prima di mettere in funzione il prodotto.

⚠ AVVERTENZA

Indica un'imminente situazione di pericolo: il mancato rispetto delle istruzioni potrebbe causare la morte o lesioni gravi.

- Richiedere l'installazione e il cablaggio ad un professionista. Se l'installazione è eseguita in modo errato, può provocare un incendio, scosse elettriche, cadute o malfunzionamenti.

⚠ ATTENZIONE

Indica una potenziale situazione di pericolo: il mancato rispetto delle istruzioni potrebbe causare lesioni leggere o danni materiali.

- Utilizzare un panno morbido inumidito con acqua per pulire il prodotto. (Non usare diluente, benzina, benzina o olio.)

**Aviso al cliente** Gracias por adquirir nuestro producto Patlite.

- Este producto requiere instalación, cableado y otros trabajos relacionados. Asegúrese de solicitar a un técnico experto la realización de estos procedimientos.
- Este manual de instalación ha sido elaborado para el técnico que lleva a cabo la instalación y el cableado del producto.
- Se proporciona por separado un manual del usuario para los clientes que usarán el producto después de la instalación. Asegúrese de leer el manual del usuario antes de utilizar el producto.

⚠ ADVERTENCIA

Indica una condición de riesgo inminente: no observar estas instrucciones podría causar lesiones graves o incluso la muerte.

- Solicite que la instalación y el cableado sean realizados por un contratista profesional. Si la instalación se realiza de forma incorrecta, podría causar incendios, descargas eléctricas, caídas o un fallo de funcionamiento.

⚠ ATENCIÓN

Indica una situación potencialmente peligrosa: no observar estas instrucciones podría causar lesiones leves o daños materiales.

- Utilice un paño suave humedecido con agua para limpiar el producto. (No use diluyente, bencina, gasolina o aceite).

To Installers or Contractors

- Read this manual thoroughly before using this product to ensure correct use.
- If there are any questions concerning this product, refer to the contact information at the end of USER's manual and contact your nearest PATLITE Sales Representative.

Für Installateure und Fachpersonal

- Lesen Sie diese Anleitung sorgfältig, bevor Sie dieses Produkt verwenden, um die ordnungsgemäße Verwendung zu gewährleisten.
- Wenn Sie irgendwelche Fragen zu diesem Produkt haben, verwenden Sie die Kontaktinformationen am Ende bedienungsanleitung Anleitung und wenden Sie sich an Ihren nächstgelegenen PATLITE-Vertriebsmitarbeiter.

Aux installateurs ou aux entrepreneurs

- Lisez attentivement ce manuel avant d'utiliser ce produit pour garantir une utilisation correcte.
- Si vous avez des questions concernant ce produit, reportez-vous aux coordonnées figurant à la fin de ce mode d'emploi de l'appareil et contactez votre représentant de vente PATLITE le plus proche.

Per gli installatori o gli appaltatori

- Leggere attentamente il manuale prima di utilizzare questo prodotto per garantirne un uso corretto.
- Se vi sono domande riguardanti questo prodotto, fare riferimento alle informazioni di contatto alla fine di Manuale dell'utente e contattare il più vicino rappresentante di vendita PATLITE.

Para instaladores o contratistas

- Lea atentamente este manual antes de utilizar este producto para asegurar un uso correcto.
- Si tiene preguntas relacionadas con este producto, consulte la información de contacto que se encuentra al final de Manual del usuariopóngase en contacto con su representante de ventas PATLITE más cercano.

1 Matters to be kept without fail for Safety Purpose

⚠ WARNING

- At the wiring and mounting of products, be sure to cut off power source. There is a risk of electrical shock.
- Do not disassemble or modify the product. There is a risk of fire, electrical shock etc. For repair, check etc of inside the product, please inquire to each sales office or technical consultation service written in the last page.
- Pay attention not to mistake wiring work. If wiring is mistaken,the internal circuit may burn out and it will become a cause of fire.
- Be sure to use the power supply within the allowable voltage range of the product. Otherwise,it may become a cause of fire and/or failure.
- For the installation with execution of work,be sure to ask a professional company. Otherwise,there is a risk of electrical shock,fire and/or falling etc.

⚠ CAUTION

- Be sure to connect the external fuse for protection of the power supply circuit and internal circuit of the product.
- Do not use it at the place where vibration exists that is exceeding the specifications. In addition, be sure to install on upright direction at the place where vibration exists.There is a risk of damage and/or falling of the product.

The trouble occurred due to mishandling against the warning and caution matters, and/or due to disassembling, modification, natural disaster etc. cannot be guaranteed. Further, avoid the usage under conditions other than the contents described in this manual.

Request

- Use it in the environment where strong radio waves and/or inductive noise do not exist. Otherwise, there is a risk of noise generation from the Speaker.
- Use it in the environment where corrosive gas does not exist. Otherwise, it will become a cause of failure.
- In order to avoid electrostatic breakdown, start to work after discharging static electricity which is charged on a human body. By touching an earthed metallic part with a bare hand, static electricity can be discharged.
- Perform fitting of each part at a recommended torque value.
- Pay attention not to lose the parts such as the terminal covers, front covers etc. which are to be detached at performing work.
- If this product is used for the safety-sensitive security purpose, be sure to perform daily check, and establish the system design that can cope with the occurrence of accidental trouble and failure.

~Caution on copyright~

If a work that was recorded or copied from music CDs or other media is used at public places, law enforcement for copyright infringement may be imposed. When using a work that was recorded or copied from music CDs or other media, be sure to obtain permission from the author. In addition, the copyright of audio/music data which are distributed or sold by PATLITE Corporation belongs to PATLITE.

It is strictly prohibited to copy/reprint the partial or whole contents of audio/music data of PATLITE Corporation or to transfer/sell them on computer networks etc. without the permission of the right holder.

2 Indication Method of Models

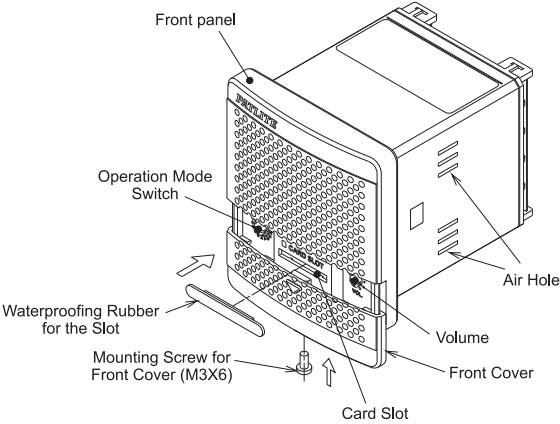
BDV - 15 K F - J

■ Rated voltage  
J : 12-24V DC  
K : 100V/220V AC

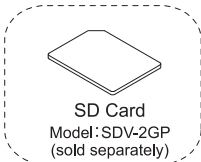
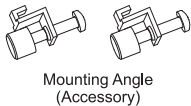
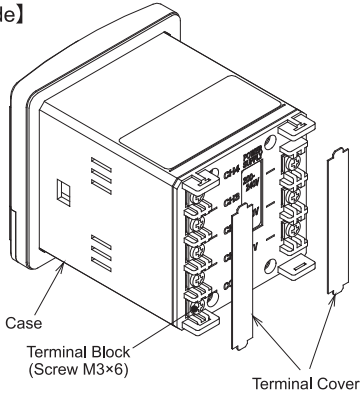
■ Body color  
J : Light gray  
K : Dark gray

3 Parts Names

【Front Side】



【Rear Side】



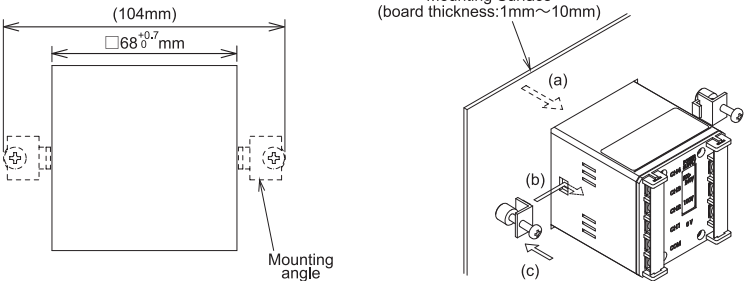
※PATLITE corporation is a member of the SD card Association.



4 How to install

Install the product according to the procedure below.

- ① Create mounting holes on a mounting surface (board thickness: 1mm - 10mm) where there is enough space for the mounting angle. (See the mounting dimensions diagram)
- ② (a) Insert the product from the front of the mounting surface.  
(b) Attach the mounting angle which comes with the product to the holes on the side of the product.  
(c) Then fasten the screws of the mounting angle. (Recommended tightening torque: 0.7±0.1N・m)
- ③ Confirm that the product and the mounting angles are installed properly.



Mounting Dimensions Diagram

※ The installation hole size conforms to IEC-61554(DIN-43700).

WARNING

- At the mounting of products, be sure to cut off power source. There is a risk of electrical shock.
- For the installation with execution of work, be sure to ask a professional company. Otherwise, there is a risk of electrical shock, fire and/or falling etc.

CAUTION

- Choose a location for the mounting surface where it has enough strength to support the weight of the product, and where there is less vibration. In addition, do not use as a vehicle. Failure to do so may be the cause of injury or damage to the product.
- Be sure to use both pieces of mounting angle, and fasten them with the recommended tightening torque. Failure to do so may be the cause of injury or damage to the product.

Request

- Secure a enough space in which the mounting angle can also be installed when choosing a mounting surface.
- Install the product on a flat surface without bumps and dips. Failure to do so may weak its resistance to water and dust.
- To prevent the product from falling in places where vibration may be generated, applthread locking adhesive or the like, and perform periodic checking of the tightness of the mounting angle.
- When mounting it at a high place, choose the place where a foothold exists for facilitating repair work.
- If it is used under the connected state to the power supply, then provide a switch which can easily cut off power supply in proximity to the product, for the safety purpose.
- Please install it not to close the air hole.

Other Precautions

- The clamp face might resonate by the material, the thickness of the clamp face, and the reproduction volume of the product, and the vibration sound be generated.Measures can be done by reinforcing the clamp face.

5 How to perform wiring

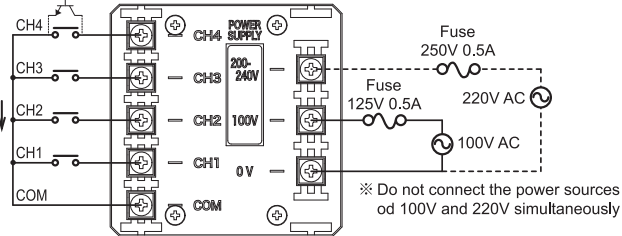
Before wiring the product remove the terminal cover. And after the completion of the wiring attach the terminal cover.

- For the external contact of signal line, use no-Voltage contact circuit such as relay switch or open collector circuit (NPN type). As for the contact capacity,see the table below.
- The terminal screws should be fastened with the recommended tightening torque (0.3N・m).

Wiring examples

- BDV-15KF

Wiring when NPN transistor is used



Do not supply a voltage for the signal line.  
Failure to do so may be damaged to the product.

- BDV-15JF

Wiring when NPN transistor is used

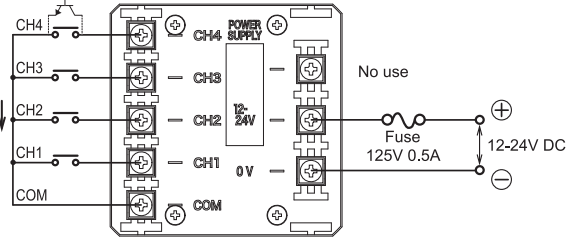


Chart1. Specifications of Signal line

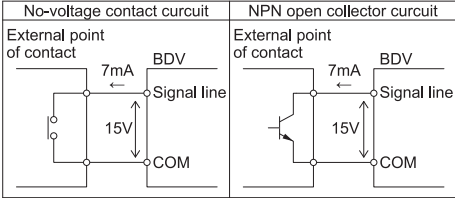


Chart2. Contact Capacity

Current Capacity	10mA or more
Withstand Voltage	20V DC or more
Leakage Current	0.1mA or less
ON Voltage(Vsat)	1V or less

Chart3. Inrush current・Fuse

Model	Inrush Current	Fuse
BDV-JF	Max.6.5A / 20ms	125V 1A
BDV-KF	Max.1.5A /12ms	125V 0.5A

WARNING

- At the wiring of products, be sure to cut off power source. There is a risk of electrical shock.
- Pay attention not to mistake wiring work. If wiring is mistaken,the internal circuit may burn out and it will become a cause of fire.

CAUTION

- Be sure to connect the external fuse for protection of the power supply circuit and internal circuit of the product.
- The terminal screws should be fastened with the recommended tightening torque (0.3N・m). Otherwise, there is a risk of damage by short-curcuit, after wiring comes off.

Request

- Before switching on the power supply, confirm that the wiring is correctly performed.
- For countermeasure of noise, it is recommended to perform wiring as short as possible, and to use shielded wires. In addition, if a signal line is passing along high voltage cables or its wiring is located at the place likely to receive induction noise, there is a risk of malfunction by the effect of noise.
- If a no-voltage contact such as a relay or a switch etc. is used for power supply line, select the contact for which rush current is considered. If capacity is insufficie nt, it will become a cause of welding (deposition) of the contact and/or malfunction.
- The use of M3 ring terminals with insulating coating is recommended for the wiring of terminal block to prevent disconnection of wires. Recommended product: N1.25-3 (Product conforming to RoHS)

Other Precautions

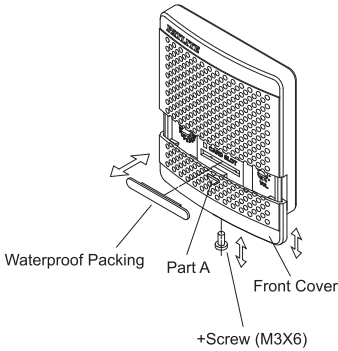
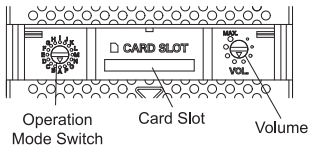
- If power supply or signal lines are switched on simultaneously at the use of plural units, a shift of playing the voice period will occur.
- BDV-15JF comes to receive the influence of the noise easily if you connect the 0V terminal to the terminal COM.

6 How to setting the product

6-1. Opening and closing the front cover

Open or close the front cover according to the procedure shown below when performing tasks such as adjusting the volume of the voice or selecting the mode switch.

- ① Remove the mounting screw (M3×6) for the front cover.
- ② Push the lower front cover section (Part A in the figure on the right) lightly with finger to slide it downward.
- ③ When a SD card is to be used,remove the waterproof packing for the slot.
- ④ After completing tasks, attach the parts removed in the procedure from ① to ③ in the opposite order. (Recommended tightening torque: 0.3N・m)



Other Precautions

- Attach the waterproof packing for the slot securely. Failure to do so may weaken the product's resistance to water and dust.
- Fasten +screw for front cover with the recommended tightening torque.
- Please do not lose detached parts.

6-2. Selecting play mode

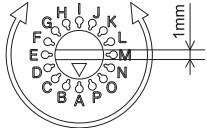
By operating mode switch, one of the play modes shown below can be selected.

[factory default setting]

The message is registered to No.4 or earlier : A

The message is registered to No.5 or later : B

Use a flat-blade screwdriver with the blade thickness of 1.0mm or thinner for turning the switch.



□ how to select the play mode

- ① Change the operation mode switch to the play mode you want to use.  
When you select the mode I,J,K,L,M,N,O and P,The play mode is test mode.
- ② Reactivate the product. (It is also possible to reboot from the front side of the product with the SD card.When the SD card is inserted,the information sound is playing. Afterwards, when the information sound is playing again, the mode has been changed.)
- ③ Confirm the message of each CH is playing, and the play mode was changed.

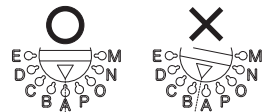
Play mode (Setting with operation mode switch)

A	Bit input mode	CH input : CH1 - CH4 Playback Messages: 4
B	Binary input mode	CH input : CH1 - CH4 Playback Messages: 15
C	Bit Input - Sound Reduction Mode	CH input : CH1 - CH3 Playback Messages: 3 CH4 : Input reduces the volume by 10dB.
D	Binary Input -Sound Reduction Mode	CH input : CH1 - CH3 Playback Messages: 7 CH4 : Input reduces the volume by 10dB.
E	Bit Input - Priority Input Mode	CH Input: CH1 to CH4 Playback Messages: 4 When one of the signal wires between CH1 to CH4 are entered for a bit input and an input message is entered during message playback, the message will interrupt the message being played. Even if the input is held down,the message playback will be reproduced only once, and there is no priority input order.
F	Binary Input - Priority Input Mode	CH Input: CH1 to CH4 Playback Messages: 15 When one of the signal wires between CH1 to CH4 are entered for a binary input and an input message is entered during message playback, the message will interrupt the message being played. Even if the input is held down,the message playback will be reproduced only once, and there is no priority input order.
G	Bit Input - Hold Playback Mode	CH Input: CH1 to CH4 Playback Messages: 4 When the signal wires from CH1 to CH4 for a bit input are held when short-circuited to the common wire, the message will repeat until the signal wire is removed from common. Once the input is lost, the playback will stop.
H	Binary Input - Hold Playback Mode	CH Input: CH1 to CH4 Playback Messages: 15 When the signal wires from CH1 to CH4 for a binary input are held when short-circuited to the common wire, the message will repeat until the signal wire is removed from common. Once the input is lost, the playback will stop.
I~P	Test mode	The Message No.1 plays.

\* Refer to "6-5. Message Playback". About the operation of each mode.

Request

- Make sure that there is no misalignment with the operation mode switch when selecting.  
If there is misalignment as shown in the figure on the right, the play mode selected may not play.



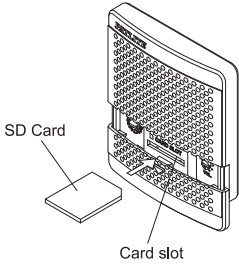
6-3. Rewriting the Message

By using an SD card (Model: SDV-2GP Sold separately), and a pallite playlist editor,the message can be rewritten.

The maximum length of time for this product is a total of 63 seconds (in case of 64kbit/s, Fs=44.1kHz / internal memory size 508KB). For the method of creating data and storing it on an SD card, see the instruction manual for the sound writing tool.

Message rewriting procedure

- ① Turn on the power of the product, Confirm neither COM nor CH are short-circuited.  
※ The message rewriting cannot be done while the voice is playing or the test is playing.
- ② After opening the front cover and Inserting the SD card which be rewritten the playlist and message data, Playing the information sound "PIPO" and Rewriting is begun.
- ③ When the rewriting is completed and information sound "PI", Remove the SD card.  
\* Rewriting should be completed within 60 seconds. When playing the information sound other than the above,or when no response, the rewriting is not successfully completed.  
See Section "Before Requesting Repair". Moreover, when the volume has been minimized, the information sound is not heard.



Request

- For the SD card, use type SDV-2GP sold separately. Operation is not guaranteed if an SD card of any other type is used.
- When formatting the SD card, do it in either of FAT16.
- Depending on formatting conditions, there is a possibility that the data stored in the SD card cannot be read if the format is not supported by this product.To avoid formatting issues, please make sure that your OS is compatible with FAT16 formatting, or that you use the formatting tool that is provided by the SD Association (link below).  
<https://www.sdcard.org/downloads/formatter/index.html>  
(Note: formatting tool requires administrative rights)
- When inserting the SD card into the card slot, pay attention to the orientation of the SD card. And do not forcibly insert the SD card into the card slot. Doing so may cause damage to the product and the SD card.
- Please note that the foreign body doesn't enter the card slot.

6-4. Volume Adjustment

The sound level can be adjusted by the volume control.

Use a flat-head screwdriver with a blade width of 1.0mm or thinner for turing the volume control.



PLEASE

- Turn the volume control lightly, a torque over 0.3N・m can damage the volume control.

NOTE

- As the sound increases, the possibility of distortion may also occur.
- Due to environmental conditions and tolerances. the volume may not be at zero sound level.
- The volume is turned half-way at the factory prior to shipment.

● The images in this manual may vary in comparison to the actual product and are only for the purpose of illustration.  
● Specifications may change without notice due to continual product improvement.