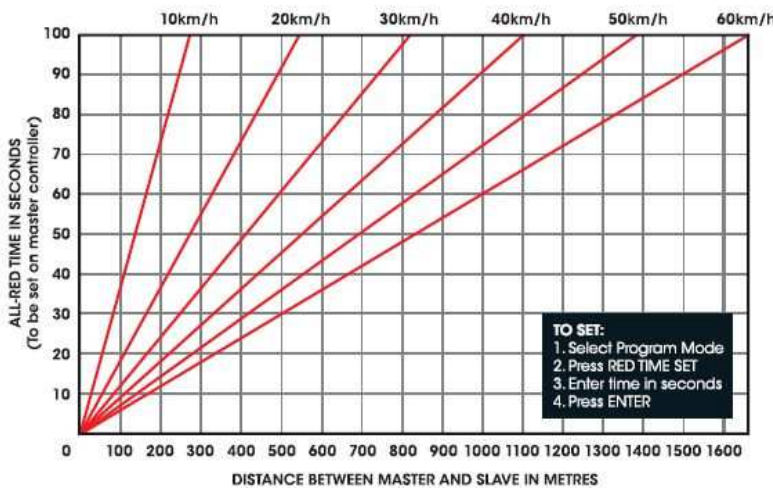Data Signs
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DataSign-PTL (Portable Traffic Lights)

All-Red Time Explained

The All-Red interval is the period of time that the aspects on **both** the Master and Slave units remain on the All-Red phase (i.e. *both* the Master and Slave on Red light). This allows for the clearance of traffic from within the controlled area. A maximum All-Red time of 300 seconds (5 minutes can be set, however the Australian Standard currently only allows for a maximum of 100 seconds. This is due to safety reasons, where drivers may be less inclined to wait at a Red light for a long period of time; i.e. "run the Red".

RELATIONSHIP BETWEEN ALL-RED INTERVAL AND TRAVEL DISTANCE FOR A RANGE OF VEHICLE SPEEDS

AS 4191–1994

ENSURE ALL-RED TIME IS CORRECTLY SET

The information in this diagram is provided to assist in a determination of the minimum all-red interval necessary for a vehicle to clear the controlled area. The vehicle speed lines indicate the minimum observed speed for a given direction.

When using the diagram, it is important to note that the maximum length of the controlled area (distance between master and slave) must be separately determined having due regard to:

(a) total delays to queued traffic, and
(b) restrictions imposed by the quality of the communications link

View user manual for more information.

TO SET:
1. Select Program Mode
2. Press RED TIME SET
3. Enter time in seconds
4. Press ENTER

The chart above is also provided in the Control box on the Master unit. Use this chart to determine the minimum All-Red interval to set depending on the distance between the PTL units, and the set speed zone. For example, if the speed limit in the road-work zone is 40 km/h, and the distance between the Master and Slave units is 500 metres, working along the red line to 40km/h and check where that intersects the distance value, to read off the recommended All-Red Time setting which would be 45 seconds. To work this out mathematically, convert the speed from km/h to m/s (metres-per-second). Then divide the distance (in metres) by the result. i.e. $500 \div (40 \div 3.6) = 45$ seconds, which is what the chart indicates to set for the All-Red Time. Some customers add a number of seconds to the All-Red Time value; you may want to add an additional 20% on top.

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