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File E133459 Project 02NK95025

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REPORT

on

INFORMATION TECHNOLOGY EQUIPMENT INCLUDING ELECTRICAL BUSINESS EQUIPMENT

COMPAL Electronics Inc. Taipei Taiwan 114

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DESCRIPTION

PRODUCT COVERED:

*USL/CNL - LCD Monitor, Models JX77X, AL71X and CML174XXXXX, where X may be any alphanumeric character or blank.

ELECTRICAL RATING:

100-240 V ac, 50/60 Hz, 1.2 A

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Special Considerations - The following items are considerations that were used when evaluating this product.

USL/CNL indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, CAN/CSA C22.2 No. 950-95 * UL 1950, Third Edition, including revisions through revision date January 31, 2001, which are based on the Fourth Amendment to IEC 60950 Second Edition.

The equipment was submitted and tested for a maximum manufacturer's recommended ambient of 40°C .

The equipment is movable, Class I (earthed), pluggable Type A or B uses detachable power cord intended for use on TN power system.

Disconnect Device - The following part is considered the equipment disconnect device: Appliance coupler.

Limited Current Circuits - The following accessible locations are part of a limited current circuit:

Location

Secondary side of DC/AC inverter

41.14

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CONSTRUCTION DETAILS:

General - See Section General for additional details.

Printed Wiring Board - (ZPMV2), See Sec. Gen., the general appearance of the foil pattern and components layout shall not be changed from that detailed in ILL. 1 and 2.

Power Supply Cord - Listed, detachable, maximum 4.5 m (14.76 ft) long; rated minimum 125 V, 10 A, type SVT flexible cord, 18 AWG/3G; one end terminates in parallel blade (NEMA 5-15P), grounding type attachment plug, other end in appliance coupler.

Alternate - Same as above except for rated 250 V, 10 A minimum having attachment plug with a 15 A, 250 V (NEMA 6-15P) configuration.

Interconnecting Cable Marking - Detachable interconnecting cables with terminations, which are furnished as part of the system and use (AVLV2), cable/wiring, shall be marked, or similarly identified in the installation instructions, with the Listee's name or trade name and identifying designation. If marked, the marking may be applied on the cable at any location, and is not required to be (PGDQ2) or (PGJI2).

Interconnecting Cables - Detachable. Interconnecting cables and cable assemblies used for external interconnection between parts of equipment or between components of system are:

Listed, Computer Interconnecting Cable Assembly, rated minimum 30 V, 60°C or (AVLV2), rated minimum 30 V, 60°C, maximum 3.05 m, jacketed, marked VW-1 or FT-1.

Operating/Instruction/Safety Manual - Provide with each unit.

*Model Difference - Models JX77X, AL71X are identical to Model CML174XXXXX except for model designation.

LCD MONITOR MODEL JX77X - FIGS 1 AND 2

General - Fig.1 illustrates the front view of Model JX77X and Fig.2 shows its rear. The general design, shape and arrangement shall be as illustrated except where variations are specifically described.

Enclosure - Molded of (QMFZ2), rated V-0, 2.2 mm thick, two pieces construction, secured together by screws. See table for manufacturer and type.

Manufacturer	Туре	Rated
Cheil Industries Inc Chemicals Div	VH-0815+ NH-1000T+	60°C
LG chemical Ltd.	AF-312T GN5008HF	75°C 60°C
Bayer THAI Co. Ltd.	FR 2000	75 ° C

Front enclosure - overall 374 by 354 by 15 mm, provided with numerous slot openings on both sides, each covering an area overall 47 by 23 mm, each opening measured 23 by 1.4 mm for speakers.

Rear enclosure - overall 374 by 354 by 44 mm, provided with numerous slot openings on two areas, one area on the top, overall 324 by 54 mm, each opening measured 54 by 1.4 mm and the other overall 320 by 20 mm, each opening measured 18.8 by 0.8 mm.

Base - Material of plastic part is same as that of enclosure, overall 204 mm diameter, 143 mm high, secured to enclosure by screws.

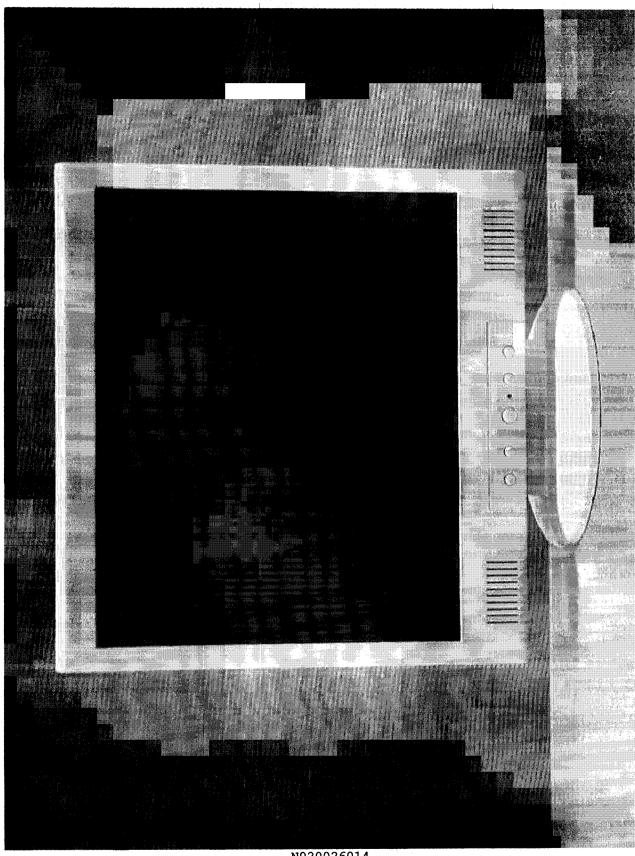
Indicators - SELV, provided for power indication and miscellaneous features.

Signal Ports - SELV, D-Sub, DVI and audio connector.

Speakers - Optional, two provided, rated 4K ohm, 2 W.

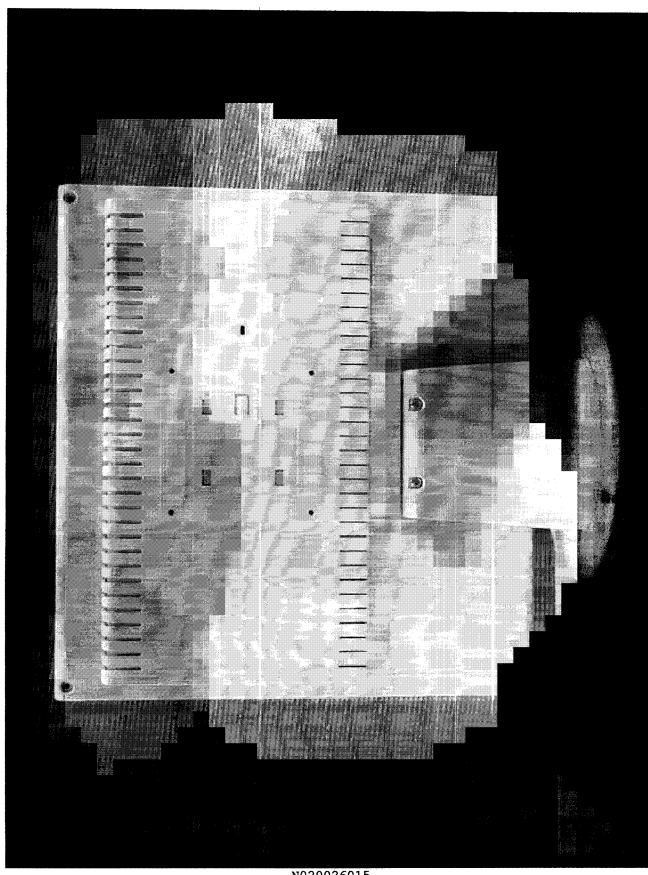
Switch - (WOYR2), CN, Solteam Electronics Co. Ltd., rated 10/6 A, 125/250 V, Cat. No. OR-P series.

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LCD MONITOR MODEL JX77X - FIG. 3

General - Fig.3 shows interior construction of power supply for Model JX77X.

Earth and Bonding - Provided by (AVLV2), CN, No. 18 AWG minimum, insulated with green/yellow color, one end connected to the inlet earthing terminal and mechanically secured by soldering, the other end terminated with double crimp-on copper ring terminal and secured to metal chassis by a dedicated screw and star washer.

Appliance Inlet (P801) - (AXUT2), CN, rated 2.5 A or 10 A, 250 Vac. See table for manufacturer and type.

Manufacturer	Туре
Solteam Electronics Co., Ltd.	ST-01
Rich Bay Co., Ltd.	R-307, R30790

Alternate - Same as above except (AYVZ2), Zhangjiagang Huafeng Electronic Connector & Component Co Ltd, Type HF-301.

Line Chokes (L801, L802) - Open type construction with ferrite core, overall 15.8 by 10.7 by 5.2 mm. Magnet wire, 0.4 mm diameter, 65 turns winding wound on toroidal core.

Fuse (F801) - (JDYX), time delay, rated 2 A, 250 V, soldered to PWB. Fuse rating permanently marked on PWB adjacent to fuse. See table for manufacturer and type.

Manufacturer	Туре
Bel Fuse INC.	MRT or MRTP
Wickmann-Werke GMBH	TR-5
Save Fusetech INC	SR-5F

X-Capacitors (C801, C802) - (FOWX2 or FOKY2), optional, across the line, rated minimum 275 V ac, 0.47 μF maximum, VDE Certified to IEC 384-14, Class X2, also provided with SEV Mark.

Bleeder Resistors (R801, R802) - Rated 510K ohm, 1/4 W.

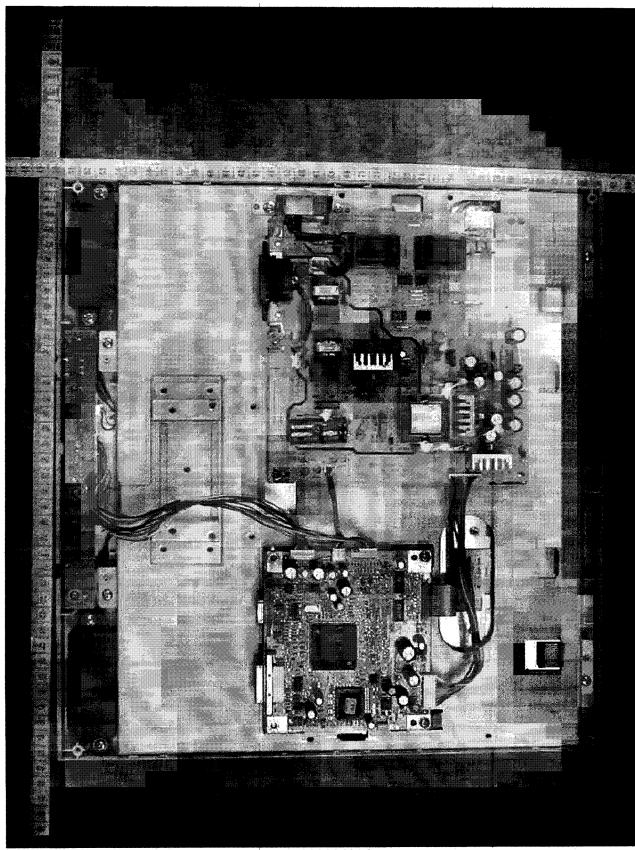
Y-Capacitors (C800, C803, C804) - (FOKY2 or FOWX2), optional, rated minimum 250 V ac, 4700 pF maximum, VDE Certified to IEC 384-14 as Class Y2 minimum.

Thermistor (RT801) - Rated, 8 ohm at 25°C.

Varistor (VA801) - (XUHT2), rated minimum 300 V ac, Ceramate Technical Co., Ltd., Type GNR07D471K.

Alternate - Same as above except Wujin Thinking Electronic Co., Ltd., Type TVR10471 or TVR07471.

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Bridge Rectifier (BD801) - Rated 500 V ac minimum, 2 A minimum.

Bulk Capacitor (C805) - Electrolytic type with integral pressure relief, rated minimum 400 V, 100 μF , 105 °C.

Transistor (Q801) - Rated minimum 9 A, 600 V, soldered to PWB and secured to heatsinks.

Heatsinks (For Q801) - Aluminum, fin shape, overall 24.6 by 19.8 mm, 9.8 mm thick, secured to PWB by screws.

Photo Couplers (U800) - (FPQU2). See table for manufacturer, type and rated.

Manufacturer	Туре	Rated
Toshiba Corp. Electronic Devices Sales and Marketing Group Sharp Corp. Electronic	TLP 621/TLP721 PC817	5000 V 5000 V
Components Groups	T 7770 1 7	5000 17
Lite-on Electronic INC.	LTV817	5000 V
Matsushita Electric Industrial Co., Ltd.	3171	5000 V
Vishay Semiconductor GMBH	TCET 1101, TCET 1102, TCET 1103, TCET 1104, TCET 1105,	3750 V
	TCET 1106, TCET 1107, TCET 1108, TCET 1109	

Transformer (T801) - Open type construction. Class B insulation system, (OBJY2), Li Tai Electronic Enterprise Co., Ltd., designated Viking B-2. Core: Ferrite, overall 29.9 by 30.0 by 7.1 mm. Coil: Copper magnet wire (OBMW2), rated 130 °C, wounded on a phenolic bobbin, (QMFZ2), rated V-0, minimum 0.8 mm thick. See ILL. 3 and 4 for winding and material information.

Insulation as follows:

Winding	Location	# Layers/Total Thickness (mm)/Material
Outerwrap		3 / 0.075 / Polyester tape
N6-S2	Pri/Pri	3 / 0.075/ Polyester tape
S2-N5	Pri/Sec	3 / 0.075/ Polyester tape
N5-N4	Sec/Sec	1 / 0.025/ Polyester tape
N4-N3	Sec/Sec	1 / 0.025/ Polyester tape
N3-S1	Sec/Pri	3 / 0.075/ Polyester tape
S1-N2	Pri/Pri	1 / 0.025/ Polyester tape
NS-N1	Pri/Pri	1 / 0.025/ Polyester tape

Margin Tape - (OANZ2), CN, minimum 3.3 mm reinforced polyester tape, provided between windings and top bobbin edge and 3.3 mm between windings and bottom bobbin edge.

DC/AC Inverter - Evaluated Limit current circuit, Lien Chang Electronic Enterprise Co., Ltd., P/N A10006. The inverter assembly of LCD display employs the components as the following:

Fuses (F901) - Listed or (JDYX2), CN, Cooper Industries Inc. Bussmann Div., Type 3216FF, rated 32 V dc, 4.0 A.

Capacitors (C970, C971) - Rated 33 pF, 3 KV.

Transformers (T970, T971) - Constructed as follows:

- A. Core Ferrite, open type, each measured 27.0 by 20.0 by 5.0 mm.
- B. Bobbin Phenolic, eight-flange type, rated minimum V-2, 0.4 mm thick minimum.
- C. Windings (OBMW2), rated minimum 130°C, polyurethane covered copper wire, winding information as follows:

Winding	Diameter (mm)	by No. of wires	No. of Turns
Pin 5-2	0.12 x 7	by 4UEW	24
Pin 7-10	0.06 x 1	. —	2200