REVISIONS					
REV	ACTION	DRAWN	CHECKED	APPROVED	DATE
AA	L20957	KASTNER	KASTNER	ADAMS	08/08/18

1.0 NOTES:

1.1 IN ORDER TO COMPLY WITH NRTL/C CERTIFICATION FOR CLASS I, DIVISION 2, HAZARDOUS AREA. ALL DEVICES MUST BE INSTALLED ACCORDING TO THIS DRAWING AND THE "NATIONAL ELECTRICAL CODE" NFPA 70 OR THE "CANADIAN ELECTRICAL CODE" C22 PART 1.

1.2 WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

1.3 WARNING - EXPLOSION HAZARD - DO NOT USE CONNECTOR UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS.

1.4 CUSTOMER SUPPLIED EQUIPMENT MUST NOT USE OR GENERATE MORE THAN 250 V WITH RESPECT TO GROUND.

1.5 CUSTOMER SUPPLIED EQUIPMENT MUST BE CERTIFIED FOR USE IN THE CLASSIFIED HAZARDOUS LOCATION IN WHICH IT IS INSTALLED.

1.6 CUSTOMER SUPPLIED EQUIPMENT MUST BE INSTALLED ACCORDING TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS AND ALL DEVICES MUST BE INSTALLED ACCORDING TO THIS DRAWING AND THE "NATIONAL ELECTRICAL CODE" NFPA 70 OR THE "CANADIAN ELECTRICAL CODE" C22 PART 1.

1.7 WIRING BY FIELD PERSONNEL.

1.8 ALL CONDUIT FITTINGS/CORD CONNECTORS AND ENCLOSURE OPENINGS USED BY CUSTOMER MUST BE RATED AS NEMA/TYPE 3R.

END PRODUCT APPROVED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES.
NO CHANGES ALLOWED WITHOUT APPROVAL OF AUTHORIZED PERSON(S)
IDENTIFIED BY DRAWING 2101982-AI.

ASSEMBLY/QUANTITY	ITEM NO.	PART NUMBER	DESCRIPTION	REF/ZONE DESIG MATERIAL	UNIT MEAS
001					

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
DECIMAL .XX ± — .XXX ± —
ANGULAR ± —

BREAK ALL SHARP CORNERS AND EDGES
DIMENSIONS APPLY BEFORE FINISH

PRODUCT LINE	TOTALFLOW®	LEVEL 3
DESIGN	D. ADAMS	DATE 08/05/19
DRAWN	A. KASTNER	08/05/19
CHECKED	A. KASTNER	08/05/19
APPROVED	J. BUSHNELL	08/05/19

ABB TOTALFLOW Products

TITLE
CERTIFICATION DRAWING
CONTROL DRAWING, WTW - I/O, DIV 2, C/US
C.D.

SCALE	SIZE	DOC TYPE	DRAWING NO.	REV	SHEET
NONE	B	CD	2103615	AA	1 OF 9

2.0 SPECIFICATION

2.1 MODEL NO. CONFIGURATION FOR WTW-I/O 1.2

MODEL 6453Y -	1	2	3	-	-	-	5	6	8	-	10	11	-	26	-	28	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-
MODEL 6753Y -	1	2	3	-	-	-	5	6	8	-	10	11	-	26	-	28	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-
MODEL 6850Y -	1	2	3	-	-	-	5	6	8	-	10	11	-	26	-	28	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-

1. CERTIFICATION
2. ENCLOSURE
3. ELECTRONIC BOARD
5. BATTERY OPTION
6. CHARGING SOURCE
8. MOUNTING KIT (CERTIFICATION NOT APPLICABLE)
10. SPECIAL (CERTIFICATION NOT APPLICABLE)
11. RTD PROBE OPTION
26. PRODUCT IDENTIFIER (CERTIFICATION NOT APPLICABLE)
28. I/O MODULE MTG KIT
29. I/O MODULE POSITION NO.1
50. XFC/XRC FIRMWARE (CERTIFICATION NOT APPLICABLE)

100. APPROVED OPTIONAL EQUIPMENT. (NOT PART OF MODEL NO.)

SCALE	SIZE	DOC TYPE	DRAWING NO.	REV	SHEET
NONE	B	CD	2103615	AA	2 OF

1 CERTIFICATION

Y NRTL/C: CLASS I, DIV 2, GRP C D, T3C

2 ENCL ASSY W/DISPLAY & PCCU CONNECTOR

2.1 6453 ENCLOSURE

2.1.1 2103068-XXX (HOFFMAN) AL ALY

2.2 6753 ENCLOSURE

2.2.1 2102976-XXX (HOFFMAN) AL ALY

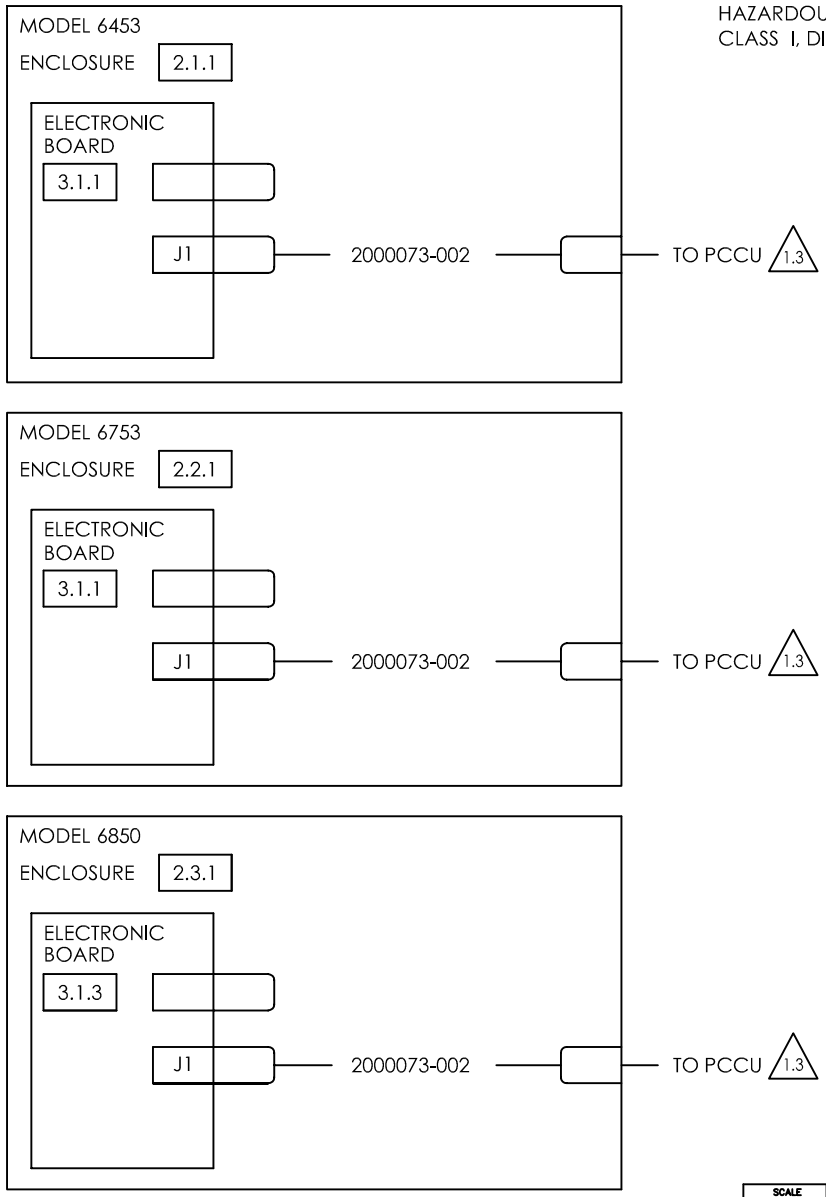
2.3 6850 ENCLOSURE

2.3.1 2100462-XXX (HOFFMAN) AL ALY ENCL WITH 2100463-XXX DOOR

3 ELECTRONIC BOARD OPTIONS

3.1 WTW-I/O PCBA

3.1.1 2102007 WIRELESS I/O CLIENT PCBA



SCALE	SIZE	DOC TYPE	DRAWING NO.	REV	SHEET
NONE	B	CD	2103615	AA	3 OF

5 BATTERY OPTION

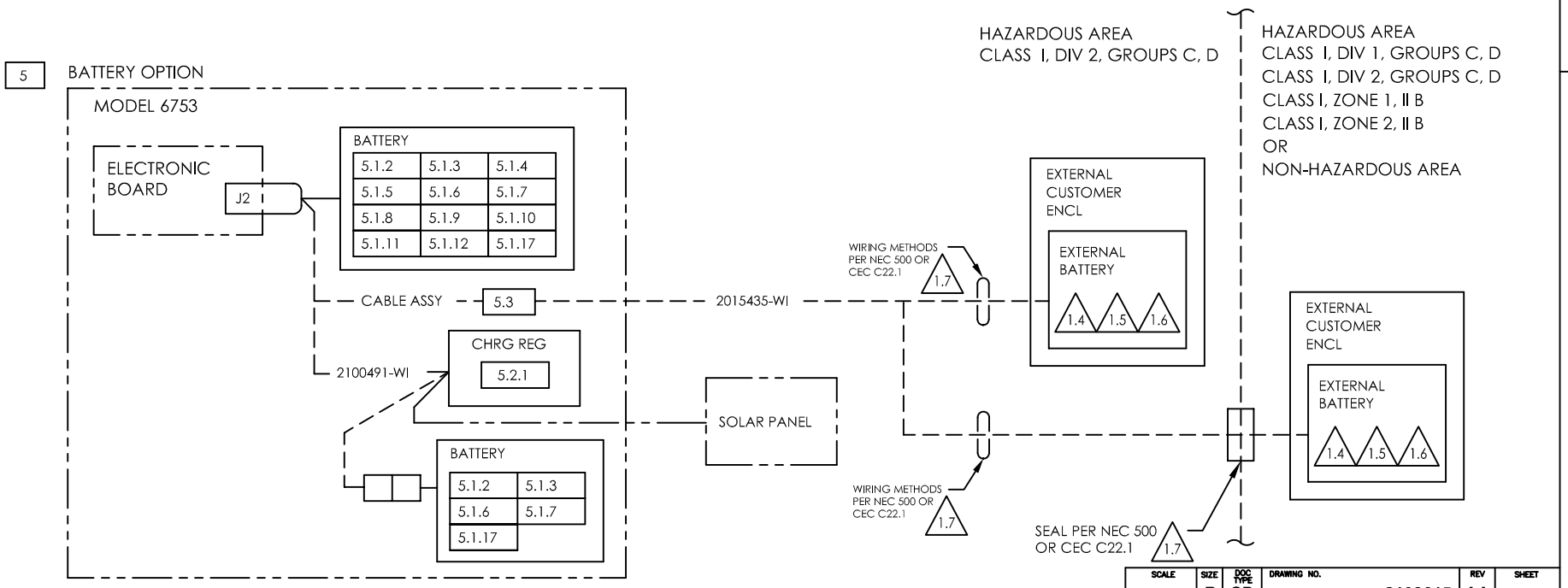
5.1 BATTERIES

5.1.1	WITHOUT BATTERY	
5.1.2	12V, 8.0 AH CYCLONE	(2015113-003)
5.1.3	12V, 26.0 AH GENESIS	(2015052-001)
5.1.4	12V, 45.0 AH DOUGLAS	(2012909-002)
5.1.5	12V, 42.0 AH GENESIS G12V42AH10EP	(2015052-004)
5.1.6	12V, 17.0 AH GENESIS G12V17AH10EP	(2015052-003)
5.1.7	12V, 13.0 AH GENESIS	(2015052-002)
5.1.8	12V, 26.0 AH POWER-SONIC PS12260-(NB,F)	(2015052-005)
5.1.9	12V, 12.0 AH POWER-SONIC PS12120	(2015052-006)
5.1.10	12V, 18.0 AH POWER-SONIC PS12180	(2015052-007)
5.1.11	12V, 40.0 AH POWER-SONIC PS12400	(2015052-008)
5.1.12	12V, 7.0 AH POWER-SONIC PS12070	(2015052-009)
5.1.13	12V, 70 AH GENESIS G12V70AH10EP	(2015052-010)
5.1.14	12V, 70 AH GENESIS, 2X	
5.1.15	12V, 26.0 AH GENESIS, 2X	
5.1.16	12V, 42.0 AH GENESIS, 2X	
5.1.17	12V, 26.0 AH, INTERSTATE, DCM0026	(2103487-001)

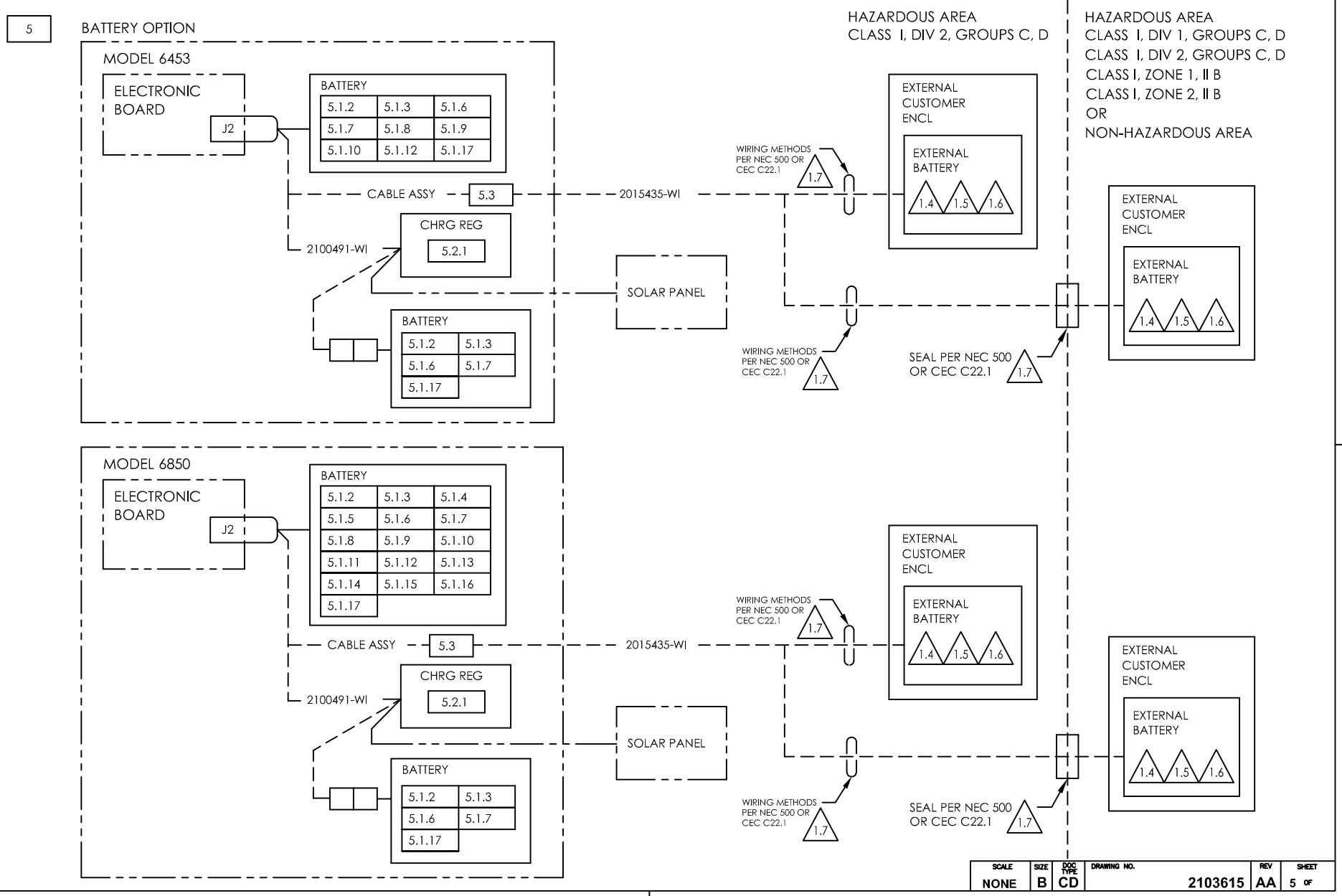
5.2 CHARGER REGULATOR

5.2.1 SCI ASC #12/8-A CHARGER REGULATOR

5.3 CABLE ASSY, EXTERNAL BATTERY 2015433-001 OR EQUIVALENT



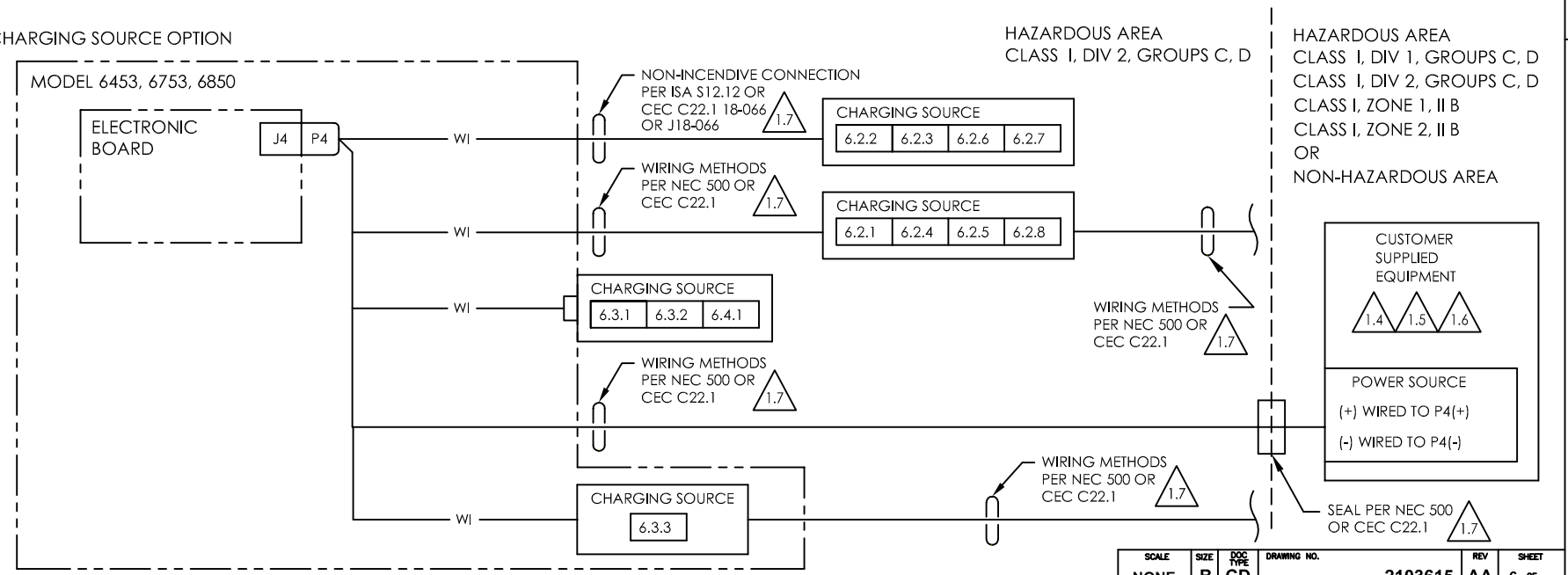
SCALE	SIZE	DOC TYPE	DRAWING NO.	REV	SHEET
NONE	B	CD	2103615	AA	4 OF


5
BATTERY OPTION
MODEL 6453
ELECTRONIC BOARD
J2
BATTERY
5.1.2 5.1.3 5.1.6
5.1.7 5.1.8 5.1.9
5.1.10 5.1.12 5.1.17
CABLE ASSY
5.3
2015435-WI
CHRG REG
5.2.1
2100491-WI
SOLAR PANEL
BATTERY
5.1.2 5.1.3
5.1.6 5.1.7
5.1.17
HAZARDOUS AREA
CLASS I, DIV 2, GROUPS C, D
HAZARDOUS AREA
CLASS I, DIV 1, GROUPS C, D
CLASS I, DIV 2, GROUPS C, D
CLASS I, ZONE 1, II B
CLASS I, ZONE 2, II B
OR
NON-HAZARDOUS AREA
WIRING METHODS PER NEC 500 OR CEC C22.1
1.7
EXTERNAL CUSTOMER ENCL
EXTERNAL BATTERY
1.4 1.5 1.6
SEAL PER NEC 500 OR CEC C22.1
MODEL 6850
ELECTRONIC BOARD
J2
BATTERY
5.1.2 5.1.3 5.1.4
5.1.5 5.1.6 5.1.7
5.1.8 5.1.9 5.1.10
5.1.11 5.1.12 5.1.13
5.1.14 5.1.15 5.1.16
5.1.17
CABLE ASSY
5.3
2015435-WI
CHRG REG
5.2.1
2100491-WI
SOLAR PANEL
BATTERY
5.1.2 5.1.3
5.1.6 5.1.7
5.1.17
SCALE NONE
SIZE B
DOC TYPE CD
DRAWING NO. 2103615
REV AA
SHEET 5 OF

6 CHARGING SOURCE OPTION

		WIRING INTERCONNECT
6.1	WITHOUT CHARGING SOURCE	
6.2	SOLAR PANELS	
6.2.1	SOLAR PANEL, 12V, 30W (SOLAREX VLX-32) 135 FT MAX CABLE LENGTH	2100494-WI
6.2.2	SOLAR PANEL, 12V, 5W (BP SOLAR SX-5M OR SX 305M) 135 FT MAX CABLE LENGTH	2100494-WI
6.2.3	SOLAR PANEL, 12V, 10W (BP SOLAR SX-10M OR SX-310M) 135 FT MAX CABLE LENGTH	2100494-WI
6.2.4	SOLAR PANEL, 12V, 20W (BP SOLAR SX-20U OR SX-320J) 135 FT MAX CABLE LENGTH	2100494-WI
6.2.5	SOLAR PANEL, 12V, 30W (BP SOLAR SX-30U OR SX-330J) 135 FT MAX CABLE LENGTH	2100494-WI
6.2.6	SOLAR PANEL, 12V, 5W (KYOCERA KS-5) 135 FT MAX CABLE LENGTH	2100494-WI
6.2.7	SOLAR PANEL, 12V, 10W (KYOCERA KS-10) 135 FT MAX CABLE LENGTH	2100494-WI
6.2.8	SOLAR PANEL, 12V, 20W (KYOCERA KS-20) 135 FT MAX CABLE LENGTH	2100494-WI
6.3	PWR SPLY, AC IN/DC OUT	
6.3.1	AC PWR SPLY, 10W, 115V IN/12V OUT, 2017222-003 PCBA IN RED DOT GAT-4 ENCL	2100555-WI
6.3.2	AC PWR SPLY, 10W, 230V IN/12V OUT, 2017222-004 PCBA IN RED DOT GAT-4 ENCL	2100555-WI
6.3.3	AC PWR SPLY (PHOENIX QUINT), 100-240V IN, 12 V OUT, 1801966-001	
6.4	PWR SPLY, DC IN/DC OUT	
6.4.1	DC PWR SPLY, 24V IN/12V OUT, 2012541-002 PCBA IN RED DOT GAT-4 ENCL	2100585-WI

6 CHARGING SOURCE OPTION

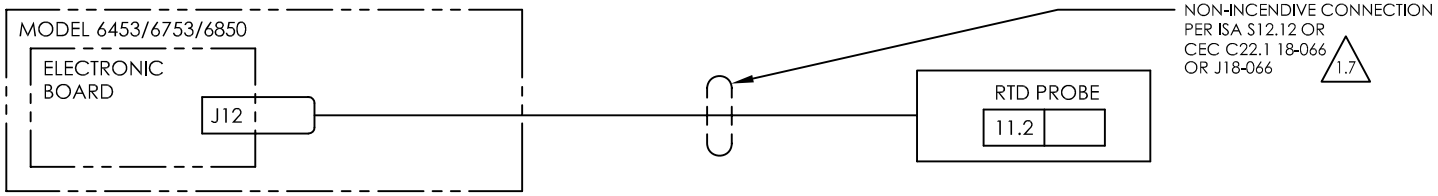


SCALE	SIZE	DOC TYPE	DRAWING NO.	REV	SHEET
NONE	B	CD	2103615	AA	6 OF

HAZARDOUS AREA
CLASS I, DIV 2, GROUPS C, D

HAZARDOUS AREA
CLASS I, DIV 1, GROUPS C, D
CLASS I, DIV 2, GROUPS C, D
CLASS I, ZONE 1, II B
CLASS I, ZONE 2, II B
OR
NON-HAZARDOUS AREA

11	RTD PROBE OPTION
11.1	WITHOUT RTD
11.2	RTD PROBE, 100 OHM, SST MESH OR ARMOR, 50 FT MAX (2011905)

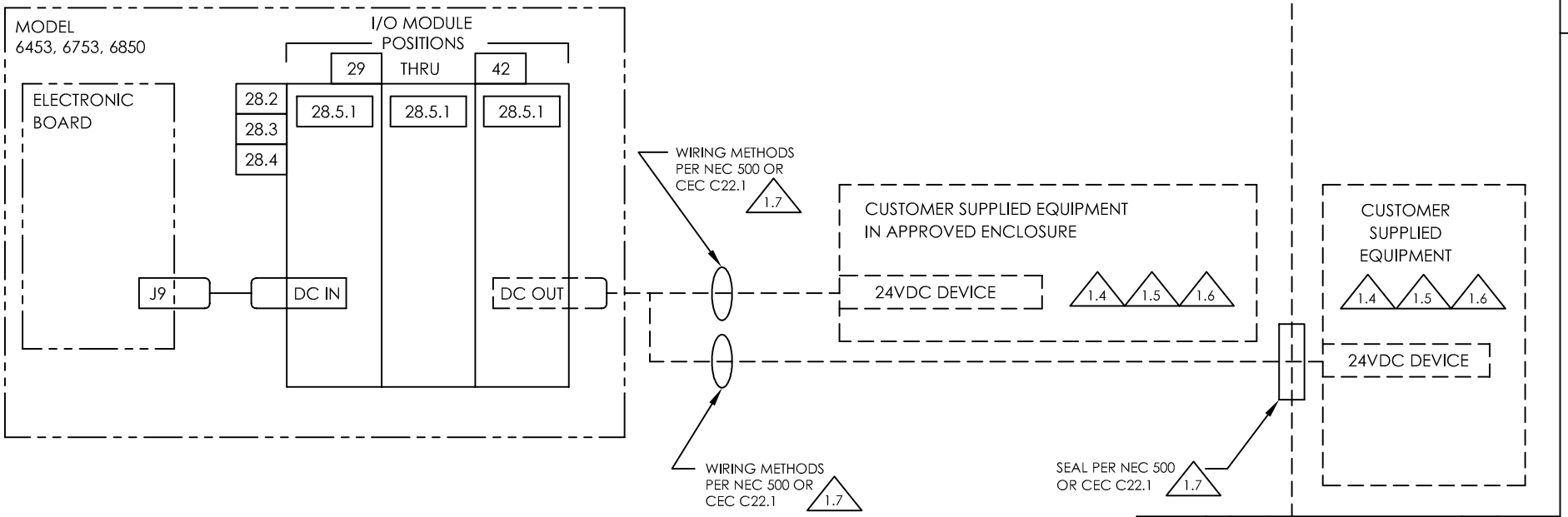


SCALE	SIZE	DOC TYPE	DRAWING NO.	REV	SHEET
NONE	B	CD	2103615	AA	7 OF

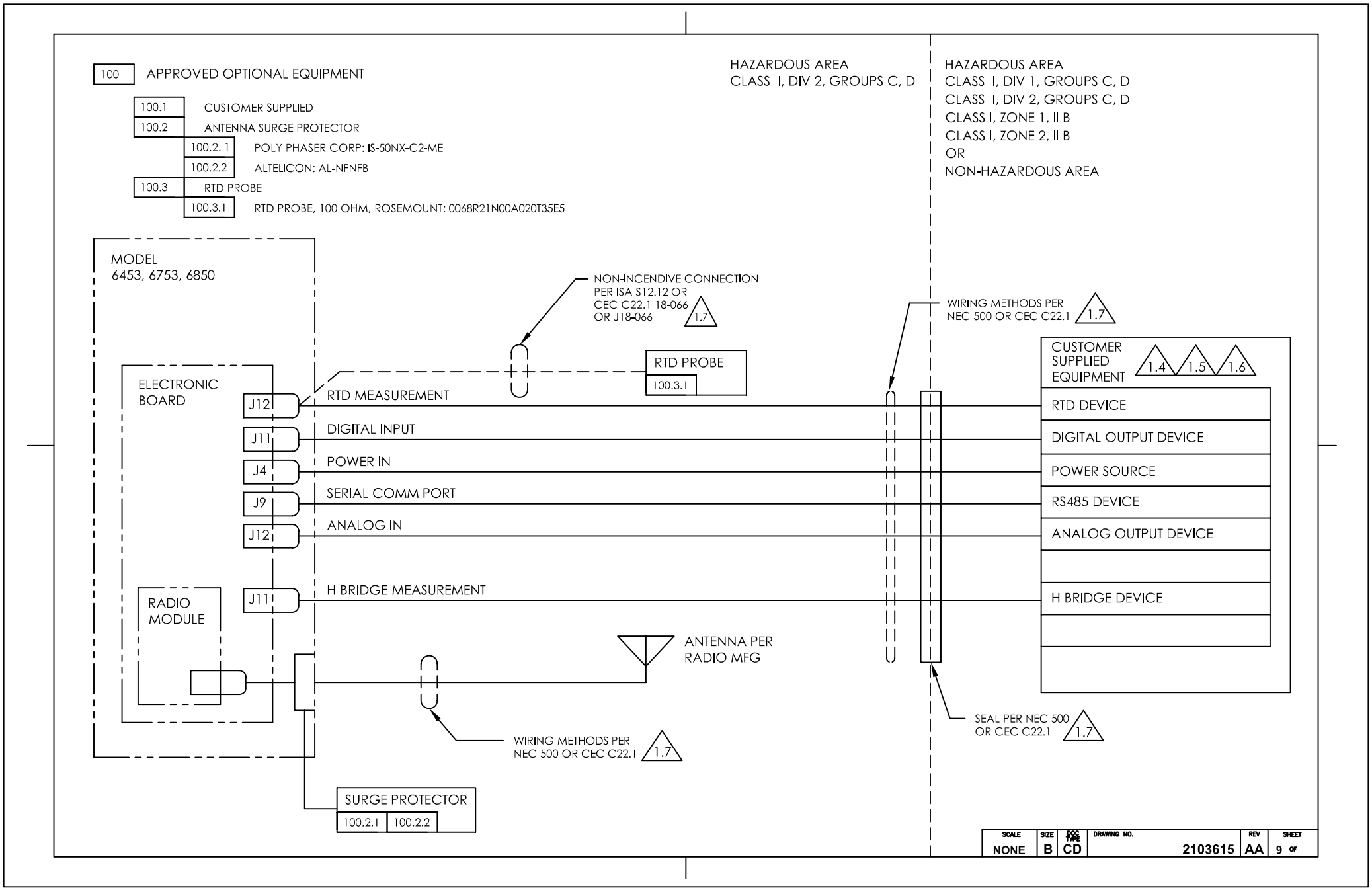
28 I/O MODULE KIT

- 28.1 W/O OPTION
- 28.2 I/O MODULE MTG KIT (MAXIMUM 3 MODULES)
- 28.3 I/O MODULE MTG KIT (MAXIMUM 6 MODULES)
- 28.4 I/O MODULE MTG KIT (MAXIMUM 14 MODULES)
- 28.5 TFIO I/O MODULES
  - 28.5.1 1803024-001, PHOENIX MINI-PS-12-24 DC/24 DC/I

29	THRU	31	I/O MODULE POSITIONS 1 THRU 3 (FOR 6453)
29	THRU	34	I/O MODULE POSITIONS 1 THRU 6 (FOR 6753)
29	THRU	42	I/O MODULE POSITIONS 1 THRU 14 (FOR 6850)



SCALE	SIZE	DOC TYPE	DRAWING NO.	REV	SHEET
NONE	B	CD	2103615	AA	8 OF


100 APPROVED OPTIONAL EQUIPMENT
100.1 CUSTOMER SUPPLIED
100.2 ANTENNA SURGE PROTECTOR
100.2. 1 POLY PHASER CORP: IS-50NX-C2-ME
100.2.2 ALTELICON: AL-NFNFB
100.3 RTD PROBE
100.3.1 RTD PROBE, 100 OHM, ROSEMOUNT: 0068R21N00A020T35E5
HAZARDOUS AREA
CLASS I, DIV 2, GROUPS C, D
HAZARDOUS AREA
CLASS I, DIV 1, GROUPS C, D
CLASS I, DIV 2, GROUPS C, D
CLASS I, ZONE 1, II B
CLASS I, ZONE 2, II B
OR
NON-HAZARDOUS AREA
MODEL
6453, 6753, 6850
NON-INCENDIVE CONNECTION PER ISA S12.12 OR CEC C22.1 18-066 OR J18-066 1.7
WIRING METHODS PER NEC 500 OR CEC C22.1 1.7
RTD PROBE
100.3.1
ELECTRONIC BOARD
J12 RTD MEASUREMENT
J11 DIGITAL INPUT
J4 POWER IN
J9 SERIAL COMM PORT
J12 ANALOG IN
J11 H BRIDGE MEASUREMENT
RADIO MODULE
ANTENNA PER RADIO MFG
WIRING METHODS PER NEC 500 OR CEC C22.1 1.7
SURGE PROTECTOR
100.2.1 100.2.2
CUSTOMER SUPPLIED EQUIPMENT 1.4 1.5 1.6
RTD DEVICE
DIGITAL OUTPUT DEVICE
POWER SOURCE
RS485 DEVICE
ANALOG OUTPUT DEVICE
H BRIDGE DEVICE
SEAL PER NEC 500 OR CEC C22.1 1.7
SCALE NONE
SIZE B
DOC TYPE CD
DRAWING NO. 2103615
REV AA
SHEET 9 OF