



## Product Type: ASC/3 Controller

Reference: AN2100  
Date: 28 August 2008

### Advance Warning Signals (Beacons)

## Purpose

This document gives the procedures used to program an ASC/3 controller to flash Advance Warning Signals (usually called “Beacons”) that warn vehicle drivers that the signals will soon terminate the green phase.

## Introduction

To let vehicle drivers have sufficient time to stop before the yellow signal indication, Advance Warning Beacons flash for a period of time (5 seconds in the example, below) before the main street green signal indication is terminated. The Advance Warning Beacons continue to flash until the phase turns green again.

## Applications

Use the procedures that follow to program Advance Warning Beacons for Phases 2 and 6. Overlaps B and F are used to supply the delayed green after Phase 2 and 6 clearance. The Advance Warning Beacons are flashed with the Phase 2 and 6 pedestrian clearance (yellow) load switch output.

## Overlaps

Go to MM-2-2 and program Overlaps B and F as lagging overlaps to supply the green, yellow and red for the normal Phase 2 and 6 signal, as shown below.

### MM-2-2

TMG	VEH	OVLP...	[B]	TYPE-	OTHER	TMG	VEH	OVLP...	[F]	TYPE-	OTHER					
PHASES	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
INCLUDED	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PROTECT	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
MODIFIER	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PED PRTC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
NOT OVLP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FLSH GRN	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LAG X PH	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LAG 2 PH	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LAG GRN	5.0	YEL	3.0	RED	1.0	ADV	GRN	0.0								

## Timing

Period of time the **Phase 2** beacon flashes before the 2 Yellow clearance = Lag Green time for **Overlap B**

The equivalent is true of **Phase 6** and **Overlap F**.



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#### Logic Processor

1. Go to MM-1-8-2 and program the Logic Processor to make the flash rate 1 PPS.

#### MM-1-8-2

```

LOGIC # 1 ACTIVE: Y
IF LOGIC FLAG 1 IS ON
THEN DELAY FOR 0.5 SECONDS
  SET LOGIC FLAG 1 OFF
ELSE DELAY FOR 0.5 SECONDS
  SET LOGIC FLAG 1 ON

```

2. Program the Phase 2 pedestrian clearance output (Advance Warning Beacon for Phase 2) to flash whenever not in Phase 2 green. Logic flag 2 is used to allow you to view the flashing beacon on the status screen.

#### MM-1-8-2

```

LOGIC # 2 ACTIVE: Y
IF GREEN ON PHASE 2 IS OFF
AND LOGIC FLAG 1 IS ON
THEN SET PHASE PED CLR 2 ON
  SET LOGIC FLAG 2 ON
ELSE SET LOGIC FLAG 2 OFF

```

3. Program the Phase 6 pedestrian clearance output (Advance Warning Beacon for Phase 6) to flash whenever not in Phase 6 green. Logic flag 6 is used to allow you to view the flashing beacon on the status screen.

#### MM-1-8-2

```

LOGIC # 3 ACTIVE: Y
IF GREEN ON PHASE 6 IS OFF
AND LOGIC FLAG 1 IS ON
THEN SET PHASE PED CLR 6 ON
  SET LOGIC FLAG 6 ON
ELSE SET LOGIC FLAG 6 OFF

```



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4. Go to MM-1-8-1 and enable the Logic Processor statements.

#### MM-1-8-1

LOGIC STATEMENT CONTROL		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
LP	1-15	E	E	E	.	.	.	.	.	.	.	.	.	.	.	.
LP	16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP	31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP	46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP	61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP	76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP	91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

D = DISABLED      E = ENABLED  
 "." = ENABLED / DISABLED BY OTHER SOURCE