

PRODUCT SUPPORT PROCEDURES

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1. INTRODUCTION

1.01 This section contains information and guidelines for requesting normal and emergency technical assistance from Stromberg-Carlson. Procedures for returning material are also included.

1.02 This section has been completely rewritten to incorporate new telephone numbers and procedures for obtaining on-site assistance, returning material for repair, and obtaining emergency material service.

2. RELATED INFORMATION

2.01 General.

A Sales and Instructional Literature Index of latest available publications can be obtained from your Stromberg-Carlson sales representative or from Publications Services, Stromberg-Carlson Corporation, P.O. Box 1698, Sanford, Florida 32771.

2.02 Related Sections.

The following section is recommended for use with this document:

01-005-10 Handling Electrostatically
Sensitive Components

3. GENERAL

3.01 A staff of Stromberg-Carlson Customer Service Engineers is located in each sales region and various manufacturing facilities to provide on-site assistance and telephone consultation, respectively, when required. This service is available for:

XY systems
CROSSREED® ESC systems
SYSTEM CENTURY systems
Register-senders
Toll-ticketing equipment
CROSSREED EPABX equipment
E-120 PABX equipment
Station equipment

3.02 Each call received is logged and assigned a report number for future reference. When the problem is resolved, the customer is contacted and given the solution. The corrective action may require making a system hardware or software change. In this case, the Customer Service Engineer furnishes all the necessary procedures for ensuring that full service is restored as quickly as possible.

4. SYSTEM CENTURY EQUIPMENT

4.01 Telephone consultation service for SYSTEM CENTURY digital products is provided by the Stromberg-Carlson Assistance Team (SCATSM) located in Sanford, Florida. SCAT Center personnel are available 24 hours a day, 7 days a week, for emergency assistance.

4.02 Operation of any DCO® system or Digital Branch Exchange (DBX) can be monitored at the SCAT Center through a data link if requested by the operating company. Using a modem type data link speeds repairs and makes high-level technical assistance a reality.

4.03 The SCAT Center can be contacted for non-emergency situations, from 8:00 a.m. to 4:30 p.m. Eastern time, Monday through Friday, by calling Stromberg-Carlson in Sanford, Florida, at (305) 849-3000. After 4:30 p.m. Eastern time, ask the guard for the DCO or DBX SCAT Center, as needed. For an out-of-service condition, call (305) 322-2443.

5. ELECTRONIC PABX EQUIPMENT

5.01 Telephone consultation service with Stromberg-Carlson Customer Service Engineers is available for the following electronic PABX equipment: EPABX-400A, EPABX-800, EPABX-1600, and E-120 PABX. Contact these engineers at any time by calling Stromberg-Carlson in Sanford, Florida, at (305) 331-7730.

6. ELECTRONIC SWITCHING SYSTEMS (ESC)

6.01 Telephone consultation service for ESC systems is provided by DCO SCAT service personnel in Sanford, Florida at (305) 849-3000; ask for the DCO SCAT Center. For an out-of-service condition, call (305) 322-2443.

7. XY SWITCHING EQUIPMENT — ANALOG PRODUCTS

7.01 For 24-hour service related to XY switching equipment, toll ticketing, senders, and applique equipment, call Stromberg-Carlson in Rochester, New York, at (716) 482-2200.

8. STATION EQUIPMENT

8.01 Telephone consultation service for station equipment is provided only during normal working periods. To obtain this service, call Stromberg-Carlson in Charlottesville, Virginia, at (804) 973-2200 or 973-2209.

9. ON-SITE ASSISTANCE

9.01 On-site assistance for central office products can be provided by contacting the field service department at your Stromberg-Carlson District Sales Office or, for PABX equipment, the customer service department in Sanford, Florida. Before requesting service on any SYSTEM CENTURY products, the SCAT Center should be contacted to ensure that the problem(s) can not be cleared through remote diagnostic consultation. It should be noted that on-site service assistance for systems that have expired service warranties will be made on a time and expense basis.

9.02 To request on-site assistance for central office equipment (DCO, DSU, DTX, ESC, XY, ERS, toll systems, etc.), proceed as follows:

- a. During normal working hours (8:00 a.m. to 5:00 p.m., Monday through Friday), call your Stromberg-Carlson District Sales Office and

ask for the service supervisor. The service supervisor will request information pertaining to the type of service required and location and then advise you of the approximate arrival time of a field service engineer. The following is a list of District Sales Offices and their respective telephone numbers:

1. Eastern Region -- Norcross, Georgia; (404) 448-8980.
2. West Coast Region -- Foster City, California; (415) 574-9211.
3. Midwest Region -- Chicago, Illinois; (312) 885-6543.
4. Southwest Region -- Kansas City, Missouri; (816) 421-6618.

b. If, after normal working hours, on weekends, or on holidays, it is determined that *emergency* on-site assistance is required, call Stromberg-Carlson at the appropriate emergency telephone numbers referenced in paragraphs 4.03, 5.01, 6.01, or 7.01.

9.03 To request on-site assistance for PABX equipment (DBX, XY-PBX, CROSSREED EPABX's, and E-120), proceed as follows:

- a. During normal working hours (8:00 a.m. to 5:00 p.m., Eastern time, Monday through Friday), call Stromberg-Carlson in Sanford, Florida at (305) 849-3000 and ask for the DBX SCAT Center.
- b. After normal working hours, on Saturday, Sunday, or holidays, call (305) 322-2443, and ask for the customer service supervisor on call. He will make the necessary arrangements.

10. MATERIAL REPAIR AND RETURN PROCEDURES

10.01 All material returns must be authorized by Stromberg-Carlson. Procedures for obtaining the necessary authorization and returning material are:

a. Contact your Stromberg-Carlson Material Service Center (MSC) Representative listed in paragraph 10.02. The following information will be requested before authorization can be provided.

1. Customer name and accounts receivable number.
2. Customer purchase order number.
3. Identification of material being returned: part number, description, and quantity.
4. Reason(s) for return.
5. Original S-C specification number, shipping order number, and warranty status.
6. Ship-to and bill-to or credit-to address.
7. Name and telephone number of requestor.

b. After you have provided the MSC representative with the above information, you will be provided with an order control number. This order control number *must* be used on all correspondence related to return of material to Stromberg-Carlson, including the packing slip packed with the material to be returned.

c. Each item returned must have a completed Quality Assurance Data Tag (QADT) attached (fig. 1). The top half of each tag, front and back, is to be completed. The order control number provided to you should be entered in the RA NUMBER box on the front of the tag. Accurate and complete information is essential in order to facilitate analysis of the failure when attempting to determine the probable cause.

d. Retain the originator (goldenrod) copy of the QADT.

e. Carefully pack the defective unit(s) with the QADT attached, along with the associated M&A diagnostic printout (if it is a SYSTEM

CENTURY product). For all material bearing a static sensitive label, exercise special precautions as described in the section titled *Handling of Electrostatically Sensitive Components*, referenced in paragraph 2.02. *Items damaged in transit due to improper packing will result in voiding of any warranty which may still be in effect.*

f. To ensure that the material is returned to the proper destination, verify that the address on the package is as follows:

1. For electronic switching systems equipment:

Stromberg-Carlson Corporation
Rinehart Road
Lake Mary, FL 32746
ATTN: Material Service Center

2. For telephones and telephone apparatus:

Stromberg-Carlson Corporation
Telephone Systems Center
P. O. Box 7266
Charlottesville, VA 22906
ATTN: Order Service

3. For all other products, the service representative listed in paragraph 10.02 will provide the proper address.

g. When the defective unit arrives at the factory, it is repaired according to your instructions and forwarded to you within 30 days.

10.02 Material Service Center representatives can be contacted at the following telephone numbers in Lake Mary, Florida:

- a. Eastern Region – (305) 849-3457
- b. West Coast Region – (305) 849-3213
- c. Midwest Region – (305) 849-3206
- d. Southwest Region – (305) 849-3264

11. EMERGENCY MATERIAL SERVICE

11.01 Service-affecting situations are considered emergencies. They are usually caused by one or more faults that degrade service to such a degree that they can not be immediately corrected from available spare parts.

11.02 The following procedures are used for requesting material in *emergency* situations:

- a. During normal working hours (Monday through Friday, 8:00 a.m. Eastern time to 4:00 p.m. your local time, within Continental U.S.), call your Stromberg-Carlson MSC Representative (para 10.02).
- b. After normal working hours, weekends, and holidays, call (305) 849-3508 and ask for the Material Service Center Emergency Coordinator. Arrangements will be made to ship the required material by the fastest means available to a predetermined location or to the job site specified. For system-out-of-service situations, material will be shipped to the nearest major airport within 24 hours from receipt of request.
- c. Provide the representative or coordinator with the following information:
 1. Customer name and accounts receivable number.
 2. Customer purchase order.
 3. Brief description of the emergency.
 4. Identification of material needed: description, part number, and quantity.
 5. Warranty status or warranty stamp date of defective material.
 6. Ship-to address.

7. Telephone number and customer representative's name, for shipment coordination purposes.

8. Identification of nearest commercial airport.

9. Air Express shipping instructions.

d. Retain the defective unit until the replacement arrives.

e. When the order is shipped, you will be notified of the Airbill and the estimated time of arrival (ETA), when the information is requested.

f. Return Authorizations (RA) for return of the defective material are shipped with the emergency order and must accompany the material when it is returned. Return of in-warranty defective material is required within 30 days of shipment of the emergency material. Failure to return "in warranty" defective material within 30 days will result in invoicing. "Out-of-warranty" service orders will be invoiced immediately on shipment. All invoicing will be at full list price plus 10 percent service charge plus freight.

g. When preparing defective material for return, fill out and attach a QADT to each item being returned. Pack the defective unit in the original S-C shipping container. Exercise special precautions (as described in the section titled *Handling of Electrostatically Sensitive Components*, referenced in paragraph 2.02) for all material bearing a static sensitive label.

NOTE. Returns must be properly packed to avoid damage in shipment. Items damaged in transit due to improper packing will void any warranty that may still be in effect.

h. Ship the material to the destination indicated on the RA.

Stromberg-Carlson

A GENERAL DYNAMICS SUBSIDIARY

QUALITY ASSURANCE DATA TAG

TAG NUMBER & ISSUE

G

7

SYSTEM TYPE 9		FAIL DATE 11 12 MONTH DAY YEAR 17		PRE CUT		POST CUT	
PART NUMBER AND DASH NUMBER						ISSUE IN 26 27 28	
CUSTOMER CODE 29		SYSTEM NUMBER 32 33		ORIGIN 36 37		R A NUMBER 38 43	
FRAME 44		CCT UNIT ASSY 48 49		POSITION 52 53		SPEC NO 55	

TO BE COMPLETED BY STROMBERG-CARLSON

RECEIVED AT S C 56 MONTH DAY YEAR 61				REPORT PERIOD 62 YEAR MONTH 65			
ISSUE OUT 13 14 15		COMP CODE 18		FAIL MODE 19		DEFECTIVE COMPONENT 1 25	
MO NUMBER		COMP CODE 26		FAIL MODE 29 30		DEFECTIVE COMPONENT 2 36	
REPAIR DATE 48 MONTH DAY YEAR 53				REPORT PERIOD 54 YEAR MONTH 57			

TAG MUST ACCOMPANY DEFECTIVE MATERIAL

WHITE & CANARY QUALITY ASSURANCE PINK RETURN MATERIAL SERVICE
GOLDENROD RETAINED BY ORIGINATOR TAG TO CUSTOMER WITH REPAIRED MATERIAL

FORM SC610 1G PART NO 202126-969

FRONT

DESCRIPTION OF FAILURE (BE SPECIFIC)

COMPONENT CODE-FAILURE CODE COMBINATION

(Used when a failure mode is observed)

COMPONENT CODE

Capacitor	CA	No Code Available	MS
Connector	CN	Optical Isolator	OC
Digital Display IC	DD	PW Board	PC
Diode	DI	Potentiometer	PT
Gardner Denver Wire	GD	Power Supply	PS
Gold Finger (PWB)	GF	RAM (Random Access Memory)	RM
Heatsink	HS	Reed Relay	RD
Inductor	IN	Reed Switch	RS
Integrated Circuit	IC	Resistor	RE
Jack	JC	Switch	SW
Lamp	LP	Terminal	TE
Light Emit Diode	LE	Thermistor	TH
Magnetic Core Sensor	MC	Transformer	TF
MB Relay Coil	CL	Transistor	TR
MB Relay Contact	RL	Variistor	VA
Module Crossreed	MD	Voltage Regulator	VR
Monolithic Chip, S C	MO	Wire	WI

FAILURE CODE

Adjusted	AD	No Diagnostics Yet	ND
Antwork Open	OA	Noise Problems	NS
Burned	BN	Open	ON
Contaminated	CT	Part Wrong	WP
Cut	CU	Plate Thru Open	OP
Damaged	DP	Program Problem	PX
Detective (General)	DF	Reversed/Inserted Wrong	RP
Excess Copper	EC	Shorted	SH
Fixture Problem	FX	Soldering Defective	SS
Intermittent	IT	Strapping Wrong	ST
Loose	LK	Tight/Nicked Wire	WN
Loose/Unseated	LP	Tolerance Exceeded	OT
Missing	MP	Wiring Wrong	WW

SPECIAL FOUR LETTER CODES

(Used only when the above codes do not apply to the evaluation.)

TSOK-Tests good electrically. (Comp. Code=TS, Fail Code=OK)

BACK

Figure 1. Quality Assurance Data Tag

SECTION 02-001-10