## **Sound Powered Telephone**

Marine Sound Powered Telephone (LC-800/LSA-100) Battery less Telephone System

#### **GENERAL DESCRIPTION**

Sound Powered Telephone system is used for communicating with the wheel house, the engine control room, and the steering gear room in case of emergency and for communicating between the areas or rooms when necessary. Especially, being independent from the power supply of the vessel, this system allows for emergency communication at critical spots in the vessel even in case of power failure. It is manufactured to be a waterproof and dustproof appropriate for the vessel, and adopts the input power supply of 24V DC to deliver communications and signals (Bell, Lamp, Etc.). This system includes the following types: Flush, wall, waterproof, portable, and intrinsically safe (Used for normal condition or in the area with the possibility of explosive gas in case of accident) types, all of which can be interfaced to the Horn/Bell/Flashing Light, and the Foot Switch.

This system was tested at the IEC60945 standard and approved for CE by DNV GL. The Type Approval was done from DNV GL, CCS, RMRS.

#### **Product Information**

Operations and Specifications

Telephone Sets : The sound power (Battery less) telephone consists of the direct and mutual selection types, and is divided into the following categories according to the purpose.



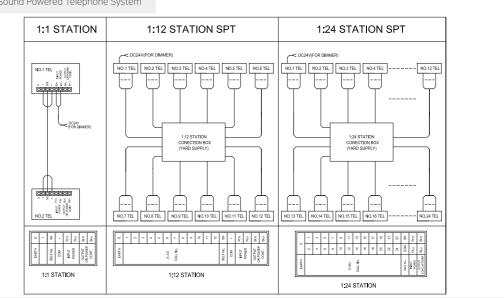






Electric Specifications	<ol> <li>Compass Safety Distance : Min. 1-meter</li> <li>Voice Transmitting Sensitivity : 0.2V ± 0.1Vrms</li> <li>Frequency Characteristics : Less than 6dB (300 Hz ~ 3 kHz)</li> <li>Generator Output Voltage : 75V ± 10%</li> <li>DC power can be connected to this telephone for dimmer source only</li> </ol>
Mutual Selection Type (Max. 24 Station) - (LC-800 / LAS-100)	<ol> <li>Calling         <ul> <li>a) Lift the handset and select the desired switch</li> <li>b) Quickly rotate the handle of the magnetic generator for 10 times or more, and then the calling signal is transmitted to the receiver</li> <li>c) The phones are now connected</li> </ul> </li> </ol>
	<ul><li>2. Answering</li><li>a) The bell rings and the lamp blinks</li><li>b) Lift the handset</li><li>c) The phones are now connected</li></ul>

#### Wiring Diagram of Sound Powered Telephone System



LSA-100 Telephone 🔺



#### Sound Powered Telephone





Cautions	<ol> <li>This telephone uses the power charged in capacitor for about 30 minutes.</li> <li>Terminal Board "SN" : Connect to self-number.</li> <li>Terminal Board "COM" : Common line of all telephones</li> <li>Terminal Board "+, -" : If the relay box is not used, the bell, R/L and horn connected to the external power (AC/DC).</li> </ol>
Direct Type (1:1 Station) - (LC-700 Series Only)	<ol> <li>Calling         <ol> <li>Lift the handset and quickly rotate the handle of the magnetic generator for 10 times or more</li> <li>Then, the calling signal is transmitted to the receiver</li> <li>The phones are now connected</li> </ol> </li> <li>Answering         <ol> <li>The bell rings and the lamp blinks</li> <li>Lift the handset</li> <li>The phones are now connected</li> </ol> </li> </ol>

37

# Accessory-Sound Powered Telephone

Battery less Telephone System

MODEL	LC-711	LC-713C	LC-713G	LC-715C	LC-717	LC-812A / 822A	LC-814A / 824A	LC-814B,
РНОТО								R
MOUNTING TYPE	DESK	WALL	WALL	FLUSH	PORTABLE	DESK	WALL	WALL
STATION	1:1 STATION	1:1 STATION	1:1 STATION	1:1 STATION	1:1 STATION	12/24 STATION	12/24 STATION	12 / 24 STA
GLAND	Х	2	2	Х	Х	Х	X	Х
GIGNAL CONTACT	Х	0	0	0	Х	Х	0	0
ERMINAL DEVICE	Х	0	0	0	Х	Х	0	0
HEADSET	Х	Х	0	Х	Х	Х	X	Х
DIMMER	Х	Х	Х	Х	Х	Х	Х	Х
IP GRADE	IP22	IP44	IP44	IP22	IP56	IP22	IP22	IP44
(WxDxH)mm	217x226x125	152x143x270	152x143x270	152x160x270	156x166x27	217x226x125	152x143x270	152x143x2
WEIGHT	1.9kg	2.9kg	2.9kg	1.7kg	42.5kg	2.1kg	2.9kg	2.9kg
COLOUR	BLACK	GRAY	GRAY	BLACK	GRAY	BLACK	GRAY	GRAY
MATERIAL	ABS	ABS	ABS	ABS	ABS/STEEL	ABS	ABS	ABS
INSTALL AREA	CABIN	MACHINERY	MACHINERY	CONSOLE	-	CABIN	GALLEY, WORK SHOP	GALLEY,WORK

MODEL	LC-814C / 824C	LC-814E/824E	LC-814G/824G	LC-814G1 / 824G1
РНОТО				
MOUNTING TYPE	WALL	WALL	WALL	WALL
STATION	12/24 STATION	12/24 STATION	12/24 STATION	12/24 STATION
GLAND	2	3	2	3
SIGNAL CONTACT	0	0	0	0
TERMINAL DEVICE	0	0	0	0
HEADSET	Х	Х	0	0
DIMMER	Х	Х	Х	Х
IP GRADE	IP44	IP44	IP44	IP44
(WxDxH)mm	152x143x270	152x143x270	152x143x270	152x143x270
WEIGHT	9kg	3.2kg	3.3kg	3.5kg
COLOUR	GRAY	GRAY	GRAY	GRAY
MATERIAL	ABS	ABS	ABS	ABS
INSTALL AREA	GALLEY, WORK SHOP	MACHINERY	MACHINERY	MACHINERY

LC-816A/826A	LC-816C / 826C	LC-818/LC-828
FLUSH	FLUSH	PORTABLE
12/24 STATION	12/24 STATION	12/24 STATION
Х	Х	Х
0	0	Х
0	0	X
Х	Х	X
0	Х	X
IP22	IP22	IP56
152x160x270	152x160x270	156x166x274
2.2kg	2.1kg	3.9kg
BLACK	BLACK	GRAY
ABS	ABS	ABS/STEEL
CONSOLE	CONSOLE	-

\*LC-71x - 1:1 Station / LC-81x: MAX 12 Station / LC-82x - MAX 24 Station / "N" - Noise Cancel Type





### Sound Powered Telephone

# Accessory-Sound Powered Telephone

Battery less Telephone System

	OR TELEPHONE (NEW VE	RSION)			
MODEL	LSA-111A/121A	LSA-113A/123A	LSA-114B/124B	LSA-114C / 124C	LSA-114HB/124HB
РНОТО					
MOUNTING TYPE	DESK	WALL	WALL	WALL	WALL
STATION	12 / 24 STATION	12/24 STATION	12/24 STATION	12/24 STATION	12/24 STATION
GLAND	Х	Х	1	2	2
SIGNAL CONTACT	Х	0	0	0	0
FERMINAL DEVICE	Х	0	0	0	0
HEADSET	Х	Х	Х	Х	0
DIMMER	Х	Х	Х	Х	Х
IP GRADE	IP22	IP56	IP56	IP56	IP56
(WxDxH)mm	217x226x125	220x97x200	189x100x224	189x100x224	189x100x224
WEIGHT	1.9kg	0.9kg	2.9kg	2.9kg	2.9kg
COLOUR	BLACK	BLACK	BLACK	BLACK	BLACK
MATERIAL	ABS	ABS	ABS	ABS	ABS
INSTALL AREA	CABIN	CABIN	GALLEY, WORK SHOP	MACHINERY	MACHINERY

MODEL	LSA-116A / 126A	LSA-116D / 126D	LSA-117A/127A
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MOUNTING TYPE	FLUSH	FLUSH	PORTABLE
STATION	12/24 STATION	12/24 STATION	12 / 24 STATION
GLAND	Х	Х	Х
SIGNAL CONTACT	0	0	Х
TERMINAL DEVICE	0	0	Х
HEADSET	Х	Х	Х
DIMMER	Х	0	Х
IP GRADE	IP56	IP56	IP56
(WxDxH)mm	189x90x224	189x90x224	194x153x255
WEIGHT	2.9kg	2.9kg	4.1kg
COLOUR	BLACK	BLACK	BLACK
MATERIAL	ABS	ABS	ABS/STEEL
INSTALL AREA	CONSOLE	CONSOLE	-

WALL	WALL
12/24 STATION	12/24 STATION
2	3
0	0
0	0
0	Х
Х	Х
IP56	IP56
189x100x224	189x100x224
2.9kg	2.9kg
BLACK	BLACK
ABS	ABS
MACHINERY	MACHINERY

LSA-114HC / 124HC

ACCESSORY FOR	CONNECTION BOX		
MODEL	JB-7A/7B	JB-8A1/8B1	JB-9A1/9B1
РНОТО		STATISTICS FIL	Source Market I FL
MOUNTING TYPE	WALL	WALL/FLUSH	WALL/FLUSH
IP GRADE	IP56	IP22	IP22
GLAND	2	Х	Х
DIMENSION(WxDxH)mm	153x100x200	102x52x152	78x52x140
MATERIAL	POLYCARBONATE	STEEL	STEEL
COLOUR	GRAY	IVORY	IVORY
WEIGHT	1.9kg	0.6kg	0.6kg
INSTALL AREA	FOR PORTABLE(MAX-12,24STATION)	FOR DESK TEL(MAX-12,24STATION)	FOR DESK TEL(MAX-12,24STATION

40



### Sound Powered Telephone

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4



LSA-115A / 125A	LSA-115D / 125D
FLUSH	FLUSH
12/24 STATION	12/24 STATION
Х	Х
0	0
0	0
Х	Х
Х	0
IP56	IP56
189x90x224	189x90x224
2.9kg	2.9kg
BLACK	BLACK
ABS	ABS
CONSOLE	CONSOLE