MTLabel

Label Design Program

User's Manual

UMMTLABELI00

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INTRODUCTION

This publication is provided as a user's guide for individuals who have purchased the MTLabel program.

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1. DESCRIPTION

MTLabel is a label design program intended to be used for designing and downloading label formats to the Mettler Toledo Model 8865 Printer. Refer to technical manual TM008865I00 for information on the 8865 printer. The program is installed on a computer and the label is designed utilizing What You See Is What You Get (WYSIWYG) technology. This allows you to view the label as you design it instead of waiting until it is finished and printing a sample.

Using MTLabel makes label design a quick and simple task. All fonts and sizes of fonts that can be printed by the Model 8865 printer are supported as well as all 15 types of bar codes. Lines and boxes may be added to a label very easily using simple selections from a menu. Graphics are not supported by the MTLabel program at this time.

1.1 HARDWARE REQUIREMENTS

The program can be run from a 3 1/2" or 5 1/4" floppy disk; however, it is strongly recommended that it be installed onto a hard disk. It is designed to operate on an IBM or compatible computer using a color EGA, VGA or SVGA monitor. Monochrome monitors will work but a color monitor makes the program easier to view and use.

A personal computer with a 80286 mircoprocessor is required, although a 80386 microprocessor is recommended. Also, a CPU speed of at least 25MHZ is recommended due to the large amount of graphics that is used for screen display. Slower computers will still operate the program, but the program will seem slow to respond. The MTLabel program will operate from DOS version 3.3 or higher. Approximately 512K of conventional memory is required for proper operation of the program.

A mouse is also highly recommended for quick, simple label designing although cursor control using the arrow keys may be used to perform any of the functions required.

1.2 COPY PROTECTION

The MTLabel program does not have any disk copy-protection. It is recommended that you make a copy of the original disk for the installation process and place the original disk in a safe place.

In place of disk copy protection, the MTLabel program requires the use of a sentinel code key attached to the computer's parallel port in order to perform certain functions. With the exception of test printing a label, downloading a format to the 8865 printer and saving a label design in 8865 format, the MTLabel program will be fully functional without the code key.

1.3 PARTS LISTING

The items included in the MTLabel label design package are:

1 - Low density 3.5" floppy disk (14184700A)
1 - High density 5.25" floppy disk (14184800A)
1 - Sentinel Code key (14184500A)
1 - User's manual (14184400A)

If any of these items are missing, please notify your Mettler Toledo representative immediately.

2. INSTALLATION

Follow the instructions in the following section in order to successfully install the MTLabel program onto your computer. If you wish to run from floppy disks, you will still need to extract all the MTLabel files from the installation disk onto a hard disk first. After the files are installed on the hard disk, they may be copied to floppy disks for your use later.

2.1 PROCEDURE

Power up the computer that you wish to load the MTLabel program onto. We strongly recommend using a computer that has a hard disk to speed up the operation of the label design. The install program will not permit installation onto floppy disk drives.

The install program will create a subdirectory called MTLABEL (or another path specified) and will extract and load all the required files from the floppy disk into that directory. The install program also creates a batch file (MTLABEL.BAT) and places it in the root directory. This allows you to call the MTLabel program by typing MTLABEL at your root directory prompt.

Select the correct size MTLabel program disk for your computer from the kit. After powering up the computer, insert the floppy disk and select that drive by typing in the drive letter (A: or B: for example) then press ENTER. At the DOS prompt of A:> or B:>, type in INSTALL then press ENTER. The program will install itself onto your hard disk asking for operator input when required. When complete, the screen will show a screen of instructions. Press the Print Screen key to print these instructions for use later.

2.2 SENTINEL CODE KEY

Included with the MTLabel program is a sentinel code key. This device attaches to any parallel port on the computer running the MTLabel program. Before certain functions are executed, the code key is addressed. If the key is not found, these functions cannot be completed and an error window will be displayed. These three functions are:

Save a Label in 8865 Format (ASCII)
Test Print of a Label
Download of a Format to the 8865 Printer

To install the code key, locate the parallel port (sometimes called the printer port) on the computer and plug in the code key as shown in Figure 2-2. If a printer is already attached to the parallel port, it may be reconnected to the end of the sentinel code key. The key will not affect operation of the printer.

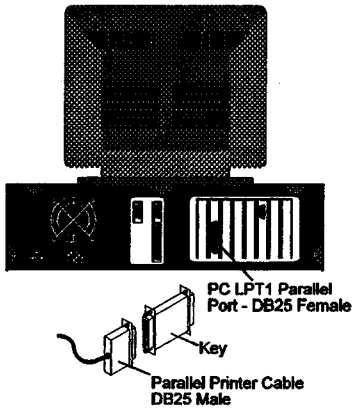


FIGURE 2-2 Sentinel Code Key

2.3 ENTERING THE MTLabel PROGRAM

To initiate the MTLabel program, make sure you are in the root directory then type in MTLABEL and press ENTER. This will only function if the original MTLABEL.BAT file which was created during the install process is present.

If the MTLABEL.BAT file is missing or if you wish to call the program manually, change from the root directory to the floppy disk drive or new directory containing all the MTLABEL files then type in the executable file name MTLABEL followed by ENTER. This method is used if you are operating the program from floppy disk.

2.4 THE MTLabel SCREEN

After entering the MTLabel program as described in section 2.3, the MTLabel design screen will be displayed. The screen should be similar to the one shown in Figure 2-4 below.

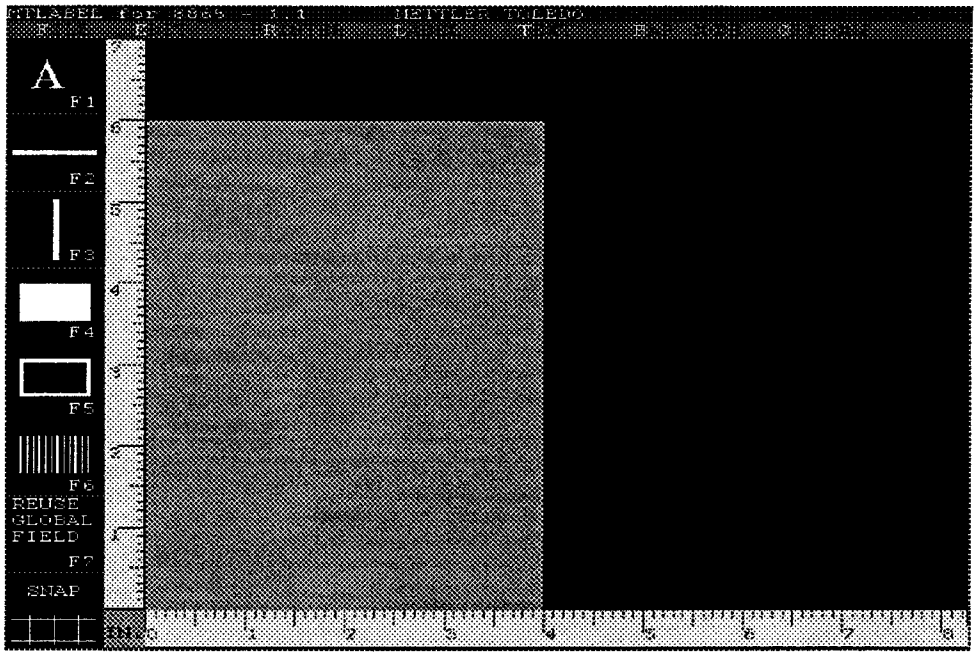


FIGURE 2-4 MTLabel Screen

As you look at this screen you will notice that across the top, there are seven headings. Each of these headings can be accessed either by clicking the left mouse button on the heading name or holding down the ALT key on the keyboard and pressing the highlighted letter shown in the heading.

These headings are used for file handling, setting up the format to be designed and also for programming the serial port parameters to allow the computer to talk to the printer for downloading the format. Each heading will be described later in this manual.

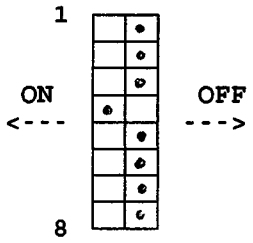
Down the left side of the screen you will notice several selections with some shown graphically. These are the types of fields and special options you can select for your label design. You can select them by either clicking the left mouse button inside the square or pressing the appropriate function key shown in the square. For example, text can be entered by either clicking your mouse inside the box with the letter "A" shown in it or by pressing the "F1" function key. Each of these functions will be described later in this manual.

! IMPORTANT !
If a mouse is installed, the arrow keys may not always function. If a mouse is not detected, any of the functions may be accessed by use of the arrow keys on the keyboard. Any highlighted letter can be accessed by pressing that letter or holding down the ALT key and pressing that letter. To move the cursor faster for quick positioning, hold down the Shift key while pressing the arrow keys.

2.5 PROGRAMMING SWITCHES FOR THE 8865 PRINTER

On the rear of the 8865 printer, there is an eight-position dip switch (SW1). This section describes these switches. The shaded selections indicate suggested settings to be used with MTLabel.

When viewing the switch from the rear of the printer, the ON condition is obtained by flipping the switch handle to the left while the OFF condition is obtained by flipping the switch handle to the right.



SW1-1, SW1-2, SW1-3 BAUD RATE

These switches control the speed at which data is received (baud rate). Match this selection to the MTLabel selection under the OPTIONS heading.

BAUD RATE	SW1-1	SW1-2	SW1-3
300	ON	OFF	ON
600	ON	OFF	OFF
1200	OFF	ON	ON
2400	OFF	ON	OFF
4800	OFF	OFF	ON
9600	OFF	OFF	OFF
19200	ON	ON	OFF
TEST/9600	ON	ON	ON

SW1-4 ASCII WORD LENGTH

The Model 8865 will accept either 7 bit or 8 bit data depending upon the position of this switch. Parity will be ignored regardless of this selection.

SW1-4	ASCII Character Length
ON	7 bit
OFF	8 bit

NOTE: You must select 8 bit format mode if you wish to access any foreign language characters in the 8865. These characters are available in fonts 1, 6 and 9.

SW1-5 OPERATING MODE

This switch selects the mode of operation for the printer. For use with MTLabel, the host mode must be selected allowing the 8865 to operate in a mode utilizing all the standard control and formatting commands.

After downloading the label format from MTLabel, the METTLER TOLEDO Mode must be selected to permit use with standard indicators and scales.

SW1-5	OPERATING MODE
ON	METTLER TOLEDO Mode
OFF	Host Mode

SW1-6 LABEL PRESENT SENSOR

Using the Label Present Sensor the printer can be configured for "on demand" printing mode. With the sensor enabled, the 8865 will not print a second label (keeps it in internal buffer) until the previously printed label has been removed from the front of the printer. This was an option in early production 8865 printers.

SW1-6	Label Present Sensor
ON	Enabled
OFF	Disabled

SW1-7 RIBBON SENSOR POLARITY

Some special purpose ribbons, such as colored ribbons are sometimes translucent and may not be detected by the ribbon sensor. To run these ribbons in the 8865 printer, the polarity of the sensor can be reversed by this switch. Keep in mind that no end-of-ribbon sensing takes place under this condition unless the ribbon has an opaque trailer.

SW1-7	Ribbon Sensor Polarity
ON	Inverted
OFF	Normal

SW1-8 CUTTER ENABLE

The cutter is an option that attaches to the front of the printer to cut continuous label stock. Only enable this output if the option is present.

SW1-8	Cutter Option
ON	Enabled
OFF	Disabled

FOR YOUR NOTES

3. GETTING STARTED

Before beginning the design process, make sure the 8865 printer is programmed for the Host Mode (SW1-5 OFF). Remember to turn switch SW1-5 back to the Mettler Toledo Mode after designing and downloading a label format and before connecting the printer to a standard Mettler Toledo product. You will need to power cycle the printer after changing the position of switch SW1-5.

When the MTLabel program is started, a blank label will be shown on the screen. The label shown is the default size. If a mouse is used and the label is too tall to fit entirely on the MTLabel screen, the portion of the label viewed can be moved by clicking the left mouse button on the upper end of the ruler and the label will move down. To return, click the left mouse button on the lower end of the ruler.

You may begin designing your new label right from this screen or you may wish to begin with a previous label format as a template. If the format was stored to a location other than the default directory (where the MTLabel program resides) a new label path will have to be selected.

In order to access any of the file commands, the FILE heading must be accessed. Do this by:

MOUSE: Click the left mouse button on the word FILE.

KEYBOARD: Press ALT F.

A sub-menu as shown in Figure 3-a should be pulled down for viewing.

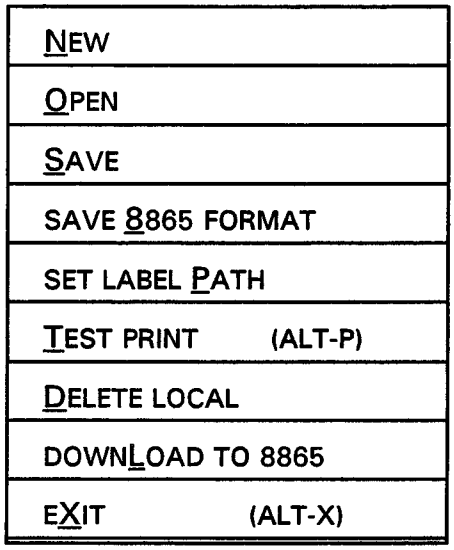


FIGURE 3-a FILE Heading

Any of these headings may now be selected by the operator.

3.1 SET LABEL PATH

The MTLabel program uses a default path for all stored label formats. This default is the path where the MTLabel program is located. In order to change the path for stored or retrieved formats, access the Set Label Path selection by:

MOUSE: Click the left mouse button on the SET LABEL PATH line.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the SET LABEL PATH line then press ENTER - or press the highlighted letter "P" of the set label path function then press ENTER.

A window as depicted in Figure 3-1 will be shown. This window allows entry of a new default path for label format storage and retrieval.

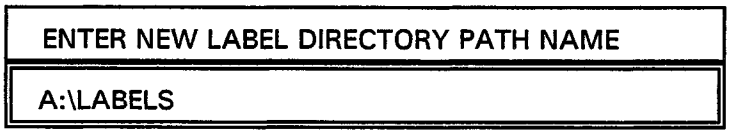


FIGURE 3-1 Set Label Path Window

The entry in Figure 3-1 changes the default path for all MTLabel functions to A:\labels. If you wish to return to the original default, delete everything in the space allowed for the new path name then press ENTER. The original default path will be used.

3.2 RETRIEVING EXISTING LABEL FORMATS

In order to retrieve a previous label format (open an existing file), access the FILE heading then select OPEN. This will bring up another sub-menu (shown in Figure 3-2) which lists all label formats stored in MTLabel format. These files are identified by their [XXXXX.865] file name.

To open an existing label format:

MOUSE: Click the left mouse button on the OPEN line.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the Open line then press ENTER - or press the highlighted character "O" of the OPEN function then press ENTER.

FIGURE 3-2 OPEN File Selection

Select the desired label format by:

MOUSE: Click the left mouse button on the desired file name.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired file name then press ENTER - or press the highlighted first character of the desired file name then press ENTER.

After selecting the label format, the label will be shown on the display of the MTLabel program. It can now be modified, downloaded to the 8865 flash module or test printed.

3.3 BEGINNING A NEW LABEL

If you wish to clear the label currently shown on the display and begin a new label, access the FILE heading then use the NEW command. After selecting the FILE heading, a window as shown in Figure 3-a will be shown. To access the NEW feature:

MOUSE: Click the left mouse button on the NEW line.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the NEW selection then press ENTER - or press the highlighted letter "N" then press ENTER.

Any label previously displayed will be erased and a blank label will be shown.

! IMPORTANT !
If you have not saved the previous label format, an alarm will be sounded and a warning screen will be shown asking if you want to lose the changes to the currently displayed label. **If you press the letter Y then ENTER, the current label will be erased!** If you press the letter N then ENTER, the error screen will disappear and allow you to save the label format using the FILE heading. If a mouse is used, click the left mouse button inside the desired selection box.

FOR YOUR NOTES

4. SETTING LABEL DEFAULTS

Before actually beginning the label design process, some label default values should be selected and/or verified. These default values are located under the PRINTER, LABEL, TEXT, BAR CODE and OPTIONS headings across the top of the MTLabel screen. Each of these groups will be discussed next. New "power-up" default settings can be selected by modifying a file named MTLabel.INI. Section 9 of this manual describes how this file can be modified.

4.1 PRINTER HEADING

Select the PRINTER heading by:

MOUSE: Click the left mouse button on the word PRINTER.

KEYBOARD: Press ALT R.

A sub-menu will be pulled down as shown in Figure 4-1-a.

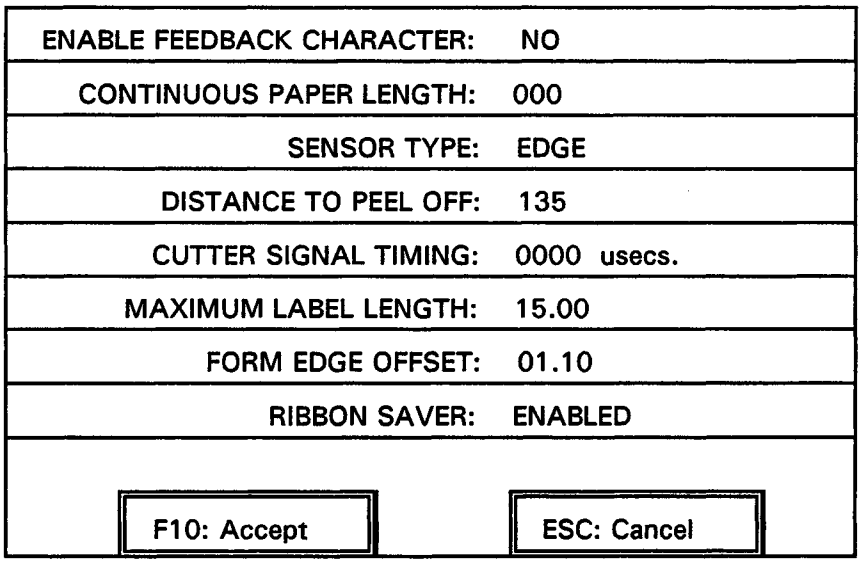


FIGURE 4-1-a PRINTER Heading

Each parameter in this sub-menu can be programmed independently. Any parameter can be accessed by clicking the left mouse button on the line or all parameters can be stepped through from top to bottom. When complete, exit the PRINTER heading by:

MOUSE: Click the left mouse button inside the desired selection box of Accept or Cancel at the bottom of the sub-menu. Clicking the right mouse button will exit without saving any changes.

KEYBOARD: Press function key F10 to accept the changes or press ESCAPE to exit the sub-menu without saving the changes.

4.1.1. ENABLE FEEDBACK CHARACTER

In addition to the major selections shown, the available choices for the first line "ENABLE FEEDBACK CHARACTER" will be displayed as shown in Figure 4-1-b.

FIGURE 4-1-b Feedback Character

This feature allows the printer to return an ASCII 0 after a label is printed and an ASCII 1 after a batch of labels has been completed. Refer to the [<STX>a] command in the programming section of the 8865 operator's manual for more information. Typical selection for this is NO. In order to make a selection :

MOUSE: Click the left mouse button on the desired choice.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.1.2. CONTINUOUS PAPER LENGTH

When using continuous label stock (not die cut), this setting programs the length of label that is fed out each time a label is printed. The number entered represents 0.01" increments of measurement.

If continuous label stock is used, just enter in the desired length using the numeric part of the keyboard then press ENTER. If die cut labels are used, leave this number set to 000.

4.1.3. SENSOR TYPE

This allows selection of the type of label detection that is used. When this line is selected, a sub-menu will be displayed (Figure 4-1-c) showing the two choices available. Either reflective (black mark) or edge (die cut) may be selected. Edge sensing is the typical selection.

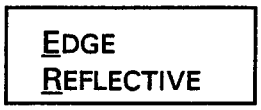


FIGURE 4-1-c Sensor Type

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.1.4. DISTANCE TO PEEL OFF

This selection allows the printer to feed a label out past the printhead so it may be removed easily. The printer will pull the next label back into the printer before printing so that the print can begin at the very bottom. A normal value would be 135 which represents 1.35".

Type in the numeric value to be used then press ENTER.

4.1.5. CUTTER SIGNAL TIMING

This should always remain programmed as 0000 unless the cutter option is utilized. Refer to the 8865 technical manual Section 6.1 for the explanation of this <STX>Hnnn command. Press ENTER to bypass this selection.

4.1.6. MAXIMUM LABEL LENGTH

This step is utilized to determine when the printer should signal a low stock condition. The value must be entered in 0.01" increments. Always set this value to 2.5 times the actual label length you are using. For example, for a 6.00" (152 mm)long label, program the maximum label length for 15.00" (380 mm) which is 2.5 X 6" (2.5 X 152 mm).

Type in the numeric value for the maximum label length (in 0.01" increments) then press ENTER.

4.1.7. FORM EDGE OFFSET

This step determines the zero reference point for the label. If this measurement is not correct, all vertical measurements will be incorrect. This measurement is taken from the leading edge of the label as it exits the printer. A typical value for this is 01.10".

Type in the numeric value for the form edge offset then press ENTER.

4.1.8. RIBBON SAVER

This option is not available for the 8865 and may be either enabled or disabled. A box will be shown with the two selections.

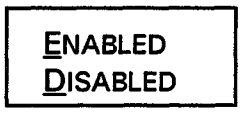


FIGURE 4-1-d Ribbon Saver

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.2 LABEL HEADING

Select the LABEL heading by:

MOUSE: Click the left mouse button on the word LABEL.

KEYBOARD: Press ALT L.

A sub-menu will be pulled down as shown in Figure 4-2-a.

SLASH ZERO CHARACTER:	YES
LABEL HEIGHT:	6.00 Inches
LABEL WIDTH:	4.00 Inches
HEAT SETTING:	10
HORIZONTAL DOT SIZE:	1
VERTICAL DOT SIZE:	1
MAX. PRINT SPEED:	I 5.0" per Second
MAX. SLEW RATE:	I 5.0" per Second
CUT AFTER:	0000 LABELS

F10: Accept ESC: Cancel

FIGURE 4-2-a LABEL Heading

Each parameter in this sub-menu can be programmed independently. Any parameter can be accessed by clicking the left mouse button on that line or all parameters can be stepped through from top to bottom. When complete, exit the LABEL heading by:

MOUSE: Click the left mouse button inside the desired selection of Accept or Cancel at the bottom of the sub-menu.

KEYBOARD: Press function key F10 to accept the changes or press ESCAPE to exit the sub-menu without saving the changes.

4.2.1. SLASH ZERO CHARACTER

In addition to the major selections shown, the available choices for the first line "SLASH ZERO CHARACTER" will be displayed as shown in Figure 4-2-b.

NO
YES

FIGURE 4-2-b Slash Zero Character

This feature allows the selection of having a printed slash through the zero character or not. This helps separate the letter O from the number 0. In order to make a selection :

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.2.2. LABEL HEIGHT

This step is utilized to adjust the height of the label on the MTLabel screen to match the exact label used. The value must be entered in 0.01" increments. Always measure the label to get an exact value for this parameter.

Type in the numeric value and decimal point for the label height then press ENTER.

4.2.3. LABEL WIDTH

This step is utilized to adjust the width of the label on the MTLabel screen to match the exact label used. The value must be entered in 0.01" increments. Always measure the label to get an exact value for this parameter.

Type in the numeric value and decimal point for the label width then press ENTER. If the width is already correct, just press ENTER.

4.2.4. HEAT SETTING

This parameter sets the amount of heat that is applied to the print head to print the label. A value of 10 is typical. Different labels may require a different setting. Begin with a selection of 10 and change if necessary after checking the quality of several test prints. Values from 01 to 20 are accepted.

Type in the numeric value for the heat setting then press ENTER. If the heat value is already correct, just press ENTER.

4.2.5. HORIZONTAL DOT SIZE

This selection controls the width of each dot printed by the printhead. With a value of 1 entered, all fonts and bar codes will be normal size. With a value of 2 entered, everything printed will be twice as wide as normal. Values of either 1 or 2 can be entered. A value of 1 is recommended.

Type in the numeric value of 1 or 2 then press ENTER. If the horizontal dot value is already correct, just press ENTER.

4.2.6. VERTICAL DOT SIZE

This selection controls the height of each dot printed by the printhead. With a value of 1 entered, all fonts and bar codes will be normal size. With a value of 2 or 3 entered, everything printed will be twice or three times as high as normal. Values of 1, 2 or 3 can be entered. A value of 1 is recommended.

Type in the numeric value of 1, 2 or 3 then press ENTER. If the vertical dot value is already correct, just press ENTER.

4.2.7. PRINT SPEED

This selects the print speed for the label. Values from 2" per second to 8" per second may be selected. If the print speed is too fast, the label will appear light. Available print speeds are shown in Figure 4-2-c.

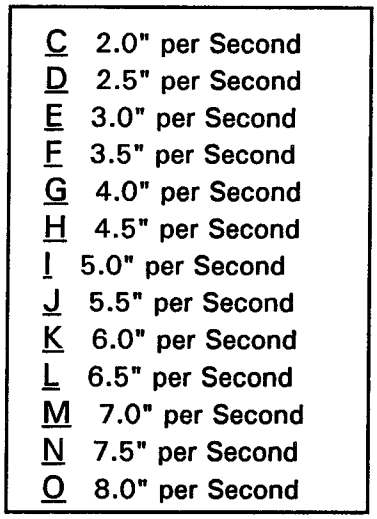


FIGURE 4-2-c Speed Selections

To choose a print speed:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.2.8. SLEW RATE

This selects the speed that the printer will feed the blank white portion of the label. Values from 2" per second to 8" per second may be selected. Available selections are shown in Figure 4-2-c.

To choose a slew speed:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.2.9. CUT AFTER XXXX LABELS

This command is used when the optional cutter option is used with the 8865 printer. The cutter can be programmed to cut only after a certain number of labels have been printed. If the cutter option is not used, this selection should be programmed for 0000 labels.

Type in the numeric value of labels to be printed before cutting then press ENTER. If the cutter option is not used, just press ENTER.

4.3 TEXT HEADING

Before actually entering human readable data on a label, the font size must be selected. This is done using the text heading. Select the TEXT heading by:

MOUSE: Click the left mouse button on the word TEXT.

KEYBOARD: Press ALT T.

A sub-menu will be pulled down as shown in Figure 4-3-a.

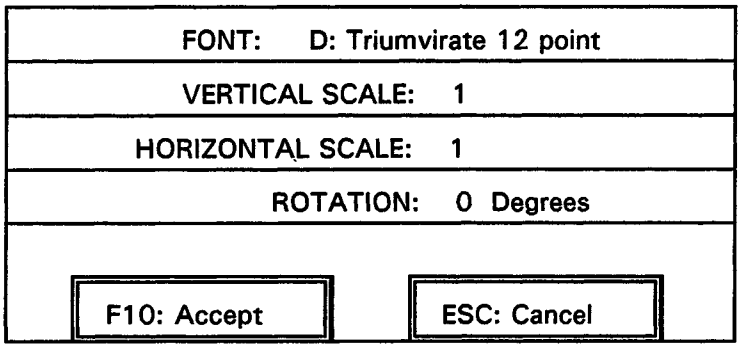


FIGURE 4-3-a TEXT Heading

Each parameter in this sub-menu can be programmed independently. Any parameter can be accessed by clicking the left mouse button on that line or all parameters can be stepped through from top to bottom. When complete, exit the TEXT heading by:

MOUSE: Click the left mouse button inside the desired selection of Accept or Cancel at the bottom of the sub-menu.

KEYBOARD: Press function key F10 to accept the changes or press ESCAPE to exit the sub-menu without saving the changes.

4.3.1. FONT

When the TEXT heading is accessed, the font selection chart (Figure 4-3-b) will be automatically shown. The size of font to print must be selected before actually selecting the TEXT icon to enter the text field. Refer to the 8865 operator's manual to view the size of each font. In the 8865 manual, the (1 X 1) font shown will be the size selected to print. This font can be multiplied for both height and width enlargements. This multiplying is done in the next two steps.

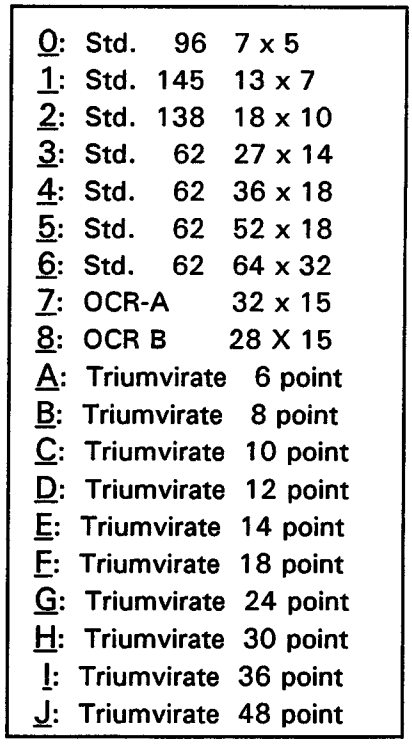


FIGURE 4-3-b Font Selections

To select the desired font:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted number or letter then press ENTER.

4.3.2. VERTICAL SCALE

This value is used as the multiplier for the height of the font selected in the previous step. Values from 1 to 9 can be entered. The larger the number, the taller the characters printed. Examples of each multiplier from 1 to 9 for each font are given in the 8865 operator's manual. **When using Triumvirate fonts, the vertical and horizontal multipliers must be the same. When using any other fonts, the vertical scale can be different than the horizontal scale.**

Type in the numeric value for the vertical multiplier then press ENTER.

4.3.3. HORIZONTAL SCALE

This value is used as the multiplier for the width of the font selected in step 4.3.1 previously. Values from 1 to 9 can be entered. The larger the number, the wider the characters printed. Examples of each multiplier from 1 to 9 for each font are given in the 8865 operator's manual. **When using Triumvirate fonts, the vertical and horizontal multipliers must be the same. When using any other fonts, the horizontal scale can be different than the vertical scale.**

Type in the numeric value for the horizontal multiplier then press ENTER.

4.3.4. ROTATION

This step selects the rotation of the printed text on the label. There are four selections in 90° increments in a counterclockwise direction. A selection of 0 will print normal as viewed coming out of the front of the printer. The selections are:

0: No Rotation
90: Bottom - to - Top
180: Upside Down
270: Top - to - Bottom

FIGURE 4-3-c Rotation Selections

To select the desired rotation:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted number then press ENTER.

4.4. BAR CODE HEADING

Before actually entering bar code data on a label, the type of bar code and bar widths must be selected. This is done using the BAR CODE heading. Select the BAR CODE heading by:

MOUSE: Click the left mouse button on the words BAR CODE.

KEYBOARD: Press ALT B.

A sub-menu will be pulled down as shown in Figure 4-4-a.

TYPE: A. Code 39
BAR CODE HEIGHT: 0.50 Inches
ROTATION: 0 degrees
HUMAN READABLE: YES
WIDE BAR WIDTH: 0.045 Inches
NARROW BAR WIDTH: 0.015 Inches
F10: Accept ESC: Cancel

FIGURE 4-4-a BAR CODE Heading

Each parameter in this sub-menu can be programmed independently. Any parameter can be accessed by clicking the left mouse button on that line or all parameters can be stepped through from top to bottom. When complete, exit the BAR CODE heading by:

MOUSE: Click the left mouse button inside the desired selection of Accept or Cancel at the bottom of the sub-menu.

KEYBOARD: Press function key F10 to accept the changes or press ESCAPE to exit the sub-menu without saving the changes.

4.4.1. TYPE

This step programs the type of bar code that is selected to print. The 8865 printer can print several different types of bar codes. Multiple types can be printed on the same label.

When the BAR CODE heading is selected, a box as shown in Figure 4-4-b will automatically be shown.

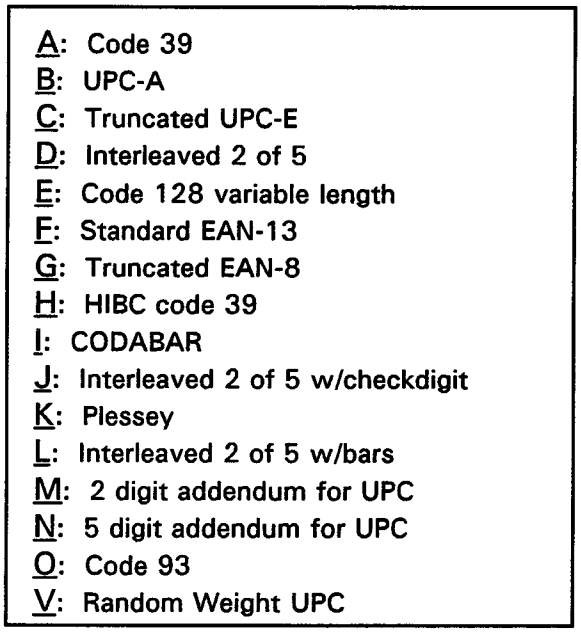


FIGURE 4-4-b Bar Code Type Selections

To select the desired type of bar code to print:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.4.2. BAR CODE HEIGHT

The height of the printed bar code is programmable in the Model 8865 printer. This step selects the bar code height. Values from 001 to 999 may be entered corresponding to heights of 0.01" to 9.99" respectively.

Enter the desired height using the keyboard then press ENTER.

4.4.3. ROTATION

This step selects the rotation of the printed bar code on the label. There are four selections in 90° increments in a counterclockwise direction. A selection of 0 will print normal as viewed coming out of the front of the printer. The selections are:

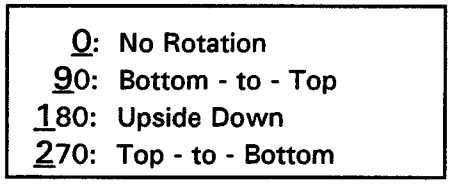


FIGURE 4-4-c Rotation Selections

To select the desired rotation:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted number then press ENTER.

4.4.4. HUMAN READABLE

The 8865 printer can be selected to either print or not print the small human readable font under the bar code. This step makes that selection. A box as shown in Figure 4-4-d will be shown when this step is selected.

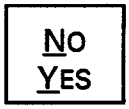


FIGURE 4-4-d Human Readable Choices

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.4.5. WIDE BAR WIDTH

The widths of the bars in bar codes can be programmed using this selection. Certain bar codes will have certain ratios between the narrow and wide bars. Other bar codes just use the narrow bar width measurement and determine their own wide widths.

For example, medium density code 39 bar code uses a 3:1 ratio and a narrow element size of 0.015". This means that the wide bar width would be 3 times 0.15" or 0.045" wide. High density code 39 might use a narrow element of 0.010" which would require the wide bar to be 0.030".

The default value for this setting is 0.045". Enter in the width of the wide bar elements in 0.005" increments then press ENTER.

Table 4-4-a shows typical selections for wide and narrow element widths for different types of bar codes excluding UPC and EAN types of bar codes. High density bar codes have

narrower elements so more characters can be encoded in a specific width. Low density bar codes have wider elements and take more horizontal space to print. Note that some bar codes have the same width for both wide and narrow elements. These are ratio based bar codes and the actual elements widths are selected by the specification of the bar code. Only the narrow element width is used for these bar codes. The letter in parenthesis is the selection letter shown in the MTLabel program for each type of bar code.

TYPE OF BAR CODE	HIGH DENSITY Wide / Narrow	MED. DENSITY Wide / Narrow	LOW DENSITY Wide / Narrow
Code 39 (A)	0.03" / 0.01"	0.045" / 0.015"	0.06" / 0.02"
Code 2 of 5 (D,J,L)	0.025" / 0.01"	0.045" / 0.015"	0.05" / 0.02"
Code 128 (E)	0.01" / 0.01"	0.015" / 0.015"	0.02" / 0.02"
HIBC (H)	0.03" / 0.01"	0.045" / 0.015"	0.06" / 0.02"
CODABAR (I)	0.03" / 0.01"	0.045" / 0.015"	0.06" / 0.02"
MSI Plessey (K)	0.03" / 0.01"	0.045" / 0.015"	0.06" / 0.02"
Code 93 (O)	0.01" / 0.01"	0.015" / 0.015"	0.02" / 0.02"

TABLE 4-4-a Suggested Element Widths (Except UPC and EAN)

Table 4-4-b shows typical selections for wide and narrow element widths for UPC and EAN types of bar codes. The 8865 printer cannot print a 100% correct element width of these bar codes. The two selections shown indicate 113% and 76% of the standard size for these bar codes. Note that these bar codes have the same width for both wide and narrow elements. These are ratio based bar codes and the actual elements widths are selected by the specification of the bar code. Only the narrow element width is used for these bar codes. The letter in parenthesis is the selection letter shown in the MTLabel program for that bar code.

TYPE OF BAR CODE	113% OF STANDARD SIZE Wide / Narrow	76% OF STANDARD SIZE Wide / Narrow
UPC (B,C,M,N)	0.015" / 0.015"	0.01" / 0.01"
EAN (F,G)	0.015" / 0.015"	0.01" / 0.01"

TABLE 4-4-b Default Element Widths For UPC and EAN

Tables 4-4-a and 4-4-b do not list all possibilities for bar code widths. The MTLabel program does not provide any checks for valid selections. Make sure that the values you enter are correct for the type of bar code to be printed.

4.4.6. NARROW BAR WIDTH

The widths of the bars in bar codes can be programmed using this selection. Certain bar codes will have certain ratios between the narrow and wide bars. Other bar codes just use the narrow bar width measurement and determine their own wide widths.

For example, medium density code 39 bar code uses a 3:1 ratio and a narrow element size of 0.015". This means that the narrow bar width should be programmed for 0.15". High density code 39 might use a narrow element of 0.010" which would require the narrow bar to be 0.010".

The default setting for this step is 0.015". Enter in the width of the narrow bar elements in 0.005" increments then press ENTER. Refer to Tables 4-4-a and 4-4-b for assistance.

4.5. OPTIONS HEADING

Before actually beginning a label, the unit of measure, line widths and grid operation should be selected. This is done using the OPTIONS heading. Select the OPTIONS heading by:

MOUSE: Click the left mouse button on the word OPTIONS.

KEYBOARD: Press ALT O.

A sub-menu will be pulled down as shown in Figure 4-5-a.

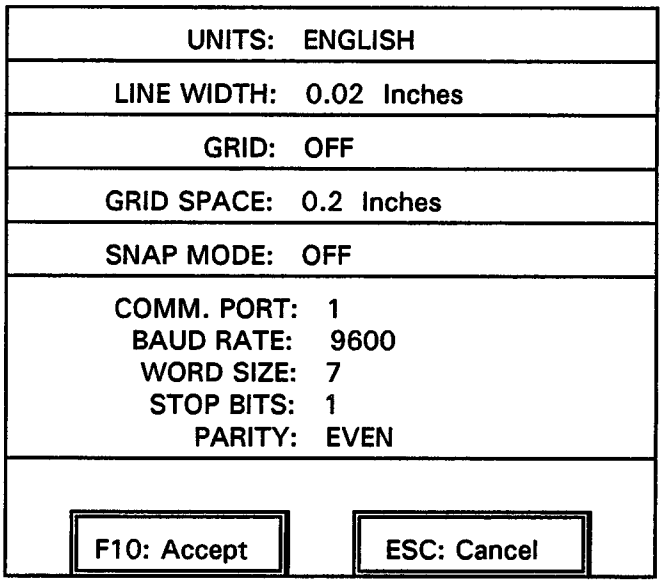


FIGURE 4-5-a OPTIONS Heading

Each parameter in this sub-menu can be programmed independently. Any parameter can be accessed by clicking the left mouse button on that line or all parameters can be stepped through from top to bottom. When complete, exit the OPTIONS heading by:

MOUSE: Click the left mouse button inside the desired selection of Accept or Cancel at the bottom of the sub-menu.

KEYBOARD: Press function key F10 to accept the changes or press ESCAPE to exit the sub-menu without saving the changes.

4.5.1. UNITS

This refers to the units of measure that will be shown on the screen of the MTLabel program. The default is English measure which is in 0.01" increments. Metric measurement is in centimeters. A choice box like Figure 4-5-b will be shown for the selection.

FIGURE 4-5-b Units Selection

To choose the units of measurement on the display:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

! IMPORTANT !
If this selection is changed, not all measurement values will be converted. Measurements under the LABEL, BAR CODE and OPTIONS headings will be converted. Measurements under the PRINTER heading are not converted. Also, values shown for the positions of global registers will always be shown in 0.01" increments. All formats sent to the printer are sent with inch measurements.

4.5.2. LINE WIDTH

This parameter selects the thickness of a line or the thickness of the sides of a box. The value is expressed in 0.01" increments. A beginning value of 0.02" is suggested.

Enter the measurement of three digits and decimal point via the keyboard then press ENTER.

4.5.3. GRID

To assist in aligning data fields and other information on the label, a grid tool is available. When enabled, a series of vertical and horizontal lines will be shown on the screen at predetermined spaces. The spacing is selected in the next step. The grid helps position fields or lines on the label by providing a reference point. The grid selections are shown in Figure 4-5-c.

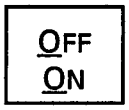


FIGURE 4-5-c Grid Selections

To select the operation of the display grid:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.5.4. GRID SPACE

This step selects the spacing between lines on the displayed grid. Values are entered in 0.01" increments. If the measurement is too small, the screen will be covered with lines and label design will be difficult. A value of 0.2" is recommended.

Enter in the grid spacing value of three digits and decimal point then press ENTER.

4.5.5. SNAP MODE

The snap mode enables you to align any new fields added to the label by "snapping" them to the closest intersection of the grid lines. The snap mode is only functional when the grid is also enabled. Regardless of where the beginning of a field is, it will automatically be moved to align with the grid.

This is a very helpful tool when designing labels and eliminates the need to try to visually line up columns on the label. The snap selections are given in Figure 4-5-d.

FIGURE 4-5-d Snap Selections

To select the operation of the display snap mode:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

4.5.6. COMMUNICATIONS PORT

This step selects the communications port that will be accessed on the computer when a format is test printed or downloaded to the 8865 printer. The computer in use must have the correct serial port selected or an error will be indicated.

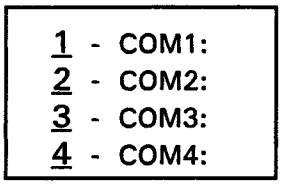


FIGURE 4-5-e Communications Port Selections

To select the communications port for the MTLabel program:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted number then press ENTER.

4.5.7. BAUD RATE

This step selects the baud rate or speed of communications between the computer and the 8865 printer. This selection must match the baud rate selected on the program switches on the rear of the 8865 printer.

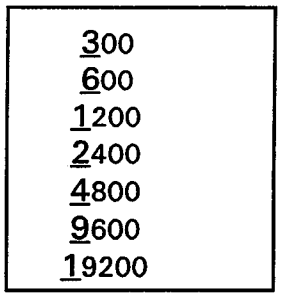


FIGURE 4-5-f Baud Rate Selections

To select the baud rate in the computer for the MTLabel program:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted number then press ENTER.

4.5.8. WORD SIZE

This step selects the length of the ASCII characters that are transmitted to the 8865 printer for test prints and label format downloads. This selection must match the selection made on the switches at the rear panel of the 8865. The two selections are shown in Figure 4-5-g.

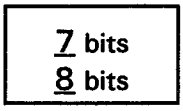


FIGURE 4-5-g Word Size Selections

To select the desired ASCII word length:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted number then press ENTER.

4.5.9. STOP BITS

This step selects the number of stop bits sent from the computer to the printer when test printing a label or downloading a label format to the printer. This selection will normally be set for 1 stop bit. Either selection will work with the 8865 printer. The selections for this step are shown in Figure 4-5-h.

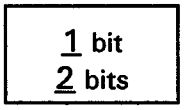


FIGURE 4-5-h Stop Bit Selections

To select the desired number of stop bits:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted number then press ENTER.

4.5.10. PARITY

This step selects the parity that will be used when communicating to the 8865 printer. The 8865 ignores the parity bit but it must be transmitted. The default value for parity is EVEN. All selections are given in Figure 4-5-i.

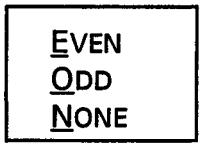


FIGURE 4-5-i Parity Selections

To select the parity for communications with the MTLabel program:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

FOR YOUR NOTES

5. DESIGNING A LABEL

After setting the label defaults as described in Section 4 of this manual, a label may be designed. The easiest way to begin the design of a label is to have a rough idea of what the finished label will look like before you begin. Sketch the label on a sheet of paper and then begin to build the label by adding the fields on the screen. The icons which allow selection of various types of fields for the label and some tools to be used are shown vertically down the left side of the MTLabel screen. From top to bottom they are:

Text (F1)
Horizontal Lines (F2)
Vertical Lines (F3)
Solid Boxes (F4)
Boxes (F5)
Bar Code (F6)
Reuse Global Field (F7)
Snap Movement (ALT S)
Grid Alignment (ALT G)

Each of these items are described in the following sections in detail. Read and understand each section before beginning the label design.

5.1 TEXT

This adds a text field to a label format. Begin by selecting the desired text format as described under the TEXT heading in section 4.3. of this manual. For constant text fields, follow the instructions below and enter the constant text on the label as the data. For fields that will be replaced with data from a scale or other device, enter all 9's as the data. The printer will replace a data field of all 9's with incoming data when in the METTLER TOLEDO mode.

! IMPORTANT !
A replaceable data field entry must consist of nothing but 9's. Any other character (space or other number or letter) will result in that field printing as a constant field. If you need a constant field to precede or follow a variable data field on the same line, enter them as two separate fields.

MOUSE: To add text information to the label, click the left mouse button on the top icon for text - A. The icon will change to white to indicate its selection. Move the mouse to where the text will begin and click the left mouse button. This will place a cross-hair where the text will begin. The lower left corner of the line of text will begin where the cross-hair is shown. Type in the desired text. As you add text, you can use the arrow keys to adjust the position of the text. If a typing error is made, the BACKSPACE key will move the cursor back one space and erase that character. When the desired text is entered and is in the correct position, press ENTER.

If a mistake is found before pressing ENTER, click the right mouse button and the field will be erased. After pressing ENTER, the text can be moved, deleted or copied by using selections under the EDIT heading.

KEYBOARD: To add text information to the label, press function key F1. The text icon will be shown in white to indicate its selection. A cross-hair will appear on the screen. This cross-hair is where the text will be positioned. With the arrow keys, move the cross-hair to the desired position. Type in the desired text. As you add text, you can use the arrow keys to adjust the position of the text. If a typing error is made, the BACKSPACE key will move the cursor back one space and erase that character.

When the desired text is entered and is in the correct position, press ENTER.

If a mistake is found before pressing ENTER, press ESCAPE and the field will be erased. After pressing ENTER, the text can be moved, deleted or copied by using selections under the EDIT heading.

5.2 HORIZONTAL LINES

The second icon allows you to add horizontal lines to a label format. Begin by selecting the desired line width under the OPTIONS heading as described in section 4.5. of this manual.

MOUSE: To add horizontal lines to a label, click the left mouse button on the horizontal line icon (F2). The horizontal line icon will change to white. Move the mouse to the position for the beginning of the line and click the left mouse button. Now move the mouse to "draw" the line. When the desired line length is obtained, click the left mouse button a second time. The line will be entered. Note that even if the mouse is moved up or down, the line will only be drawn horizontally.

If a mistake is found before finalizing the line, pressing the right mouse button will erase the line. The line can be moved, deleted or copied by using selections under the EDIT heading after pressing ENTER.

KEYBOARD: To add horizontal lines to the label, press the function key F2. The horizontal line icon will change to white. Using the arrow keys, move the cross-hair to the beginning point of the line. Press ENTER to set the beginning position. Move the cross-hair using the left or right arrow keys to "draw" the line. Note that even if the up or down arrow keys are pressed, the line will only be drawn horizontally. When the desired line length is obtained, press ENTER again. The line will be entered.

If a mistake is found before pressing ENTER, press ESCAPE and the line will be erased. The line can be moved, deleted or copied by using selections under the EDIT heading.

5.3 VERTICAL LINES

The third icon allows you to add vertical lines to a label format. Begin by selecting the desired line width under the OPTIONS heading as described in section 4.5. of this manual.

MOUSE: To add vertical lines to a label, click the left mouse button on the vertical line icon (F3). The vertical line icon will change to white. Move the mouse to the position for the beginning of the line and click the left mouse button. Now move the mouse to "draw" the line. When the desired line length is obtained, click the left mouse button a second time. The line will be entered. Note that even if the mouse is moved left or right, the line will only be drawn vertically.

If an error is detected before clicking the left mouse button a second time, click the right mouse button and the line will be erased. After being entered, the line can be moved, deleted or copied by using selections under the EDIT heading.

KEYBOARD: To add vertical lines to the label, press the function key F3. The vertical line icon will change to white. Using the arrow keys, move the cross-hair to the beginning point of the line. Press ENTER to set the beginning position. Move the cross-hair using the up or down arrow keys to "draw" the line. Note that even if the left or right arrow keys are pressed, the line will only be drawn vertically. When the desired line length is obtained, press ENTER again. The line will be entered.

If a mistake is found before pressing ENTER, press ESCAPE and the line will be erased. The line can be moved, deleted or copied by using selections under the EDIT heading.

5.4 SOLID BOXES

The fourth icon allows addition of solid boxes to a label format. In addition to printing solid boxes, this feature allows you to reverse print any text that is inside the box. (The box will be black and the text inside the box will be white). Note that a solid box placed over a text field will cover up the text field on the screen; however, the printer will print the reverse text correctly.

MOUSE: To add solid boxes to your label, click the left mouse button on the solid box icon (F4). The icon will change to white. Select the first corner of the box by moving the mouse to the desired location and clicking the left mouse button. Now move the mouse to the opposite diagonal corner to "draw" the box. When the correct box size is obtained, click the left mouse button a second time. The box will be entered.

If an error is found before the box is complete, press the right mouse button and the box will be erased. After completing the box, it can be moved, deleted or copied by using selections under the EDIT heading.

KEYBOARD: To add solid boxes to your label, press F4. Use the arrow keys to move the cross-hair to the position of one corner of the box. Press ENTER when the cross-hair is in the correct position. Use the arrow keys to move the cross-hair to the opposite diagonal corner to "draw" the box. When the correct box size is obtained, press ENTER. The box will be entered.

If a mistake is found before pressing ENTER, press ESCAPE and the box will be erased. The box can be moved, deleted or copied by using selections under the EDIT heading.

5.5 BOXES

The fifth icon allows addition of regular boxes to a label format. Using this, you can draw a box around a field to highlight it. Be sure to select the desired line widths under the OPTION heading as described in section 4.5. of this manual before drawing any boxes.

MOUSE: To add a box to your label, click the left mouse button on the box icon (F5). The icon will change to white. Select the first corner of the box by moving the mouse to the desired location and clicking the left mouse button. Now move the mouse to the opposite diagonal corner to "draw" the box. When the correct box size is obtained, click the left mouse button a second time. The box will be entered.

If an error is found before the box is complete, press the right mouse button and the box will be erased. After completing the box, it can be moved, deleted or copied by using selections under the EDIT heading.

KEYBOARD: To add a box to your label, press F5. Use the arrow keys to move the cross-hair to the position of one corner of the box. Press ENTER when the cross-hair is in the correct position. Use the arrow keys to move the cross-hair to the opposite diagonal corner to "draw" the box. When the correct box size is obtained, press ENTER. The box will be entered.

If a mistake is found before pressing ENTER, press ESCAPE and the box will be erased. The box can be moved, deleted or copied by using selections under the EDIT heading.

5.6 BAR CODES

This sixth icon adds bar code information to a label format. Begin by selecting the bar code defaults under the BAR CODE heading as described in section 4.4. of this manual. After positioning a new bar code field, a window will be shown for data entry. If the bar code field is to be constant text, simply enter the constant text in the window. If a bar code field is to be replaced with scale data, select the type and position as described below then enter all 9's as data when the window appears. The printer recognizes a data field of all 9's as a replaceable field and will replace the 9's with incoming data from the scale when in the METTLER TOLEDO mode.

! IMPORTANT !
A replaceable data field entry must consist of nothing but 9's. Any other character (space or other number or letter) will result in that field printing as a constant field. If you need a constant field to precede or follow a variable data field on the same line, enter them as two separate fields.

MOUSE: To add a bar code field, click the left mouse button on the bar code icon. The bar code icon will change to white to indicate its selection. Move the mouse to where the bar code will begin and click the left mouse. A window will appear for entry of the data to be bar coded. If a typing error is made, the BACKSPACE key will move the cursor back one space and erase that character. When the desired data is entered, press ENTER. The window will disappear and a bar code graphic will be shown on the screen.

If a mistake is found before pressing ENTER, click the right mouse button and the field will be erased. After pressing ENTER, the bar code field can be moved, deleted or copied by using selections under the EDIT heading.

KEYBOARD: To add a bar code field, press the function key F6. This selects the bar code icon and changes it to white. A cross-hair will be shown on the screen. Use the arrow keys to move the cross-hair to the desired position then press ENTER. A window will appear. Enter the data you wish to bar code. If a typing error is made, the BACKSPACE key will move the cursor back one space and erase that character. When the desired data is entered, press ENTER. The window will disappear and a bar code graphic will appear.

If a mistake is found before pressing ENTER, press ESCAPE and the field will be erased. The bar code field can be moved, deleted or copied by using selections under the EDIT heading.

5.7 REUSE GLOBAL FIELDS

A Global Field is a data field that can be used multiple times in one label format. Global fields are useful when a label format requires the same data printed in different formats (for example human readable and bar code), even though the printer only receives the data once. With global fields, data can be stored in the printer, recalled, and used in a different field. This section explains how to 'REUSE' global fields after they have been defined. Section 6.5 discusses how to 'MAKE GLOBAL', or how to define a field so that it may be used again later.

! IMPORTANT !
A Global field only stores data. Global fields DO NOT store field location or format (font, bar code type, size, etc). Therefore, when reusing a global field, a new location and format must be defined. Be sure to define text and/or bar code types and sizes you wish to add before you begin the process of reusing a global field.

To reuse a defined global field:

MOUSE: Click the left mouse button on the REUSE GLOBAL FIELDS icon (F7).

KEYBOARD: Press function key F7.

If there are no global fields defined, a 'NO GLOBAL REGISTER FIELDS ASSIGNED' error will appear. If there are global registers assigned, the REUSE GLOBAL FIELDS icon will change to white, and an instruction window will appear as shown in Figure 5-7-a.

SELECT TEXT OR BAR CODE OBJECT Then position cursor to new location

FIGURE 5-7-a Global Instruction Window

Select the type of field you want the global field data to print as, text or bar code, by selecting the text icon (F1) or the bar code icon (F6). The appropriate icon will change to white and the REUSE GLOBAL FIELDS icon will remain white. Next, move to the desired location of the new field and press ENTER. The previous instruction window will disappear and a new instruction window will appear as shown in Figure 5-7-b.

Move Highlight Bar to Object Depress Enter to Select Field

	VERT	HORIZ	TYPE	FONT	DATA
A.	1.76	0.36	BAR CODE	B	99999999
B.	3.65	0.36	TEXT	4	9999
C.	0.83	1.55	TEXT	TRIUM 12	999999

FIGURE 5-7-b Reuse Global Field Window

Figure 5-7-b lists the data fields that have been tagged as global fields. Refer to section 6.5 to review how a field is tagged as global. Select the data field you wish to reuse by:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

The data from the global field that you have selected will now be shown on the label in the position you selected and in the font or bar code you have selected. The screen will return to the select global field display after the procedure. To exit this mode, press ESCAPE.

5.8 SNAP (ALT-S)

The SNAP feature allows new fields to be entered only at the intersection of the grid lines. The SNAP tool will only function if the GRID tool is also enabled. The field to be entered will be automatically moved to the closest grid intersection before entry. This feature makes alignment of text, lines, and boxes on your label very easy.

MOUSE: To select SNAP mode, simply click the left mouse button on the snap tool. Snap will toggle on and off with each click on the snap tool. When the box around the snap tool is shown as white, it is selected.

KEYBOARD: To select SNAP mode, enable snap under the OPTIONS heading as described in Section 4.5. of this manual or press ALT-S.

5.9 GRID (ALT-G)

To assist in aligning data fields and other information on the label, a GRID tool is available. When enabled, a series of vertical and horizontal lines will be shown on the screen at predetermined spaces. The spacing between lines is selected under the OPTIONS heading. The grid helps position fields and lines on the label.

MOUSE: To enable the grid, simply click the left mouse button on the grid icon. The grid icon is the bottom item shown on the left of the screen. It will toggle on and off with each mouse click on the icon.

KEYBOARD: To select the grid, enable it under the OPTIONS heading as described in Section 4.5. of this manual or press ALT-G. Pressing ALT G a second time will remove the grid.

FOR YOUR NOTES

6. EDITING A LABEL

The current version of MTLabel does not allow corrections or changes to existing fields. An incorrect data field must be deleted then reentered on the label. Several edit features are included to help in label design and modifications. In order to edit a label once it has been designed or edit a field of data after it has been entered, select the EDIT heading at the top of the MTLabel screen. A sub-menu as shown in Figure 6-1 will be viewed. You select the EDIT heading by:

MOUSE: Click the left mouse button on the word EDIT.

KEYBOARD: Press ALT E.

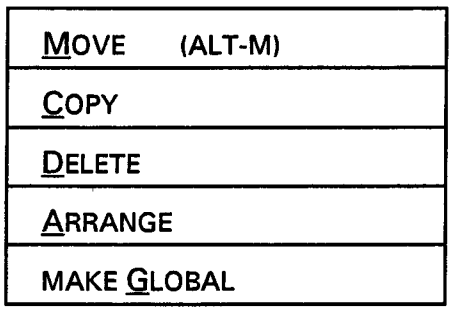


FIGURE 6-1 EDIT Heading

Any of these sub-menu functions may now be selected by the operator. Each of these functions are discussed separately in the following sections.

6.1. MOVE ALT-M

The MOVE feature allows repositioning of a field on a label. Lines and boxes are moved as easily as a normal data field. After selecting the EDIT heading, select the MOVE feature by:

MOUSE: Click the left mouse button on the word MOVE.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the MOVE selection then press ENTER - or press the highlighted letter "M" then press ENTER.

! IMPORTANT !
The move command is also available directly from the main MTLabel screen by pressing ALT-M. This eliminates having to access the EDIT menu then the MOVE feature separately.

Once the move command has been selected, one field on the label will be shown with a dashed box around it. This indicates the field currently selected for the move. If the correct field is not outlined, select the correct one by:

MOUSE: Click the left mouse button twice on the correct field - or press the TAB key to toggle through all available fields then press ENTER when the correct one is outlined.

KEYBOARD: Move the cross-hair to the correct field by using the arrow keys then press ENTER - or use the TAB key to toggle through all available fields then press ENTER when the correct one is outlined.

Note that the EDIT heading disappears when a field is selected. Once the correct field has been selected, simply move the outlined box to the new position for that field. Do this by:

MOUSE: Move the mouse arrow (the outlined box will also move) to the new position then click the left mouse button.

KEYBOARD: Move the outlined box to the new position by using the arrow keys then press ENTER.

Using this procedure, any field can be moved as many times as required. To abort the moving process, press ESCAPE or click the right mouse button before pressing ENTER or the left mouse button the final time. The field will remain where it was positioned before the moving process.

After all desired fields have been moved, press ESCAPE or click the right mouse button to exit the MOVE feature.

6.2 COPY

The COPY feature allows you to copy an existing field on the label and duplicate it at other locations on the label. The original field remains exactly as it was. No changes to the field are permitted such as changing from a bar code field to a text field. The field will appear exactly as the original field being copied. To select the copy feature after selecting the EDIT heading:

MOUSE: Click the left mouse button on the word COPY.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the COPY selection then press ENTER - or press the highlighted letter "C" then press ENTER.

Once the COPY command has been selected, one field on the label will be shown with a dashed outline box around it. This indicates the field currently selected for the copy. If the correct field is not outlined, select the correct one by:

MOUSE: Click the left mouse button twice on the correct field - or press the TAB key to toggle through all available fields then press ENTER when the correct one is outlined.

KEYBOARD: Move the cross-hair to the correct field by using the arrow keys then press ENTER - or use the TAB key to toggle through all available fields then press ENTER when the correct one is outlined.

Note that after a field has been selected, the EDIT heading disappears. Once the correct field has been selected, simply move the outlined box to the new position for the duplicate field. Do this by:

MOUSE: Move the mouse arrow (the outlined box will also move) to the new position then click the left mouse button.

KEYBOARD: Move the outlined box to the new position by using the arrow keys then press ENTER.

Using this procedure, any field can be copied as many times as required. If you wish to abort the copy process, press ESCAPE or click the right mouse button before pressing ENTER or the left mouse button the final time. The original field will remain unchanged.

After all desired fields have been copied, press ESCAPE or click the right mouse button to exit the COPY feature.

6.3 DELETE

The DELETE feature is used to totally eliminate a field from the label. If the data entered on the label as text or bar code is incorrect or incomplete, the complete field must be deleted then reentered. To select the DELETE feature after selecting the EDIT heading:

MOUSE: Click the left mouse button on the word DELETE.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the DELETE selection then press ENTER - or press the highlighted letter "D" then press ENTER.

Once the delete command has been selected, one field on the label will be shown with a dashed outline box around it. This indicates the field currently selected for deletion. If the correct field is not outlined, select the correct one by:

MOUSE: Click the left mouse button twice on the correct field - or press the TAB key to toggle through all available fields then press ENTER when the correct one is outlined.

KEYBOARD: Move the cross-hair to the correct field by using the arrow keys then press ENTER - or use the TAB key to toggle through all available fields then press ENTER when the correct one is outlined.

Note that after a field has been selected, the EDIT heading disappears. Once the correct field has been selected, a warning window will be shown asking for verification of deletion. The warning box is shown in Figure 6-3-a.

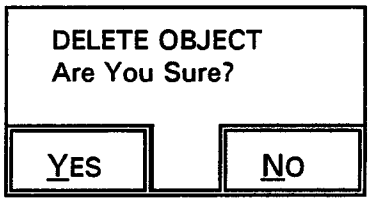


FIGURE 6-3-a Delete Warning

Choose the desired response by:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight square left or right using the left and right arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

If the yes response is selected, the field outlined on the label will be deleted. Once deleted, it cannot be recovered. If the no response is selected, the field will not be deleted and the label will remain unchanged.

If a field has been tagged as global (section 6.5) and has been used to produce other global fields (section 5.7), an error window will be displayed as shown in Figure 6-3-b.

THIS GLOBAL FIELD IS REFERENCED BY REGISTER FIELDS.
DELETE THESE FIELDS FIRST.
Depress any key to continue

FIGURE 6-3-b Delete Global Field Warning

This indicates that the field that was selected for deletion is used as the data field for other global fields. The global fields that depend upon the selected field for their data must be deleted first to allow the desired field to be deleted. These fields can be found by viewing the label and locating fields with the same data in them.

After all desired fields have been deleted, press ESCAPE or click the right mouse button to exit the DELETE feature.

6.4 ARRANGE

The ARRANGE feature is used to rearrange the order of replaceable text or bar code fields in a label format. If the label was not designed with the replaceable fields in the correct sequence, when data is sent from the scale or other ASCII device, the data will not print in the desired location. The fields are not actually moved with respect to their position on the label - only the order that they appear in the label format with respect to each other. This determines which field from the scale is inserted into which replaceable field. The 8865 printer must be used in the Mettler Toledo mode to utilize this feature.

Any field of all 9's placed on a label will be filled with data from the scale or other device in the order in which they were entered in the design of the label format. The first line transmitted from the scale will fill the first field of all 9's in the label format. The second line transmitted will fill the second field of all 9's and so on. In order to design the label correctly, you will need to know the order of the data fields sent from the scale then rearrange the replaceable fields (all 9's) in the label format so they appear in the correct order in the format.

To access the ARRANGE feature after selecting the EDIT heading:

MOUSE: Click the left mouse button on the word ARRANGE.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the ARRANGE selection then press ENTER - or press the highlighted letter "A" then press ENTER.

After selecting ARRANGE, a window will be displayed like the one shown in Figure 6-4-a.

Select Object to Move

	VERT	HORIZ	TYPE	FONT	CHARS
A.	1.76	0.36	BAR CODE	B	10
B.	3.65	0.36	TEXT	4	6
C.	0.83	1.55	TEXT	12	22

FIGURE 6-4-a Arrange Selection Window

This ARRANGE window shows the vertical and horizontal beginning position for the data fields and also the type of field, the font selected and the number of characters in the field. Use these values to identify the fields on the label. The fields are shown in the window in the same order as they appear in the label format. This means that the first line of data from the scale will be inserted into

the first line in the ARRANGE window. The second line from the scale will be inserted into the second line in the window and so on.

To rearrange the order of the replaceable fields, you need to select the field to be moved up in the label format. Do this by:

MOUSE: Click the left mouse button on the desired field.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired field then press ENTER - or press the highlighted letter then press ENTER.

Once the field to move has been selected, the window will change to the one shown in Figure 6-4-b.

Insert BEFORE Object					
	VERT	HORIZ	TYPE	FONT	CHARS
A.	1.76	0.36	BAR CODE	B	10
B.	3.65	0.36	TEXT	4	6
C.	0.83	1.55	TEXT	TRIUM 12	22

FIGURE 6-4-b Arrange Position Window

Select the new position for the previously selected field. Remember that the previously selected line will be placed in the format BEFORE this highlighted line. Do this by:

MOUSE: Click the left mouse button on the desired field.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired field then press ENTER - or press the highlighted letter then press ENTER.

The lines will be rearranged accordingly. You can arrange the lines as often as needed to obtain the desired result. Remember that only replaceable fields (those with data of all 9's) are shown in the ARRANGE window.

After all desired fields have been arranged, press ESCAPE or click the right mouse button to exit the ARRANGE feature.

6.5 MAKE GLOBAL

A Global Field is a constant or replaceable data field that can be used multiple times in one label format. Global fields are useful when a label format requires the same data printed in different formats (eg. human readable and bar code), even though the data is entered (or transmitted from the scale) just once. With global fields, the data can be stored in the printer, recalled, and used in a different field. This section explains how to define or 'MAKE' a field global after it has been entered. Section 5.7 discusses how to use a global field once it has been defined or "tagged".

! IMPORTANT !
A Global field stores data only. Global fields DO NOT store field location or format (font, bar code type, size, etc). Any data field can be defined as a global field, but only the data will be reused.

To access the MAKE GLOBAL feature that permits fields to be tagged as global, select the EDIT heading then:

MOUSE: Click the left mouse button on the MAKE GLOBAL command.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired field then press ENTER - or press the highlighted letter "G" then press ENTER.

If there are no data fields on the label, a 'NO TEXT OR BAR CODE OBJECTS DEFINED' error will appear. If there are data fields on the label, the following window (Figure 6-5) will be displayed.

Move Highlight Bar to Object
Depress Enter to Toggle GLOBAL
Depress <ESC> to Exit

	GBL	VERT	HORIZ	TYPE	FONT	DATA
A.		1.76	0.36	BAR CODE	B	99999999
B.	*	3.65	0.36	TEXT	4	9999
C.		0.83	1.55	TEXT	TRIUM 12	999999

FIGURE 6-5 Define Global Field Window

Data fields already defined as global will be marked with an asterisk (*) in the GBL column (as shown in field 'B' above). Fields are tagged as global by:

MOUSE: Click the left mouse button on the line to tag or to remove the * tag.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired field then press ENTER - or press the highlighted letter then press ENTER. Each time ENTER is pressed, the tag will change from on to off or off to on.

After a field is tagged as global, it may be used in conjunction with the 'REUSE GLOBAL FIELD' icon discussed in Section 5.7. When finished defining global attributes, press ESCAPE to exit this command.

6.6 TEST PRINT (ALT-P)

At any time during the label design process, you can print the label displayed if a Model 8865 printer is connected to the computer. Before attempting this, make sure all serial interface parameters have been selected under the OPTIONS heading and verify the printer is programmed for the Host Mode (SW1-5 OFF). The sentinel code key is required for this function.

This feature can be accessed by selecting the FILE heading. A menu will be accessed like shown in Figure 7-a. When displayed, select the TEST PRINT line by:

MOUSE: Click the left mouse button on the TEST PRINT line.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the TEST PRINT line then press ENTER - or press the highlighted letter "T" then press ENTER.

A label will be printed showing exactly what will print when the format is downloaded to the 8865 printer. After the sample printing, editing may be done to fine tune the label.

! IMPORTANT !
The test print command is also available directly from the main MTLabel screen by pressing ALT-P. This eliminates having to access the FILE menu then the TEST PRINT feature separately.

FOR YOUR NOTES

7. HANDLING LABEL FORMATS

There are several label format handling commands that are used with MTLabel. This section explains how certain commands under the FILE heading are used to do this. Included in this section are some save commands and file maintenance commands. Note that some of the following procedures require the presence of the sentinel code key. Refer to Figure 2-2 for code key location.

To access these commands:

MOUSE: Click the left mouse button on the word FILE.

KEYBOARD: Press ALT F.

A sub-menu as shown in Figure 7-a will be pulled down for viewing.

NEW
OPEN
SAVE
SAVE 8865 FORMAT
SET LABEL PATH
TEST PRINT (ALT-P)
DELETE LOCAL
DOWNLOAD TO 8865
EXIT (ALT-X)

FIGURE 7-a FILE Heading

Any of these headings may now be selected by the operator.

7.1 SAVING FOR FUTURE CHANGES

The SAVE command saves the current label format just developed so it can be recalled by the MTLabel program again. This command saves the label format on the screen in a format that only the MTLabel program recognizes and can use. The code key is not required for this operation.

To save a current label format, select the FILE heading then SAVE by:

MOUSE: Click the left mouse button on the SAVE line.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the SAVE line then press ENTER - or press the highlighted letter "S" then press ENTER.

If there is nothing on the label, the program will give a 'NO LABEL OBJECTS' error and will not allow a save. If the label is valid to save, a window as shown in Figure 7-1-a will appear for entry of a file name. Enter a file name of up to 8 letters and numbers then press ENTER. Do not use spaces and do not enter a suffix for the file name. MTLabel will automatically provide a .865 suffix.

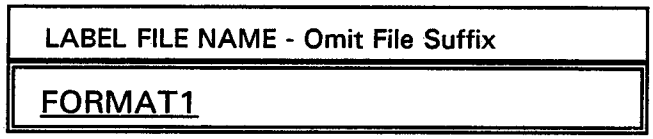


FIGURE 7-1-a Save File Window

Enter a file name and press <ENTER>. A completely new path may be entered if desired. This allows saving files to a different disk or directory without selecting the Set Label Path option discussed in section 3.1.

If the file name entered already exists, there will be a warning box displayed asking if the existing file should be replaced with the new one. This box is shown in Figure 7-1-b.

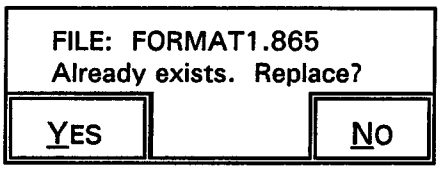


FIGURE 7-1-b Save Warning

Choose the desired response by:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight square left or right using the left and right arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

If the YES response is selected, the current label will replace the original label format saved with that file name. Once replaced, the original file cannot be recovered. If the NO response is selected, the file will not be replaced and another name may be entered. After saving a file, the MTLabel program will return to the main screen.

7.2 SAVE AS 8865 FORMAT

The MTLabel program can save a label format in an ASCII format exactly as would be sent to the 8865 printer for storage. This permits viewing of all the commands included with the format for possible troubleshooting help or for entering into another device (like 9360) for transmission later. This command will also save the label format for editing using an ASCII editor for adding in graphics or changing the stored label name from "TOLEDO" to another name. The sentinel code key is required for this command.

To save a format in 8865 format, select the FILE heading then:

MOUSE: Click the left mouse button on the SAVE 8865 FORMAT line.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the SAVE 8865 FORMAT line then press ENTER - or press the highlighted number "8" then press ENTER.

If there are no fields on the label, the program will give a 'NO LABEL OBJECTS' error and will not allow a save. If the sentinel key is not properly installed, the program will give you a 'SENTINEL KEY NOT FOUND' error and will not allow a save. If the label is valid to save, a window will appear as shown in Figure 7-2-a in order to enter a file name.

FIGURE 7-2-a Save 8865 Format Window

Enter a file name including suffix then press ENTER. A completely new path may be entered if desired. This allows saving files to a different disk or directory without selecting the Set Label Path option discussed in section 3.1. This command DOES require the sentinel key.

If the file name entered already exists, there will be a warning box displayed asking if the existing file should be replaced with the new one. This box is shown in Figure 7-2-b.

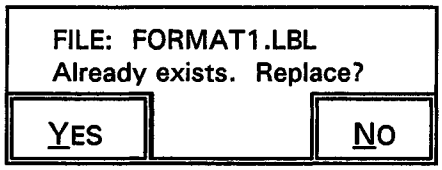


FIGURE 7-2-b Save Warning

Choose the desired response by:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight square left or right using the left and right arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

If the YES response is selected, the current label format will replace the original label format saved with that file name. Once replaced, the original format cannot be recovered. If the NO response is selected, the file will not be replaced and another name may be entered.

After saving a file in 8865 format, the MTLabel program will return to the main screen.

7.3 DOWNLOAD TO 8865

To download the label format just developed to the 8865 printer flash memory for use in the Mettler Toledo Mode, use the DOWNLOAD command. This command sends the label format on the screen though the serial port to the 8865 printer (if connected properly). Before attempting this, make sure all serial interface parameters have been selected under the OPTIONS heading and verify the printer is programmed for the Host Mode (SW1-5 - OFF). The printer will save the format in its flash memory and will use this format when in the Mettler Toledo Mode. Make sure all serial port parameters have been properly selected under the OPTIONS heading.

Select the FILE heading then to download a label format to the 8865 printer:

MOUSE: Click the left mouse button on the line DOWNLOAD.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the DOWNLOAD line then press ENTER - or press the highlighted letter "L" then press ENTER.

If there are no fields on the label, the program will give a 'NO LABEL OBJECTS' error and will not allow a download. If the sentinel key is not properly installed, the program will give a 'SENTINEL KEY

NOT FOUND' error and will not allow the download. If the label is valid to download, the format will be sent and the printer will save it in flash memory. This command DOES require the sentinel key.

After downloading the format, the MTLabel program returns to the main screen.

! IMPORTANT !
If the 8865 printer is not set up properly or a defective cable is used, the label format may not be received by the printer. There is no confirmation from the printer that a format was received successfully.

7.4 DELETE LOCAL FORMAT

Occasionally, it may be necessary to delete some label formats from the default directory. You can use the standard delete command from DOS or use the DELETE LOCAL function of MTLabel. To access this command under the FILE heading:

MOUSE: Click the left mouse button on the DELETE LOCAL line.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the DELETE LOCAL line then press ENTER - or press the highlighted character "D" of the DELETE LOCAL function then press ENTER.

A window will be shown displaying all of the XXXXX.865 files in the default directory. A sample of this display is shown in Figure 7-4-a.

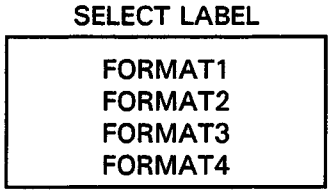


FIGURE 7-4-a Delete Local File Selection

Select the desired label format by:

MOUSE: Click the left mouse button on the desired file name.

KEYBOARD: Move the highlight bar up or down using the up and down arrow keys to highlight the desired file name then press ENTER - or press the highlighted character of the desired file name then press ENTER.

After selecting a label formal, a warning box will be shown asking for confirmation of deletion. This is shown in Figure 7-4-b.

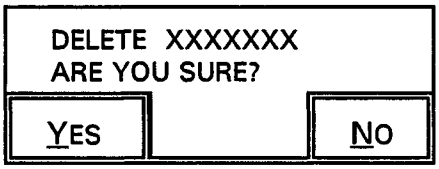


FIGURE 7-4-b Delete Warning

Choose the desired response by:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight square left or right using the left and right arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

If the YES response is selected, the highlighted label format will be deleted. Once deleted, it cannot be recovered. If the NO response is selected, the label format will not be deleted.

After deleting a label format, the MTLabel program will return to the main screen.

FOR YOUR NOTES

8. EXITING MTLabel (ALT-X)

There are three methods of exiting the MTLabel program. Press the ESCAPE key, hold down the ALT key and press the "X" key or select the FILE heading and a window as shown in Figure 8-a will be displayed.

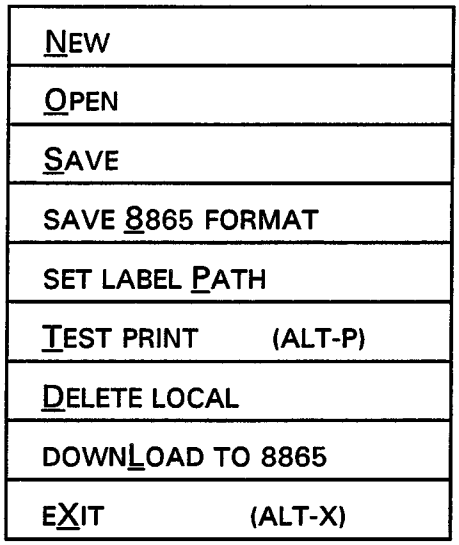


FIGURE 8-a FILE Heading

Select the EXIT command by:

MOUSE: Click the left mouse button on the EXIT selection.

KEYBOARD: Move the highlight square up or down using the up and down arrow keys to highlight the EXIT selection then press ENTER - or press the highlighted letter "X" then press ENTER.

If the label displayed on the MTLabel screen has not been saved, a warning box will be displayed as shown in Figure 8-b.

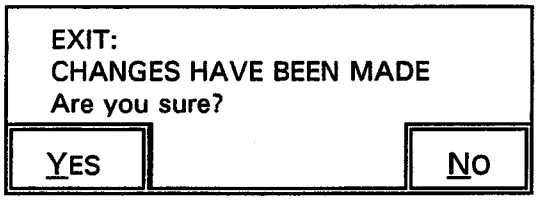


FIGURE 8-b Exit Warning

Choose the desired response by:

MOUSE: Click the left mouse button on the desired selection.

KEYBOARD: Move the highlight square left or right using the left and right arrow keys to highlight the desired selection then press ENTER - or press the highlighted letter then press ENTER.

If the YES response is selected, the current label format will not be saved (any changes will be lost) and the MTLabel program will be exited. If the NO response is selected, the MTLabel program will not be exited and the label format may be saved before exiting the program.

9. HELPFUL HINTS AND SUGGESTIONS

This section contains helpful information with regard to using the MTLabel program. Some short-cuts are described as well as descriptions of some limitations. Read this section carefully before beginning the MTLabel program.

9.1. SHORT CUTS

You can toggle between the headings across the top of the MTLabel screen by using the left and right arrow keys if the cursor is on the first parameter of the heading.

You can move down through the selections within the heading by using the TAB key. Using the <Shift> TAB will move the cursor up in the heading box.

The sentinel code key is not required for the SAVE command. Labels can be designed and saved without the key then fine-tuned when the key is available.

When deleting certain fields on a label, it may seem difficult to locate the arrow or cross-hair within the dotted outline. The TAB key can be utilized to move between all fields on a label when in the delete mode. Do not move the mouse in this situation, just TAB to the desired field to be deleted then press the ENTER key. The field will be designated for deletion and the warning box will be shown.

Some operating functions are available directly from the main screen of MTLabel by holding the ALT key down and pressing another key. These functions are:

ALT-G Switch the Grid on or off
ALT-M Select the MOVE function
ALT-P Test print a label
ALT-S Switch the Snap mode on or off
ALT-U Switch units (between English and Metric)
ALT-X Exit the MTLabel program

9.2. HINTS

For all communications from the MTLabel program to the 8865 printer, make sure the 8865 printer is in the Host Mode (SW1-5 OFF). Do not use the Mettler Toledo Mode with the MTLabel program. You must power cycle the printer after changing the position of switch SW1-5.

If a mouse is installed, the arrow keys may not always function.

If a mouse is not detected, any of the functions may be accessed by use of the arrow keys on the keyboard. Most highlighted characters can be accessed by pressing that character or holding down the ALT key and pressing that character.

To move the cursor faster for quick positioning, hold down the SHIFT key while pressing the arrow keys.

Make sure that you measure the vertical and horizontal rulers on your particular computer screen and modify the MTLabel.INI file accordingly. This will help make the label appear actual size.

Labels cannot be rotated on the MTLabel screen. They must always be shown the way they will print on the 8865 printer.

With a dot size of 1 and 1, the human readable under the bar code will be very small. If a dot size of 2 and 2 is selected, the human readable under the bar code will be larger but everything else on

the label will be twice as large also. Global registers may be used to solve this problem by printing the data twice after receiving it only one time.

On large labels, the entire label may be too large to be displayed on the screen at once. To reduce the display size of the label, press the minus (-) key on the keyboard. This will "shrink" the label to a size that can be shown on the display. To expand the size of the label on the display, press the plus (+) key. The plus and minus keys may be pressed several times to greatly increase or decrease the size of the label.

If a mouse is used and a label is too tall to fit entirely on the MTLabel screen, the portion of the label viewed can be moved by clicking the left mouse button on the upper end of the ruler and the ruler will move down. To return, click the left mouse button on the lower end of the ruler.

9.3. MTLabel.INI DEFAULT VALUE FILE

There is a file that the MTLabel program accesses for default values when first powering up or when accessing a NEW label. The file name is MTLabel.INI. Using a DOS editor, you may change any of these values to a new default. This allows customization of the MTLabel defaults to save time when designing a label. A sample file is shown in section 9.3.1. with all entries set to the suggested values. Also shown to the right are the values that will be used if nothing is entered for a particular parameter. Each parameter of the MTLabel.INI file, grouped by its MTLabel heading, is described in the following sections.

Take special note of the HRULER and VRULER parameters as they allow you to modify the length of the rulers on the MTLabel screen to provide precise measurements.

9.3.1. SELECTIONS AND DEFAULTS FOR MTLabel.INI FILE (Initial Values)

The following lines are what the MTLabel.INI file would look like in a DOS editor program (headings and the default column have been added here). Each line will have a value shown which can be modified as needed. If an invalid entry is made, the line will be ignored and the MTLabel system default (right column) will be used.

DESCRIPTION	SUGGESTED VALUE	MTLabel DEFAULT
HRULER:	0,8.25	0,7
VRULER:	0,7	0,6
LABEL_PATH:	C:\MTLABEL	C:\MTLABEL
FEEDBACK:	NO	NO
CONTINUOUS_LENGTH:	000	000
SENSOR_TYPE:	EDGE	EDGE
PEEL_OFF:	135	136
CUTTER_TIME:	0000	0000
MAX_LENGTH:	15.00	12.00
EDGE_OFFSET:	1.00	1.00
RIBBON_SAVER:	OFF	ON

SLASH_ZERO:	YES	YES
HEIGHT:	6	6
WIDTH:	4	4
HEAT:	10	10
HDOT_SIZE:	1	1
VDOT_SIZE:	1	1
PRINT_SPEED:	G	I
SLEW_RATE:	G	I
CUT_AFTER:	0000	0000
TEXT_FONT:	12	12
TEXT_VSCALE:	1	1
TEXT_HSCALE:	1	1
TEXT_ROTATE:	0	0
BARCODE_TYPE:	A	A
BARCODE_HEIGHT:	0.50	0.50
BARCODE_ROTATE:	0	0
HUMAN_READABLE_BARCODE:	YES	YES
WIDE_BAR_WIDTH:	0.045	0.045
NARROW_BAR_WIDTH:	0.015	0.015
UNITS:	ENGLISH	ENGLISH
LINE_WIDTH:	0.02	0.05
PORT:	1	1
BAUD_RATE:	9600	9600
WORD_SIZE:	7	7
STOP_BITS:	1	1
PARITY:	EVEN	EVEN

9.3.2. RULER PARAMETERS

This section describes the two parameters in the MTLabel.INI file that program the ruler lengths and what selections are valid. Any entry that is not valid is ignored by the MTLabel program and system default values are used.

HRULER: This sets the width of the horizontal ruler across the bottom of the MTLabel screen. Measure the width of the ruler on your screen with an actual ruler and enter in the exact width. The MTLabel program will adjust the ruler on the screen to match your monitor. The two numbers entered indicate the beginning point and ending point for the ruler displayed on the screen. Typically, the beginning point will be 0 so that the ruler begins at 0 for the left end.

VRULER: This sets the height of the vertical ruler along the left of the MTLabel screen. Measure the height of the ruler on your screen with an actual ruler and enter in the exact height. The MTLabel program will adjust the ruler on the screen to match your monitor. The two numbers entered indicate the beginning point and ending point for the ruler displayed on the screen. Typically, the beginning point will be 0 so that the ruler begins at 0 for the bottom.

9.3.3. LABEL PATH DEFAULT

This is the default path that the MTLabel program will use for saving and retrieving files. Enter the complete path including subdirectories.

9.3.4. PRINTER HEADING DEFAULTS

This section describes each of the parameters in the MTLabel.INI file under the PRINTER heading and what selections are valid. Any entry that is not valid is ignored by the MTLabel program and system default values are used.

9.3.4.1. FEEDBACK:

The two selections for this parameter are YES (transmit feedback characters) and NO (do not transmit feedback characters.

9.3.4.2. CONTINUOUS_LENGTH:

Enter three numbers from 000 to 999 relating to the length in inches for continuous media. If die cut media is used, enter 000 as a value.

9.3.4.3. SENSOR_TYPE:

The two selections are EDGE label sensing (die cut media) and REFLECTIVE (black mark media).

9.3.4.4. PEEL_OFF:

Enter three numbers for the distance (in 0.01" increments) labels are to be fed out past the printhead. A value lower than 050 will be ignored.

9.3.4.5. CUTTER_TIME:

Enter up to four digits for the default cutter time in microseconds.

9.3.4.6. MAX_LENGTH:

Enter four digits plus decimal point for the maximum label length default value. This should be 2.5 times the length of label used.

9.3.4.7. EDGE_OFFSET:

Enter three digits for a value (in 0.01" increments) for the distance from the label sensor to the printhead. A value of 100 to 110 is typical.

9.3.4.8. RIBBON_SAVER:

The two selections for this are ON or OFF. This printer option is not available so this may be programmed either ON or OFF.

9.3.5. LABEL HEADING DEFAULTS

This section describes each of the parameters in the MTLabel.INI file under the LABEL heading and what selections are valid. Any entry that is not valid is ignored by the MTLabel program and system default values are used.

9.3.5.1. SLASH_ZERO:

The two selections for this are YES or NO.

9.3.5.2. HEIGHT:

This is the height of the default label that will be shown on the screen when MTLabel is started. Enter three numbers plus decimal point for the label height.

9.3.5.3. WIDTH:

This is the width of the default label that will be shown on the screen when MTLabel is started. Enter three numbers plus decimal point for the label width.

9.3.5.4. HEAT:

Enter two digits from 01 to 20 relating to the temperature setting for printing.

9.3.5.5. HDOT_SIZE:

Enter a single digit for the horizontal dot size. Valid entries are 1 and 2.

9.3.5.6. VDOT_SIZE:

Enter a single digit for the horizontal dot size. Valid entries are 1, 2 and 3.

9.3.5.7. PRINT_SPEED:

Enter the letter from "C" to "O" that equates to the default print speed you wish to use. The speeds are shown in Table 9-3-a.

VALUE	SPEED	VALUE	SPEED
C	2.0" per second	J	5.5" per second
D	2.5" per second	K	6.0" per second
E	3.0" per second	L	6.5" per second
F	3.5" per second	M	7.0" per second
G	4.0" per second	N	7.5" per second
H	4.5" per second	O	8.0" per second
I	5.0" per second		

TABLE 9-3-a Print and Slew Speeds

9.3.5.8. SLEW_RATE:

Enter the letter from "C" to "O" that equates to the default print speed you wish to use. The speeds are shown in Table 9-3-a.

9.3.5.9. CUT_AFTER:

Enter four digits indicating the number of labels to be printed before the optional cutter assembly is activated. If the cutter option is not present, this value should be 0000.

9.3.6. TEXT HEADING DEFAULTS

This section describes each of the parameters in the MTLabel.INI file under the TEXT heading and what selections are valid. Any entry that is not valid is ignored by the MTLabel program and system default values are used.

9.3.6.1. TEXT_FONT:

Enter the value corresponding to the text font to be used as the default. The valid selections for this are in TABLE 9-3-b.

VALUE	SPEED	VALUE	SPEED
0	Font 0	10	Trium - 8pt.
1	Font 1	11	Trium - 10pt.
2	Font 2	12	Trium - 12pt.
3	Font 3	13	Trium - 14pt.
4	Font 4	14	Trium - 18pt.
5	Font 5	15	Trium - 24pt.
6	Font 6	16	Trium - 30pt.
7	OCR-A	17	Trium - 36pt.
8	OCR-B	18	Trium - 48pt.
9	Trium - 6pt.		

TABLE 9-3-b Text Font Selections

9.3.6.2. TEXT_VSCALE:

Enter the digit corresponding to the default value for the horizontal multiplier for text fonts. Values of 1 through 9 are valid.

9.3.6.3. TEXT_HSCALE:

Enter the digit corresponding to the default value for the horizontal multiplier for text fonts. Values of 1 through 9 are valid.

9.3.6.4. TEXT_ROTATE:

Enter the default rotation (in 90° increments) for text fields. Two or three digits can be entered. Valid selections are 0°, 90°, 180°, and 270°.

9.3.7. BAR CODE HEADING DEFAULTS

This section describes each of the parameters in the MTLabel.INI file under the BAR CODE heading and what selections are valid. Any entry that is not valid is ignored by the MTLabel program and system default values are used.

9.3.7.1. BARCODE_TYPE:

Enter the letter corresponding to the desired default bar code. Refer to Table 9-3-c for valid choices.

VALUE	BAR CODE	VALUE	BAR CODE
A	Code 39	I	CODABAR
B	UPC-A	J	Interleaved 2 of 5 (w/checkdigit)
C	Truncated UPC-E		
D	Interleaved 2 of 5	K	Plessey
E	Code 128 (variable length)	L	Interleaved 2 of 5 (w/bars)
F	Standard EAN-13	M	2 digit UPC add.
G	Truncated EAN-8	N	5 digit UPC add.
H	HIBC code 39	O	Code 93
		V	Random Weight UPC

TABLE 9-3-c Bar Code Selections

9.3.7.2. BARCODE_HEIGHT:

Enter three digits and decimal point for the default height of bar codes. The value entered will be in 0.01" increments.

9.3.7.3. BARCODE_ROTATE:

Enter the default rotation (in 90° increments) for bar code fields. Two or three digits can be entered. Valid selections are 0°, 90°, 180°, and 270°.

9.3.7.4. HUMAN_READABLE_BARCODE:

Enter either YES (a human readable line will be printed under the bar code) or NO (a human readable line will not be printed under the bar code).

9.3.7.5. WIDE_BAR_WIDTH:

Enter the width (in 0.005" increments) of the wide bars for the default bar code. If a horizontal multiplier of 2 is selected above (for HDOT_SIZE), this measurement must be in 0.01" increments.

9.3.7.6. NARROW_BAR_WIDTH:

Enter the width (in 0.005" increments) of the narrow bars for the default bar code. If a horizontal multiplier of 2 is selected above (for HDOT_SIZE), this measurement must be in 0.01" increments.

9.3.8. OPTIONS HEADING DEFAULTS

This section describes each of the parameters in the MTLabel.INI file under the OPTIONS heading and what selections are valid. Any entry that is not valid is ignored by the MTLabel program and system default values are used.

9.3.8.1. UNITS:

Enter either ENGLISH to use standard inch measurements for MTLabel values or METRIC for centimeter measurements for values.

9.3.8.2. LINE_WIDTH:

Enter three digits plus decimal point to be used as the default width for a line. The number should be in 0.01" increments.

9.3.8.3. PORT:

Select the default communication port to be used on the computer. Enter a single digit representing the desired selections from Table 9-3-d.

ENTRY	PORT
1	COM1:
2	COM2:
3	COM3:
4	COM4:

TABLE 9-3-d Com Port

9.3.8.4. BAUD_RATE:

Enter the default baud rate for the computer. From 3 to 5 digits can be entered as valid selections. They are: 300, 1200, 2400, 4800, 9600 and 19200.

9.3.8.5. WORD_SIZE:

Enter either 7 for 7-bit ASCII or 8 for 8-bit ASCII communications.

9.3.8.6. STOP_BITS:

Enter either 1 for 1 stop bit or 2 for 2 stop bits that will be used for the ASCII format sent from the computer.

9.3.8.7. PARITY:

Enter the desired parity default for communications. Valid selections are: EVEN, ODD or NONE.

9.4. USING MTLabel FOR DESIGN - SAVE FOR HOST MODE

The MTLabel program can be used to develop a label format then save the commands required to print the format in an ASCII file. This is done using the SAVE 8865 FORMAT command under the FILE heading. During the save process, a name is assigned to the saved format file. After saving the format in ASCII, a DOS editor may be used to modify the format file for use with an 8522 or 9360 or other "smart" device by changing the name of the format. Once changed, the format can be recalled from the flash module when required.

Figure 9-4-a shows a simple label format saved in 8865 format from the MTLabel program.

```
^BqA
^Be
^Bf136
^BM1200
^BO100
^BRN
^BSI
^BL
H10
D11
PG
SG
192200801370025METTLER
192200800360043TOLEDO
sATOLEDO
```

FIGURE 9-4-a Format Saved In 8865 Format

Use a DOS editor to edit the format file and make two changes. They are:

9.4.1. Remove ^BqA Line

The first command in the format clears the flash memory module. If you wish to store multiple formats in the flash module, you do not want to clear the module each time a format is sent. Simply delete the entire line.

9.4.2. Modify sATOLEDO Line

The last line of the format Saves the format to the flash module in slot A with the name TOLEDO. In order to change the format name to a name other than Toledo, simply delete the name Toledo then enter the new format name leaving the "sA" in front of the new format name. The format name can be up to 8 characters long.

Once these changes have been made, you can copy the file from the computer to the printer flash module by using the DOS copy command. A sample command might be:

```
COPY C:\MTLABEL\FORMAT1.LBL COM1:
```

This command copies the modified label format called FORMAT1.LBL from the MTLabel subdirectory out serial port COM1:. Make sure the serial port parameters are set correctly to be able to transmit to the printer.

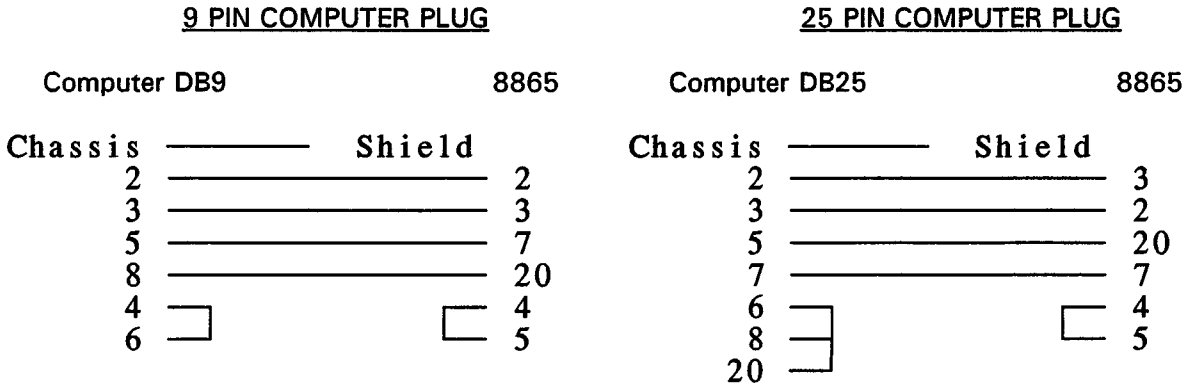
FOR YOUR NOTES

10. INTERCONNECTING CABLES

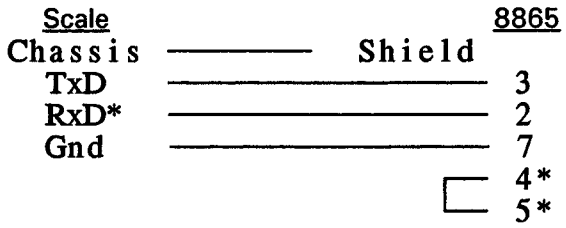
When utilizing the 8865 printer in the METTLER TOLEDO mode, two different cables must be used. The first cable will be used to connect the printer to the computer from which you are downloading the label format using the MTLabel program. After the format is stored, this cable is disconnected from the printer and the cable to the scale that will be used is connected. Both these types of cables are listed next.

A complete listing of part numbers for interconnecting cables can be found at the end of this section.

10.1 CABLES FROM COMPUTER TO 8865 (For MTLabel Program)



10.2 CABLE FROM SCALE TO 8865



* The receive line to the scale and the handshaking lines are optional.

10.3 METTLER TOLEDO CABLE PART NUMBERS

Connect From 8865 To:	Cable Length	Part Number	Factory Number
AT type computer (9 pin female)	6′	A13604800A	0900-0277
XT type computer (25 pin female)	6′	A13604700A	0900-0276
3026, 3036, 8510SS	20′	13769600A	0900-0237
XX38, 8510PM	6′	13191100A	0900-0255
8140D[1], 8142D&R, 8146D, 8525[1], 8530D&R, 8581[1], 8582	6′	B12822000A	0900-0214
8140W[1], 8142W, 8146W, 8530W	20′	12822100A	0900-0215
8520, 8522	15′	13371700A	0900-0258
8505	15′	13488900A	0900-0264
8571[2], 8572	6′	13230500A	0900-0243
SM, SMx[3] Scales	5′	33640	33640
ID1s, ID2sx[4], ID5[5]	10′	503755	503755

NOTES:

[1] - Optional RS-232 output required.
[2] - Cable 0900-0214 may be substituted with 8571.
[3] - Requires 217059 Interface Adapter.
[4] - Requires GD15x Interface Adapter.
[5] - Option 082 or 089 required. Pin 2 must be removed from printer end of cable and shorted to pin 7.

Table 10-1 Cable Part Numbers

Mettler-Toledo, Inc.
Scales & Systems
350 W. Wilson Bridge Road
Worthington, Ohio 43085-2273
(614) 438-4511

P/N 14184400A

14184400A