APPENDIX H.

DETECTOR CONNECTIONS TO DATA LOGGER AND POWER SUPPLIES AT THE FIELD SITES

This appendix contains tabulations of the connections from the detector output data terminals to the terminals on the data distribution panel and the data logger, and connections from the power supplies to the detector power input terminals for the configurations used in Minneapolis, Orlando, Phoenix, and Tucson.

HOOKUP1A.DAT

FEBRUARY 10, 1993
MINNEAPOLIS I-394 & PENN AVE. SITE

LANE 1 IS HOV
LANE 2 IS EAST BOUND FAR
LANE 3 IS EAST BOUND NEAR

FIRST CONFIGURATION
NAME OF LOG FILE:

DETECTOR NAME	SIGNAL			DATA LOGGER PORT
M5A	LANE 1 (HOV)			
	RS232GND	1A	ORG	RS232 # 2 (COM 6)
	RS232XMIT	2A	ORG/GRN	RS232 # 2 (COM 6)
	RS232REC	4A	ORG/BLK	RS232 # 3 (COM 6)
	OPT01 +	5A	ORG/WHT/BLU	NOT CONNECTED
	OPT02 +	7A	ORG/BLK/GRN	NOT CONNECTED
M1B	LANE 1 (HOV)			
	RELAY 1 N.O.	10A	ORG/BLK/WHT	RR# 1
M2B	LANE 1 (HOV)			
	RELAY N.C.	23A	RED	RR#2
	<35 MPH	24A	RED/GRN	
	36-45 MPH	25A	RED/BLK	NOT CONNECTED
	46-55 MPH	26A	RED/WHT	NOT CONNECTED
	56-65 MPH	27A	RED/BLK/GRN	NOT CONNECTED
	66 + MPH	28A	RED/BLK/WHT	NOT CONNECTED
	DOPP FREQ	29A	GRN	NOT CONNECTED
	GROUND	30A	GRN/WHT	NOT CONNECTED
IRl	LANE 1 (HOV)			

NOTE: THIS DETECTOR NEEDS TO BE CONNECTED TO COM PORT 20
WHICH IS RS232 #16 ON DIGICHANNEL BOX

	RECEIVE	33A	GRN/BLK	RS232 #16 (COM 20)
	RELAY N.O.	36A	GRN/BLK/WHT	RR#3
	RX/XMT GND	37A	GRN/BLK/ORG	RS232 #16 (COM 20)
	XMT	38A	WHT	RS232 #16 (COM 20)
M4	LANE 2			
	RS232 GND	41A	WHT/BLK	RS232 # 4 (COM 8)
	TRANSMIT.	42A	WHT/RED	RS232 # 4 (COM 8)
	DATA CARRIER	43A	WHT/-RED/ORG	NOT USED
	RECEIVE DATA	44A	WHT/RED/BLK	RS232 # 4 (COM 8)
	OPTO #l +	45A	WHT/RED/GRN	NOT CONNECTED
	OPTO #2 +	47A	WHT/RED/BLU	NOT CONNECTED
M2A	LANE 2			
	RELAY N.C.	52A	BLU	RR#4
	<35 MPH	53A	BLU/BLK	

	36-45 MPH	54A BLU/WHT	OR #16
	46-55 MF H	55A BLU/RED	OR #15
	56-65 MPH	5 6 A BLU/WHT/ORG	
	66+ MPH	5 7 A BLU/WHT/BLK	
	DOPPLER SIGNAL	58A BLK	AR#3+
	GROUND	59A BLK/WHT	AR#3-
u3	LANE 2		
	RELAY N.O.	6 3 A BLK/WHT/ORG	RR#5
MlA	LANE 3		
	RELAY 1 N.O.	8 1 A BLK/RED	RR#6
IR3	LANE 3		
	RELAY N.C.	8 9 A BLK/RED/WHT	RR#7
M5B	LANE3		
	RS232 GND	93A GREEN (CABLE B)	RS232 # 3 (COM 7)
	RS232 XMIT	94A RED (CABLE B)	RS232 # 3 (COM 7)
	RS232 REC	96A WHT (CABLE B)	RS232 # 3 (COM 7)
	OPT01 +	97A GREEN	NOT CONNECTED
	OPT02 +	99A RED	NOT CONNECTED
u2	LANE 3		
	RELAY N.O.	106A YELLOW (CABLE A)	RR#9
IR2	LANE 3		
	RELAY N.O.	101A BLACK (CABLEA)	RR#8

****

LOOPS
DETECTOR SYSTEMS 222B

HOV EAST OPTO +	161A	GREEN	OR #1
HOV WEST OPTO +	162A	WHITE	OR # 2
LANE 2 (EAST) OPTO +	163A	GREEN	OR # 3
LANE 2 (WEST) OPTO +	164A	WHITE	OR # 4
LANE 3 (EAST) OPTO +	165A	GREEN	OR # 5
LANE 3 (WEST) OPTO +	166A	WHITE	OR # 6

* *

AUTOSCOPE 2003

EIM-2 CONNECTOR

DB 37 PINOUT

PIN 1 24 VDC GROUND

PIN 18 24 VDC POWER

PIN 29 DET 109	LANE 3	GREEN	OR #10
30 DET 105	LANE 3	WHITE	OR#9
31 DET 108	LANE 2	GREEN	OR#8
32 DET 104	LANE 2	WHITE	OR#7

****

COMPUTER RECOGNITION SYSTEMS

TRAFFIC ANALYSIS SYSTEM (TAS):

PIN 16	ZONE 1 (W LOOP ON LANE 2)	RED	OR #ll
14	ZONE 2 (W LOOP ON LANE 3)	RED	OR #12
10	ZONE 3 (E LOOP ON LANE 2)	RED	OR #13
8	ZONE 4 (E LOOP ON LANE 3)	RED	OR #14

PINS 7,9,13, AND 15 (OF THE WIEDEMULLER CONNECTOR) ARE TIED TOGETHER (BLACK) AND CONNECTED TO THE 24 VOLT GROUND ON THE TERMINAL STRIP

****

TEMP PROBES ARE CONNECTED ON THE BRIDGE		AR #lO
	TRAILER	AR#ll
WEATHER	WIND SPEED	AR#8
	WIND DIRECTION	AR#7

HOOKUP02.DAT

JANUARY 23, 1993
MINNEAPOLIS I-394 & PENN AVE. SITE

LANE 1 IS HOV
LANE 2 IS EAST BOUND FAR
LANE 3 IS EAST BOUND NEAR

FIRST CONFIGURATION
NAME OF LOG FILE:

DETECTOR NAME	SIGNAL		DATA LOGGER CONNECTION
M5A	LANE 1 (HOV)		
	RS232GND	1A ORG	RS232 (2)
	RS232XMIT	2 A ORG/GRN	(COM 6)
	RS232REC	4 A ORG/BLK	
	OPTO1 +	5A ORG/WHT/BLU	NOT CONNECTED
	OPTO2+	7A ORG/BLK/GRN	NOT CONNECTED
MlB	LANE 1 (HOV)		
	RELAY 1 N.O.	10A ORG/BLK/WHT	RR #2
M2B	LANE 1 (HOV)		
	RELAY N.C.	23A RED	RR#t4
	<35 MPH	2 4 A RED/GRN	
	36-45 MPH	2 5 A RED/BLK	
	46-55 MPH	2 6 A RED/WHT	
	56-65 MPH	2 7 A RED/BLK/GRN	
	66+MPH	2 8 A RED/BLK/WHT	
	DOPPLER FREQ	29A GRN	
	GROUND	3 0 A GRN/WHT	
IRl	LANE 1 (HOV)		

NOTE: THIS DETECTOR NEEDS TO BE CONNECTED TO COM PORT 20
OR RS232 # 16 (ONLY).

	RECEIVE	3 3 A GRN/BLK	RS232 #16
	RELAY N.O.	3 6 A GRN/BLK/WHT	RR#6
	RX/XMTGND	3 7 A GRN/BLK/ORG	RS232#16
	XMT	38A WHT	RS232 #16
M4	LANE 2		
	RS232 GND	4 1 A WHT/BLK	RS232 # 4
	TRANSMIT	4 2 A WHT/RED	RS232 # 4
	DATA CARRIER	43A WHT/RED/ORG	NOT CONNECTED
	RECEIVE DATA	44A WHT/RED/BLK	RS232 #4
	OPT0 #l +	45A WHT/RED/GRN	NOT CONNECTED
	OPTO#2+	47A WHT/RED/BLU	NOT CONNECTED
M2A	LANE2		
	RELAY N.C.	52A BLU	RR#8
	<35 MPH	5 3 A BLU/BLK	
	36-45 MPH	5 4 A BLU/WHT	
	46-55 MPH	55A BLU/RED	

56-65 MPH 56A BLU/WHT/ORG
66+ MPH 5 7 A BLU/WHT/BLK
DOPPLER SIGNAL 58A BLK AR#3
GROUND 5 9 A BLK/WHT RETURN LINE

u3 LANE 2
RELAY N.O. 6 3 A BLK/WHT/ORG RR# 1 0

MlA LANE 3
RELAY 1 N.O. 81A BLK/RED RR#12

IR3 LANE 3
RELAY N.C. 8 9 A BLK/RED/WHT RR# 1 4

M5B LANE 3
RS232 GND 93A GREEN (CABLE B) RS232 #3
RS232 XMIT 94A RED (CABLE B) RS232 #3
RS232 REC 96A WHT (CABLE B) RS232 #3

u2 LANE 3
RELAY N.O. 106A YELLOW (CABLE A) RR # 18

IR2 LANE 3
RELAY N.O. 1OlA BLACK (CABLE A) RR # 16

****

LOOPS
DETECTOR SYSTEMS 222B

HOV EAST OPTO + 161A GREEN OR #2
HOV WEST OPTO + 162A WHITE OR #4
LANE 2 (EAST) OPTO + 163A GREEN OR #6
LANE 2 (WEST) OPTO + 164A WHITE OR #8
LANE 3 (EAST) OPTO + 165A GREEN OR #10
LANE 3 (WEST) OPTO + 166A WHITE OR #12

****

AUTOSCOPE 2003

EIM-2 CONNECTOR

DB 37 PINOUT

PIN 1 24 VDC GROUND
PIN 18 24 VDC POWER

PIN 29 DET 109 LANE 3
30 DET 105 LANE 3 OR #20
31 DET 108 LANE2 OR #19
32 DET 104 LANE 2 OR #18
OR #16

****

COMPUTER RECOGNITION SYSTEMS

TAS

****

TEMPERATURE PROBES ARE CONNECTED ON THE BRIDGE AR 10
TRAILER AR 11

WEATHER WIND SPEED AR 8
WIND DIRECTION AR 7

HOOKUP4A.DAT

FEBRUARY 10, 1993
MINNEAPOLIS I-394 & PENN AVE. SITE

LANE 1 IS HOV
LANE 2 IS EAST BOUND FAR
LANE 3 IS EAST BOUND NEAR

FIRST CONFIGURATION
NAME OF LOG FILE:

DETECTOR NAME	SIGNAL		DATA LOGGER CONNECTION
M5A	LANE 1 (HOV)		
	RS232GND	1A O R G	RS232 # 2 (COM 6)
	RS232XMIT	2 A ORG/GRN	RS232 # 2 (COM 6)
	RS232REC	4 A ORG/BLK	RS232 # 3 (COM 6)
	OPTO1 +	5A ORG/WHT/BLU	NOT CONNECTED
	OPT02 +	7A ORG/BLK/GRN	NOT CONNECTED
M1B	LANE 1 (HOV)		
	RELAY 1 N.O.	10A ORG/BLK/WHT	RR # 2
M2B	LANE 1 (HOV)		
	RELAY N.C.	23A RED	RR#4
	<35 MPH	2 4 A RED/GRN	
	36-45 MPH	2 5 A RED/BLK	NOT CONNECTED
	46-55 MPH	2 6 A RED/WHT	OR #29
	56-65 MPH	2 7 A RED/BLK/GRN	OR#31
	66 + MPH	28A RED/BLK/WHT	NOT CONNECTED
	DOPPLER FREQ	29A GRN	AR#3+
	GROUND	3 0 A GRN/WHT	AR#3-
IRl	LANE 1 (HOV)		

NOTE: THIS DETECTOR NEEDS TO BE CONNECTED TO COM PORT 20
WHICH IS RS232 #16 ON DIGICHANNEL BOX

	RECEIVE	3 3 A GRN/BLK	RS232 #16 (COM 20)
	RELAY N.O.	3 6 A GRN/BLK/WHT	RR# 6
	RX/XMT GND	37A GRN/BLWORG	RS232 #16 (COM 20)
	XMT	38A WHT	RS232 #16 (COM 20)
M4	LANE 2		
	RS232 GND	4 1 A WHT/BLK	RS232 # 4
	TRANSMIT	4 2 A WHT/RED	RS232 # 4
	DATA CARRIER	43A WHT/RED/ORG	NOT USED
	RECEIVE DATA	44A WHT/RED/BLK	RS232# 4
	OPT0 #l +	45A WHT/RED/GRN	NOT CONNECTED
	OPT0 #2 +	47A WHT/RED/BLU	NOT CONNECTED
M2A	LANE 2		
	RELAY N.C.	52A BLU	RR#8
	<35 MPH	5 3 A BLU/BLK	
	36-45 MPH	5 4 A BLUAVHT	NOT CONNECTED
	46-55 MPH	55A BLU/RED	NOT CONNECTED

56-65 MPH 56A BLU/WHT/ORG NOT CONNECTED
66+ MPH 57A BLU/WHT/BLK NOT CONNECTED
DOPPLER SIGNAL 58A BLK NOT CONNECTED
GROUND 5 9 A BLK/WHT NOT CONNECTED

U3 LANE 2
RELAY N.O. 6 3 A BLK/WHT/ORG RR#10

MIA LANE 3
RELAY 1 N.O. 81A BLK/RED RR #12

IR3 LANE 3
RELAY N.C. 8 9 A BLK/RED/WHT RR#14

M5B LANE 3
RS232 GND 93A GREEN (CABLE B) RS232 # 3 (COM 7)
RS232 XMIT 94A RED (CABLE B) RS232 # 3 (COM 7)
RS232 REC 96A WHT (CABLE B) RS232 # 3 (COM 7)
OPTOl + 97A GREEN NOT CONNECTED
OPT02 + 99A RED NOT CONNECTED

U2 LAN-E3
RELAY N.O. 106A YELLOW (CABLE A) RR #18

IR2 LANE 3
RELAY N.O. 101A BLACK (CABLE A) RR #16

****

LOOPS
DETECTOR SYSTEMS 222B

HOV EAST OPTO + 161A GREEN OR#2
HOV WEST OPTO + 162A WHITE OR#4
LANE 2 (EAST) OPTO + 163A GREEN OR#6
LANE 2 (WEST) OPTO + 164A WHITE OR#8
LANE 3 (EAST) OPTO + 165A GREEN OR #10
LANE 3 (WEST) OPTO + 166A WHITE OR #12

****

AUTOSCOPE 2003

EIM-2 CONNECTOR

DB 37 PINOUT

PIN 1 24 VDC GROUND
PIN 18 24 VDC POWER

PIN 29 DET 109 LANE 3 GREEN OR #20
30 DET 105 LANE 3 WHITE OR #18
31 DET 108 LANE 2 GREEN OR #16
32 DET 104 LANE 2 WHT/B OR #14

****

COMPUTER RECOGNITION SYSTEMS

TRAFFIC ANALYSIS SYSTEM (TAS):

PIN 16 ZONE 1 (WEST LOOP ON LANE 2) OR #22
14 ZONE 2 (WEST LOOP ON LANE 3) OR #24
10 ZONE 3 (EAST LOOP ON LANE 2) OR #26
8 ZONE 4 (EAST LOOP ON LANE 3) OR #28

PINS 7,9,13, AND 15 (OF THE WIEDEMULLER CONNECTOR) ARE TIED TOGETHER AND CONNECTED TO THE 24 VOLT GROUND ON THE TERMINAL STRIP

****

TEMPERATURE PROBES ARE CONNECTED ON THE BRIDGE AR #lO
TRAILER AR#ll

WEATHER WIND SPEED AR # 8
WIND DIRECTION AR # 7

HOOKUP6.TXT

MARCH 6,1993
OLSON HIGHWAY (TH 55) AND E.LYNDALE AVE. N. SITE

LANE 1 IS SOUTHMOST THROUGH LANE WESTBOUND
LANE 2 IS MIDDLE THROUGH LANE WESTBOUND
LANE 3 REPRESENTS DETECTORS MOUNTED ON POLE 25 FT EAST OF SIGN BRIDGE

FIRST CONFIGURATION
NAME OF LOG FILE:

DETECTOR SYMBOL	SIGNAL	DATA LOGGER CONNECTION
M-1B	LANE 1 (SOUTHMOST THRU LANE WESTBOUND)	
	RELAY 1 N.O. 9A ORG/BLK/WHT	RR# 2
M-2B	LANE1	
	RELAY NC. 23A RED	RR#4
	<35 MPH 2 4 A RED/GRN	NOT CONNECTED
	36-45 MPH 2 5 A RED/BLK	NOT CONNECTED
	46-55 MPH 2 6 A RED/WHT	NOT CONNECTED
	56-65 MPH 27A RED/BLK/GRN	NOT CONNECTED
	66 + MPH 28A RED/BLK/WHT	NOT CONNECTED
	DOPPLERFREQ 29A GRN	AR#3+
	GROUND 3 0 A GRN/WHT	AR # 3-
M-4B	LANE1	
	RS232 GND 1A WHT/BLK	RS232 # 4 (COM 8)
	TRANSMIT 2 A WHT/RED	RS232 # 4 (COM 8)
	DATA CARRIER 3A WHT/RED/ORG	NOT USED
	RECEIVE DATA 4A WHT/RED/BLK	RS232 # 4 (COM 8)
	OPT0 #l + 5A WHT/RED/GRN	NOT CONNECTED
	OPTO #2 +- 7A WHT/RED/BLU	NOT CONNECTED
IR-1	LANE 1	
	RELAY N.O. 3 6 A GRN/BLK/WHT	RR# 6
	RECEIVE 3 3 A GRN/BLK	RS232 #16 (COM 20)
	XMT 38A WHT	RS232 #16 (COM 20)
	RX/XMT GND 37A GRN/BLK/ORG	RS232 #16 (COM 20)
IR-2	LANE 1	
	RELAY N.O. 18A BLACK (CABLE A)	RR #16
U-2A	LANE 1	
	RELAY N.O. 106A YELLOW (CBL A)	RR #18
U-3A	LANE 1	
	RELAY N.O. 1 7 A BLK/WHT/ORG	RR#10
M-4A	LANE 2 (MIDDLE THRU LANE WESTBOUND)	
	RS232 GND 4 1 A WHT/BLK	RS232 # 3 (COM 7)
	TRANSMST 4 2 A WHT/RED	RS232 # 3 (COM 7)
	DATA CARRIER 43A WHT/RED/ORG	NOT USED
	RECEIVE DATA 44A WHT/RED/BLK	RS232 # 3 (COM 7)
	OPT0 l+ 45A WHT/RED/GRN	NOT CONNECTED
	OPT0 2+ 47A WHT/RED/BLU	NOT CONNECTED

M-5A LANE2
RS232 XMIT 54A ORG/GRN RS232 # 2 (COM 6)
RS232 REC 56A ORG/BLK RS232 # 2 (COM 6)
RS232 GND 53A ORG RS232 # 2 (COM 6)

M-6A LANE 2
OPT0 l+ 6 1 A BLU/WHT/ORG OR#lO
OPT0 2+ 6 3 A BLU/WHT/BLK OR#12
OPT0 3+ NOT CONNECTED
OPT0 4+ NOT CONNECTED
OPT0 5+ NOT CONNECTED
TX 67A RS232 # 7 (COM 11)
Rx 68A RS232 # 7 (COM 11)
SERIAL GROUND 69A RS232 # 7 (COM 11)

IR-3 LANE 2
RELAY N.C. 5 1A BLK/RED/WHT R R #22

U-2B LANE 2
RELAY N.O. 108A BLUE RR #24

M-IA LANE 3 (SIDE VIEW OF WESTBOUND LANES - MIDDLE DETECTOR ON POLE)
RELAY 1 N.O. 149A BLK/RED RR #8

M-6B LANE 3 (SIDE VIEW OF WESTBOUND LANES - TOP DETECTOR ON POLE)
OPT0 l+ 121A RED/WHT OR #30
OPT0 2+ 1 2 2 A RED/BLK/GRN OR#32
OPT0 3+ NOT CONNECTED
OPT0 4+ NOT CONNECTED
OPT0 5+ NOT CONNECTED
TX 128A RS232 # 8 (COM 12)
Rx 127A RS232 # 8 (COM 12)
SERIAL GROUND 129A RS232 # 8 (COM 12)

U-3B LANE 3 (SIDE VIEW OF RIGHT-TURN POCKET LANE - BOTTOM DETECTOR ON POLE)
RELAY N.O. 143A BLU/WHT RR #20
* *

INDUCTIVE LOOPS
DETECTOR SYSTEMS 222B AMPLIFIERS

LANE 1 EAST ILD OPTO + 161A GREEN OR#2
LANE 1 WEST ILD OPTO + 162A WHITE OR#4
LANE 2 EAST ILD OPTO + 163A GREEN OR#6
LANE 2 WEST ILD OPTO + 164A WHITE OR#8
****

MAGNETOMETERS
SPVD MFG BY MIDIAN ELECTRONICS

LANE 1 EAST ILD WHITE RR #12
LANE 1 WEST ILD GREEN RR #14
****

AUTOSCOPE 2003 ENTER SOFTWARE RELEASE NUMBER AND DATE:_____

EIM-2 CONNECTOR
DB 37 PINOUT

PIN 1 24 VDC GROUND
PIN 18 24 VDC POWER

PIN 29 DET 109 LANE 1 GREEN OR #14
30 DET 105 LANE 1 WHITE OR #16
31 DET 108 LANE 2 GREEN OR #18
32 DET 104 LANE 2 WHITE OR #20
* *

COMPUTER RECOGNITION SYSTEMS: TRAFFIC ANALYSIS SYSTEM (TAS):

PIN 16 ZONE 1 (EAST LOOP ON LANE 1) OR #22
14 ZONE 2 (EAST LOOP ON LANE 2) OR #24
10 ZONE 3 (WEST LOOP ON LANE 1) OR #26
8 ZONE 4 (WEST LOOP ON LANE 2) OR #28

OUTPUT FROM TAS SERIAL PORT 2 RS232 # 5 (COM 9)

PINS 7,9,13, AND 15 (OF THE WIEDEMULLER CONNECTOR) ARE TIED TOGETHER
AND CONNECTED TO THE 24 VOLT GROUND ON THE TERMINAL STRIP
* *

TIMEMARK VC-1 VEHICLE CLASSIFIER
LANES 1,2,3 (THE 3 THRU WESTBOUND LANES)

RECEIVE TO DELTA RECORDER 145A RS232 # 6 (COM 10)
TRANSMIT FROM DELTA RECORDER 146A RS232 # 6 (COM 10)
RS232 GROUND 147A RS232 # 6 (COM 10)
****

GREEN SIGNAL PHASE FROM WESTRBOUND SIGNAL AT INTERSECTION OF OLSON HWY
AND
E. LYNDALE AVE. N (NORTHEAST CORNER OF INTERSECTION)

GREEN PHASE 7 1 A ORG/BLU/WHT R R #26
GROUND OR REFERENCE 72A
* *

TEMPERATURE PROBES ARE CONNECTED ON THE BRIDGE AR #10
TRAILER AR#11

WEATHER WIND SPEED AR # 8
WIND DIRECTION AR # 7
****

HOOKUP14.TXT

JUNE 29, 1993
I-4 @ SR-436, Altamonte Springs, Fla.

LANE 1 IS INSIDE LANE WESTBOUND I-4 (Fast Lane)
LANE 2 IS MIDDLE LANE WESTBOUND I-4
LANE 3 IS OUTSIDE LANE WESTBOUND I-4 (Slow Lane)

FIRST CONFIGURATION
NAME OF LOG FILE:

DETECTOR SYMBOL	SIGNAL	WIRE INTO PANEL B	COLOR	CONNECTION
M-1B	LANE 1 (Semi-sidefiring, Detector mounted on support beam)			
	RELAY 1 N.O.	i30A	YELLOW	RR #6
	RELAY COM	131A	ORANGE	i-24 V GND
M-2B	LANE 1			
	RELAY COM	22A	VIOLET	+24 V GND
	RELAY N.C.	23A	BLUE	RR #12
	<35 MPH	24A	VIOLET	OR2 #20
	36-45 MPH	25A	GRAY	OR2 #21
	46-55 MPH	26A	RED	OR2 #22
	56-65 MPH	27A	BROWN	OR2 #23
	66 + MPH	28A	RED	OR2 #24
	DOPP. FREQ	29A	ORANGE	AR #3+
	GROUND	30A	RED	AR #3-
M-4B	LANE1			
	RS232 GND	1A	WHITE	RS232 # 3 (COM 7)
	TRANSMIT	2A	ORANGE	RS232 # 3 (COM 7)
	DATA CARR.	3A	WHITE	NOT USED
	RECEIVE DATA	4A	GREEN	RS232 # 3 (COM 7)
	OPTO #l +	5A	WHITE	OR1 #7
	OPT0 #l-	6A	BLUE	+24 V GND
	OPTO #2 +	7A	WHITE	OR1 #8
	OPTO #2 -	8A	GRAY	+24 V GND
IR-1	LANE 1			
	RELAY N.O.	36A	BLACK	RR #13
	RELAY COM	35A	BROWN	+24 V GND
	RECEIVE	33A	GRAY	RS232 #9 (COM 13)
	XMT	38A	BLACK	RS232 #9 (COM 13)
	RX/XMT GND	37A	GREEN	RS232 #9 (COM 13)
IR-2	LANE 1			
	RELAY N.O.	18A	GREEN	RR #14
	RELAY COM	19A	RED	+24 V GND
U-2A	LANE 1			
	RELAY N.O.	136B	WHITE	RR #lO
	RELAY COM	137B	RED	+24 V GND
u-3	LANE 1			
	RELAY COM	16A	BROWN	+24 V GND
	RELAY N.O.	17A	VIOLET	RR #ll

U-l LANE 2

RLY N.C. (S)	112B	RED	RR #5
RELAY COM	113B	GREEN	+24 V GND
RLY N.C. (L)	114B	GREEN	RR #4

*NOTE: WE ARE RECORDING BOTH THE LONG VEHICLE AND SHORT VEHICLE OUTPUTS FROM THE SUMITOMO SDU-200, PENDING MORE INFORMATION FROM THE VENDOR.

M-4A LANE2

RS232 GND	41A	WHITE	RS232 #4 (COM 8)
TRANSMIT	42A	ORANGE	RS232 #4 (COM 8)
DATA CARR	43A	WHITE	NOT USED
RCV DATA 44A	GREEN	RS232 #4 (COM 8)	
OPT0 l+	45A	WHITE	OR1 #ll
OPTO l-	46A	BLUE	+24 V GND
OPT0 2+	47A	WHITE	OR1 #12
OPT0 2-	48A	GRAY	+24 V GND

M-5A LANE 2

RS232 XMIT	54A	ORANGE	RS232 #2 (COM 6)
RS232 REC	56A	GREEN	RS232 #2 (COM 6)
RS232 GND	53A	VIOLET	RS232 #2 (COM 6)
OPTO 1+ 57A	VIOLET	OR1 #13	
OPTO l-	58A	BLUE	+24 V GND
OPT0 2+ 59A	VIOLET	OR1 #14	
OPTO 2- 60A	GRAY	I-24 V GND	

M-6A LANE2

OPTO l+ 61A	VIOLET	OR1 #9	
OPT0 l-	62A	YELLOW	+24 V GND
OPT0 2+	63A	RED	OR1 #lO
OPTO 2-	64A	CREAM	+24 V GND
OPTO 3+	65A	ORANGE	NOT CONNECTED
OPT0 3-	66A	WHITE	NOT CONNECTED
TX	67A	BROWN	RS232 # 7 (COM 11)
RX	68A	GRAY	RS232 # 7 (COM 11)
SERIAL GND	69A	PINK	RS232 # 7 (COM 11)

IR-3 LANE 2

RELAY N.C.	51A	YELLOW	RR #15
RELAY COM	50A	GREEN	+24 V GND

U-2B LANE 2

RELAY N.O.	140B	BLACK	RR #9
RELAY COM	139B	WHT/BLK	+24 V GND

M-IA LANE 2

RELAY 1 N.O.	10A	YELLOW	RR #16
RLY 1COM	ORANGE	+24 V GND	

M-6B SIDE-FIRING ACROSS ALL 6 LANES, MOUNTED ON POLE

OPT0 l+	86A	VIOLET	OR2 #l (EB SLOW)
OPT0 l-	87A	YELLOW	+24 V GND
OPT0 2+	88A	RED	OR2 #2 (EB MIDDLE)
OPT0 2-	89A	CREAM	+24 V GND
OPTO 3+	90A	ORANGE	OR2 #3 (EB FAST)
OPTO 3-	91A	WHITE	+24 V GND

OPT0 4+	92A	VIOLET	OR2 #4 (WB FAST)	
OPTO 4-	93A	YELLOW	+24 V GND	
OPT0 5+		94A	RED	OR2 #5 (WB MIDDLE)
OPT0 5-		95A	CREAM	+24 V GND
OPTO 6+		96A	ORANGE	OR2 #6 (WB SLOW)
OPTO 6-		97A	WHITE	+24 V GND
TX	83A	BROWN	RS232 # 8 (COM 12)	
RX		84A	GRAY	RS232 # 8 (COM 12)
SERIAL GND		85A	PINK	RS232 # 8 (COM 12)

* *

INDUCTIVE LOOPS
DETECTOR SYSTEMS 222D AMPLIFIERS

LN 1 OPTO 1+ (Fast)	161A	WHITE	OR1 #l
LN 1 OPTO 2+ (Fast)	162A	GREEN	OR1 #2
LN 2 OPTO 1+ (Middle)	163A	WHITE	OR1 #3
LN 2 OPTO 2+ (Middle)	164A	GREEN	OR1 #4
LN 3 OPTO l+ (Slow)	165A	WHITE	OR1 #5
LN 3 OPTO 2+ (Slow)	166A	GREEN	OR1 #6

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COMPUTER RECOGNITION SYSTEMS: TRAFFIC ANALYSIS SYSTEM (TAS):

PIN	16 ZONE 1	OR2 #	
	14 ZONE 2		OR2 #
	10 ZONE 3		OR2 #
	8 ZONE 4		OR2 #

OUTPUT FROM TAS SERIAL PORT 2 RS232 #5 (COM 9)

PINS 7,9,13, AND 15 (OF THE WIEDEMULLER CONNECTOR) ARE TIED TOGETHER AND CONNECTED TO THE 24 VOLT GROUND

* * * *

SR436.TXT

Aug. 29, 1993
I-4 @ SR-436, Altamonte Springs, Fla.

LANE 1 IS INSIDE LANE WESTBOUND I-4 (Fast Lane)
LANE 2 IS MIDDLE LANE WESTBOUND I-4
LANE 3 IS OUTSIDE LANE WESTBOUND I-4 (Slow Lane)

FIRST CONFIGURATION
NAME OF LOG FILE:

DETECTOR SYMBOL	SIGNAL		WIRE COLOR INTO PANEL B	CONNECTION
M-2B	LANE 1			
	RELAY COM	22A	VIOLET	+24 V GND
	RELAY N.C.	23A	BLUE	RR #12
	<35 MPH	24A	VIOLET	OR2 #20
	36-45 MPH	25A	GRAY	OR2 #21
	46-55 MPH	26A	RED	OR2 #22
	56-65 MPH	27A	BROWN	OR2 #23
	66 + MPH	28A	RED	OR2 #24
	DOPP. FREQ	29A	ORANGE	AR #3+
	GROUND	30A	RED	AR #3-
M-4B	LANE 1			
	RS232 GND	1A	WHITE	RS232 # 3 (COM 7)
	TRANSMIT	2A	ORANGE	RS232 # 3 (COM 7)
	DATA CARR.	3A	WHITE	NOT USED
	RECEIVE DATA	4A	GREEN	RS232 # 3 (COM 7)
	OPT0 #l +	5A	WHITE	OR1 #7
	OPTO #1–	6A	BLUE	+24 V GND
	OPTO #2 +	7A	WHITE	OR1 #8
	OPTO #2 -	8A	GRAY	+24 V GND
IR-1	LANE1			
	RELAY N.O.	36A	BLACK	RR #13
	RELAY COM	35A	BROWN	+24 V GND
	RECEIVE	33A	GRAY	RS232 #9 (COM 13)
	XMT	38A	BLACK	RS232 #9 (COM 13)
	RX/XMT GND	37A	GREEN	RS232 #9 (COM 13)
IR-2	LANE 1 (Mounted in lane 2, looking at lane 1)			
	RELAY N.O.	18A	GREEN	RR #14
	RELAY COM	19A	RED	+24 V GND
U-2A	LANE 1			
	RELAY N.O.	136B	WHITE	RR #lO
	RELAY COM	137B	RED	+24 V GND
u-3	LANE 1			
	RELAY COM	16A	BROWN	+24 V GND
	RELAY N.O.	17A	VIOLET	RR #11
U-l	LANE 2			
	RLY N.C. (S)	112B	RED	RR #5
	RELAY COM	113B	GREEN	+24 V GND

RLY N.C. (L)	114B	GREEN	RR #4

*NOTE: WE ARE RECORDING BOTH THE LONG VEHICLE AND SHORT VEHICLE OUTPUTS FROM THE SUMITOMO SDU-200, PENDING MORE INFORMATION FROM THE VENDOR.

M-5A L A N E 2

RS232 XMJT	54A	ORANGE	RS232 #2 (COM 6)
RS232 REC	56A	GREEN	RS232 #2 (COM 6)
RS232 GND	53A	VIOLET	RS232 #2 (COM 6)
OPTO l+ 57A	VIOLET	OR1 #13	
OPTO l-	58A	BLUE	+24 V GND
OPTO 2+ 59A	VIOLET	OR1 #14	
OPTO 2- 60A	GRAY	+24 V GND	

M-6A LANE 2

OPTO 1+ 61A	VIOLET	OR1 #9	
OPTO l-	62A	YELLOW	+24 V GND
OPTO 2+	63A	RED	OR1 #lO
OPTO 2-	64A	CREAM	+24 V GND
OPTO 3+	65A	ORANGE	NOT CONNECTED
OPTO 3-	66A	WHITE	NOT CONNECTED
TX	67A	BROWN	RS232 # 7 (COM 11)
RX	68A	GRAY	RS232 # 7 (COM 11)
SERIAL GND	69A	PINK	RS232 # 7 (COM 11)

IR-3 LANE 2

RELAY N.C.	51A	YELLOW	RR #I5
RELAY COM	50A	GREEN	+24 V GND

U-2B LANE 2

RELAY N.O.	140B	BLACK	RR #9
RELAY COM	139B	WHT/BLK	+24 V GND

M-IA LANE 2

RELAY 1 N.O.	IOA	YELLOW	RR #16
RLY l COM 11A	ORANGE	+24 V GND	

M-6B SIDE-FIRING ACROSS ALL 6 LANES, MOUNTED ON POLE

OPTO l+ 86A	VIOLET	OR2 #l (EB SLOW)	
OPTO l- 87A	YELLOW	+24 V GND	
OPTO 2+ 88A	RED	OR2 #2 (EB MIDDLE)	
OPTO 2- 89A	CREAM	+24 V GND	
OPTO 3+ 90A	ORANGE	OR2 #3 (EB FAST)	
OPTO 3- 91A	WHITE	+24 V GND	
OPTO 4+ 92A	VIOLET	OR2 ##4 (WB FAST)	
OPTO 4- 93A	YELLOW	+24 V GND	
OPT0 5+	94A	RED	OR2 #5 (WB MIDDLE)
OPT0 5-	95A	CREAM	+24 V GND
OPTO 6+	96A	ORANGE	OR2 #6 (WB SLOW)
OPTO 6-	97A	WHITE	+24 V GND
TX 83A	BROWN	RS232 # 8 (COM 12)	
R x	84A	GRAY	RS232 # 8 (COM 12)
SERIAL GND	85~	PINK	RS232 # 8 (COM 12)

* * * *

LN 1 OPTO l+ (Fast) 161A WHITE OR1 #1
LN 1 OPTO 2+ (Fast) 162A GREEN OR1 #2
LN 2 OPT0 l+ (Middle) 163A WHITE OR1 #3
LN 2 OPTO 2+ (Middle) 164A GREEN OR1 #4
LN 3 OPTO l+ (Slow) 165A WHITE OR1 #5
LN 3 OPTO 2+ (Slow) 166A GREEN OR1 #6

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MAGNETOMETERS
SPVD MFG BY MIDIAN ELECTRONICS

LN 1 (Fast) Unit 1 (Ch4) 121A ORANGE RR #8
CHANNEL 4 COMMON 122A VIOLET +24 V GND
LN 1 (Fast) Unit 2 (Ch3) 123A BLUE RR #7
CHANNEL 3 COMMON 124A GREEN +24 V GND
****

AUTOSCOPE 2003 ENTER SOFTWARE RELEASE NUMBER: 3.2.1

EIM-2 CONNECTOR
DB 37 PINOUT

PIN 1 24 VDC GROUND
PIN 18 24 VDC POWER

PIN 29 DET 109 LANE 1 (FAST) OR2 #
30 DET 105 LANE 1 (FAST) OR2 #
31 DET 108 LANE 2 (MIDDLE) OR2#
32 DET 104 LANE 2 (MIDDLE) OR2 #
****

COMPUTER RECOGNITION SYSTEMS: TRAFFIC ANALYSIS SYSTEM (TAS):

PIN	16 ZONE 1	OR2 #	
	14 ZONE 2		OR2 #
	10 ZONE 3		OR2 #
	8 ZONE 4		OR2 #

OUTPUT FROM TAS SERIAL PORT 2 RS232 #5 (COM 9)

PINS 7,9,13, AND 15 (OF THE WIEDEMULLER CONNECTOR) ARE TIED TOGETHER AND CONNECTED TO THE 24 VOLT GROUND

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TIMEMARK VC-1 VEHICLE CLASSIFIER

RECEIVE TO DELTA RECORDER	NOT CONNECTED
TRANSMIT FROM DELTA RECORDER	NOT CONNECTED
RS232 GROUND	NOT CONNECTED

* * * *

I-10 West at 13th Street (Phoenix Autumn 1993)

Lane 1 (Inside General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
M4B	1	White	128		Ground		
	2	Brown	99		12 VDC		Fuse 10
	3	White		1A	RS232 Ground	COM #7	Digiboard #3
	4	Orange		2A	RS232 Transmit	COM #7	Digiboard #3
	5	White		3A	Data Carrier	Not used	
	6	Green		4A	RS232 Receive	COM #7	Digiboard #3
	7	White		5A	Opto #1 +	OR1 #7	
	8	Blue		6A	Opto #1 -		24 V GND
	9	White		7A	Opto #2 +	OR1 #8	
	10	Grey		8A	Opto #2 -		24 V GND
U3A	11	Yellow	95		12 VDC		Fuse 12
	12	Brown	126		Ground		
	13	Yellow		71A	Relay N.C.	Not used	
	14	Orange		72A	Relay Common		24 V GND
	15	Yellow		73A	Relay N.O.	RR #6	
M2B	21	Violet	77		24 VDC		Fuse 8
	22	Brown	107		Ground		
	23	Violet		21A	Relay N.O.	RR #12	
	24	Orange		22A	Relay Common		24 V GND
	25	Violet		23A	Relay N.C.	Not used	
	26	Green		24A	<35 mi/h	OR2 #20	
	27	Violet		25A	36-45 mi/h	OR2 #21	
	28	Blue		26A	46-55 mi/h	OR2 #22	
	29	Violet		27A	56 -65 mi/h	OR2 #23	
	30	Grey		28A	66+ mi/h	OR2 #24	
	31	Red		29A	Doppler Freq.		
	32	Brown		30A	Doppler Ground		
IR1	33	Red		32A	RS232 Receive	COM #13	Digiboard #9
	34	Orange		33A	RS232 Transmit	COM #13	Digiboard #9
	35	Red		34A	RS232 Ground	COM #13	Digiboard #9
	36	Green		35A	Relay N.O.	RR #13	
	37	Red		36A	Relay Common		24 V GND
	38	Blue			Ground		
	39	BLK	T1/1		115 VAC		Fuse 1
	40	CLR			AC Neutral		

1 mi/h = 1.61 km/h

I-10 Westbound at 13th Street (Phoenix Autumn 1993)

Lane 1 (Inside General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
IR2	46	Orange		19A	Relay N.O.	RR #14	
	47	Black		20A	Relay Common		24 V GND
	48	Green			Ground		
	49	Black	T1/2		115 VAC		Fuse 2
	50	Blue			AC Neutral		
U1	L1	Red		112		RR #4	
	Com	Green		113			24 V GND
	S1	Green		114	Small Veh Count	RR #5	
U2A		White/Black		139	Relay Common		24 V GND
		Black		140	Relay N.O.	RR #10	
M6A		Green	T1/4		115 VAC		Fuse 4
		Black			AC Neutral		
		Violet		61	Range Bin 1	OR1 #9	
		Yellow		62	Opto 1 return		24 V GND
		Red		63	Range Bin 2	OR1 #10	
		Cream		64	Opto 2 return		24 V GND
		Orange		65	Range Bin 3	Not used	
		White		66	Opto 3 return		24 V GND
		Brown		67	RS232 TX	COM #11	Digiboard #7
		Gray		68	RS232 RCV	COM #11	Digiboard #7
		Pink		69	RS232 Ground	COM #11	Digiboard #7
ILD (back-1A)		White		161	Opto +	OR1 #1	
ILD (front-1B)		White		162	Opto +	OR1 #2	
Vehicle ID		Black		127	Relay N.O.	RR #3	
Camera	16	Green	T1/6		115 VAC		Fuse 14
(Autoscope)	17	Yellow			AC Neutral		
	18	Blue			Ground		

I-10 Westbound at 13th Street (Phoenix Autumn 1993)

Lane 2 (Middle General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
M4A	1	White	127		Ground		
	2	Brown	75		12 VDC		Fuse 9
	3	White		41A	RS232 Ground	COM #8	Digiboard #4
	4	Orange		42A	RS232 Transmit	COM #8	Digiboard #4
	5	White		43A	Data Carrier	Not used	
	6	Green		44A	RS232 Receive	COM #8	Digiboard #4
	7	White		45A	Opto #1 +	OR1 #11	
	8	Blue		46A	Opto #1 -		24 V GND
	9	White		47A	Opto #2 +	OR1 #12	
	10	Grey		48A	Opto #2 -		24 V GND
U3B	11	Yellow	79		12 VDC		Fuse 7
	12	Brown	124		Ground		
	13	Yellow		15A	Relay N.C.	Not used	
	14	Orange		16A	Relay Common		24 V GND
	15	Yellow		17A	Relay N.O.	RR #11	
	16	Green			Spare		
	17	Yellow			Spare		
M5A	21	Violet	125		Ground		
	22	Brown	97		12 VDC		Fuse 11
	23	Violet		53A	RS232 Ground	COM #6	Digiboard #2
	24	Orange		54A	RS232 Transmit	COM #6	Digiboard #2
	25	Violet		55A	Data Carrier	Not used	
	26	Green		56A	RS232 Receive	COM #6	Digiboard #2
	27	Violet		57A	Opto #1 +	OR1 #13	
	28	Blue		58A	Opto #1 -		24 V GND
	29	Violet		59A	Opto #2 +	OR1 #14	
	30	Grey		60A	Opto #2 -		24 V GND
M1A	31	Red			12 VAC		12 V Xformer
	32	Brown			Ground		
	33	Red		10A	Relay N.O.	RR #16	
	34	Orange		11A	Relay Common		24 V GND
	35	Red			Spare		
IR3	36	Green		51A	Relay N.O.	RR #15	
	37	Red		50A	Relay Common		24 V GND
	38	Blue			Ground		
	39	Black	T1/3		115 VAC		Fuse 3
	40	Clear			AC Neutral		

I-10 Westbound at 13th Street (Phoenix Autumn 1993)

Lane 2 (Middle General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
S1 (AT&T)		Red/Orange	57		24 VDC		Fuse 6
		Black/Black	109		Ground		
		Red		167	Ch 1	OR1 #15	
		Green		168	Ch 2	OR1 #16	
U2B		Red		137	Relay Common		24 V GND
		White		138	Relay N.O.	RR #9	
Mag 4		Orange		141	Relay N.O.	RR #8	
(in ILD 2A)		Purple		142			
Mag 1		Red		143	Relay N.O.	RR #7	
(in ILD 2B)		Black		144			
Temperature				133		Analog T1A	
				134		Analog T1B	
ILD (back-2A)		White		163	Opto +	OR1 #3	
ILD (front-2B)		White		164	Opto +	OR1 #4	
Vehicle ID		Black		128	Relay N.O.	RR #2	
Camera	18	Blue	T1/5		115 VAC		Fuse 13
(ADOT-Burle)	19	Yellow			AC Neutral		
	20	Grey			Ground		

Lane 3 (Outside General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
ILD (back-3A)		White		165	Opto +	OR1 #5	
ILD (front-3B)		Green		166	Opto +	OR1 #6	

I-10 Westbound at 13th Street (Phoenix Summer 1994)

Lane 2 (Middle General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
M4A	1	White	127		Ground		
	2	Brown	75		12 VDC		Fuse 9
	3	White		41A	RS232 Ground	COM #8	Digiboard #4
	4	Orange		42A	RS232 Transmit	COM #8	Digiboard #4
	5	White		43A	Data Carrier	Not used	
	6	Green		44A	RS232 Receive	COM #8	Digiboard #4
	7	White		45A	Opto #1 +	OR1 #11	
	8	Blue		46A	Opto #1 -		24 V GND
	9	White		47A	Opto #2 +	OR1 #12	
	10	Grey		48A	Opto #2 -		24 V GND
U3B	11	Yellow	79		12 VDC		Fuse 7
	12	Brown	124		Ground		
	13	Yellow		15A	Relay N.C.	Not used	
	14	Orange		16A	Relay Common		24 V GND
	15	Yellow		17A	Relay N.O.	RR #11	
	16	Green			Spare		
	17	Yellow			Spare		
M5A	21	Violet	125		Ground		
	22	Brown	97		12 VDC		Fuse 11
	23	Violet		53A	RS232 Ground	COM #6	Digiboard #2
	24	Orange		54A	RS232 Transmit	COM #6	Digiboard #2
	25	Violet		55A	Data Carrier	Not used	
	26	Green		56A	RS232 Receive	COM #6	Digiboard #2
	27	Violet		57A	Opto #1 +	OR1 #13	
	28	Blue		58A	Opto #1 -		24 V GND
	29	Violet		59A	Opto #2 +	OR1 #14	
	30	Grey		60A	Opto #2 -		24 V GND
M1A	31	Red			12 VAC		12 V Xformer
	32	Brown			Ground		
	33	Red		10A	Relay N.O.	RR #16	
	34	Orange		11A	Relay Common		24 V GND
	35	Red			Spare		
IR3	36	Green		51A	Relay N.O.	RR #15	
	37	Red		50A	Relay Common		24 V GND
	38	Blue			Ground		
	39	Black	T1/3		115 VAC		Fuse 3
	40	Clear			AC Neutral		

I-10 Westbound at 13th Street (Phoenix Summer 1994)

Lane 2 (Middle General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
U2B		Red		137	Relay Common		24 V GND
		White		138	Relay N.O.	RR #9	
Mag 4		Orange		141	Relay N.O.	RR #8	
(in ILD 2A)		Purple		142			
Mag 1		Red		143	Relay N.O.	RR #7	
(in ILD 2B)		Black		144			
Temperature				133		Analog T1A	
				134		Analog T1B	
ILD		White		164	Opto +	OR1 #2	
Vehicle ID		Black		128	Relay N.O.	RR #2	
Camera	18	Blue	T1/5		115 VAC		Fuse 13
(ADOT-Burle)	19	Yellow			AC Neutral		
	20	Grey			Ground		

Lane 3 (Outside General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
ILD (back-3A)		White		165	Opto +	OR1 #3	
ILD (front-3B)		Green		166	Opto +	OR1 #4	

I-10 Westbound at 13th Street (Phoenix Summer 1994)

Multilane Detectors

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
M6B		Green	T2/4		115 VAC		
(Side-firing		Black			AC Neutral		
on Lns 1,2,3)		Brown		83	RS232 TX	COM #12	Digiboard #8
		Gray		84	RS232 RCV	COM #12	Digiboard #8
		Pink		85	RS232 Ground	COM #12	Digiboard #8
		Purple		86	Range Bin 1	OR2 #2	
		Yellow		87	Opto 1 return		24 V GND
		Red		88	Range Bin 2	OR2 #3	
		Cream		89	Opto 2 return		24 V GND
		Orange		90	Range Bin 3	OR2 #4	
		White		91	Opto 3 return		24 V GND
VIP 1		Black 31			1st det zone	OR2 # 5	Lane 1
(Econolite/		Black 29			1st speed zone	OR2 # 6	Lane 1
Autoscope		Black 30			2nd speed zone	OR2 # 7	Lane 1
2003)		Black 35			1st det zone	OR2 # 8	Lane 2
		Black 33			1st speed zone	OR2 # 9	Lane 2
		Black 34			2nd speed zone	OR2 #10	Lane 2
		Black 18	114		+24 VDC		
		White 20	108		24 Volt Ground		
		White 1	108		24 Volt Ground		
VIP 3						COM #15	Digiboard #11
(Traficon/							
CCATS-VIP2)							
VIP 5						COM #14	Digiboard #10
(EVA 2000)							

		Oracle Road Southbound at Auto Mall Drive					
Tucson Lane 2 (Middle Lane)							
Detector	Trmnl #	Wire Color	Panel A# (Power)	Panel B# (Data)	Function	Data Logger	Notes
M4A	1	White	127		12V Ground		
	2	Brown	75		12 VDC		Fuse 9
	3	White		41A	RS232 Ground	COM #8	Digiboard #4
	4	Orange		42A	RS232 Transmit	COM #8	Digiboard #4
	5	White		43A	Data Carrier	Not used	
	6	Green		44A	RS232 Receive	COM #8	Digiboard #4
	7	White		45A	Opto #1 +	OR1 #11	
	8	Blue		46A	Opto #1 -		24 V GND
	9	White		47A	Opto #2 +	OR1 #12	
	10	Grey		48A	Opto #2 -		24 V GND
U3B	11	Yellow	79		12 VDC		Fuse 7
	12	Brown	124		12V Ground		
	13	Yellow		15A	Relay N.C.	Not used	
	14	Orange		16A	Relay Common		24 V GND
	15	Yellow		17A	Relay N.O.	RR #11	
	16	Green			Spare		
	17	Yellow			Spare		
Camera	18	Blue	T1/5		115 VAC		Fuse 13
(Sumitomo)	19	Yellow			AC Neutral		
	20	Grey			Ground		
M5A	21	Violet	125		12V Ground		
	22	Brown	97		12 VDC		Fuse 11
	23	Violet		53A	RS232 Ground	COM #6	Digiboard #2
	24	Orange		54A	RS232 Transmit	COM #6	Digiboard #2
	25	Violet		55A	Data Carrier	Not used	
	26	Green		56A	RS232 Receive	COM #6	Digiboard #2
	27	Violet		57A	Opto #1 +	OR1 #13	
	28	Blue		58A	Opto #1 -		24 V GND
	29	Violet		59A	Opto #2 +	OR1 #14	
	30	Grey		60A	Opto #2 -		24 V GND
M1A	31	Red			12 VAC		12 V Xformer
	32	Brown			Ground		
	33	Red		10A	Relay N.O.	RR #16	
	34	Orange		11A	Relay Common		24 V GND
	35	Red			Spare		
IR3	36	Green		51A	Relay N.O.	RR #15	
	37	Red		50A	Relay Common		24 V GND
	38	Blue			Ground		
	39	Red	T1/3		115 VAC		Fuse 3
	40	Grey			AC Neutral		

I-IO Westbound at 13th Street (Phoenix Summer 1994)

Lane 2 (Middle General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
U2B		Red		137	Relay Common		24 V GND
		White		138	Relay N.O.	RR #9	
Mag 4		Orange		141	Relay N.O.	RR #8	
(in ILD 2A)		Purple		142			
Mag 1		Red		143	Relay N.O.	RR #7	
(in ILD 2B)		Black		144			
Temperature				133		Analog T1A	
				134		Analog T1B	
ILD		White		164	Opto +	OR1 #2	
Vehicle ID		Black		128	Relay N.O.	RR #2	
Camera	18	Blue	T1/5		115 VAC		Fuse 13
(ADOT-Burle)	19	Yellow			AC Neutral		
	20	Grey			Ground		

Lane 3 (Outside General Traffic Lane)

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
ILD (back-3A)		White		165	Opto +	OR1 #3	
ILD (front-3B)		Green		166	Opto +	OR1 #4	

I-10 Westbound at 13th Street (Phoenix Summer 1994)

Multilane Detectors

Detector	Trmnl #	Wire Color	Panel A # (Power)	Panel B # (Data)	Function	Data Logger	Notes
M6B		Green	T2/4		115 VAC		
(Side-firing		Black			AC Neutral		
on Lns 1,2,3)		Brown		83	RS232 TX	COM #12	Digiboard #8
		Gray		84	RS232 RCV	COM #12	Digiboard #8
		Pink		85	RS232 Ground	COM #12	Digiboard #8
		Purple		86	Range Bin 1	OR2 #2	
		Yellow		87	Opto 1 return		24 V GND
		Red		88	Range Bin 2	OR2 #3	
		Cream		89	Opto 2 return		24 V GND
		Orange		90	Range Bin 3	OR2 #4	
		White		91	Opto 3 return		24 V GND
VIP 1		Black 31			1st det zone	OR2 # 5	Lane 1
(Econolite/		Black 29			1st speed zone	OR2 # 6	Lane 1
Autoscope		Black 30			2nd speed zone	OR2 # 7	Lane 1
2003)		Black 35			1st det zone	OR2 # 8	Lane 2
		Black 33			1st speed zone	OR2 # 9	Lane 2
		Black 34			2nd speed zone	OR2 #10	Lane 2
		Black 18	114		+24 VDC		
		White 20	108		24 Volt Ground		
		White 1	108		24 Volt Ground		
VIP 3						COM #15	Digiboard #11
(Traficon/							
CCATS-VIP2)							
VIP 5						COM #14	Digiboard #10
(EVA 2000)							

		Oracle Road Southbound at Auto Mall Drive					
Tucson Lane 2 (Middle Lane)							
Detector	Trmnl #	Wire Color	Panel A# (Power)	Panel B# (Data)	Function	Data Logger	Notes
M4A	1	White	127		12V Ground		
	2	Brown	75		12 VDC		Fuse 9
	3	White		41A	RS232 Ground	COM #8	Digiboard #4
	4	Orange		42A	RS232 Transmit	COM #8	Digiboard #4
	5	White		43A	Data Carrier	Not used	
	6	Green		44A	RS232 Receive	COM #8	Digiboard #4
	7	White		45A	Opto #1 +	OR1 #11	
	8	Blue		46A	Opto #1 -		24 V GND
	9	White		47A	Opto #2 +	OR1 #12	
	10	Grey		48A	Opto #2 -		24 V GND
U3B	11	Yellow	79		12 VDC		Fuse 7
	12	Brown	124		12V Ground		
	13	Yellow		15A	Relay N.C.	Not used	
	14	Orange		16A	Relay Common		24 V GND
	15	Yellow		17A	Relay N.O.	RR #11	
	16	Green			Spare		
	17	Yellow			Spare		
Camera	18	Blue	T1/5		115 VAC		Fuse 13
(Sumitomo)	19	Yellow			AC Neutral		
	20	Grey			Ground		
M5A	21	Violet	125		12V Ground		
	22	Brown	97		12 VDC		Fuse 11
	23	Violet		53A	RS232 Ground	COM #6	Digiboard #2
	24	Orange		54A	RS232 Transmit	COM #6	Digiboard #2
	25	Violet		55A	Data Carrier	Not used	
	26	Green		56A	RS232 Receive	COM #6	Digiboard #2
	27	Violet		57A	Opto #1 +	OR1 #13	
	28	Blue		58A	Opto #1 -		24 V GND
	29	Violet		59A	Opto #2 +	OR1 #14	
	30	Grey		60A	Opto #2 -		24 V GND
M1A	31	Red			12 VAC		12 V Xformer
	32	Brown			Ground		
	33	Red		10A	Relay N.O.	RR #16	
	34	Orange		11A	Relay Common		24 V GND
	35	Red			Spare		
IR3	36	Green		51A	Relay N.O.	RR #15	
	37	Red		50A	Relay Common		24 V GND
	38	Blue			Ground		
	39	Red	T1/3		115 VAC		Fuse 3
	40	Grey			AC Neutral		

		Oracle Road Southbound at Auto Mall Drive					
Tucson Lane 2 (Middle Lane)							
Detector	Trmnl #	Wire Color	Panel A# (Power)	Panel B# (Data)	Function	Data Logger	Notes
IR2	46	Orange		19A	Relay N.O.	RR #14	
	47	Black		20A	Relay Common		24 V GND
	48	Green			Ground		
	49	Black	T1/2		115 VAC		Fuse 2
	50	Blue			AC Neutral		
U2A		Red		137	Relay Common		24 V GND
		White		138	Relay N.O.	RR #9	
M6A		Green	T1/4		115 VAC		Fuse 4
		Black			AC Neutral		
		Violet		61	Range Bin 1	OR1 #9	
		Yellow		62	Opto 1 Return		24 V GND
		Red		63	Range Bin 2	OR1 #10	
		Cream		64	Opto 2 Return		24 V GND
		Orange		65	Range Bin 3	Not used	
		White		66	Opto 3 Return	Not used	24 V GND
		Brown			RS232 Transmit	COM #11	Digiboard #7
		Gray		68	RS232 Receive	COM #11	Digiboard #7
		Pink		69	RS232 Ground	COM #11	Digiboard #7
Temperature				133		Analog T1A	
				134		Analog T1B	
ILD-Square		Yellow		161	2A	OR1 #1	
(front-2A)		Purple		127	(613-SS detector)	RR #3	
		Red-to-Red		181	Vehicle ID		
		Orange-to-Green		182			
ILD-Square		Yellow		162	2B	OR1 #2	
(back-2B)					(613-SS detector)		
		Red-to-Red		183			
		Orange-to-Green		184			
3M Micro Loop		Green		Direct	2C	OR2 #5	
					(272 detector)		

		Oracle Road Southbound at Auto Mall Drive					
Tucson Lane 3 (Curb Lane)							
Detector	Trmnl #	Wire Color	Panel A# (Power)	Panel B# (Data)	Function	Data Logger	Notes
M4B	1	White	128		12V Ground		
	2	Brown	99		12 VDC		Fuse 10
	3	White		1A	RS232 Ground	COM #7	Digiboard #3
	4	Orange		2A	RS232 Transmit	COM #7	Digiboard #3
	5	White		3A	Data Carrier	Not used	
	6	Green		4A	RS232 Receive	COM #7	Digiboard #3
	7	White		5A	Opto #1 +	OR1 #7	
	8	Blue		6A	Opto #1 -		24 V GND
	9	White		7A	Opto #2 +	OR1 #8	
	10	Grey		8A	Opto #2 -		24 V GND
U3A	11	Yellow	95		12 VDC		Fuse 12
	12	Brown	126		12V Ground		
	13	Yellow		71A	Relay N.C.	N/U	
	14	Orange		72A	Relay Common		24 V GND
	15	Yellow		73A	Relay N.O.	RR #6	
Camera	16	Green	T1/6		115 VAC	Fuse 14	
(Autoscope)	17	Yellow			AC Neutral		
	18	Blue			Ground		
	19	Yellow			Spare		
	20	Grey			Spare		
M2B	21	Violet	77		24 VDC		Fuse 8
	22	Brown	107		24V Ground		
	23	Violet		21A	Relay N.C.	Not used	
	24	Orange		22A	Relay Common		24 V GND
	25	Violet		23A	Relay N.O.	RR #12	
	26	Green		24A	<35 mi/h	OR2 #20	
	27	Violet		25A	36-45 mi/h	OR2 #21	
	28	Blue		26A	46-55 mi/h	OR2 #22	
	29	Violet		27A	56-65 mi/h	OR2 #23	
	30	Grey		28A	66+ mi/h	OR2 #24	
	31	Red		29A	Doppler Freq.		
	32	Brown		30A	Doppler Ground		
IR1	33	Red		32A	RS232 Receive	COM #13	Digiboard #9
	34	Orange		33A	RS232 Transmit	COM #13	Digiboard #9
	35	Red		34A	RS232 Ground	COM #13	Digiboard #9
	36	Green		35A	Relay N.O.	RR #13	
	37	Red		36A	Relay Common		24 V GND
	38	Blue			Ground		
	39	BLK	T1/1		115 VAC		Fuse 1
	40	CLR			AC Neutral		

1 mi/h = 1.61 km/h

		Oracle Road Southbound at Auto Mall Drive					
Tucson Lane 3 (Curb Lane)							
Detector	Trmnl #	Wire Color	Panel A# (Power)	Panel B# (Data)	Function	Data Logger	Notes
U1	L1	Red		112	Large Veh Count	RR #4	Not used
	Com	Green		113			
	S1	Green		114	Small Veh Count	RR #5	Not used
U2B		Red		137			
		White		138			
	C-/2	White/Black		139	Relay Common		24 V GND
	B+/2	Black		140	Relay N.O.	RR #10	
ILD-Square		White		163	3A	OR1 #3	
(front-3A)		Red-to-Red		185	(613-SS detector)		
		Orange-to-Green		186			
		Purple		128	Veh ID	RR #2	
ILD-Square		White		162	3B	OR1 #4	
(back-3B)					(3M 2020 detector)	COM #17	Digiboard #13
ILD-Round		White		165	3C	OR1 #5	
(back)					(272 detector)		
ILD-Round		Green		166	3D	OR1 #6	
(front)					(272 detector)		
3M MicroLoop		Green		Direct	3E	OR2 #6	
					(272 detector)		
A1 (AT&T)		Red/Orange	57		24 VDC		Fuse 6
		Black/Black	109		Ground		
		Red		167	Ch 1	OR1 #15	
		Green		168	Ch 2	OR1 #16	
Mag 1		Red		121	Relay N.O.	RR #8	
		Black		122	Relay Common		24 V GND
Mag 4		Orange		123	Relay N.O.	RR #7	
		Purple		124	Relay Common		24 V GND
Timemark		Red		76	RS232 Transmit	COM #10	Digiboard #6
Delta 1		White		77	RS232 Receive	COM #10	Digiboard #6
		Green		78	RS232 Ground	COM #10	Digiboard #6

		Oracle Road Southbound at Auto Mall Drive					
Tucson Multilane Detectors (Lanes 2 & 3)							
Detector	Trmnl #	Wire Color	Panel A# (Power)	Panel B# (Data)	Function	Data Logger	Notes
M6B		Green	T2/4		115 VAC		
(side-firing		Black			AC Neutral		
on Lanes 2 & 3)		Brown		83	RS232 Transmit	COM #12	Digiboard #8
		Gray		84	RS232 Receive	COM #12	Digiboard #8
		Pink		85	RS232 Ground	COM #12	Digiboard #8
		Purple		86	Range Bin 1	OR2 #2	
		Yellow		87			24 V GND
		Red		88	Range Bin 2	OR2 #3	
		Cream		89			24 V GND
		Orange		90	Range Bin 3	OR2 #4	
		White		91			24 V GND
3-axis Fluxgate						COM #14	Digiboard #10
Mag Array							
Autoscope		Black			Lane 2 Near	OR2 #7	Det 101
2003		Black			Ln 2 Speed Trap	OR2 #8	Det 111
		Black			Lane 2 Far	OR2 #9	Det 103
		Black			Lane 3 Near	OR2 #10	Det 102
		Black			Ln 3 Speed Trap	OR2 #11	Det 112
		Black			Lane 3 Far	OR2 #12	Det 104
Traficon						COM #15	Digiboard #11
CCATS-VIP2							
Sumitomo						COM #18	Digiboard #14
IDET-100							
Grumman IIR						COM #16	Digiboard #12
Traffic Sensor							