

ECDIS MALFUNCTION / FAILURE

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	ACTION TO BE TAKEN (NOT NECESSARILY IN ORDER)
	Both ECDIS Malfunction/Failure
<input type="checkbox"/>	Call master
<input type="checkbox"/>	Stop vessel / Anchor or drift as appropriate depending on the situation
<input type="checkbox"/>	Engage Hand Steering
<input type="checkbox"/>	Inform office and provide ship's position
<input type="checkbox"/>	Post additional lookout on bridge
<input type="checkbox"/>	Keep Main engine on standby as required
<input type="checkbox"/>	Alert vessels in vicinity if required
<input type="checkbox"/>	Add route waypoints in GPS to display on radar
<input type="checkbox"/>	Inform Port authorities / VTIS / Pilot as applicable
<input type="checkbox"/>	Wait for office instructions
<input type="checkbox"/>	Take out relevant paper charts if available on board and update with corrections
<input type="checkbox"/>	Maintain situational awareness (traffic, position, depth by echo sounder, distance from shore etc)
<input type="checkbox"/>	Office to plot ship's position on ECDIS or on paper chart
<input type="checkbox"/>	Based on the Risk assessment of the transit area to reach to the safe location where technician or paper charts can be arranged, office may provide scanned charts for reference only
<input type="checkbox"/>	For further navigation to safe location, office will advise route waypoints, course and distance and office will monitor ship's transit by exchanging the ship's position between ship and office
<input type="checkbox"/>	Carry out trouble shooting and basic recovery procedure as per makers instructions
<input type="checkbox"/>	Swap parts so as to make at least one ECDIS operational as recommended by maker
<input type="checkbox"/>	The Company will review situation and advise on further course of actions, contact manufacturer and seek emergency assistance and arrange to supply the vessel with updated charts for the purpose of navigation.

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<input type="checkbox"/>	Single ECDIS Failure
<input type="checkbox"/>	Call Master
<input type="checkbox"/>	Select secondary ECDIS as primary
<input type="checkbox"/>	Check secondary ECDIS is functioning properly, refer ECDIS Periodic Checklist B17 for checks
<input type="checkbox"/>	Consider reducing speed
<input type="checkbox"/>	Increase safety margins where possible
<input type="checkbox"/>	Consider manoeuvring to contingency area or deeper water
<input type="checkbox"/>	Prepare risk assessment on sailing with single ECDIS
<input type="checkbox"/>	Continue navigation with working ECDIS with enhanced position fixing and closely monitor ECDIS functionality
<input type="checkbox"/>	Inform company
<input type="checkbox"/>	Refer maker's manual for trouble shooting
<input type="checkbox"/>	Company will contact manufacturer for advice
	ECDIS Sensors input failure (e.g. GPS: Position input failure, Gyro: Heading information failure, Speed Log: Speed input failure)
	Sensor input failure (Position or Heading or Speed sensor input failure)
<input type="checkbox"/>	Read and acknowledge the Alarm
<input type="checkbox"/>	Identify failed sensor input
<input type="checkbox"/>	Call master
<input type="checkbox"/>	Ascertain the closest navigational danger and time available
<input type="checkbox"/>	Amend the ship's route as necessary
<input type="checkbox"/>	Inform engine room and assess engine readiness requirement
<input type="checkbox"/>	Increase bridge manning level as required

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<input type="checkbox"/>	Analyse the risks associated with failed sensor input
<input type="checkbox"/>	Identify other equipment that may be affected by failed sensor
<input type="checkbox"/>	Determine if it is possible to rectify the sensor input
<input type="checkbox"/>	Inform company
	GPS/Position input failure
<input type="checkbox"/>	Comply all above as required in case of Sensor input failure
<input type="checkbox"/>	Select the second GPS input (if unit doesn't switch over automatically to second GPS)
<input type="checkbox"/>	If second GPS input unavailable, operate ECDIS in Dead Reackoning(DR) mode
<input type="checkbox"/>	Increase safety margin where possible
<input type="checkbox"/>	Select the Radar Image Overlay
<input type="checkbox"/>	Independently fix the ship position using Visual and Radar means or using ECDIS radar image overlay
<input type="checkbox"/>	Increase the frequency of position fixing
	Gyro/Heading input failure
<input type="checkbox"/>	Comply all above as required in case of Sensor input failure
<input type="checkbox"/>	Manually enter the magnetic heading information into the ECDIS
<input type="checkbox"/>	Switch the ECDIS to "Head Up" mode
<input type="checkbox"/>	Verify magnetic compass error
	Speed input failure
<input type="checkbox"/>	Comply all above as required in case of Sensor input failure
<input type="checkbox"/>	Change the speed source to GPS
<input type="checkbox"/>	If GPS speed unavailable, enter manual speed into the ECDIS

Note:

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- Company will obtain dispensation from Flag state
- Company will arrange technician at next port to carry out repairs