

MAC TW1 Internal Dimmer Installation Note

MAC TW1 fixtures are available in multi-voltage IGBT internal dimmer and 80 V internal dimmer models. The IGBT and 80 V internal dimmer units are also available as 'plug and play' accessories so that you can change from one dimmer type to another. This note explains how to carry out this change. It covers the following products:

- Internal 80 V dimmer, MAC TW1 (P/N 91614026)
- Internal multi-voltage IGBT dimmer, MAC TW1 (P/N 91614027).

Safety information



DANGER! Disconnect the fixture from power, allow it to cool for at least 20 minutes and read the Safety Information section in the MAC TW1 user manual (available from <http://www.martin.com/service>) before attempting to install an internal dimmer unit. Installation must be carried out by qualified professional technicians only.



Important! As with electronic components in general, the MAC TW1's PCBs are sensitive to ESD (electrostatic discharge). The IGBT dimmer is particularly sensitive and touching it carelessly can damage it beyond repair. Damage caused by ESD is not covered under the product warranty. Take precautions to avoid ESD damage before opening the fixture. Service electronic components at a static-safe workstation only.

Installation

To install an internal dimmer:

1. Disconnect the luminaire from power, allow it to cool for at least 20 minutes and place it at a static-safe workstation.
2. Take precautions to avoid ESD (anti-static bracelet or similar device).
3. See Figure 1. Dimmer units are integral with the rear base cover. The dimmer type is labelled on the top of the cover. Loosen the screws in the cover and slide the currently installed cover/dimmer unit out of the fixture. Avoid strain on the dimmer unit wiring.

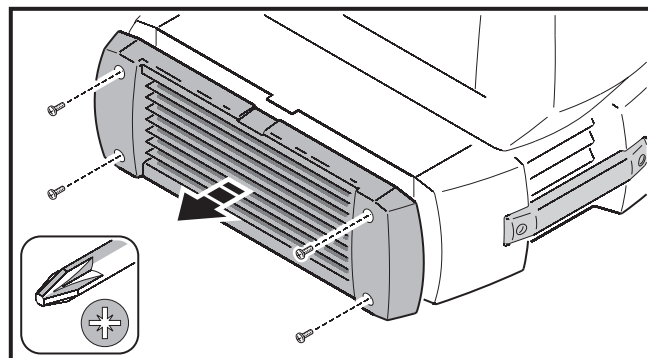
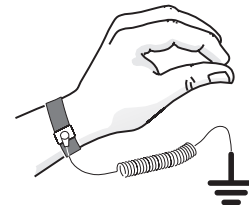


Figure 1: Removing base cover and dimmer unit



- See Figure 2. Disconnect the Ensto power connector (A), ground/earth strap (B) and control connection (C) from the installed dimmer unit and remove the unit.

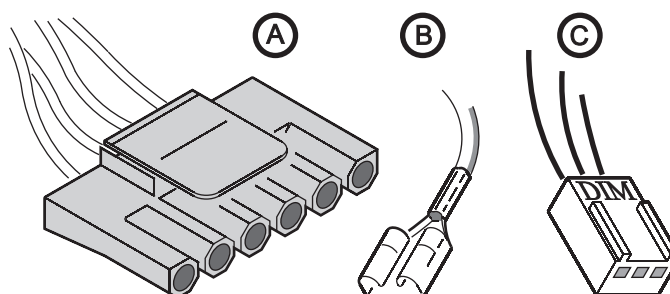
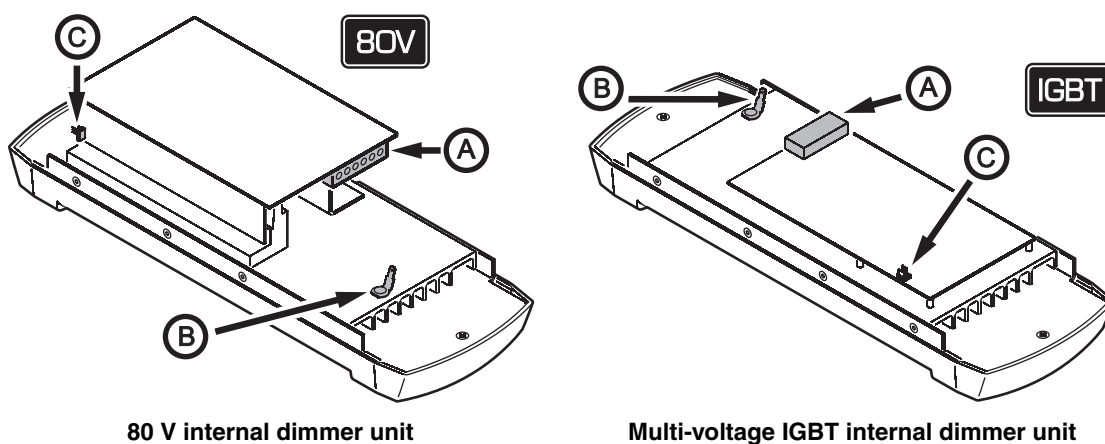


Figure 2. Dimmer unit connectors

- If you are installing an 80 V dimmer, and Voltaflex adhesive insulation tape is not already stuck to the panels in the fixture's base as shown in Figure 3, stick the two strips of tape supplied with the 80 V dimmer unit to the panels using the two arrows in Figure 3 as a guide. Position the tape so that it will prevent any accidental electrical contact between the dimmer unit components and the panels.
- Place the new cover/dimmer unit next to the fixture and connect the Ensto power connector (A), ground/earth strap (B) and control connector (C). Connector locations for the 80 V and IGBT multi-voltage dimmers are shown in Figure 2.
- Slide the cover/dimmer unit into the fixture, making sure that no wires are trapped, and tighten the four screws in the cover.
- Before applying power, check that the lamp voltage is correct for the dimmer type.

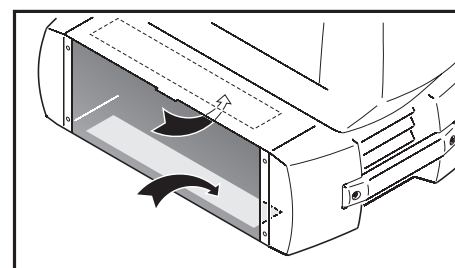


Figure 3. Adhesive insulation tape

Important! The lamp voltage rating must match the dimmer output voltage. Installing a lamp with an incorrect voltage rating may damage the dimmer beyond repair and/or destroy the lamp as soon as power is applied:

- If the multi-voltage IGBT internal dimmer is used to power the lamp, the lamp voltage rating must be the same as the voltage at the fixture's power input.**
- If the 80 V internal dimmer is used to power the lamp, the lamp voltage rating must be 80 V.**
- Regardless of which internal dimmer is installed, if an external dimmer is used to power the lamp, the lamp voltage rating must be the same as the output voltage from the external dimmer.**