



Product Type: Controllers

Reference: AN2111

Date: 23 Feb 2009

ASC/3 Flash Preempt Output Until Dwell Phases are Active

Purpose

Program the ASC/3 logic processor to flash the preempt output, once the preempt input becomes active. Once the preempt dwell phase is active, change the output to on-steady.

Introduction

The City of Bremerton, WA requested that the preempt output flash that indicates to the emergency vehicle operator that the controller has received the request for preempt and is servicing the request. Once the preemptor has cycled to the dwell phases, the output becomes steady.

Applications

The following programming example use these preempt sequences:

- Preempt 3 = dwell phases 2 & 5
- Preempt 4 = dwell phases 1 & 6
- Preempt 5 = dwell phases 4 & 7
- Preempt 6 = dwell phases 3 & 8

The following outputs are used:

- Preempt 3 = phase 2 pedestrian clearance (yellow) load switch output
- Preempt 4 = phase 4 pedestrian clearance (yellow) load switch output
- Preempt 5 = phase 6 pedestrian clearance (yellow) load switch output
- Preempt 6 = phase 8 pedestrian clearance (yellow) load switch output

Steps for programming the controller

MM 4-1 Program the preemptors for the dwell phases as follows:

PREEMPT PLAN [3] ENABLE...YES v
VEH/PED 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
OVERLAP A B C D E F G H I J K L M N O P
TRKCLR V
TRKCLR 0
ENA TRL X X X X X X X X X X X X X X X X
DWEL VEH . X . . X
DWEL PED
DWEL OLP
CYC VEH
CYC PED
CYC OLP
EXIT PH
EXIT CAL
SP FUNC



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PREEMPT PLAN I	41	ENABLE...	YES	v
VEH/PED	1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6			
OVERLAP	A B C D E F G H I J K L M N O P			
TRKCLR V	.	.	.	.
TRKCLR O	.	.	.	.
ENA TRL	X X X X X X X X X X X X X X X X			
DWEL VEH	X X			
DWEL PED	.	.	.	.
DWEL OLP	.	.	.	.
CYC VEH	.	.	.	.
CYC PED	.	.	.	.
CYC OLP	.	.	.	.
EXIT PH	.	.	.	.
EXIT CAL	.	.	.	.
SP FUNC	.	.	.	.

PREEMPT PLAN I	51	ENABLE...	YES	v
VEH/PED	1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6			
OVERLAP	A B C D E F G H I J K L M N O P			
TRKCLR V	.	.	.	.
TRKCLR O	.	.	.	.
ENA TRL	X X X X X X X X X X X X X X X X			
DWEL VEH	. . . X . . X			
DWEL PED	.	.	.	.
DWEL OLP	.	.	.	.
CYC VEH	.	.	.	.
CYC PED	.	.	.	.
CYC OLP	.	.	.	.
EXIT PH	.	.	.	.
EXIT CAL	.	.	.	.
SP FUNC	.	.	.	.

PREEMPT PLAN I	61	ENABLE...	YES	v
VEH/PED	1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6			
OVERLAP	A B C D E F G H I J K L M N O P			
TRKCLR V	.	.	.	.
TRKCLR O	.	.	.	.
ENA TRL	X X X X X X X X X X X X X X X X			
DWEL VEH	. . X X			
DWEL PED
DWEL OLP
CYC VEH
CYC PED
CYC OLP
EXIT PH
EXIT CAL
SP FUNC



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Also program the PREEMTOR STATUS OUTPUT ONLY IN DWELL to No:

```

PREEMPT PLAN [ 3]  ENABLE...YES  ^v
ENABLE... YES|PMT OVRIDE..|INTERLOCK. NO
DET LOCK.. X|DELAY.. 0|INHIBIT... 0
OVERIDE FL..|DURATION 0|CLR>GRN... NO
TERM OLP.. NO|PC>YEL  NO|TERM PH  NO
PED DARK.. NO|TC RESRV  NO|DWELL FL OFF
LINK PMT...0|X FLCOLR GRN|PMT> CRD. NO
X TMG PLN..0|RE-SERV.. 0|
FREE DUR PMT|R1 NO|R2 NO|R3 NO|R4 NO
--TIMING----WALK|PED CL|MN GR| YEL| RED
ENTRANCE TM. 0| 255| 0|25.5|25.5
-----MIN GR|EXT GR|MX GR| YEL| RED
TRACK CLEAR 0| 0| 0|25.5|25.5
-----MIN DL|PMTEXT|MX TM| YEL| RED
DWL/CYC-EXIT 0| 0.0| 0|25.5|25.5
PMT ACTIVE OUT..OFF PMT ACT DWELL... NO

```

Program all other preemptor timing according to the desired operation of the intersection.

Logic Processor Programming:

MM-1-8-2 Program LP steps 1 - 8 as follows (or other LP steps could be used)

LP 1 – If the preempt 3 is active, then flash (COB 546) the phase 2 pedestrian clearance (yellow load switch) output

```

IF    PREEMPT ACTIVE          3 IS ON
AND  COB CODE ON              546

THEN SET PHASE PED CLR      2    ON

ELSE

```

LP 2 – Once both of the dwell phases are green, turn the phase 2 pedestrian clearance (yellow load switch) output on solid.

```

IF    PREEMPT ACTIVE          3 IS ON
AND  GREEN ON PHASE          2 IS ON
AND  GREEN ON PHASE          5 IS ON

THEN SET PHASE PED CLR      2    ON

ELSE

```



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LP 3 – If the preempt 4 is active, then flash (COB 546) the phase 4 pedestrian clearance (yellow load switch) output.

```

IF    PREEMPT ACTIVE      4 IS ON
AND  COB CODE ON          546
THEN SET PHASE PED CLR   4    ON

```

ELSE

LP 4 – Once both of the dwell phases are green, turn the phase 4 pedestrian clearance (yellow load switch) output on solid.

```

IF    PREEMPT ACTIVE      4 IS ON
AND  GREEN ON PHASE      1 IS ON
AND  GREEN ON PHASE      6 IS ON

```

```

THEN SET PHASE PED CLR   4    ON

```

ELSE

LP 5 – If the preempt 5 is active, then flash (COB 546) the phase 6 pedestrian clearance (yellow load switch) output.

```

IF    PREEMPT ACTIVE      5 IS ON
AND  COB CODE ON          546

```

```

THEN SET PHASE PED CLR   6    ON

```

ELSE

LP 6 – Once both of the dwell phases are green, turn the phase 6 pedestrian clearance (yellow load switch) output on solid.

```

IF    PREEMPT ACTIVE      5 IS ON
AND  GREEN ON PHASE      4 IS ON
AND  GREEN ON PHASE      7 IS ON

```

```

THEN SET PHASE PED CLR   6    ON

```

ELSE



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LP 7 – If the preempt 6 is active, then flash (COB 546) the phase 8 pedestrian clearance (yellow load switch) output

```

IF    PREEMPT ACTIVE          6 IS ON
AND  COB CODE ON              546

THEN SET PHASE PED CLR      8    ON

ELSE

```

LP 8 – Once both of the dwell phases are green, turn the phase 8 pedestrian clearance (yellow load switch) output on solid.

```

IF    PREEMPT ACTIVE          6 IS ON
AND  GREEN ON PHASE          3 IS ON
AND  GREEN ON PHASE          8 IS ON

THEN SET PHASE PED CLR      8    ON

ELSE

```

Enable Logic Processors 1 – 8:

LOGIC STATEMENT CONTROL															
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
LP 1-15	E	E	E	E	E	E	E	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