SPECIFICATIONS

Model: LKEH-□12FV+FV011

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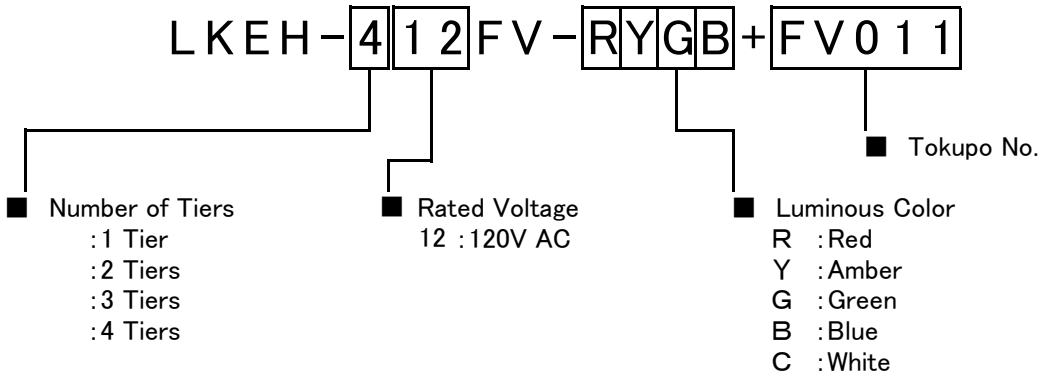
Drawing Release
'24.07.30
出図
PATLITE

PATLITE Corporation

Contents

1.Model Number Configuration



2.General Specifications

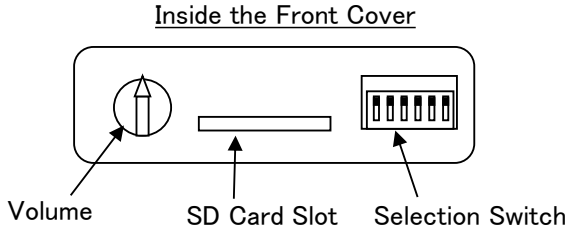
Model	LKEH-□12FV
Rated Voltage	120V AC 50/60Hz
Operating Voltage Range	120V AC±10%
Power Consumption	LKEH-112FV MAX.17.0W
	LKEH-212FV MAX.20.0W
	LKEH-312FV MAX.23.0W
	LKEH-412FV MAX.26.0W
Operating Ambient Temperature	-10℃ to 50℃
Operating Ambient Humidity	Less than 85%RH (No Condensation)
Mounting Location	Indoors and outdoors
Mounting Direction	Upright only
Protection Rating	IP 53
Environmental Condition	Upright direction only
Insulation Resistance	More than 1MΩ at 500VDC between the terminals and the chassis
Withstand Voltage	1000V AC for 1 minute Between terminal and chassis
Vibration Resistance	19.6m/s^2(30Hz, Back and force 2h･Right and Left 2h･Up and down 4h)
Mass (Tolerance ±10%)	LKEH-112FV 2.1kg
	LKEH-212FV 2.3kg
	LKEH-312FV 2.5kg
	LKEH-412FV 2.7kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

3.Performance Specifications

Sound Pressure Level		MAX. 105dB (Adjustable Volume)
	Environmental Condition	Product was placed on a 300mm^2 base at a distance of 1 meter from its epicenter and a sine wave of 1kHz was played back ＊The sound level will vary upon the message and surrounding environment.
Sound Reduction		20dB±2dB (At maximum volume and playback of a 1kHz sine wave)
Light Unit Source		LED
Luminous Intensity		Red(R):2100mcd or more Amber(Y):2400mcd or more Green(G):5200mcd or more Blue(B):700mcd or more White(C):5500mcd or more
Flashing Rate		60 fps ±3
Output wires		BUSY＋、BUSY－(ON during voice playback)
Input Interface		Signal Wires: 14 (LED: 5 Wires/Sound: 5 Wires/STOP/Sound Reduction/Flashing Common/Common) Selection Switch, SD Card Slot
Signal Input		Bit Input/Binary Input (Selectable)
Input Pulse Width		Pulse input width 100ms or more
Number of Playback Messages		Bit Input: 5 Channels / Binary Input: 31Channels
Channel Priority		STOP>CH5>CH4>CH3>CH2>CH1(Only bit input)
Internal Memory Size		504kbyte (Total MP3 Data)/Maximum playback time of 63 sec. (At standard bit rate)
Audio File		MPEG1 Audio Layer III (MP3)
Memory Card		SD card Recommendation:SDV-2GP(Sold separately)
SD Card Format		FAT16
Start-up Time		Power Start-up:500ms or less / Signal Wire Input Delay: 300ms or less (Refer to sect. 3-3)

3-1. Setup Method

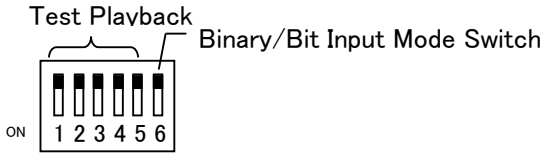
The settings for this product can be accessed from the front panel while in its installed condition.
The following diagram indicates the accessable functions:



・Sound Volume Adjustment
It is possible to adjust the sound by the volume control.

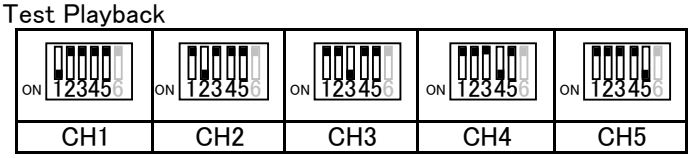
・Message Rewriting
It is possible to use the SD Card to rewrite messages.

・Selection Switch
It is possible to switch between the 'Test' and 'Input' modes.



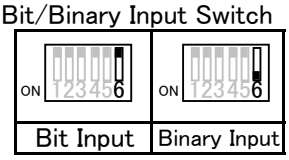
3-2. Selection Switch Setting

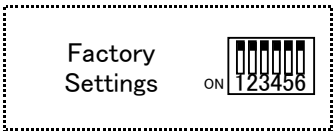
Test Playback



Playback Priority for Test Playback Mode:
The following indicates when any of the channels are activated simultaneously:
CH5>CH4>CH3>CH2>CH1

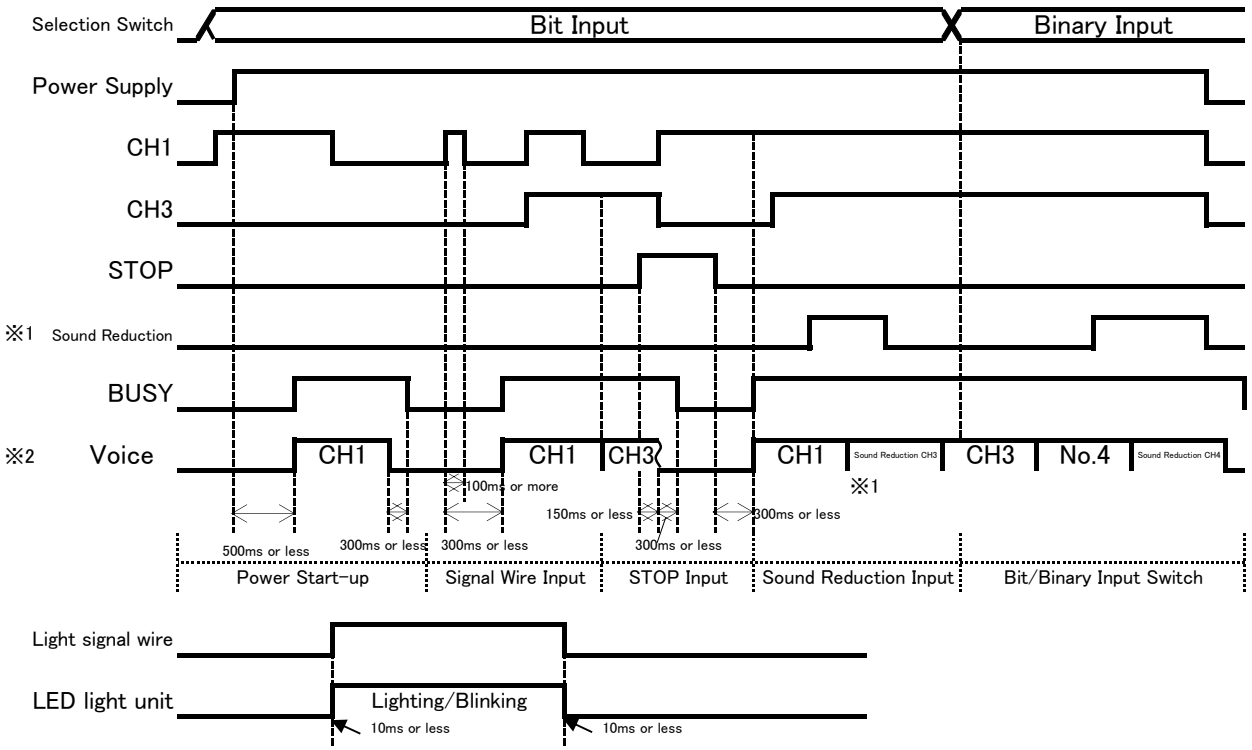
Bit/Binary Input Switch





When up to 5 messages are stored:
Bit input mode
When 6 or more messages are stored:
Binary input mode

3-3. Input Timing Chart



※1 The playback sound level is reduced while the sound reduction function is activated.
If the sound reduction function is activated during sound playback, the sound level is not reduced until the next playback.
(Refer to 3-4. Sound reduction function)

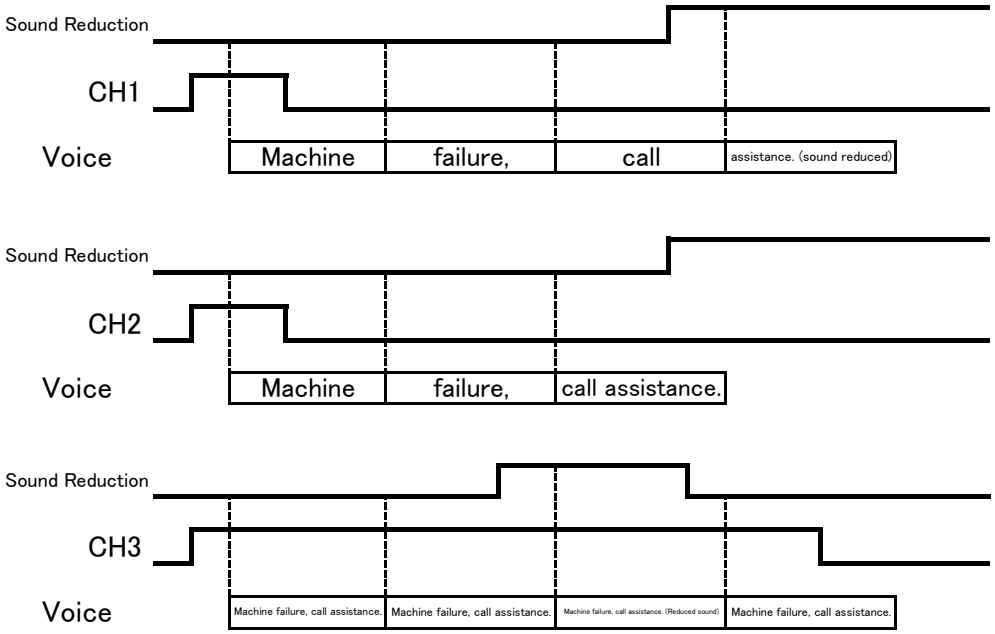
※2 Once the playback signal is active, no other signal input is accepted until the playback is finished.

3-4. Sound Reduction Function

When the common wire and the sound reduction signal wire are short-circuited, a sound pressure level at voice playing is lowered.
The messege can be configured by maximum 16 phrases per 1 channel.
The sound level can be reduced by each phrase with the sound reduction function.

[Example]

	Phrase 1	Phrase 2	Phrase 3	Phrase 4
CH1	Machine	failure,	call	assistance.
CH2	Machine	failure,	call assistance.	
CH3	Machine failure, call assistance.			



3-5. Binary Input Mode Table

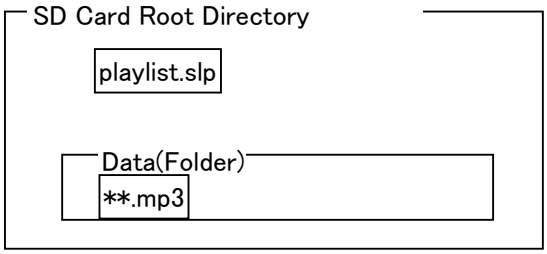
When setting selection switch 6 to the "ON" position, the binary input mode is activated.
In the binary input mode, short-circuiting the common wire to each CH from the table indicated below, the corresponding message is played.

Input CH					Message number	Input CH					Message number
CH1	CH2	CH3	CH4	CH5		CH1	CH2	CH3	CH4	CH5	
○					1	○				○	17
	○				2		○			○	18
○	○				3	○	○			○	19
		○			4			○		○	20
○		○			5	○		○		○	21
	○	○			6		○	○		○	22
○	○	○			7	○	○	○		○	23
			○		8				○	○	24
○			○		9	○			○	○	25
	○		○		10		○		○	○	26
○	○		○		11	○	○		○	○	27
		○	○		12			○	○	○	28
○		○	○		13	○		○	○	○	29
	○	○	○		14		○	○	○	○	30
○	○	○	○		15	○	○	○	○	○	31
				○	16						

○ Indicates a short-circuit between the signal wire and common wire.

3-6. Message Rewriting

1. Prepare the SD card as shown below:



※The 'playlist.slp' file is generated from the PATLITE playlist editor software.

2. Verify the power to the product is applied.

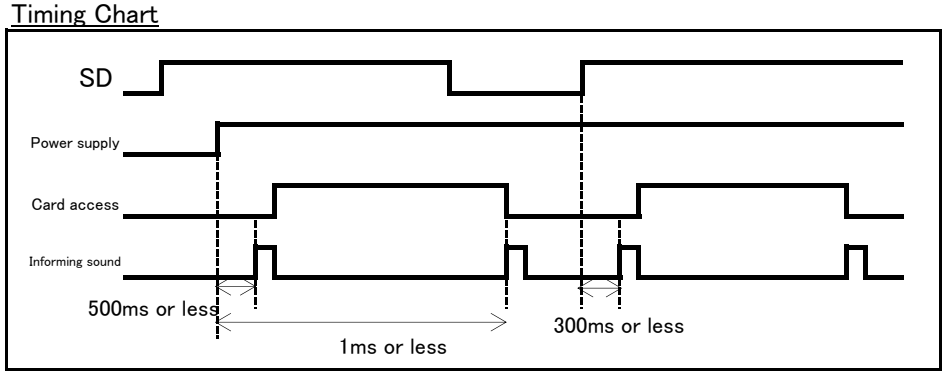
3. Insert the SD card with the stored data into the card slot.

4. The rewriting starts when a short beep is heard.

5. When the data has finished rewriting, and a long beep is heard, pull the SD card out.
   Rewriting should be finished within 60 seconds. If there is a continuous beep, or there is no sound, the rewriting procedure was not properly completed.
   Ensure the volume is at an audible level, or the beeping alarms will not be heard during the rewriting procedure.

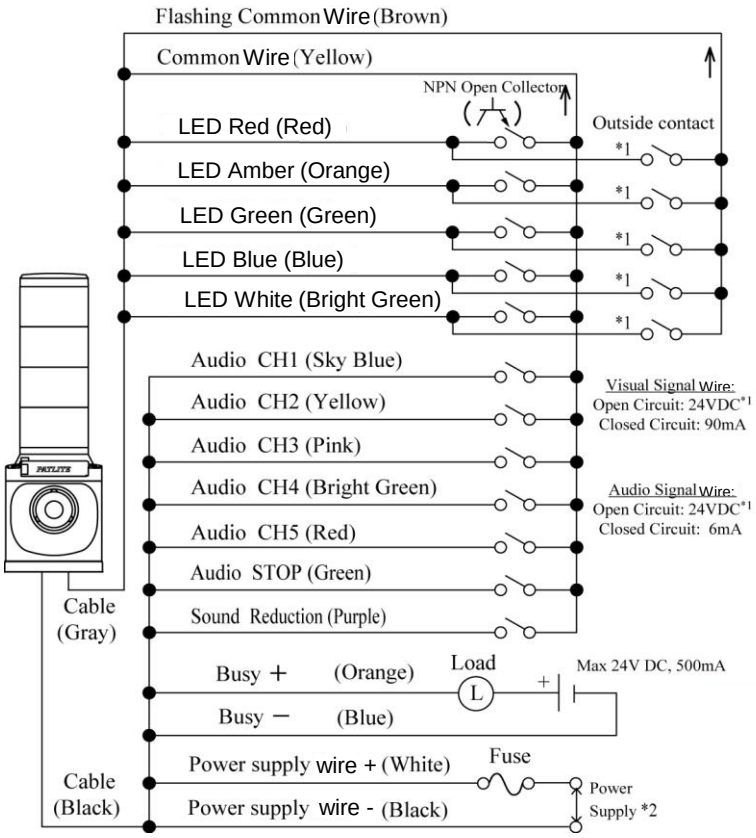
6. Play the message to each CH to verify that the rewriting has been properly completed.

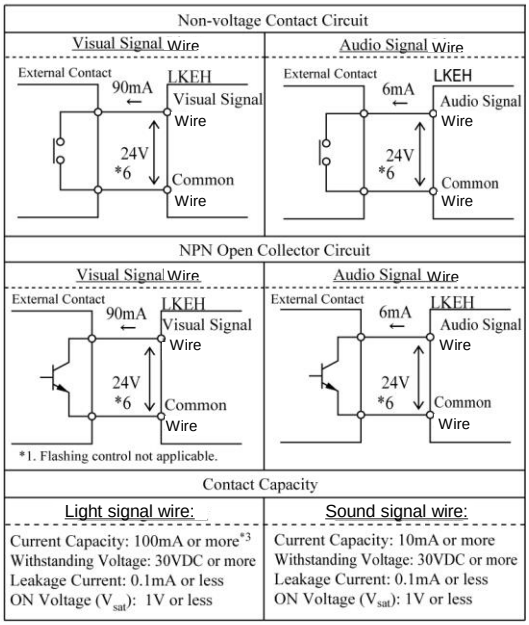
Timing Chart



* All inputs are ignored during the SD card rewriting procedure.
* In addition, the SD Card will not be read while signal inputs are activated.

3-7. Wiring Method





Model	Rated voltage	Inrush current *2	Fuse capacity *4
LKEH-□12FV	120V AC	12A	0.5A(time lag)

*** Do not apply voltage on each signal wire. Or else, there is a risk of breaking down the product.**

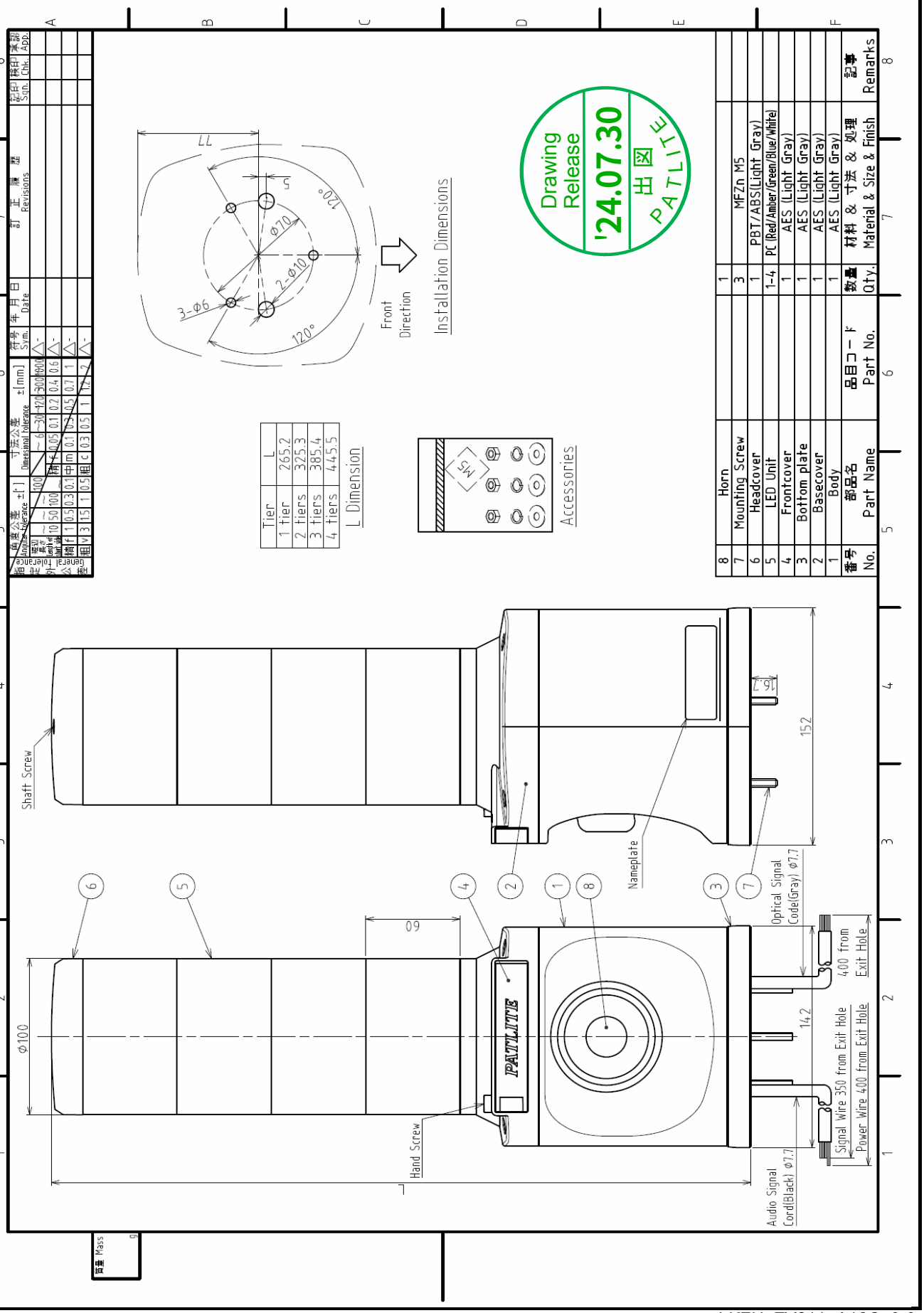
*1. Blinking control is applicable only for the no-voltage contact circuit.

*2. Current capacity of the contact per one stack of the LED units.
When using a plurality of LED units with a same color, confirm the contents of following Request.

*3. At the maximum using voltage, and when power supply is switched on.

*4. For LKEH-□12FV, use a fuse of the time-lag type.
If the normal type is used, there is a risk of melting down by Inrush current.

4. Dimensions



No.	Part Name	Part No.	Qty.	Material & Size & Finish	Remarks
8	Horn		1		
7	Mounting Screw		3	MFZn M5	
6	Headcover		1	PBT/ABS(Light Gray)	
5	LED Unit		1-4	PC (Red/Amber/Green/Blue/White)	
4	Frontcover		1	AES (Light Gray)	
3	Bottom plate		1	AES (Light Gray)	
2	Basecover		1	AES (Light Gray)	
1	Body		1	AES (Light Gray)	