

NOTES:

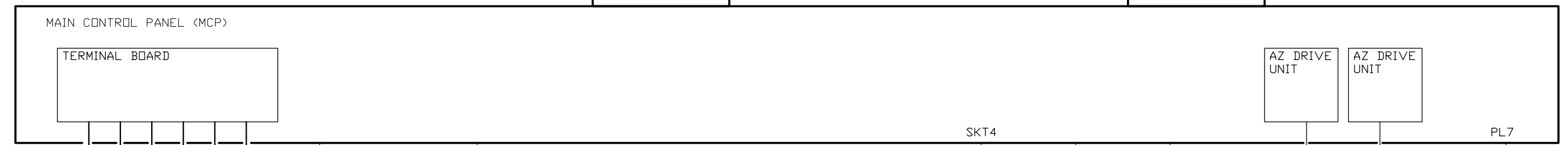
- 1 WIRE BUNDLE ENCASED IN CONDUIT & CONDUIT & CABLE ENTER THROUGH BOTTOM OF PEDESTAL.
- 2 NEUTRAL NOT USED. CAP & STOW.
- 3 CABLES ARE COMBINED INTO A SINGLE CONDUIT.
- 4 CAP & STOW ALL UNUSED CONDUCTORS.
- 5 2 FT CABLE WITH RECEPTACLE FROM MANUFACTURER.
- 6 STRIP BACK OUTER JACKET REVEALING SHIELD. TWIST SHIELD & ATTACH TO BACKPLATE. MINIMIZE LENGTH OF SHIELD FROM CABLE TO BACKPLATE.

REVISIONS					
REV	ZONE	DESCRIPTION	DATE/ECR	BY	CHK
01		ENGINEERING RELEASE			

480 VAC
3-PHASE
5 WIRE

CONTROLLER POWER SWITCH

FRONT PANEL EMERGENCY STOP



MOTOR - AZIMUTH MASTER
ENCODER
POWER

MOTOR - AZIMUTH SLAVE
ENCODER
POWER

MOTOR - ELEVATION
ENCODER
POWER

ELECTRICAL JBOX SKT3
AZIMUTH SIGNALS

ESTOP3 - LIMIT SWITCH - AZ
ESTOP PULL SWITCH

HLM3 - LIMIT SWITCH - AZ
HIGH LIMIT

LLM3 - LIMIT SWITCH - AZ
LOW LIMIT

>180 TC3 - TURN COUNT SWITCH - AZ
> 180 TURN COUNT

<180 TC3 - TURN COUNT SWITCH - AZ
< 180 TURN COUNT

PEDESTAL EMERGENCY STOP (ESTP4)

PORTABLE CONTROL UNIT
EMERGENCY STOP (ESTP5)

AXIS ENCODER - AZIMUTH

AXIS ENCODER - ELEVATION

ELECTRICAL JBOX EL MAIN BRK SIGNALS
EL HOLDING BRAKE

CLUTCH BRAKE ASSY
EL HOLDING BRAKE

ELECTRICAL JBOX SKT1
ELEVATION SIGNALS

ELECTRICAL JBOX SKT1A
ELEVATION CABLE CONDUIT COMBINER

HLM1 - LIMIT SWITCH - EL
HIGH LIMIT

LLM1 - LIMIT SWITCH - EL
LOW LIMIT

HLB1 - TURN COUNT SWITCH - AZ
HIGH LIMIT BACKUP

LLB1 - TURN COUNT SWITCH - AZ
LOW LIMIT BACKUP

ESTOP1 - TURNING HEAD EMERGENCY STOP (ESTP1)

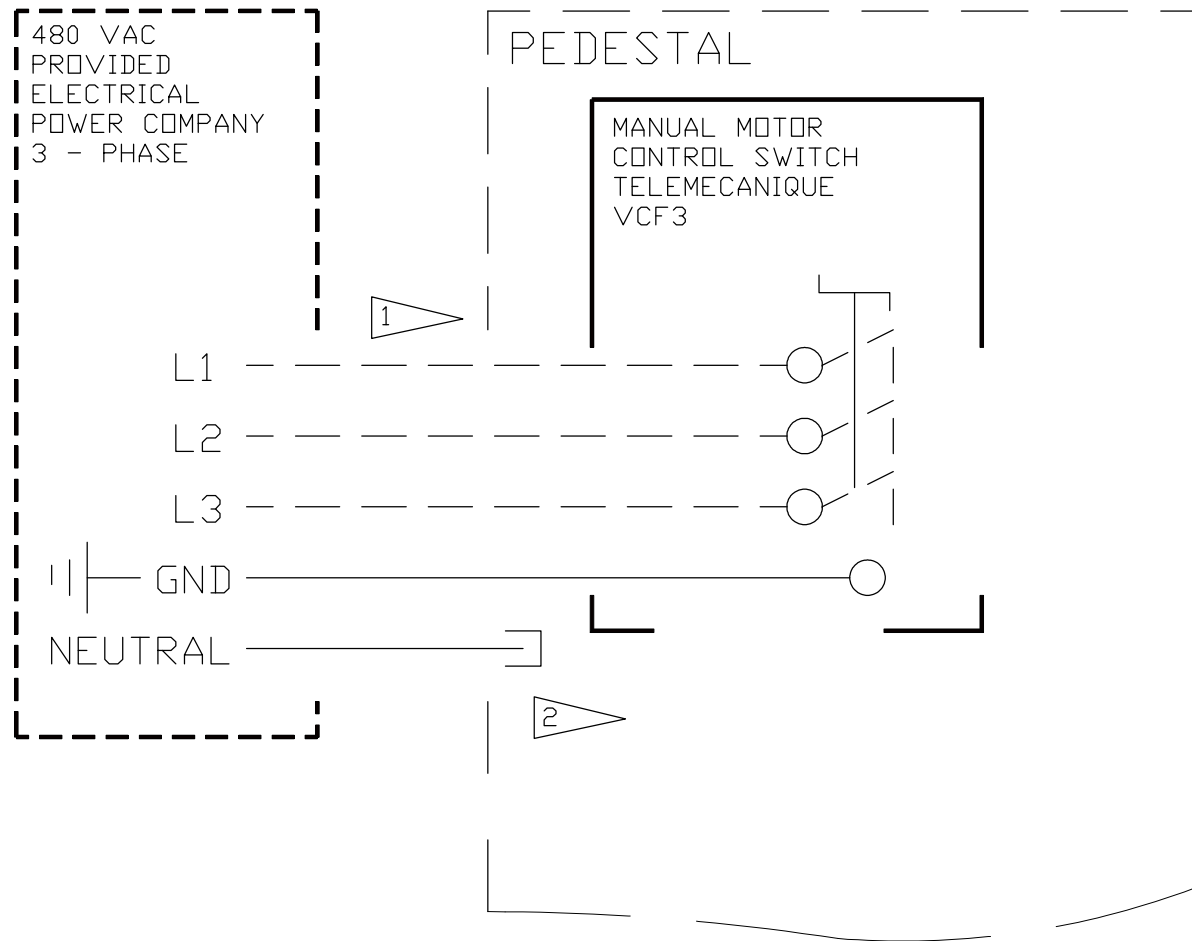
COBHAM

DRAWN BY: BRIAN KRALICEK	CHECKED BY: DAN KARSTEN	APPROVAL DATE:
DATE DRAWN: 01/06/2010	DATE CHECKED: xx/xx/xxxx	ER/ECR NUMBER:
THIRD ANGLE PROJECTION	DON'T SCALE	SHEET 1 OF 9
DIMENSIONS ARE IN INCHES		
UNLESS OTHERWISE SPECIFIED		
FRACTIONAL ± 1/8	ONE PLACE .XX ± .06	TWO PLACE .XX ± .02
THREE PLACE .XXX ± .005	ANGLES: ± 1°	DIMENSIONS TO THEORETICAL SHARP CORNERS
DIMENSION PER ASME Y14.5-2009		
DESCRIPTION 12 METER ANTENNA ELECTRICAL SYSTEM - TOP ASSEMBLY -		PART NUMBER 10C000005
		PRODUCT REVISION A

SYSTEM BLOCK DIAGRAM

NOTES:

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01		ENGINEERING RELEASE			



PRIMARY POWER

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THIRD ANGLE PROJECTION	DO NOT SCALE	SHEET 2 OF 9
DIMENSIONS ARE IN INCHES	UNLESS OTHERWISE SPECIFIED	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PATRIOT ANTENNA SYSTEMS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PATRIOT ANTENNA SYSTEMS IS PROHIBITED.
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		PRODUCT REVISION A

NOTES:

REVISIONS

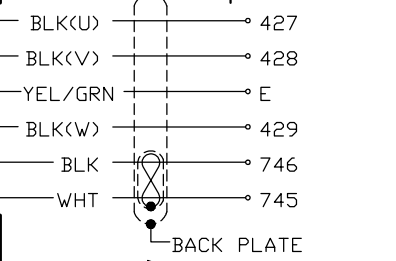
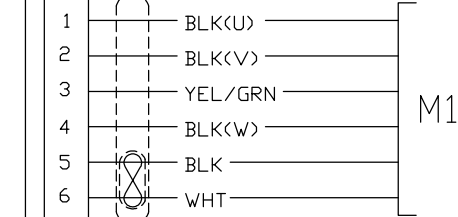
REV	ZONE	DESCRIPTION	DATE/ECR	BY	CHK
01		ENGINEERING RELEASE			

MOTOR
- AZIMUTH MASTER

MAIN CONTROL PANEL
CONTROL TECHNIQUES

POWER

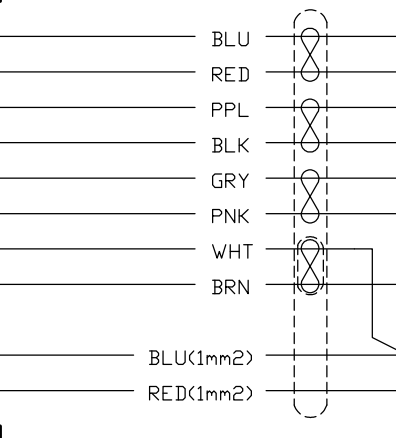
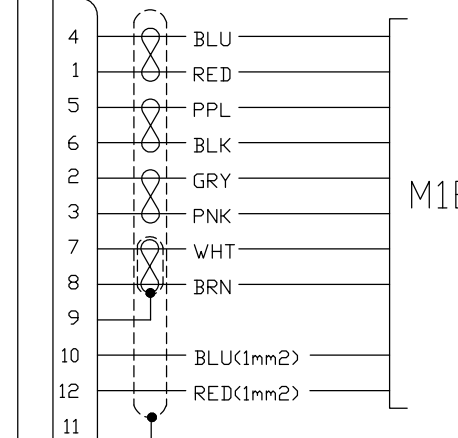
U
V
EARTH
W
REGEN
0V (RETURN)



UNIDRIVE SP1406
(4U3)
- AZIMUTH
MASTER

ENCODER

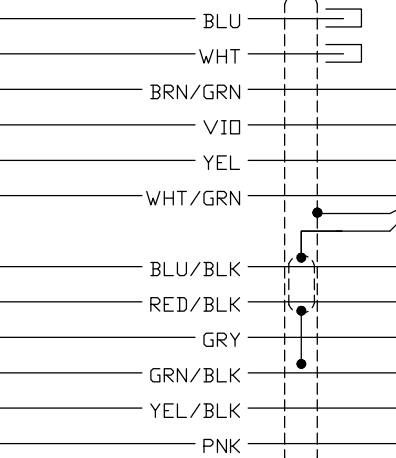
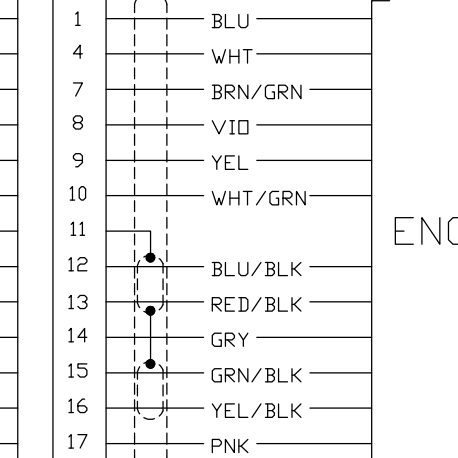
COS +
COS REF
SIN +
SIN REF
DATA +
DATA -
THERMISTOR (REF)
THERMISTOR
SHIELD
0 VOLTS
+ VOLTS
NOT USED



AZIMUTH MASTER MOTOR ENCODER
&
AXIS ENCODER

AXIS ENCODER
- ELEVATION

Up sensor
0V sensor
5V Up
CLOCK+
CLOCK-
0V Un
Internal shield
B+
B-
DATA+
A+
A-
DATA-



UNIVERSAL
ENCODER
PLUS MODULE
(7U2)

Up sensor
0V sensor
5V Up
CLOCK+
CLOCK-
0V Un
B+
B-
DATA+
A+
A-
DATA-

CONT ON SHT TBD

CONT ON SHT TBD

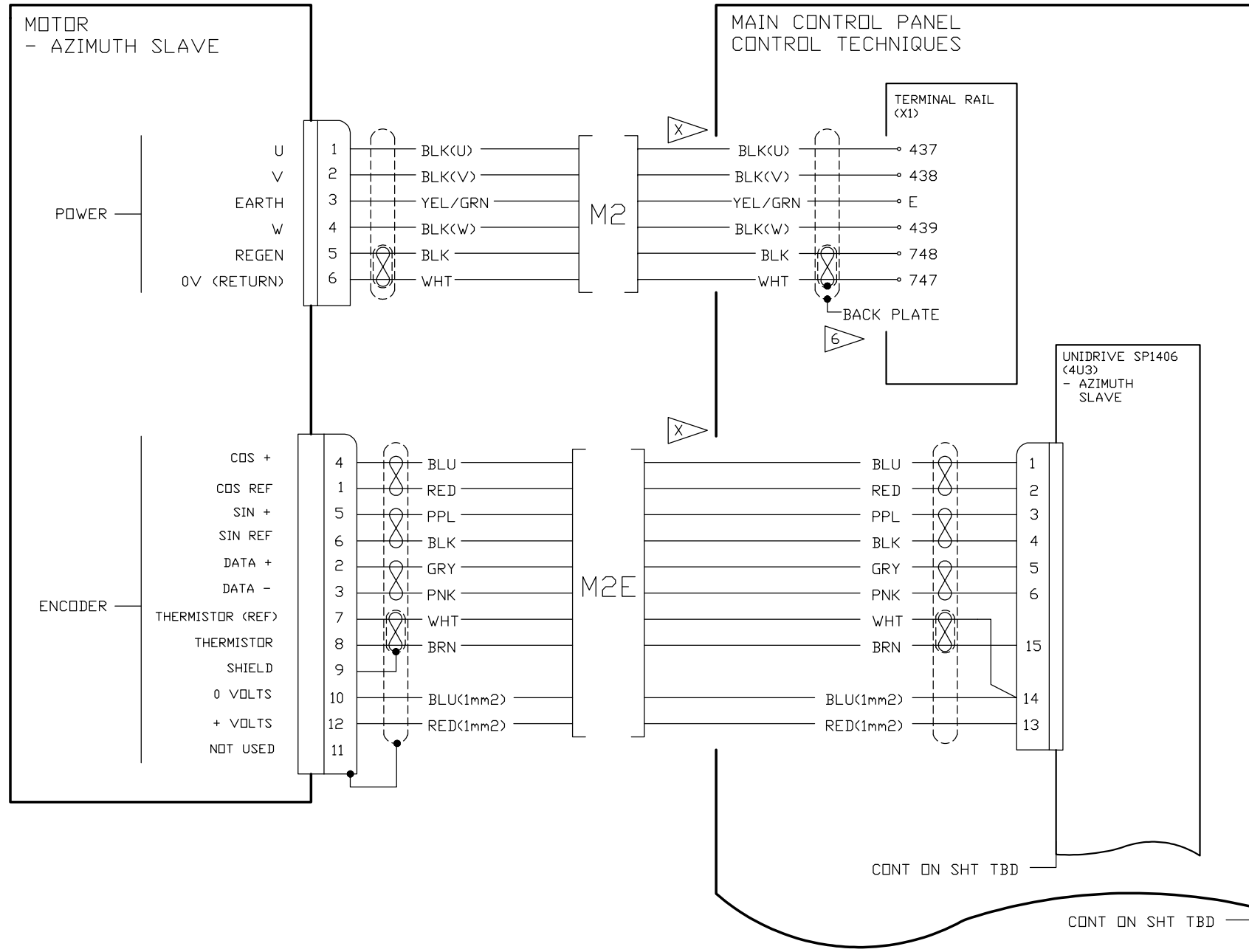
COBHAM

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DATE DRAWN: 01/06/2010	DATE CHECKED: xx/xx/xxxx	ER/ECR NUMBER:
THIRD ANGLE PROJECTION	DO NOT SCALE	SHEET 3 OF 9
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PATRIOT ANTENNA SYSTEMS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PATRIOT ANTENNA SYSTEMS IS PROHIBITED.		
DIMENSIONS ARE IN INCHES		
UNLESS OTHERWISE SPECIFIED: FRACTIONAL ± 1/8 ONE PLACE X.X ± .06 TWO PLACE X.XX ± .02 THREE PLACE X.XXX ± .005 ANGLES: ± 1° DIMENSIONS TO THEORETICAL SHARP CORNERS DIMENSION PER ASME Y14.5-2009		
DESCRIPTION 12 METER ANTENNA ELECTRICAL SYSTEM - TOP ASSEMBLY -		PRODUCT REVISION A
PART NUMBER 10C000005		

NOTES:

REVISIONS

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01		ENGINEERING RELEASE			



AZIMUTH SLAVE MOTOR
&
MOTOR ENCODER

COBHAM

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DATE DRAWN: 01/06/2010	DATE CHECKED: xx/xx/xxxx	ER/ECR NUMBER:
THIRD ANGLE PROJECTION	DO NOT SCALE	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PATRIOT ANTENNA SYSTEMS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PATRIOT ANTENNA SYSTEMS IS PROHIBITED.
DIMENSIONS ARE IN INCHES	SHEET 4 OF 9 SHEET SIZE A3	
UNLESS OTHERWISE SPECIFIED: FRACTIONAL ± 1/8 ONE PLACE X.X ± .06 TWO PLACE X.XX ± .02 THREE PLACE X.XXX ± .005 ANGLES: ± 1° DIMENSIONS TO THEORETICAL SHARP CORNERS DIMENSION PER ASME Y14.5-2009		DESCRIPTION 12 METER ANTENNA ELECTRICAL SYSTEM - TOP ASSEMBLY - PART NUMBER 10C000005 PRODUCT REVISION A

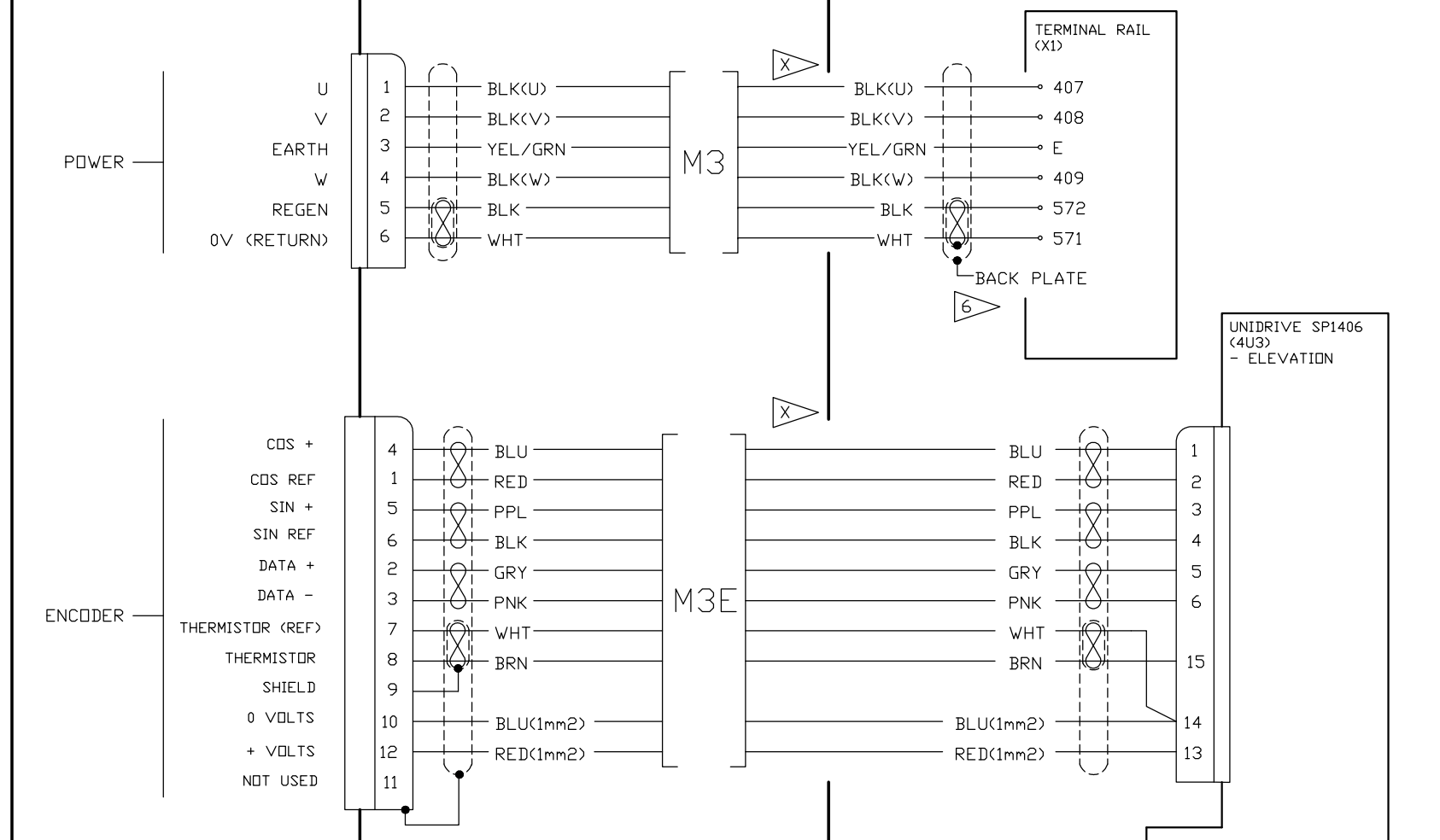
NOTES:

REVISIONS

REV	ZONE	DESCRIPTION	DATE/ECR	BY	CHK
01		ENGINEERING RELEASE			

MOTOR
- ELEVATION

MAIN CONTROL PANEL
CONTROL TECHNIQUES

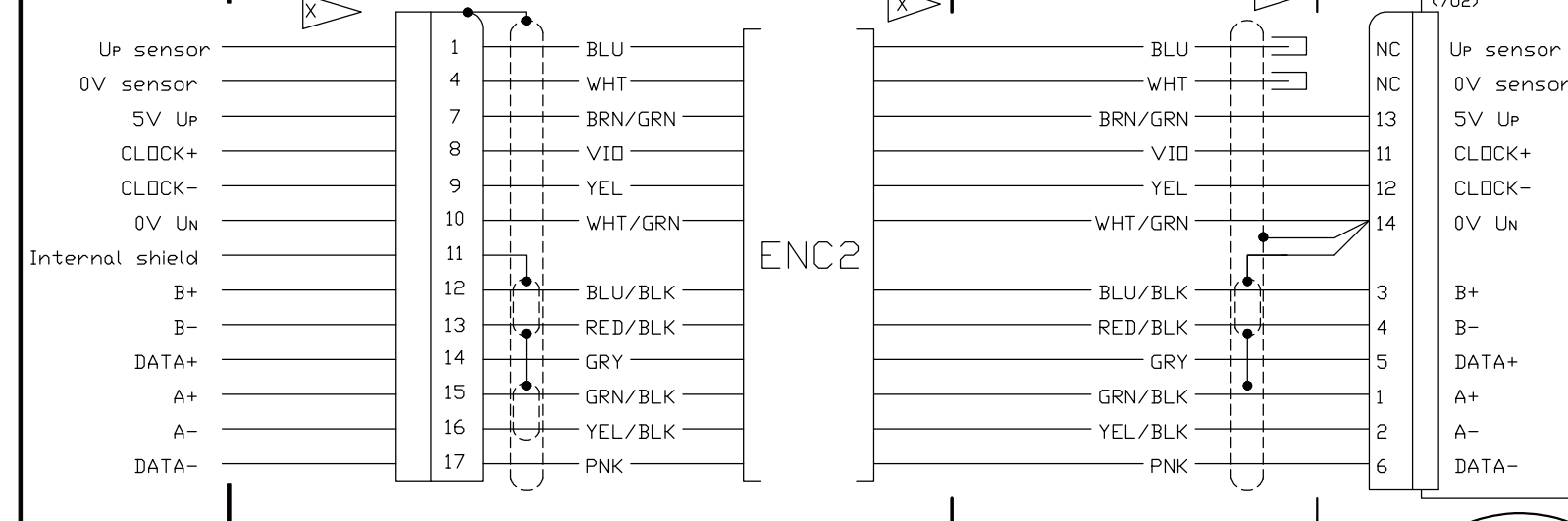


UNIDRIVE SP1406
(4U3)
- ELEVATION

ELEVATION MOTOR, MOTOR ENCODER
&
AXIS ENCODER

AXIS ENCODER
- ELEVATION

UNIVERSAL
ENCODER
PLUS MODULE
(7U2)



CONT ON SHT TBD

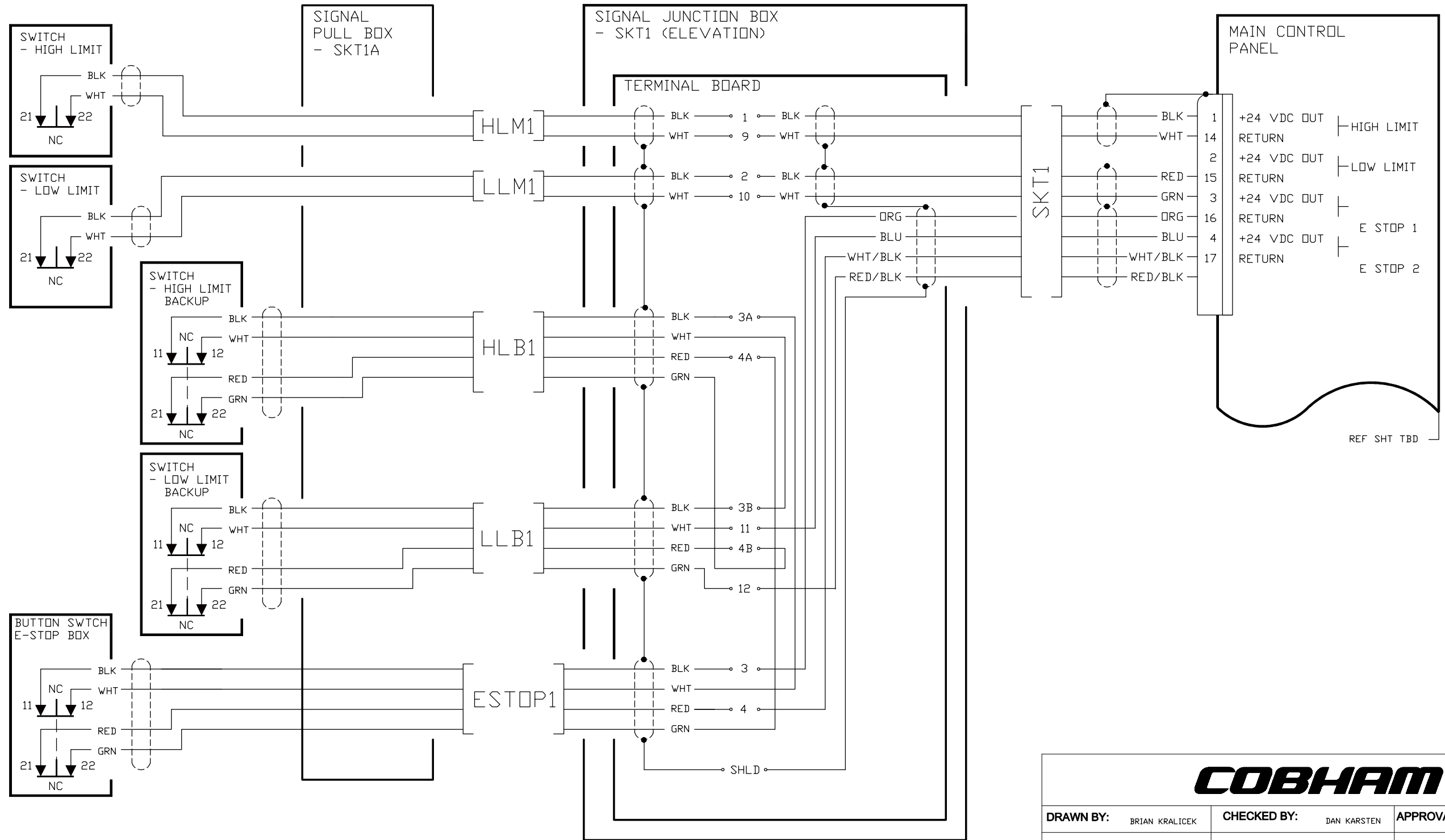
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COBHAM

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DATE DRAWN: 01/06/2010	DATE CHECKED: xx/xx/xxxx	ER/ECR NUMBER:
THIRD ANGLE PROJECTION	DO NOT SCALE	SHEET 5 OF 9
DIMENSIONS ARE IN INCHES		
UNLESS OTHERWISE SPECIFIED		
FRACTIONAL ± 1/8	ONE PLACE X.X ± .06	TWO PLACE X.XX ± .02
THREE PLACE X.XXX ± .005	ANGLES: ± 1°	DIMENSIONS TO THEORETICAL SHARP CORNERS
DIMENSION PER ASME Y14.5-2009		
DESCRIPTION		PRODUCT REVISION
12 METER ANTENNA ELECTRICAL SYSTEM - TOP ASSEMBLY -		A
PART NUMBER		10C000005

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01		ENGINEERING RELEASE			



LIMIT, SECTOR AND E-STOP SWITCHES - ELEVATION

COBHAM

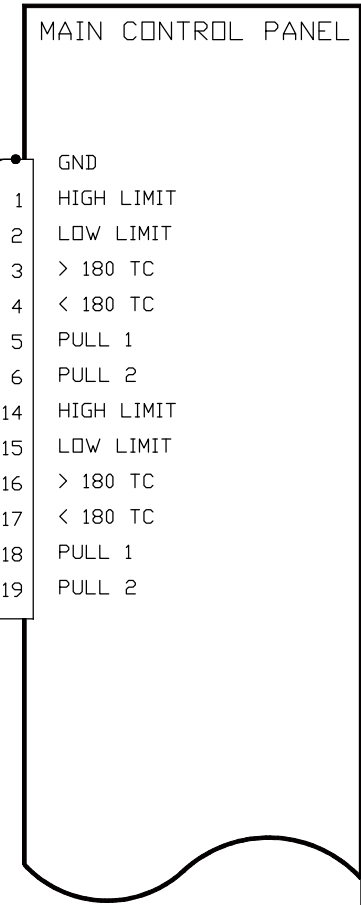
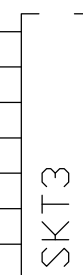
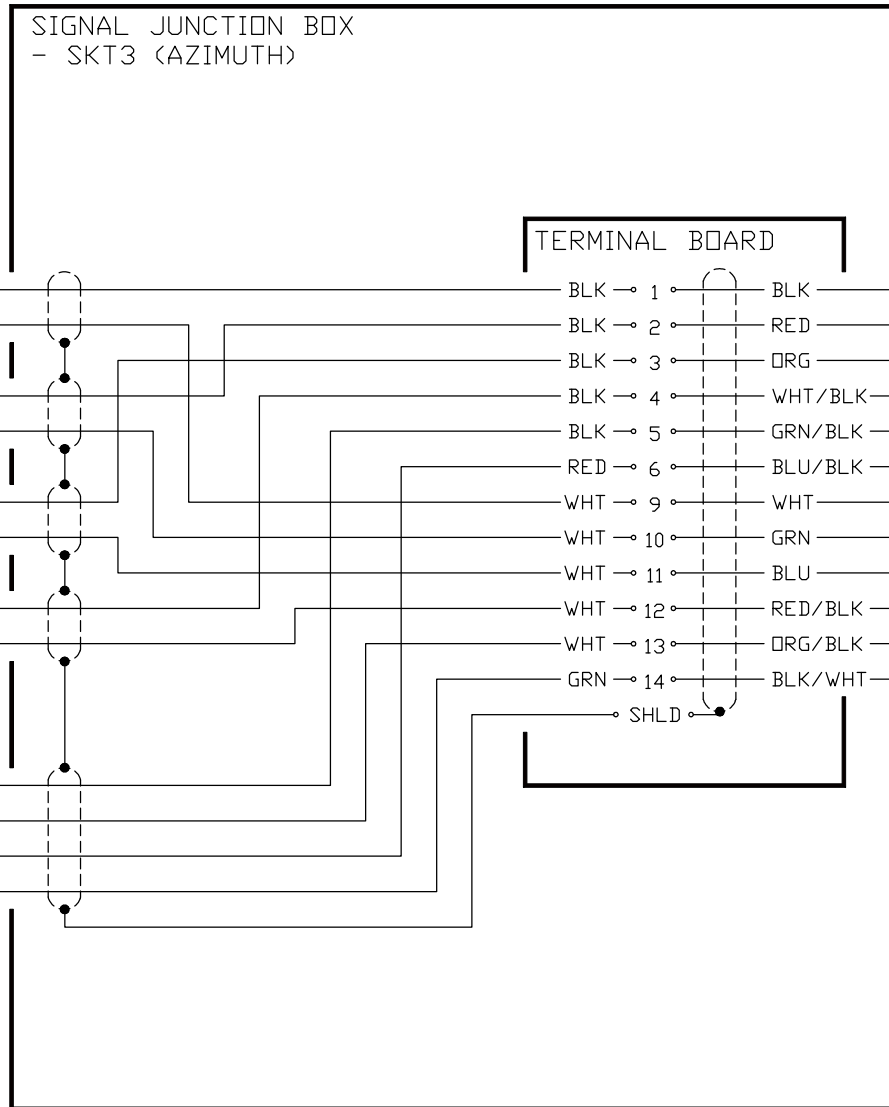
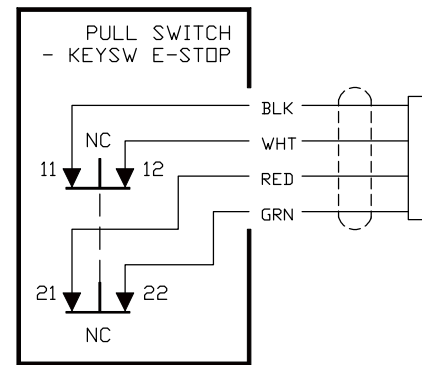
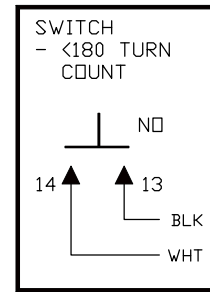
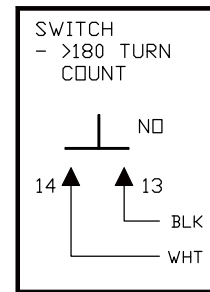
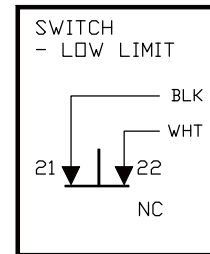
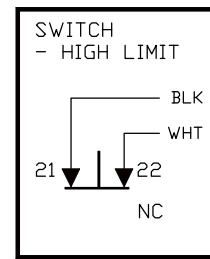
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DATE DRAWN: 01/06/2010	DATE CHECKED: xx/xx/xxxx	ER/ECR NUMBER:
THIRD ANGLE PROJECTION	DO NOT SCALE	SHEET 6 OF 9
DIMENSIONS ARE IN INCHES		
UNLESS OTHERWISE SPECIFIED		
FRACTIONAL ± 1/8	ONE PLACE .XX ± .06	
TWO PLACE .XX ± .02	THREE PLACE .XXX ± .005	
ANGLES: ± 1°	DIMENSIONS TO THEORETICAL SHARP CORNERS	
DIMENSION PER ASME Y14.5-2009		
DESCRIPTION		PRODUCT REVISION
12 METER ANTENNA ELECTRICAL SYSTEM - TOP ASSEMBLY -		A
PART NUMBER		10C000005

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LIMIT, SECTOR AND E-STOP SWITCHES - AZIMUTH

COBHAM

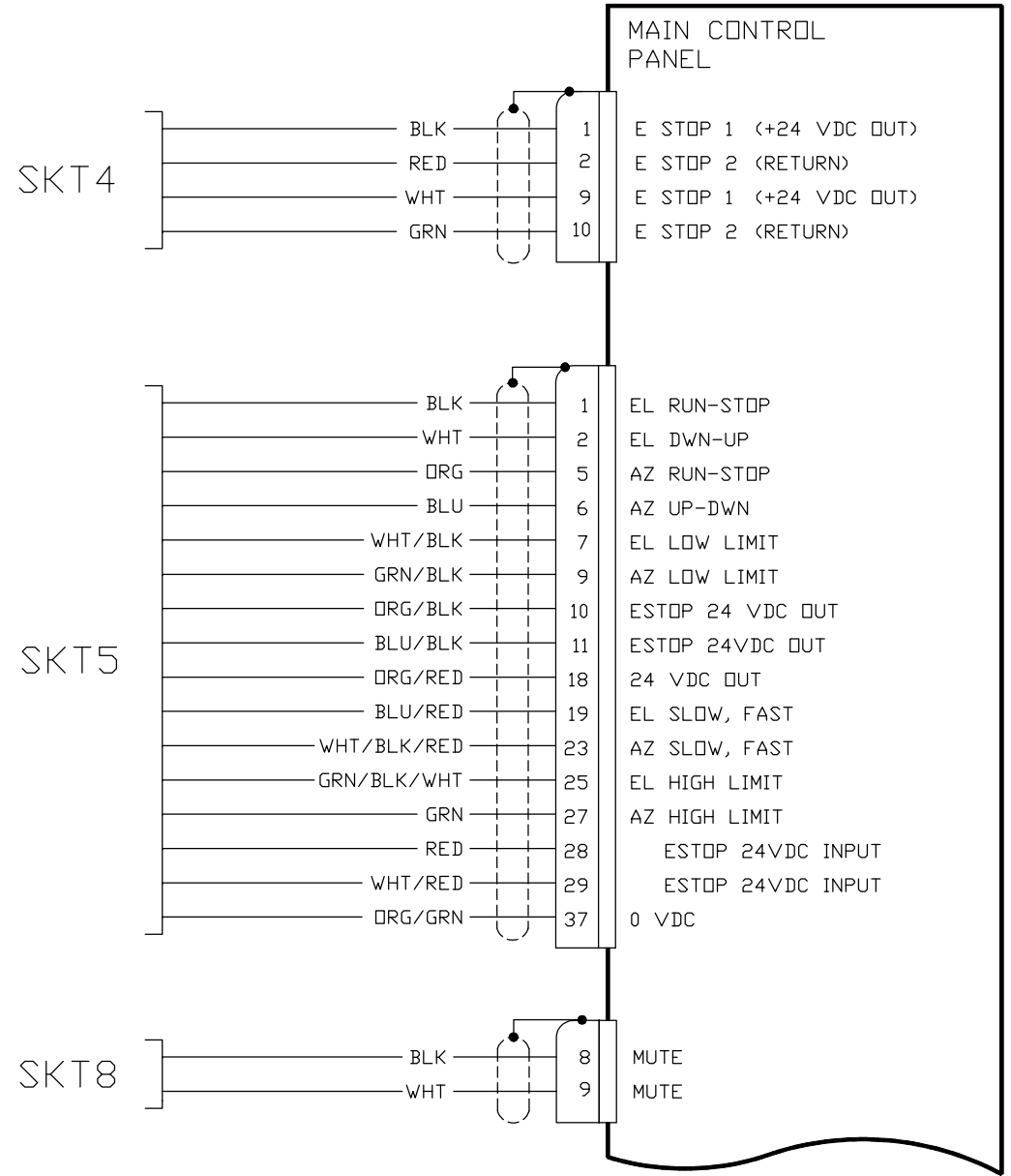
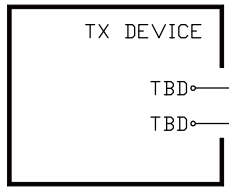
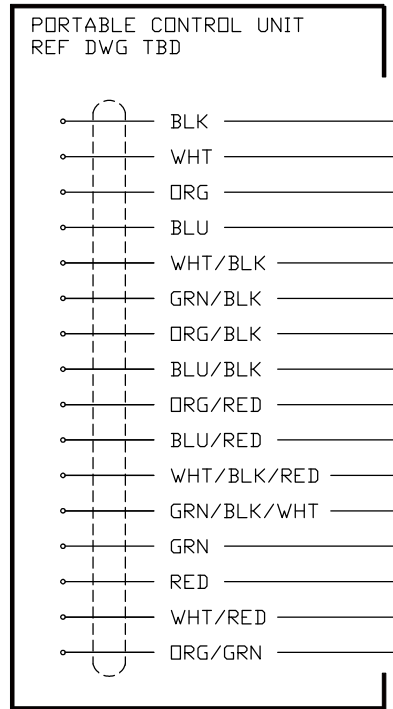
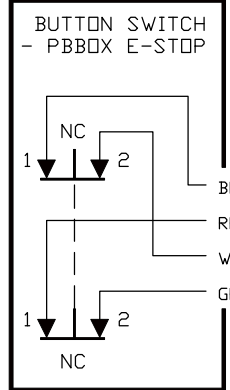
DRAWN BY: BRIAN KRALICEK	CHECKED BY: DAN KARSTEN	APPROVAL DATE:
DATE DRAWN: 01/06/2010	DATE CHECKED: xx/xx/xxxx	ER/ECR NUMBER:
THIRD ANGLE PROJECTION	DONOT SCALE	SHEET 7 OF 9
DIMENSIONS ARE IN INCHES		
UNLESS OTHERWISE SPECIFIED		
FRACTIONAL ± 1/8	ONE PLACE .XX ± .06	TWO PLACE .XXX ± .02
THREE PLACE .XXXX ± .005	ANGLES: ± 1°	DIMENSIONS TO THEORETICAL SHARP CORNERS
DIMENSION PER ASME Y14.5-2009		
DESCRIPTION		PRODUCT REVISION
12 METER ANTENNA ELECTRICAL SYSTEM - TOP ASSEMBLY -		A
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10C000005		

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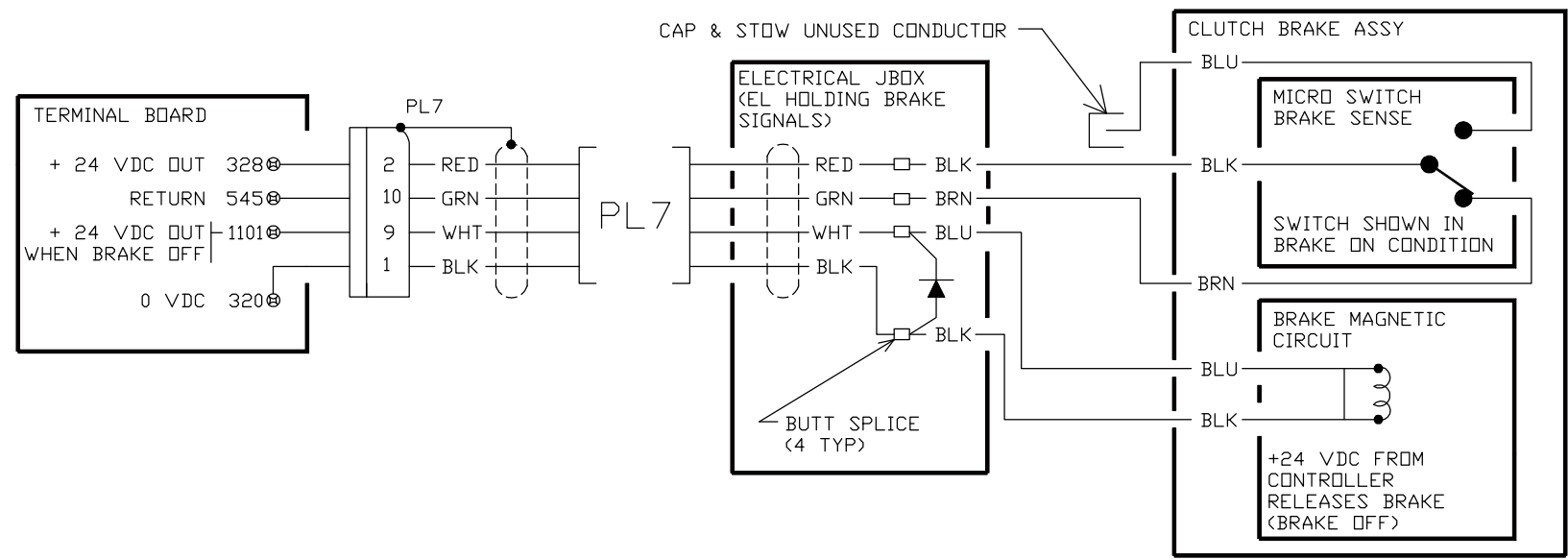
PEDESTAL E-STOP, PORTABLE CONTROL UNIT, & TX INHIBIT SIGNAL

COBHAM

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DATE DRAWN: 01/06/2010	DATE CHECKED: xx/xx/xxxx	ER/ECR NUMBER:
THIRD ANGLE PROJECTION	DO NOT SCALE	SHEET 8 OF 9
DIMENSIONS ARE IN INCHES		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PATRIOT ANTENNA SYSTEMS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PATRIOT ANTENNA SYSTEMS IS PROHIBITED.
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ELEVATION HOLDING BRAKE

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DIMENSIONS ARE IN INCHES	SHEET 9 OF 9	
UNLESS OTHERWISE SPECIFIED: FRACTIONAL ± 1/8 ONE PLACE .XX ± .06 TWO PLACE .XXX ± .02 THREE PLACE .XXXX ± .005 ANGLES: ± 1° DIMENSIONS TO THEORETICAL SHARP CORNERS DIMENSION PER ASME Y14.5-2009		DESCRIPTION: 12 METER ANTENNA ELECTRICAL SYSTEM - TOP ASSEMBLY -
		PART NUMBER: 10C000005
		PRODUCT REVISION: A