

# AL120

## Audible Visual Alarm



### Applications

Suitable for engineering machinery (mobile cranes, crawler cranes, RTG), port machinery (overhead cranes, gantry cranes) and material conveyor equipment (belt conveyor)

### Features

- Superior sealing for excellent waterproof and dustproof performance
- Super bright RGB, and a long lifetime of more than 100,000h
- PC cover provides excellent impact resistance and heat stability and glossiness
- Special integrated chip design to ensure strong EMC anti-interference ability
- Industrial microchip design, multi-tones in one fixture for wide applications

### Specifications

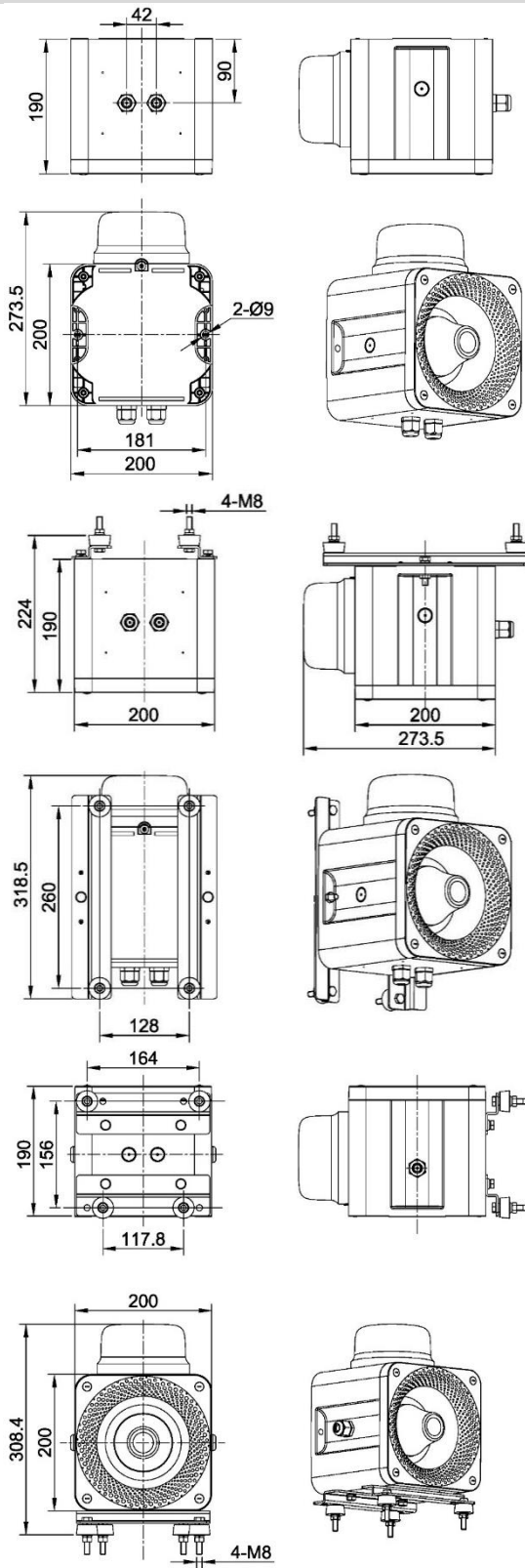
Electrical		Mechanical	
Operating Voltage	18-40VDC/100-240VAC	Housing material	PC/ABS/Red●
Frequency	50Hz/60Hz	Cover material	PC
Power	<45W	Cover color	Transparent
Tone	Built-in 32 Tones	IP rate	IEC60529 IP65
Single/Dual voice	Micro USB	Operating temperature	Ta-30°C ~ +55°C
Alarm mode	Audible visible synchronized/ Audible visible separated	Operating humidity	10% ~ 95%RH
Sound level	120dB(max)	Mounting	Wall mount / Wall mount(with bracket) / Floor mount
Light source	LED	Wiring	M20 cable gland(Φ6-12.5)
Color	RGB	Weight	3kg
Lifetime	100,000h		

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### Mounting dimensions (unit: mm)



Wall mount

Wall mount(with bracket)

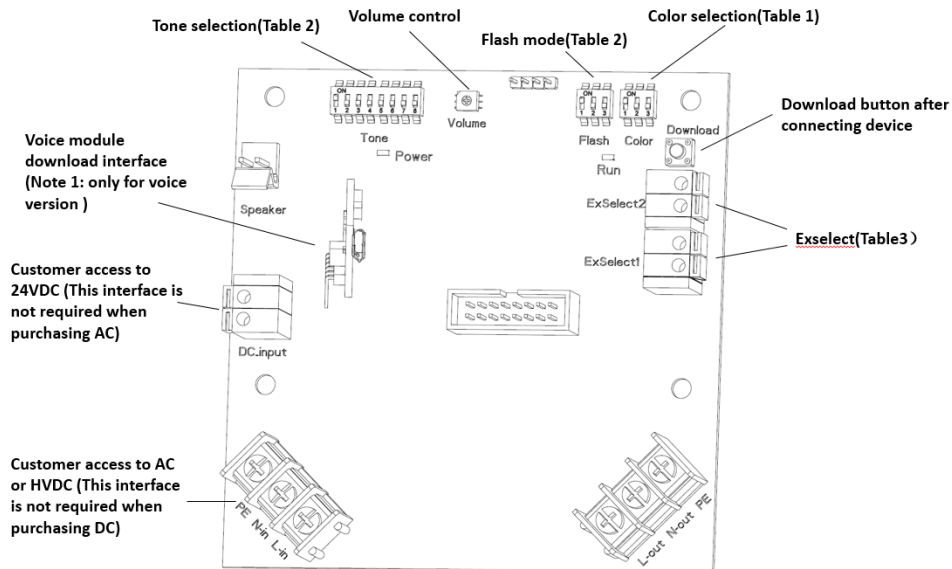
Floor mount

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### Wiring diagram



Note: HVDC220-350V input is acceptable, but polarity switching is required according to the diagram

Luminous color—Table 1

DIP figure	Display
	Off
	Green
	Blue
	Cyan
	Red(default)
	Yellow
	Scarlet
	White



Flash mode—Table 2

DIP figure	Flash Status
	Steady burning
	Continuous flash
	Interval flash
	Rotating(default mode)

Note: Flash setting DIP switch 3 is used for stage 2

Tone/Voice DIP figure —Table 3

	ExSelect1 (NC) ExSelect2 (NC)	ExSelect1 (C) (note 4) ExSelect2 (NC)	ExSelect1 (NC) ExSelect2 (C)	ExSelect1 (C) ExSelect2 (C)
	Tone/Voice 1	Tone/Voice 2	Tone/Voice 3	Mute
	Tone/Voice 2	Tone/Voice 3	Tone/Voice 4	Mute
	Tone/Voice 3	Tone/Voice 4	Tone/Voice 5	Mute
	Tone/Voice 4	Tone/Voice 5	Tone/Voice 6	Mute
	Tone/Voice 5	Tone/Voice 6	Tone/Voice 7	Mute
	Tone/Voice 6	Tone/Voice 7	Tone/Voice 8	Mute
<b>32 tones/4 default voices(Dial 6 is for voice/tone selection)</b>	Analogy	Analogy	Analogy	Mute

Note 1: voice download is used by customers who need to modify voice temporarily. Use micro-USB data cable to connect the interface to the computer, and the computer recognizes a "removable disk" (at this time, the original audio files can be copied out). After formatting the removable disk, copy the sound file, "USER\_DIR" (MP3 format file) one by one in the order of voice 1, voice 2 and voice 3 required by the customer, and finally pop it up safely on the PC.

Note 4: (C) is shorting the interface jumper, (NC) is "disconnect".



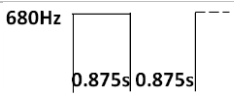
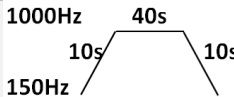
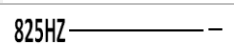
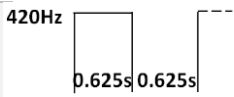
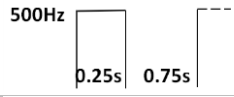
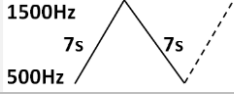
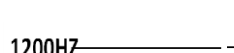
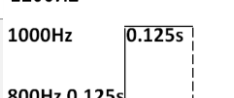
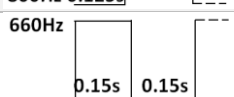

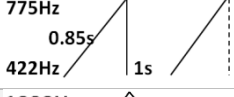
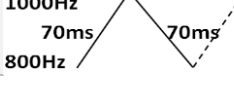
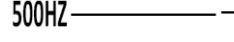
Tone selection table —Table 3 (Annex 1)

Tone 1	Tone A: Alternate tone British BS58391-1 (fire alarm tone)	
Tone 2	Tone B: Fire alarm tone	
Tone 3	Tone E: Fire alarm tone	
Tone 4	Tone D: Intermittent tone PFEER (general alarm) British BS5839-1 (alternate alarm)	
Tone 5	Tone Y: Continuous tone	
Tone 6	Electric flute: Continuous tone	
Tone 7	Engineering sound: Intermittent tone	
Tone 8	7 short and 1 long: Intermittent tone	
Tone 9	Doorbell: Alternate tone	
Tone 10	Ship fire alarm: Fire alarm tone	
Tone 11	Telephone bell: Alternate tone	
Tone 12	European alarm: Fire alarm tone	
Tone 13	Serrated DIN Tone: 33404-3 Germany (emergency signal) PFEER PTAP/EN54-3	
Tone 14	Slow sound: Fire alarm sound UK BS5839-1	
Tone 15	Fire alarm tone: (medium) UK BS5839-1	
Tone 16	Sound L: Fire alarm tone	
Tone 17	Slow sound: Netherlands NEN 2575 (Evacuation Alarm Sound) / EN54-3	
Tone 18	Alternate tone: France NFS 32-001 (fire alarm)	
Tone 19	Alternate tone: British BS5839-1 (fire alarm, railway fork)	

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Tone 20	Intermittent tone: German industrial alarm tone	
Tone 21	Whistle: German industrial alarm tone	
Tone 22	Continuous tone: EN54-3	
Tone 23	Intermittent tone: Australia AS2220, AS1610, AS1670	
Tone 24	Intermittent tone: Germany KTA3901 (Evacuation Alarm Sound)	
Tone 25	Fire alarm tone: Finland (general alarm tone)	
Tone 26	Continuous tone: PFEER gas alarm	
Tone 27	Alternate tone: British BS5839-1 (fire alarm, increased urgency - railway intersection)	
Tone 28	Intermittent tone: Sweden SS031711 (emergency signal)	
Tone 29	Intermittent tone: Sweden SS031711 (air attack warning)	
Tone 30	Slow sound: NFPA US fire evacuation alarm tone	
Tone 31	Fire alarm tone: (fast) UK BS5839-1	
Tone 32	Continuous tone: Germany KTS3901 (danger release signal)	

**Voice selection table 3 ( Annex 2)**

Voice 1	Caution please, watch for moving massive vehicles(available customized voice)
Voice 2	Caution please, someone is entering(available customized voice)
Voice 3	This is a restricted area, please(available customized voice)
Voice 4	Caution please, crane in operation(available customized voice)
.....	Available customized voice

**Note 2: Volume adjustment method**

To increase the volume, use a flathead screwdriver and rotate the knob in a clockwise direction. (the default volume plays at max sound)

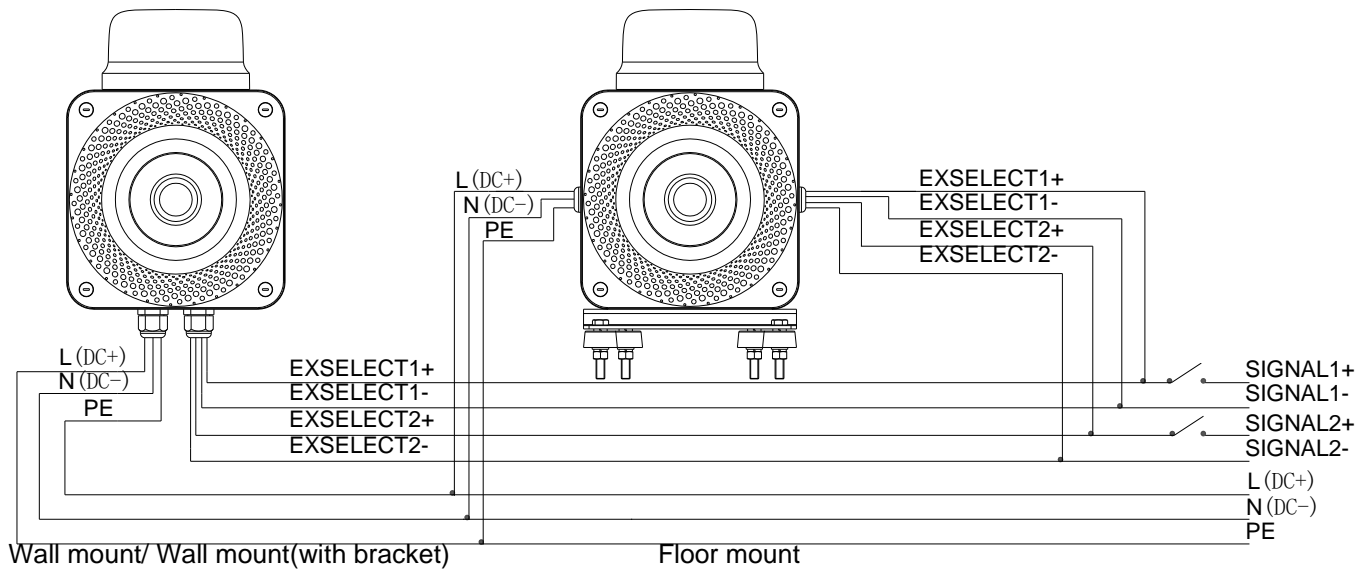
Note 3: Voice content is in Chinese

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### Wiring diagram :

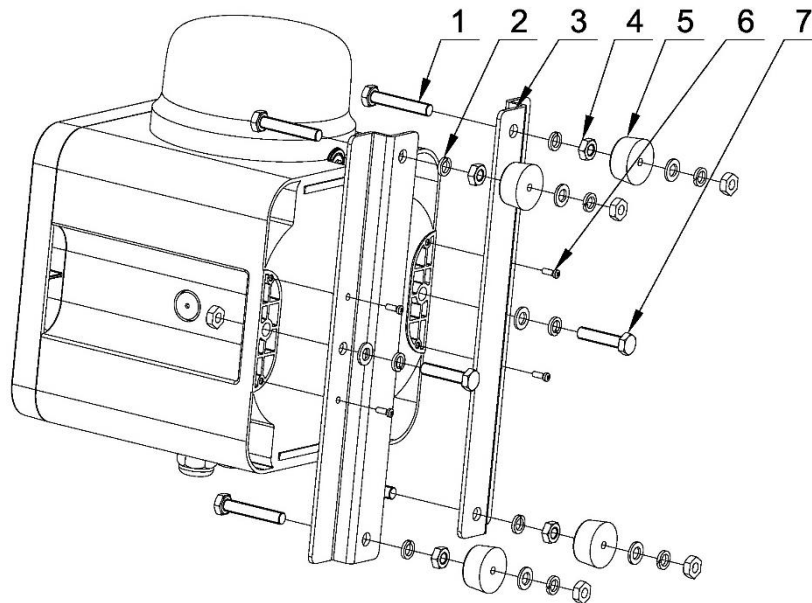


### Installation and operation

- Position the alarm horn horizontally and secure it on a sturdy and smooth mounting surface
- Wall mount: Use 4 M8 bolts, washers, spring washers and nuts to fix the mounting surface.
- Wall mount(with bracket): Take out the two brackets in the box, fix the bracket to the alarm as shown below, and then fix the alarm to the mounting surface.
- Floor mount: Remove the 4 nuts, spring washers and flat washers at the red rubber feet, fix the alarm to the mounting surface, and fix the alarm with the removed fasteners.
- Unscrew the 4 screws that secure the top cover and remove the top cover to expose the terminal block.
- Connect the power control cable from the M20 stuffing box and connect the power control cable correctly according to the wiring diagram.
- Check that the power supply and the alarm's rated voltage match, and check that the power cord is connected properly before power on.
- Adjust the DIP switch to select different tones/voices. For the tone selection, refer to "Tone/Voice Selection Table".
- Insert the 4 silicone plugs into the screw slots on the top cover.

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Wall mount(with bracket)

1.Bolt M8X45 2. Spring padΦ8 3. Bracket 4. Nut M8 5. Red rubber feet 6. Screw ST4.2X9.5 7. Bolt M8X35

### Notice:

1. The product adopts PC material parts and cannot be directly or indirectly contacted with organic solvents such as industrial alcohol, banana water, isopropanol, carbon tetrachloride or cyclohexanone, otherwise it will be cracked by corrosion.
2. Do not install the bell mouth up to avoid water accumulation.
3. Please be careful not to touch the power terminal to avoid electric shock for any adjustments.
4. Please read the instructions carefully, and if you have any questions, please contact us.

Thanks for choosing our products, NANHUA Electronics is the professional brand of signal transmission and high quality industrial lighting which is trusted and loved by global users from various industries. Read and understand these instructions completely and carefully. Wrong installation and operation may lead to fires, electric shock, and others. Due to our continued efforts to improve our products, product specifications are subject to change without notice. ©NANHUA Electronics Co., Ltd. All rights reserved. [www.nanhua.com](http://www.nanhua.com)