

## **Operating Instructions:**

# **Tobin Euroframe Controller TEC-26**

**1. What Is It For?** The Tobin crystal motors model TXM-26 for Bolex and TXM-28 for Eclair ACL have only USA speeds built in. The TEC-26 will give European TV and HMI speeds when connected.



**2. Connection.** The TEC-26 plugs into the Milliframe Controller socket on the TXM-26 and changes three of the speeds on the dial to European speeds. The little picture on the front of the TEC-26 shows the TXM-26 dial markings that are actually obtained when the unit is plugged in. The TEC-26, unlike the other speed control accessories that are available, only receives power when the motor is running and does not need to be unplugged between filming sessions.

When the unit is plugged into the TXM-28, see the instructions below.

**3. Usage.** The speed settings on the TXM-26 dial become, respectively, 7.5, 12.5, 15, 25, 30 and 50 FPS (frames per second). Of these, 12.5, 25 and 50 FPS are 50 Hz HMI safe for flickerless results under HMI or fluorescent lamps. 7.5, 15 and 30 are 60 Hz HMI safe. To restore the full range of USA 60 Hz HMI speeds, simply unplug the TEC-26. If you are using a 400' magazine, the magazine torque motor is used normally as before. That is, the power sent to the MM torque motor is adjusted automatically according to the running speed, and the approximate speed must be manually set on the WM torque motor's speed dial.

This unit was originally designed for use only with the TXM-26. When the TEC-26 is plugged into the TXM-28, the speeds on the dial become, respectively, 25, 15, 50, 30, (100), and 60 FPS. 25 and 50 are HMI safe for 50 Hz powered HMI or fluorescent lamps. 15, 30 and 60 are HMI safe for 60 Hz lamps. Do not use the 100 position (48 on the speed dial) as this is excessive and could cause damage, and it is not reachable anyway as a stabilized speed. Since the speeds are out of sequence, there may be an additional delay in reaching 25 and 50 FPS with the TXM-28. To restore the full range of USA 60 Hz HMI speeds, simply unplug the TEC-26.

**4. Calibration.** There are no user adjustments or controls on the TEC-26. A qualified technician can check the crystal frequency for 7.680000 MHz  $\pm$ 20 Hz at pin 9 of the CD4060 to ground.

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