T3-2050-FIOCD.SCHDOC

Size: D	Number:	Revision:
Date: 6/27/2008		Sheet of
File: Y:\public_html\..\T3-2050-FIOCD.SCHDOC	Drawn By:	

To Servo/FIO-E FIO-CD -Servo FIO-E Interconnect

Mirror Cover 2
Mirror Cover 1
N.C.

TO Panel
Mirror Cover
Emergency Close Switch
(via Servo/FIO-E Box)

CD 1

A	Humidity In (Humidity Sensor)	VIO
B	Humidity Rtn (12V Rtn)	GRY
C	HA Stop Limit E	BRN
D	HA Stop Limit W	YEL
E	HA Emerg Stop Limit E	GRN
F	HA Emerg Stop Limit W	BLU
G	Mirror Cover 2	BRN
H	Mirror Cover 1	WHT
J	Horizon Stop Limit	GRY
K	Dec Stop Limit N	VIO
L	Dec Emerg Stop Limit N	BLU
M	Dec Stop Limit S	GRN
N	Dec Emerg Stop Limit S	YEL
P	Spare In 1	BRN
R	Spare In 2	WHT
S	AGnd/DGnd-SE	BLK
T		
U	5V-SE	RED
V		

MS3122E24-61S

From MCC

Center (BNC) Shld (BNC)

CD5

A	Mirror Pressure Feedback	BRN
B	Mirror Pressure Feedback Rtn	GRY
C	Closed Cycle Cooler	BLU
D	Closed Cycle Cooler Rtn	WHT
E	Platform Stow	VIO
F	Platform Stow Rtn	BLK
G		
H		
I		
J		
K		
L		

MS3122E14-12S

BUS 1
BUS 2
BUS 3
BUS 4
BUS 5
BUS 6
BUS 7
BUS 8
BUS 9
BUS 10
BUS 11
BUS 12
BUS 13
BUS 14
BUS 15

Signals REF Dwg 710-459

S902

A	Drive Sig H	WHT
B	Drive Sig L	GRY
C	Alarm H	VIO
D	Alarm L	BLU
E	Focus LVDT In	BRN
F	Focus LVDT Ret	GRY
G		
H	Collimate E/W LVDT In	VIO
J		
K	Accel	GRN
L		
M	East L	GRY
N		
P	West H	YEL
R	West L	BRN
S	Xducer H	VIO
T	Xducer L	BLU
U		
V	Direction L	BRN
W		
X		
Y	Drive Sig Shld	GRN
Z		
a		
b	Collimate N/S LVDT In	GRN
c	Collimate N/S LVDT Ret	BRN
d	Collimate E/W LVDT Ret	GRN
e		
f	East H	WHT
g		
h	Xducer Shld	GRN
i	Direction H	YEL
j		
k		
m	Power Gnd	BRN
n		
p	Chassis Gnd	YEL
q		

MS3122E20-39S

S210

A	HA Slew Limit E	YEL	(T15)
B	HA Slew Limit E Rtn	BLK	(T3)
C	HA Slew Limit W	VIO	(T19)
D	HA Slew Limit W Rtn	BLK	(T4)
E	HA Stop Limit E	BRN	(T14)
F	HA Stop Limit E Rtn	BLK	(T8)
G	HA Stop Limit W	BLU	(T18)
H	HA Stop Limit W Rtn	BLK	(T12)
J	HA Emerg Stop Limit E	WHT	(T13)
K	HA Emerg Stop Limit W	GRN	(T17)
L	HA Emerg Stop Limit E Rtn	BLK	(T16)
M	HA Emerg Stop Limit W Rtn	BLK	(T20)
N	HA Zenith	GRY	(B54)
P	HA Zenith Rtn	BLK	(B53)

MS3112E22-55SY

S211

A	CW1 DN	GRY
B	CW2 DN	BRN
C	CW3 DN	GRN
D	CW2 Sense	WHT
E	CW123 Sense Gnd	BLK
F		
G		
H		
J		
K		
L	CW4 DN	VIO
M	CW5 DN	WHT
N	CW6 DN	YEL
P	CW5 Sense	GRN
R		
S		
T	CW456 Sense Gnd	BLK
U	Air Gnd	BLK
V	Min Pressure	GRN
W	Reset Supports	
X	Mirror Cover Gnd	BLK
Y	Drive Gnd	BLK
Z	24V HO-CD (CW)	ORG
a	CW1 UP	VIO
b	CW2 UP	WHT
c	CW3 UP	YEL
d	CW1 Sense	GRY
e	CW3 Sense	BRN
f		
g		
h		
i		
j		
k	CW4 UP	BLU
m	CW5 UP	GRY
n	CW6 UP	BRN
p	CW4 Sense	YEL
q	CW5 Sense	BLU
r	24V HO-CD (Air)	ORG
s	Air Drive	GRN
t	Kill Support	BLU
u	Mirror Cover 2 (Cover Drive)	YEL
v	24V Rtn	BLK
w	Cover Closed	WHT
x	Horizon Stop Limit	WHT
y	Horizon Slew Limit	GRY
z	Dec Slew Limit N	GRN
AA		
BB	Dec Stop Limit N	YEL
CC		
DD	Dec Emerg Stop Limit N	BRN
EE	Dec Zenith	VIO
FF	AGnd/DGnd-SE (Gnd)	BLK
GG		
HH	HGLS Gnd	BLK
JJ	Cover Open	BRN
KK	Dec Slew Limit S	GRY
LL	Dec Stop Limit S	VIO
MM	Dec Emerg Stop Limit S	BLU
NN		
PP		

MS3112E24-61SZ

S212

A		
B		
C		
D		
E	Focus Motor Black	GRY
F		
G		
H	Focus Motor Brake	WHT
J	Collimate Motor NS Black	BLU
K	Collimate Motor E/W Black	YEL
L	+LED	
M	+6VDC (Gain Ctrl)	
N		
P		ORG
R		
S		RED
T		
U		
V		
W		
X		
Y		
Z		
a		
b		
c		
d		
e		
f	Focus Motor Red	VIO
g	24V HO-CD	ORG
h	Collimate Motor NS Red	GRN
i	Collimate Motor E/W Red	BRN
j	+6VDC Rtn (Gain Ctrl)	
k	-LED	
m		BLK
n		
p		GRN
q		
r		
s		
t		
u		
v		
w		
x		
y		
z		
AA		
BB		
CC		
DD		
EE		
FF	CW11 New SENSE	BRN
GG	CCW TH SENSE	VIO
HH		
JJ	CRS EN	WHT
KK	CCW TH SENSE	BLU
LL	CCW TV2 SENSE	GRN
MM	CCW TV1 SENSE	YEL
NN		
PP		

MS3112E24-61SY

CD3

P102SE-10-6S

To MCC Panel - On-Axis Camera

4 Pin Amp 206060-1

CD4

FIO-MCC1 RM12BJB-6S

12V Rtn FIO-CD
+12 V FIO-CD

Temperature Sensor
Humidity Sensor

To Vaisala Roof Sensor

MS3112E12-10P

TB1

T75			B75				
T74			B74				
T73			B73				
T72			B72				
T71			B71				
T70	+24V FIO-CD		B70				
T69	24V Rtn FIO-CD		B69				
T68			B68				
T67	BRN	Mirror Pressure Feedback	B67				
T66	GRY	Mirror Pressure Feedback Rtn	B66				
T65	BLU	Closed Cycle Cooler	B65	Humidity Rtn	VIO	Humidity In	BLU
T64	WHT	Closed Cycle Cooler Rtn	B64				BLK
T63	VIO	Platform Stow	B63				
T62	BLK	Platform Stow Rtn	B62	Air Gnd	GRN		
T61	+12V FIO-CD		B61	Air Drive	GRN		
T60	+12 V FIO-CD		B60	Mirror Cover 2	BRN		
T59	12V Rtn FIO-CD		B59	Mirror Cover 1	YEL		
T58			B58	Cover Open	BRN		
T57			B57	Cover Closed	WHT		
T56	VIO	Humidity In	B56	24V Rtn FIO-CD	BLK		
T55	GRY	Humidity Rtn	B55				
T54			B54				
T53	BRN	Mirror Cover 2	B53				
T52	WHT	Mirror Cover 1	B52				
T51			B51				
T50	BRN	Spare In 1	B50				
T49	WHT	Spare In 2	B49				
T48			B48				
T47	BLK	AGnd/DGnd-SE	B47				
T46	RED	5V-SE	B46				
T45			B45				
T44			B44				
T43			B43				
T42			B42				
T41	GRN	Drive Sig Shld	B41				
T40	YEL	Chassis Gnd	B40				
T39	BRN	Pwer Gnd	B39				
T38	WHT	Drive Sig H	B38				
T37	GRY	Drive Sig L	B37				
T36	VIO	Alarm H	B36				
T35	BLU	Alarm L	B35				
T34	GRN	Accel	B34				
T33	YEL	West H	B33				
T32	BRN	West L	B32				
T31	WHT	East H	B31				
T30	GRY	East L	B30				
T29	VIO	Xducer H	B29				
T28	BLU	Xducer L	B28				
T27	GRN	Xducer Shld	B27				
T26	YEL	Direction H	B26				
T25	BRN	Direction L	B25				
T24	S211-HH	BLK HGLS Gnd	B24				
T23	S211-tx	WHT Horizon Stop Limit	B23				
T22	S211-tv	GRY Horizon Slew Limit	B22				
T21	S210-F	BLK HA Emerg Stop Limit W Rtn	B21				
T20	S210-G	VIO HA Slew Limit W	B20				
T19	S210-G	BLU HA Stop Limit W	B19				
T18	S210-K	GRN HA Emerg Stop Limit W	B18				
T17	S210-E	BLK HA Emerg Stop Limit E Rtn	B17				
T16	S210-A	YEL HA Slew Limit E	B16				
T15	S210-E	BRN HA Stop Limit E	B15				
T14	S210-J	WHT HA Emerg Stop Limit E	B14				
T13	S210-H	BLK HA Stop Limit W Rtn	B13				
T12	S211-KK	GRY Dec Slew Limit S	B12				
T11	S211-LL	VIO Dec Stop Limit S	B11				
T10	S211-MM	BLU Dec Emerg Stop Limit S	B10				
T9	S210-F	BLK HA Stop Limit E Rtn	B9				
T8	S211-tz	GRN Dec Slew Limit N	B8				
T7	S211-BB	YEL Dec Stop Limit N	B7				
T6	S211-DD	BRN Dec Emerg Stop Limit N	B6				
T5	S210-D	BLK HA Slew Limit W Rtn	B5				
T4	S210-B	BLK HA Slew Limit E Rtn	B4				
T3	S211-FF	AGnd/DGnd-SE	B3				
T2	S211-FF	AGnd/DGnd-SE	B2				
T1			B1				

+24V FIO-CD
24V Rtn FIO-CD
+12V FIO-CD
12V Rtn FIO-CD

100K 50K WHT +24V-CD Ref
100K 50K YEL +12V-CD Ref

Temporary Jumper Until TO Panel is in circuit

Mirror Relay Board

JP5

BRN	Focus LVDT Rtn	1
YEL	Collimate N/S LVDT Rtn	2
GRN	Collimate E/W LVDT Rtn	3

JP4

BRN	Focus LVDT In	1
YEL	Focus LVDT Out	2
GRN	Collimate N/S LVDT In	3
BLU	Collimate N/S LVDT Out	4
VIO	Collimate E/W LVDT In	5
WHT	Collimate E/W LVDT Out	6

JP3

BLU	Collimate E	1
GRN	Collimate W	2
YEL	Collimate Motor E/W Black	3
BRN	Collimate Motor E/W Red	4
	24V Rtn FIO-CD	5

JP2

WHT	Collimate N	1
VIO	Collimate S	2
BLU	Collimate Motor NS Black	3
GRN	Collimate Motor NS Red	4
	24V FIO-CD	5

JP1

YEL	Focus Motor In	1
GRN	Focus Motor Out	2
BLU	Focus Motor Black	3
GRY	Focus Motor Red	4
VIO		5

FIO-CD6S

Focus LVDT In	1	
Focus LVDT Rtn	2	
Collimate N/S LVDT In	3	
Collimate N/S LVDT Rtn	4	
Collimate E/W LVDT In	5	
Collimate E/W LVDT Rtn	6	

FIO-CD6P

1	BRN	
2	GRY	
3	GRN	
4	BRN	
5	VIO	
6	GRN	

Cover Open
Cover Closed
Air Gnd
Air Drive
Mirror Cover 1
24V Rtn
Focus Motor Brake

FIO-C

JP4-2	YEL	Focus LVDT Out	I/O Bit 0	Index 0
(B13)	GRY	Focus LVDT Ret	I/O Bit 1	
JP4-4	BLU	Collimate N/S LVDT Out	I/O Bit 2	
(B15)	BRN	Collimate N/S LVDT Ret	I/O Bit 3	SNAP - AIV-4 Analog Input -10/+10VDC
JP4-6	WHT	Collimate E/W LVDT Out		
(B17)	GRN	Collimate E/W LVDT Ret		
(B27)	GRY	CW1 Sense / YHS-9	I/O Bit 0	Index 1
(B30)	BLK	CW123 Sense Gnd	I/O Bit 1	
(B28)	WHT	CW2 Sense / YVS-10	I/O Bit 2	
(B29)	BRN	CW3 Sense / YVS-11	I/O Bit 3	SNAP - AIV-4 Analog Input -10/+10VDC
(B30)	BLK	CW123 Sense Gnd		
(B31)	YEL	CW4 Sense / THS-2		
(B34)	BLK	CW456 Sense Gnd		
(B32)	GRN	CW5 Sense / YS-5	I/O Bit 0	Index 2
(B34)	BLK	CW456 Sense Gnd	I/O Bit 1	
(B33)	BLU	CW6 Sense / YS-6	I/O Bit 2	
(B34)	BLK	CW456 Sense Gnd	I/O Bit 3	SNAP - AIV-4 Analog Input -10/+10VDC
(B25)	VIO	CW7 SENSE / YHF-7		
(B30)	BLK	CW123 Sense Gnd		
(B24)	BLU	CW8 SENSE / THF-1		
(B30)	BLK	CW123 Sense Gnd		
(B22)	YEL	CW9 TV1 SENSE / TVF-3	I/O Bit 0	Index 3
(B34)	BLK	CW456 Sense Gnd	I/O Bit 1	
(B23)	GRN	CW10 TV2 SENSE / TVF-4	I/O Bit 2	
(B34)	BLK	CW456 Sense Gnd	I/O Bit 3	SNAP - AIV-4 Analog Input -10/+10VDC
(B21)	BRN	CW11 SENSE / YHF-8		
(B34)	BLK	CW456 Sense Gnd		
(B52)	VIO	Dec Zenith	I/O Bit 0	Index 4
24V Rtn	BLK	24V Rtn FIO-CD	I/O Bit 1	
24V Rtn	BLK	24V Rtn FIO-CD	I/O Bit 2	
			I/O Bit 3	SNAP - IDC5D Digital Input 2.5-28VDC Input
(B57)	BRN	Cover Open	I/O Bit 0	Index 5
	BLK	24V Rtn FIO-CD	I/O Bit 1	
(B56)	WHT	Cover Closed	I/O Bit 2	
	BLK	24V Rtn FIO-CD	I/O Bit 3	SNAP - IDC5 Digital Input 10-32VDC Input
+24V FIO_CD	ORG	+24V FIO-CD		
+24V	ORG	+24V FIO-CD		
(B50)	GRN	Min Pressure		
+24V FIO-CD	ORG	+24V FIO-CD		
(B51)	BLU	Kill Support		
(B37)	VIO	CW1 UP	I/O Bit 0	Index 6
	BLK	24V Rtn FIO-CD	I/O Bit 1	
(B38)	GRY	CW1 DN	I/O Bit 2	
	BLK	24V Rtn FIO-CD	I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
(B39)	WHT	CW2 UP		
	BLK	24V Rtn FIO-CD		
(B40)	BRN	CW2 DN		
	BLK	24V Rtn FIO-CD		
(B41)	YEL	CW3 UP	I/O Bit 0	Index 7
	BLK	24V Rtn FIO-CD	I/O Bit 1	
(B42)	GRN	CW3 DN	I/O Bit 2	
	BLK	24V Rtn FIO-CD	I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
(B43)	BLU	CW4 UP		
	BLK	24V Rtn FIO-CD		
(B44)	VIO	CW4 DN		
	BLK	24V Rtn FIO-CD		
(B45)	GRY	CW5 UP	I/O Bit 0	Index 8
	BLK	24V Rtn FIO-CD	I/O Bit 1	
(B46)	WHT	CW5 DN	I/O Bit 2	
	BLK	24V Rtn FIO-CD	I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
(B47)	BRN	CW6 UP		
	BLK	24V Rtn FIO-CD		
(B48)	YEL	CW6 DN		
	BLK	24V Rtn FIO-CD		
(B20)	WHT	CRS EN	I/O Bit 0	Index 9
	BLK	24V Rtn FIO-CD	I/O Bit 1	
			I/O Bit 2	
			I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
JP2-1	WHT	Collimate N	I/O Bit 0	Index 10
JP2-2	VIO	Collimate S	I/O Bit 1	
JP3-1	BLU	Collimate E	I/O Bit 2	
JP3-2	GRN	Collimate W	I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
	BLK	24V Rtn FIO-CD		
JP1-1	YEL	Focus Motor In	I/O Bit 0	Index 11
	BLK	24V Rtn FIO-CD	I/O Bit 1	
JP1-2	GRN	Focus Motor Out	I/O Bit 2	
JP1-3	BLU	Focus Fast/Slow	I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
	BLK	24V Rtn FIO-CD		
(B10)	WHT	Focus Motor Brake		
(B60)	GRY	Air Gnd	I/O Bit 0	Index 12
	BLK	24V Rtn FIO-CD	I/O Bit 1	
(B59)	GRN	Air Drive	I/O Bit 2	
	BLK	24V Rtn FIO-CD	I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
(B58)	YEL	Mirror Cover 1		
24V Rtn	BLK	24V Rtn FIO-CD		
(B65)	GRY	Temperature Sensor	I/O Bit 0	Index 13
12V Ret	WHT	12V Rtn FIO-CD	I/O Bit 1	
(B63)	BLU	Humidity Sensor	I/O Bit 2	
12V Ret	VIO	12V Rtn FIO-CD	I/O Bit 3	SNAP - AIV-4 Analog Input -10/+10V
TB1-T60	YEL	+12V-CD Ref		
TB1-T59	BLK	12V Rtn FIO-CD		
TB1-T67	BRN	Mirror Pressure Feedback	I/O Bit 0	Index 14
TB1-T66	GRY	Mirror Pressure Feedback Rtn	I/O Bit 1	
			I/O Bit 2	
			I/O Bit 3	SNAP - AIV-4 Analog Input -10/+10V
TB1-T71	WHT	+24V-CD Ref		
TB1-T70	BLK	24V Rtn FIO-CD	I/O Bit 0	Index 15
			I/O Bit 1	
			I/O Bit 2	
			I/O Bit 3	SNAP - AIV-4 Analog Input -10/+10V

SNAP-ENET-S64
Analog/simple digital/serial brain

SNAP-M64, 16 Module Rack

FIO-D

S210-A	YEL	HA Slew Limit E	I/O Bit 0	Index 0
S210-B	BLK	HA Slew Limit E Rtn	I/O Bit 1	
S210-C	VIO	HA Slew Limit W	I/O Bit 2	
S210-D	BLK	HA Slew Limit W Rtn	I/O Bit 3	SNAP - IDC5D Digital Input 2.5-28VDC Input
S21-z	GRN	Dec Slew Limit N		
S21-FF	BLK	AGnd/DGnd-SE		
S21-KK	GRY	Dec Slew Limit S		
S21-FF	BLK	AGnd/DGnd-SE		
S210-E	BRN	HA Stop Limit E	I/O Bit 0	Index 1
S210-F	BLK	HA Stop Limit E Rtn	I/O Bit 1	
S210-G	BLU	HA Stop Limit W	I/O Bit 2	
S210-H	BLK	HA Stop Limit W Rtn	I/O Bit 3	SNAP - IDC5D Digital Input 2.5-28VDC Input
S21-BB	YEL	Dec Stop Limit N		
S21-FF	BLK	AGnd/Dgnd-SE		
S21-LL	VIO	Dec Stop Limit S		
S21-FF	BLK	AGnd/DGnd-SE		
S210-J	WHT	HA Emerg Stop Limit E	I/O Bit 0	Index 2
S210-d	BLK	HA Emerg Stop Limit E Rtn	I/O Bit 1	
S210-K	GRN	HA Emerg Stop Limit W	I/O Bit 2	
S210-f	BLK	HA Emerg Stop Limit W Rtn	I/O Bit 3	SNAP - IDC5D Digital Input 2.5-28VDC Input
S21-DD	BRN	Dec Emerg Stop Limit N		
S21-FF	BLK	AGnd/DGnd-SE		
S21-MM	BLU	Dec Emerg Stop Limit S		
S21-FF	BLK	AGnd/DGnd-SE		
(T21)	GRY	Horizon Slew Limit	I/O Bit 0	Index 3
S21-FF	BLK	AGnd/DGnd-SE	I/O Bit 1	
(T22)	WHT	Horizon Stop Limit	I/O Bit 2	
S21-FF	BLK	AGnd/DGnd-SE	I/O Bit 3	SNAP - IDC5D Digital Input 2.5-28VDC Input
(T24)	BRN	Direction L		
(T40)	GRN	Drive Sig Shld	I/O Bit 0	Index 4
			I/O Bit 1	
			I/O Bit 2	
			I/O Bit 3	SNAP - IDC5 Digital Input 10-32VDC Input
(T30)	WHT	East H		
(T26)	GRN	Xducer Shld		
(T25)	YEL	Direction H		
(T38)	BRN	Power Gnd		
(T39)	YEL	Chassis Gnd		
TB1-T65	ORG	+24V	I/O Bit 0	Index 5
	BLU	Closed Cycle Cooler	I/O Bit 1	
TB1-T63	ORG	+24V	I/O Bit 2	
	VIO	Platform Stow	I/O Bit 3	SNAP - ODC-SR Digital Output, Dry Contact NO
			I/O Bit 0	Index 6
(CD7-A)	WHT	TOHP_South	I/O Bit 1	
(CD7-B)	GRY	TOHP_North	I/O Bit 2	
(CD7-C)	ORG	+24V FIO-CD	I/O Bit 3	SNAP - IDC5 Digital Input 10-32VDC Input
	ORG	+24V FIO-CD		
(CD7-D)	YEL	TOHP_West		
	ORG	+24V FIO-CD	I/O Bit 0	Index 7
(CD7-E)	BRN	TOHP_Beam_Switch	I/O Bit 1	
	ORG	+24V FIO-CD	I/O Bit 2	
(CD7-F)	VIO	TOHP_Go_To_Base	I/O Bit 3	SNAP - IDC5 Digital Input 10-32VDC Input
(CD7-G)	BLU	TOHP_Sx_Rate		
	ORG	+24V FIO-CD		
(CD7-H)	WHT	TOHP_Offset		
			I/O Bit 0	Index 8
			I/O Bit 1	
			I/O Bit 2	
			I/O Bit 3	
			I/O Bit 0	Index 9
			I/O Bit 1	
			I/O Bit 2	
			I/O Bit 3	

SNAP-ENET-S64
Analog/simple digital/serial brain

SNAP-M64, 16 Module Rack

To MCC CD2

MS3112E10-6S

CD2

MS3112E10-6P

BRN		5V (MCC2)
RED		5V (MCC2)
WHT	Lower Shutter	5V (MCC2)
	Trach	5V (MCC2)
GRN	Upper Shutter	

When decommissioning TCS1 keep this in mind. MCC connections provide pullup, GND.

TO MCC Pa210

MS3112E12-55P

(T15)	YEL	HA Slew Limit E
(T3)	BLK	HA Slew Limit E Rtn
(T19)	VIO	HA Slew Limit W
(T4)	BLK	HA Slew Limit W Rtn
(T14)	BRN	HA Stop Limit E
(T8)	BLK	HA Stop Limit E Rtn
(T18)	BLU	HA Stop Limit W
(T12)	BLK	HA Stop Limit W Rtn
(T13)	WHT	HA Emerg Stop Limit E
(T17)	GRN	HA Emerg Stop Limit W
(T16)	BLK	HA Emerg Stop Limit E Rtn
(T20)	BLK	HA Emerg Stop Limit W Rtn
(B54)	GRY	HA Zenith
(B53)	BLK	HA Zenith Rtn

Pa902

(T37)	WHT	Drive Sig H
(T36)	GRY	Drive Sig L
(T35)	VIO	Alarm H
(T34)	BLU	Alarm L
	BRN	Focus LVDT In
	GRY	Focus LVDT Ret
	VIO	Collimate E/W LVDT In
(T33)	GRN	Accel
(T29)	GRY	East L
(T32)	YEL	West H
(T31)	BRN	West L
(T28)	VIO	Xducer H
(T27)	BLU	Xducer L
(T24)	BRN	Direction L
(T40)	GRN	Drive Sig Shld
	GRN	Collimate N/S LVDT In
	BRN	Collimate N/S LVDT Ret
	VIO	Collimate E/W LVDT Ret
(T30)	WHT	East H
(T26)	GRN	Xducer Shld
(T25)	YEL	Direction H
(T38)	BRN	Power Gnd
(T39)	YEL	Chassis Gnd

MS3112E20-39P

(see above) MCC connections

TO MCC Pa211

MS3112E24-61P

(T22)	WHT	Horizon Stop Limit
(T21)	GRY	Horizon Slew Limit
(T7)	GRN	Dec Slew Limit N
(T6)	YEL	Dec Stop Limit N
(T5)	BRN	Dec Emerg Stop Limit N
(B52)	VIO	DEC Zenith
(B26)	BLK	DEC Zenith Gnd
(T23)	BLK	HGLS Gnd
(T11)	GRY	Dec Slew Limit S
(T10)	VIO	Dec Stop Limit S
(T9)	BLU	Dec Emerg Stop Limit S

CD6

MS3112E14-12P

Spare

TO Telescope Operator Hand Paddle CD7

WHT	TOHP_South	
GRY	TOHP_North	
GRN	TOHP_East	
YEL	TOHP_West	
BRN	TOHP_Beam_Switch	
VIO	TOHP_Go_To_Base	
BLU	TOHP_Sx_Rate	
WHT	TOHP_Offset	
BLK	24V Rtn - FIO-CD	
	Spare1	

MS3112E12-10S

+5V (FIO-C) 100 Ohms +5V Rtn

+5V (FIO-D) 100 Ohms +5V Rtn

+24V -FIO-CD 5K 24V Rtn - FIO-CD

10 PinP 10 PinS

1	+5V	FIO-C +5VDC Supply
2	5V Rtn	120 VAC
3	+5V	FIO-D +5VDC Supply
4	5V Rtn	120 VAC
5	+24V	+24 VDC Supply
6	24V Rtn	120 VAC

+12 V FIO-CD
12 V Rtn FIO-CD

+12 VDC Supply
Astrodyne MSCA-5002 12V-42A
120 VAC