

LOGICAL I/O PROCESSOR PROGRAMMING DETAIL TO PRODUCE SPECIAL FYA-PPLT SIGNAL SEQUENCE

(program controller as shown below)

1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS). SCROLL TO THE BOTTOM OF THE MENU AND ENABLE ACT LOGIC COMMANDS 1, 2, 3, 4, 5, 6, 7 and 8.
2. FROM MAIN MENU PRESS '6' (OUTPUTS), THEN '3' (LOGICAL I/O PROCESSOR).

LOGICAL I/O COMMAND #1 (+/-COMMAND#)
IF ACTIVE OVERLAP #7 IS ON
AND RED CLEAR ON OVL #7 IS ON

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #47 ON
SET OUTPUT ASSIGNMENT #48 OFF

PRESS '+'

NOTE: LOGIC FOR PHASE 1 RED CLEAR WHEN TRANSITIONING FROM PHASE 1 TO PHASE 8 (HEAD 83).

LOGICAL I/O COMMAND #2 (+/-COMMAND#)
IF ACTIVE OVERLAP #7 IS ON

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #49 OFF

PRESS '+'

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 1 (HEAD 83).

LOGICAL I/O COMMAND #3 (+/-COMMAND#)
IF YELLOW ON OVERLAP #7 IS ON

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #48 ON

PRESS '+'

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 1 (HEAD 83).

LOGICAL I/O COMMAND #4 (+/-COMMAND#)
IF ACTIVE PHASE #5 IS ON
AND RED CLEAR ON PHASE #5 IS ON

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #42 ON
SET OUTPUT ASSIGNMENT #43 OFF

PRESS '+'

NOTE: LOGIC FOR PHASE 5 RED CLEAR WHEN TRANSITIONING FROM PHASE 5 TO PHASE 6 (HEAD 51).

LOGICAL I/O COMMAND #5 (+/-COMMAND#)
IF ACTIVE PHASE #5 IS ON

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #44 OFF

PRESS '+'

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 5 (HEAD 51).

LOGICAL I/O COMMAND #6 (+/-COMMAND#)
IF YELLOW ON PHASE #5 IS ON

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #43 ON

PRESS '+'

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 5 (HEAD 51).

LOGICAL I/O COMMAND #7 (+/-COMMAND#)
IF OUTPUT ASSIGNMENT #18 IS ON
AND OUTPUT ASSIGNMENT #21 IS OFF

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #47 ON
SET OUTPUT ASSIGNMENT #48 OFF
SET OUTPUT ASSIGNMENT #49 OFF

PRESS '+'

NOTE: LOGIC STATEMENT FOR ADVANCE WALK WITH FYA'S TURN FYA HEAD 83 OFF DURING PED 8 ADVANCE WALK.

LOGICAL I/O COMMAND #8 (+/-COMMAND#)
IF OUTPUT ASSIGNMENT #26 IS ON
AND OUTPUT ASSIGNMENT #29 IS OFF

SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #42 ON
SET OUTPUT ASSIGNMENT #43 OFF
SET OUTPUT ASSIGNMENT #44 OFF

PRESS '+'

NOTE: LOGIC STATEMENT FOR ADVANCE WALK WITH FYA'S TURN FYA HEAD 51 OFF DURING PED 9 ADVANCE WALK.

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

OUTPUT REFERENCE SCHEDULE
USE TO INTERPRET LOGIC PROCESSOR
OUTPUT 26 = 6 Ped Walk
OUTPUT 29 = Vehicle 6 Green
OUTPUT 18 = 8 Ped Walk
OUTPUT 21 = Vehicle 8 Green
OUTPUT 42 = Overlap C Red
OUTPUT 43 = Overlap C Yellow
OUTPUT 44 = Overlap C Green
OUTPUT 47 = Overlap B Red
OUTPUT 48 = Overlap B Yellow
OUTPUT 49 = Overlap B Green

OVERLAP PROGRAMMING DETAIL FOR DEFAULT PHASING

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS),
THEN '1' (VEHICLE OVERLAP SETTINGS).

PRESS '+'

PAGE 1: VEHICLE OVERLAP 'B' SETTINGS
PHASE: :12345678910111213141516
VEH OVL PARENTS: :X X
VEH OVL NOT VEH: :
VEH OVL NOT PED: :
VEH OVL GRN EXT: :
STARTUP COLOR: _ RED _ YELLOW _ GREEN
FLASH COLORS: _ RED _ YELLOW X GREEN

SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?..N
GREEN EXTENSION (0-255 SEC).....0
YELLOW CLEAR (0=PARENT, 3-25.5 SEC)...0.0
RED CLEAR (0=PARENT, 0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0

PRESS '+'

← NOTICE GREEN FLASH

PRESS '+'

PAGE 1: VEHICLE OVERLAP 'C' SETTINGS
PHASE: :12345678910111213141516
VEH OVL PARENTS: : XX
VEH OVL NOT VEH: :
VEH OVL NOT PED: :
VEH OVL GRN EXT: :
STARTUP COLOR: _ RED _ YELLOW _ GREEN
FLASH COLORS: _ RED _ YELLOW X GREEN

SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?..N
GREEN EXTENSION (0-255 SEC).....0
YELLOW CLEAR (0=PARENT, 3-25.5 SEC)...0.0
RED CLEAR (0=PARENT, 0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0

PRESS '+'

← NOTICE GREEN FLASH

OVERLAP PROGRAMMING COMPLETE

OVERLAP PROGRAMMING DETAIL FOR ALTERNATE PHASING

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS),
THEN '1' (VEHICLE OVERLAP SETTINGS).
PRESS 'NEXT' TO ADVANCE TO PAGE 2.

PRESS '+'

NOTICE PAGE 2 → PAGE 2: VEHICLE OVERLAP 'B' SETTINGS
PHASE: :12345678910111213141516
VEH OVL PARENTS: :X X
VEH OVL NOT VEH: :
VEH OVL NOT PED: :
VEH OVL GRN EXT: :
STARTUP COLOR: _ RED _ YELLOW _ GREEN
FLASH COLORS: _ RED _ YELLOW X GREEN

SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?..N
GREEN EXTENSION (0-255 SEC).....0
YELLOW CLEAR (0=PARENT, 3-25.5 SEC)...0.0
RED CLEAR (0=PARENT, 0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0

PRESS '+'

← NOTICE GREEN FLASH

PRESS '+'

NOTICE PAGE 2 → PAGE 2: VEHICLE OVERLAP 'C' SETTINGS
PHASE: :12345678910111213141516
VEH OVL PARENTS: : X
VEH OVL NOT VEH: :
VEH OVL NOT PED: :
VEH OVL GRN EXT: :
STARTUP COLOR: _ RED _ YELLOW _ GREEN
FLASH COLORS: _ RED _ YELLOW _ GREEN

SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?..N
GREEN EXTENSION (0-255 SEC).....0
YELLOW CLEAR (0=PARENT, 3-25.5 SEC)...0.0
RED CLEAR (0=PARENT, 0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0

PRESS '+'

OVERLAP PROGRAMMING COMPLETE

COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

ADVANCE WALK NOTE

From Main Menu press '2' (Phase Control). Then '1' (Phase Control Functions). Program Phase 2, 6 and 8 for 'Advance Walk'. Make sure the Walk Advance Time shown on the Signal Design plans is programmed in the 'Phase Timing' menu.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 09-0798
DESIGNED: December 2025
SEALED: 2-12-26
REVISED: N/A

Electrical Detail - Sheet 2 of 5

ELECTRICAL AND PROGRAMMING DETAILS FOR:



750 N. Greenfield Pkwy, Garner, NC 27529

SR 4000 (University Parkway)

at
N. Pattern Avenue and
US 52 NB Ramps

Division 9 Forsyth County Winston-Salem

PLAN DATE: February 2026 REVIEWED BY:

PREPARED BY: James Peterson REVIEWED BY:

REVISIONS INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
SEAL
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ENGINEER
KEITH M. MIMS

DocuSigned by:
Keith M. Mims 02/13/2026

DATE

SIG. INVENTORY NO. 09-0798

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