

# OCTOBER 1988

## ISSUE 22



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NOTE: ISSUE 22 ON-LINE AUG 15 TO NOV 4, 1988.  
ISSUE 23 ON-LINE START NOV 7, 1988.

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22/1-1.1 PAST DUE ACCOUNTS.

PLEASE KEEP YOUR ACCOUNT UP TO DATE. ANY ACCOUNT 30 DAYS PAST DUE WILL RESULT IN CANCELLATION OF ALL YOUR CURRENT BACK ORDERS.

THEREFORE, ONCE YOUR ACCOUNT HAS BEEN CLEANED UP, YOU WILL HAVE TO RE-ORDER.

22/1-2.1 OCTOBER TRAINING SPECIAL.

SPECIAL RATES ARE BEING OFFERED TO ALL AUTHORIZED SERVICE CENTERS FOR THE COMMODORE SCHEDULED 5-DAY SERVICE TRAINING COURSES DURING OCTOBER 1988.

OCTOBER 10TH - 14TH  
OCTOBER 24TH - 28TH  
OCTOBER 31ST - NOVEMBER 4TH

TECHNICIANS MAY ATTEND THESE COURSES FOR A REDUCED RATE OF \$75.00 PER DAY (\$125.00 SAVINGS).  
DOUBLE-UP DISCOUNTS ARE NOT VALID DURING THIS SPECIAL.

## 22/1-3.1 DOUBLE-UP DISCOUNTS FOR 5-DAY SERVICE TRAINING.

DISCOUNTS ARE BEING OFFERED TO AUTHORIZED SERVICE CENTERS ENROLLING MORE THAN ONE TECHNICIAN IN COMMODORE SCHEDULED 5-DAY SERVICE TRAINING COURSES.

FOR EACH TECHNICIAN ENROLLED AT THE NORMAL RATE, A SECOND TECHNICIAN FROM THE SAME COMPANY MAY ATTEND THE SAME TRAINING COURSE FOR \$250.00 (50% DISCOUNT). THIS DISCOUNT INCLUDES 5-DAY COURSES ONLY. AND IS NOT VALID DURING THE OCTOBER SPECIAL (SEE 22/1-2.1 ABOVE).

## 22/1-4.1 CURRENT SERVICE TRAINING SCHEDULE.

PLEASE CONTACT JOHN DIMEO AT (215) 431-9214 OR TONY GRECO AT (215) 431-9215 FOR DETAILS.  
THE CURRENT 1988 SCHEDULE IS AS FOLLOWS:

| MONTH | DATE    | TRAINING DAYS | PRODUCTS      | STATUS |
|-------|---------|---------------|---------------|--------|
| NOV   | 7-9     | MON-WED       | CBM ONLY      | OPEN   |
| NOV   | 14-18   | MON-FRI       | CBM/PC/AMIGA  | OPEN   |
| NOV   | 28-DEC2 | MON-FRI       | CBM/PC/AMIGA  | OPEN   |
| DEC   | 5-9     | MON-FRI       | CBM/PC/AMIGA  | OPEN   |
| DEC   | 13-15   | TUES-THUR     | AMIGA/PC ONLY | OPEN   |
| DEC   | 19-23   | MON-FRI       | CBM/PC/AMIGA  | OPEN   |

## 22/1-5.1 800 SERVICE FOR PENNSYLVANIA.

SERVICE CENTERS IN PENNSYLVANIA MAY NOW ACCESS THE TOLL FREE 800 TECH HOT LINE SERVICE.

THE NUMBER FOR THE TECH HOT LINE IS 1-800-874-4811. TOLL FREE ACCESS TO C-TOC WILL ALSO BE AVAILABLE TO PENNSYLVANIA SERVICE CENTERS IN THE NEAR FUTURE.

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22/1-6.1 SALES COMPANIES RETURN AUTHORIZATION POLICY CHANGE.

STARTING SEPTEMBER 1, 1988, COMMODORE WILL PUT INTO EFFECT A NEW RETURN AUTHORIZATION POLICY FOR SALES COMPANIES.

THE NEW RETURN PROGRAM WILL UNDOUBTABLY IMPACT YOUR REPAIR BUSINESS. YOU SHOULD SEE AN INCREASE IN THE NUMBER OF UNITS REQUIRING SERVICE.

BE PREPARED! STOCK UP ON PARTS NOW! REMEMBER A PARTS PRICE INCREASE WILL GO INTO EFFECT OCTOBER 1, 1988.

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END ISSUE 22, INFO 10/88

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## PARTS

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- 22/2-1.1 PARTS PRICE INCREASE EFFECTIVE OCT. 1.

EFFECTIVE OCTOBER 1, 1988 ALL SERVICE PARTS PRICES WILL BE INCREASED. SERVICE CENTERS ARE ENCOURAGED TO PLACE ORDERS NOW.

A NEW REVISIED PARTS PRICE BOOK WILL BE RELEASED AT THE END OF SEPTEMBER WITH THE NEW PRICING STRUCTURE.

[REPEAT OF BULLETIN 21/2-5.1 TT21]

- 22/2-2.1 C64 POWER SUPPLY SPECIAL SALE.

C64 POWER SUPPLIES, REGULARLY PRICED AT \$18.00 ARE NOW AVAILABLE AT \$15.00 IN CASE LOTS OF 16. SERVICE CENTERS SAVE \$48.00 FOR A LIMITED TIME.

THIS SPECIAL SALE WILL BE IN EFFECT UNTIL SEPT 30, 1988.

[REPEAT OF BULLETIN 21/2-4.1 TT21]

- 22/2-3.1 A2090, A2052, A2058 PCB DEALER BILLING.

EFFECTIVE IMMEDIATELY. THE DEALER BILLING FOR THE A2090, A2058, AND THE A2088 PCB HAVE BEEN ADJUSTED.

| PART NUMBER | DESCRIPTION     | RETURN CREDIT | DEALER BILLING |
|-------------|-----------------|---------------|----------------|
| 311979-01   | A2090 PCB ASSY  | \$145.00      | \$260.00       |
| 312365-01   | A2052 PCB ASSY  | \$225.00      | \$360.00       |
| 380755-01   | A2088 PCB ASSY  | \$225.00      | \$455.00       |
| 380111-01   | DRIVE ASSY 5.25 |               | \$109.00       |
| 380752-01   | DRIVE ASSY 3.5  |               | \$130.00       |

END ISSUE 22, PARTS 10/88

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## AMIGA

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 22/3-5.2 ENCLOSURE: E22/3-5.2 - A2058 PN# 314881-01

## 22/3-1.1 FAT AGNUS SOCKET SPECIFICATIONS

SERVICE PARTS DEPARTMENT WILL BE STOCKING THE 84 PIN PLCC SOCKET USED FOR FAT AGNUS AND FE2010A. COMMODORE PART NUMBER - 390185-01, DEALER BILLING IS \$6.50.

DESCRIPTION - THIS SPECIFICATION DESCRIBES THE REQUIREMENTS FOR PLASTIC LEADED CHIP CARRIERS. ACCOMMODATES PACKAGES CONFORMING TO EIA/JEDEC STANDARDS - TYPE C. CARRIER INCORPORATES CLOSED BOTTOM, PREVENTING SOLDER BRIDGING OR WICKING AND HAS OPEN CENTER AND CORNER STAND-OFF FOR EASY REMOVAL OF ANY FLUX RESIDUE AFTER ASSEMBLY OPERATION. ADAPTS .050 INCH CHIP CARRIER TO .100 BOARD HOLE SPACING.

## PHYSICAL MATERIAL -

BODY: GLASS RE-INFORCED THERMOPLASTIC  
 CONTACT: BERYLLIUM COPPER  
 FINISH: TIN ALLOY, POST PLATED.  
 FLAMMABILITY: UL94V-0  
 INSERTION FORCE: 12 OZ. PER CONTACT.  
 WITHDRAWAL FORCE: 0.5 OZ. PER CONTACT.  
 INSERTION: POLARIZED AND PIN 1 LOCATION IS MARKED.  
 SOLDERABILITY: WAVE SOLDER (SOLDER TAIL)  
 VAPOR REFLOW (SURFACE MOUNT)

## ELECTRICAL -

CONTACT RATING: 1 AMP/CONTACT  
 INSULATION RESISTANCE: 5000 MEGOHMS - MINIMUM  
 DIELECTRIC VOLTAGE: 1000 VAC RMS  
 CAPACITANCE: 1.0 PF - MAXIMUM  
 CONTACT RESISTANCE: 20 MILLI OHMS/CONTACT

22/3-1.1 FAT AGNUS SOCKET SPECIFICATIONS. (CONTINUED)

ENVIRONMENTAL -

TEMPERATURE RANGE:

-40 DEGREES C TO 85 DEGREES C

SHOCK:

100G, PER MIL-STD-202 METHOD 213

VIBRATION:

15G, 10-2000 HZ MIL-STD-1344A

HUMIDITY:

CONFORMS TO EIA SPECS.

WARNING - DO NOT USE SUB-STANDARD REPLACEMENT PARTS, TIN OR UNLEADED SOCKETS MAY LED TO INTERMITTENT PROBLEMS. NO CREDIT WILL BE ISSUED FOR PCB'S RETURNED WITH NON-APPROVED VENDORS SOCKETS.

APPROVED VENDORS - BURNDY

QILE-84P-410T

MIDLAND ROSS

709-2000-084-4-1-1

22/3-2.1 FLAT PACK IC EXTRACTOR.

A BURNDY CHIP EXTRACTOR, QILEXT-1 IS REQUIRED FOR REMOVAL OF NEW 84 PIN PLCC (PLASTIC LEADED CHIP CARRIER), SUCH AS FAT AGNUS (AMIGA) AND FE2010A (PC10-III, PC20-III, COLT).

THIS EXTRACTOR MAY BE PURCHASED FROM LECTRONIX (314) 946-6424 (ASK FOR SHARON). LECTRONIX SELLS THIS TOOL FOR \$15.00 WITH NO MINIMUM ORDER.

COMMODORE SERVICE WILL MAKE THIS TOOL AVAILABLE IN THE NEAR FUTURE.

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22/3-3.1 A1020 OPERATIONS ADDENDUM.

ISSUE 21 - AMIGA SECTION 21/3-1.2, .3 NOTE:  
A1020 - AMIGADOS WILL FORMAT DISKETTE FOR 440K.

A1020 - MSDOS, YOU MUST BE IN TRANSFORMER BEFORE  
YOU POWER ON THE DRIVE. THIS MEANS THE GREEN AND  
BLACK SCREEN, NOT THE ICON OF TRANSFORMER IN CLI  
WINDOW.

ALL VERSIONS OF A1020, INCLUDING 1.2 AND 1.3 PCBS,  
WORK IF YOU FOLLOW THE INSTRUCTIONS FOR UPDATING  
THE PCB AS DETAILED IN ISSUE 20/3-3.1 .  
REFER TO 21/3-1.2 AND 21/3-1.3 FOR OPERATING  
INSTRUCTIONS.

22/3-4.1 A2090A TECH DATA MANUAL RELEASE.

A2090A HARD DISK CONTROLLER CARD TECHNICAL DATA IS  
INCLUDED WITH MAILING OF TECHTOPICS, ISSUE 22.

THIS CARD IS USED WITH THE 1.3 ROM UPDATE TO PROVIDE  
AUTO-BOOT FROM HARD DRIVE FEATURES ON THE A2000.

22/3-4.2 ENCLOSURE: E22/3-4.2 - A2090A TECH DATA PN# 314880-01.

ENCLOSED IN TECHTOPICS, ISSUE 22. MAILED TO ALL  
AMIGA AUTHORIZED SERVICE CENTERS.

22/3-5.1 A2058 TECH DATA MANUAL RELEASE.

A2058 RAM EXPANDER TECHNICAL DATA IS INCLUDED  
WITH MAILING OF TECHTOPICS ISSUE 22.

22/3-5.2 ENCLOSURE: E22/3-5.1 - A2058 TECH DATA PN# 314881-01.

ENCLOSED IN TECHTOPICS, ISSUE 22. MAILED TO ALL  
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22/4-1.1 C128D ROM RELEASE NOTES.

THE FOLLOWING MODIFICATIONS HAVE BEEN MADE TO THE 318020-05 KERNAL CODE.

- A) # 318023-03 EDITOR, KERNAL, CP/M (\$C000-\$FFFF, U32)  
CKSUM= E424
1. SECURE - THIS KERNAL INITIALIZATION ROUTINE HAS BEEN MODIFIED TO ACCOMODATE TECHNOLOGICAL ADVANCES IN DRAMS. THE DISCHARGE RATE FOR DATA CELLS HAS LENGTHED AND IT NO LONGER POSSIBLE TO RELY ON LOSS OF DATA AS INDICATIVE OF A POWER CYCLE AS OPPOSED TO A RESET. THE SECURE ROUTINE HAS BEEN PATCHED TO EXAMINE THE CONTENTS OF THE 8568 VDC REGISTERS WHICH WILL CONTAIN \$FF IF POWER CYCLED BUT WILL RETAIN THEIR PREVIOUSLY PROGRAMMED DATA THROUGH RESETS. THE EXISITING DETECTION OF A "CBM" RAM KEY IN BANK ONE REMAINS FOR COMPATABILITY. THIS PATCH REQUIRED NEW CODE IN PATCH AREA.
  2. DLABYE - THIS KERNAL SERIAL I/O ROUTINE HAS BEEN PATCHED TO PROVIDE A LONGER DELAY. THIS WILL ELIMINATE CERTAIN RANDOMLY OCCURING DEVICE NOT READY ERRORS, PARTICULARLY AT 2 MHZ. THIS WAS ACCOMPLISHED VIA SINGLE BYTE INLINE PATCH.
  3. OPN232 - THIS KERNAL ROUTINE HAS BEEN PATCHED TO CORRECTLY RETURN ERROR STATUS. WHEN IMPLEMENTING AN X-LINE INTERFACE IT WAS POSSIBLE TO RECEIVE AN ERROR WHEN THER WAS NONE. THIS WAS ACCOMPLISHED VIA SINGLE INLINE PATCH.
  4. THE ROM SIGNATURE LOCATION \$CFFC AND \$CFFD (LO/HI) IS \$8C3E.
  5. THE ROM REVISION BYTE AT LOCATION \$CFFE, HAS INCREMNETED FROM \$01 TO \$02.
  6. THE ROM CHECKSUM BYTE AT LOCATION \$CFFF, HAS CHANGED FROM \$3C TO \$3B.
  7. THE KERNAL REVISION BYTE AT LOCATION \$FF80 HAS BEEN INCREMENTED FROM \$01 TO \$02.

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## 22/4-2.1 1084 PHILIPS MONITOR CABLES.

1084 MONITORS (PHILIPS TYPE) ARE SHIPPED WITH TWO PACKS OF CABLES.

PACK # 318152 CONTAINS CABLES FOR C128/PC.

PN# 905103-06 IS 8 TO 3 PIN COMPOSITE CABLE.

PN# 315704-01 IS 8 TO 9 PIN FOR PC.

PACK # 318151-01 CONTAINS CABLES FOR AMIGA.

PN# 314851-01 IS 23 PIN RGB CABLE.

PN# 327284-01 IS AUDIO Y CABLE.

## 22/4-3.1 1541-II PCB-DRIVE ASSY REFERENCE.

1541-II PCB ASSEMBLY PN# 340503-01 HAS THREE (3) REVISION NUMBERS.

1) 340503-01 REV 4 BOARD: CN4 HAS ALL SEVEN (7) PINS.

2) 340503-01 REV 5 BOARD: PINS 1 & 2 OF CN4 ARE REMOVED, R41 IS REMOVED.

3) 340503-01 REV 6 BOARD: PINS 1 & 2 OF CN4 ARE REMOVED, R41 HAS BEEN RE-INSTALLED.

1541-II HAS THREE (3) DRIVE ASSEMBLIES.

1) 359901-01 NEWTRONICS D500 - USE ONLY REV 4 PCB.

2) 359902-01 CHINON FZ501 - USE REV 4, 5, OR 6 PCBS.

3) 359901-02 NEWTRONICS D500 TYPE R - USE REV 4, 5, OR 6 PCBS.

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## PC

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22/5-1.1 PC10-III, PC20-III, COLT MEMORY MAP.

| MEMORY ADDRESS (HEX) | CONTENTS              |
|----------------------|-----------------------|
| 00 00 00             |                       |
| 03 FF FF             | 640K BASE RAM         |
| 04 00 00             |                       |
| 09 FF FF             |                       |
| 0A 00 00             | EGA/VGA VIDEO RAM     |
| 0A FF FF             |                       |
| 0B 00 00             | MONOCHROME VIDEO      |
| 0B 3F FF             |                       |
| 0B 40 00             | RESERVED              |
| 0B 7F FF             |                       |
| 0B 80 00             | COLOR VIDEO           |
| 0B FF FF             |                       |
| 0C 00 00             | RESERVED FOR EGA BIOS |
| 0C 7F FF             |                       |
| 0C 80 00             | AVAILABLE             |
| 0C 9F FF             |                       |
| 0C A0 00             | RESERVED              |
| 0F 7F FF             |                       |
| 0F 80 00             | CBM 8088 MONITOR      |
| 0F 9F FF             |                       |
| 0F A0 00             | HARD DRIVE BIOS       |
| 0F BF FF             |                       |
| 0F C0 00             | 16K MAIN BIOS         |
| 0F FF FF             |                       |

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22/5-2.1 PC10-III, PC20-III, COLT CBM 8088 MONITOR.

THE PC10-III, PC20-III AND COLT HAVE A BUILT IN MONITOR, IN ADDITION TO THE DEBUG MONITOR IN THE OPERATING SYSTEM.

THE COMMODORE 8088 MONITOR MAY BE ENTERED WHEN A ERROR CONDITION IS DETECTED ON POWER UP TESTS BY PRESSING THE CONTROL KEY IN COMBINATION WITH THE 'M' KEY (CNTRL M).

YOU MAY EXAMINE THE MONITOR BY LEAVING THE BOOT DISK OUT OF SYSTEM AT POWER UP, A SYSTEM MESSAGE WILL APPEAR ON CONSOLE:

BOOT DISK FAILURE. TYPE KEY TO RETRY.

PRESS CONTROL 'M' TO ENTER CBM MONITOR. SYSTEM WILL RESPOND WITH:

COMMODORE 8088 MONITOR  
PRE-RELEASE VERSION 2.0  
COPYRIGHT 1987 COMMODORE TECHNOLOGY GROUP

USE ? FOR HELP

RESPONDING WITH A QUESTION MARK, RETURN, WILL GENERATE THE FOLLOWING MONITOR OPTIONS:

Dump [starting addr]  
Fill [starting addr] [count] [data]  
Goto [addr] break point1] [break point2]  
Input port [byte : word] [port addr]  
Output port [byte : word] [port addr] [data]  
iNterrupt [#hex]  
Move [source addr] [dest addr] [count]  
Substitute memory [addr]  
Trace  
eXamine [register]  
Boot

THE SYSTEM REGISTER ADDRESSES WILL BE PRINTED IN THE NEW COLT SERVICE MANUAL DUE FOR RELEASE IN OCTOBER.

REGISTER ADDRESSES CONFORM TO PC INDUSTRY STANDARDS FOR COMPATIBILITY.

## 22/5-3.1 PC10, COLT BIOS 4.36 RELEASE NOTES.

A NEW BIOS ROM FOR THE PC10-III, PC20-III AND COLT IS BEING RELEASED. NEW PART NUMBER IS 318085-02. THIS IS AN IN-LINE UPGRADE AND MUST BE PURCHASED BY THE END USER DIRECTLY THROUGH AN AUTHORIZED SERVICE CENTER. INSTALLATION OF THIS IC MUST BE DONE BY AN COMMODORE AUTHORIZED TECHNIAN.

THE FOLLOWING SUMMARY DETAILS CHANGES IN BIOS 4.36.

- 1) 9600 BAUD PROBLEM  
TERMINAL AND COMMUNICATIONS SOFTWARE PACKAGES WHICH USED INTERRUPT-DRIVEN COM:, DROPPED CHARACTERS.  
FIX: CODE INTENDED TO SIMUATE THE KEYCLICK CORRECTED
- 2) EQUIPMENT CHECK  
BIOS INT 11H RETURNS 40 COLUMN STATUS WHEN IN 80 COLUMN MODE AND 80 COLUMN STATUS WHEN IN 40 COLUMN MODE WHEN RUNNING IN CGA MODE.  
FIX: BIOS MODIFIED TO RETURN CORRECT COLOR MODE NUMBER.
- 3) F11 AND F12 KEYS  
BIOS INT 16H RETURNS INCORRECT SCAN CODES FOR FUNCTION KEYS F11 AND F12.  
FIX: KEYBOARD TABLE WAS CORRECTED.
- 4) NEW MICROSOFT BUS MOUSE  
BIOS AUTOCONFIG(TM) DID NOT RECOGNIZE NEWEST MICROSOFT BUS MOUSE. RESULT INCORRECT OPERATION OF ENTIRE SYSTEM.  
FIX: BIOS NOW TESTS FOR EITHER TYPE OF MOUSE BEFORE ENABLING ONBOARD MOUSE.
- 5) EGA BOARD PROBLEMS  
SEVERAL EGA CARDS EXHIBITED MEMORY CONFLICTS WITH PVC4 CONTROLLER.  
FIX: PVC4 VIDEO CONTROLLER WILL BE DISABLED IF A SPECIAL VIDEO ADAPTER BIOS MODULE( EGA, VGA, ETC.) IS FOUND.
- 6) IBM 3270 CARD  
IBM 3270 CARDS DID NOT FUNCTION.  
FIX: PATCH CODE IN INT 1A.

## 22/5-3.1 PC10, COLT BIOS 4.36 RELEASE NOTES. (CONTINUED)

- 7) HD BOOT SPEED  
HARD DRIVE TAKES TOO LONG TO BOOT.  
FIX: LATEST BIOS IMPROVES LOAD TIME.
- 8) IBM 5250 CARD  
UPLOAD, DOWNLOAD PROBLEMS WITH 5250 EMULATOR TO IBM  
SYSTEM 38  
FIX: PATCH CODE IN INT 1A.
- 9) OKI REAL-TIME CLOCK CHIP PROBLEMS  
RTC REGISTER ALTERED BY UNAUTHORIZED SYSTEM CODE.  
FIX: RTC INITIALIZATION CODE MODIFIED.
- 10) COLD BOOT FROM S/W  
PROGRAMS WHICH ISSUE A CALL TO THE BIOS COLD BOOT  
LOCATION (F00:E05B) OR THE HARDWARE RESET VECTOR  
(FFFF:0000) WILL HANG (EXAMPLE - MSDOS FDISK).  
FIX: COLD AND WARM BOOT CODE MODIFIED.
- 11) SYSTEM CRASH  
UNEXPECTED INTERRUPT CAUSES SYSTEM TO CRASH OR HANG UP  
AFTER PROLONGED USE.  
FIX: MODIFIED UNEXPECTED INTERRUPT CODE.
- 12) ENHANCEMENT OF ONBOARD BASE MEMORY CONFIGURATION  
IF OFFBOARD MEMORY IS FOUND FROM 0K TO 640K THE  
CORRESPONDING ONBOARD MEMORY BANK IS DISABLED.  
IF NO OFFBOARD MEMORY IS FOUND, THEN ONBOARD MEMORY  
IS CONFIGURED TO 640K.

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C-TOC

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22/6-1.1 UPDATE INFORMATION FOR AUTHORIZED USERS.

22/6-1.1 UPDATE INFORMATION FOR AUTHORIZED USERS.

- 1.) SERVICE CENTERS ARE ALLOWED ONE USERNAME, PASSWORD ONLY. REQUESTS FOR A SECOND SIGN-ON CODE WILL BE IGNORED.
- 2.) MAIL - EDITING FEATURES WITHIN THE MAIL PROGRAM ARE LIMITED. YOU CAN USE CNTRL-C TO CANCEL YOUR MESSAGE OR DELETE KEY TO BACKSPACE/DELETE ON THE CURRENT LINE.
- 3.) LINE ERRORS/ LOGIN FAILURES - TWO DEFECTIVE MODEMS, LAST MONTH, WERE CAUSING SIGN-ON PROBLEMS. THESE MODEMS ARE OFF-LINE NOW.
- 4.) CONTACT HALSEY BEACH AT 215 431-9376 IN THE SERVICE DEPARTMENT IF YOU ARE HAVING PROBLEMS SIGNING ON.
- 5.) 800 SERVICE FOR PENNSYLVANIA BASED SERVICE CENTERS HAS BEEN APPLIED FOR. NO DATE HAS BEEN SET BY THE PHONE COMPANY TO COMPLETE INSTALLATION.

END ISSUE 22, CTOC 10/88