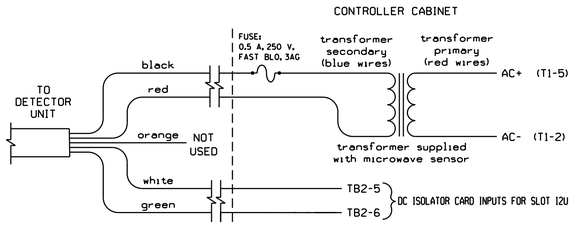
PROJECT REFERENCE NO.	SHEET NO.
B-5136	Sig. 10.2

MICROWAVE DETECTOR WIRING DETAIL

(wire as shown)



TC26B WIRE LIST

COLOR	FUNCTION
black	12V to 24V AC/DC (no polarity)
red	12V to 24V AC/DC (no polarity)
orange	Output Relay Normally Open
white	Output Relay Normally Closed
green	Output Relay Common

NOTES:

1. Sensor is a microwave motion detector mounted on poles as indicated on the Signal Design Plans.
2. Microwave wiring shown above will cause a permanent call unless the Input Assignment Programming and Logical I/O Processor Programming details are entered as shown on this sheet. These programming details will cause a call to be placed upon opening the Normally Closed contact.
3. DC Isolator's LED will be ON when no call is present and will be OFF when a call is present.
4. Important: For proper operation of the microwave detector, remove surge protection from TB2-5, TB2-6, TB2-7, and TB2-8 and insert 242 DC Isolator in slot 12.

INPUT ASSIGNMENT PROGRAMMING DETAIL FOR MICROWAVE DETECTOR INPUT (2)

(program controller as shown below)

FROM MAIN MENU PRESS '5' (INPUTS), THEN '+' UNTIL INPUT 1 (PIN 39) IS REACHED. MODIFY DEFAULT CONDITIONS AS INDICATED BY ARROWS.

```
PAGE: 1 C1 PIN:39  NOT ENABLED
INPUT ASSIGNMENT #.................1
DEBOUNCE TIME (0-25.5 SEC).........0.5
DELAY TIME (0-25.5 SEC)............0.0
HOLD-OVER TIME (0-25.5 SEC)........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)..................Y
VEHICLE DETECTOR (1-64)............_
PEDESTRIAN DETECTOR (1-16)........._
ALTERNATE PED DETECTOR (1-16)......_
PREEMPT (1-10)....................._
INVERTED PREEMPT (1-10)............_
STOP TIME (Y/N)...................._
FLASH SENSE (Y/N).................._
DOOR OPEN (Y/N)...................._
MANUAL CONTROL ENABLE (Y/N)........_
MANUAL CONTROL ADVANCE (Y/N)......_
SPECIAL FUNCTION ALARM (1-8)......_
TOD HOUR SYCHRONIZATION (0-23)....._
FORCE OFF RING (1-4)...............
HOLD PHASES (1-16).................
PLAN (65=FLSH,66=FREE)...  OFFSET#..
CHANGE PHASE SEQUENCE PAGE (1-12)...
CHANGE PHASE TIMING PAGE (1-4).....
CHANGE PHASE CONTROL PAGE (1-4)....
CHANGE OVERLAP CONTROL PAGE (1-4)...
CHANGE INPUT PAGE (1-4)............
CHANGE OUTPUT PAGE (1-4)...........
OVERRIDE PHASE CONTROL FUNCTION (Y)..
```

ENTER 'YES' for Not Enabled

```
PAGE: 1 C1 PIN:0  VEHICLE DETECTOR
INPUT ASSIGNMENT #.................64
DEBOUNCE TIME (0-25.5 SEC).........0.5
DELAY TIME (0-25.5 SEC)............0.0
HOLD-OVER TIME (0-25.5 SEC)........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)..................
VEHICLE DETECTOR (1-64)............2
PEDESTRIAN DETECTOR (1-16).........
ALTERNATE PED DETECTOR (1-16)......
PREEMPT (1-10).....................
INVERTED PREEMPT (1-10)............
STOP TIME (Y/N)....................
FLASH SENSE (Y/N)..................
DOOR OPEN (Y/N)....................
MANUAL CONTROL ENABLE (Y/N)........
MANUAL CONTROL ADVANCE (Y/N)......
SPECIAL FUNCTION ALARM (1-8)......
TOD HOUR SYCHRONIZATION (0-23)....
FORCE OFF RING (1-4)...............
HOLD PHASES (1-16).................
PLAN (65=FLSH,66=FREE)..65 OFFSET#..
CHANGE PHASE SEQUENCE PAGE (1-12)...
CHANGE PHASE TIMING PAGE (1-4).....
CHANGE PHASE CONTROL PAGE (1-4)....
CHANGE OVERLAP CONTROL PAGE (1-4)...
CHANGE INPUT PAGE (1-4)............
CHANGE OUTPUT PAGE (1-4)...........
OVERRIDE PHASE CONTROL FUNCTION (Y)..
```

ENTER '2' for Vehicle Detector

PRESS '-' until Input Assignment #64 is reached

PROGRAMMING COMPLETE

NOTE:

This remapping removes the default detector from the microwave's physical input and reassigns it to unused INPUT 64. The Logical I/O Processor Programming Detail on this sheet will invert the disabled input and control INPUT 64 and the reassigned detector.

LOGICAL I/O PROCESSOR PROGRAMMING DETAIL TO INVERT INPUT FROM MICROWAVE DETECTOR

(program controller as shown below)

1. From Main Menu press '6' (Outputs), Then '3' (Logical I/O Processor).
2. 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 and 4.

```
LOGICAL I/O COMMAND #1  (+/-COMMAND#)
IF  INPUT   ASSIGNMENT #1 IS ON

                SCROLL DOWN

THEN:
SET  INPUT  ASSIGNMENT #64 OFF
```

NOTE: MICROWAVE DETECTOR CONTACTS ARE CLOSED, SO NO CALL IS 'DETECTED' ON LOOP 2A.

PRESS '+'

```
LOGICAL I/O COMMAND #2  (+/-COMMAND#)
IF  INPUT   ASSIGNMENT #1 IS OFF

                SCROLL DOWN

THEN:
SET  INPUT  ASSIGNMENT #64 ON
```

NOTE: MICROWAVE DETECTOR CONTACTS ARE OPEN, SO A CALL IS 'DETECTED' ON LOOP 2A.

PRESS '+'

```
LOGICAL I/O COMMAND  #3 (+/-COMMAND#)
IF  INPUT   ASSIGNMENT #22 IS ON

                SCROLL DOWN

THEN:
SET  INPUT  ASSIGNMENT #63 OFF
```

NOTE: MICROWAVE DETECTOR CONTACTS ARE CLOSED, SO NO CALL IS 'DETECTED' ON SYS LOOP S13.

PRESS '+'

```
LOGICAL I/O COMMAND  #4  (+/-COMMAND#)
IF  INPUT   ASSIGNMENT #22 IS OFF

                SCROLL DOWN

THEN:
SET  INPUT  ASSIGNMENT #63 ON
```

NOTE: MICROWAVE DETECTOR CONTACTS ARE OPEN, SO A CALL IS 'DETECTED' ON SYS LOOP S13.

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

REFERENCE SCHEDULE

INPUT 1 = Microwave Detector Physical Input (Not Enabled)
INPUT 64 = Dummy Microwave Detector Input (Detector 2)

INPUT 22 = Microwave Detector Physical Input (Not Enabled)
INPUT 63 = Dummy Microwave Detector Input (Detector 11)

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 10-0417 T4
DESIGNED: November 2014
SEALED: 12-15-14
REVISED: N/A

Electrical Detail- Sheet 2 of 3

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Management Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 29-601 / NC 73 (Concord Parkway North) at NC 73 (Davidson Drive) / Davidson Drive

Division 10 Cabarrus County Concord

PLAN DATE: November 2014 REVIEWED BY: DS GTR

PREPARED BY: James Peterson REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 008453 ENGINEER JOHN T. ROWE, JR.

DocuSigned by: John T. Rowe, Jr. 12/17/2014
641D60C145EE4F5...
DATE

SIG. INVENTORY NO. 10-0417 T4

17-DEC-2014 13:05
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jtpeterson