

BACK-UP PROTECTION PROGRAMMING DETAIL

THE IMAGE TO THE LEFT IS AN EXACT DUPLICATION OF THE BACK-UP PROGRAMMING DISPLAY FOUND ON A 2070 CONTROLLER RUNNING OASIS CONTROL SOFTWARE.

WHEN A SIGNAL DESIGN REQUIRES THE USE OF BACK-UP PROTECTION TO ELIMINATE A YELLOW TRAP SITUATION, THIS DETAIL IS SHOWN ON THE ELECTRICAL PLANS TO STEP THE INSTALLER THROUGH THE CONTROLLER PROGRAMMING PROCEDURE.

THE CONTROLLER ACCOMPLISHES "BACK-UP PROTECTION" BY OMITTING THE LEFT TURN PHASE WHILE THE OPPOSITE THROUGH MOVEMENT IS "ON". PHASE "ON" IS A CONTROLLER FUNCTION THAT IS ACTIVE DURING THE PHASE GREEN, YELLOW CHANGE, AND RED CLEARANCE INTERVALS.

BELOW IS A BRIEF EXPLANATION OF BACK-UP PROTECTION FEATURES AND FUNCTIONALITY:

- Ⓐ ACTIVATION NOTE - THIS NOTE DIRECTS THE INSTALLER TO THE PHASE CONTROL PAGE OF THE CONTROLLER PROGRAMMING. AT THE BOTTOM OF THIS PAGE THERE IS A PARAMETER LISTED CALLED "DYNAMIC/BACKUP". THE INSTALLER IS DIRECTED TO FLAG THE DYNAMIC/BACKUP FUNCTIONS THAT WILL BE IN USE, OTHERWISE THE BACK-UP PROGRAMMING WILL NOT FUNCTION. SEE FUNCTION NUMBER BELOW IN NOTE Ⓔ.
- Ⓑ PHASE "ON" LINE - PHASES SELECTED HERE DETERMINE WHEN AN "OMIT" IS PLACED DURING THE SIGNAL SEQUENCE.
- Ⓒ PHASE "OMIT" LINE - PHASES SELECTED HERE DETERMINE WHERE AN OMIT IS PLACED DURING THE SELECTED "PHASE ON".
- Ⓓ "CALL" PHASES LINE - PHASES SELECTED HERE DETERMINE THE PHASE THAT THE OMITTED PHASE DETECTORS WILL CALL WHILE THAT PHASE IS OMITTED. THE CALL PLACED IS A SPECIAL "DYNAMIC CALL" THAT WILL BE RELEASED WHEN THE SELECTED PHASE SWITCHES TO GREEN. THIS DYNAMIC CALL PRODUCES A MINIMUM RECALL TYPE OPERATION (DYNAMIC CALL WILL NOT MAX OUT A PHASE).
- Ⓔ FUNCTION NUMBER - THE CONTROLLER IS CAPABLE OF UP TO SIXTEEN DYNAMIC FUNCTIONS. FOR NORMAL BACK-UP PROTECTION, ONE FUNCTION SHOULD BE USED FOR EACH LEFT TURN THAT IS BEING OMITTED. THE EXAMPLE SHOWN TO THE LEFT SHOWS PHASES 1 AND 5 BEING OMITTED BY PHASES 2 AND 6 RESPECTIVELY. THE PHASE CALLS WILL CYCLE THE CONTROLLER THROUGH THE SIDE STREET THROUGH MOVEMENTS BEFORE SERVING PHASES 1 AND/OR 5. PLEASE NOTE THAT EACH LEFT TURN OMIT IS ACCOMPLISHED IN A SEPARATE FUNCTION.

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(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 DYNAMIC/BACKUP CONTROL FUNCTIONS 1 AND 2. — Ⓐ
2. FROM PHASE CONTROL FUNCTIONS MENU PRESS '2' (DYNAMIC/BACKUP CONTROL FUNCTIONS).

DYNAMIC/BACKUP CONTROL FUNCTION #01

OVERLAPS::ABCDEFGHIJKLMNPO

IF OVERLAPS ARE ACTIVE ::

OR PHASES::12345678910111213141516 — Ⓑ

IF PHASES ARE ON: x — Ⓒ

OMIT PHASES : x — Ⓓ

CALL PHASES : x — Ⓔ

PRESS 'NEXT'

DYNAMIC/BACKUP CONTROL FUNCTION #02 — Ⓔ

OVERLAPS::ABCDEFGHIJKLMNPO

IF OVERLAPS ARE ACTIVE ::

OR PHASES::12345678910111213141516 — Ⓒ

IF PHASES ARE ON: x — Ⓒ

OMIT PHASES : x — Ⓒ

CALL PHASES : x — Ⓒ

BACKUP PROTECTION PROGRAMMING COMPLETE

2070 OASIS Back-Up Protection Programming Detail

SIGNALS MANAGEMENT SECTION
TRAFFIC ENGINEERING AND SAFETY SYSTEMS BRANCH
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

7-04

STD. NO.

5.0

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