



# CITY OF PALMDALE

## Common Questions About Traffic Signals

### Uniformity of Traffic Signals

The purpose of traffic control devices (signs, signals, and pavement markings) is to help provide safe, orderly, and predictable movement of traffic. Improper or overuse of devices may reduce safety and efficiency of traffic flow. State and national standards and uniform state vehicle codes have been developed to provide uniformity of appearance and proper application of devices. For example, imagine the confusion of drivers if each city or county used traffic signals with a different color, shape, and meaning.

This summary provides information related to commonly asked questions on the meanings and operation of traffic signals.

### Common Questions

- **How does a traffic signal know how long to stay green for each movement?**

Various devices are frequently used to detect the presence of vehicles at intersections. These detections are used by a controller (computer) at each intersection to adjust the timing of the traffic signal based on demand. The most common type of detection is provided by a series of wire loops in the pavement which detect when vehicles disturb the small magnetic field around the loop. Often the loops can be seen as lines making circles or rectangles on the pavement. The thin lines are the sealant used to cover the wire. Newer forms of detection include small overhead cameras which give an image of the approaches to the intersections, and the zones of detection maybe drawn on a computer screen rather than disturbing the pavement. This new type of system reduces costs and improves safety since crews do not have to block lanes to maintain or move loops in the pavement. The city does not maintain videotapes of the camera images.

- **What do the pedestrian signals mean, and why don't they allow pedestrians to cross the street immediately after the button is pushed?**

Pedestrian indications consist of the illuminated words WALK and DON'T WALK or the illuminated symbols of a walking person (symbolizing WALK) and an upraised hand (symbolizing DON'T WALK). The steadily illuminated DON'T WALK indication means that a person should not enter the roadway in the direction of the signal. The flashing DON'T WALK means that the pedestrian should not enter the roadway, but that any pedestrian that has started to cross may proceed to cross the street or to a safety island. The WALK indication means that a pedestrian may proceed toward the signal, but caution should still be used in watching for potential turning vehicles. Pushing the pedestrian crossing button is similar to the vehicle detectors mentioned above. The signal controller will provide a WALK indication during the normal sequence of the signal lights when vehicle movement conflicts are minimized.

- **Why do some traffic signals have push buttons and signals for pedestrian crossings and others do not?**

Pedestrian signals are primarily installed for two reasons: a high volume of pedestrian traffic is present or the signals directing vehicles do not meet the needs of pedestrians. When signals for vehicles are easy to see and provide plenty of time for pedestrians to cross safely, there is no need for special pedestrian signals. Generally, the City of Palmdale installs pedestrian signals at most traffic signals. The push buttons are provided since the timing of traffic signals is typically controlled by the vehicle traffic. Pedestrians often require more time to cross streets than is needed for the vehicle volumes. If the extra time for pedestrians was always used to determine the length of the green signal, the operation would be inefficient. The use of a pedestrian push button allows the extra time to be provided only when a pedestrian is present.



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- **Does the law allowing right turns on a red signal mean the vehicle must first be stopped?**

When facing a circular red traffic signal, a vehicle must be stopped at the intersection before making a right turn on red. The turn may then only be made after yielding to pedestrians in the adjacent crosswalks and to other traffic in the intersection. A right turn on red is not allowed when a sign is posted prohibiting the movement or if the signal indication is a red arrow. A left turn on red is allowed from a one-way street to another one-way street in a manner similar to a right turn on red.

- **Why do signals sometimes flash, and what does it mean?**

Signals which normally operate with a sequence of green, yellow, and red lights may revert to a flashing operation in certain situations. For example, when a signal is near a railroad crossing and cannot operate normally when a train is present, the signals may be flashed. Signals also contain a fail-safe program to automatically begin flashing if an event occurs which would interfere with normal safe operations. Signals may also be flashed for special events or response to unique situations. Drivers approaching a flashing red indication should treat it as they would a Stop sign. When approaching a flashing yellow signal, the driver may proceed through the intersection or past the signal only with caution.

- **What should drivers do when a signal is not on (no power)?**

When a power failure or other malfunction occurs and the lights for a traffic signal are not illuminated, the driver of any vehicle approaching the intersection is required to stop at the intersection and may proceed with caution when it is safe to do so.