mobotrex®

MOBILITY & TRAFFIC EXPERTS

ABC's of Traffic

Minimum Green Interval	The shortest green time of a phase. If a time setting control is designated as 'minimum green', the green time shall not be less than that setting.
Minimum Green	Minimum amount of green time for a phase.
Passage Detection	The ability of a vehicle detector to detect the passage of a vehicle moving through the detection zone and to ignore
zone. Passage	the presence of a vehicle stopped within the detection Extension of green time by vehicle detection. Amount of time it takes a car to leave the loop and get into the intersection. Based on posted speed. Works with max timer and min green.
Extension Unit	The timing interval during the extensible portion which is re-settable by each detector actuation. The green right-of- way of the phase may terminate on expiration of the unit extension time.
Extension Limit	The maximum time of the extensible portion of which actuations on any traffic phase may retain the right of way after actuation on an opposing traffic phase.
Conflicting Phases	Conflicting phases are two or more traffic phases which will cause interfering traffic movements if they are operated concurrently.
Serviceable Conflicting Call	Occurs on a conflicting phase not having the right-of-way at the time the call is placed. Occurs on a conflicting phase which is capable of responding to a call. When occurring on a conflicting phase operating in an occupancy mode, remain present until given its right-of-way.
Call	A registration of a demand for right-of-way by traffic at a controller unit (vehicle or pedestrian).
Check	An outgoing circuit that indicates the existence of unanswered calls.
Maximum Limit	The maximum green time after an opposing actuation which may start in the initial portion.

Max #1 Timer	Limits amount of green time when there is a serviceable conflicting call. Starts timing when a conflicting call is detected and a call is on the active phase.
Max #2 Timer	Same as Max #1 timer. Either Max #1 or #2 can be active. Max #2 can be selected by logic input, ring, or TBC.
Yellow Change Interval	The first interval following the green right-of-way interval in which the signal indication for that phase is yellow.
Yellow	Transition stage…current phase green is terminated and next phase display is red.
Red Clearance Interval	A clearance interval which may follow the yellow interval during which both the termination phase and the next right- of-way phase display red
Red Clearance	Amount of time to place vehicle in view of all other approaches.
Density	A measure of concentration of vehicles. Stated as the number of vehicles per mile per lane
Initial Portion	The first timed portion of the green interval in an actuated controller unit
Addition Initial Portion	An increment of time added to the minimum initial portion in response to vehicle actuation.
Added Initial	Amount of time to extend beyond minimum green based on vehicle detection from far loop. This extends the phase green display up to the max initial time. Additional time is then provided by the passage timer.
Maximum Initial	The limit of computed initial portion. Equals the time necessary to clear all vehicles stored between the stop bar and the first far loop in the lane after deducting minimum green.
Extensible portion	The portion of green interval of an actuated phase following the initial portion which may be extended, for example: traffic actuation.
Interval Portion	A discrete subdivision of an interval during which the signals do not change.

Time Before Reduction	The time before reduction period shall begin when the phase is green and there is a serviceable conflicting call. If the serviceable conflicting call is withdrawn while timing this period, the timer shall be reset and remain reset until the next serviceable conflicting call is received. Upon the completion of the time before reduction period, the linear reduction of the allowable gap from the passage time, minimum gap, and time to reduce controls. This method shall reduce the allowable gap at a rate equal to the difference between the passage time and minimum gap setting divided by the setting of the time to reduce control. The reduction of the allowable gap shall continue until the gap reaches a value equal to or less than the minimum gap as set on the minimum gap control after which the allowable gap shall remain fixed at the values set on the minimum gap control. In the presence of a continuous vehicle actuation, the phase shall not gap out even if the gap is reduced to zero (Minimum gap set at zero). If at any time the serviceable conflicting call is withdrawn, the gap shall revert to the passage time setting value, and the time before reduction period timer shall be reset and remain reset until the next serviceable conflicting call is received. Note: use of gap reduction caused the phase to be recalled if a call is present after minimum green.
Cars Before Reduction	Number of cars present on conflicting phase before gap reduction will commence.
Time to Reduce	Time period by which the measured gap between vehicles is reduced from the passage time to a value equal to the minimum gap. A measured gap greater than the instantaneous calculated gap shall cause the phase to be determined due to ‘gap out’.
Gap Reduction	A feature whereby the ‘unit extension’ or allowed time spacing between successive vehicle actuation of the phase displaying the green in the extendible portion of the interval is reduced.
Min Gap	The minimum amount of space between cars measured in seconds at the end of the time to reduce period.

Initial	On initial power startup…programs the controller for which phases will be in red, yellow, and green. In the EPAC, choice per phase is: 0 = phase omitted or not used 1 = inactive (phase will be in red) 2 = phase will be in red – active start phase 3 = phase will be in yellow – active start phase 4 = phase will be in green – active start phase
Non-Actuated Response	Controller when selected by an input to the terminal facility will place a recurring (max recall + peds) call to the controller.
Min Recall	Will place a continuous request for service for minimum green timer on selected phases.
Max Recall	Will place a continuous request for service for maximum green timer on selected phases.
Soft Recall	Allows the recalled phase to be skipped provide there is no demand on the recalled phase and a conflicting call to another phase is sensed by the controller.
Non-locking Memory	A mode of actuation-controller unit operation which does not require detector memory. When a car goes over the loop and leaves the loop before the phase can be serviced, the call will not be retained for service by the controller.
Detector Memory	The retention of an actuation for future utilization by the controller assembly
Locking Memory	When a vehicle goes over the loop and leaves the loop before the phase can be serviced. The call will be retained by the controller until the phase has been serviced.
Dual Entry	A mode of operation in which two compatible phases can active, green.
Last Car Passage	When the max timer for the phase times out, the green display will be extended by amount of time left in the passage counter.
Conditional Service	Allows the controller to backup and service a compatible phase provided there is time to service that phase for a period of minimum green, yellow and all red

Omit Phase	Allows a selected phase when on, to omit another phase. This feature when activated by selected phase on does not terminate a currently active phase.
Omit Yellow	When the controller displays a selected phase yellow this feature allows the corresponding compatible phase to not display a yellow. Used for single yellow ball display rather than a yellow ball and a concurrent yellow arrow display
Carryover Output	The ability of a detector to continue its output for a predetermined length of time following an actuation .
Delay	Using vehicle detection, this will delay the input of the call to the controller.
Switch	Detector switching is the ability to transfer demand from one phase which is red to another phase which is green. This feature is normally used to transfer vehicle demand from a permissive left turn phase to the associated thru phase during the permissive period.
Startup Time	Amount of time in seconds before the controller will be online. Note: the controller performs internal diagnostics during this time. The conflict monitor maintains the intersection in flash during this period.
Pedestrian Clearance Interval	The first interval following the pedestrian 'walk' indication, normally flashing 'don't walk'
Auto Ped Clear	This feature causes the controller to time the pedestrian clearance interval when manual control enable is active and the internal advance pushbutton is activated.
Red Revert	Prevents a vehicle movement (phase or overlap) from recycling back to green from yellow change interval without a safe all red interval.
Flash Entry Phase	The controller sequences to the selected phase(s) and then enters flash mode. This is done through the load switches.
Flash Exit Phase	The controller sequences to the selected phase(s) and then exits flash mode. This is done through the load switches.

Alternate Sequences	The ability to alter the preferred sequence during periods of coordination. The EPAC provides 16 different alternate sequences which allow selection of leading left turns, lead/lag left turns or lag left turns for all possible combinations on main and cross street.
Cycle Length	The time period in seconds required for one complete cycle.
Terminal Facilities	Panels within the cabinet upon which terminals, receptacles, breakers, load switches and other portions of the controller assembly are mounted.
Force Off	A command that will force the termination of right-of-way. A force off will not terminate a phase nor shorten a timed interval of min green, added initial, yellow or all red.
Hold	A command that retains the existing right-of-way. Force off will override a phase hold.
Interval	The part or parts if the signal cycle during which signal indications do not change.
Sequence	The order of appearance of signal indications during successive intervals of a cycle such as green, yellow, then all red requirements
Preemption	The transfer of the normal control of an intersection to a special signal control through a logic input from the 'D' connector.
Offset	The time relationship, expressed in seconds determined by the difference between a defined interval portion of the coordinated phase green and a system reference point.
Rest	The interval portion of a phase when present timing requirements have been completed…often referred to as 'Dwell'
Split	A division of the cycle length allocated to each of the various phases.
Actuation	The operation of any type of detector (either vehicle or pedestrian)