

INSTRUCTIONS

1. Items relating to safety

1.1. WARNINGS

Completely clean the air line to remove all dusts and rusts, etc. from the line before installing the whistle.

Do not put face and hands close to the blowout hole.

When servicing the whistle at a high place, provide a safety scaffold and wear a lifeline.

Always switch off power first when working on the whistle.

Make sure that no voltage exists.

Before sounding the whistle for test, be sure the area is cleared of all unauthorized personnel and all personnel in the area wear ear protection (e.g. earplugs).

Close the air supply valve and bleed all pressure from the air line before accessing the air horn for servicing (e.g. replacement of diaphragm, valve adjustment).

Do not put face and hands close to the blowout hole.

2. Electric shock safety guidelines

2.1. General

2.1.1. Effect of electric shock to human body

- (1) Electric shock has very high degree of risk of bodily injury.

Even relatively low, the current flowing through heart, lung and other critical organs can result in personal injury or even death.

- (2) In general, when working with low AC volts, for example, around 100 volts, people tend to ignore the risk involved.

Remember that a power source capable of flowing 50 mA at 100 VAC, 60/50 Hz can be dangerous to human body.

100 mA current can result in serious personal injury from electric shock.

2.1.2. Symptoms of electric shock

Typical symptoms of electric shock are usually not chronic.

In the case of unconsciousness or apparent death, do not give the victim of electric shock up for dead.

Intead, immediately render first aid and resuscitation such as artificial respiration and heart massage.

Continuous resuscitation for several hours may revive by victim.

- (1) In the case of breathless, perform artificial respiration until the respiratory center recovers the respiratory function.
- (2) In the case of serious electric shock, the face of the victim turns pale, the heart palsates faintly or stops.
- (3) In the case of unconsciousness, the victim's body becomes rigor in three minutes.

2.2. To prevent electric shock

Personnel in charge of operation, maintenance, repair, etc., of the whistle and the supervisor must strictly observe applicable electric safety standards and regulations and implement the following special precautions and handling techniques to assure positive prevention of electric shock.

- (1) Personal injury and property damage caused by electric shock often resulted from live power line which should have been off.

Verify that the power switch is off and verify that power line is dead by using a voltmeter and the like.

- (2) Do not solely rely on safety and protective system.

Always protect against failure of these system.

- (3) Wear rubberized/insulated gloves and shoes.

Place insulating material (e.g. rubber mat) between the surface.

- (4) Do not turn on and off power during service except for unavoidable case.

When power is off during service, the work area should be designated to caution people that power must be kept off.

- (5) When operating the power switch, always use the right hand while keeping the left hand off the body (stretch the left hand backward).

- (6) Always have another member of staff stand near the power disconnecting device capable of turning off power quickly in the case of electric shock.

ES300 TYPE ELECTRONIC HORN

INSTRUCTION

1. GENERAL

ES300TYPE ELECTRONIC HORN is the whistle for the vessel its length 20m but less than 75m in length.

This system consist of one horn unit and one oscillator unit. The oscillator unit have the function of automatic fog signal and function of general emergency alarm generator. In addition it have some additional function that outboard broad cast by microphone or AUX input.

2. INSTRUCTION OF OPERATION

2 - 1 SWITCH PANEL

An outline of switch panel is shown Fig1 and Table1.

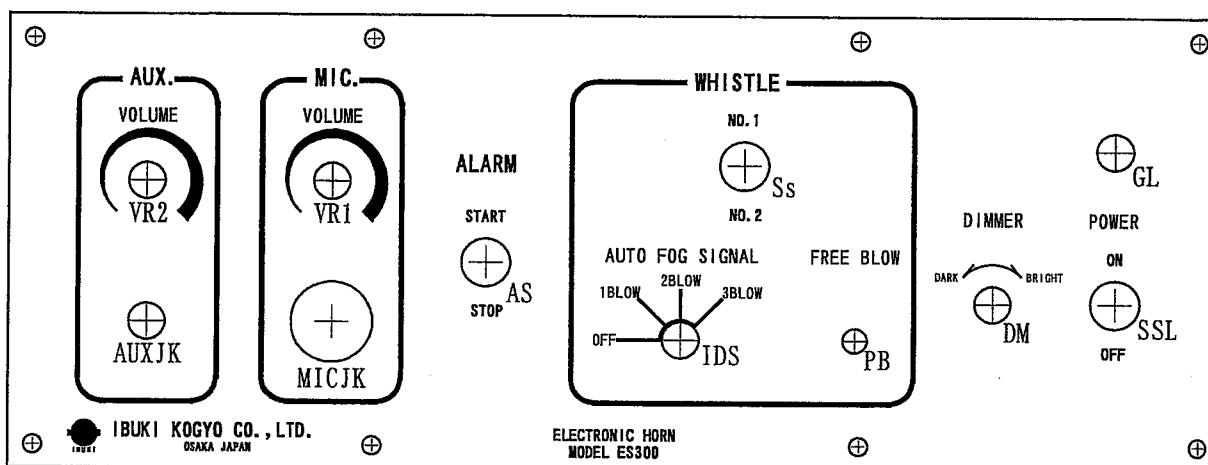


Fig.1 SWITCH PANEL

Table1 SWITCHES

SYMBOL	SWITCHES AND INDICATORS	TYPE	REMARKS
SSL	Power source switch (ON/OFF)	Change over switch	
GL	Power source indicator lamp	LED	
DM	Dimmer	Variable register	For Power source LED
Ss	Whistle selector switch	Change over switch	No.1: Electronic Horn No.2: Air Horn
PB	Push button for free blow	Push button switch	
IDS	Selector switch for auto fog signal	Rotary switch	
AS	Alarm switch	Change over switch	
VR1	MIC volume control VR	Variable register	
MICJK	MIC receptacle		
VR2	AUX volume control VR	Variable register	
AUXJK	JACK for AUX input		

2 - 2 STARTING

Power source switch (SSL) turn to ON, and confirm power source indicate LED(GL) is lit. The brightness of LED can be controlled by Dimmer (DM).

2 - 3 WHISTLE BLOW

2-3-1 WHISTLE SELECT

The whistle can be selected by change over switch (Ss).

No.1: Electronic Horn

No.2: Air Horn

2-3-2 FREE BLOW

The whistle can be blown freely by push button switch (PB).

2-3-3 AUTOMATIC FOG SIGNAL

In or near an area of restricted visibility, whether by day or night, the signals prescribed in this Rule shall be used as follows.

It can blow automatic fog signal to be selected signal type by selector switch for auto fog signal(IDS).

1 BLOW (1-LONG BLAST REPEATED)

A power -driven vessel making way through the water shall sound 1-Blow Signal.

2 BLOW (2-LONG BLAST REPEATED)

A power-driven vessel underway but stopped and making no way through the water shall sound 2-Blow Signal

3-BLOW (1-LONG BLAST 2-SHORT BLAST REPEATED)

A vessel not under command, a vessel restricted in her ability to manoeuvre, a vessel constrained by her draught, a sailing vessel, a vessel engaged in fishing and a vessel engaged in towing or pushing another vessel shall blow 3-Blow signal

2 - 4 ALARM FUNCTION

It is additional function that can blow electronic alarm sound from horn unit .

But if whistle blow when alarm is sounding, the whistle sound is selected and blown from horn unit

2-4-1 STARTING ALARM

Alarm switch (AS) turn to START ,then electronic alarm sound is blown from horn unit.

2-4-2 ALARM TONE SELECT

Alarm tone can be selected by internal DIP switch of oscillator unit. Please refer Fig.2.
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NOTICE

Please select the alarm tone when power source switch "OFF". If you will select alarm tone when power source switch is "ON", Alarm tone cannot be changed.

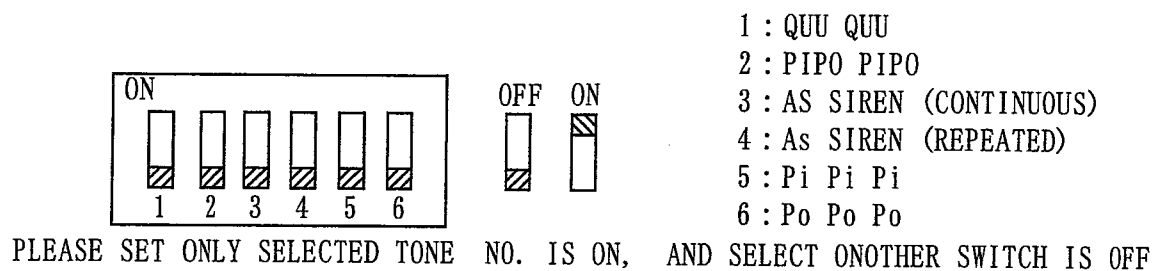


Fig.2 ALARM TONE SELECT

2 - 4 OUTBOARD BROADCAST FUNCTION

When broad cast function use, please insert the receptacle of the microphone attached this system . And then push the talk switch of microphone.

The volume of broad cast can be controlled by MIC volume control VR (VR1).

NOTICE

When the case that bridge window opened and exceed proper sound volume, there is a possibility to occur howling . Please control its MIC volume in a range that don't occurred howling.

2 - 5 AUX INPUT

When input sound signal from AUX input jack (AUXJK), (i.e. from CD player), can broadcast its sound from horn unit. The volume of AUX input, can be controlled by AUX control VR (VR2).

WARNINGS

Before touch the inside of oscillator unit and horn unit for repair or inspection , please turn off its breaker of power source and confirm no voltage exists

When servicing the whistle at a high place, provide a safety scaffold and wear a lifeline.

Before sounding the whistle for test, be sure the area is cleared of all unauthorized personal and all personal in the area wear ear protection (i.e. ear plugs)

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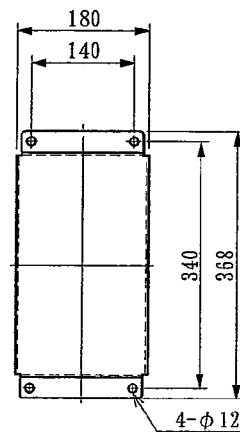
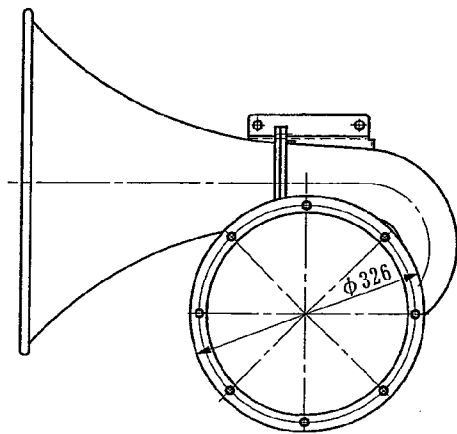
HEAD OFFICE FACTORY
7-28, TAKADONO 1-CHOME
ASAHI-KU, OSAKA 535-0031, JAPAN

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FAX : 06-6924-3567

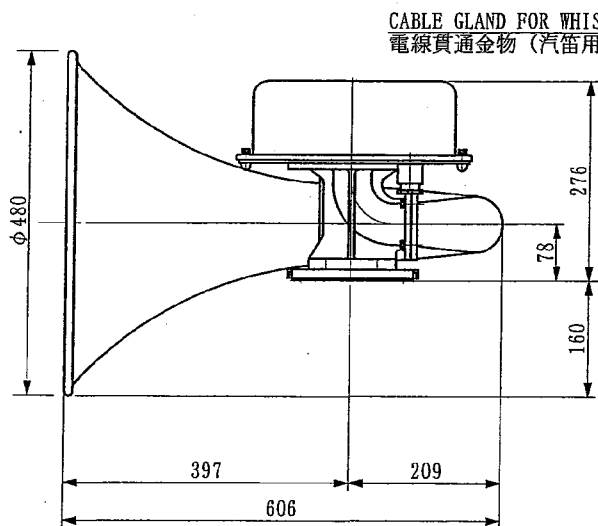
TOKYO SLES OFFICE
HONMOKU BLDG.,5F
1-22, KANDA SUDACHO,CHIYODA-KU,
TOKYO 101-0041, JAPAN
TEL : 03-3251-4153
FAX : 03-3251-4158

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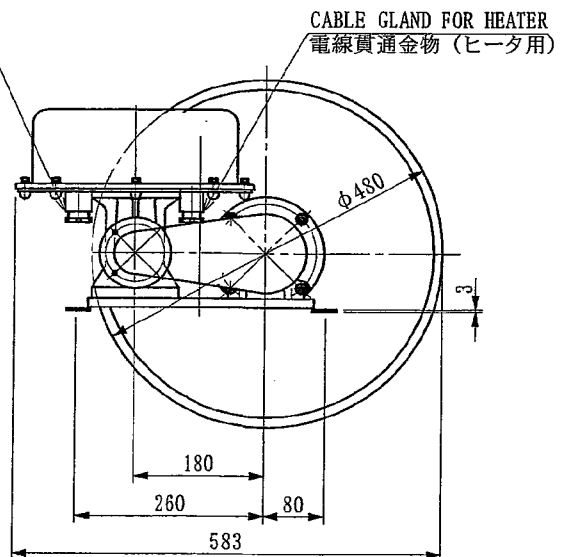
Whistle(Above 130dB) 汽笛 (130dB 以上) ES300		ELECTRONIC HORN 電子ホーン		WITH HEATER(200W) ヒータ付	MASS 質量	17.5 kg
1/3 rd-OCTAVE BAND LEVEL オクターブバンドレベル	130 dB/1m	FUNDAMENTAL FREQUENCY 基本周波数	APPROX. 約	420 Hz		
		RATING 定 格		10 MIN.		
		SOURCE 電 源		DC24V		
TYPE APPROVAL NO. 型式承認番号	4473	CURRENT 電 流		13 A 以下		



取付板寸法



CABLE GLAND FOR WHISTLE
電線貫通金物 (汽笛用)



CABLE GLAND FOR HEATER
電線貫通金物 (ヒータ用)

C. K. D

F. S.


D. W. N

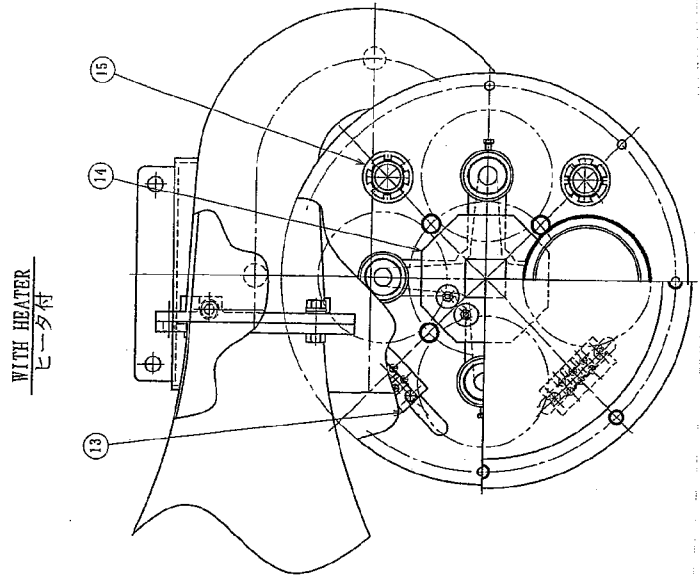
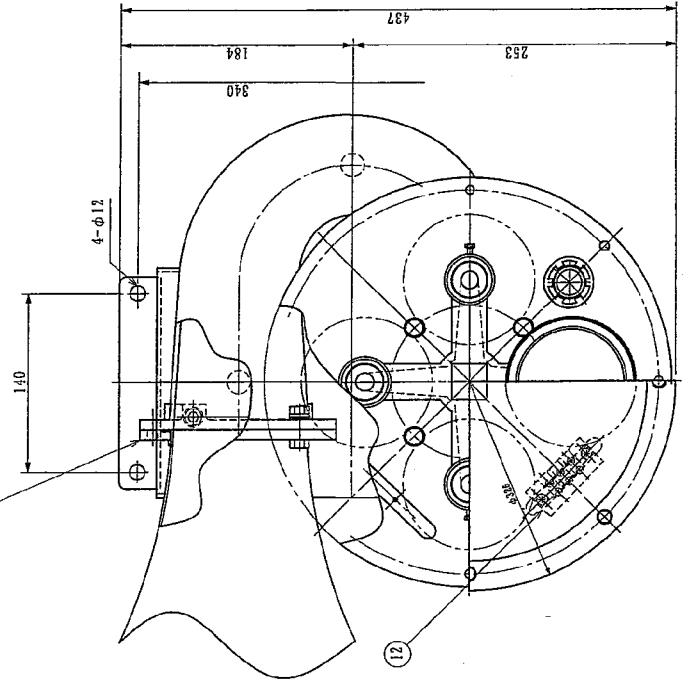
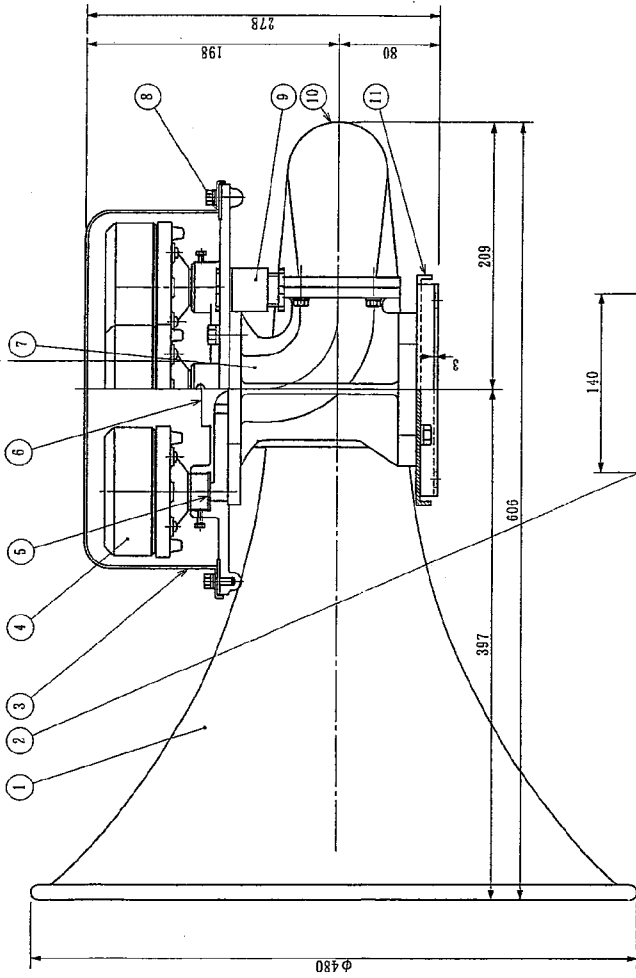
F. S.

IBUKI KOGYO CO., LTD.

DWG. NO.

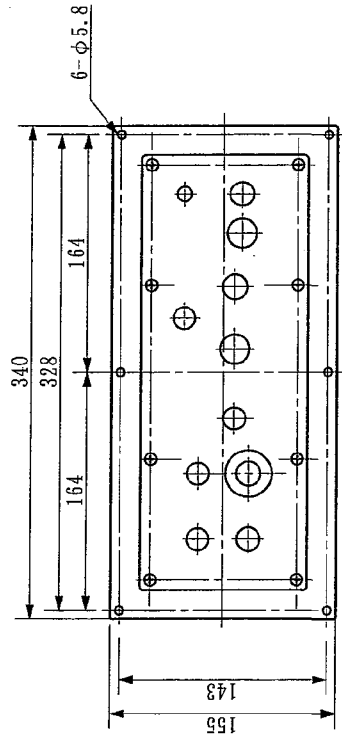
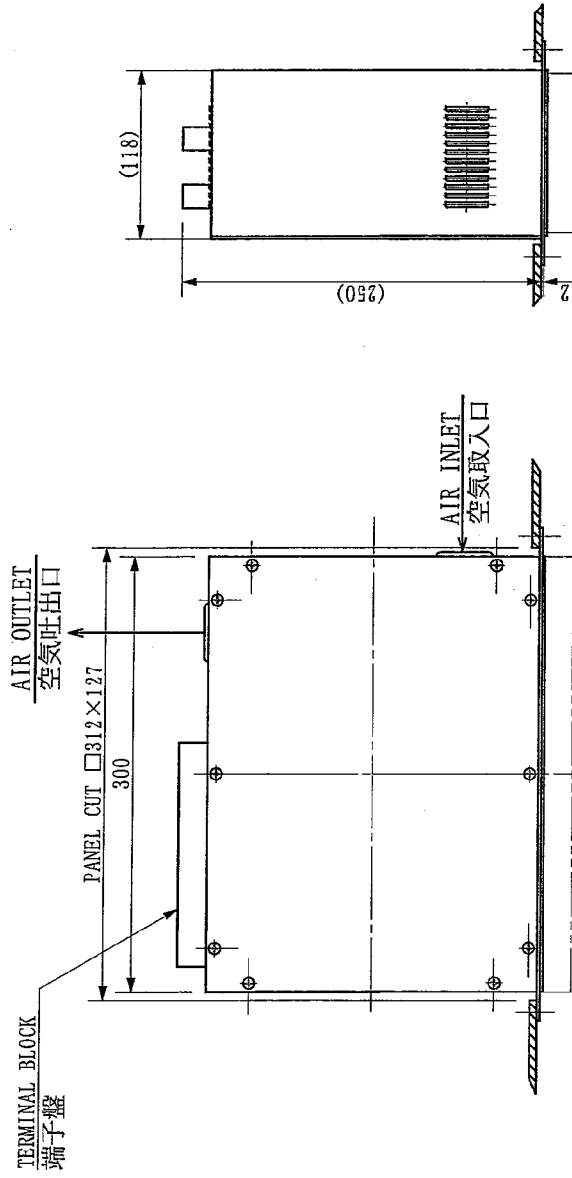
S0J-8910A

PARTS LIST		ES300形	HORN UNIT ホーンユニット
NO.	PART NAME	MATERIAL	
1	Horn (Bell) ラッパ (開口部)	Aluminium plate A1050P	
2	Horn bell mounting plate ラッパ押え金具	Aluminium alloy casting AC7A-F	
3	Driver unit cover ドライバユニットカバー	Aluminium plate A1050P	
4	Driver unit ドライバユニット		
5	Driver unit packing ドライバユニットパッキン	Synthetic rubber 合成ゴム	
6	Driver unit mount ドライバユニット取付台	Aluminium alloy casting AC7A-F	
7	Body 本体	Aluminium alloy casting AC7A-F	
8	Packing パッキン	Synthetic rubber 合成ゴム	
9	Cable gland 電線貫通金物	Aluminium A5052	
10	Horn (Conical part) ラッパ (根本部)	Aluminium alloy casting AC7A-F	
11	Mounting plate 取付板	Stainless steel SUS304	
12	Terminal block 端子盤		C20-3P
13	Terminal block 端子盤		C20-3P
14	Heater ヒータ		
15	Cable gland 電線貫通金物	Aluminium A5052	
D.W.N. 		IBUKI KOGYO CO., LTD.	DWG. NO. PJ-8910A



WITH HEATER
ヒータ付

Whistle (Above 130dB) 汽笛 (130dB 以上)			
ES300 TYPE ELECTRONIC HORN			
形 電子ホーン			
HORN UNIT			
ホーンユニット			
D.W.N.	F. S.	DATE	OCT. 29. 2001
C.K.D.	F. S.	DWG. NO.	SSJ-8910A
IBUKI KOGYO CO., LTD. OSAKA JAPAN			



SIGNALS OF ALARM					
No.	Qu	Qu	(Repeated)	750~1500Hz	60/Min
1	Qu	Qu	(Repeated)	750~1500Hz	60/Min
2	Pi	Po	PiPo	Pi...900Hz Po...600Hz	60/Min
3	As	siren	(Repeated)	400~900Hz Sound 2.25 Sec.-Rest 1Sec.	
4	As	siren	(Continuous)	400~800Hz 800Hz (Continuous)	
5	Pi	Pi	Pi	1200Hz	60/Min
6	Po	Po	Po	500Hz	60/Min

FLUSH TYPE
埋込型

ES300 TYPE ELECTRONIC HORN
形 電子ホーン

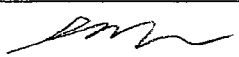
OSCILATOR UNIT
オシレーターユニット

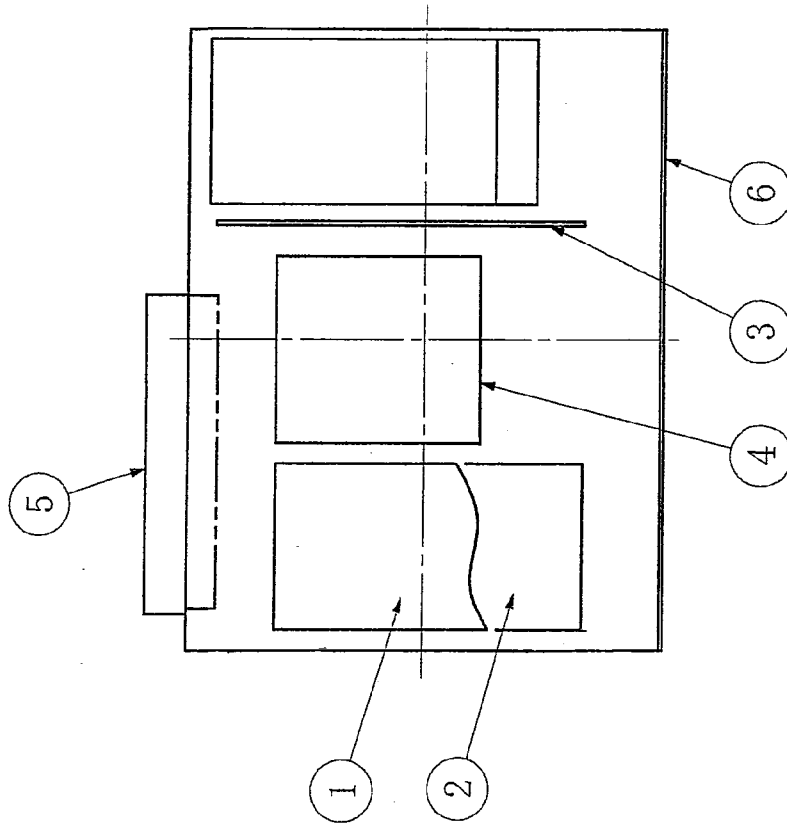
OUTLINE VIEW
外形図

D.W.N.Y. neda DATE AUG. 9-2001
C.K.D.J.F. Shintaku DWGNO. S01-8910B
IBUKI KOGYO CO., LTD OSAKA JAPAN

MASS
質量

7.3 kg

PARTS LIST		ES300 形	OSCILATOR UNIT オシレータユニット
NO.	PART NAME	MATERIAL	
1	Printed circuit board (A) 基板 (A)	Aluminium A5052	
2	Printed circuit board (B) 基板 (B)		
3	Printed circuit board (C) 基板 (C)		
4	Transformer トランス		
5	Terminal block 端子盤		
6	Body 箱体		
7	Cover カバー		
D.W.N.		IBUKI KOGYO CO., LTD.	DWG. NO. PJ-8910B

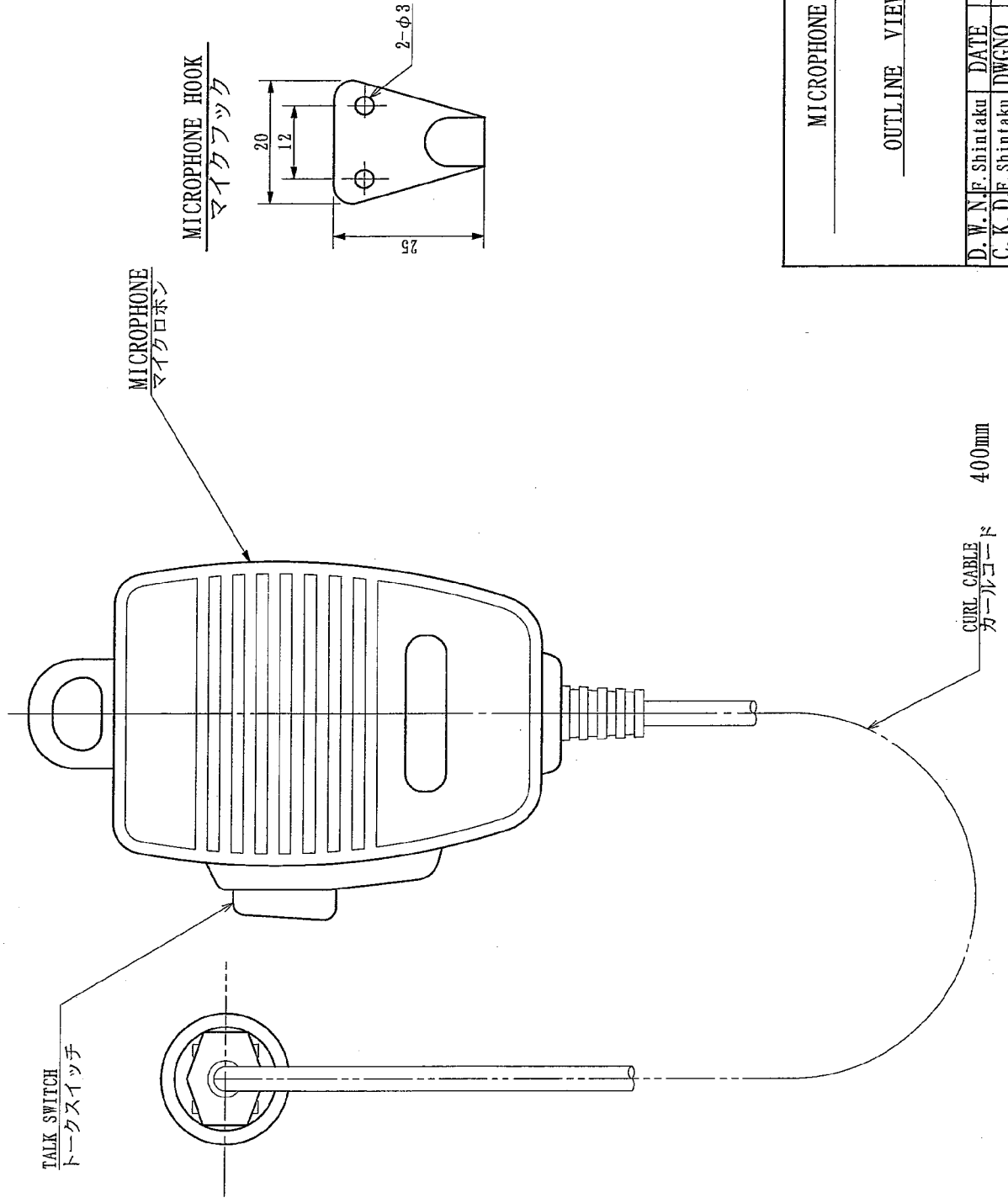


ES300 TYPE ELECTRONIC HORN
形 電子ホーン

OSCILLATOR UNIT
オシレーターユニット

CONSTRUCTION VIEW
構造図

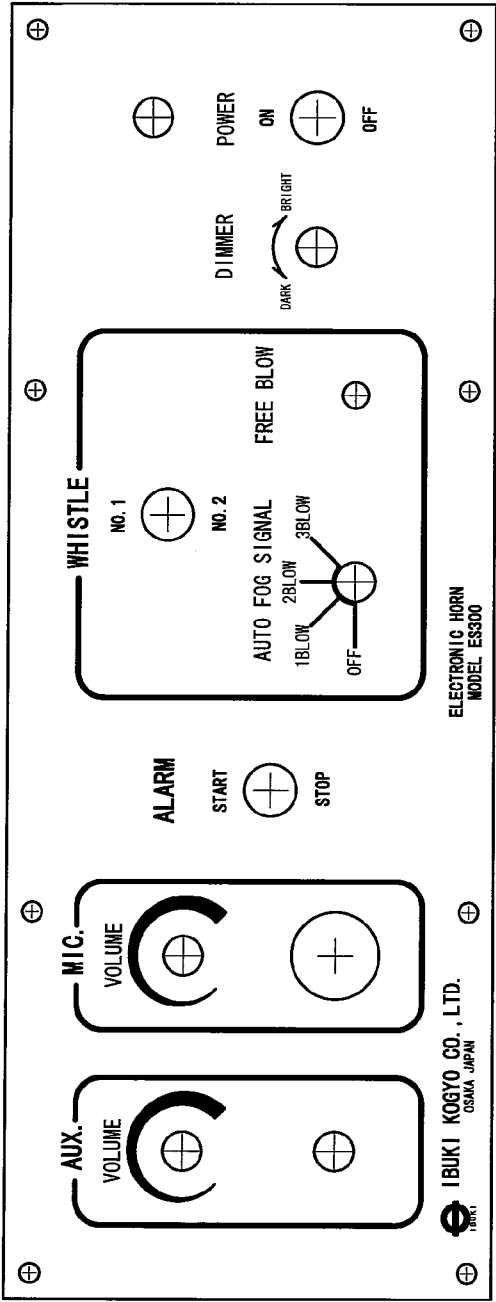
D.W.N.	Y. U.	DATE	AUG. -9. 2001
C.K.D.	F. S.	DWG.NO.	SSJ-8910B
IBUKI KOGYO CO., LTD. OSAKA JAPAN			



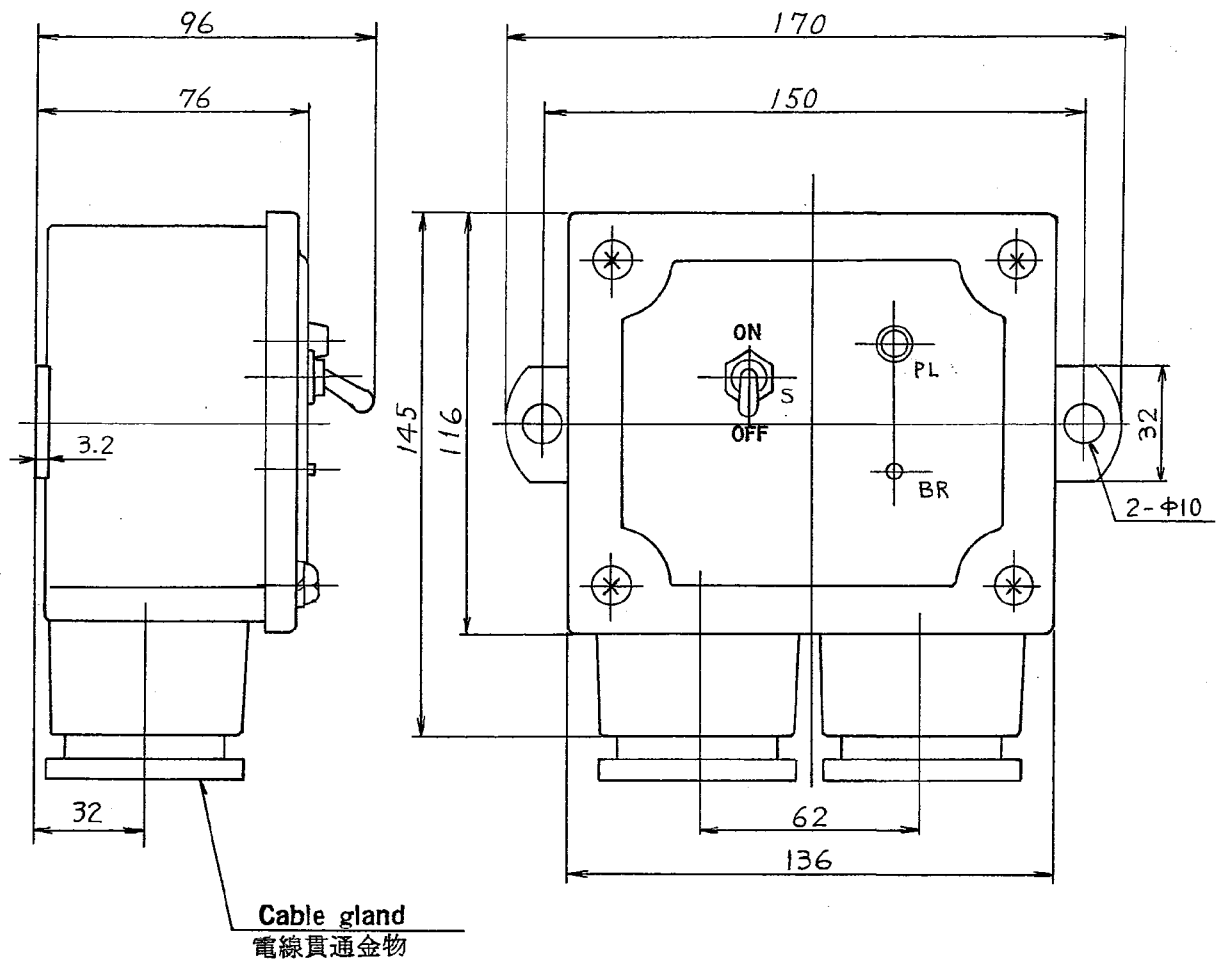
MICROPHONE

OUTLINE VIEW

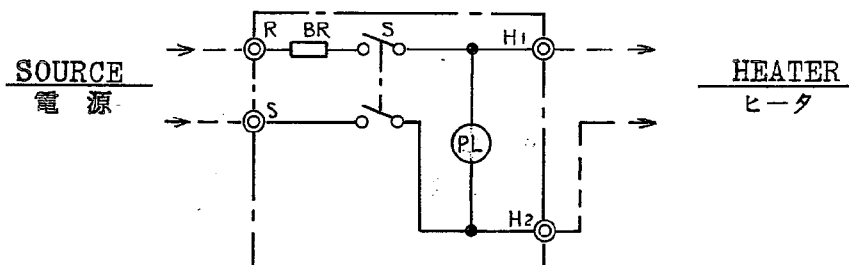
D. W. N. F. Shintaku	DATE	FEB-28. 2002
C. K. D. F. Shintaku	DWGNO.	EAA-4543
IBUKI KOGYO CO., LTD OSAKA JAPAN		



NAME PLATE			
銘板			
D. W. N. F. Shintaku	DATE	JAN. 8. 2003	
C. K. D. F. Shintaku	DWGNO.	SWJ-05-1457	2/2
IBUKI KOGYO CO., LTD. OSAKA JAPAN			



WIRING DIAGRAM
接続図



BR	BREAKER ブレーカ (5A)
S	SWITCH スイッチ
PL	PILOT LAMP 表示灯

MASS
質量

1.0 kg

“IBUKI”

HEATER SWITCH
ヒータスイッチ

OUTLINE VIEW

外形図

D.W.N	DATE	MAR. 15. 1981
C.K.D.	DWG.NO.	EAA-3946
IBUKI KOGYO CO., LTD. OSAKA JAPAN		