PA X
Flashing Sounders

Captive fasteners
Installation and assembly is simplified and screws cannot get lost.

Shape-moulded gasket
Stays in-place and cannot get lost.

Flash tube
Xenon strobe generates highly visible light without sensitive filaments and is inherently resistant to shock and vibration.

Selectable audible notification
Choice of 80 unique alarm tones with four stages of tone control for distinctive signalling of specific events.

Plug and socket connections
Upper and lower sections combine positively to simplify installation. When separated, electrical hazards are eliminated for handling.

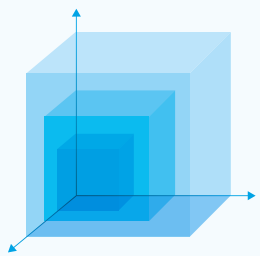
PA X 1-05

PA X 5-05

PA X 10-10

PA X 20-15

3D-Coverage performance data, A x B x C



Coverage area with DIN tone and required sound levels of 80, 85 and 90 dB(A) and also to be used for the applications „Indicate“, „Warn“ and „Alarm“ (EN 54-23) with clear lens. To determine the exact signaling area for your needs, please use the online available Pfannenberg Sizing Software PSS.

	PA X 1-05
AUDIBLE 80 dB(A)	16 x 13.8 x 16 m
AUDIBLE 85 dB(A)	9 x 7.8 x 9 m
AUDIBLE 90 dB(A)	5.1 x 4.4 x 5.1 m
VISUAL Indicate	18.5 x 31.5 x 49.5 m
VISUAL Warn	8.2 x 14 x 22 m
VISUAL Alarm	4.1 x 7 x 11 m

Electromagnetic sound capsule technology
Acoustic signal includes a share of low frequency side bands for excellent sound penetration of walls and doors for highly effective alarming.

Intelligent installation
Electrical wiring is conducted in the base box to avoid clumsy 3-hand assembly. Wires are safely routed where the potential for pinching and errors are eliminated.

High quality components
Longevity is assured with 70 % light emission even after 8 million flashes.

Flexible mounting options
Integrated hole template adapts to many common electrical workboxes worldwide. Installs upright on enclosures, downward from ceiling, or vertically on walls.

Further significant advantages
can be seen on a video on our website, please type the webcode #3553 into the search field.

		PA X 5-05	PA X 10-10	PA X 20-15
AUDIBLE	80 dB(A)	14.1 x 18.1 x 14.1 m	52.8 x 73.3 x 52.8 m	85.6 x 97.7 x 85.6 m
AUDIBLE	85 dB(A)	7.9 x 10.2 x 7.9 m	29.7 x 41.2 x 29.7 m	48.1 x 55 x 48.1 m
AUDIBLE	90 dB(A)	4.4 x 5.7 x 4.4 m	16.7 x 23.2 x 16.7 m	27.1 x 30.9 x 27.1 m
VISUAL	Indicate	44.1 x 37.4 x 67.5 m	68 x 61.7 x 119.7 m	84.6 x 74.7 x 144.5 m
VISUAL	Warn	19.6 x 16.6 x 30 m	30.2 x 27.4 x 53.2 m	37.6 x 33.2 x 64.2 m
VISUAL	Alarm	9.8 x 8.3 x 15 m	15.1 x 13.7 x 26.6 m	18.8 x 16.6 x 32.1 m

FLASHING SOUNDERS

IP 66 protection system

IK08 impact-proof housing

+55 °C / –40 °C operating temperature

acoustic penetration

external tone selection

EN 54-3 PA X 1-05 24 V DC

EN 54-23 PA X 1-05 24 V DC

VdS PA X 1-05 24 V DC

UL

10 Years warranty

PA X 1-05

PA X 5-05

PRODUCT	PA X 1-05 – housing red		PA X 1-05 – housing grey	
ARTICLE NO.	23311103000	23311803000	23311103055	23311803055
ARTICLE NO.	23311104000	23311804000	23311104055	23311804055
ARTICLE NO.	23311105000	23311805000	23311105055	23311805055
DATA				
Operating range	187–255 V	18–30 V	187–255 V	18–30 V
Rated frequency	AC 50 I 60 Hz	DC	AC 50 I 60 Hz	DC
Nominal current consumption	65–70 mA @ 230 V	860–920 mA @ 24 V	65–70 mA @ 230 V	860–920 mA @ 24 V

PRODUCT	PA X 5-05 – housing red		PA X 5-05 – housing grey	
ARTICLE NO.	23351103000	23351803000	23351103055	23351803055
ARTICLE NO.	23351104000	23351804000	23351104055	23351804055
ARTICLE NO.	23351105000	23351805000	23351105055	23351805055
DATA				
Operating range	187–255 V	18–30 V	187–255 V	18–30 V
Rated frequency	AC 50 I 60 Hz	DC	AC 50 I 60 Hz	DC
Nominal current consumption	65–70 mA @ 230 V	860–920 mA @ 24 V	65–70 mA @ 230 V	860–920 mA @ 24 V

	PA X 1-05	PA X 5-05
Sound pressure level	100 dB(A)	105 dB(A)
Sound level reduction	max. –16 dB via potentiometer	
Alarm tones	80 / 4 tones are externally selectable, tone table on page 106	
Flash energy and flash rate	5 J @ 1 Hz = 60 flashes/min	
Max. viewing distance	164 m	173 m
Operating temperature	–40 … +55 °C	
Protection system according to EN 60529	IP 66	
Impact resistance as per EN 50102	IK08	
Material – lens	polycarbonate (PC)	
Material – housing	polycarbonate (PC), RAL 3000 I polycarbonate (PC), RAL 7035	
Dimensions (X x Y x Z)	109.5 x 172.4 x 80.6 mm	163.4 x 215 x 132 mm

For additional models, options and voltages visit www.pfannenberg.com or contact us directly.

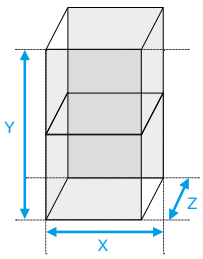
Option

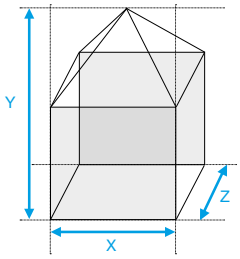
PA X 1-05

SSM, 24 V DC

Surface gasket

Tamper-proof sealing





Webcode #3558

Comprehensive technical documentation such as
- **operating instructions, technical data, approvals**
- **support for planning, 3D models, CAD data**

can be retrieved by entering this webcode in the search window on www.pfannenberg.com

FLASHING SOUNDERS

IP 66 — protection system

IK08 — impact-proof housing

+55 °C / –40 °C — operating temperature

acoustic penetration

external tone selection

UL

10 Years — warranty

PA X 10-10

PA X 20-15

PRODUCT	PA X 10-10 – housing red		PA X 10-10 – housing grey	
ARTICLE NO.	23361103000	23361803000	23361103055	23361803055
ARTICLE NO.	23361104000	23361804000	23361104055	23361804055
ARTICLE NO.	23361105000	23361805000	23361105055	23361805055
DATA				
Operating range	187–255 V	18–30 V	187–255 V	18–30 V
Rated frequency	AC 50 I 60 Hz	DC	AC 50 I 60 Hz	DC
Nominal current consumption	160–215 mA @ 230 V	315–365 mA @ 24 V	160–215 mA @ 230 V	315–365 mA @ 24 V

PRODUCT	PA X 20-15 – housing red		PA X 20-15 – housing grey	
ARTICLE NO.	23372103000	23372803000	23372103055	23372803055
ARTICLE NO.	23372104000	23372804000	23372104055	23372804055
ARTICLE NO.	23372105000	23372805000	23372105055	23372805055
DATA				
Operating range	187–255 V	18–30 V	187–255 V	18–30 V
Rated frequency	AC 50 I 60 Hz	DC	AC 50 I 60 Hz	DC
Nominal current consumption	165–385 mA @ 230 V	945–1540 mA @ 24 V	165–385 mA @ 230 V	945–1540 mA @ 24 V

	PA X 10-10	PA X 20-15
Sound pressure level	110 dB(A)	115 dB(A)
Sound level reduction	max. –12 dB via potentiometer	
Alarm tones	80 / 4 tones are externally selectable, tone table on page 106	
Flash energy and flash rate	10 J @ 1 Hz = 60 flashes/min	15 J @ 1 Hz = 60 flashes/min
Max. viewing distance	283 m	377 m
Operating temperature	–40 … +55 °C	
Protection system according to EN 60529	IP 66	
Impact resistance as per EN 50102	IK08	
Material – lens	polycarbonate (PC)	
Material – housing	polycarbonate (PC), RAL 3000 I polycarbonate (PC), RAL 7035	
Dimensions (X x Y x Z)	214 x 270 x 156 mm	214 x 270 x 181 mm

For additional models, options and voltages visit www.pfannenberg.com or contact us directly.

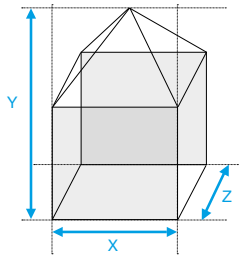
EAC

Option

SSM, 24 V DC

Surface gasket

Tamper-proof sealing

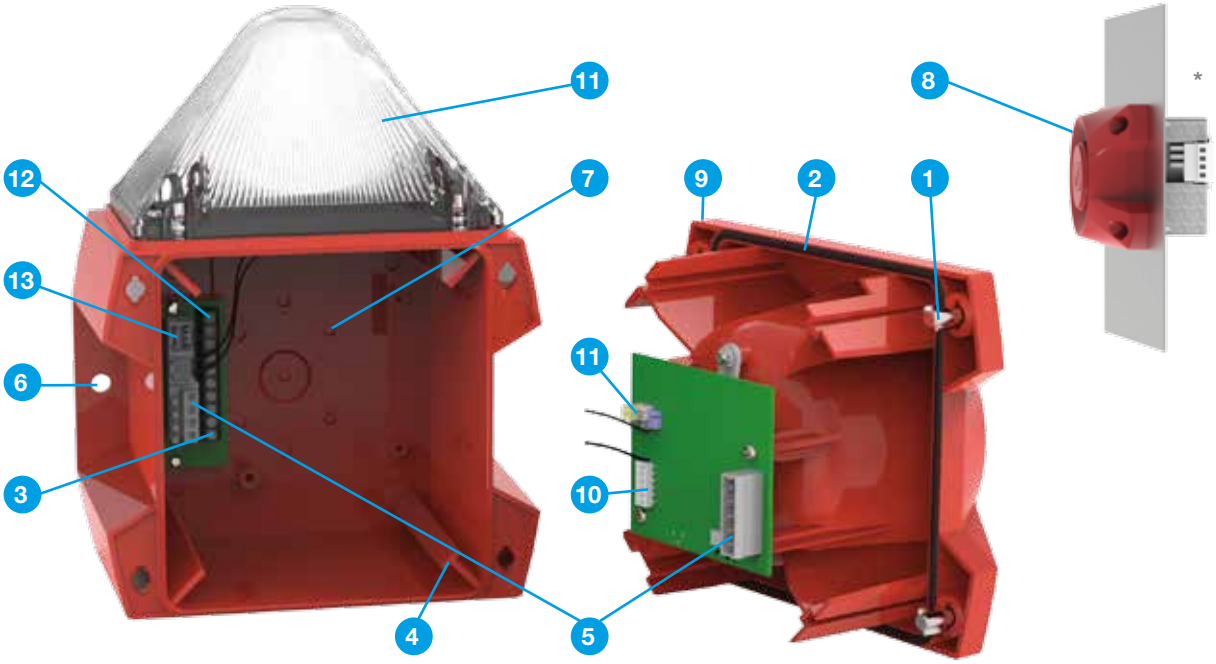


Webcode
#3135

Comprehensive technical documentation such as
- **operating instructions, technical data, approvals**
- **support for planning, 3D models, CAD data**

can be retrieved by entering this webcode in the search window on www.pfannenberg.com

PATROL & PYRA advantages.



* Installation kit necessary.

Unique enclosure fasteners.
- 3/8-turn fasteners 1 permit quick and easy assembly.
- Fasteners are captivated so they cannot be dropped or lost.
- Optional tamper-proof fastener plugs protect the unit from unauthorised alteration.
- Fastener appearance reveals whether “closed” (x) or “open” (+).

Enclosure sealing integrity.
- Gasket 2 is permanently adhered to the enclosure cover so the gasket will never get dropped or lost.
- Enclosure fasteners 1 are outside of the sealing area to ensure that the IP rating is not compromised by fastener holes.

Error-free electrical connections.
- Screw terminal strip 3 is located in the base-box portion of the enclosure allowing for easy, one person installation – a clumsy, third hand is not needed.
- Acoustic driver electrically connects to the base-box through an integrated mechanical keyway 4 and multi-pin electrical connector 5 to ensure a proper assembly every time.
- No loose wires are present between the base-box and acoustic driver which could be pinched upon final assembly.
- A redundant set of electrical screw terminal connections 3 supports daisy-chaining of multiple devices.
- Knockouts are provided on multiple sides to support a variety of wiring and interconnection scenarios.

Numerous mounting options.
- Integrated external flange 6 is stronger than mounting lugs.
- An assortment of internal pilot marks 7 offer worldwide compatibility with a variety of standard electrical workboxes.
- Entire device can be wall mounted or panel mounted optional with finger guard 8.
- Acoustic module 9 by itself can be flush mounted to an enclosure panel or door with optional panel mounting kit.

Vast selection of integrated tones.
- Choose from 80 different tones by DIP switch 10 setting.
- Multiple tone stages permit the same device to emit up to four different alarms based on circumstance.
- Internal volume control 11.

Improved acoustic driver.
- Sound capsule technology delivers more low frequency punch than piezoelectric elements for superior sound penetration through walls, doors, and other obstructions.

Extreme environment compatibility.
- NEMA type 4/4X and IP 66 rating survives exposure to dust, liquids, water spray, and corrosives.
- –40 to +55 °C temperature range.
- High strength housing is a blend of ABS and polycarbonate plastic that is flame retardant and UV stabilised.

Integral xenon flashing light.
- Xenon flashing light ⓫ is part of the original design inception, rather than a bolted on afterthought. As such, the light is more visible. Additionally, the light's intensity is properly sized to match the coverage area of the associated sounder. 5, 10, and 15 Joule flash energies are available.

Xenon flashing light connections made from single terminal strip.
- Pre-wired light connections are made at the terminal strip ⓬ that is also the electrical connection point for the sounder. Since all connections are made from one common connection point, installation is quicker and easier.

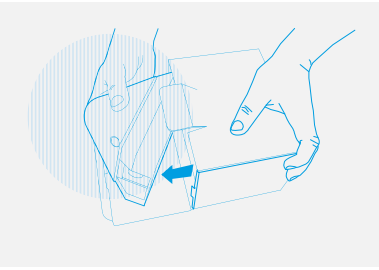
Choice of alarm action – combined or separate.
- The light can either be activated in conjunction with the sounder or separately from it ⓭. Separate operation is often desired to silence the sounder after a certain elapsed time while the light continues to flash.

Life span exceeds 8,000,000 flashes.
- The superior technology behind Pfannenberg's flashing lights permit an unrivalled life span of 8,000,000 flashes while retaining greater than 70 % light emission.

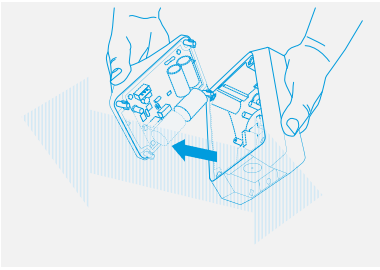
Worldwide certifications for universal acceptance.
- UL, cUL, CE, VdS, GL, EN 54-3.

Mounting system „Plug and Play".

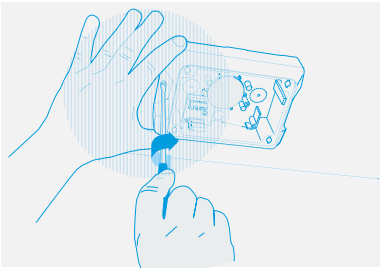
STEP 1 – Remove from package
supplied ready for mounting.



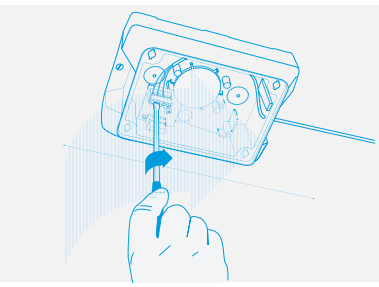
STEP 2 – Separate
the components.



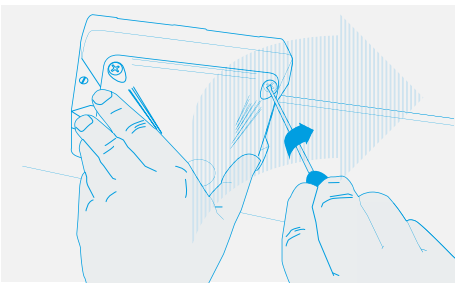
STEP 3 – Mount
the base box.



STEP 4 – Connect
the wiring.

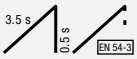
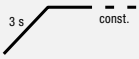
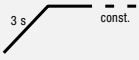
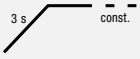
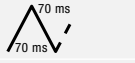


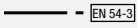
STEP 5 – Secure
the cover to the base box.

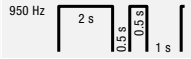
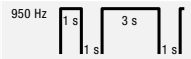
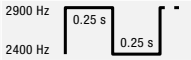
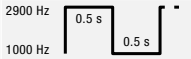
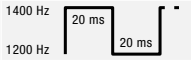
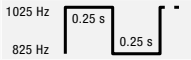


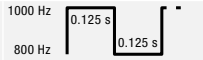
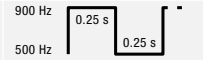
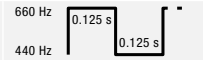
Quick, easy, and safe installation.
Saves time and reduces costs. Potential errors are eliminated since an incorrect assembly is not possible.

Tone table **PA 1 | PA 5 | PA 10 | PA 20**

NO.	DESCRIPTION	
1	no tone	
2	Sawtooth, DIN tone 33404-3 Germany (emergency signal), PFEER PTAP	
9	Slow whoop, fire alarm, UK BS5839-1	
11	Interrupted tone (fast)	
13	Interrupted tone	
15	Slow whoop, evacuation alarm Netherlands NEN 2575	
16	Slow whoop, Australian evacuation alarm AS2220	
18	Slow whoop, NFPA	
22	Pulsating tone, Australien alert AS1670, ISO8201	
23	Siren	
24	Siren	
25	Siren	
26	Siren, industrial alarm Germany	
27	Sweeping	
29	Sweeping (fast)	
30	Sweeping	
31	Sweeping, France NFC48-265	
33	Sweeping (medium), UK BS5839-1	
34	Sweeping (fast)	
35	Sweeping (fast), UK BS5839-1	
36	Sweeping	
43	Sweeping	
44	Sweeping, IMO 3d, Germany KTA3901 evacuation alarm	
45	Sweeping	
46	Sweeping, general alarm Finland	
52	Continuous tone	
53	Continuous tone	
54	Continuous tone, Finland (all-clear signal)	
55	Continuous tone, PFEER gasalarm	
56	Continuous tone	

NO.	DESCRIPTION	
57	Continuous tone, UK BS5839-1	
59	Continuous tone	
60	Continuous tone	
61	Continuous tone	
63	Continuous tone	
65	Continuous tone, Sweden SS031711 (all-clear signal)	
66	Continuous tone	
67	Continuous tone, Germany KTA3901 (all-clear signal)	
68	Continuous tone	
69	Continuous tone	
71	Continuous tone	
77	Interrupted tone	
82	Interrupted tone, PFEER (general alarm), UK BS5839-1 (back-up alarm)	
83	Interrupted tone, PFEER (general alarm)	
88	Interrupted tone	
90	Interrupted tone	
91	Interrupted tone	
92	Interrupted tone	
93	Interrupted tone (fast), horn	
97	Interrupted tone	
98	Interrupted tone, Sweden SS031711 (emergency signal)	
100	Interrupted tone, industrial alarm Germany	
101	Interrupted tone, Sweden SS031711 (important message (pre-mess))	
102	Interrupted tone, Sweden SS031711 (local warning)	
103	Interrupted tone, Sweden SS031711 (air raid warning)	
104	Interrupted tone, Sweden SS031711 (emergency signal)	
107	Interrupted tone, Germany KTA3901 (evacuation alarm)	
109	Interrupted tone, Australia AS2220, AS1610, AS1670	
110	Interrupted tone, (fast variable), bell	
111	Interrupted tone, ISO8201 (emergency evacuation signal), USA (evacuation alarm)	
112	Interrupted tone, ISO8201 (emergency evacuation signal)	
113	Interrupted tone, ISO8201 (emergency evacuation signal), sweeping	

NO.	DESCRIPTION	
115	Interrupted tone, IMO (telephone call)	
116	Interrupted tone, IMO (leave ship)	
117	Interrupted tone, IMO SOLAS III/50 + SOLAS III/6.4 (general alarm)	
122	Alternating tone	
123	Alternating tone	
124	Alternating tone, Singapore	
125	Alternating tone	
128	Alternating tone	
130	Alternating tone, UK BS5839-1 (fire alarm)	

NO.	DESCRIPTION	
131	Alternating tone, UK BS5839-1 (fire alarm, railway crossing)	
135	Alternating tone, UK BS5839-1 (fire alarm, increased urgency – railway crossing)	
142	Alternating tone	
143	Alternating tone, industrial alarm Germany	
144	Alternating tone	
146	Alternating tone, France NFS 32-001 (fire alarm)	
147	Alternating tone, Sweden SS031711	
148	Alternating tone, Sweden SS031711	
152	Alternating tone (two tone chime)	

Control of the tones **PA 1 I PA 5 I PA 10 I PA 20**

DIP-SWITCH (SETTING OF BASIC TONE)							EXTERNAL TONE SELECTION		
							C1	C2	C1+C2
1	2	3	4	5	6	BASIC TONE	TONE NO.		
						1	2	88	57
ON						2 *	128	112	57
	ON					2	26	100	93
ON	ON					2	61	131	112
		ON				9	57	11	82
ON		ON				15	131	52	112
	ON	ON				16	109	52	56
ON	ON	ON				18	111	57	68
			ON			22	16	109	68
ON			ON			23	131	52	112
	ON		ON			24	131	52	131
ON	ON		ON			25	131	52	92
		ON	ON			26	2	100	93
ON		ON	ON			27	123	52	92
	ON	ON				29	35	52	61
ON	ON	ON				30	27	52	77
				ON		31	131	52	57
ON				ON		33	30	52	35
	ON			ON		34	35	52	93
ON	ON			ON		35	27	52	110
		ON		ON		36	146	67	57
ON		ON		ON		43	131	52	91
	ON	ON		ON		45	2	57	93
ON	ON	ON		ON		52	15	65	82
			ON	ON		54	46	54	131
ON			ON	ON		55	131	52	128
	ON		ON	ON		56	82	35	33
ON	ON		ON	ON		59	143	59	101
			ON	ON		60	131	52	125
ON		ON	ON	ON		65	131	52	93
	ON	ON	ON	ON		66	110	52	107
ON	ON	ON	ON	ON		69	131	52	110

DIP-SWITCH (SETTING OF BASIC TONE)							EXTERNAL TONE SELECTION		
							C1	C2	C1+C2
1	2	3	4	5	6	BASIC TONE	TONE NO.		
					ON	71	131	52	93
ON					ON	77	61	52	122
	ON				ON	82	131	52	83
ON	ON				ON	83	56	2	82
		ON			ON	88	2	57	128
ON		ON			ON	90	131	52	125
	ON	ON			ON	91	30	52	110
ON	ON	ON			ON	92	33	52	57
			ON		ON	93	2	128	57
ON			ON		ON	97	2	63	93
	ON		ON		ON	100	131	52	125
ON	ON		ON		ON	101	98	102	65
		ON	ON		ON	103	131	65	147
ON		ON	ON		ON	104	103	65	101
	ON	ON	ON		ON	109	16	52	22
ON	ON	ON	ON		ON	110	131	61	91
				ON	ON	112	2	57	128
ON				ON	ON	113	52	123	104
	ON			ON	ON	115	117	116	44
ON	ON			ON	ON	116	117	93	125
		ON		ON	ON	117	93	116	125
ON		ON		ON	ON	123	27	52	77
	ON	ON		ON	ON	124	53	83	2
ON	ON	ON		ON	ON	130	2	107	67
			ON	ON	ON	131	2	112	57
ON			ON	ON	ON	135	16	56	109
	ON		ON	ON	ON	142	2	54	88
ON	ON		ON	ON	ON	143	59	93	33
		ON	ON	ON	ON	144	110	61	2
ON		ON	ON	ON	ON	146	31	67	57
	ON	ON	ON	ON	ON	148	131	52	92
ON	ON	ON	ON	ON	ON	152	110	61	13

* factory setting