MEMORANDUM

2281W PRINTER BOARDS

This is an update on the control boards associated with the 2281W printer, TWIN SHEET FEEDER, and the ENVELOPE FEEDER. The 7443 control board is the usual board shipped with all 2281W printers which do not require a twin sheet feeder or an envelope feeder. Therefore the 7443 board was not designed to support the twin sheet feeder, the envelope feeder or the associated WP PRINT DOCUMENT MENU (PARTICULARLY THE # OF LINES/PAGE). Upgrade kits are available that support the devices as well as the PRINT MENU.

UPGRADE KIT UJ-3031 : Designed to support both the PRINT DOCUMENT MENU and the TWIN SHEET FEEDER this kit replaces the 7443 board with the * 7309 board.

UPGRADE KIT UJ-5025 : This kit is designed to support the PRINT DOCUMENT MENU and BOTH the TWIN SHEET FEEDER AND THE ENVELOPE FEEDER. This kit replaces the 7443 board with the 210-7726-A board.

***** NOTE *****

It appears that the UJ-3031 kit is not offered anymore (not listed in price book) but the use of the UJ-5025 serves the same purpose as well as supporting the envelope feeder.

Paul Morin
10/25/84
0005M
The Wang Technical Support Center (TSC) provides the following answers to some commonly asked questions about the 2200 product line.

Q1. I have 2200 Word Processing (WP) Software Release 2.2. Is it possible to select the pitch on a 2281W character printer via the WP Print Library Document menu?

A1. When you use a 2281W character printer, you must use the Pitch Switch on the front panel of the printer to select the pitch for WP documents. The printer ignores the pitch selection options (available on WP Release 2.1 or later) on the WP Print Library Document menu. The DW22-20 character printer, however, does support the pitch selection options.

Q2. I have 2200 WP Release 2.1. When I am creating either a standard or extended WP document (i.e., a document greater than 80 columns in width), the column count does not work properly. What is happening?

A2. The column count works according to the design constraints of the new $GIO editor (utilized by WP Release 2.1 or later). The editor keeps track of the column position but only updates the column position display under certain conditions. For example, suppose the column position display stops changing as you continue to move the cursor to the right. If you then change lines (i.e., press the North or South cursor key), the editor displays the correct column position.

WP invokes the new $GIO editor only if WP resides in a 42KB partition. (The Standard and Extended document options appear on the main WP menu only if WP resides in a 42KB partition.) If WP resides in a 28KB partition, it invokes the original editor which updates the column count with every change in cursor position.

The original editor, however, does not allow you to create and edit extended documents. The system administrator can change the partition via the Partition Status option on the System Utilities menu (refer to the 2200 WP Release 2.1 Software Release Notice for further information about the improved $GIO editor).
Q3. I have a 2281W printer with 11x8-inch tractor feed forms. Whenever I select a line length of 51 on the WP Print Library Document menu, my printer automatically defaults to 66 lines. Why does this happen?

A3. Customers who ordered a 2281W printer without a twin sheet feeder or envelope feeder attachment were shipped printers with a 7443 control board installed. The 7443 board does not support software-selectable line length and always defaults to 66 lines. If customers want software-selectable line length, they can order hardware upgrade #UJ-5025. This upgrade supports software-selectable line length and the use of a twin sheet feeder and an envelope feeder.

Q4. I have a single-user 2200 SVP. Is there any way to modify my SVP so that it can accommodate another workstation?

A4. SVP OPTION-W allows you to add a second and third workstation, one printer, and one TC port. The modification consists of replacing the original 2200 SVP board with a Multiterminal SVP board. To accommodate the new board, you must have a minimum of 32KB of control memory and the Multi-user Operating System (OS) Release 2.5. To display the control memory size of your system, master-initialize (boot) the system, select the Diagnostics option on the System 2200 screen, and then select the Control Memory option.

Q5. I have a 2200 SVP with the SVP 2236LRS (Local/Remote Switch). I recently upgraded my SVP with Option-W. Can I still use the switch?

A5. SVP OPTION-W does not support the SVP 2236LRS. Since the 2200 Multi-user OS Release 2.5 required for OPTION-W monitors the local/remote status of terminals, the manual switch function has been replaced by software selection (see the previous question for additional information on SVP OPTION-W).

PRODUCTS: OFFICE SYSTEMS

WANG OFFICE ASSISTANT UPDATE by Product Marketing

On October 16, 1984, the Wang Office Assistant was launched in 12 cities in the United States and received worldwide press attention throughout the week. With television, radio and print advertising bringing this new Wang product to customers' attention, considerable ordering activity has occurred. The Office Assistant has been received with incredible enthusiasm by both customers and the press. They feel that in the Office Assistant, we have a sure winner. So do we.
There have been reported occurrences of printer lock up associated with non Wang ribbons which are caused by the method used in the cartridge to provide tension. A hair-pin shaped spring steel wire is used as opposed to a leaf spring as is used in Wang ribbon cartridges. If this occurs, the best approach is to demonstrate the superior operating characteristics of a Wang ribbon which should convince the customer to purchase ribbons from Wang.
TECHNICAL SERVICE BULLETIN
SECTION: Hardware Technical

NUMBER: HWT 5126       REPLACES: N/A       DATE: 07/02/85       PAGE 1 OF 1
MATRIX ID. 3305
PRODUCT/RELEASE# 2281W Wang Daisy Printer

TITLE: Extension Cable Approval for 2281W Wang Daisy Printer

PURPOSE:
To announce the availability of 2281W I/O extension cables.

EXPLANATION:
R&D testing has approved the use of the following parallel I/O extension cables for use with the 2281W printers.

<table>
<thead>
<tr>
<th>WANG PART NO.</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-2229-03</td>
<td>25 ft.</td>
</tr>
<tr>
<td>120-2229-04</td>
<td>50 ft.</td>
</tr>
<tr>
<td>120-2229-01</td>
<td>100 ft.</td>
</tr>
<tr>
<td>120-2229-02</td>
<td>200 ft.</td>
</tr>
</tbody>
</table>

ADDITIONAL INFORMATION:
The maximum total length of parallel I/O extension cable used with a 2281W printer cannot exceed 200 feet.
TECHNICAL SERVICE BULLETIN
SECTION: Software Technical

NUMBER: SWT 5018  REPLEACES: _______  DATE: 03/19/85  PAGE 1 OF 1
MATRIX ID. 4314  PRODUCT/RELEASE# 2200 Character Printers

TITLE: How to set Form Length on 2200 Character Printers

PURPOSE:
To inform Wang Home Office and Field Personnel of the correct procedures to set the form length on 2200 character printers via BASIC2 statements.

EXPLANATION:
As a result of a misprint in the 2200 character printer manuals (2281W & DW2220) there has been some confusion as to the correct method of selecting the form length on said printers. The manuals give examples of some BASIC2 code that will allow this procedure, unfortunately the syntax of the example is incorrect.

EXAMPLE: As seen in printer manuals: DW/22-20 (#700-7629) page 6-8.
2281W (#700-5744B) page 5-12.

Set Form Length HEX(020C0102YYYYOF)

:10 F$=HEX(020C0102000000F)
:20 BIN(STR(F$,5,2),2)=672
:30 PRINT STR(F$,1,7)
:RUN (EXEC)

CORRECTIVE ACTION:
The above code will result in a syntax error at line 20. A correct syntax is described below (NOTE LINE 20).

CORRECT EXAMPLE:

:10 F$=HEX(020C0102000000F)
**:20 STR(F$,5,2)=BIN(672,2)
:30 PRINT STR(F$,1,7)
:RUN (EXEC)

When using the second example your printer will be selected to any desired form length in increments of 1/48 inch (example above 672=14 inch forms).
NOTE: This does not effect the vertical format of 6 lines per inch.

GROUP: Technical Support Center 2200 Group
MAIL STOP: 0115

WANG Laboratories, Inc.
SPQR NO: H84-315  PROJECT TITLE: OCR/A, OCR/B for 2281W  DATE: 06/11/84
CUSTOMER: FEDERAL SYSTEM DIVISION  SYSTEM: 2200/WP

EVALUATOR: TOM ARSENAULT

PRODUCT OBJECTIVES (our version of what we think the customer wants):
The customer wants to have the capability of switching a OCR/A printwheel and
a OCR/B printwheel to a standard printwheel on their 2281W printer.

ENVIRONMENTAL ASSUMPTIONS (assumptions concerning hardware and software,
version numbers, configurations, etc.):
Modification will be done on the 210-7309 PCB or the 210-7443 PCB.

REJECTION or TECHNICAL DESCRIPTION (theory of operation of our product):
There will be a three position switch mounted inside of the printer to switch
between printwheels.

OPERATIONAL DESCRIPTION (user point of view on how it will operate, install,
etc.):
The CE would have to install a special PCB. on the 210-7309 PCB or the
210-7443 PCB and run wires to the front of the printer and mount the switch
bracket. The switch bracket would be label for each printwheel. The switch
position would be determined upon which printwheel is in the printer.

PARTS LIST (hardware/software):
210-8639  
Prom.
bracket assembly

*** ATTACH COST WORKSHEET ***

DOCUMENT REVIEW  TECHNICAL REVIEW
Don J. Cram 6/11/84  John Kiernan 6/11/84

PRICING ANALYSIS
INITIAL SPQR: DEVELOPMENT PRICE:
PER UNIT AFTER MARKET PRICE:

DON VAN DUYNE
MICHAEL R. PAIGE

ORDERED DATE:

[Initials and comments]
MEMORANDUM

To: Michael Eiker
From: Official
Subject: 51 Line Default Printer Options
Date: 12/15/1983

It has been decided in the meeting (12/9) that the 51 line default option PROMS will have Special Products Model numbers. When a customer orders a printer with the option, he has to order a standard printer, and a Special Product PROM option. Lists are the model numbers. If an upgrade kit is needed, only the PROM has to be ordered. Price for the PROMs was decided by Marketing to be $125.

<table>
<thead>
<tr>
<th>PRINTERS</th>
<th>PROMS (Special Products)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2233/2235</td>
<td>9113-1 P/N 190-0353-1 378-7017 378-7018</td>
</tr>
<tr>
<td>DW 22/20</td>
<td>9113-2 P/N 190-0353-2 378-7021 378-7022 378-7023 378-7024</td>
</tr>
</tbody>
</table>

When the PROM kit is sent, a Special Products model number sticker will be included, this sticker is to be put on by the installer next to the printer's model number tag. Also the PCB that has the Special PROMs should be identified by adding the appropriate dash number.

<table>
<thead>
<tr>
<th>PRINTER</th>
<th>PCB #</th>
</tr>
</thead>
<tbody>
<tr>
<td>2281W</td>
<td>210-7309-N</td>
</tr>
<tr>
<td>2233/2235</td>
<td>210-8393-R</td>
</tr>
<tr>
<td>DW 22/20</td>
<td>210-7886-1C</td>
</tr>
</tbody>
</table>

Any comment please contact me at EXT 1-25-7360
QUESTION (Ken Mailloux)

What printwheels can I order for my 2281W printer? I have 2200 Word Processing Software, and understand that with some printwheels, certain characters can't be accessed.

ANSWER

Wang printwheels have 96 print positions but the 2281W firmware allows access to only 86 of those positions. Because of this, special characters will not print. The following are the printwheels supported on the 2281W for Data or Word Processing:

<table>
<thead>
<tr>
<th>Description</th>
<th>Wang Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10-PITCH</strong></td>
<td><strong>METAL</strong></td>
</tr>
<tr>
<td>Prestige/Pica</td>
<td>720-6072</td>
</tr>
<tr>
<td>Courier 10</td>
<td>720-6076</td>
</tr>
<tr>
<td>Delagate</td>
<td>720-6093</td>
</tr>
<tr>
<td>Tile 10/12</td>
<td>720-6124</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Wang Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12-PITCH</strong></td>
<td><strong>METAL</strong></td>
</tr>
<tr>
<td>Prestige Elite</td>
<td>720-6020</td>
</tr>
<tr>
<td>Courier 12</td>
<td>720-6077</td>
</tr>
<tr>
<td>Letter Gothic</td>
<td>720-6051</td>
</tr>
<tr>
<td>Elite</td>
<td>720-6045</td>
</tr>
<tr>
<td>Tile 10/12</td>
<td>720-6124</td>
</tr>
</tbody>
</table>
DATE: MARCH 23, 1981

SUBJECT: 609-15, PRINTING FROM 2200 WORD PROCESSING

2200 Word Processing classifies all printers that it supports as either line printers (which will typically be used for draft-quality printing) or character printers (which will be used for letter-quality printing). Only the 2281W and the 2281WC are treated as character printers; all others are treated as line printers. It should be noted that the 2281 (i.e., the Diablo daisy printer) must be identified as a line printer - it will not respond properly to all of the device control commands used on the 2281W.

For the Word Processing software to work properly with the 2281W printer, it must have certain microcode changes installed - these changes are included in ECN 17184 issued on November 11, 1980. All 2281W printers produced after some date in late 1980 or early 1981 (Unfortunately, I can provide no way for a customer to determine if the change has been included, except for the program below.) should have the correct microcode. The microcode change allows the software to de-select the printer (e.g., between pages on single-sheet feed).

The following guide program can be used to test the printer for the presence of the proper microcode:

10 SELECT PRINT 215
20 PRINT "The Printer will now de-select"
30 PRINT HEX (02070F)
40 PRINT "This should not appear until you have re-selected the printer"
50 END

Distribution:

0071C
SUBJECT: 2281W MICROCODE AND THE 2200 WP PACKAGE

To keep you up to date, the following changes are underway to make the 2281W Daisy printer work better with the WP software package.

1. **7443 Board.** This board is the usual one shipped with all 2281W printers which do not require a twin sheet feeder or an envelope feeder. We have finished adding a software deselect function to the microcode on this board. This will allow the WP to produce multi-page single sheet documents by deselecting the printer between sheets. (This feature currently works only on the 7309 board.) We have turned over a set of new proms to Jerry Sevigny and to Stan Neumann for final O.A. I expect that we will formally release the ECO to Judy Mulno by July 21. Since there have been several customer inquiries concerning the operation of the 2281W in this manner, the ECO should be pushed through as soon as possible.

2. **7309 Board.** This is the usual board installed in the daisy printers which are ordered with twin sheet feeders or envelope feeders. The software deselect feature was included in the last release of the 7309 microcode. The 2200 WP group requested that we make two additional changes to facilitate operation of the WP package. The first of these is to allow the software deselect to be executed from anywhere within a line. This would allow 'STOP' codes to function on the 2200 as they do on the OIS. The second change relates to the use of the TOP OF FORM key and the SET HOME key on the daisy chassis. The original daisy microcode allowed an operator to deselect the printer, move the platten and print head using the printer's keyboard, and examine the printed output. Upon reselecting the printer, the paper would automatically return to its original position, and the printed output would continue. A problem arose when the TOP OF FORM key was used to eject paper from the carriage prior to loading another sheet. The correct procedure for doing this was to DESELECT the printer, press TOP OF FORM to eject the page, press SET HOME for the new page, and re-SELECT the printer. If the operator neglected to press SET HOME, the carriage would roll back to its previous position when SELECT was pressed. We have decided to alter the 7309 microcode to remove the necessity of pressing SET HOME in the above procedure. We expect to have a new release of this code available for Jerry and Stan to use by July 24. The formal ECO should be ready for Judy Mulno shortly after that.

PS/1mp

ONE INDUSTRIAL AVENUE. LOWELL. MASSACHUSETTS 01851 • TEL (617) 459-5000 • TWX 710-343-6769 • TELEX 94-7421
Attached are copies of the original release memorandums which have been sent to Judy Mulno for changes made to the microcode for the 2281W/WC and 2281P printers. These changes affect both the 7443 - (Wang Daisy with 06 wheel) and 7309 versions of code. The code revision was necessitated by the addition of a Word Processing Package to the 2200 Product Line.

The 7443 board is used in printers which do not have a twin sheet feeder or an envelope feeder. It does not support all 02 escape code sequences - (only the Deselect Printer - Hex(02070F) sequence). The 7309 board supports twin sheet feeder as well as all 02 escape code sequences.
SUBJECT: 2281W / 2281WC DAISY PRINTER MICROCODE ECO - 7309 BOARD

An ECO needs to be issued to upgrade the PROMS used on the 2281W and 2281WC printers. This ECO applies only to the 7309 board. The changes to the microcode were necessitated by the addition of a 2200 Word Processing Package. Word Processing uses the Deselect (02070F) Escape Code to be handled as a "stop code". This signals the user to feed in another paper. The current 7309 version of code must be changed to handle this sequence differently to meet WP's needs. WP needs the deselect sequence to work as follows:

PRINT "DESELECT SEQUENCE";HEX(02070F);" AS USED BY WP"

Where the printer becomes deselected immediately after printing out "DESELECT SEQUENCE". This enables the user to feed in another page so that printing can resume immediately on a new page.

This version also deals with a keyboard top-of-form problem. Currently, whenever the user hits the top of form key the page moves to the correct location. But, if the user hits the select key the paper will then return to the previous home location to resume printing. The change will cause the top-of-form key not to be affected by hitting select - it will not return to the previous home position.

This release will fix a problem which exists when the set left margin is used in conjunction with a 2200 suppress line feed. i.e./PRINT HEX(E80060);/ This caused the first item printed after this statement to be offset by double the Set Line Feed amount.

MODEL  = 2281W / 2281WC  WANG Daisy Printer with WANG 06 wheel
BOARD  = 7309

<table>
<thead>
<tr>
<th>OLD PROMS</th>
<th>NEW PROMS</th>
<th>LOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>378-2554R4</td>
<td>378-2554R5</td>
<td>L08</td>
</tr>
<tr>
<td>378-2555R4</td>
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<td>L07</td>
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<td>L06</td>
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<td>L05</td>
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<tr>
<td>378-2558R4</td>
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<td>L04</td>
</tr>
<tr>
<td>378-2590R4</td>
<td>378-2590R5</td>
<td>L03</td>
</tr>
<tr>
<td>378-2559R4</td>
<td>378-2559R5</td>
<td>L01</td>
</tr>
</tbody>
</table>
SUBJECT: 2281W / 2281P DAISY PRINTER MICROCODE ECO - 7443 BOARD

An ECO needs to be issued to upgrade the PROMS used on the 2281W and 2281P printers. This ECO applies only to the 7443 board. The changes to the microcode were necessitated by the addition of a 2200 Word Processing Package. Word Processing uses the Deselect (02070F) Escape Code to be handled as a "stop code". This signals the user to feed in another paper. Currently, the 7443 version of code does not support any other '02' escape code sequences as there is limited room in the microcode for changes. The deselect sequence has been added to meet WP's needs.

MODEL = 2281W / 2281P WANG Daisy Printer with WANG 06 wheel
BOARD = 7443

<table>
<thead>
<tr>
<th>OLD PROMS</th>
<th>NEW PROMS</th>
<th>LOC</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>378-2459R4</td>
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<td>L11</td>
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<tr>
<td>378-2460R4</td>
<td>378-2460R5</td>
<td>L10</td>
</tr>
<tr>
<td>378-2461R4</td>
<td>378-2461R5</td>
<td>L09</td>
</tr>
</tbody>
</table>
TECHNICAL SERVICE BULLETIN
SECTION: Software Technical

NUMBER: SWT 5018    REPLACES:    DATE: 03/08/85    PAGE 1 OF 1
MATRIX ID. 4314    PRODUCT/RELEASE# 2200 Character Printers

TITLE: How to set Form Length on 2200 Character Printers

PURPOSE:
To inform Wang Home Office and Field Personnel of the correct procedures
to set the form length on 2200 character printers via BASIC2 statements.

EXPLANATION:
As a result of a misprint in the 2200 character printer manuals (2281W &
DW2220) there has been some confusion as to the correct method of
selecting the form length on said printers. The manuals give examples of
some BASIC2 code that will allow this procedure, unfortunately the syntax
of the example in incorrect.

EXAMPLE: As seen in printer manuals: DW/22-20 (#700-7629) page 6-8.
          2281W      (#700-57448) page 5-12.

Set Form Length HEX(020C0102YYYYOF)

:10 F$=HEX(020C0102000000F)
:20 BIN(STR(F$,5,2),2)=672
:30 PRINT STR(F$,1,7)
:RUN (EXEC)

CORRECTIVE ACTION:
The above code will result in a syntax error at line 20. A correct syntax
is described below (NOTE LINE 20).

CORRECT EXAMPLE:

:10 F$=HEX(020C0102000000F)
**:20 STR(F$,5,2)=BIN(672,2)
:30 PRINT STR(F$,1,7)
:RUN (EXEC)

When using the second example your printer will be selected to any desired
form length in increments of 1/48 inch (example above 672=14 inch forms).
NOTE: This does not effect the vertical format of 6 lines per inch.

GROUP: Technical Support Center 2200 Group

COMPANY CONFIDENTIAL
WANG Laboratories, Inc.
SET FORM LENGTH HEX CODES

Printer manuals for the 2200 character printers (2281W, DW2220) have an error in the examples given to set the form length.

The manuals give the example as follows:

10 F$=HEX(020C010200000F)
20 BIN (STR(F$,5,2),2)=672
30 PRINT STR(F$,1,7)

RUN (EXEC)

The code above as described in the book should reselect the associated printer to a form length of 14 inches. The concept is correct but the code has syntax errors. This has created some problems with users dependant on the manual.

LINE 20 OF THE CODE SHOULD READ AS FOLLOWS:

20 STR(F$,5,2)=BIN(672,2)

With this simple change the code will work according to spec.
MEMORANDUM

TO: Distribution
FROM: Melanie Davidyock
DATE: July 20, 1981
SUBJECT: 2281W/WC, 2281P Microcode Release

Attached are copies of the original release memorandums which have been sent to Judy Mulno for changes made to the microcode for the 2281W/WC and 2281P printers. These changes affect both the 7443 - (Wang Daisy with 06 wheel) and 7309 versions of code. The code revision was necessitated by the addition of a Word Processing Package to the 2200 Product Line.

The 7443 board is used in printers which do not have a twin sheet feeder or an envelope feeder. It does not support all 02 escape code sequences - (only the Deselect Printer - Hex(02070F) sequence). The 7309 board supports twin sheet feeder as well as all 02 escape code sequences.

cc: Jim Curran
    John Proulx
    Tom Royce
    Jerry Sevigny
    Pete Seymour
MEMORANDUM

TO: Judy Mulno
FROM: Melanie Davidyock
DATE: July 20, 1981
SUBJECT: 2281W / 2281P DAISY PRINTER MICROCODE ECO – 7443 BOARD

An ECO needs to be issued to upgrade the PROMS used on the 2281W and 2281P printers. This ECO applies only to the 7443 board. The changes to the microcode were necessitated by the addition of a 2200 Word Processing Package. Word Processing uses the Deselect (02070F) Escape Code to be handled as a "stop code". This signals the user to feed in another paper. Currently, the 7443 version of code does not support any other '02' escape code sequences as there is limited room in the microcode for changes. The deselect sequence has been added to meet WP's needs.

MODEL = 2281W / 2281P  WANG Daisy Printer with WANG 06 wheel
BOARD = 7443

<table>
<thead>
<tr>
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<td>378-2460R5</td>
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</tr>
<tr>
<td>378-2461R4</td>
<td>378-2461R5</td>
<td>L09</td>
</tr>
</tbody>
</table>
MEMORANDUM

TO: Judy Mulno
FROM: Melanie Davidyock
DATE: July 20, 1981
SUBJECT: 2281W / 2281WC DAISY PRINTER MICROCODE ECO - 7309 BOARD

An ECO needs to be issued to upgrade the PROMS used on the 2281W and 2281WC printers. This ECO applies only to the 7309 board. The changes to the microcode were necessitated by the addition of a 2200 Word Processing Package. Word Processing uses the Deselect (02070F) Escape Code to be handled as a "stop code". This signals the user to feed in another paper. The current 7309 version of code must be changed to handle this sequence differently to meet WP's needs. WP needs the deselect sequence to work as follows:

PRINT "DESELECT SEQUENCE";Hex(02070F);" AS USED in WP"

Where the printer becomes deselected immediately after printing out "DESELECT SEQUENCE". This enables the user to feed in another page so that printing can resume immediately on a new page.

This version also deals with a keyboard top-of-form problem. Currently, whenever the user hits the top of form key the page moves to the correct location. But, if the user hits the select key the paper will then return to the previous home location to resume printing. The change will cause the top-of-form key not to be affected by hitting select - it will not return to the previous home position.

This release will fix a problem which exists when the set left margin is used in conjunction with a 2200 suppress line feed. i.e./PRINT HEX(E80060);/ This caused the first item printed after this statement to be offset by double the Set Line Feed amount.

MODEL = 2281W / 2281WC WANG Daisy Printer with WANG 06 wheel
BOARD = 7309

<table>
<thead>
<tr>
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TECHNICAL SERVICE BULLETIN
SECTION: Hardware Technical

NUMBER: HWT 5302  
REPLACES: N/A  
DATE: 12/17/85  
MATRIX ID. 3505  
PRODUCT/RELEASE# 2281W/6581W Daisy Printers

TITLE: Clearance Difficulty with New Style Print Hammer

PURPOSE:
To inform the field of a difference in form and fit between old and new print hammer and ribbon platform assemblies.

EXPLANATION:
A new Solenoid Arm Pivot Pin and Bearing is being used in the Print Hammer Assemblies. The new pin and bearing parts are longer and extend further on each side of the hammer assembly than the old pin and bearing. As a consequence, modification of the Ribbon Platform Assembly was necessary. A cutout was made in the Ribbon Platform to clear the bearing end cap when the printwheel motor assembly is tilted back to change printwheels.

Old and new print hammer assemblies can be identified by inspection. The outside measurement between the plastic bearing end caps should be:

- OLD PRINT HAMMER ASSY.
  - .8 inches
- NEW PRINT HAMMER ASSY.
  - 1.0 inches

The new Print Hammer Assemblies will not work in carriage assemblies with old type ribbon platforms. A new ribbon platform, with cutout (WLI P/N 279-5150), must be used if the new hammer assembly to be installed has the longer pin and bearing.

Remaining old type Print Hammer Assemblies with short pins and bearings can be used with any ribbon platform.

Both the old and new assemblies are WLI P/N 279-5129. However, the old print hammers are no longer available through logistics.
**Technical Support Center**

**Call Tracking and Reporting System**

**Contact Name:** Tom Bourque  
**Company Name:**  
**Addr #1:**  
**Addr #2:**  
**Addr #3:**  
**Contact Types:** AAC Employee  
**Area Identi:**  
**Critical:**  
**Problem Types:**  
**Product Code:**  
**Resolution Times:**  
**Attached WP Document ID:**  
**Record Keys:**  
**Problem Description:**  

**Problem Resolution:**

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**SC Analysts**

**Call Dates:** 4/27/93 **Start Times:**  
**Stop Times:**  

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