

FURUNO



**BRIDGE NAVIGATIONAL
WATCH ALARM SYSTEM**

BR-500



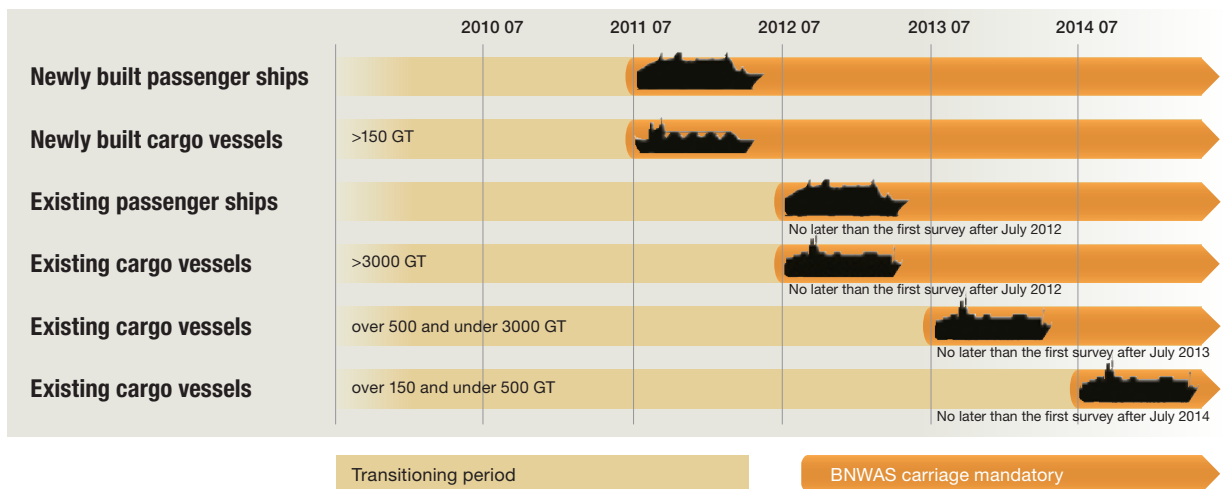
Monitor watch officer's presence and receive early warning detections in case of an emergency



- ▶ Meets the IMO resolution MSC.128(75) for Bridge Navigational Watch Alarm System (BNWAS)
- ▶ Monitors the watch officer's presence for maritime casualty avoidance
- ▶ Transfers the watch alarm to the back-up officer, in the event that the watch officer fails to respond to watch pre-warning or watch alarm
- ▶ Quick access push keys for Navigation Officer's Call and Emergency Call
- ▶ Notifies Back-Up Navigators when TCS (Track Control System, option) has failed

- ▶ Outputs ALR sentence for VDR
- ▶ Optional Motion Detector and Flash Beacon available
- ▶ Set-up menu is protected by password
 - Mode selection (Manual OFF, Manual ON, AUTO)
 - Timer interval (3 to 12 min.)
 - System test
- ▶ Easy to read alphanumeric and graphic presentations
- ▶ Multilanguage available
English, Japanese, Russian, Chinese and Korean
 For use of languages other than English, please consult with the flag administration and/or class society concerned, before operating BNWAS in those languages.

Implementation schedule of Bridge Navigational Watch Alarm System (BNWAS)





BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM

The IMO MSC.86 (May 2009) decided to make the BNWAS (Bridge Navigational Watch Alarm System) mandatory of all ships of 150 GT and larger. Passenger ships constructed on or after July 1st 2011, irrespective of size, shall be fitted with the BNWAS to be in operation when the ship is at sea. Ships constructed prior to July 1st, 2011 are also requested to install BNWAS. (Please refer to the implementation schedule chart on the left page.)

The FURUNO BNWAS BR-500 monitors the watch officer's presence through watch safety system functions. A watch officer is required to press the button on a Timer Reset Panel or to operate navigation equipment (e.g. ECDIS,

Radar, etc.) at certain intervals, which can be set between 3 and 12 minutes. When the officer fails to press the button within pre-set intervals, visual and audible alarms will be generated in the wheelhouse. If the officer doesn't respond to the alarm, the BR-500 transfers the alarm to the Cabin Panels installed in other sections of the vessel in order to inform backup officers of the watch officer's incapacity.

FURUNO offers the optional Motion Detector to watch the officer's capability. Also, the optional Flash Beacon enables the watch officer to recognize the visual alarm.

SPECIFICATIONS

MAIN ALARM PANEL (BR-510)

Screen Size	4.3" color LCD
Pixel Number	480 x 272

PROCESSOR UNIT (BR-520)

Input	Operational Signal	4 ports
	Autopilot	1 port
	Backup Navigator	1 port
Output	System Fail	2 ports
	IEC 61162	1 port

MOTION DETECTOR (BR-560)

Detecting Scheme	Pyroelectricdetection
Detection Range	Up to 5m, 80 deg x 80 deg
Detection Rate	0.8 thru 1.2m/s
Detection Sensitivity	4°C (difference from surround in temperature)

POWER SUPPLY

	100-230 VAC
	24 VDC

ENVIRONMENT

Temperature	Watertight Timer Reset Panel	-25°C to +55°C
	Other units	-15°C to +55°C
Waterproofing (IEC 60945 Ed. 4)	Watertight Timer Reset Panel	IP56
	Other units	IP22
Vibration	IEC 60945 Ed. 4	

EQUIPMENT LIST

Standard

1 Main Alarm Panel	BR-510	1 unit
2 Processor Unit	BR-520	1 unit
3 Timer Reset Panel	BR-530	(on demand)
4 Cabin Panel	BR-540	(on demand)
5 Installation Material and Spare Parts		1 set

Option

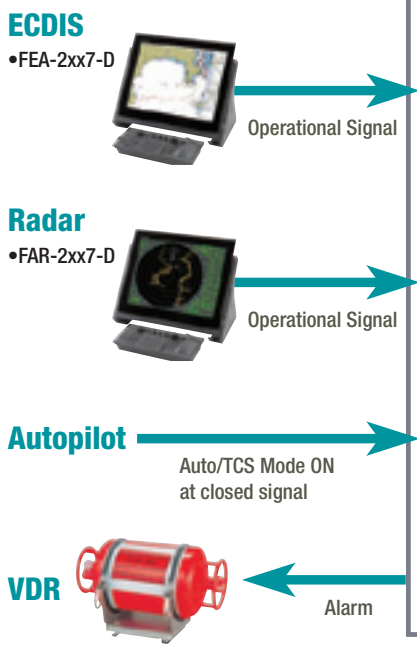
- Watertight Timer Reset Panel	BR-550	(on demand)
- Motion Detector	BR-560	(on demand)
- Flash Beacon	BR-570	
- Hanger (for Main Alarm Panel)		
- Light Shielding Film (for Main Alarm Panel)		
- Wall-mounted Bracket (for BR-530/540/560/570)		

*Maximum number of connectable units

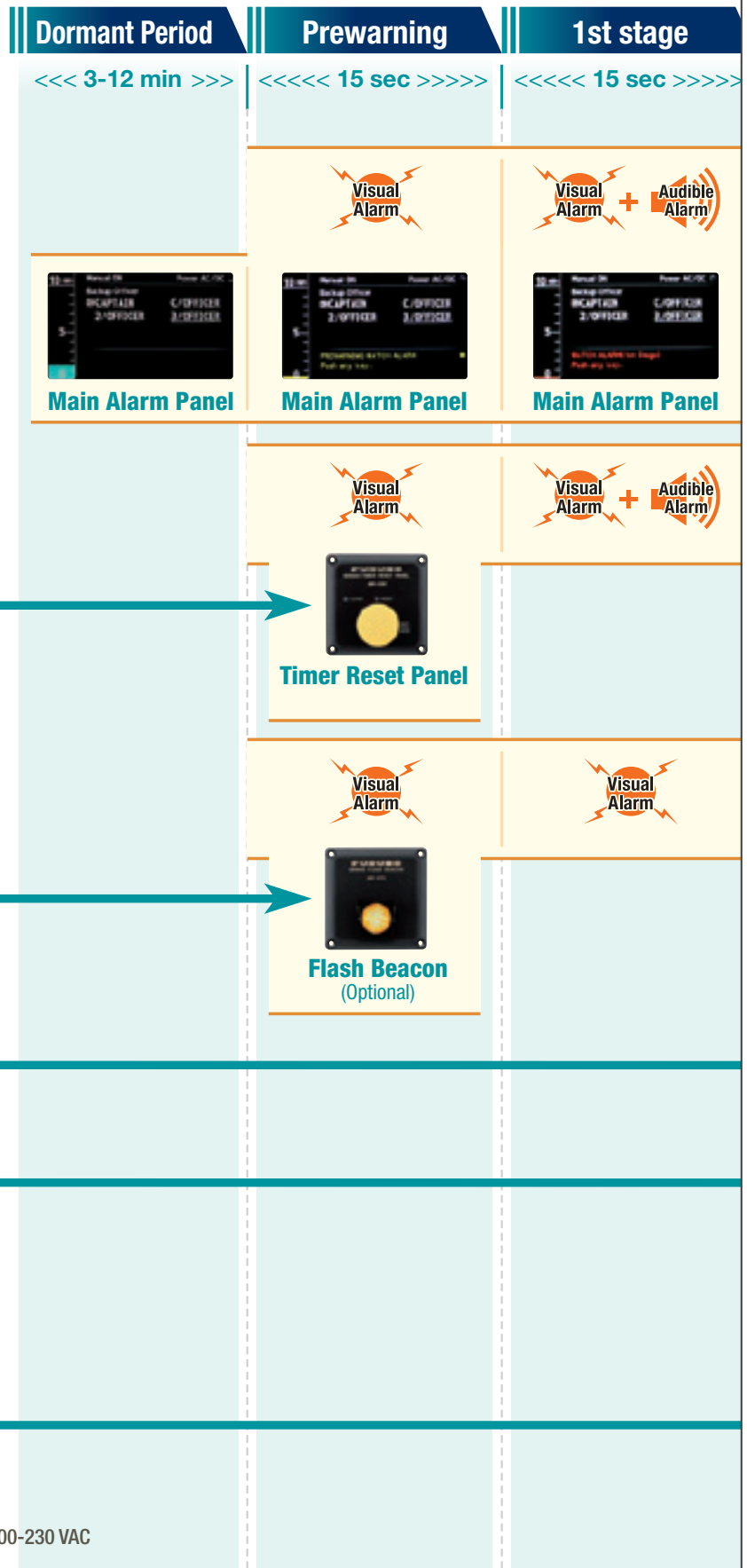
- (Watertight) Timer Reset Panel: 6
- Cabin Panel: 12

BR-500 Watch Safety System sequence

Timer Reset Function



Processor Unit



2nd stage

3rd stage

Dormant Period

90-180 sec

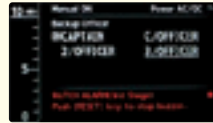
Buzzer stop

Timer starts

ACK



Main Alarm Panel



Main Alarm Panel



Main Alarm Panel



Selected back-up navigator's and/or Captain's room



Public rooms*

Cabin Panel

*e.g.,
Officer's lounge,
Officer's mess room,
Ship's office



All officers' rooms

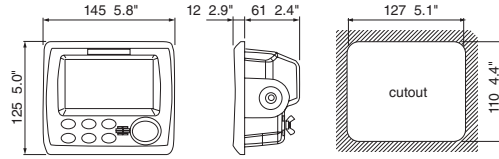
Cabin Panel

Standard

Main Alarm Panel (Flush Mount Type)

BR-510

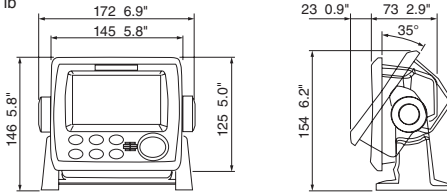
0.6 kg 1.3 lb



Main Alarm Panel (Hanger Type)

BR-510

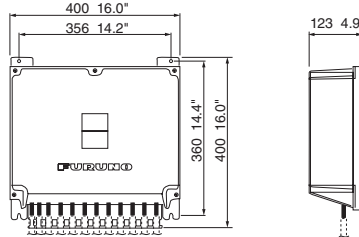
0.7 kg 1.5 lb



Processor Unit

BR-520

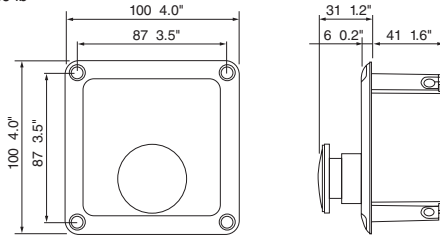
5.3 kg 11.7 lb



Timer Reset Panel

BR-530

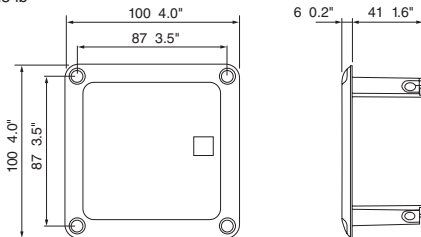
0.26 kg 0.6 lb



Cabin Panel

BR-540

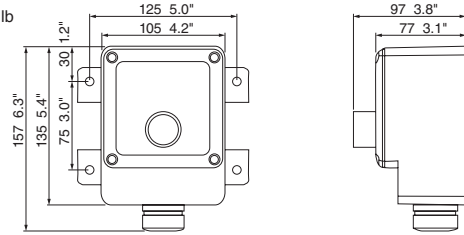
0.23 kg 0.5 lb



Watertight Timer Reset Panel

BR-550

0.57 kg 1.3 lb

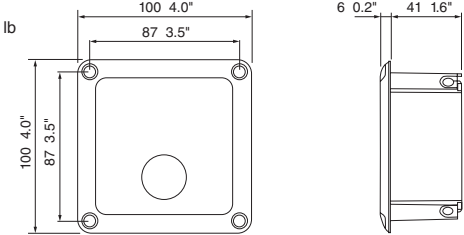


Option

Motion Detector

BR-560

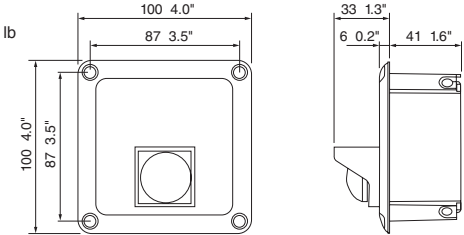
0.22 kg 0.5 lb



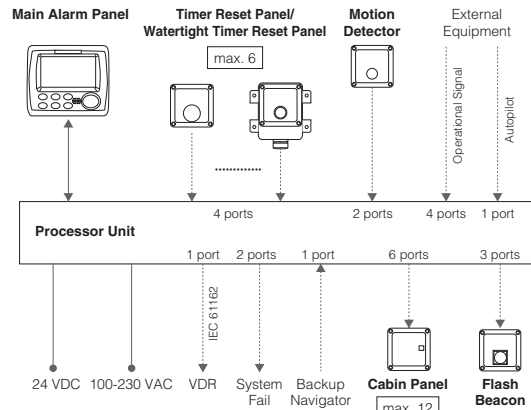
Flash Beacon

BR-570

0.24 kg 0.5 lb



INTERCONNECTION DIAGRAM



..... Option or Local Supply

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