
Touchless Accessible Pedestrian Signal

General

The procedure below outlines the Authorization Criteria Requirements for creating an Authorized Materials List for Touchless Accessible Pedestrian Signals.

Touchless Accessible Pedestrian Signal Authorization Criteria

All touchless accessible pedestrian signals to be used by the State of California Department of Transportation shall be on the Caltrans Authorized Material List before incorporation into any construction project. Authorization of this material requires the following:

1. Manufacturer/Supplier Provides:
 - 1.1. Model/Part Number.
 - 1.2. Application (from Caltrans Specifications).
 - 1.3. Test Report from a Nationally Recognized Testing Laboratory (NRTL), verifying the following parameters:
 - 1.3.1. California MUTCD, chapter 4E compliance.
 - 1.3.2. Fail Safety Operation- Feature that activates the pedestrian phase during any failure without causing the pedestrian phase to be on RECALL.
 - 1.3.3. The housing for the signal assembly must be made of corrosion-resistant material. Theft-proof bolts used for mounting the housing to the standard must be stainless steel with a content of minimum 17 percent chromium and 8 percent nickel. The housing must be shaped to fit the pole's curvature.
 - 1.3.4. The color of a metallic housing must match color no. 33538 of FED-STD-595.
 - 1.3.5. The color of a plastic housing must match color no. 17038, 27038, or 37038 of FED-STD-595.
 - 1.3.6. Have electronic switches, a potentiometer, or an access port for a device for controlling and programming the volume level and messaging.
 - 1.3.7. Be weatherproof and shockproof.
 - 1.3.8. Have an internal weatherproof speaker and microphone that senses the ambient sound level.
 - 1.3.9. Specification required operational functionality:

Note: Caltrans reserves the right to remove a product from the Authorized Materials List at any time.



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- 1.3.9.1. Audible speech message that plays when the push button is activated. The accessible pedestrian signal must have at least 5 audible message options.
- 1.3.9.2. Push button locator tone that clicks or beeps.
- 1.3.10. Feature that activates the pedestrian phase during any failure without causing the pedestrian phase to be on RECALL.
- 1.3.11. APS must function with the Department-furnished Model 170E/2070E controller assembly.
- 1.4. Manufacturer Quality Control (QC data verifying the following:
 - 1.4.1. Touchless activation with a configurable detection:
 - 1.4.1.1. Range of up to 6 inches from the face of the APS.
 - 1.4.1.2. Conical zone of +/- 45 degrees from the center of the face of the APS.
 - 1.4.2. Be activated by pedestrian hand motion only.
 - 1.4.3. Detect a pedestrian hand motion with a hand covering thickness of 9 mils maximum.
 - 1.4.4. Be programmable to adjust the amount of time the pedestrian must be within the range of the sensor to trigger a call.
- 1.5. Required Documents and Test Reports:
 - 1.5.1. Product spec sheet.
 - 1.5.2. Certificate of Compliance signed document. See Caltrans Standard Specification 86-1.02T Accessible Pedestrian Signals for a full list of requirements.
 - 1.5.3. Caltrans failsafe operation identifier(s) – Identify model with Caltrans Failsafe operation.
 - 1.5.4. Description of Manufacturers Quality Control Procedures.
- 1.6. Two Touchless Accessible Pedestrian Signal (APS) samples for each submittal.
- 1.7. Ship the required reports and touchless accessible pedestrian signal samples to the Caltrans' Transportation Laboratory in Sacramento:

California Department of Transportation
Materials Engineering and Testing Services
MS #5: Electrical Testing Branch
5900 Folsom Boulevard
Sacramento, CA 95819-4612

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2. Caltrans will:

- 2.1. Ensure all required documentation is received.
- 2.2. Review the technical information.
- 2.3. Evaluate submitted samples for Compliance with current Caltrans Specifications. Caltrans testing will verify the functionality, electrical and physical/mechanical performance of the Touchless Accessible Pedestrian Signal per 2015 Caltrans Standard Specifications, Revised Standard Specification, Section 86-1.02T Accessible Pedestrian Signals.
- 2.4. Upon evaluation of the submitted technical information and Caltrans test results, we will issue an acceptance letter valid for two years or a rejection letter.
- 2.5. Update the Caltrans Authorized Material List, if applicable.
- 2.6. Request re-submittal of the qualification package from the manufacturer every two years. Re-authorization is required every two years. The Manufacturer / Supplier is required to provide all submittals listed in paragraph 1.

For more information, you may contact the Electrical Testing Branch: Daniel Leong at (916) 227-7063 email: Daniel.l.leong@dot.ca.gov, Justin Ellis at (916) 870-9534 email: justin.ellis@dot.ca.gov, and/or Phil Fong at (916) 227-7069 email: phil.fong@dot.ca.gov.

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