

## **2.0 INTRODUCTION**

The Bridge Alarm System is used in order to release both audible and visual alarms in the case of degraded system performance for primary navigation equipment on bridge.

The bridge alarm system contain main panel with a colour touch screen, buzzer, reset button and a key-switch for programming.

The watch monitoring system shall detect operator disability and verify that the bridge is manned and indicate that the officer of the watch is alert. Bridge Alarm System (watch alarm) is based on periodic verification requiring manual acknowledgement within pre-set intervals. The intervals are adjustable in step (1 min.) from 3 to 12 minutes.

Whenever the navigator operates a reset push button or operates one of the navigation instruments with “reset” connected to the bridge alarm system, the interval checking time will be reset.

The interval checking incorporates advance warning (watch alarm) of the expiry of the interval. The watch alarm time of 30 sec. is included in the pre-set interval.

By acknowledgement of any warning/alarm, the interval checking is reset.

The system gives the navigator 30-sec warning by flashing light and buzzer (15 sec flashing light + 15 sec flashing light and buzzer, i.e. 3 min. + 15 sec +15 sec.), before the alarm is transferred from bridge to alert the Captain and appointed back-up navigator (if selected) and to panels in accommodation (public area) (second stage).

If the alarm is not being acknowledged in the wheelhouse within 90 seconds after second stage, alarm is also transferred to all navigator panels as well as in accommodation (public area) onboard the vessel (third stage). (Ref. to IMO Res. MSC 75/24/Add.1 ANNEX 11, 4.1.2)

Input from heading or track control (if connected) switches the alarm system and the watch alarm automatically on and inhibited when the aforesaid system is not active.

(Ref. to IMO Res. MSC.128 (75) Annex 4.1.1.1)

The cabin/mess room panel is installed in the following areas:

- Captain’s cabin, Ch. Officer’s cabin,
- 2<sup>nd</sup> Officer's cabin, 3<sup>rd</sup> Officer's cabin,
- Accommodation (public area).

It is possible to include any of the cabins of the watch officers in the system by selection from the main bridge panel.

The main bridge panel has a function for emergency call, alarm to all cabins and accommodation panels (public area).

The Bridge Alarm System also gives an alarm output to the main alarm plant when power failure, PLC failure or (if selected) an third stage alarm.