Operating instructions for ShipCom intercomsystem

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The ShipCom intercom system is a high output communication system specially developed for environments with a great deal of background noise but where good communication is required. Examples of areas where the system could be used are engine rooms in ships, building sites, loading bays, carparks e.t.c.

The system makes use of an amplifier which has a considerable dynamic range. A special filter is employed which ensures that the majority of the sound interference is suppressed. Particular to this system is a sound reproduction with numerous high tones which gives good clarity. By using special microphones and loudspeakers the system can be tailored to the most demanding situations.

Service and installation have been kept simple by using a modular system and two connecting wires (with shielding) between the stations, . The central unit is mounted in a lockable steel case suitable for wall mounting and contains all the electronics and power connections for the system. The system can be powered by 84 to 260 volt AC and 24 volt DC. Automatic switching from AC to DC is a standard feature. Available voltages are shown by LED indicators. An SCB-18 control panel is necessary to operate the system and this can be situated separately from the central unit so that the latter can be installed in the most convenient place. All incoming and outgoing calls are routed through the central control panel, but communication between the individual stations is not possible. However, it is possible to make a general call from the central control panel to all connected stations at the same time. Where possible the design incorporates conventional electronic components which are available throughout the world.

Privacy is also an important consideration. When a station is activated via the central control panel, a short audible signal to that station indicates that it is activated. Privacy can be ensured by pressing a special switch located on the station panel.

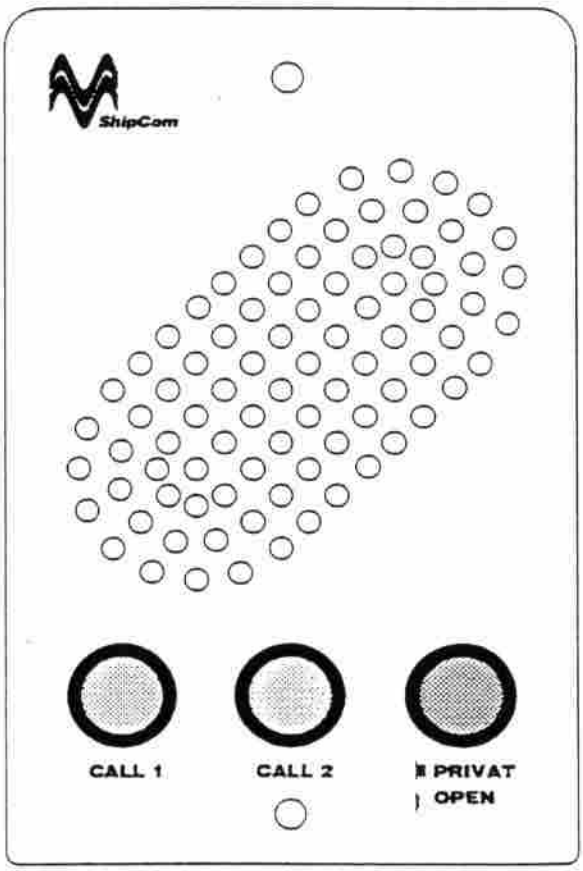
Connection of two central control panels is possible by means of a special box in which all the necessary printed circuits boards can be mounted. Prioritised communication is then possible between the central control panels. In addition, each control panel has its specific stations connected which can communicate with each other. There is also an option to use stations which can be connected to both systems.

Illuminated signals are standard on the SCB-18 control panel. However, from experience these are not always sufficient to give warning that there is an incoming call in extreme situations, thus there is a relay which activates horns or flashing lights. When a connection is made between the control panel and a station, an audible sound is emitted at the station. If response to the signal is not immediate the audible tone can be repeated by pushing the 'HAIL' button.

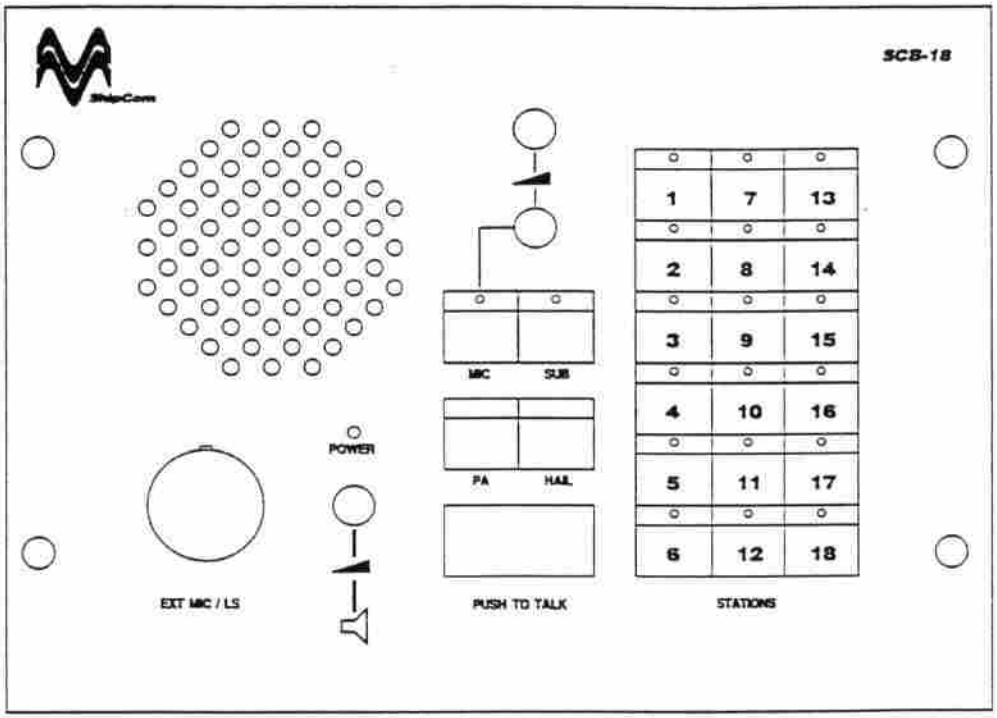
A public adress system can be made using an extra 40 watt amplifier which can be interchanged with the intercom amplifier. The additional amplifier operates a separate group of loudspeakers which then also receive the transmission. External signals from, for example, a CD player or radio can also be connected to this amplifier so that background music is provided to the loudspeakers.

Stations are connected to the system by means of a two-wire cable per station. All types of station consist of a cabinet, either in aluminium or stainless steel, with a separate front on which the electronics are mounted. Cables can be fed through the back or the bottom of the cabinet. A station with a connection for headphones is available for use in areas where the background noise is very high. The headphones combine ear protectors with a special built-in microphone which effectively cuts out background noise when combined with the ShipCom sound filter.

Frontside view of ShipCom station



Frontsideview of SCB-18



EXT MIC / LS	Connection for external microphone and / or headphone.
POWER	LED indicator - lights up when power is available.
MIC	Button for selection of internal or external microphone
SUB	Button to call up another central control panel. Light is also on when there is a call from another control panel.
PA	Button to transmit to all connected stations (and loudspeakers where applicable).
HAIL	Repeat button to reactivate call signal to another station.
PUSH TO TALK	Button for verbal transmission from the control panel. This button is also located on the headphones where applicable.
STATIONS	Station selection. The red light flashes when the station is being called and stays on when the call is answered.

The volume of the loudspeakers and the microphones can be separately adjusted by rotation of the potentiometers next to the symbols.

Choosing the correct microphone,

An external microphone or headphones can also be connected to the SCB-18 control panel. In order to choose the correct microphone, the button 'MIC' should be pressed, a red indicator lights up and the 'INTERNAL' microphone is connected. This is the microphone which is connected to EXT MIC / LS. The level of sound can be regulated using the potentiometer directly above the button. It is also possible to install a microphone on a flexible neck in place of the internal microphone. This can be found in the same place on the SCB-18 panel (above the potentiometer).

Calling a station,

Choose the correct button for the station to be called. The red light in the button stays on and the call tone will be heard at the station. The station can now reply as long as the private option has not been chosen. The 'PUSH TO TALK' button should be depressed at the central control panel to speak to the station. As long as this button is depressed it is possible to speak to a station (even if the 'PRIVATE' button at the station is in use). When the communication is finished, release the 'PUSH TO TALK' button and the station can reply. If there is no reaction from the station, push the 'HAIL' button briefly and the call signal is heard once more.

To answer a call on the control panel,

When a call is made from a station to the control panel SCB-18, an intermittent signal is heard until the call is answered. A red light in the station button also flashes indicating which station is calling. By depressing the button with the flashing indicator the call is accepted and the station is connected. The 'PUSH TO TALK' button is again used to 'speak / listen' as described above.

To make a call from one control panel to another,

This operation is similar to that to call up a station, but instead of depressing a 'station' button, the 'SUB' button should be pressed. Then press the 'HAIL' button briefly so that the call signal can be heard. This call must always be accepted by the other control panel by pressing the 'PUSH TO TALK' button once.

Adjusting the volume of the loudspeaker,

The potentiometer located under the loudspeaker just above the symbol can be used to adjust the volume. The speaker can be adjusted to a minimum level but can not be turned of completely.

To make a call from a station,

A 'CALL' button is located at each station which is connected to the central control panel. When the button is depressed for at least 1 second a call tone is heard at the control panel. The call must be acknowledged by the SCB-18 panel before any transmission can be made. If present, a second control panel can be contacted by means of the 'CALL2' button.

Note: A 'private' button is located on each station. If this button is not pressed then there can be no verbal transmission from this station to the control panel. However, it is always possible to speak to the station from the control panel.

To make a general call,

The control panel SCB-18 has a 'PA' button which enables a call to be made to all stations connected to the central control panel. When this button is depressed, the stationindicators on the station control panel light up and there is direct verbal contact. It is not necessary to depress the 'PUSH TO TALK' button. If the system includes an additional amplifier, the announcement can also be heard over the loudspeakers connected to the amplifier. The stations can reply by means of the normal method.

Use of the 'BILSON' headphones,

These headphones are attached to a control box which in turn is connected to the SCB-18 control panel or to stations of type SCT. If they are connected to the SCB-18 control panel, then the external microphone must be used and the 'speak / listen' option used on the headphone control box. When the headphones are connected to station type SCT, then the 'speak/listen' option cannot be used. 'Hands-free' communication is now possible. Any noise disturbance heard through the microphone in the SCT station can be eliminated by turning the 'PRIVATE' button off. The call signal is always audible through the headphone and the station.

note: The headphones only work well when the microphone is placed close to the mouth.

Index of stations

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