

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

ALL BRANCH & AGENCY MANAGERS
AND SERVICE MANAGERS
TO _____
FROM Russell Ketchum DATE May 27, 1964
SUBJECT QUALIFICATIONS FOR EC-130
SERVICE TRAINING

Service training for the EC-130 will be divided into two types of training; three week trained technicians and eight week trained technicians.

NOTE: (Men with 6010 or Computyper training will not be accepted for EC-130 training)

Three Week Trained Technicians:

The minimum qualifications for three week trained technicians are:

1. Calculator and Adding Machine Technicians who have completed the first sixteen (16) lessons of the Friden Electronic Correspondence Course with an average grade of 75% or better.
2. If the technician is an applicant for new hire:
 - A) He must pass the Electronic Knowledge Test with a grade of 30% in each section.
 - B) He must meet the mechanical aptitude requirement for Calculator and Adding Machine training or Flexo-writer training.

Eight Week Trained Technicians:

The minimum requirements for eight week trained Service Technicians are:

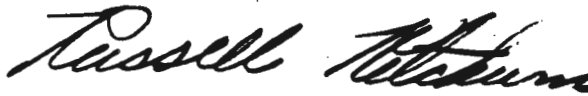
1. If the technician to be considered is an applicant for new hire:
 - A) He must meet the mechanical and aptitude requirements for Calculator and Adding Machine or Flexowriter training.

- B) He should have a good electronic knowledge with a background as an Electronic Technician. It would be desirable to have radar or computer logic, or experience in like industry.
- C) He must pass the Electronic Knowledge Test with a minimum grade of 30% in each section.

A job outline of the three week and eight week trained men is being prepared and will become a part of the "Procedures Manual".

If your office has split Service accounting, EC-130 will be serviced by the mechanical section.

Very truly yours,



Russell Ketchum
General Service Manager

RK:cr

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL FRIDEN OFFICES
FROM Russell Ketchum DATE July 8, 1964
SUBJECT EC-130 COVER REMOVAL - REPLACEMENT

For those offices that are in receipt of EC-130 Electronic Calculators and do not have the Preliminary Field Service Manual, the following removal and installation procedures will be helpful.

The EC-130 has a locking cam on the right rear cover-retaining captive screw that affects the ON-OFF switch.

TOP COVER REMOVAL AND REPLACEMENT.

To remove and replace the top cover, proceed as follows:

To Remove:

- a. At bottom rear of machine, locate and unloosen two captive locking-screws.
- b. Slide cover forward carefully.
- c. Lift up front edge of cover, and remove from machine.

To Replace:

- d. Holding front edge of cover angled up, slide rear side-edges of cover onto machine slightly ahead of the fuse-holders.
- e. Lower front edge of cover so that cover is flat on top of machine.
- f. Slide cover gently rearward into position.
- g. Tighten two captive locking-screws.

NOTE: Check ON-OFF switch for easy operation. If switch does not move freely, or move at all, rotate right-rear locking-screw one-half turn.

Very truly yours,



General Service Manager

RK:cr

Friden, Inc. SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE September 4, 1964

SUBJECT SHIPMENT OF EC-130 CARDS OR MACHINES
TO SERVICE REPAIR DEPOTS

EC-130 Service Repair Depots have been established in the following divisions:

Southern Division

FRIDEN, INC.
Atlanta Repair Depot (720)
547 Plasters Avenue, N.E.
P. O. Box 13091, Station K
Atlanta, Georgia 30324

Eastern Division

FRIDEN, INC.
Syosset Repair Depot (722)
149 Eileen Way
Syosset, New York 11791

Eastern Division

FRIDEN, INC.
Pittsburgh Repair Depot (724)
2890 Banksville Road
Pittsburgh, Pennsylvania 15216

Central Division

FRIDEN, INC.
Chicago Repair Depot (721)
29 North Wacker Drive
Chicago, Illinois 60606

Western Division

FRIDEN, INC.
San Francisco Repair Depot (723)
240 Industrial Street
San Francisco, California 94124

Pittsburgh will service the following territories: Erie, Harrisburg, York, Rochester, Buffalo, Wheeling, W. Va., Charleston, W. Va., and all offices in Ohio

*Send Prepaid
will return
collect*

*area #15
826-2525
Cliff Lamm*

When shipping EC-130 cards or machines to the Service Repair Depots for repair and return, please follow this procedure:

1. All shipments are to be made by common carrier such as: Air Express, Railway Express, Motor Freight or Air Forwarding Companies. Contact these common carriers in your city for shipment rates and schedules of EC-130 machines and cards to the Repair Depot in your area. The carton for the cards is 18" x 16" x 12" and weighs 12 lbs. Submit all rates to San Leandro so they can be reviewed by our Traffic Department. As soon as a common carrier has been selected that offers the best service and shipping rates, they should be used exclusively. Air shipments should be used only in emergencies due to the greater shipping cost and the pick up and delivery charges.

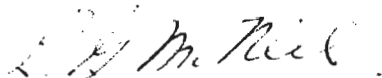
Ship =

Weight =

2. All shipments are to be shipped "Prepaid". It is not necessary to declare a value of the shipment, because our insurance coverage takes over after the carriers liability is fulfilled.
3. All shipments will be returned to the Branch or Agency "Collect".
4. If There Is Damage In Shipment. All shipments should be checked at the time of delivery and any damage should be noted on the freight bill by the driver before the consignee signs the receipt. This will assist in establishing the carriers liability. After this is done, the consignee should inspect the complete shipment for concealed damage. If he finds concealed damage, he should immediately contact the delivery carrier and request that an inspection be made. The consignee should be careful that the container and packing is not destroyed and the contents are kept in tact until the inspection has been made.
5. The freight bill with damage notation and freight carriers concealed damage inspection report and charge Service Record when repaired should be mailed to:

FRIDEN, INC.
Traffic Department
2350 Washington Avenue
San Leandro, California

Very truly yours,



L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

Friden, Inc.

#122

SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE September 30, 1964

SUBJECT EC-130 MACHINE PAD AND COVER

To answer some of the inquiries that we have had concerning covers and pads for the EC-130, these are not supplied and should not be used.

If the machine were covered and left on, there would be a heat build-up that could possibly damage the machine. Since the machine is equipped with rubber feet, a pad under the machine is not required and definitely should not be used. The machine is so designed that air is drawn into the base of the machine through the center of the delay line and circulates through the cards and exhausts through the front and rear of the cover for cooling the components.

We would recommend that the salesmen caution the customers not to put the machine on a pad, or cover the machine.

Very truly yours,



L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

Friden, Inc.

#124
SERVICE FLYER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L.G. McNeil DATE October 15, 1964

SUBJECT DEPOT REPAIR OF EC-130 LOGIC CARDS

Effective immediately all in-guarantee EC-130 logic cards that are repaired in the Service Repair Depots will be performed on a flat rate charge basis. The flat rate basis will be a maximum labor charge of \$15.00 plus parts, less the appropriate discount on parts. If they can be repaired at a lesser charge, you will receive the lesser charge.

All EC-130 logic cards are to be shipped to the depot "Prepaid" and they will be returned "Collect".

All charges for depot repair will be debited to your office and you, in turn, should submit a Service Record stamped No/Charge to San Leandro.

Very truly yours,



L.G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L.G. McNeil DATE October 15, 1964

SUBJECT INVENTORY & MARKING OF EC-130
LOGIC BOARDS

Effective immediately all EC-130 Repair/Loan logic boards in Branch and Agency offices must be marked for identification and inventory purposes.

All Repair/Loan logic boards must be marked on the front edge of the boards as follows: Use a felt marking pen. (ST) indicates Service Tool, (261) Branch Number - Mechanical Division, (1) for first set of boards, (2) would indicate second set of boards, followed by date. The marking would appear on the boards as: ST-261-1 10-7-64.

Service Repair Depots will also mark their logic boards i.e., ST-723-1. This would indicate Service Tool, San Francisco Depot, first set of Repair/Loan logic boards.

The San Leandro General Service Department is to be notified when each set of logic cards have been marked. The inventory report should show the following:

<u>SERVICE TOOL</u>	<u>BRANCH #</u>	<u>SET #</u>	<u>SERIAL # OF BOARD THAT IS ETCHED ON THE FRONT COPPER STRIP OF THE BOARDS</u>
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ST	723	1	
ST	274	1	10-2-64 130
ST	274	2	5-10-64 132
ST	274	3	9-7-65 132
ST	274		4-26-66 130 (rewc)

Very truly yours,

L.G. McNeil

L.G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

ST	274	5	9-27-66 "C"
ST	274	6	9-27-66 132
ST	274	7	132 Colo Springs
ST	274	8	130(rewc) Colo Springs

Friden, Inc.

#128

SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH AND AGENCY MANAGERS
AND SERVICE MANAGERS

FROM L.G. McNeil DATE October 30, 1964

SUBJECT EC-130

It has been brought to our attention that some technicians have been trying to figure out a method for automatically rounding off the figures in the display of the EC-130.

IT IS ABSOLUTELY FORBIDDEN FOR ANY TECHNICIAN, UNDER ANY CIRCUMSTANCE, TO CHANGE ANY COMPONENT VALUE AS SPECIFICALLY CALLED FOR OR MODIFY THE EC-130 IN ANY WAY. MODIFICATION OF THE EC-130 OR CHANGES IN ANY CIRCUIT WITHOUT AUTHORIZATION FROM THE SAN LEANDRO GENERAL SERVICE DEPARTMENT IS CAUSE FOR DISMISSAL.

If changes are required for reliability, modifications will be released to the Service Department with proper modification instructions. Technicians should not concern themselves with other modifications or requests for modifications.

If sales features are desired that are not standard on the EC-130, the Sales Department should notify the San Leandro Sales Department and request these features.

Very truly yours,



Product Service Supervisor
Electronic Calculator

LGM:cr

Friden, Inc.

SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

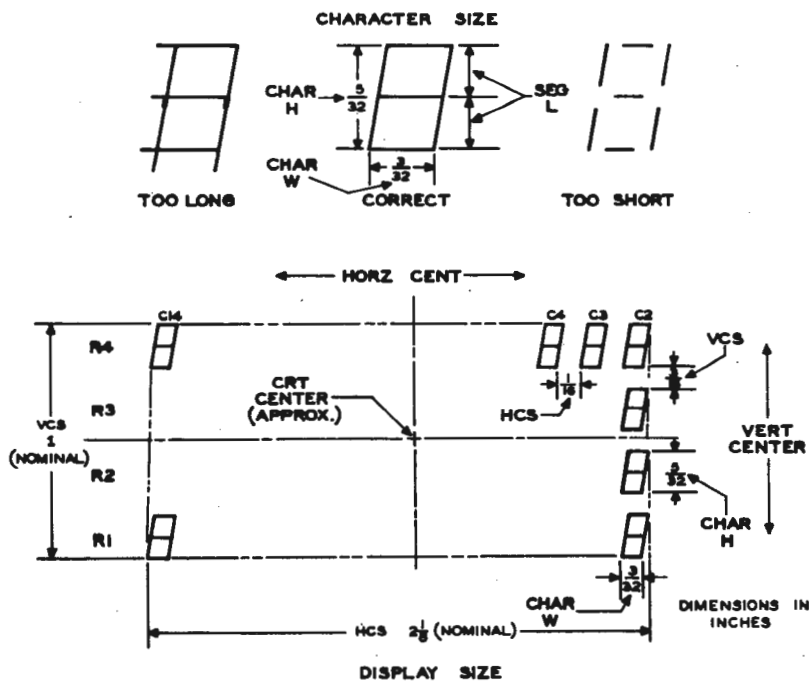
ALL BRANCH & AGENCY MANAGERS
TO _____ AND SERVICE MANAGERS

FROM L. G. McNeil DATE November 18, 1964

SUBJECT EC-130 CHARACTER & DISPLAY SIZE

There is apparently personal interpretations by the salesmen as to the proper size of the display characters on the EC-130. To eliminate any confusion and to prevent each salesman from requesting a different display dimension to the size he may think is proper, the following display dimensions are standard and should not be changed. There is a sound engineering reason for not going beyond these dimensions, even though it can be done.

Every dimension and its method of adjustment is carefully explained on Page 9 of Section 3 in the "EC-130 Calculator Field Service Manual".



Character Height - $5/32$ " , Character Width - $3/32$ " , Segment Length - $3/32$ " ,
Character Spacing Horizontal - $1/16$ " , Character Spacing Vertical - $3/16$ " , Overall
Vertical Dimension - 1" , and Overall Horizontal Dimension - $2 \frac{1}{8}$ " .

Very truly yours,

Product Service Supervisor
Electronic Calculator

Friden, Inc.

SERVICE FLYER

#132

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE November 19, 1964

SUBJECT USE OF ELECTRONIC CALCULATOR DEPOT
RECORD - FORM 73-181-SL

Effective immediately, Electronic Calculator Depot Record Form 73-181-SL will be used when shipping boards, machines or assemblies to the depots for repair and return.

The branch or agency will complete the top portion of the form which includes the customer's name, serial number of the machine, branch or agency, the item for repair and return, date shipped, how shipped (carrier), and the branch or agency number. Number each shipment sent to the depot for repair. The number should start with one and be updated by one for each shipment to the depot. It should appear immediately following the branch or agency number (example: 253-1, 253-2, etc.). This number will then serve as your invoice number.

Explain the malfunction in detail. Check the proper box showing if the machine is in guarantee, under maintenance, trial, lease, rent, out guarantee, stock or if modification is required.

Retain the pink branch copy and enclose the four remaining copies with the shipment to the depot.

The depot will complete the depot portion of Form 73-181-SL. For machines in guarantee or under maintenance, the depot will list all parts used plus the total time required for the repair. Charges to the branch or agency for parts will be made at the applicable discount rate. Labor will be charged at our regular rate less 50%, with a maximum flat rate labor charge of \$18.00.

For repairs chargeable to the customer (machines not under guarantee or maintenance) the charges to the branch or agency will be the same as above except that there will be no maximum flat rate labor charge of \$18.00.

The depot will enclose the packing slip with the returned shipment. This will serve to identify the returned shipment and it will also show the total charges in order that the branch or agency can complete the point of sale invoice to the customer for out of guarantee machines.

Where a charge is to be made to the customer the branch or agency will charge list price for parts (Note: Special care should be taken to extend unit price with quantity used.) plus total depot labor charges plus other accumulated charges such as shipping charges, pick up and delivery charges plus mileage. If repair loan cards have been installed in the customer's machine, then there will be an additional rental charge of \$10.00 for use of loan boards while customer's boards are being repaired.

The depot will mail the original (white) and the duplicate (blue) copies to San Leandro. The branch or agency will then be debited for these charges.

Very truly yours,



L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

Friden Inc.

ELECTRONIC CALCULATOR DEPOT RECORD

MODEL SERIAL NUMBER
EC-130 9999999
BRANCH **YOUR TOWN**

CUSTOMER NAME: **ABCD**

REPAIR AND RETURN THE FOLLOWING ITEMS: **4 BOARDS AB, CD, EF & GH**

DATE SHIPPED: (PREPAID) **7-16-65** HOW SHIPPED: (CARRIER) **AIR EXPRESS - UNITED**

BRANCH NUMBER **253 - 1**

BRANCH - EXPLAIN MALFUNCTION IN DETAIL:

1. GUAR.	2. MAINT. AGREE.	3. TRIAL	4. LEASE	5. RENT	6. OUT GUAR.	7. STOCK	8. MODIFICATION
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QTY.	UNIT PRICE	PARTS DISC CODE	PART NO.	AMOUNT LESS DISC.
1	.80	E	223297	1.60
2	1.14	E	223292	1.71
1	20.85	E	804001	15.64
				23.93
				17.95

EXPLAIN IN DETAIL TYPE OF MALFUNCTION

DEPOT - EXPLAIN REPAIR IN DETAIL:

SAME AS ABOVE, PLUS GATE NUMBERS AND COORDINATE LOCATION.

PARTS TOTAL \$ **17.95**
LABOR **4** HRS. @ \$ **9.00**
— /4 HRS. @ \$ —
LESS DISCOUNT \$ **18.00**
LABOR TOTAL \$ **18.00**

SERVICE REPAIR DEPOT: **SAN FRANCISCO** DEPOT NUMBER: **723**

REPAIRED BY: **SMITH** DATE REC'D: **7-18-65** DATE REPAIR COMPLETED: **7-19-65**

DATE SHIPPED: (COLLECT) **7-19-65** HOW SHIPPED: (CARRIER) **AIR EXP. UNITED**

HOME OFFICE USE ONLY CREDIT: DEBIT: REFER A.A.

TOTAL CHARGE \$ **35.95**
THESE CHARGES WILL BE DEBITED TO YOUR BRANCH BY SAN LEANDRO

Friden, Inc. **SERVICE FLIER**

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE January 20, 1965

SUBJECT USE OF ELECTRONIC CALCULATOR DEPOT
RECORD - FORM 73-181-SL

Effective immediately, Electronic Calculator Depot Record Form 73-181-SL will be used when shipping boards, machines or assemblies to the depots for repair and return.

The branch or agency will complete the top portion of the form which includes the customer's name, serial number of the machine, branch or agency, the item for repair and return, date shipped, how shipped (carrier), and the branch or agency number. Number each shipment sent to the depot for repair. The number should start with one and be updated by one for each shipment to the depot. It should appear immediately following the branch or agency number (example: 253-1, 253-2, etc.). This number will then serve as your invoice number.

Explain the malfunction in detail. Check the proper box showing if the machine is in guarantee, under maintenance, trial, lease, rent, out guarantee, stock or if modification is required.

Retain the pink branch copy and enclose the four remaining copies with the shipment to the depot.

Depot will complete the depot portion of Form 73-181 - San Leandro.

MACHINES IN GUARANTEE:

The depot will list all parts used, plus total time required for repair. Labor will be charged at our regular rate less 50% with a maximum flat rate labor charge of \$18.00. There will be no charge for parts to the branch or agency used to repair in-guarantee machines.

The depot will submit Service Record 73-3 stamped "No Charge" for all labor not chargeable on Electronic Calculator Report Record 73-181-SL. Branch offices will submit Service Record 73-3 stamped "No Charge" for labor charged by depot, also, shipping costs of boards or machines to and from depot. All parts used to repair in-guarantee machines are to be returned to San Leandro for replacement.

MACHINES OUT OF GUARANTEE OR UNDER MAINTENANCE CONTRACT

Machines or cards out of guarantee or under maintenance contract will be charged for parts and labor. Labor will be charged at our regular rate less 50%. There will be no flat rate labor charge. Parts will be charged at list price less the applicable discount rate. There will be a 10 day guarantee on all labor performed at the depot.

The depot will enclose the packing slip with the returned shipment. This will serve to identify the returned shipment and it will also show the total charges in order that

the branch or agency can complete the point of sale invoice to the customer for out of guarantee machines.

Where a charge is to be made to the customer, the branch or agency will charge list price for parts (Note: Special care should be taken to extend unit price with quantity used.) plus total depot labor charges plus other accumulated charges such as shipping charges, pick up and delivery charges plus mileage. If repair loan cards have been installed in the customer's machine, then there will be an additional rental charge of \$10.00 for use of loan boards while customer's boards are being repaired.

The depot will mail the original (white) and the duplicate (blue) copies to San Leandro. The branch or agency will then be debited for these charges.

Very truly yours,



L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr



ELECTRONIC CALCULATOR DEPOT RECORD

MODEL SERIAL NUMBER
EC-130 9999999

CUSTOMER NAME: **ABCK** BRANCH: **YOUR TOWN**

REPAIR AND RETURN THE FOLLOWING ITEMS: **4 BOARDS AB, CD, EF & GH**

DATE SHIPPED: **7-16-65** (PREPAID) HOW SHIPPED: **AIR EXPRESS - UNITED** (CARRIER) BRANCH NUMBER: **253-1**

BRANCH - EXPLAIN MALFUNCTION IN DETAIL:	1. GUAR.	2. MAINT. AGREE.	3. TRIAL	4. LEASE	5. RENT	6. OUT GUAR.	7. STOCK	8. MODIFICATION	QTY.	PARTS		AMOUNT LESS DISC.	
										UNIT PRICE	DISC CODE		PART NO.
EXPLAIN IN DETAIL TYPE OF MALFUNCTION									1	.80	E	223297	160
									2	1.14	E	223292	171
									1	20.85		804001	1564
DEPOT - EXPLAIN REPAIR IN DETAIL:										23.93			1795
SAME AS ABOVE, PLUS GATE NUMBERS													
AND COORDINATE LOCATION.													

	PARTS TOTAL	\$	1795
LABOR	4 HRS. @ \$	9.00	
	/4 HRS. @ \$		
	LESS DISCOUNT	\$	1800
	LABOR TOTAL	\$	1800

SERVICE REPAIR DEPOT: **SAN FRANCISCO** DEPOT NUMBER: **723**

REPAIRED BY: **SMITH** DATE REC'D: **7-18-65** DATE REPAIR COMPLETED: **7-19-65**

DATE SHIPPED: **7-19-65** (COLLECT) HOW SHIPPED: **AIR EXP. UNITED** (CARRIER)

HOME OFFICE USE ONLY CREDIT: DEBIT: REFER A.A.

TOTAL CHARGE \$ **3595**

THESE CHARGES WILL BE DEBITED TO YOUR BRANCH BY SAN LEANDRO

Friden, Inc.

#132B

SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE June 7, 1965

SUBJECT USE OF ELECTRONIC CALCULATOR DEPOT
RECORD - FORM 73-181-SL

Effective immediately, Electronic Calculator Depot Record Form 73-181-SL will be used when shipping boards, machines or assemblies to the depots for repair and return.

The branch or agency will complete the top portion of the form which includes the customer's name, serial number of the machine, branch or agency, the item for repair and return, date shipped, how shipped (carrier), and the branch or agency number. Number each shipment sent to the depot for repair. The number should start with one and be updated by one for each shipment to the depot. It should appear immediately following the branch or agency number (example: 253-1, 253-2, etc.). This number will then serve as your invoice number.

Explain the malfunction in detail. Check the proper box showing if the machine is in guarantee, under maintenance, trial, lease, rent, out guarantee, stock or if modification is required.

Retain the pink branch copy and enclose the four remaining copies with the shipment to the depot.

Depot will complete the depot portion of Form 73-181 - San Leandro.

MACHINES IN GUARANTEE:

The depot will list all parts used, plus total time required for repair. Labor will be charged at our regular rate less 50% with a maximum flat rate labor charge of 2 hours. There will be no charge for parts to the branch or agency used to repair in-guarantee machines.

The depot will submit Service Record 73-3 stamped "No Charge" for all labor not chargeable on Electronic Calculator Report Record 73-181-SL. Branch offices will submit Service Record 73-3 stamped "No Charge" for labor charged by depot, also, shipping costs of boards or machines to and from depot. All parts used to repair in-guarantee machines are to be returned to San Leandro for replacement.

MACHINES OUT OF GUARANTEE OR UNDER MAINTENANCE CONTRACT

Machines or cards out of guarantee or under maintenance contract will be charged for parts and labor. Labor will be charged at our regular rate less 50%. There will be no flat rate labor charge. Parts will be charged at list price less the applicable discount rate. There will be a 10 day guarantee on all labor performed at the depot.

The depot will enclose the packing slip with the returned shipment. This will serve to identify the returned shipment and it will also show the total charges in order that

the branch or agency can complete the point of sale invoice to the customer for out of guarantee machines.

Where a charge is to be made to the customer, the branch or agency will charge list price for parts (Note: Special care should be taken to extend unit price with quantity used.) plus total depot labor charges plus other accumulated charges such as shipping charges, pick up and delivery charges plus mileage. If repair loan cards have been installed in the customer's machine, then there will be an additional rental charge of \$10.00 for use of loan boards while customer's boards are being repaired.

The depot will mail the original (white) and the duplicate (blue) copies to San Leandro. The branch or agency will then be debited for these charges.

Very truly yours,

L. G. McNeil

L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

Friden Inc.

ELECTRONIC CALCULATOR DEPOT RECORD

MODEL SERIAL NUMBER
EC-130 9999999

CUSTOMER NAME: **ABCK** BRANCH: **YOUR TOWN**

REPAIR AND RETURN THE FOLLOWING ITEMS: **4 BOARDS AB, CD, EF & GH**

DATE SHIPPED: **7-16-65** HOW SHIPPED: **AIR EXPRESS - UNITED**

BRANCH NUMBER: **253-1**

BRANCH - EXPLAIN MALFUNCTION IN DETAIL:	1. GUAR.	2. MAINT. AGREE.	3. TRIAL	4. LEASE	5. RENT	6. OUT GUAR.	7. STOCK	8. MODIFICATION	PARTS				
									QTY.	UNIT PRICE	DISC CODE	PART NO.	AMOUNT LESS DISC.
EXPLAIN IN DETAIL TYPE OF MALFUNCTION									1	.80	E	223297	1.60
									2	1.14	E	223292	1.71
									1	20.85		804001	15.64
DEPOT - EXPLAIN REPAIR IN DETAIL:										23.93			17.95
SAME AS ABOVE, PLUS GATE NUMBERS													
AND COORDINATE LOCATION.													

PARTS TOTAL \$ **17.95**
LABOR 4 HRS. @ \$10.00
/4 HRS. @ \$
LESS DISCOUNT \$20.00
LABOR TOTAL \$ **20.00**

SERVICE REPAIR DEPOT: **SAN FRANCISCO** DEPOT NUMBER: **723**

REPAIRED BY: **SMITH** DATE REC'D: **7-18-65** DATE REPAIR COMPLETED: **7-19-65**

DATE SHIPPED: **7-19-65** HOW SHIPPED: **AIR EXP. UNITED**

HOME OFFICE USE ONLY CREDIT: DEBIT: REFER A.A.

TOTAL CHARGE **37.95**
THESE CHARGES WILL BE DEBITED TO YOUR BRANCH BY SAN LEANDRO

ORIGINAL - SAN LEANDRO

Friden, Inc.

SERVICE FLYER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SALES & SERVICE MANAGERS

FROM Russell Ketchum DATE December 3, 1964

SUBJECT EC130 LOGIC CARDS

At the service managers meetings I advised that logic cards for the 130 Electronic Calculator would be capitalized and charged to the branches on a prorated monthly figure.

Since returning to San Leandro I find that any monthly charge back would not exceed twelve (12) months; therefore, it does not seem reasonable to set up the necessary accounting procedure for such a short term prorated charge. Therefore, all logic boards and electronic parts will be charged to the branch at list less discount when shipped from San Leandro. Offices who have received these boards and associated parts will find an increase in their parts charges for the month in which the boards were shipped.

Very truly yours,



Russell Ketchum
General Service Manager

RK:cr

Friden, Inc.

SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH SERVICE MANAGERS

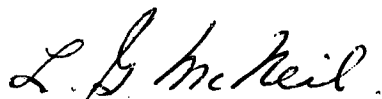
FROM L. G. McNeil DATE January 20, 1965

SUBJECT EC-130 MAINTENANCE AGREEMENT

When submitting a Friden, Inc. maintenance agreement to a customer on an EC-130, Electronic Calculator, please use Friden, Inc. Maintenance Agreement Form 73-50.

The EC-130 maintenance rate is \$95.00 for Zone 1 and \$100.00 for Zone 2 with two maintenance inspections per year.

Very truly yours,



L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

Friden, Inc.**SERVICE FLIER**HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIATO ALL BRANCH & AGENCY SERVICE MANAGERSFROM L.G. McNeil DATE June 24, 1965SUBJECT SHIPMENT OF EQUIPMENT TO REPAIR
DEPOT FOR REPAIR & RETURN

When shipping EC-130 Electronic Calculators or Logic Boards to the depot for repair and return, they MUST be shipped PREPAID. All shipments are to be made by common carrier. Refer to Service Flier #119 dated 9-4-64.

DO NOT USE SAN LEANDRO BILL OF LADING MARKED:

FRIDEN, INC.
Traffic Dept.
San Leandro

Form 16-13

Form 16-13 is to be used only for inter-office shipment of inventory machines as directed by San Leandro Sales Department.

Very truly yours,



L.G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

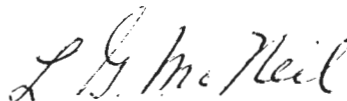
Friden, Inc.**SERVICE FLIER**HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIATO ALL BRANCH & AGENCY SERVICE MANAGERSFROM L.G. McNeil DATE June 24, 1965SUBJECT RETURN OF GUARANTEE CATHODE RAY TUBES

The manufacturers of EC-130 Cathode Ray Tubes have extended the guarantee to one year from the date of manufacture.

Use the following procedure when returning Cathode Ray Tubes for replacement at no charge:

1. Fill out in detail the Defective Part Tag, Form 721-61 (formerly 73-61).
 - A. Show manufacturers name on tag.
 - B. When installing new tube, date tube so you will know how long it was installed.
 - C. Be sure to list why the tube was replaced.
2. Credit will be given for tubes if returned to San Leandro within one year of date the tube was manufactured. The year and week is stamped on the tube. For example, 6527 would be the 27th week of 1965 which is the week of June 28, 1965.
3. No credit will be given on tubes if the intensity has been turned up too high and there are burned spots on the face of the CRT.

Very truly yours,



L.G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

Friden, Inc. **SERVICE FLIER**

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L.G. McNeil DATE July 16, 1965

SUBJECT RETURN OF GUARANTEE CATHODE-RAY TUBES

The manufacturers of the EC-130 Cathode-Ray Tubes MAY extend the guarantee to 500 hours or one year from the date of manufacture, whichever comes first. However, the guarantee is conditional and depends on their inspection of the tube.

Before the manufacturer will honor the guarantee they require specific information. Use the following procedure when returning Cathode-Ray Tubes for replacement at no charge:

Note: Guarantee of EC-130 is 90 days for parts and labor, this includes the Cathode-Ray Tube. Do NOT quote to the customer that the Cathode-Ray Tube may have a one year guarantee.

1. Fill out in detail defective part tag, Form 721-61 (Formerly 73-61).
 - A. Show Cathode-Ray tube manufacturer's name on tag.
 - B. Date installed. If the CRT was removed from a new machine, show date machine arrived in your office. If it was a replacement CRT, show date tube was originally installed. When installing new tube, date tube so you will know how long it has been in service.
 - C. Date tube was removed.
 - D. Machine serial number.
 - E. Service time in hours. Compute the hours based upon estimated time machine is in use per day times the number of days the tube was in service.
 - F. Be sure to list why the tube was replaced.
2. Credit may be given for tubes if returned to San Leandro within one year of date the tube was manufactured. The year and week is stamped on the tube. For example: 6527 would be the 27th week of 1965 which is the week of June 28, 1965.
3. No credit will be given on tubes if the intensity has been turned up too high and there are burned spots on the face of the CRT.

If any of the above information is not shown on the defective tag, the manufacturers will not give credit for the defective tube.

Very truly yours,

L.G. McNeil

Product Service Supervisor
Electronic Calculator

Friden, Inc. **SERVICE FLIER**

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L.G. McNeil DATE September 10, 1965

SUBJECT EC-130 BOARD REQUIREMENTS

Each office has now been shipped an initial stock of EC-130 boards, therefore, we are requesting that you supply us with the quantity of boards you feel you will need to maintain service on your inventory of machines through the end of 1965.

Please fill out the lower portion of this service flier and return it to San Leandro so that we can order from production the number of boards that will be required for your branch and sub-office operation.

→ Please take into consideration your machine population, the geographical location of the machines, and your sub-offices.

Very truly yours,

L.G. McNeil

L.G. McNeil
Product Service Supervisor
Electronic Calculator

EC-130 count Office - 51
EC-130 count subOffice - 10
EC-130 count by end of - 75
1965
EC-130 Boards in stock - 2
EC-130 Boards needed to
LGM:cr finish 1965 - 1

esr

Friden, Inc.

#179-A
SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE February 24, 1966

SUBJECT EC-130/132 BENCH MACHINE

Stripped-down EC-130 and EC-132 chassis may be obtained for your office as a test machine.

We would recommend that each office that has a trained EC-130 man order one of these machines. These units will be sold to you at cost and will be amortized to your office. The unit will consist of the bare machine without logic boards or covers.

Please submit your FPO to San Leandro for a stripped-down EC-130 or EC-132 chassis before March 11, 1966 so we can be assured of receiving these units.

Very truly yours,

L. G. McNeil

L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

No need at present.

Friden, Inc. **SERVICE FLIER**

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS
FROM L. G. McNeil DATE October 21, 1965
SUBJECT EC-130/132 SCHEMATICS, BLOCK DIAGRAMS, & MDD

We have recently had a number of requests from branch offices inquiring about Schematics, Block Diagrams, and the MDD (Computer Printout) for the EC-130/132 for customers.

We now have a ruling from our Company's Attorney stating that we are not obligated, nor are we required by law to sell or give the Schematic away to any customer since the patent application is still pending on this machine.

Should you receive a request from any customer requesting a Schematic, Block Diagram or Computer Printout, you can tell them that these are not available and are not for sale.

Very truly yours,



L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:ml

Friden, Inc. **SERVICE FLIER**

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH SERVICE MANAGERS
FROM L. G. McNeil DATE October 27, 1965
SUBJECT FORM 721-197 S.L.

We are in the process of posting the data on the EC-130 service reports from Form 721-197 S.L. In doing so, we find many, many, of the reports improperly filled out. Please refer to Service Flier #168 for the proper procedure for filling out this form.

One other thing we are finding is that many offices are sending in the carbon copies to San Leandro. It is imperative that we have the original copy because we cannot post from the duplicate copy.

Another item for each office to remember is that your office is being credited for the NO CHARGE from Form 721-197 S.L. We do not want Form 73-3 because the data on this form is not properly applied for the Add Punch operator to post this information.

Let us all try to give us more cooperation so that we can process this information without duplicate efforts on the part of all of us.

Very truly yours,

L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:ml

CFR

Friden, Inc. **SERVICE FLIER**

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

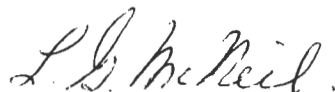
FROM L.G. McNeil DATE November 1, 1965

SUBJECT DEFECTIVE AC SWITCHES - EC-130
ELECTRONIC CALCULATOR

We have received a large number of AC switches that were returned to San Leandro for replacement. Upon checking these switches, we found some that were not defective. We believe the failure of the switch to operate is due to lever bracket assembly, Part No. 803695, shown on page 15, Figure 34, in the Electronic Calculator Parts Manual. The screw that holds the lever bracket assembly works loose, and as a result, the switch does not get a full throw.

In order to tighten this switch, it is necessary to drop the float. We would recommend that you use "Glyptol" or "Loctite" on the threads before tightening.

Very truly yours,



L.G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

Friden, Inc.

#206
SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS
FROM L. G. McNeil DATE February 24, 1966
SUBJECT EC-130 LOGIC BOARDS (Rev. 2)

Certain technical changes in the Electronic Calculator, Model 130, have resulted in the employment of more efficient manufacturing techniques.

As a result, the logic boards manufactured to these changes will be referred to as Revision 2. Revision 2 Logic Boards will not be interchangeable with the logic boards presently manufactured which we will refer to as logic boards, Revision 1.

To provide field service for the EC-130, it will be necessary for each office to have Revision 1 and Revision 2 Logic Boards because the logic boards will not be interchangeable.

Please submit your FPO to San Leandro for the type of EC-130 Logic Boards that you will require for 1966. We should receive your FPO by March 11, 1966 so we can establish our 1966 requirements.

EC-130 Logic Boards - Revision 1
EC-130 Logic Boards - Revision 2

Very truly yours,

L. G. McNeil

L. G. McNeil
Product Service Supervisor
Electronic Calculator

LGM:cr

need one set Revision # 2 Logic Boards.

Friden, Inc.

#226

SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE April 20, 1966

SUBJECT EC-130 UNPACKING & TESTING INSPECTION
RECORD - FORM 73-67 ON EC-130'S ABOVE
SERIAL #8500.

When you receive an EC-130 with a serial number above 8500, inspect the machine in the normal manner. Test and record any failures or malfunctions on the machine and indicate the condition of the machine upon unpacking.

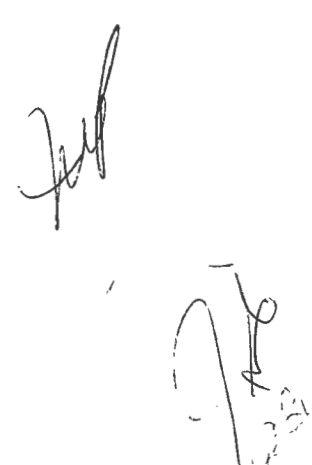
Retain the unpacking and inspection report for one (1) week. Record all malfunctions and corrections that were necessary during the first week the machine is in your possession. After one week, mail the unpacking and testing report to San Leandro General Service Department.

NOTE: Refer to Electronic Calculator Service Letter #18.

REMEMBER: Do not attempt to interchange EC-130, Rev. 1 Logic Cards in machines above serial #8500.

Do not attempt to interchange Rev. C Logic Cards in machines below serial #8500.

LOGIC BOARDS WILL BE DAMAGED!



Friden, Inc.

#229

SERVICE FLIER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE April 26, 1966

SUBJECT REPAIR OF EC-130 AND EC-132
MACHINES IN OUR DEPOTS

It has been brought to our attention again that the EC-130, EC-132 and the logic boards for these machines are sent to the repair depots without any information as to the type of failures or the status of the machine.

As you are well aware, a service technician can search blindly for a problem that exists in a machine if he is not informed of the type of malfunction he is attempting to correct.

When an EC-130, 132 or logic boards are sent to a repair depot and the status code is not indicated, the service repair depot has no other alternative than to charge full rate with no discount. If a machine is sent in with no indication of what the malfunction is and the depot technician is compelled to hunt blindly for a problem, the charges for this repair will be full rate at no discount even though the status code is indicated.

To eliminate the extra charges to your office, the depot personnel will require your full cooperation by giving all of the information available.

[Handwritten signature]
L. G. McNeil

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE June 10, 1966

SUBJECT EC-130 & EC-132 BENCH MACHINES

There is a limited number of bench machines available of the following types:

EC-130 Below Serial #8500 for use with Revision 1
Logic Boards

EC-130 Above Serial #8500 for use with Revision C
Logic Boards

EC-132 All serial numbers

These machines may be used for checking and repairing customer's logic boards; or in some cases they may be used as repair loan machines while the machine is either taken to the shop for repair or shipped to the repair depot.

If you require bench machines, please order as follows:

1. EC-130 (Same as machines below 8500 serial number).
2. EC-130 (Revision C machine, same as machines above 8500 serial number).
3. EC-132.

Please submit your FPO to San Leandro for the quantity of machines required. These machines will be charged to your office at cost and will be amortized in accordance to standard Friden policy.

Friden, Inc.

#244

SERVICE FLYER

HOME OFFICE CORRESPONDENCE
SAN LEANDRO, CALIFORNIA

TO ALL BRANCH & AGENCY SERVICE MANAGERS

FROM L. G. McNeil DATE June 28, 1966

SUBJECT PACKING OF ELECTRONIC CALCULATORS
FOR SHIPPING

When packing an EC-130 or EC-132 Electronic Calculator for shipping, be sure that the horsehair mat, part number 8454, is installed underneath the machine.

Failure to do this results in additional bouncing of the unit and quite frequently increases your problems. A particularly nasty problem is created when one or more delay line loops bounce out of their keepers.