



## **Product Type: Controllers** **ASC/3 Logic Processor Programming**

Reference: AN2068  
Date: March 14, 2007

### INTRODUCTION

The Logic Processor provides a means to command the controller inputs and outputs based upon a set of logical statements. This increases the flexibility of the controller and allows the knowledgeable user to implement and verify modifications to the operation of the ASC/3.

Each statement can be controlled by manual data entry (MM-1-8-1) or Time base Action Plan (MM-5-4). It is recommended that the statements that are being developed be programmed in MM-1-8-1 as "D" (disabled). Once the complete operation is developed and ready for evaluation, the statements can be programmed as "E" (enabled). When the statements operate correctly, the statements can be left enabled (E) or put under Time Base action plan (MM-5-4) control (".").

Caution: The controller must be on the bench and not operating an intersection when the Logic Processor is being programmed

There are a total of 200 Logic Processor Statements available for programming. Defining each statement is done in the controller's MM-1-8-2 screens. However, Statements 101-200 must be programmed using the ASC/3 Controller Configurator (formally Mapping Utility) or a special version of NTCIP Data Manager run on a PC. 101-200 can not be accessed on an actual ASC/3 controller.

Statements 1-100 are enabled and disabled via the Controller menus MM-1-8-1 and MM-5-4 as indicated above. Statements 101-200 may only be enabled in a special file called ASC3.EXT.

A detailed explanation of the Extended Logic Processor Groups (statements 101-200) can be found at the end of this document.

#### **The order of Logic Processor statements is extremely critical for proper operation**

The ASC/3 executes each statement in once ever 1 / 10 second in a top down starting from logic statement 1. When a logic statement requires information that is developed by another statement, that information must be developed in an earlier statement.

Methods for selecting Logic Processor Testable Elements and Executable Statements are:

- With the cursor the Testable Element (IF Statements) or Executable Statement (THEN or ELSE Statements) column.
  - o Depress the TOGGLE key to select the next element or statement.
  - o Depress the "8" key to select the previous element or statement.

If Statements  
(Testable elements)

The LP (Logic Processor) IF statements can determine the state of selected internal timers, states, CIB (Controller Input Buffer) and COB (Controller Output Buffer) locations. The controller mapping may also determine if the result of the Logic Processor statements to output to the field or get an input from the field. An example of this is if the LP statement is testing Preemption 10 input and there is no connector input pin 00 being mapped to that location, the LP statement would never see a change to that location in the CIB.



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<i>Testable Element</i>	<i>Usable Range</i>	<i>Test Condition</i>
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### PHASE STATE

(These states are for the selected phase)

XXXXX = Tested      XXXXX = Need a system to test      XXXX = Not tested

**GREEN ON PHASE**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase green is ON or OFF.

This state for phases 1-16 is also COB code 0-15 respectively.

**YELLOW ON PHASE**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase yellow is ON or OFF.

This state for phases 1-16 is also COB code 16-31 respectively.

**RED ON PHASE**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase red is ON or OFF.

This state for phases 1-16 is also COB code 32-47 respectively.

This state is the same as COB code 32-47 for phases 1-16 respectively.

**PHASE TIMING**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase timing is ON or OFF.

This state for phases 1-16 is also COB code 320-335 respectively.

**PHASE NEXT ON PHS**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase next is ON or OFF.

This state for phases 1-16 is also COB code 320-335 respectively.

**CHECK ON PHASE**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase demand (check) is ON or OFF.

This state for phases 1-16 is also COB code 352-367 respectively.

**PED CHECK ON PHASE**      0-16      IS      ON / OFF

The selected active phase (1-16) or any (0) phase pedestrian demand is ON or OFF.

This state for phases 1-16 is also COB code 368-383 respectively.

**WALK ON PHASE**      0-16      IS      ON / OFF

The selected active phase (1-16) or any (0) phase walk is ON or OFF.

This state for phases 1-16 is also COB code 48-63 respectively.

**PED CLEAR ON PHASE**      0-16      IS      ON / OFF

The selected active phase (1-16) or any (0) phase pedestrian clearance is ON or OFF.

This state for phases 1-16 is also COB code 56-79 respectively.

**DON'T WALK ON PHS**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase don't walk is ON or OFF.

This state for phases 1-16 is also COB code 80-95 respectively.

**OMIT ON PHASE**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase omit is ON or OFF.

This state for phases 1-16 is also CIB code 96-111 respectively.

**PED OMIT ON PHASE**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase pedestrian omit is ON or OFF.

This state for phases 1-16 is also CIB code 112-127 respectively.

**HOLD ON PHASE**      0-16      IS      ON / OFF

The selected phase (1-16) or any (0) phase hold is ON or OFF.



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This state for phases 1-16 is also CIB code 80-95 respectively.

### **FORCE OFF ON PHASE** 0-16 IS ON / OFF

The selected phase (1-16) or any (0) phase has ON forced off is or OFF.

This state indicated when the selected phase (1-16) or any (0) green has been forced off. This testable element is true during the yellow Change and Red Clearance of the selected phase.

### **CALL ON PHASE** 0-16 IS ON / OFF

The selected phase (1-16) or any (0) phase check is ON or OFF if it part of the active sequence.

“CALL ON PHASE” does not indicate true if the phase is not part of the active sequence or omitted for any reason, This include an input, Coordinator, Preemptor, Time Base programming along with any other feature that omits the phase

The state for phases 1-16 can be determined by LP statement COB CODE ON/OFF 352-367 respectively for any phase that is in the sequence even if it omitted.

### **PED CALL ON PHASE** 0-16 IS ON / OFF

The selected active phase (1-16) or any (0) phase pedestrian check is ON or OFF.

“PED CALL ON PHASE” does not indicate true if the phase pedestrian movement is not part of the active sequence or is omitted for any reason, This include an input, Coordinator, Preemptor, Time Base programming along with any other feature that omits the phase pedestrian movement. This state for pedestrian omits 1-16 is also CIB code 360-383 respectively.

### **DET FAIL ON PHASE** 0-16 IS ON / OFF

The selected active phase (1-16) or any (0) phase failed detector is ON or OFF.



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#### RING TIMERS

(These timers are for any phase timing in the selected ring)

To determine when a timer is equal to a partial second, set a flag on the next higher value and delay the partial second required.

\* Example. (Determine when Minimum green for phase 1 (ring 1) has 1.2-seconds left. This will function only if stop time or manual advance is not applied during the delay period.)

#### IF MIN GREEN TME RING 1 IS 2

AND GREEN ON PHASE 1 IS ON (True for 1/10 second)  
THEN SET LOGIC FLAG 1 ON

IF LOGIC FLAG 1 IS ON  
THEN DELAY FOR 0.8

(Insert what ever statements that you wish to become active when 1.2 seconds are left in phase 1 minimum green. Be sure to clear the logic flag 1 when it is no longer required.)

**MIN GRN TMR RING1** IS, !=, > or < 0-255

A phase in RING 1 is timing minimum green down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

**MAX GRN TMR RING1** IS, !=, > or < 0-255

A phase in RING 1 is timing max green down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

When in a phase is green with no conflicting demand, the Max Green Timer is set to zero.

**YELLOW TMR RING1** IS, !=, > or < 0-255

A phase in RING 1 is timing yellow change expressed in second intervals from 25.5 to 0.0. This value counts down. \*

**RED TIMER RING1** IS, !=, > or < 0-255

A phase in RING 1 is timing red clearance down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

**WALK TIMER RING1** IS, !=, > or < 0-255

A phase in RING 1 is timing walk down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

**PCLR TIMER RING1** IS, !=, > or < 0-255

A phase in RING 1 is timing pedestrian clearance down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

**MIN GRN TMR RING2** IS, !=, > or < 0-255

A phase in RING 2 is timing minimum green down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

**MAX GRN TMR RING2** IS, !=, > or < 0-255

A phase in RING 2 is timing max green . down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

**YELLOW TMR RING2** IS, !=, > or < 0-255



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A phase in RING 2 is timing yellow change expressed in 1/10 second intervals from 25.5 to 0.0. down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \*

**RED TIMER RING2** IS, !=, > or < 0-255

A phase in RING 2 is timing red clearance expressed down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**WALK TIMER RING2** IS, !=, > or < 0-255

A phase in RING 2 is timing walk down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**PCLR TIMER RING2** IS, !=, > or < 0-255

A phase in RING 2 is timing pedestrian clearance down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**MIN GRN TMR RING3** IS, !=, > or < 0-255

A phase in RING 3 is timing minimum green down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**MAX GRN TMR RING3** IS, !=, > or < 0-255

A phase in RING 3 is timing max green down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**YELLOW TMR RING3** IS, !=, > or < 0-255

A phase in RING 3 is timing yellow change down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**RED TIMER RING3** IS, !=, > or < 0-255

A phase in RING 3 is timing red clearance down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**WALK TIMER RING3** IS, !=, > or < 0-255

A phase in RING 3 is timing walk down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**PCLR TIMER RING3** IS, !=, > or < 0-255

A phase in RING 3 is timing pedestrian clearance down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**MIN GRN TMR RING4** IS, !=, > or < 0-255

A phase in RING 4 is timing minimum green down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**MAX GRN TMR RING4** IS, !=, > or < 0-255

A phase in RING 4 is timing max green down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**YELLOW TMR RING4** IS, !=, > or < 0-255

A phase in RING 4 is timing yellow change down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**RED TIMER RING4** IS, !=, > or < 0-255

A phase in RING 4 is timing red clearance down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**WALK TIMER RING4** IS, !=, > or < 0-255

A phase in RING 4 is timing walk down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

**PCLR TIMER RING4** IS, !=, > or < 0-255



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A phase in RING 4 is timing pedestrian clearance down from the programmed value to zero in tenths of seconds. The value is entered in seconds. \* This value counts down.

#### RING INPUTS

(These inputs are for the selected ring)

**INHIBIT MAX RING**      0-4      IS      ON / OFF

Inhibit max input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for MAX INHIBIT inputs for rings 1,2,3,4 are also CIB code 128, 136, 144, 152 respectively.

**MAX 2 RING**      0-4      IS      ON / OFF

Max 2 is input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for MAX 2 inputs for rings 1,2,3,4 are also CIB code 129, 137, 145, 153 respectively.

**MAX 3 RING**      0-4      IS      ON / OFF

Max 3 is input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for MAX 3 inputs for rings 1,2,3,4 are also CIB code 130, 138, 146, 154 respectively.

**OMIT RED CLR RING**      0-4      IS      ON / OFF

Omit red clearance input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for OMIT RED CLEARANCE inputs for rings 1,2,3,4 are also CIB code 131, 139, 147, 155 respectively.

**RED REST RING**      0-4      IS      ON / OFF

Red rest input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for RED REST inputs for rings 1,2,3,4 are also CIB code 132, 140, 148, 156 respectively.

**PED RECYCLE RING**      0-4      IS      ON / OFF

Pedestrian recycle input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for PED RECYCLE inputs for rings 1,2,3,4 are also CIB code 133, 141, 149, 157 respectively.

**FORCE OFF RING**      0-4      IS      ON / OFF

Force off input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for FORCE OFF inputs for rings 1,2,3,4 are also CIB code 134, 142, 150, 158 respectively.

**STOP TIME RING**      0-4      IS      ON / OFF

Stop Time input to the selected ring (1-4) or any ring (0) is ON or OFF.

This state for STOP TIME inputs for rings 1,2,3,4 are also CIB code 135, 141, 149, 157 respectively.

#### OVERVERLAP STATE

(These states are for the selected overlap)

**OVERLAP**      0-16      IS      ON / OFF

Overlap A-P (1-16 respectively) or any overlap (0) is active.

**OVERLAP GREEN**      0-16      IS      ON / OFF

Overlap A-P (1-16 respectively) or any overlap (0) is green.

This state for overlap A-P (1-16 respectively) green is also COB code 96-111 respectively.

If the overlap green to be tested is turned ON or OFF by a previous LP statement, the use of



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“COB CODE ON” or “COB CODE OFF” (96-111 respectively) should be used in subsequent LP statements.

**OVERLAP GREEN EXT** 0-16 IS ON / OFF

Overlap A-P (1-16) or any overlap (0) is timing lag or trailing green.

**OVERLAP YELLOW** 0-16 IS ON / OFF

Overlap A-P (1-16) or any overlap (0) is yellow.

This state for overlap A-P (1-16 respectively) Yellow is also COB code 112-127 respectively.

**OVERLAP RED CLR** 0-16 IS ON / OFF

Overlap A-P (1-16) or any overlap (0) is in red clearance.

**OVERLAP RED** 0-16 IS ON / OFF

Overlap A-P (1-16) or any overlap (0) is red.

This state for overlap A-P (1-16 respectively) Red is also COB code 96-111 respectively.

**NOTE:** OVERLAP RED 0 will be true unless all overlaps are either green or yellow. Any non-programmed overlap will be red

**OVERLAP OMIT** 0-16 IS ON / OFF

Overlap A-P (1-16) or any overlap (0) omit is ON or OFF.

This state for overlap A-P (1-16 respectively) Red is also CIB code 464-479 respectively.

**OVERLAP WALK** 0-16 IS ON / OFF

Overlap walk 1-16 or any overlap (0) Walk is ON or OFF.

An Overlap Walk is a ped overlap enabled in MM-2- 3 even if it is only one phase.

**OVERLAP PED CLEAR** 0-16 IS ON / OFF

Overlap walk 1-16 or any overlap (0) Ped Clearance is ON or OFF.

An Overlap Ped Clearance is a ped overlap enabled in MM-2- 3 even if it is only one phase.

**OVERLAP DON'T WALK** 0-16 IS ON / OFF

Overlap walk 1-16 or any overlap (0) Don't Walk is ON or OFF.

An Overlap Don't Walk is a ped overlap enabled in MM-2- 3 even if it is only one phase.

The Ped Overlap must be comprised of at least one phase the at has a enabled pedestrian movement. If it does not, the Don't Walk will not be sensed.

The Ped Overlap Don't Walk will toggle at 1 PPS during the Pedestrian clearance.

### COORDINATOR STATES (States of the coordinator)

**COORD FLASH** IS ON / OFF

The coordinator is commanding flash (Pattern 255)

**COORD FREE** IS ON / OFF

The coordinator is commanding free (Pattern 254)

The Coordinator Free Status (by any command can be determined by COB CODE 454 ON/OFF  
If the NIC commanded free is required, set a Special Function output when that Action Plan is in effect and test for that output. COB CODE 512-519 ON/OFF for NIC special functions 1-8 respectively

**COORD IN STEP** IS ON / OFF

The coordinator is commanded to a pattern even if is free.

**COORD PLAN** 1-63 IS, !=, > or < 0-120



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The coordinated plan in effect IS, !=, > or < the programmed value even if the coordinator is free.

**CYCLE LENGTH** IS, !=, > or < 0-999

The cycle length in effect IS, !=, > or < the programmed value even if the coordinator is free.

**OFFSET** IS, !=, > or < 0-255

The offset in effect IS, !=, > or < the programmed value even if the coordinator is free.

**RESERVED (not used)** .

**LOCAL CYCLE TIMER** IS, !=, > or < 0-2047

The local cycle timer IS, !=, > or < the programmed value in tenths of seconds.

**MASTER CYCLE TIMER** IS, !=, > or < 0-999

The master cycle timer IS, !=, > or < the programmed value in seconds.

**SPLIT TIMER RING** 1-4 IS, !=, > or < 0-2047

The split timer for ring (1-4) or any ring (0) IS (!=, > or <) the programmed value in seconds.

To determine the split timing for a specific phase, use the following:

IF PHASE TIMING 4 IS ON

AND SPLIT TIMER RING 1 < 10 seconds

### PREEMPTOR STATES (States and inputs of the preemptor)

**PREEMPT INPUT** 0-10 IS ON / OFF

The selected preempt (1-10) or any preempt (0) input is active. This is regardless of the programming for that preemptor.

**PREEMPT ACTIVE** 0-10 IS ON / OFF

The selected preempt (1-10) or any preempt (0) is active.

**WAIT FOR PREEMPT** IS ON / OFF

There is no preemptor active and the controller will respond to the next preemption input. This feature is true during delay timing, all during preemption. It is not true when the controller is not in preemption or an input is inhibited because of reservice timing.

**PREEMPT DELAY** IS ON / OFF

There is a preemptor delay timing and there is no active preemptor,

**PMT ADV TRACK CLR** IS ON / OFF

There is a preemptor timing entrance green, walk, pedestrian clearance, yellow or all red and there is a track clearance movement.

**PMT TRACK CLEAR** IS ON / OFF

The active preemptor is timing Track Clearance intervals green, yellow and all red.

**PMT ADVNCE TO HOLD** IS ON / OFF

Indicated that the preemptor is starting to time the Cycling / Dwell phases.

**PREEMPT DWELL** IS ON / OFF

The active preemptor is timing dwell phases.

**PREEMPT CYCLING** IS ON / OFF

The active preemptor is timing cycling phases.

**PREEMPT CYC DELAY** IS ON / OFF

The Preemptor is timing the Extend Input time during Dwell / Cycling phases

**PRMPT ADV TO FLASH** IS ON / OFF



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The active preemptor is timing Track Clearance intervals yellow, all red and the preemptor will flash the dwell phases yellow and others red.

**PREEMPT FLASH** IS ON / OFF

The Preemptor is being held during the Extend Input timing. This statement is true when the Extend timer is timing and the preemption is in Dwell Flash.

**PRMPT FLASH DELAY** IS ON / OFF

The Preemptor is timing the Extend Input time during dwell flash

**PRMPT ADV TO EXIT** IS ON / OFF

The preemption is preparing to exit. The PMT call is false, Minimum Dwell and Duration times are complete

**PRMPT RESRV TIMER** 0-10 IS, !=, > or < 0-2047

The Preemption reservice time is tested against a particular value

**PRMPT DELAY TIMER** 0-10 IS, !=, > or < 0-2047

Time is entered in seconds for Preemptor 1-10 or any Preemptor "0" delay

**PRMPT MAX CALL TMR** IS, !=, > or < 0-255

The maximum time that a non-priority preemption call can be active and be recognized by the controller. Once failed, the input must return to inactive state to be recognized again.

**PRMPT DURATION TMR** IS, !=, > or < 0-255

The Duration Timer for the preemptor in effect is compared against the entered value and the statement is set true when the selected conditions are true

**PMT MIN DWELL TIMER** IS, !=, > or < 0-255

The Dwell Timer for the preemptor in effect is compared against the entered value and the statement is set true when the selected conditions are true

**PMT TRACK GRN TMR** IS, !=, > or < 0-255

The Track Clearance Green Timer for the preemptor in effect is compared against the entered value and the statement is set true when the selected conditions are true

**PMT HOLD GREEN TMR** IS, !=, > or < 0-255

The Preemptor is being held during the Extend Input timing. This statement measures the Extend timer.

**PMT CYC DLY TMR** IS, !=, > or < 0-255



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### DETECTOR STATES (States and inputs of the vehicle and pedestrian detectors)

**DETECTOR** 1-64 IS ON / OFF

The selected vehicle detector (1-64) is ON or OFF when the detector is assigned to a phase.  
To determine when a detector that is ON or OFF that not assigned to a phase, use the CIB CODE ON/OFF 0-63 for detectors 1-64 respectively.

**DETECTOR FAIL** 1-64 IS ON / OFF

The selected vehicle detector (1-64) failure is ON or OFF when the detector is assigned to a phase.  
When not assigned to a phase. The detector does not fail.

**DETECTOR DELAY TMR** 1-64 IS ON / OFF

The selected vehicle detector (1-64) is timing delay when the detector is assigned to a phase.  
When not assigned to a phase. The detector delay does not time.

**DETECTOR EXTND TMR** 1-64 IS ON / OFF

The selected vehicle detector (1-64) is extension is timing when the detector is assigned to a phase. When not assigned to a phase. The detector extension does not time.

**PED DETECTOR** 0-16 IS ON / OFF

The selected (1-16) or any (0) pedestrian detector is on or off ON or OFF when the detector is assigned to a phase and that phase has a ped movement programmed.  
To determine when a detector that is ON or OFF that not assigned to a phase, use the CIB CODE ON/OFF 64-79 for detectors 1-16 respectively.

**PED ABSENCE FAIL** 0-16 IS ON / OFF

The selected (1-16) or any (0) pedestrian detector has failed because of no activity. Reference MM-6-7.

**PED LOCK FAIL** 0-16 IS ON / OFF

The selected (1-16) or any (0) pedestrian detector has failed because of max presence.  
Reference MM-6-7.

**PED ERRATIC FAIL** 1-16 IS ON / OFF

The selected (1-16) pedestrian detector has failed because of excessive counts.  
Reference MM-6-7.

**DETECTOR VOLUME** 1-64 IS, !=, > or < 0-2047

The selected (1-64) vehicle detector volume count for an enabled detector (MM-6-2) that was collect during the last NTCIP Log Period (MM-6-5).  
0-254 = The volume data collected.  
255 = The volume of the data collected is greater than 254.

**DET OCCUPANCY %** 1-64 IS, !=, > or < 0-999

The selected (1-64) vehicle detector occupancy in 0.5 % increments for an enabled detector (MM-6-2) that was collect during the last NTCIP Log Period (MM-6-5).  
0-200 = 0 to 100 % in 0.5% increments. Enter the occupancy level that is being tested times 2. (i.e. 0 = 0%, 36 = 18%, 63 = 31.5%)  
210 = Max Presence Fault  
211 = No Activity Fault  
212 = Open Loop Fault  
213 = Shorted Loop Fault  
214 = Excessive Change Fault





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Checks if detector plan (1-4) is in effect.

**DAY PLAN NUMBER** IS 1-16

Checks if day plan (1-64) is in effect.

**ACTION PLAN NUM** IS 1-100

Checks if action plan (1-100) is in effect.

**DAY PLAN NUMBER** IS 1-4

Checks if controller (1-4) is in effect.

**SEQUENCE NUMBER** IS 1-16

Checks if sequence (1-16) is in effect.

**TIMEPLAN IN EFFECT** IS 1-4

Checks if timing plan (1-4) is in effect.

**PH RECALL PLAN** IS 1-4

Checks if phase recall plan (1-4) is in effect.

**BIKE CALL ON PHASE** 1-16 IS ON / OFF

Checks if bike call on phase (1-16) is on or off.

(blank)

This is a "Do Nothing" Statement.

Then - Else Statements  
(Executable Statements)

The LP (Logic Processor) Then - Else Statements set or clears the CIB (Controller Input Buffer) and COB (Controller Output Buffer) and internal locations. The controller mapping determines if the results of these statements result in an output to the field or input from the field. An example of this is if the LP statement is sets PHASE GREEN 16 ON and no pin is mapped to that function, there will be no output.



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Executable Statement	Usable Range	Set Condition
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**DELAY FOR** 0.0-204.7 SECONDS

Delay for the entered time before the following statements will be executed.

**SET LOGIC FLAG** 0-63 ON / OFF

Set LOGIC flag ON or OFF. Once set, the Logic Flag will remain on until turned off.

#### PHASE OUTPUTS

(These outputs are for the selected phase)

**SET PHASE GREEN** 0-16 ON / OFF

Set the phase green output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET PHASE GREEN 1-16 ON/OFF is the same as SET COB ON/OFF 0-15 respectively and only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Green / Walk channel also be set ON or OFF using **SET LDSW GRN/WLK 0-16 ON / OFF**

**SET PHASE YELLOW** 0-16 ON / OFF

Set the phase yellow output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET PHASE YELLOW 1-16 ON/OFF is the same as SET COB ON/OFF 16-31 respectively. and only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Yellow / Ped Clearance channel also be set ON or OFF using **SET LDSW YEL/PDCL 0-16 ON / OFF**

**SET PHASE RED** 0-16 ON / OFF

Set the phase red output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET PHASE RED 1-16 ON/OFF is the same as SET COB ON/OFF 32-47 respectively only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Red / Don't Walk channel also be set ON or OFF using **SET LDSW RED/DW 0-16 ON / OFF**

**SET PHASE WALK** 0-16 ON / OFF

Set the phase walk output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET PHASE WALK 1-16 ON/OFF is the same as SET COB ON/OFF 48-63 respectively and only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Green / Walk channel also be set ON or OFF using **SET LDSW GRN/WLK 0-16 ON / OFF**

**SET PHASE PED CLR** 0-16 ON / OFF

Set the phase pedestrian clearance output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.



## Product Type: *Controllers*

Reference: AN2068

Date: March 14, 2007

### ASC/3 Logic Processor Programming

SET PHASE PED CLR 1-16 ON/OFF is the same as SET COB ON/OFF 64-79 respectively and only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Yellow / Ped Clearance channel also be set ON or OFF using **SET LDSW YEL/PDCL 0-16 ON / OFF**

#### **SET PHS DON'T WALK 0-16 ON / OFF**

Set the phase don't walk output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET PHASE DON'T WALK 1-16 ON/OFF is the same as SET COB ON/OFF 80-95 respectively only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Red / Don't Walk channel also be set ON or OFF using **SET LDSW RED/DW 0-16 ON / OFF**

### OVERLAP OUTPUTS

(These outputs are for the selected overlap)

#### **SET OVLP GREEN 0-16 ON / OFF**

Set the overlap green output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET OVLP GREEN 1-16 ON/OFF is the same as SET COB ON/OFF 96-111 respectively and only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Green / Walk channel also be set ON or OFF using **SET LDSW GRN/WLK 0-16 ON / OFF**

#### **SET OVLP YELLOW 0-16 ON / OFF**

Set the overlap yellow output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET OVLP YELLOW 1-16 ON/OFF is the same as SET COB ON/OFF 112-127 respectively and only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Yellow / Ped Clearance channel also be set ON or OFF using **SET LDSW YEL/PDCL 0-16 ON / OFF**.

#### **SET OVLEP RED 0-16 ON / OFF**

Set the overlap red output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second.

SET OVLP RED 1-16 ON/OFF is the same as SET COB ON/OFF 128-143 respectively only sets the TS1 and TS2 Type 2 outputs. It is suggested that the Load Switch Red / Don't Walk channel also be set ON or OFF using **SET LDSW RED/DW 0-16 ON / OFF**

### LOAD SWITCH OUTPUTS

(These outputs are for the selected TS2 Type 1 Load Switch)

#### **SET LDSW GRN/WLK 0-16 ON / OFF**

Set the load switch green/walk output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second. Dimming is implemented according to MM-1-3 programming when the load switch is on.

SET LDSW GRN/WLK 1-16 ON/OFF is the same as SET COB ON/OFF 160-175 respectively. This sets the TS2 Type 1 Load Switch and does not set the TS1 or TS2 Type 2 outputs.



## Product Type: Controllers

Reference: AN2068  
Date: March 14, 2007

### ASC/3 Logic Processor Programming

**SET LDSW YEL/PCLR** 0-16 ON / OFF

Set the load switch yellow/ped clear output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second. Dimming is implemented according to MM-1-3 programming when the load switch is on.

SET LDSW/PCLR 1-16 ON/OFF is the same as SET COB ON/OFF 176-191 respectively.

This sets the TS2 Type 1 Load Switch and does not set the TS1 or TS2 Type 2 outputs.

**SET LDSW RED/DW** 0-16 ON / OFF

Set the load switch red/don't walk output ON or OFF. The state of the green output will return to the phase state every tenth second. To keep the output ON or OFF, the logic processor must turn it ON or OFF every tenth second. Dimming is implemented according to MM-1-3 programming when the load switch is on.

SET LDSW RED/DW 1-16 ON/OFF is the same as SET COB ON/OFF 192-207 respectively.

This sets the TS2 Type 1 Load Switch and does not set the TS1 or TS2 Type 2 outputs.

### DETECTOR INPUTS

(These inputs are for the selected detector)

**SET VEH DET 1-16** 1-16 ON / OFF

Sets the "raw" vehicle detector 1-16 ON or OFF

**SET VEH DET 17-32** 17-32 ON / OFF

Sets the "raw" vehicle detector 17-32 ON or OFF

**SET VEH DET 33-48** 33-48 ON / OFF

Sets the "raw" vehicle detector 33-48 ON or OFF

**SET VEH DET 49-64** 49-64 ON / OFF

Sets the "raw" vehicle detector 49-64 ON or OFF

**SET PED DET** 1-16 ON / OFF

Sets the "raw" pedestrian detector 1-16 ON or OFF

SET PED DET 1-16 ON is the same as SET C!B ON 64-79 respectively.

SET PED DET 1-16 OFF is not the same as SET C!B OFF 64-79 respectively.

If attempting to interrupt a pedestrian call and redirect it, use the SET C!B ON 64-79 ON/OFF executable statement.

### PHASE INPUTS

(These inputs are for the selected phase)

**HOLD PHASE** 0-16 ON / OFF

Turn hold input ON or OFF to a selected phase (1-16) or all phases (0).

**OMIT PHASE** 0-16 ON / OFF

Turn omit input ON or OFF to a selected phase (1-16) or all phases (0).

**OMIT PED PHASE** 0-16 ON / OFF

Turn ped omit input ON or OFF to a selected phase (1-16) or all phases (0).

### RING INPUTS

(These inputs are for the selected ring)



## Product Type: Controllers

Reference: AN2068  
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### ASC/3 Logic Processor Programming

- SET INH MAX RING**      0-4      ON / OFF  
Turn inhibit max input ON or OFF to a selected ring (1-4) or all rings (0).
- SET MAX2 RING**        0-4      ON / OFF  
Turn max 2 input ON or OFF to a selected ring (1-4) or all rings (0).
- SET MAX3 RING**        0-4      ON / OFF  
Turn max 3 input ON or OFF to a selected ring (1-4) or all rings (0).
- OMIT RED CLR RING**    0-4      ON / OFF  
Turn omit red clearance input ON or OFF to a selected ring (1-4) or all rings (0).
- SET RED REST RING**    0-4      ON / OFF  
Turn red rest input ON or OFF to a selected ring (1-4) or all rings (0).
- SET PED REC RING**     0-4      ON / OFF  
Turn pedestrian recycle input ON or OFF to a selected ring (1-4) or all rings (0).
- SET FORCE OFF RING**    0-4      ON / OFF  
Turn force off input ON or OFF to a selected ring (1-4) or all rings (0).
- SET STOP TIME RING**   0-4      ON / OFF  
Turn stop time input ON or OFF to a selected ring (1-4) or all rings (0).

### UNIT INPUTS

(These are for the selected input)

- SET TEST A-E**            0-5      ON / OFF  
Turn test inputs input ON or OFF for a selected test input (1-5) or all inputs (0).
- SET CYCLE BIT 1-3**      0-3      ON / OFF  
Turn cycle bit inputs input ON or OFF for a selected cycle bit input (1-3) or all inputs (0).
- SET OFFSET BIT 1-3**    0-3      ON / OFF  
Turn offset bit inputs input ON or OFF for a selected offset bit input (1-3) or all inputs (0).
- SET SPLIT BIT 1-2**      0-2      ON / OFF  
Turn split bit inputs input ON or OFF for a selected split bit input (1-2) or all inputs (0).
- SET ADDR BIT 0-4**      0-4      ON / OFF  
Turn address bit inputs input ON or OFF for a selected address bit input (1-3) or all inputs (0).
- SET IND LAMP CTRL**                            ON / OFF  
Turn indicator lamp input ON or OFF
- SET EXTERNAL START**                           ON / OFF  
Turn External Start input ON or OFF
- SET AUTO FLASH**                                ON / OFF  
Turn auto flash input ON or OFF
- SET LOCAL FLASH**                               ON / OFF  
Turn local flash input ON or OFF
- SET MMU FLASH**                                ON / OFF  
Turn MMU flash input ON or OFF
- SET MMU STOP TIME**                            ON / OFF  
Turn MMU stop time input ON or OFF
- SET EXT TIME RESET**                           ON / OFF  
Turn external time rest input ON or OFF
- SET TBC ON LINE**                                ON / OFF  
Turn time base control input ON or OFF



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### ASC/3 Logic Processor Programming

- SET DIMMING ENABLE**                    ON / OFF  
Turn dimming enable input ON or OFF
- SET IM PWR SENSE**                    ON / OFF  
Turn intersection monitor power sense input ON or OFF
- SET COORD SYNC**                    ON / OFF  
Turn coordination sync input ON or OFF
- SET TLM EXT ADDR**                    ON / OFF  
Turn telemetry external address enable input ON or OFF
- SET MAINT REQ'D**                    ON / OFF  
Turn maintenance required (door open) input ON or OFF
- SET DIS PRETIME**                    ON / OFF  
Turn disable pre-timed operation input ON or OFF
- SET TLM SPARE 1**                    ON / OFF  
Turn telemetry spare 1 input ON or OFF
- SET TLM SPARE 2**                    ON / OFF  
Turn telemetry spare 2 input ON or OFF
- SET ALARM**                    0-16 ON / OFF  
Turn input for selected alarms (1-16) or all alarms (0) ON or OFF.
- SET CNA 1**                    ON / OFF  
Turn CAN 1 (call to non-actuated) input ON or OFF
- SET CNA 2**                    ON / OFF  
Turn CAN 2 (call to non-actuated) input ON or OFF00
- SET WALK REST MOD**                    ON / OFF  
Turn walk rest modifier input ON or OFF
- SET MIN RECALL**                    ON / OFF  
Turn minimum recall input ON or OFF
- SET INT ADVANCE**                    ON / OFF  
Turn interval advance input ON or OFF
- SET MAN CONTROL EN**                    ON / OFF  
Turn manual control enable input ON or OFF
- SET STOP TIME ALL**                    ON / OFF  
Turn stop time all rings input ON or OFF
- SET PH NEXT RX**                    ON / OFF  
Turn phase next decision made in rex transfer input ON or OFF
- SET COORD FREE**                    ON / OFF  
Turn coordination free input ON or OFF
- SET SPLIT DEMAND 1**                    ON / OFF  
Turn split demand 1 input ON or OFF
- SET SPLIT DEMAND 2**                    ON / OFF  
Turn split demand 2 input ON or OFF
- SET DUAL COORD**                    ON / OFF  
Turn dual coordination input ON or OFF
- CALL PREEMPT SEQ**                    0-10 ON / OFF  
Turn input for selected (1-10) or all (0) preemptors ON or OFF.
- SET PMT KBD LOCK**                    0-10 ON / OFF  
Turn input from the keyboard for selected (1-10) or all (0) preemptors ON or OFF.



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### ASC/3 Logic Processor Programming

**SET TSP CHKIN DET**      0-4    ON / OFF

Turns selected (1-4) or all (0) Transit Signal Priority check-in inputs ON or OFF.

**SET TSP CHKOUT DET**    0-4    ON / OFF

Turns selected (1-4) or all (0) Transit Signal Priority check-out inputs ON or OFF.

**SET PMT INTERLOCK**    0-10   ON / OFF

Turns selected (1-10) or all (0) preemption interlock inputs ON or OFF.

#### PHASE INPUTS

(These inputs are for the selected phase)

**CALL PHASE**              0-16   ON / OFF

Turns selected (1-16) or all (0) phase vehicle call inputs ON or OFF.

**CALL PED PHASE**        0-16   ON / OFF

Turns selected (1-16) or all (0) phase pedestrian call inputs ON or OFF.

**CALL BIKE PHASE**        0-16   ON / OFF

Turns selected (1-16) or all (0) phase bicycle call inputs ON or OFF.

#### UNIT INPUTS

(These are for the selected input)

**SET DB CRC**                0-16   ON / OFF

Turns selected (1-16) or all (0) data base CRC (Circular Redundant Check) inputs ON or OFF.

**SET ALT SEQ A-E**         0-5    ON / OFF

Turns selected (1-5 ) or all (0) Alternate Sequence inputs ON or OFF.

Use SET CIB CODE ON / OFF for locations 416 – 420 respectively for A-E. Sequence 1-32 is a BCD representation of A-E where E is highest. These inputs must be enabled in MM-1-1-1



## Product Type: Controllers ASC/3 Logic Processor Programming

Reference: AN2068  
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Sequence	ALT SEQ E	ALT SEQ D	ALT SEQ C	ALT SEQ B	ALT SEQ A
1	OFF	OFF	OFF	OFF	ON
2	OFF	OFF	OFF	ON	OFF
3	OFF	OFF	OFF	ON	ON
4	OFF	OFF	ON	OFF	OFF
5	OFF	OFF	ON	OFF	ON
6	OFF	OFF	ON	ON	OFF
7	OFF	OFF	ON	ON	ON
8	OFF	ON	OFF	OFF	OFF
9	OFF	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON	OFF
11	OFF	ON	OFF	ON	ON
12	OFF	ON	ON	OFF	OFF
13	OFF	ON	ON	OFF	ON
14	OFF	ON	ON	ON	OFF
15	OFF	ON	ON	ON	ON
16	ON	OFF	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON
18	ON	OFF	OFF	ON	OFF
19	ON	OFF	OFF	ON	ON
20	ON	OFF	ON	OFF	OFF

**SET TMGPLN BIT A-C** 0-3 ON / OFF

Turns selected bits (1-3) or none (0) timing Plan Bit inputs ON or OFF.

Timing Plan 1 = 100, Plan 2 = 010, Plan 3 = 110 and Plan 4 = 001 Bits A-C respectively

Any other combination of Bits A.B.C result in the Timing plan called by the Time Base.

**ENABLE DUAL ENTRY** 0-63 ON / OFF

Turns enable dual entry input ON or OFF.

**EN IDOT 5 SECT HD** 0-63 ON / OFF

Turns enable IDOT 5 section head control input ON or OFF

**SET PED2 DET** 0-63 ON / OFF

Turns selected (1-16) or all (0) pedestrian 2 inputs ON or OFF.

**TERM OVLP A-P NOW** 0-16 ON / OFF

Turns selected (1-16) or all (0) terminate overlap now inputs ON or OFF.

To keep the overlap off, apply "OMIT OVLP A-P" at the same time.

**OMIT OVLP A-P** 0-16 ON / OFF

Turns selected (1-16) or all (0) overlap omit inputs ON or OFF.

**CALL LOW PRI PMT** 0-10 ON / OFF

Turns selected (1-10) or all (0) call low priority preemption inputs ON or OFF.

**SET VEH PLAN A-C** 0-3 ON / OFF

Turns selected (1-3) or all (0) vehicle detection plan inputs ON or OFF.

**SET VEH DIAG A-C** 0-3 ON / OFF

Turns selected (1-3) vehicle diagnostic plan inputs ON or OFF.

**SET PED DIAG A-C** 0-3 ON / OFF



## Product Type: *Controllers*

Reference: AN2068  
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### ASC/3 Logic Processor Programming

Turns selected (1-3) pedestrian diagnostic plan inputs ON or OFF.

#### PHASE INPUTS

(These inputs are for the selected phase)

**SET PED EXT DET**            0-16    ON / OFF

Turns selected (1-16) or all (0) pedestrian extend detector inputs ON or OFF.

**SET RED EXT DET**            0-16    ON / OFF

Turns selected (1-16) or all (0) red extend inputs ON or OFF.

**CALL PED 2**                 0-16    ON / OFF

Turns selected (1-16) or all (0) phase pedestrian 2 inputs ON or OFF.

#### MISC STATES

(Miscellaneous states)

**SET CIB CODE OFF**            0-575

Sets the selected CIB bit number (0-575) OFF.

**SET CIB CODE ON**             0-575

Sets the selected CIB bit number (0-575) ON.

**SET COB CODE OFF**            0-767

Sets the selected COB bit number (0-767) OFF.

**SET COB CODE ON**             0-767

Sets the selected COB bit number (0-767) ON.

(blank)

This is a "Do Nothing" Statement.



## Product Type: Controllers ASC/3 Logic Processor Programming ASC3 CONTROLLER INPUT BUFFER (CIB)

Reference: AN2068  
Date: March 14, 2007

CIB CODE	Signal Description	CIB CODE	Signal Description
0	Detector 1	16	Detector 17 (SD A1)
1	Detector 2	17	Detector 18 (SD A2)
2	Detector 3	18	Detector 19 (SD B1)
3	Detector 4	19	Detector 20 (SD B2)
4	Detector 5	20	Detector 21 (SD C1)
5	Detector 6	21	Detector 22 (SD C2)
6	Detector 7	22	Detector 23 (SD D1)
7	Detector 8	23	Detector 24 (SD D2)
8	Detector 9 (XD 1)	24	Detector 25
9	Detector 10 (XD 2)	25	Detector 26
10	Detector 11 (XD 3)	26	Detector 27
11	Detector 12 (XD 4)	27	Detector 28
12	Detector 13 (XD 5)	28	Detector 29
13	Detector 14 (XD 6)	29	Detector 30
14	Detector 15 (XD 7)	30	Detector 31
15	Detector 16 (XD 8)	31	Detector 32
32	Detector 33	48	Detector 49
33	Detector 34	49	Detector 50
34	Detector 35	50	Detector 51
35	Detector 36	51	Detector 52
36	Detector 37	52	Detector 53
37	Detector 38	53	Detector 54
38	Detector 39	54	Detector 55
39	Detector 40	55	Detector 56
40	Detector 41	56	Detector 57
41	Detector 42	57	Detector 58
42	Detector 43	58	Detector 59
43	Detector 44	59	Detector 60
44	Detector 45	60	Detector 61
45	Detector 46	61	Detector 62
46	Detector 47	62	Detector 63
47	Detector 48	63	Detector 64



## Product Type: Controllers ASC/3 Logic Processor Programming

CIB CODE	Signal Description	CIB CODE	Signal Description
64	Ped Detector 1	80	Phase 1 Hold
65	Ped Detector 2	81	Phase 2 Hold
66	Ped Detector 3	82	Phase 3 Hold
67	Ped Detector 4	83	Phase 4 Hold
68	Ped Detector 5	84	Phase 5 Hold
69	Ped Detector 6	85	Phase 6 Hold
70	Ped Detector 7	86	Phase 7 Hold
71	Ped Detector 8	87	Phase 8 Hold
72	Ped Detector 9	88	Phase 9 Hold
73	Ped Detector 10	89	Phase 10 Hold
74	Ped Detector 11	90	Phase 11 Hold
75	Ped Detector 12	91	Phase 12 Hold
76	Ped Detector 13	92	Phase 13 Hold
77	Ped Detector 14	93	Phase 14 Hold
78	Ped Detector 15	94	Phase 15 Hold
79	Ped Detector 16	95	Phase 16 Hold
96	Phase 1 Omit	112	Ped Omit Phase 1
97	Phase 2 Omit	113	Ped Omit Phase 2
98	Phase 3 Omit	114	Ped Omit Phase 3
99	Phase 4 Omit	115	Ped Omit Phase 4
100	Phase 5 Omit	116	Ped Omit Phase 5
101	Phase 6 Omit	117	Ped Omit Phase 6
102	Phase 7 Omit	118	Ped Omit Phase 7
103	Phase 8 Omit	119	Ped Omit Phase 8
104	Phase 9 Omit	120	Ped Omit Phase 9
105	Phase 10 Omit	121	Ped Omit Phase 10
106	Phase 11 Omit	122	Ped Omit Phase 11
107	Phase 12 Omit	123	Ped Omit Phase 12
108	Phase 13 Omit	124	Ped Omit Phase 13
109	Phase 14 Omit	125	Ped Omit Phase 14
110	Phase 15 Omit	126	Ped Omit Phase 15
111	Phase 16 Omit	127	Ped Omit Phase 16



## Product Type: Controllers ASC/3 Logic Processor Programming

CIB CODE	Signal Description		CIB CODE	Signal Description	
128	Inhibit Max Term	(R1)	144	Inhibit Max Term	(R3)
129	Max 2 Selection	(R1)	145	Max 2 Selection	(R3)
130	Max 3 Selection	(R1)	146	Max 3 Selection	(R3)
131	Omit Red Clear	(R1)	147	Omit Red Clear	(R3)
132	Red Rest	(R1)	148	Red Rest	(R3)
133	Ped Recycle	(R1)	149	Ped Recycle	(R3)
134	Force Off	(R1)	150	Force Off	(R3)
135	Stop Time	(R1)	151	Stop Time	(R3)
136	Inhibit Max Term	(R2)	152	Inhibit Max Term	(R4)
137	Max 2 Selection	(R2)	153	Max 2 Selection	(R4)
138	Max 3 Selection	(R2)	154	Max 3 Selection	(R4)
139	Omit Red Clear	(R2)	155	Omit Red Clear	(R4)
140	Red Rest	(R2)	156	Red Rest	(R4)
141	Ped Recycle	(R2)	157	Ped Recycle	(R4)
142	Force Off	(R2)	158	Force Off	(R4)
143	Stop Time	(R2)	159	Stop Time	(R4)
160	Test A		176	Address Bit 0	
161	Test B		177	Address Bit 1	
162	Test C		178	Address Bit 2	
163	Test D		179	Address Bit 3	
164	Test E		180	Address Bit 4	
165	I/O Mode Bit A		181	Track Switch Fail	
166	I/O Mode Bit B		182	Ind. Lamp Control	
167	I/O Mode Bit C		183	External Start	
168	Cycle Bit 1 / TP Bit A		184	Automatic (Remote) Flash	
169	Cycle Bit 2 / TP Bit B		185	Flash Status/Local Flash	
170	Cycle Bit 3		186	MMU Status/CMU Flash	
171	Offset Bit 1		187	MMU (CMU) Stop Time	
172	Offset Bit 2		188	External Time Reset	
173	Offset Bit 3		189	TBC On Line	
174	Split Bit 1 / TP Bit C		190	Dimming Enable	
175	Split Bit 2 / TP Bit D		191	IM Power Sense	



## Product Type: Controllers

### ASC/3 Logic Processor Programming

CIB CODE	Signal Description	CIB CODE	Signal Description
192	Coordinator Sync	208	Alarm 1
193	TLM Extern Address Enable	209	Alarm 2
194	TLM Maintenance Required	210	Alarm 3
195	Disable Pretimed Operation	211	Alarm 4
196		212	Alarm 5
197		213	Alarm 6
198	TLM Spare Input 1	214	Alarm 7
199	TLM Spare Input 2	215	Alarm 8
200		216	Alarm 9
201		217	Alarm 10
202		218	Alarm 11
203		219	Alarm 12
204		220	Alarm 13
205		221	Alarm 14
206		222	Alarm 15
207		223	Alarm 16
224	Call Non-Act I (C1)	240	Call Non-Act I (C2)
225	Call Non-Act II (C1)	241	Call Non-Act II (C2)
226	Walk-Rest Modifier (C1)	242	Walk-Rest Modifier (C2)
227	Minimum Recall (C1)	243	Minimum Recall (C2)
228	Interval Advance (C1)	244	Interval Advance (C2)
229	Manual Control Enable (C1)	245	Manual Control Enable (C2)
230	Stop Time All Rings (C1)	246	Stop Time All Rings (C2)
231	Phase Next in RX (C1)	247	Phase Next in RX (C2)
232	Coordinator Free (C1)	248	Coordinator Free (C2)
233	Split Demand 1 (C1)	249	Split Demand 1 (C2)
234	Split Demand 2 (C1)	250	Split Demand 2 (C2)
235	Dual Coordination (C1)	251	Dual Coordination (C2)
236		252	
237		253	
238		254	
239		255	



## Product Type: Controllers

### ASC/3 Logic Processor Programming

CIB CODE	Signal Description	CIB CODE	Signal Description
256	Call Non-Act I (C3)	272	Call Non-Act I (C4)
257	Call Non-Act II (C3)	273	Call Non-Act II (C4)
258	Walk-Rest Modifier (C3)	274	Walk-Rest Modifier (C4)
259	Minimum Recall (C3)	275	Minimum Recall (C4)
260	Interval Advance (C3)	276	Interval Advance (C4)
261	Manual Control Enable (C3)	277	Manual Control Enable (C4)
262	Stop Time All Rings (C3)	278	Stop Time All Rings (C4)
263	Phase Next in RX (C3)	279	Phase Next in RX (C4)
264	Coordinator Free (C3)	280	Coordinator Free (C4)
265	Split Demand 1 (C3)	281	Split Demand 1 (C4)
266	Split Demand 2 (C3)	282	Split Demand 2 (C4)
267	Dual Coordination (C3)	283	Dual Coordination (C4)
268		284	
269		285	
270		286	
271		287	
288	Preempt 1 Call	304	KBD Locked Preempt 1 Call
289	Preempt 2 Call	305	KBD Locked Preempt 2 Call
290	Preempt 3 Call	306	KBD Locked Preempt 3 Call
291	Preempt 4 Call	307	KBD Locked Preempt 4 Call
292	Preempt 5 Call	308	KBD Locked Preempt 5 Call
293	Preempt 6 Call	309	KBD Locked Preempt 6 Call
294	Preempt 7 Call	310	KBD Locked Preempt 7 Call
295	Preempt 8 Call	311	KBD Locked Preempt 8 Call
296	Preempt 9 Call	312	KBD Locked Preempt 9 Call
297	Preempt 10 Call	313	KBD Locked Preempt 10 Call
298		314	
299		315	
300		316	TSP Check In Detector 1
301		317	TSP Check In Detector 2
302		318	TSP Check In Detector 3
303		319	TSP Check In Detector 4



## Product Type: Controllers ASC/3 Logic Processor Programming

CIB CODE	Signal Description	CIB CODE	Signal Description
320	Preempt 1 Gate Down	336	Preempt 1 Interlock
321	Preempt 2 Gate Down	337	Preempt 2 Interlock
322	Preempt 3 Gate Down	338	Preempt 3 Interlock
323	Preempt 4 Gate Down	339	Preempt 4 Interlock
324	Preempt 5 Gate Down	340	Preempt 5 Interlock
325	Preempt 6 Gate Down	341	Preempt 6 Interlock
326	Preempt 7 Gate Down	342	Preempt 7 Interlock
327	Preempt 8 Gate Down	343	Preempt 8 Interlock
328	Preempt 9 Gate Down	344	Preempt 9 Interlock
329	Preempt 10 Gate Down	345	Preempt 10 Interlock
330	Reserved (OFF)	346	
331	Not Assigned (OFF)	2347	
332	TSP Check Out Detector 1	348	
333	TSP Check Out Detector 2	349	
334	TSP Check Out Detector 3	350	
335	TSP Check Out Detector 4	351	
352	Phase 1 Vehicle Call	368	Phase 1 Pedestrian Call
353	Phase 2 Vehicle Call	369	Phase 2 Pedestrian Call
354	Phase 3 Vehicle Call	370	Phase 3 Pedestrian Call
355	Phase 4 Vehicle Call	371	Phase 4 Pedestrian Call
356	Phase 5 Vehicle Call	372	Phase 5 Pedestrian Call
357	Phase 6 Vehicle Call	373	Phase 6 Pedestrian Call
358	Phase 7 Vehicle Call	374	Phase 7 Pedestrian Call
359	Phase 8 Vehicle Call	375	Phase 8 Pedestrian Call
360	Phase 9 Vehicle Call	376	Phase 9 Pedestrian Call
361	Phase 10 Vehicle Call	377	Phase 10 Pedestrian Call
362	Phase 11 Vehicle Call	378	Phase 11 Pedestrian Call
363	Phase 12 Vehicle Call	379	Phase 12 Pedestrian Call
364	Phase 13 Vehicle Call	380	Phase 13 Pedestrian Call
365	Phase 14 Vehicle Call	381	Phase 14 Pedestrian Call
366	Phase 15 Vehicle Call	382	Phase 15 Pedestrian Call
367	Phase 16 Vehicle Call	383	Phase 16 Pedestrian Call



## Product Type: Controllers ASC/3 Logic Processor Programming

CIB CODE	Signal Description	CIB CODE	Signal Description
384	Phase 1 Bike Call	400	Database CRC Bit 0
385	Phase 2 Bike Call	401	Database CRC Bit 1
386	Phase 3 Bike Call	402	Database CRC Bit 2
387	Phase 4 Bike Call	403	Database CRC Bit 3
388	Phase 5 Bike Call	404	Database CRC Bit 4
389	Phase 6 Bike Call	405	Database CRC Bit 5
390	Phase 7 Bike Call	406	Database CRC Bit 6
391	Phase 8 Bike Call	407	Database CRC Bit 7
392	Phase 9 Bike Call	408	Database CRC Bit 8
393	Phase 10 Bike Call	409	Database CRC Bit 9
394	Phase 11 Bike Call	410	Database CRC Bit 10
395	Phase 12 Bike Call	411	Database CRC Bit 11
396	Phase 13 Bike Call	412	Database CRC Bit 12
397	Phase 14 Bike Call	413	Database CRC Bit 13
398	Phase 15 Bike Call	414	Database CRC Bit 14
399	Phase 16 Bike Call	415	Database CRC Bit 15
416	Alt Sequence A	432	Ped 2 Detector 1
417	Alt Sequence B	433	Ped 2 Detector 2
418	Alt Sequence C	434	Ped 2 Detector 3
419	Alt Sequence D	435	Ped 2 Detector 4
420	Alt Sequence E	436	Ped 2 Detector 5
421	Timing Plan Bit A	437	Ped 2 Detector 6
422	Timing Plan Bit B	438	Ped 2 Detector 7
423	Timing Plan Bit C	439	Ped 2 Detector 8
424	Dual Entry Enable	440	Ped 2 Detector 9
425	Enable IDOT 5 Sec Head Ctl	441	Ped 2 Detector 10
426		442	Ped 2 Detector 11
427		443	Ped 2 Detector 12
428		444	Ped 2 Detector 13
429		445	Ped 2 Detector 14
430		446	Ped 2 Detector 15
431		447	Ped 2 Detector 16



## Product Type: Controllers ASC/3 Logic Processor Programming

CIB CODE	Signal Description	CIB CODE	Signal Description
448	Overlap A Terminate Now	464	Overlap A Omit
449	Overlap B Terminate Now	465	Overlap B Omit
450	Overlap C Terminate Now	466	Overlap C Omit
451	Overlap D Terminate Now	467	Overlap D Omit
452	Overlap E Terminate Now	468	Overlap E Omit
453	Overlap F Terminate Now	469	Overlap F Omit
454	Overlap G Terminate Now	470	Overlap G Omit
455	Overlap H Terminate Now	471	Overlap H Omit
456	Overlap I Terminate Now	472	Overlap I Omit
457	Overlap J Terminate Now	473	Overlap J Omit
458	Overlap K Terminate Now	474	Overlap K Omit
459	Overlap L Terminate Now	475	Overlap L Omit
460	Overlap M Terminate Now	476	Overlap M Omit
461	Overlap N Terminate Now	477	Overlap N Omit
462	Overlap O Terminate Now	478	Overlap O Omit
463	Overlap P Terminate Now	479	Overlap P Omit
480	Preempt 1 Low Priority Call	496	Veh Detector Plan Bit A
481	Preempt 2 Low Priority Call	497	Veh Detector Plan Bit B
482	Preempt 3 Low Priority Call	498	Veh Detector Plan Bit C
483	Preempt 4 Low Priority Call	499	
484	Preempt 5 Low Priority Call	500	
485	Preempt 6 Low Priority Call	501	
486	Preempt 7 Low Priority Call	502	Veh Detector Diag Plan Bit A
487	Preempt 8 Low Priority Call	503	Veh Detector Diag Plan Bit B
488	Preempt 9 Low Priority Call	504	Veh Detector Diag Plan Bit C
489	Preempt 10 Low Priority Call	505	Ped Detector Diag Plan Bit A
490		506	Ped Detector Diag Plan Bit B
491		507	Ped Detector Diag Plan Bit C
492		508	
493		509	
494		510	
495		511	



## Product Type: Controllers ASC/3 Logic Processor Programming

CIB CODE	Signal Description	CIB CODE	Signal Description
512	Ped Extend Detector 1	528	Red Extend Detector 1
513	Ped Extend Detector 2	529	Red Extend Detector 2
514	Ped Extend Detector 3	530	Red Extend Detector 3
515	Ped Extend Detector 4	531	Red Extend Detector 4
516	Ped Extend Detector 5	532	Red Extend Detector 5
517	Ped Extend Detector 6	533	Red Extend Detector 6
518	Ped Extend Detector 7	534	Red Extend Detector 7
519	Ped Extend Detector 8	535	Red Extend Detector 8
520	Ped Extend Detector 9	536	Red Extend Detector 9
521	Ped Extend Detector 10	537	Red Extend Detector 10
522	Ped Extend Detector 11	538	Red Extend Detector 11
523	Ped Extend Detector 12	539	Red Extend Detector 12
524	Ped Extend Detector 13	540	Red Extend Detector 13
525	Ped Extend Detector 14	541	Red Extend Detector 14
526	Ped Extend Detector 15	542	Red Extend Detector 15
527	Ped Extend Detector 16	543	Red Extend Detector 16
544	Ped 2 Call 1	560	
545	Ped 2 Call 2	561	
546	Ped 2 Call 3	562	
547	Ped 2 Call 4	563	
548	Ped 2 Call 5	564	
549	Ped 2 Call 6	565	
550	Ped 2 Call 7	566	
551	Ped 2 Call 8	567	
552	Ped 2 Call 9	568	
553	Ped 2 Call 10	569	
554	Ped 2 Call 11	570	
555	Ped 2 Call 12	571	
556	Ped 2 Call 13	572	
557	Ped 2 Call 14	573	
558	Ped 2 Call 15	574	
559	Ped 2 Call 16	575	



## Product Type: Controllers

### ASC/3 Logic Processor Programming

#### ASC3 CONTROLLER OUTPUT BUFFER (COB)

COB CODE	Signal Description	COB CODE	Signal Description
0	Phase 1 Green	16	Phase 1 Yellow
1	Phase 2 Green	17	Phase 2 Yellow
2	Phase 3 Green	18	Phase 3 Yellow
3	Phase 4 Green	19	Phase 4 Yellow
4	Phase 5 Green	20	Phase 5 Yellow
5	Phase 6 Green	21	Phase 6 Yellow
6	Phase 7 Green	22	Phase 7 Yellow
7	Phase 8 Green	23	Phase 8 Yellow
8	Phase 9 Green	24	Phase 9 Yellow
9	Phase 10 Green	25	Phase 10 Yellow
10	Phase 11 Green	26	Phase 11 Yellow
11	Phase 12 Green	27	Phase 12 Yellow
12	Phase 13 Green	28	Phase 13 Yellow
13	Phase 14 Green	29	Phase 14 Yellow
14	Phase 15 Green	30	Phase 15 Yellow
15	Phase 16 Green	31	Phase 16 Yellow
32	Phase 1 Red	48	Phase 1 Walk
33	Phase 2 Red	49	Phase 2 Walk
34	Phase 3 Red	50	Phase 3 Walk
35	Phase 4 Red	51	Phase 4 Walk
36	Phase 5 Red	52	Phase 5 Walk
37	Phase 6 Red	53	Phase 6 Walk
38	Phase 7 Red	54	Phase 7 Walk
39	Phase 8 Red	55	Phase 8 Walk
40	Phase 9 Red	56	Phase 9 Walk
41	Phase 10 Red	57	Phase 10 Walk
42	Phase 11 Red	58	Phase 11 Walk
43	Phase 12 Red	59	Phase 12 Walk
44	Phase 13 Red	60	Phase 13 Walk
45	Phase 14 Red	61	Phase 14 Walk
46	Phase 15 Red	62	Phase 15 Walk
47	Phase 16 Red	63	Phase 16 Walk



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
64	Phase 1 Ped Clear	80	Phase 1 Don't Walk
65	Phase 2 Ped Clear	81	Phase 2 Don't Walk
66	Phase 3 Ped Clear	82	Phase 3 Don't Walk
67	Phase 4 Ped Clear	83	Phase 4 Don't Walk
68	Phase 5 Ped Clear	84	Phase 5 Don't Walk
69	Phase 6 Ped Clear	85	Phase 6 Don't Walk
70	Phase 7 Ped Clear	86	Phase 7 Don't Walk
71	Phase 8 Ped Clear	87	Phase 8 Don't Walk
72	Phase 9 Ped Clear	88	Phase 9 Don't Walk
73	Phase 10 Ped Clear	89	Phase 10 Don't Walk
74	Phase 11 Ped Clear	90	Phase 11 Don't Walk
75	Phase 12 Ped Clear	91	Phase 12 Don't Walk
76	Phase 13 Ped Clear	92	Phase 13 Don't Walk
77	Phase 14 Ped Clear	93	Phase 14 Don't Walk
78	Phase 15 Ped Clear	94	Phase 15 Don't Walk
79	Phase 16 Ped Clear	95	Phase 16 Don't Walk
96	Overlap 1 Green	112	Overlap 1 Yellow
97	Overlap 2 Green	113	Overlap 2 Yellow
98	Overlap 3 Green	114	Overlap 3 Yellow
99	Overlap 4 Green	115	Overlap 4 Yellow
100	Overlap 5 Green	116	Overlap 5 Yellow
101	Overlap 6 Green	117	Overlap 6 Yellow
102	Overlap 7 Green	118	Overlap 7 Yellow
103	Overlap 8 Green	119	Overlap 8 Yellow
104	Overlap 9 Green	120	Overlap 9 Yellow
105	Overlap 10 Green	121	Overlap 10 Yellow
106	Overlap 11 Green	122	Overlap 11 Yellow
107	Overlap 12 Green	123	Overlap 12 Yellow
108	Overlap 13 Green	124	Overlap 13 Yellow
109	Overlap 14 Green	125	Overlap 14 Yellow
110	Overlap 15 Green	126	Overlap 15 Yellow
111	Overlap 16 Green	127	Overlap 16 Yellow



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal	Description	COB CODE	Signal	Description
128	Overlap	1 Red	144	CF24 Det Slots	1,2 Reset
129	Overlap	2 Red	145	CF24 Det Slots	3,4 Reset
130	Overlap	3 Red	146	CF24 Det Slots	5,6 Reset
131	Overlap	4 Red	147	CF24 Det Slots	7,8 Reset
132	Overlap	5 Red	148	CF25 Det Slots	1,2 Reset
133	Overlap	6 Red	149	CF25 Det Slots	3,4 Reset
134	Overlap	7 Red	150	CF25 Det Slots	5,6 Reset
135	Overlap	8 Red	151	CF25 Det Slots	7,8 Reset
136	Overlap	9 Red	152	CF26 Det Slots	1,2 Reset
137	Overlap	10 Red	153	CF26 Det Slots	3,4 Reset
138	Overlap	11 Red	154	CF26 Det Slots	5,6 Reset
139	Overlap	12 Red	155	CF26 Det Slots	7,8 Reset
140	Overlap	13 Red	156	CF27 Det Slots	1,2 Reset
141	Overlap	14 Red	157	CF27 Det Slots	3,4 Reset
142	Overlap	15 Red	158	CF27 Det Slots	5,6 Reset
143	Overlap	16 Red	159	CF27 Det Slots	7,8 Reset
160	LS	1 Green/Walk	176	LS	1 Yellow/PC
161	LS	2 Green/Walk	177	LS	2 Yellow/PC
162	LS	3 Green/Walk	178	LS	3 Yellow/PC
163	LS	4 Green/Walk	179	LS	4 Yellow/PC
164	LS	5 Green/Walk	180	LS	5 Yellow/PC
165	LS	6 Green/Walk	181	LS	6 Yellow/PC
166	LS	7 Green/Walk	182	LS	7 Yellow/PC
167	LS	8 Green/Walk	183	LS	8 Yellow/PC
168	LS	9 Green/Walk	184	LS	9 Yellow/PC
169	LS	10 Green/Walk	185	LS	10 Yellow/PC
170	LS	11 Green/Walk	186	LS	11 Yellow/PC
171	LS	12 Green/Walk	187	LS	12 Yellow/PC
172	LS	13 Green/Walk	188	LS	13 Yellow/PC
173	LS	14 Green/Walk	189	LS	14 Yellow/PC
174	LS	15 Green/Walk	190	LS	15 Yellow/PC
175	LS	16 Green/Walk	191	LS	16 Yellow/PC



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal	Description	COB CODE	Signal	Description
192	LS 1	Red/DW	208	LS 1	Green/Walk +
193	LS 2	Red/DW	209	LS 2	Green/Walk +
194	LS 3	Red/DW	210	LS 3	Green/Walk +
195	LS 4	Red/DW	211	LS 4	Green/Walk +
196	LS 5	Red/DW	212	LS 5	Green/Walk +
197	LS 6	Red/DW	213	LS 6	Green/Walk +
198	LS 7	Red/DW	214	LS 7	Green/Walk +
199	LS 8	Red/DW	215	LS 8	Green/Walk +
200	LS 9	Red/DW	216	LS 9	Green/Walk +
201	LS 10	Red/DW	217	LS 10	Green/Walk +
202	LS 11	Red/DW	218	LS 11	Green/Walk +
203	LS 12	Red/DW	219	LS 12	Green/Walk +
204	LS 13	Red/DW	220	LS 13	Green/Walk +
205	LS 14	Red/DW	221	LS 14	Green/Walk +
206	LS 15	Red/DW	222	LS 15	Green/Walk +
207	LS 16	Red/DW	223	LS 16	Green/Walk +
224	LS 1	Yellow/PC +	240	LS 1	Red/DW +
225	LS 2	Yellow/PC +	241	LS 2	Red/DW +
226	LS 3	Yellow/PC +	242	LS 3	Red/DW +
227	LS 4	Yellow/PC +	243	LS 4	Red/DW +
228	LS 5	Yellow/PC +	244	LS 5	Red/DW +
229	LS 6	Yellow/PC +	245	LS 6	Red/DW +
230	LS 7	Yellow/PC +	246	LS 7	Red/DW +
231	LS 8	Yellow/PC +	247	LS 8	Red/DW +
232	LS 9	Yellow/PC +	248	LS 9	Red/DW +
233	LS 10	Yellow/PC +	249	LS 10	Red/DW +
234	LS 11	Yellow/PC +	250	LS 11	Red/DW +
235	LS 12	Yellow/PC +	251	LS 12	Red/DW +
236	LS 13	Yellow/PC +	252	LS 13	Red/DW +
237	LS 14	Yellow/PC +	253	LS 14	Red/DW +
238	LS 15	Yellow/PC +	254	LS 15	Red/DW +
239	LS 16	Yellow/PC +	255	LS 16	Red/DW +



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal	Description	COB CODE	Signal	Description
256	LS 1	Green/Walk -	272	LS 1	Yellow/PC -
257	LS 2	Green/Walk -	273	LS 2	Yellow/PC -
258	LS 3	Green/Walk -	274	LS 3	Yellow/PC -
259	LS 4	Green/Walk -	275	LS 4	Yellow/PC -
260	LS 5	Green/Walk -	276	LS 5	Yellow/PC -
261	LS 6	Green/Walk -	277	LS 6	Yellow/PC -
262	LS 7	Green/Walk -	278	LS 7	Yellow/PC -
263	LS 8	Green/Walk -	279	LS 8	Yellow/PC -
264	LS 9	Green/Walk -	280	LS 9	Yellow/PC -
265	LS 10	Green/Walk -	281	LS 10	Yellow/PC -
266	LS 11	Green/Walk -	282	LS 11	Yellow/PC -
267	LS 12	Green/Walk -	283	LS 12	Yellow/PC -
268	LS 13	Green/Walk -	284	LS 13	Yellow/PC -
269	LS 14	Green/Walk -	285	LS 14	Yellow/PC -
270	LS 15	Green/Walk -	286	LS 15	Yellow/PC -
271	LS 16	Green/Walk -	287	LS 16	Yellow/PC -
288	LS 1	Red/DW -	304	Phase 1	Detector Fail
289	LS 2	Red/DW -	305	Phase 2	Detector Fail
290	LS 3	Red/DW -	306	Phase 3	Detector Fail
291	LS 4	Red/DW -	307	Phase 4	Detector Fail
292	LS 5	Red/DW -	308	Phase 5	Detector Fail
293	LS 6	Red/DW -	309	Phase 6	Detector Fail
294	LS 7	Red/DW -	310	Phase 7	Detector Fail
295	LS 8	Red/DW -	311	Phase 8	Detector Fail
296	LS 9	Red/DW -	312	Phase 9	Detector Fail
297	LS 10	Red/DW -	313	Phase 10	Detector Fail
298	LS 11	Red/DW -	314	Phase 11	Detector Fail
299	LS 12	Red/DW -	315	Phase 12	Detector Fail
300	LS 13	Red/DW -	316	Phase 13	Detector Fail
301	LS 14	Red/DW -	317	Phase 14	Detector Fail
302	LS 15	Red/DW -	318	Phase 15	Detector Fail
303	LS 16	Red/DW -	319	Phase 16	Detector Fail



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
320	Phase 1 Timing	336	Phase 1 Next
321	Phase 2 Timing	337	Phase 2 Next
322	Phase 3 Timing	338	Phase 3 Next
323	Phase 4 Timing	339	Phase 4 Next
324	Phase 5 Timing	340	Phase 5 Next
325	Phase 6 Timing	341	Phase 6 Next
326	Phase 7 Timing	342	Phase 7 Next
327	Phase 8 Timing	2343	Phase 8 Next
328	Phase 9 Timing	344	Phase 9 Next
329	Phase 10 Timing	345	Phase 10 Next
330	Phase 11 Timing	346	Phase 11 Next
331	Phase 12 Timing	347	Phase 12 Next
332	Phase 13 Timing	348	Phase 13 Next
333	Phase 14 Timing	349	Phase 14 Next
334	Phase 15 Timing	350	Phase 15 Next
335	Phase 16 Timing	351	Phase 16 Next
352	Phase 1 Vehicle Check	368	Phase 1 Pedestrian Check
353	Phase 2 Vehicle Check	369	Phase 2 Pedestrian Check
354	Phase 3 Vehicle Check	370	Phase 3 Pedestrian Check
355	Phase 4 Vehicle Check	371	Phase 4 Pedestrian Check
356	Phase 5 Vehicle Check	372	Phase 5 Pedestrian Check
357	Phase 6 Vehicle Check	373	Phase 6 Pedestrian Check
358	Phase 7 Vehicle Check	374	Phase 7 Pedestrian Check
359	Phase 8 Vehicle Check	375	Phase 8 Pedestrian Check
360	Phase 9 Vehicle Check	376	Phase 9 Pedestrian Check
361	Phase 10 Vehicle Check	377	Phase 10 Pedestrian Check
362	Phase 11 Vehicle Check	378	Phase 11 Pedestrian Check
363	Phase 12 Vehicle Check	379	Phase 12 Pedestrian Check
364	Phase 13 Vehicle Check	380	Phase 13 Pedestrian Check
365	Phase 14 Vehicle Check	381	Phase 14 Pedestrian Check
366	Phase 15 Vehicle Check	382	Phase 15 Pedestrian Check
367	Phase 16 Vehicle Check	383	Phase 16 Pedestrian Check



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
384	NEMA Status Bit A (R1)	400	NEMA Status Bit A (R3)
385	NEMA Status Bit B (R1)	401	NEMA Status Bit B (R3)
386	NEMA Status Bit C (R1)	402	NEMA Status Bit C (R3)
387	Coord Direction (R1)	403	Coord Direction (R3)
388		404	
389		405	
390		406	
391		407	
392	NEMA Status Bit A (R2)	408	NEMA Status Bit A (R4)
393	NEMA Status Bit B (R2)	409	NEMA Status Bit B (R4)
394	NEMA Status Bit C (R2)	410	NEMA Status Bit C (R4)
395	Coord Direction (R2)	411	Coord Direction (R4)
396		412	
397		413	
398		414	
399		415	
416	Preemptor 1 Status	432	Cycle Bit 1 / TP Bit A
417	Preemptor 2 Status	433	Cycle Bit 2 / TP Bit B
418	Preemptor 3 Status	434	Cycle Bit 3
419	Preemptor 4 Status	435	Offset Bit 1
420	Preemptor 5 Status	436	Offset Bit 2
421	Preemptor 6 Status	437	Offset Bit 3
422	Preemptor 7 Status	438	Split Bit 1 / TP Bit C
423	Preemptor 8 Status	439	Split Bit 2 / TP Bit D
424	Preemptor 9 Status	440	
425	Preemptor 10 Status	441	
426		442	
427		443	
428		444	Controller Select Bit A
429	Preemptor Flash	445	Controller Select Bit B
430	FALSE (always logical 0)	446	Controller Select Bit C
431	TRUE (always logical 1)	447	Controller Select Bit D



## Product Type: Controllers

### ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
448		464	
449		465	
450	Crđ Alarm (C1)	466	Crđ Alarm (C2)
451	Crđ Error (C1)	467	Crđ Error (C2)
452	Crđ Sync Out (C1)	468	Crđ Sync Out (C2)
453	Crđ X Street Sync Out (C1)	469	Crđ X Street Sync Out (C2)
454	Crđ Free Status (C1)	470	Crđ Free Status (C2)
455	Crđ No Fault Flash (C1)	471	Crđ No Fault Flash (C2)
456		472	
457		473	
458		474	
459		475	
460		476	
461		477	
462		478	
463		479	
480		496	
481		497	
482	Crđ Alarm (C3)	498	Crđ Alarm (C4)
483	Crđ Error (C3)	499	Crđ Error (C4)
484	Crđ Sync Out (C3)	500	Crđ Sync Out (C4)
485	Crđ X Street Sync Out (C3)	501	Crđ X Street Sync Out (C4)
486	Crđ Free Status (C3)	502	Crđ Free Status (C4)
487	Crđ No Fault Flash (C3)	503	Crđ No Fault Flash (C4)
488		504	
489		505	
490		506	
491		507	
492		508	
493		509	
494		510	
495		511	



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
512	NIC Special Function 1	528	Auxiliary 1
513	NIC Special Function 2	529	Auxiliary 2
514	NIC Special Function 3	530	Auxiliary 3
515	NIC Special Function 4	531	
516	NIC Special Function 5	532	
517	NIC Special Function 6	533	
518	NIC Special Function 7	534	
519	NIC Special Function 8	535	
520	TLM Special Function 1	536	Address Bit 0
521	TLM Special Function 2	537	Address Bit 1
522	TLM Special Function 3	538	Address Bit 2
523	TLM Special Function 4	539	Address Bit 3
524	TLM Special Function 5	540	Address Bit 4
525	TLM Special Function 6	541	
526	TLM Special Function 7	542	Voltage Monitor
527	TLM Special Function 8	543	Fault Monitor
544	Automatic (Remote) Flash	560	Coord Special Function 1
545	Preempt CMU Interlock	561	Coord Special Function 2
546	Flashing Logic 1 Hz	562	Coord Special Function 3
547	Flashing Logic 1.67 Hz	563	Coord Special Function 4
548	Flashing Logic 5 Hz	564	Coord Special Function 5
549		565	Coord Special Function 6
550	Local Flash Status	566	Coord Special Function 7
551	MMU Flash Status	567	Coord Special Function 8
552	No Fault Flash Status	568	Preempt Special Function 1
553		569	Preempt Special Function 2
554		570	Preempt Special Function 3
555		571	Preempt Special Function 4
556		572	Preempt Special Function 5
557		573	Preempt Special Function 6
558		574	Preempt Special Function 7
559		575	Preempt Special Function 8



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
576		592	
577		593	
578		594	
579		595	
580		596	
581		597	
582		598	
583		599	
584		600	
585		601	
587		602	
588		603	
589		604	
590		605	
591		606	
		607	
608		624	
609		625	
610		626	
611		627	
612		628	
613		629	
614		630	
615		631	
616		632	
617		633	
618		634	
619		635	
620		636	
621		637	
622		638	
623		639	



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
640		656	
641		657	
642		658	
643		659	
644		660	
645		661	
646		662	
647		663	
648		664	
649		665	
650		666	
651		667	
652		668	
653		669	
654		670	
655		671	
672		688	
673		689	
674		690	
675		691	
676		692	
677		693	
678		694	
679		695	
680		696	
681		697	
682		698	
683		699	
684		700	
685		701	
686		702	
687		703	



## Product Type: Controllers ASC/3 Logic Processor Programming

COB CODE	Signal Description	COB CODE	Signal Description
704		720	
705		721	
706		722	
707		723	
708		724	
709		725	
710		726	
711		727	
712		728	
713		729	
714		730	
715		731	
716		732	
717		733	
718		734	
719		735	
736		752	
737		753	
738		754	
739		755	
740		756	
741		757	
742		758	
743		759	
744		760	
745		761	
746		762	
747		763	
748		764	
749		765	
750		766	
751		767	



## Product Type: *Controllers* *ASC/3 Logic Processor Programming*

### ASC/3 Extended Logic Processor Group

ASC/3 offers the users the ability to turn on and off a group of Logic Processor statements. These statements are in the range of 101-200 can be programmed by the Data Manager or on controller screen. You have to program allowable LP # range (group of LP) in the ASC3.ext file. Give it a name (LP feature 1) Then you can turn LP feature group 1 on and off using MM 2-6-2  
Please note that the last LP group will precede the earlier group if the LP # is overlapped

#### Format

##### 1. Comment statement

Line starts with " character will not be processed. This is used for putting comments in the file.

##### 2. Message

Line starts with 'CONFIG='. Text after the '=' will be displayed in the sign-on screen and MM-2-6-2. Max number of characters is 12. This is optional.

eg:

CONFIG=TOLEDO

##### 3. Control statements

To specify which LP statements are allowed to be turned on or off. Max number of control statements is 25. The format is :

<on/off>,<start LP>,<end LP>,<Text>

<on/off> - 0=Turn off feature at power on  
1=Turn on feature at power on

<start LP> - Starting LP statement. Range is from 101 - 200

<end LP> - Ending LP statement. Range is from 101 - 200

<Text> - Text is displayed in the MM-2-6-2 for the corresponding feature. Max length is 36 characters.

eg:

1,101,101,CANADIAN LEFT TURN

Layout of the MM-2-6-2

#### EXTENDED OPTIONS

EXTENDED FEATURES [TOLEDO]

CANADIAN LEFT TURN..... ON

FEATURE 2.....OFF

An ASC3.EXT can look like the below. Controller would translate and display them on MM-2-6-2



## Product Type: Controllers ASC/3 Logic Processor Programming

Reference: AN2068  
Date: March 14, 2007

```

CONFIG=Santa Ana
1,101,106,LP FEATURE 1
0,107,111,LP FEATURE 2
0,112,113,CANADIAN LEFT TURN

```

1st group statement "LP FEATURE 1" specifies a group of LP statements from 101 and 106 that can be turned on or off together. Default is ON  
 1st group statement "LP FEATURE 2" specifies a group of LP statements from 107 and 111 that can be turned on or off together. Default is OFF  
 1st group statement "CANADIAN LEFT TURN" specifies a group of LP statements from 112 and 113 that can be turned on or off together. Default is OFF

MM-2-6-2 with ASC3.ext above in the controller at power up will display the following.

