



Department of
Transport

Electrical, Gas and Insurance Requirements

Transport Operated Maritime Facilities



Introduction

This information package has been designed to set out the requirements for customers who berth or moor their vessel in a marina/harbour managed by the Department of Transport (DoT). In this brochure you will find guidelines for connection to the Marina/harbour shore-based power, as well as what you will need to do to demonstrate compliance with legislation and Australian Standards concerning your vessel's on board electrical and gas systems. Also included are details of public liability third party insurance you will require.

Australian legislation that governs the construction and modification of on board electrical and gas installations, as well as the correct method of connecting to a marina's on shore power supply, refer to the need to comply with relevant Australian Standards. The legislation and standards concerning these areas are highlighted within this booklet.

We expect that most boats that have been professionally constructed and that have had any subsequent modifications to their on board electrical and gas installations made by a licensed professional will already be compliant with these standards. However, as the marina/harbour operator, DoT also has a legislative requirement to ensure that vessels using its facilities do in fact comply with relevant legislation.

The owner of a vessel using a DoT facility needs to provide proof of compliance with electrical and gas requirements before pen or mooring licences are renewed or issued. Proof of appropriate Public liability third party insurance is also required at this time and this booklet explains what you need to do to comply with these requirements.

It is important for the safety of the facility and facility users that all vessels meet Australian Standards and have an appropriate level of insurance cover.

Please read the attached information thoroughly, and if you have any further questions feel free to contact the Marina/harbour Management at the contact number on the back page.

Yours sincerely



Donna West
Director
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Maritime Facilities Managed by the Department of Transport



General Instructions for the Connection of Vessels to the Shore-Based Power Supply

This Marina provides power for use on your boat with a direct connection to the marina low-voltage electrical supply which is connected to a copper-based marina electrical protective earthing system.

An isolating transformer fitted on-board to isolate the low-voltage electrical system of your boat from the marina low-voltage electrical supply system may reduce corrosion activity caused by the coupling of your boat's earth to the marina electrical protective earthing system and/or other boats.

Additional sacrificial anodes or galvanic isolators complying with AS/NZS 3004.2, Clause 4.6.4 may be used to reduce these effects. (Refer to the AS/NZS 2382 series of Standards for suitable cathodic protection practices.)

YOUR BOAT'S LOW-VOLTAGE ELECTRICAL SYSTEM MUST COMPLY WITH AS/NZ 3004.2 AND THE FOLLOWING REQUIREMENT:



Service pillar connection:
Heavy duty supply lead and
IP56 3 pin plug



Vessel connection:
Heavy duty supply lead and
IP56 3 pin socket



Joint in supply leads:
Comprising IP56
plug and socket

These requirements are in addition to the need for electrical systems on vessels to be certified as compliant with regulations and standards.

On Arrival

1. The electrical supply at this marina is 240 volts at 50Hz single phase (or 415 volts 3 phase in specific locations) supplied by socket outlets which will accommodate standard Australian plugs. Connection to the 240 volt single phase supply shall be via a 3-pin plug with an IP rating of IP56 (dust proof and weather proof to heavy seas force). Plug tops with an IP56 rating can be identified by the screwed locking ring – **see the illustration above**. The locking ring must be screwed to the socket outlet to provide the required protection. 3-pin plugs with an IP rating of less than IP56 are not permitted.
2. Supply leads shall be heavy duty flexible cords (complying with AS/NZS 3191 or AS/NZS 5000.1). The maximum length shall not exceed 25 metres.
3. Precautions should be taken to prevent the supply lead from sagging or falling into the water and, particularly, to prevent either end of the supply lead falling into the water should it become disengaged.
4. Only ONE supply lead is to be connected to any socket outlet. The use of double adaptors or power boards is prohibited.
5. The supply lead should be in one length. However if two leads are joined together they shall be connected using approved extension cord plugs & sockets with a minimum IP rating of IP56. Leads should not be used coiled as coiled leads generate heat and can damage the supply lead.
6. The entry of moisture and salt into the boat's appliance inlet may cause a hazard. Please examine carefully and clean before connecting to the facility electrical supply.
7. It is dangerous for unskilled persons to attempt repairs or alterations. If any difficulty arises consult the facility management or your licensed electrical contractor.

Before Leaving

1. Ensure that the facility electricity supply is switched off and the supply lead is disconnected.
2. The supply lead should be disconnected from the facility socket outlet first, and then from the boat's appliance inlet. Any cover that may be provided to protect the appliance inlet from the weather should be securely replaced.
3. The supply lead should be coiled up and stored in a dry location where it will not be damaged.

Electricity Supply Lead

Supply leads used for connecting the vessel to the shore based electricity supply shall comply with the requirements of AS3004. In addition, the supply lead shall be inspected and tested by a licensed electrical contractor, or other suitably qualified competent person as agreed to by the Department, at intervals not exceeding 12 months. An **inspection tag shall be fitted** to the supply lead within 1 metre of the supply lead plug. The details on the tag are to be in indelible ink. Inspection tags with unreadable details will be regarded as being out of date.

Failure to Comply

If the cord extension set is non-compliant with the above requirements the boat owner will be requested to make these compliant by a specific date. If after that date the cord extension set is still non-compliant it will be disconnected from the shore supply. If a cord extension set is found to be dangerous the facility staff will immediately disconnect the extension cord set from the shore supply.





General Instructions for the Inspection of On Board Electrical Systems and Gas Installations

All electrical work greater than 50 volts AC or 115 volts DC carried out on vessels is to comply with the:

- WA Electricity Act 1945
- Electricity Regulations 1947
- Electricity (Licensing) Regulations 1991
- Australian Standards relating to onboard electrical installations and connecting to shore-based power: AS3000 and AS3004.2.

Likewise recently installed or modified onboard gas fittings must comply with the:

- Gas Standards Act 1972
- Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999
- Australian Standards relating to gas installation: AS/NZS 5601.2 – Gas installations -LP Gas installations in caravans and boats for non- propulsive purposes.

Older gas installations are to comply with, as a minimum, the standards applicable at the time of installation and modification. Refer to Energy Safety Bulletin-Gas Focus No 57 for additional details.

In order to maintain a high level of safety, all vessels are required to have all electrical and gas fittings on board their vessel inspected by a licensed professional to confirm adherence to Australian legislation and standards.

Written certification of compliance as issued by a licensed professional authorised by Energy Safety will be accepted for a period of five years; however any subsequent gas or electrical modifications to the vessel will require new certification.

“All vessels (including Recreational and Commercial vessels) are required to supply current Notices of Compliance for Electrical and Gas installations issued by a competent person or persons who is authorised by the relevant Commonwealth or State organisations to confirm compliance with the applicable standards & legislation, ie AS/NZS 3000, AS/NZS 5601 and AS/NZS 3004.2.”

Insurance Requirements

People wishing to use a pen within one of the pen systems operated by the Department of Transport's Coastal Infrastructure branch have always been expected to obtain insurance both for public liability and for third party damage. In an effort to standardise these requirements across facilities State-wide, and to bring our safety systems in line with best practice methodology and privately owned facilities, a minimum level of insurance has been set for all vessels wishing to use a Coastal Infrastructure pen or mooring on either a permanent or casual basis.

In order to cover the licensee against damage to other vessels, the pen system or damage to persons or property within the pen and surrounding areas, it will be a requirement for vessel owners to obtain a level of insurance covering liability to other parties (i.e. public liability third party) for **TEN MILLION DOLLARS (\$10,000,000 AUS)**.

All **pen or mooring applications/renewals** will require the pen license holder to produce verification of having obtained this level of insurance as part of the conditions of pen occupancy. The date of expiry of the insurance policy will be recorded by the facility manager who will request a copy of the certificate of renewal before expiry.

All vessels wishing to use a pen in a Coastal Infrastructure managed facility **on a casual basis** must produce on demand proof of cover for the above stated amount for the period of time that they wish to use the pen and adjoining facilities.

Failure to Comply

Vessels not complying with the above requirements by the allotted time will be required to vacate the facility. Failure to vacate the facility as directed will result in legal action and the possible removal of the vessel from the facility at the owner's expense.



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