

Title	Design marine electrical control and monitoring systems		
Level	7	Credits	20

Purpose	People credited with this unit standard are able to: identify customer requirements; design systems to match client requirements and boat characteristics; and complete documentation.
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Classification	Boating Industries > Boatbuilding
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Available grade	Achieved
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Guidance Information

Range

systems may include – AC/DC generation, distribution and reticulation, electrical vessel control and monitoring systems.

Outcomes and performance criteria

Outcome 1

Identify customer requirements.

Performance criteria

1.1 Analysis of customer requirements establishes the intended use of the systems.

Range boat type and size, operating environment, existing and proposed systems and equipment associated with the intended use.

1.2 Analysis of customer requirements establishes the customer's expected price range and expectations of system and equipment performance.

1.3 Agreement is reached on design strategy for systems and equipment.

Outcome 2

Design systems to match client requirements and boat characteristics.

Performance criteria

2.1 Equipment and systems are listed in terms of their proposed use.

2.2 Systems are designed to meet customer expectations, operation and regulatory requirements.

Range costs, compatibility, serviceability, cosmetics, power supplies, boat layout, accessibility and safety.

2.3 System design is co-ordinated with other specialist designers.

Range includes but is not limited to – electronic engineering, boat builders, motive power, naval architects, interior designers.

Outcome 3

Complete documentation.

Performance criteria

3.1 Systems drawings are produced that include equipment information.

3.2 Equipment schedule is produced to meet job requirements.

3.3 Cable schedule is produced according to wiring requirements.

3.4 Systems description is produced according to design proposal.

Planned review date	31 December 2020
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 August 1997	N/A
Revision	2	9 October 1998	N/A
Revision	3	20 March 2001	N/A
Revision	4	16 April 2004	N/A
Rollover	5	20 March 2009	N/A
Rollover and Revision	6	26 July 2018	N/A

Consent and Moderation Requirements (CMR) reference	0136
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the NZ Marine and Composites Industry Training Organisation training@nzmarine.com if you wish to suggest changes to the content of this unit standard.