

TABLE OF PLAN 計 画 表			ORDER NO. 工事番号	12-0729 12-0730	
<div>S. NO.</div> <div>AIR HORN エアホーン</div>					
NAME 品 名		PRESSURE 圧 力 (MPa)	DWG. NO. 図 面 番 号	QUANTITY PER VESS. 数量/1隻	PAINTING 塗 装 色
Whistle (Above 130dB) 汽 笛 (130dB 以上) AIR HORN A100EH エアホーン WITH HEATER (300W) & THERMOSTAT ヒータ及びサーモスタット付		0.6～1.0	OUTLINE 外形図 SOJ-1240C, A-5 CONSTRUCTION 構造図 SSJ-1240C PARTS LIST 部品表 PJ-1240C	1	N9.5
			OUTLINE 外形図 CONSTRUCTION 構造図 PARTS LIST 部品表		
			OUTLINE 外形図 CONSTRUCTION 構造図 PARTS LIST 部品表		
TIME CONTROLLER タイムコントローラ			EAA-4561	1	N3.0
SYSTEM DIAGRAM & NAME PLATE 系 統 図 及 び 銘 版			SWJ-11-1459 1/2, 2/2		
ELECTRIC PARTS LIST 電 気 部 品 表			INDJ-019		
WIRING DIAGRAM 接 続 図			V-20102-638		
SOURCE 電 源	MAIN CIRCUIT 主 回 路 DC24V AC230V, 1φ, 60Hz		AUTO. FOG SIGNAL		
	CONTROL CIRCUIT 操 作 回 路 DC24V		SOUND - REST - SOUND - REST		
NOTE 注 記	NAME PLATE ENGLISH 銘 板 英 文		1 BLOW ... 5 - 55 Sec.		
			2 BLOW ... 5 - 2 - 5 - 48 Sec.		
			3 BLOW ... 5 - 1 - 1 - 1 Sec.		
			CYCLE ... 60 Sec.		
MAR. -7. 2012		IBUKI KOGYO CO., LTD.			

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.

INSTRUCTIONS

IBUKI A100EH TYPE AIR HORN

(Whistle for vessels of 20m or more but less than 75m)

1. General

The IBUKI Air Horn is equipped with diaphragms which are vibrated by compressed air. The air supply can be controlled via a solenoid valve electrically or manually.

2. Operation

Refer to the instructions for IBUKI Whistle Controller.

3. Installation

- (1) The whistle shall be placed as high as practicable on the vessel, in order to reduce interception of the emitted sound by obstructions and also to minimize hearing damage risk to personnel.
- (2) The whistle shall be firmly fixed with bolts and nuts.
- (3) The place for the whistle shall be sufficiently large for inspection and maintenance, and behind the whistle a space of at least 200mm is required to exchange diaphragms.

4. Disassembly and reassembly

4.1. Disassembly ... Refer to the Drawing No. SSJ-1240C

- (1) Remove the heater cover.
- (2) Screw off the back ring and take out the diaphragms.
- (3) Remove the magnet terminal box cover, and disconnect cable wires from the terminal block.
- (4) Screw off the magnet yoke clamping bolt, and remove the magnet yoke with the magnet coil, the magnet spring and the plunger.
- (5) Disconnect the magnet coil lead wire and the rectifier (diode) from the terminal block, and pull out the magnet coil.
- (6) Remove the magnet base and the valve box cover, and take out the valve spring and the valve from the valve box.
- (7) Remove the heater terminal cover, and screw off the heater setting nut, and then remove the heater from terminal box.

4.2. Reassembly

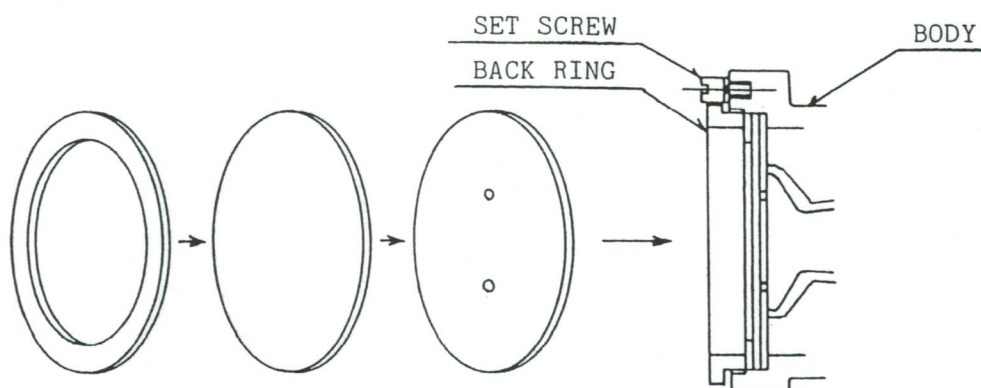
- (1) For reassembly the described procedure for disassembly is reversed.
- (2) Thoroughly clean the fitting joints for reassembly.
- (3) Make sure that all fastening/clamping bolts are fastened securely.

Be sure to avoid undue application of force in fastening them.

5. Precautions

- (1) Be sure to turn off the power switch when the cover of the whistle terminal box is opened.
- (2) Be sure to close the air main valve and purge air from the piping before hand is put into the whistle e.g. for replacing the diaphragms, adjusting the valve.
- (3) The diaphragms are to be attached in the following order.

The back ring shall be adjusted to make a clear sound on blowing test.



- (4) Experience shows that ingress of foreign matter into the whistle operating valve can often cause damage to the valve seat.

Therefore, be sure to sweep clean the air piping before installing the whistle.

An air filter is recommended to be installed upstream of the whistle.

- (5) The heater is to be used only when the ambient temperature is below 0°C, and there is a risk of freezing.

The heater switch is to be turned off when the ambient temperature is above 0°C.

INSTRUCTIONS
"IBUKI" WHISTLE CONTROLLER

1. GENERAL

The IBUKI Whistle Controller is a unit which provides precisely timed automatic fog signalling with one or more push button switches for free blowing of the whistle.

2. OPERATION

Set the Power Supply Switch at "SOURCE ON" and note that the source pilot lamp is lit.

2.1 Free Signalling

Press the push button; the solenoid valve on the whistle is energised and the whistle operates.

Release the push button to stop the whistle.

Free signalling using the push button will override any automatic function described below.

2.2 Automatic Fog Signalling

Set the Automatic Fog Signal Switch at position "1-blow", "2-blow" or "3-blow".

(1) Automatic "1-blow" Fog Signalling

In this case, a signal of "5 seconds ON, 55 seconds OFF" is continually repeated, the repeat period being 60 seconds.

(2) Automatic "2-blow" Fog Signalling

In this case, a signal of "5 seconds ON, 2 seconds OFF, 5 seconds ON, 48 seconds OFF" is continually repeated, the repeat period being 60 seconds.

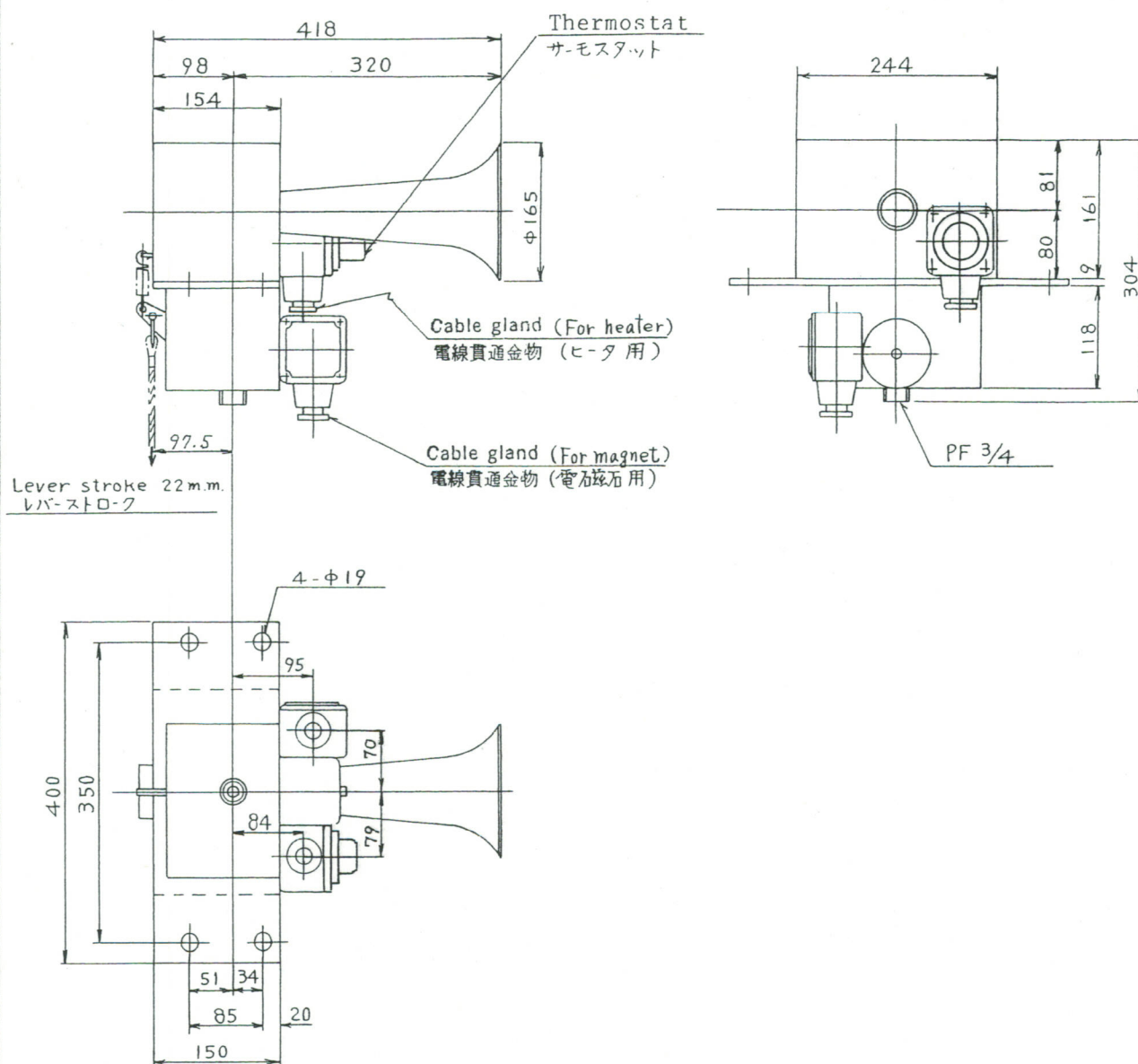
(3) Automatic "3-blow" Fog Signalling

In this case, a signal of "5 seconds ON, 1 seconds OFF, 1 seconds ON, 1 second, OFF 1 seconds ON, 51 second, OFF " is continually repeated, the repeat period being 60 seconds.

4) Stopping the Automatic Fog Signalling

Put the Automatic Fog Signal Switch to the "STOP" position.

Whistle (Above 130dB) 汽笛 (130dB 以上)		A100EH AIR HORN エアホーン		WITH HEATER (300W) & THERMOSTAT ヒータ及びサーモスタット付	MASS 質量	12.7 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 310 Hz			
		CONSUMPTION 消費量	FREE AIR 自由空気 15 l/s			
AIR PRESSURE 空気圧力	0.6~1.0 MPa					

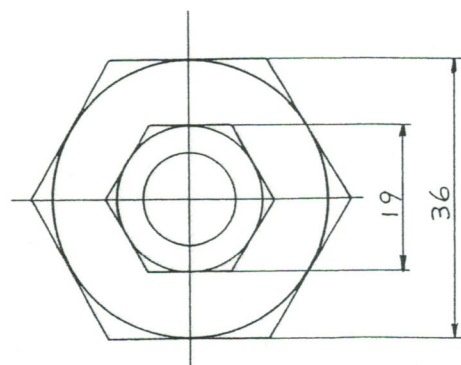
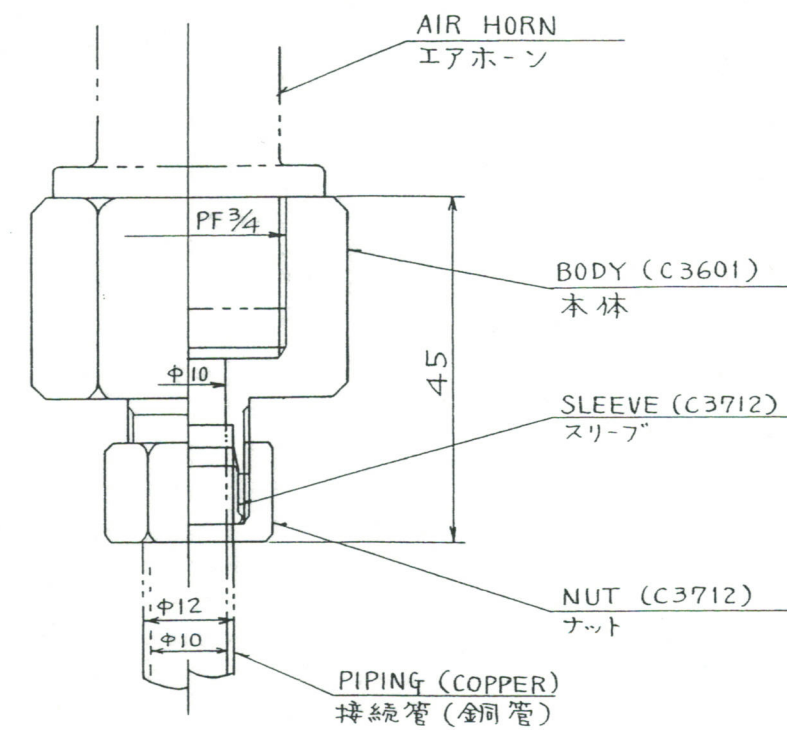


View from under

NO.	SOURCE 電源	EXCITING CUR. 励磁電流
1	DC 24V	0.8 A
2		



WORK NO.		IBUKI KOGYO CO., LTD.	DWG. NO.	SOJ-12400
----------	--	-----------------------	----------	-----------



Ø 12

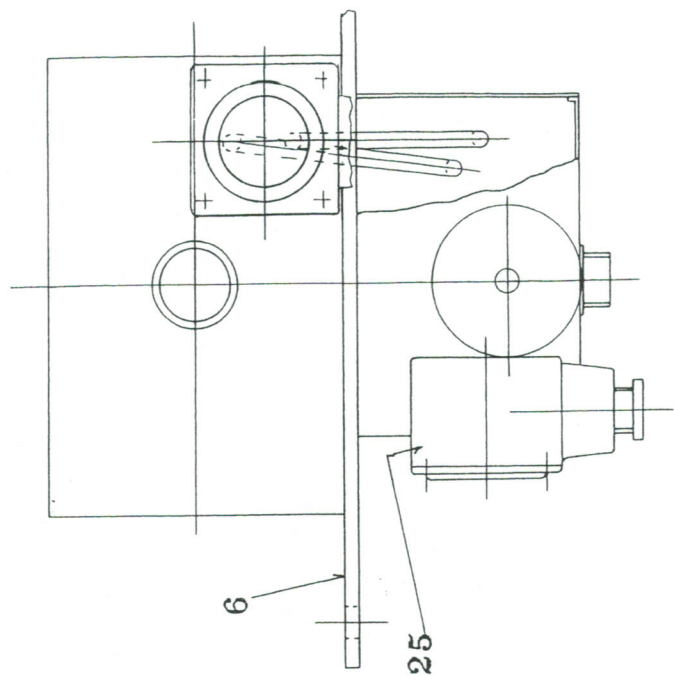
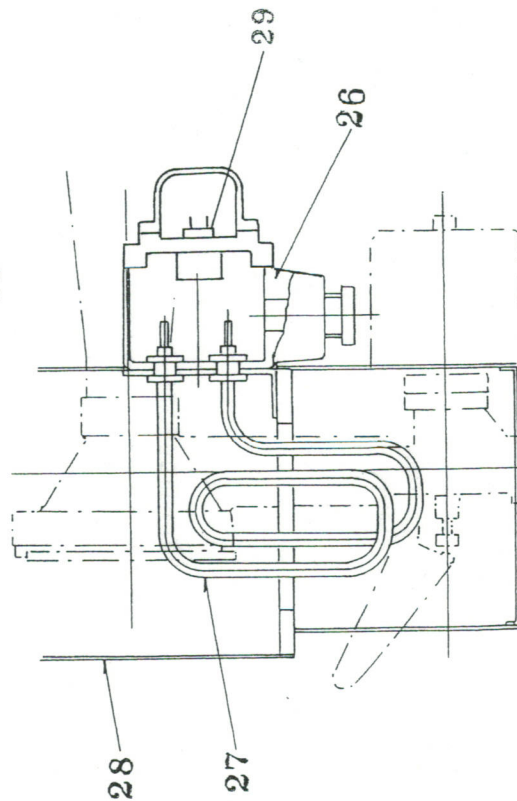
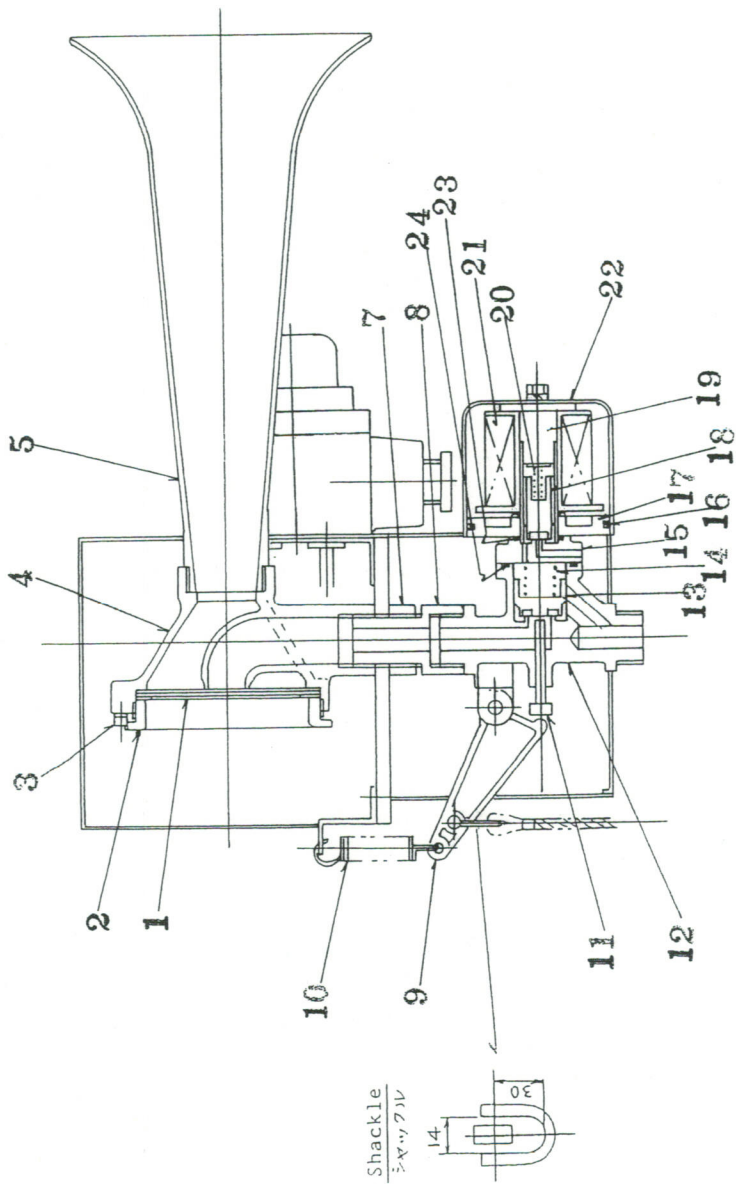
PIPE FITTINGS

くい込み 継手

MASS
質量

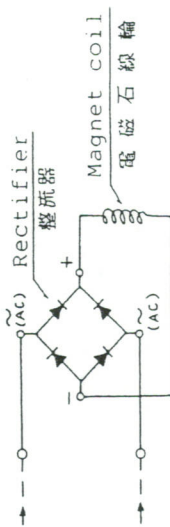
0.25 kg

D.W.N	qu qu	DATE	FEB. 15 1980
C.K.D.		DWG. NO.	A-5
IBUKI KOGYO CO., LTD. OSAKA JAPAN			



CONNECTION DIAGRAM

結 線 図

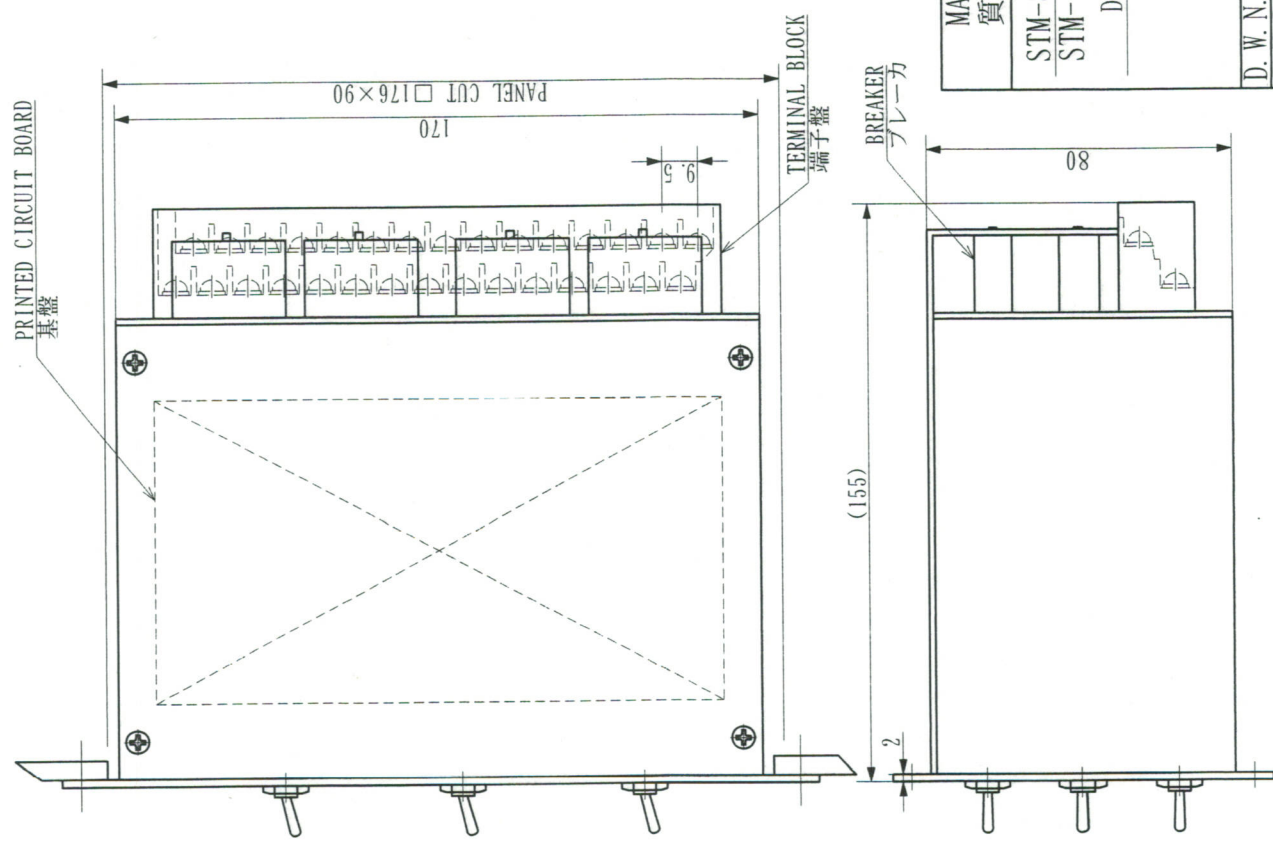
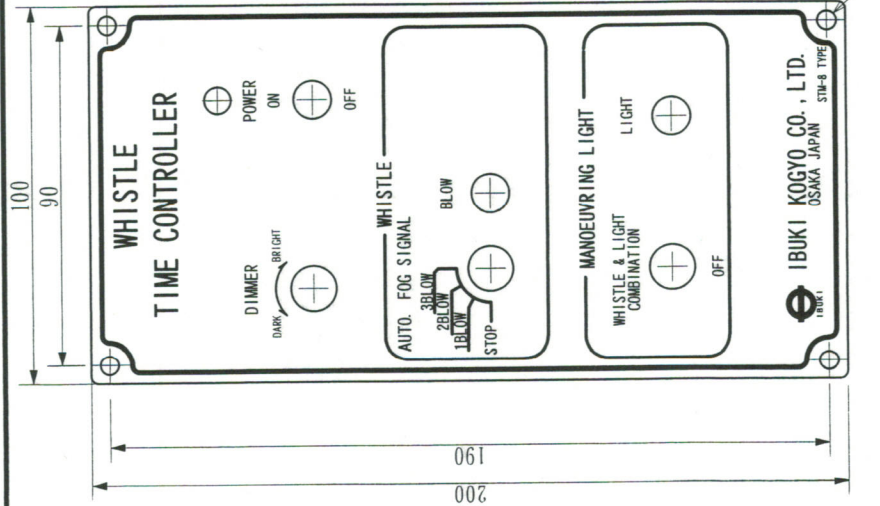


Whistle (Above 130dB)
汽笛 (130dB 以上)

A100EH 形 AIR HORN エアホーン CONSTRUCTION VIEW

構造図

D.W.N.	DATE	FEB. 27. 1979
C.K.D.	DWG. NO.	SSJ-1240C
IBUKI KOGYO CO., LTD. OSAKA, JAPAN		

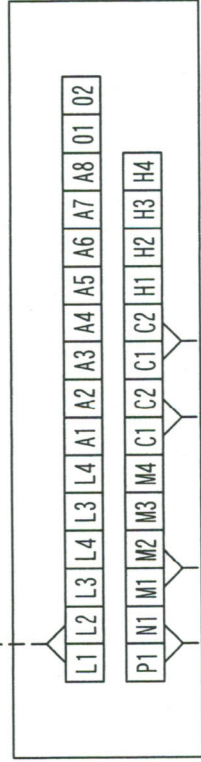


MASS 質量	2	kg
STM-8F TYPE TIME CONTROLLER		
STM-8F 形 タイムコントローラ		
DRIIPROOF FLUSH MOUNT TYPE		
防滴埋込形		
OUTLINE VIEW		
外形図		
D. W. N. F. Shintaku	DATE	MAY. 23. 2002
C. K. D. F. Shintaku	DWGNO.	EAA-4561
IBUKI KOGYO CO., LTD. OSAKA JAPAN		

MANOEUVRING LIGHT
(Supplied by shipyard)

操船信号燈
(造船所手配)

TIME CONTROLLER
タイムコントローラ



DC 24V

AC 230V, 1φ, 60Hz

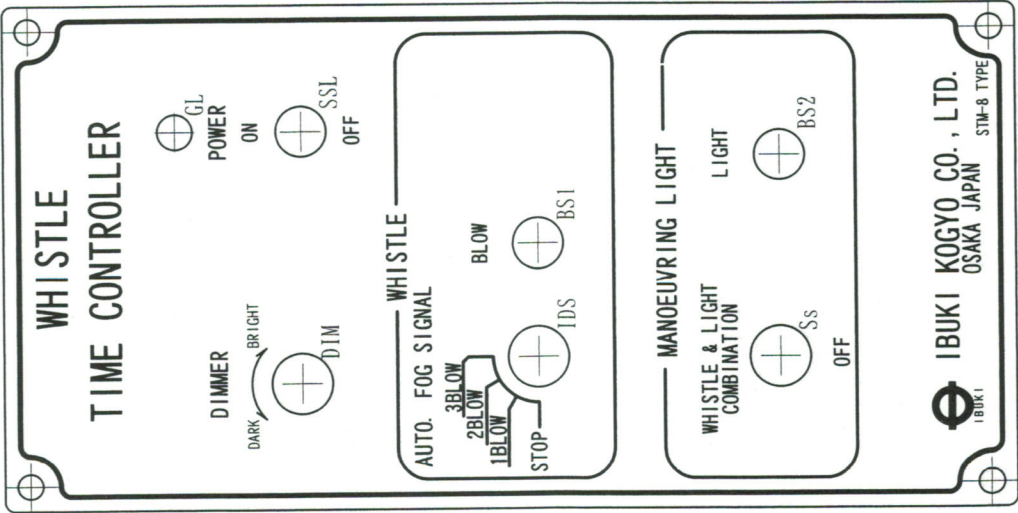
PUSH BUTTON SWITCH
押ボタンスイッチ

Cable gland
電線貫通金物

AIR HORN
エアホーン

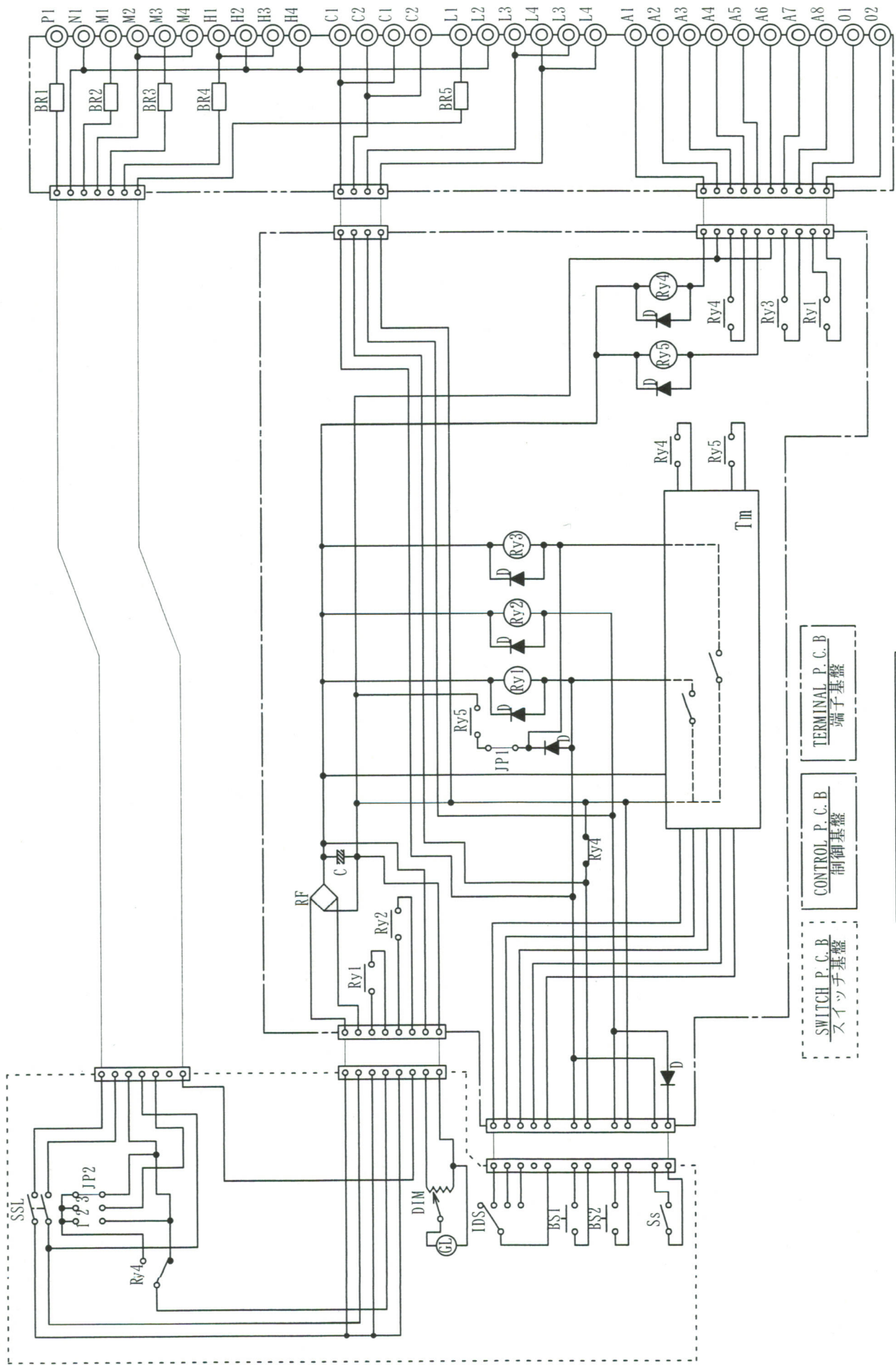
SYSTEM DIAGRAM
系統図

D.W.N.	K. M.	DATE	APR. 10. 2003
C.K.D.		DWG. NO.	SWJ-11-1459 1/2
IBUKI KOGYO CO., LTD. OSAKA JAPAN			



NAME PLATE
銘板

D. W. N. F. Shintaku	DATE	JAN. 26. 2004
C. K. D. F. Shintaku	DWGNO.	SWJ-11-1459 2/2
IBUKI KOGYO CO., LTD. OSAKA JAPAN		



WIRING DIAGRAM

接続図

BREAKER ブレーカ

BR1	10 A	BR3,5	3.15 A
BR2	3.15 A	BR4	8 A

D.W.N. F.S. DATE JAN. 26. 2004

C.K.D. K.M. DWG.NO. V-20102-638

IBUKI KOGYO CO., LTD. OSAKA JAPAN