

Ripple control of water heaters

TECHNICAL INFORMATION SHEET

In Orion's network area, as a condition of providing our delivery service, we require that a ripple controller (or an equivalent acceptable to Orion) is fitted to control all residential and business storage electric water heaters (100-500 litres capacity with a heating element of more than 1.2 kW). This requirement applies to all new connections and to all existing connections that already have ripple controllers (but excludes connections that were initially established without a ripple controller prior to 2008 when the requirement was not in place).

To comply, customers can select from the following 3 options:

1. Peak controlled water heating

Under this option, Orion routinely controls water heating when network loading is high. Orion aims to minimise the impact on consumers by limiting the duration of control to no more than 4 hours in any 8 hour period for residential customers, and to no more than 2 hours in any 5 hour period for business customers. These arrangements are generally associated with controlled, economy, composite or inclusive type retail tariffs. Available channels are:

	Telenerg area	Decabit area
P1 Peak control (residential)	01 A 10 to 25	100 00 & 02 to 10
P2 Peak control (business)	02 A 10 or 11 03 A 10 or 13	100 14 100 01

Peak load management information is updated in real time on the load management dashboard on our website (www.oriongroup.co.nz).

2. Fixed time controlled water heating

This option provides water heating only during night periods when network loading is low. These arrangements are generally associated with night only, day/night or weekender type retail tariffs. For these options, Orion switches all load channels on for 7½ hours each night in one or two blocks between 9pm and 7am. Available channels are:

All channels are for both residential or business

	Telenerg area	Decabit area
F1 Night only	11 A 10 to 25	104 20 to 23 & 116 80 to 82
F2 Night with afternoon boost	12 A 10 or 11	106 30 or 31
F3 Nights and weekends	14 A 10 or 11	108 40
F4 Night 8 (reserved)	15 A 16	117 88

Our current timetable for fixed switching times can be found in appendix D of our ripple signal guide available at www.oriongroup.co.nz/downloads/RippleSignalGuide.pdf.

3. Emergency controlled water heating

This option has been introduced to accommodate businesses and some residential customers that require near continuous water heating without any regular control. Orion will only interrupt water heating supply to prevent or limit total outages during emergency capacity shortages. These channels are generally associated with an anytime type retail tariff. Available channels are:

	Telenerg area	Decabit area
E1 Emergency control (residential)	03 A 11	100 13
E2 Emergency control (business)	03 A 12	100 15

Notes

1. See our ripple signal guide available at www.oriongroup.co.nz/downloads/RippleSignalGuide.pdf for full details on Telenerg and Decabit ripple signalling.
2. Orion will only connect and continue to supply new and modified connections that comply with the ripple control requirement. This will be enforced via Orion's livening agents.
3. Fixed time controlled water heating that is wired with an over-ride switch or boost element must include either emergency or peak controlled interruption on the over-ride or boost circuit.

For further enquiries, contact Orion on **03 363 9898** or info@oriongroup.co.nz

oriongroup.co.nz

