CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1777767 **Master Contract:** 181670

Project: 1816767 **Date Issued:** 2006/07/24

Issued to: **Barco Folsom LLC**

11101 A Trade Center Dr
Rancho Cordova, CA 95670
USA
Attention: Kent Vogel

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US'

C US

Issued by: Oscar D. Enojado

Authorized by: Fabio Furlan, Project Manager

PRODUCTS

CLASS 3862 11 - INFORMATION TECHNOLOGY EQUIPMENT - (CSA 60950-1-03)
CLASS 3862 91 - Information Technology Equipment (CSA 60950-1-03/UL 60950-1, - First Edition NRTL Program) Certified to U.S. Standards

- ScreenPro II Controller, Model SPC-164, SPC-164T, EC-200, EC-200T, cord-connected, input rated 100-240 V, 50-60 Hz, 2.0 A.

APPLICABLE REQUIREMENTS

The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This 'US' indicator includes products eligible to bear the 'NRTL' indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.

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- CAN/CSA C22.2 No 0-M91 - General Requirements, Canadian Electrical Code, Part II
- CAN/CSA C22.2 No 0.4-M1982 - Bonding and Grounding of electrical Equipment (Protective Grounding)
- CAN/CSA C22.2 No 60950-1-03 - Safety of Information Technology Equipment
- ANSI/UL No 60950-1 1st Ed (2003) - Safety of Information Technology Equipment

CSA INTERNATIONAL

Supplement to Certificate of Compliance

Certificate: 1777767 **Master Contract:** 181670

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
1816767	2006/07/24	Covers the addition of alternate power entry module Corcom P/N PM0S0SS3B.
1777767	2006/04/03	Original C/US Certification.

CSA INTERNATIONAL

Descriptive Report and Test Results

MASTER CONTRACT: 181670
REPORT: 1777767
PROJECT: 1816767

Edition 1: April 3, 2006; Project 1777767 - Irvine
Issued by Oscar D. Enojado

Edition 2: **July 24, 2006; Project 1816767 – Irvine**
Issued by Oscar D. Enojado

Pages Replaced: All (Report Updated and Re-issued)

Contents: Certificate of Compliance - Pages 1 to 2
Supplement to Certificate of Compliance – Pages 1
Description and Tests – Pages 1 to **11**
Includes Photographs – Figs. 1 to 3
Includes Illustration – Ills. 1
Bi-Nat CSA 60950-1-03/UL 60950-1 Design Manual

PRODUCTS

CLASS 3862 11 - For Canadian Certification
CLASS 3862 91 - For US Certification

INFORMATION TECHNOLOGY EQUIPMENT – Safety Part 1: General Requirements

ScreenPro II Controller, Model SPC-164, SPC-164T, EC-200, EC-200T, cord-connected, input rated 100-240 V, 50-60 Hz, 2.0 A.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No 0-M91	-	General Requirements, Canadian Electrical Code, Part II
CAN/CSA C22.2 No 0.4-M1982	-	Bonding and Grounding of electrical Equipment (Protective Grounding)
CAN/CSA C22.2 No 60950-1-03	-	Safety of Information Technology Equipment
ANSI/UL No 60950-1 1st Ed (2003)	-	Safety of Information Technology Equipment

BI-NAT CSA 60950-1-03/UL 60950-1, 1st Edition DESIGN MANUAL, Revision 1.0 (ISSUED WITH -1583488) IS AN INTEGRAL PART OF THIS REPORT

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MARKINGS

The following markings appear on a CSA Certified and UL Recognized adhesive type nameplate:

(a) The CSA Monogram with "C US" or “NRTL/C” indicators and the optional indicators "CSA 60950-1" and "ANSI/UL 60950-1";
(b) The submittor's name and/or CSA File / Contract Number "LR 91261" or "181670";
(c) Model designation;
(d) Complete electrical rating in volts, hertz and amperes;
(e) A date code or serial numbers traceable to month and year of manufacture and manufacturing facility;

The following additional markings appear marked in a permanent manner:

(a) The IEC 417 Symbols 5007 and 5008 ("I" and "O") or equiv. are marked in a permanent manner on or adjacent to the power switch.
(b) The fuse rating (250 V, 2A) and Type T are marked in a permanent manner adjacent to the fuseholder.
(c) The IEC 417 Symbol 5019  is marked in a permanent manner adjacent to the ground stud.

ALTERATIONS

(a) Markings, as described above, appear on each unit.
(b) Grounding is as described in List of Critical Components.
(c) Eliminated openings located at the bottom of chassis, refer to Figure 3.

FACTORY TEST - Refer to Design Manual for voltage levels.

(a) Production-line Dielectric Voltage-Withstand Test: Clause 5.2.2
[i] For Grounded Units (Class I or Class 2) rated above 130V and up to 250V;

(b) Production-Line Earthing-Continuity Test: Ref. Cl 7.2 of ANSI/UL 1950(1993)

DESCRIPTION

General: The Models are similar to each other except for changes in SELV circuitry and firmware not affecting safety.

(a) Type of Equipment: Stand-alone - Desk-top or Rack-mount.

(b) Class of Equipment: Class I

(c) Connection to Supply: Pluggable A

(d) Type of Power System: TN-S

(e) Mobility: Moveable

(f) Weight of Equipment: 9.3 kg

(g) Pollution Degree: 2

(h) Maximum Rated Ambient Temperature: 40 °C

(i) Installation: N/A

(j) Accessibility: This unit contains no operator access areas and the operator's manual does not instruct the operator to gain access within the enclosure, or imply that access is required

(k) Interchangeable Components: "INT" (Interchangeable) denotes that an alternative component with the same minimum required approval and ratings may be interchanged. If no approval is required, then the component must be constructed as described in the illustration referred to.

(l) Minimum required approval coding is:

CSA = CSA International; CSA NRTL/C or CSA C/US= CSA (Canadian and US Requirements);
UL = UL Listed/Recognized; cUL = UL (Canadian and US Requirements);
VDE; SEMKO; TUV; SEV; Demko; Nemko.

1. Enclosure: Folded metal frame construction with metal panels secured by screws and lock washers; shaped as shown, overall dim 43 cm by 15 cm by 25 cm by 1.7 mm thick

2. Ventilation Openings: No bare live parts involving shock or energy hazards are located directly behind or below these openings. The openings described below provide no operator access to mechanical, energy or shock hazards.

   (a) Rear Openings: An area approx measuring 5.6 cm by 3.3 cm, provided with 3.0 mm by 32.5 mm horizontal slot openings. No fire hazardous components are located within a 5 ° projection of these openings. Not located below fire hazardous components.

Table 1.5.1 — List of Critical Components					
Object/Part No.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity[1])
Power Supply Cord Set (Canada & US) - Optional	- - -	- - -		CSA 21 UL 817	CSA, UL
- Cord		No. 18/3 AWG, SVT	max. 4.5 m long, 250 V ac, 10 A		
- Attachment Plug (moulded on)		NEMA Type 5-15P or 6-15P	(120 V ac or 240 V ac applications respectively)		
- Connector Body		Female Type C13	250 V ac, 10 A.	IEC/EN 60320	
Alternative Cord Set - Optional	Equipment used outside of Canada and the US may be provided with a non-certified cord, provided the cord is acceptable to the authorities in the country of usage. Such cords have not been investigated by CSA and are not part of the Certification.				
Appliance Inlet/EMI Filter/Fuseholder/ Power Switch combination.	Corcom	PS0S0SS3B	Rated 120/250 V, 50-60 Hz. Switch 250 V, 10 A.	CSA 8 UL 1283, UL 498 IEC/EN 60320 EN 13320	CSA UL VDE
Alternative:	**Corcom**	**PM0S0SS3B**	**Rated 120/250 V, 50-60 Hz. Switch 250 V, 10 A.**	**CSA 8 UL 1283, UL 498 IEC/EN 60320 EN 13320**	**CSA UL VDE**
- Fuse (1 provided)	Bussman	GDC-2A	Rated 250 V, 2 A. Time delay, glass tube.	CSA 248.14 UL 248-14 IEC/EN 60127	cURus SEMKO, VDE
- Grounding	One min No 18 AWG green or green/yellow insulated grounding conductor is mechanically secured and soldered to the ground terminal at one end. The other end terminates singly in a crimp type closed loop connector secured to the chassis by a min No 6 (M3.5), plated or nonferrous threaded stud, nut and lockwasher (to ensure surface coating penetration); a separate nut and lockwasher secure crimp type closed loop connectors of bonding conductors; screw engages min of twice the pitch of the screw thread.				
Power Supply	Astrodyne (Cincon)	P/N OFM60-050	Input 100-240 V, 47-63 Hz, 1.4 A, output rated 5 V dc, 8 A, overall classification level 3. Secured by screws to the chassis.	CSA 60950-00 UL 60950 3rd Ed IEC60950 (1999) EN 60950 (2000)	cULus CE
PWB	Various	- - -	V-1 minimum	UL94	UL
PTC	Raychem	SMD250	Rated 2.5 A hold current, 5.0 A trip current, max	UL 1434	UR

Table 1.5.1 — List of Critical Components					
Object/Part No.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity[1])
			15 V, 40 A. Wired in series with the power connector J9.		
LCD Module (SELV)	Okaya Electric	RG320240WRM -HNN-IA8	Rated 5.0 V dc, 3.0 mA. Approx. 79 mm by60 mm viewing area.	- - -	- - -
[1]) An asterisk indicates a mark which assures the agreed level of surveillance.					

PHOTOGRAPHS

Figure 1

Figure 2

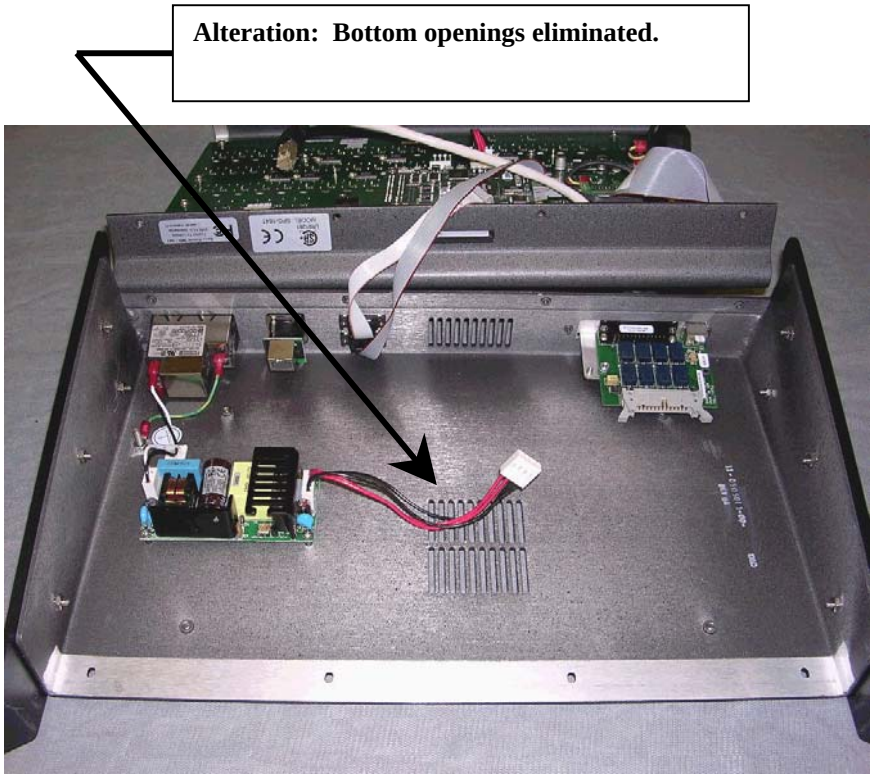
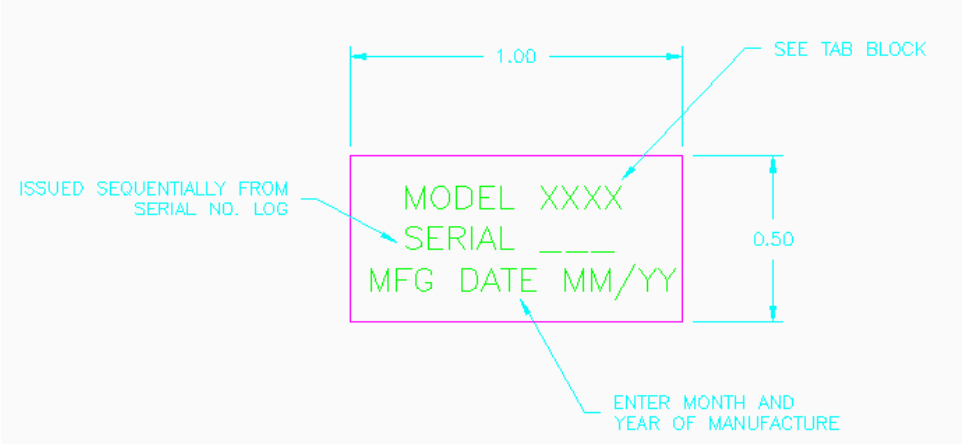
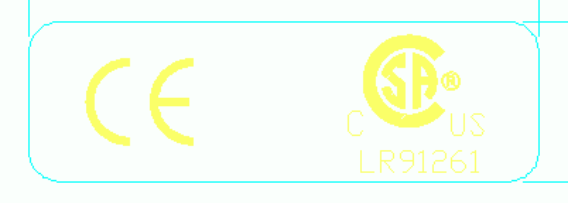


Figure 3

ILLUSTRATIONS





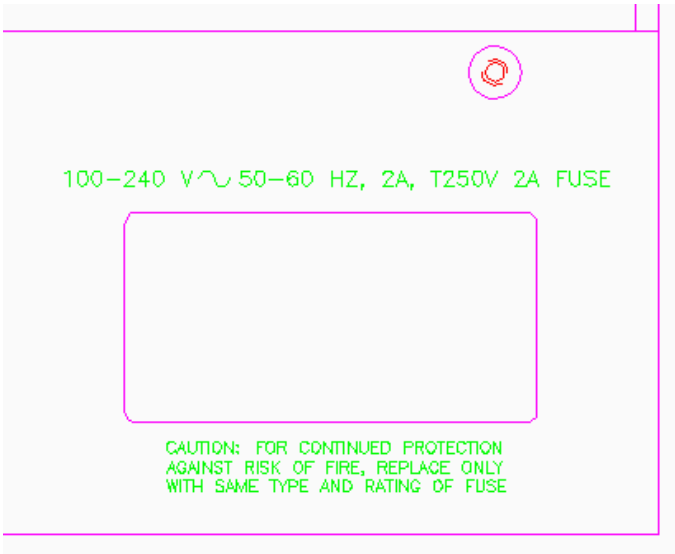


Illustration 1

TESTS

Edition: 1 (Project 1777767)

Device Tested: Model SPC-164T

Tests were conducted at CKC Laboratories, located at 110 North Olinda Pl., Brea, CA 92823, under the CSA witness-testing program. The detailed test results are located in the Engineering File at the CSA International Irvine Office.

Verdict Notation	Verdict Meaning
N/A	*Not Applicable*
P	*Pass*
F	*Fail*
W	*Applicable but waived.*
E	*To be evaluated in end-system*

LIST OF TESTS

Tests Conducted (marked with a "C")	Clause	Description
C	1.6.2	Power Interface (Input) Test
N/A	1.7.13	Marking Durability
N/A	2.1.1.5	Energy Hazard Measurement (20 joules and 240VA)
C	2.1.1.7	Shock Hazard Measurement
N/A	2.2	SELV (Single Fault Simulation)
N/A	2.3.1	TNV Limit Measurements
N/A	2.3.4	Connection of TNV Circuits to Other Circuits
N/A	2.3.5	TNV Voltages Generated Externally
N/A	2.4	Limited Current Circuit Measurement
N/A	2.5	Limited Power Sources
C	2.6.3.4	Protective Earthing Resistance Measurement
N/A	2.8	Safety Interlock System
N/A	2.9	Insulation (Hygroscopic Material)
C	2.10	Creepage/Clearance/Distances Through Insulation
N/A	3.1.1	Maximum Limit of Secondary Protection (Tables 2B and 2C)
N/A	3.1.4	Conductor Insulation (Electric Strength Test)
N/A	3.1.9	Electrical/Mechanical Connection Test
N/A	3.2.3	Permanent Connection (Installation Test/Measurement)
N/A	3.2.6	Power Supply Cord Strain Relief/Cord Anchorage
N/A	3.2.8	Power Supply Cord Guard Test
N/A	3.3.8	Field-Wiring Test

LIST OF TESTS		
Tests Conducted (marked with a "C")	**Clause**	**Description**
N/A	4.1.1	Physical Stability Test
W	4.2	Mechanical Strength and Stress Relief
N/A	4.2.10	Mounting Means Test (For wall or Ceiling Mounted equipment)
N/A	4.3.2	Handle Test (For Handles Supporting >9.0kg Only)
N/A	4.3.2	Pull Test (Handle, Knob, Grip, Lever, etc.)
N/A	4.3.6	Direct Plug-In Moment Test
N/A	4.3.8	Lithium / Rechargeable Battery (Reverse/Charging Current)
N/A	4.3.10	Spillage Test (For Non-Flammable Liquid)
N/A	4.3.13	Ionizing Radiation
C	4.5.1	Heating Test
N/A	4.5.2	Resistance to Abnormal Heat (Ball Pressure Test)
N/A	4.6.5	Adhesive Aging and Securement Test
C	5.1	Earth Leakage Current Measurement
N/A	5.1.8.1	Limitation of Touch Currents to a Telecommunication Network
N/A	5.1.8.1.1	Limitation of Touch Currents due to Ringing Signals
N/A	5.1.8.2	Summation of Touch Currents from Telecommunication Networks
C	5.2	Electric Strength Test
C	5.3	Abnormal - Component Failure (System)
N/A	*5.3	Abnormal - Component Failure (Power Supply)
N/A	5.3.2	Abnormal - Motor (See Annex B)
N/A	*5.3.3	Abnormal - Transformer (See Annex C)
N/A	*5.3.4	Electric Strength Test (for Deficient Operational Spacings on CB's)
C	5.3.6	Overload Test (Operator Accessible Connectors)
N/A	*5.3.6	Overload/Short Circuit Test (Power Supply Outputs)
N/A	6.1.2	Separation of the TNV Network from Earth
N/A	6.2.2.1	TNV Circuit (Impulse Test)
N/A	6.2.2.2	TNV Circuit (Electric Strength)
N/A	6.3	Telecommunication Wiring System Protection from Overheating
N/A	6.4	Protection Against Overvoltages from Power Line Crosses (Annex NAC)
N/A	6.5	Acoustic Pressure Tests
N/A	A	Flame Tests
N/A	B	Motor Tests
N/A	C	Transformer Tests

Requirements/Tests Waived:

The following CSA and U.S. requirements/tests were waived.

Requirements/Tests Waived	Clause No	Reasons
Mechanical Strength and Stress Relief	4.2	Passed by inspection Metal enclosure.

Edition: 2 (Project 1816767)

Update to include alternative power entry module Corcom P/N PM0S0SS3B.

No tests were deemed necessary.