

## Warnings and Cautions

**WARNING**



**Dangerous Voltage**

The instructions given in this topic involve connecting dangerous voltage to the transmitter and should be carried out only by suitably qualified personnel.

**WARNING**



**Dangerous Voltage**

The equipment is permanently connected to the mains supply when the mains connectors are attached. Switching the rear panel Supply switch to off does not isolate all internal circuits from the mains supply. For this reason, a mains isolating switch should be fitted close to, and easily accessible from, the transmitter's position. The isolation switch should isolate both live and neutral supplies to the IEC connectors fitted to the drive assembly and amplifiers, be clearly labelled, and adequately rated to protect the equipment.

**WARNING**



**Antenna Radiation**

The antenna used with the transmitter must be installed such that the resultant radiated field strength is below 10 W/m<sup>2</sup> in areas normally accessible to personnel.

The RF field strength from the antenna can be predicted from the equation  $S=1.4PG/4\pi R^2$

[Where S = power density; P = power input to antenna; G = antenna gain; R = distance to centre of radiation and 1.4 = multiplication factor for average power based on a modulation index of 90%.]

Based on this formula for a 300 watt transmitter and using a 0 dBi antenna, the predicted safe distance from the centre of radiation would be approximately 1.8 m for a field strength of 10 W/m<sup>2</sup> (1 mW/cm<sup>2</sup>).

This meets the requirements of Health Canada Safety Code 6 for RF and microwave exposed workers. For persons not classed as RF and microwave workers and including the general public the limit is 2 W/m<sup>2</sup> (0.2 mW/cm<sup>2</sup>) which increases the minimum safe distance to 4.1 m.

Further information on calculating the field strengths and power levels can be found in Health Canada Safety Code 6 'Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range 3 kHz to 300 GHz', and also in FCC document OET Bulletin 65.

**Caution**



**ESDs**

The T6T transmitter's circuitry contains Electrostatic Sensitive Devices (ESDs). Personnel must be aware of the precautions necessary to prevent damage to such devices. During installation all precautions necessary to prevent ESD damage must be taken.

**Caution**



**Unauthorized Modifications**

Changes or modifications made to this equipment that are not expressly approved by Park Air, or parties authorized by Park Air, could void the user's authority to operate the equipment.