SERVICE REQUIREMENTS FOR ALL INSTALLATION AND MODIFICATION OF DENTAL X-RAY APPARATUS

SHIELDING

- Dental Shielding requires that any normally occupied area which is less than 5 metres from an x-ray tube must be shielded with the equivalent of 0.15mm of lead, which is equal to:
  - 36mm of plasterboard
  - 1mm of mild steal sheet
  - 20mm of plate glass
- Shielding must extend from 300mm to 1800mm from floor
- The exposure control switch must be at least 2 metres from the x-ray tube and outside of the beam or behind a fixed barrier shield
- In the case of OPG machines, the patient must be viewed by the operator.
  → Compliance with the Radiation Protection and Control (Ionising Radiation) Regulations 2000

ELECTRICAL

- Electrical supply 3x 2.5mm cable including earth
- Apparatus must be connected to socket outlet connected to RCD Protected supply:
  - 10A
  - Power neon
  - RCD label
  - Example being Clipsal Medilec ML2015
  → Compliance with AS/NZS 3003:2011

REMOTE SWITCH CABLEING

- Cable dependent on manufacturer – ensure correct cabling is installed for specific machine
- Remote cable from entry point on the X-ray machine to a position safe for the operator to stand:
  - outside the primary X-ray beam and at least 2 metres from the X-ray tube and patient
  - behind an appropriate fixed protective barrier
  → Compliance with the Radiation Protection and Control (Ionising Radiation) Regulations 2000

WALL SUPPORT

Plain Dental X-Ray Apparatus

- Brick walls: suitable for direct mounting of X-ray machine
- Timber/Rondo walls: indicated X-ray machine position must contain one continuous piece of MDF with a minimum thickness of 32mm which must be secured between two wall studs (600mm between centres). The bottom of the MDF should be at 900mm above floor level extending to a total height of 1500mm above floor level.

OPG X-Ray Apparatus

- OPG wall support may vary depending on the manufacture’s requirements and can be determined with information from the supplier.
• Wall reinforcement undertaken by anyone other than C&L Dental must have photographic evidence of reinforcement. Failure to present will cause delay in X-ray installation until after an appropriately qualified builder has verified wall support adequacy.

TO THE OWNER OF A DENTAL PRACTICE

This document is to highlight the knowledge of

**AS/NZS 3003:2011 Electrical Installations – Patient Areas**
**Radiation Protection and Control (Ionising Radiation) Regulations 2000**

These Australian Standards set out the requirements for electrical installations in dental surgeries. These standards applies to installations (or alterations or additions) carried out after the date of publication.


As the owner of a dental practice, it is your responsibility to comply all the necessary legal requirements and the below listed should be able to advise whether it is necessary to be compliant with the above Australian Standards in South Australia.

Office of the Technical Regulator (phone number: 82265500)
Environment Protection Agency – Radiation Protection (phone number: 8463 7826)

Owner Name: __________________________________
Practice Name and Address: __________________________________

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