

Title	Demonstrate knowledge of marine electrical digital switching systems		
Level	4	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of marine electrical digital switching systems.
----------------	---

Classification	Boating Industries > Boatbuilding
-----------------------	-----------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Assessment against this unit standard must be compliant with either –
 - (a) AS/NZS 3004.2:2014 – *Electrical installations – Marinas and boats*; or
 - (b) ISO 10133:2017 – *Small craft – Electrical systems – Extra low voltage d.c. installations*;
available at <https://shop.standards.govt.nz/>.
- 2 Definition
BUS refers to subsystem that transfers data between components in a computer or electronic system. It may include Controller Area Network (CanBUS), or proprietary systems of electronic component manufacturers.
- 3 This unit standard applies to boats exceeding 14m with all electrical functions digitally switched.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of marine electrical digital switching systems.

Performance criteria

- 1.1 Communication BUS principals are explained for marine electrical digital switching system contexts.
- 1.2 Wiring and component connection principals are explained for marine electrical digital switching systems in accordance with AS/NZS 3004.
- 1.3 Electronic component control principals are explained for marine electrical digital switching systems in accordance with AS/NZS 3004.

1.4 Digital switching applications are described in terms of types of craft.

Range evidence of four types of craft is required.

1.5 Digital switching systems are compared with analogue switching systems in terms of advantages and disadvantages.

1.6 Procedures for programming, commissioning, and troubleshooting of marine electrical digital switching systems are explained in accordance with AS/NZS 3004.

Range evidence of four digital switching systems is required.

Planned review date	31 December 2025
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 May 2011	31 December 2022
Review	2	27 August 2020	N/A

Consent and Moderation Requirements (CMR) reference	0136
--	------

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.