



FX-T3T4 Temporal Pattern Generator Installation Sheet

Description

The FX-T3T4 Temporal Pattern Generator is an addressable device used to generate T3 (fire) or T4 (CO) temporal signal patterns for use with compatible sounder bases. The T3 and T4 temporal patterns are compliant with NFPA 72 and NFPA 720, respectively.

Note: In the United States, you can use T3 or T4. In Canada, you can only use T3.

The FX-T3T4 module uses two addresses on the signaling line circuit (SLC). Address 1 is tied to Channel 1 which is the T3 pattern. Address 2 is tied to Channel 2 which is the T4 pattern. Channel 1 always has the highest priority.

The device address is set using the two rotary switches located on the front of the module. Two consecutive device addresses are required. The second device address is automatically assigned one number higher than the value set on the rotary switches.

Operation

Channel selection

The fire alarm control unit sends synchronization and channel commands to the FX-T3T4. Channel selection determines the pattern. The fire alarm control unit can also send silencing commands to the FX-T3T4.

During system initialization, the SLC controller determines which pattern plays on each channel, depending on the marketplace setting. For example, in the US and Canadian marketplaces, a fire alarm takes priority over a CO alarm, so the T3 pattern is assigned to Channel 1. Settings for other markets are governed by local requirements.

Synchronization

When an alarm condition occurs, the detector notifies the control unit and the control unit commands the FX-T3T4 to activate the T3T4 riser. The FX-T3T4 generates the appropriate pattern and synchronizes all the sounder bases on a single T3T4 riser. The SLC controller synchronizes multiple FX-T3T4 modules installed on the same SLC.

Silencing the FX-T3T4

The alarm signal continues until the system resets or is manually silenced. The FX-T3T4 can receive silencing commands from the control panel.

LED operation

The FX-T3T4 module uses a bicolor LED to indicate its status, as follows:

- Normal: Green LED flashes
- Alarm/active: Red LED flashes

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

WARNINGS

- This module will not operate without electrical power. As fires frequently cause power interruption, you should discuss further safeguards with your local fire protection specialist.
- This module does not support conventional smoke detectors.

Caution: Electrical supervision requires that you break the wire run at each terminal. Do not loop the signaling circuit field wires around the terminals.

Notes

- The module is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should not be disassembled.
- Only one module is required for each T3T4 riser.
- When determining allowable wire resistance, refer to the voltage rating of the module, the signaling appliance, and the control panel specifications.
- Strip 1/4 in. (about 6 mm) from the ends of all wires that connect to the terminal block of the module. Exposing more bare wire may cause a ground fault and exposing less wire may result in a faulty connection.

To install the module:

1. Verify that all field wiring is free of opens, shorts, and ground faults.
2. Make the wiring connections as shown in Figure 3.
3. Set the module address. Refer to the control unit documentation for a list of valid addresses.

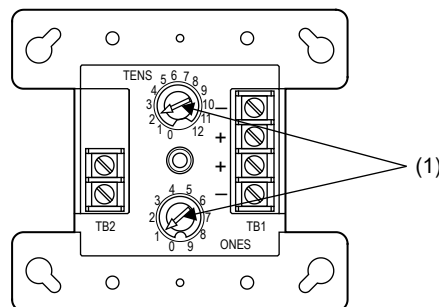
Use a screwdriver to adjust the two rotary switches on the front of the module. Set the TENS rotary switch (0 through 12) for the 10s and 100s digit and the ONES rotary switch for the 0 through 9 digit. For example: device address 21, set the TENS rotary switch to 2 and set the ONES rotary switch to 1 (see Figure 1).

4. Mount the module on the electrical box using the screws provided with the electrical box. See Figure 2.

See "Specifications" on page 3 for compatible electrical boxes.

5. Mount the wall plate on the module using the hardware shown in Figure 2.

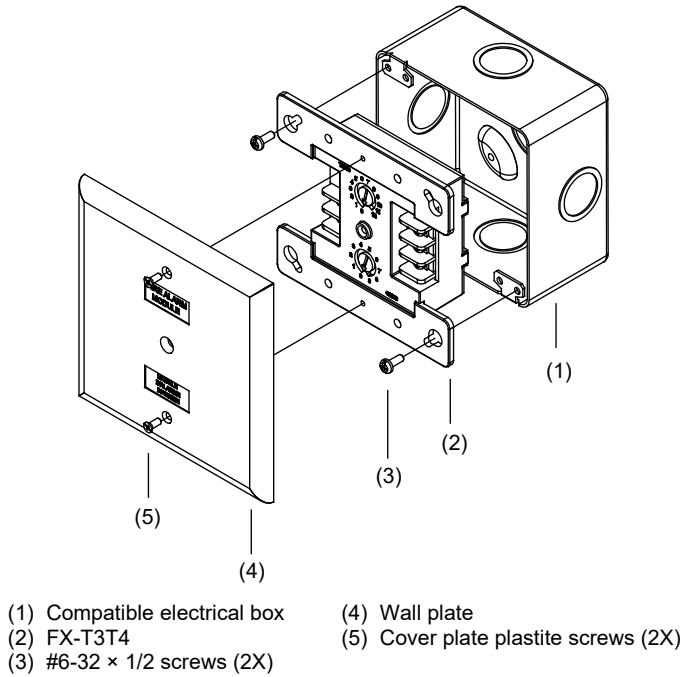
Figure 1: Module address



(1) Insert screwdriver here.



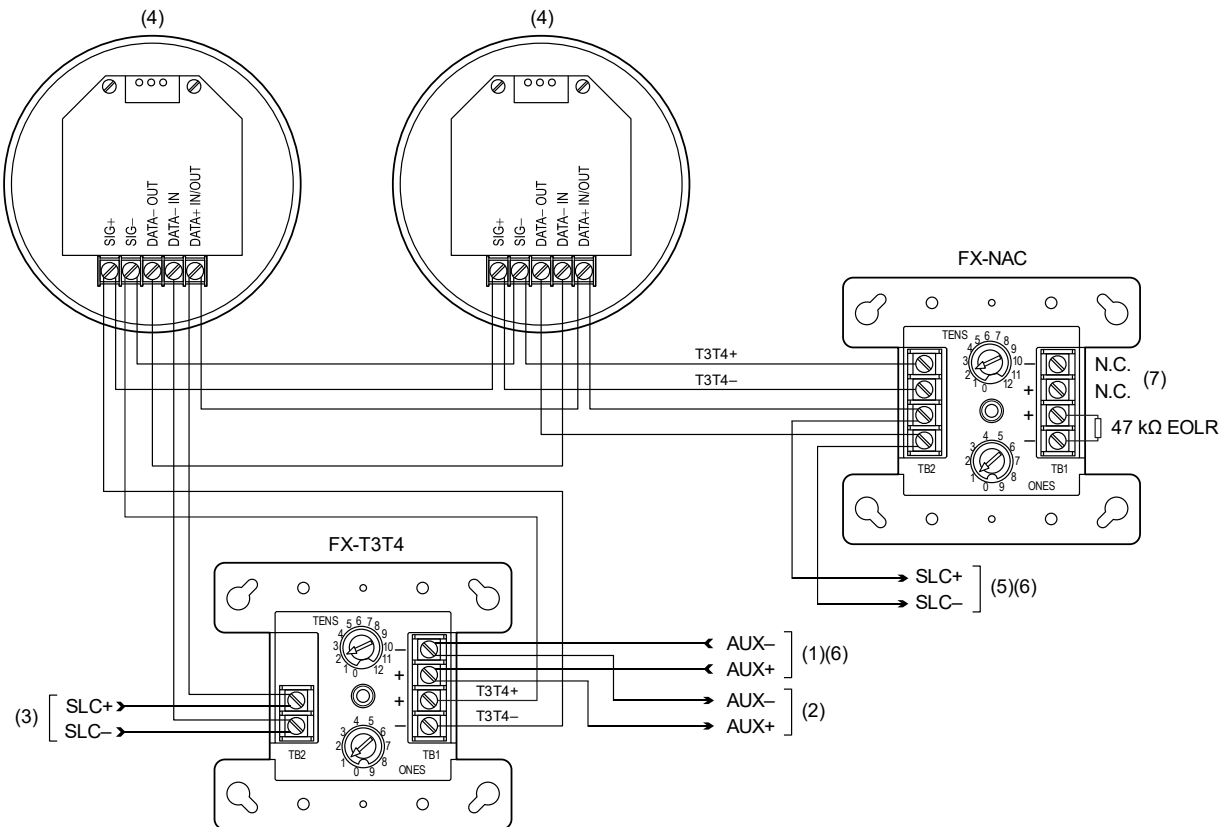
Figure 2: Mounting diagram



Applications

For sounder base applications, refer to the sounder base installation sheet for details.

Figure 3: Wiring Diagram



Maintenance

For Canadian installations, follow CAN/ULC-S536 *Standard for the Inspection and Testing of Fire Alarm Systems*.

Wiring

Wire the FX-T3T4 as shown in Figure 3 below. For further wiring details, refer to *FX-64 and FX-1000 Technical Reference Manual* (P/N 3102352).

Note: T3T4+ connects to the SIG- terminal on the sounder base and T3T4- connects to the SIG+ terminal. The FX-NAC is required for circuit supervision and is ordered separately.

Figure 3 Legend

- (1) AUX riser from previous device. Use a power-limited and regulated 24 VDC primary or auxiliary power supply that is UL/ULC Listed for fire protective signaling systems.
- (2) AUX riser to the next FX-T3T4 in the same notification zone or to the Class A return on the power supply.
- (3) Signaling line circuit from previous device.
- (4) Compatible sounder base.
- (5) Signaling line circuit to next device.
- (6) In order to have a Class A T3T4 riser, wire the SLC as Class A and limit the AUX input connection to the same room, within 20 ft. (6.1 m), and enclose in conduit or equivalent protection against mechanical injury.
- (7) No connection. Do not connect notification appliances.

Specifications

Operating voltage	
Riser	16 to 33 VDC
SLC	15.2 to 19.95 VDC
Current	
Standby	60 μ A
Alarm TC3	380 μ A
Alarm TC4	550 μ A
SLC wiring	
Resistance	66 Ω , max.
Capacitance	0.5 μ F, max.
Ground fault impedance	0 to 5 k Ω
T3T4 riser wiring	Supervised and power-limited Class B
Output rating	3.5 A max. Actual value limited by system power outputs
Wire size	12 to 18 AWG (0.75 to 2.50 mm ²)
Circuit designation	Signaling line circuits (SLC) are Style 4 (Class B) or Style 6 (Class A)
Compatible sounder bases	KI-ABDT, KI-ABST, KI-ABLT
Compatible electrical box	4 in. square box, 1-1/2 in. (38 mm) deep
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing
Storage temperature	-4 to 140°F (-20 to 60°C)

Regulatory information

UL rating	Regulated 24 DC
Environmental class	Indoor, dry
FCC compliance	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Industry Canada compliance	This Class A digital apparatus complies with Canadian ICES-003.

Contact information

For contact information, see www.kidde-esfire.com.