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Keyboard Functions

Throughout the manual we make a distinction between key names and commands. Key names such as ENTER are presented in all capital letters, and commands such as "select" are presented in lower case. For example:

"Press SELECT..."—means to press the SELECT key on the key pad.

"Select an option..."—means to use the SELECT key to display an item, then press ENTER.

The following keys are commonly used when configuring the program blocks.

Numeric Keys input numeric entries such as threshold values and scale capacity. These keys are also used for alpha-numeric entries unless a PC type keyboard is installed.

SELECT scrolls through a list of choices. As the SELECT key is pressed, programming items are listed and appear in the lower display area.

ENTER completes a response. Press ENTER after you have used the numeric keys to input data or used the SELECT key to display an option.

ESCAPE exits the current location. The parameters you have configured prior to pressing escape are saved when you exit. Each time you press ESCAPE you exit back to the previous level of setup. You may have to press ESCAPE several times to return to a desired location.

CLEAR clears the last character of a response and allows you to re-key the response. This is similar to the backspace key on a computer keyboard.

ZERO allows you to back up in the current program block and return to the previous step if you are in the first two levels of setup. The ZERO key does not function when you are beyond the second level in setup.

Jumpers and Switch Settings Controller

Jumpers and switches on the Controller PCB should be set as follows:

- **CAL SW Pushbutton** (located on the back of the unit) is used when new software is downloaded to the Jaguar.
- **W1 (Net)** should be ON if the terminal is at the beginning (first terminal) or end (last terminal) of ARCnet network cabling. This jumper should be OUT otherwise.
- **W2 (WDI)** should be ON during normal operation. This jumper must be OFF when you are downloading new software to the Jaguar.
- **W3 (Setup Access)** must be OFF to allow access to the program blocks in setup. When ON, the **Enter Setup?** prompt does not appear on the Jaguar display when the FUNCTION key is pressed.
- **W4 through W10** are ARCnet addresses. These jumpers determine the Jaguar address number and how the terminal will identify itself using the lower display left-side annunciators.

  W4 (ARCnet Cluster x 40) Always OFF.
  W5 (ARCnet Cluster x 20) Always OFF.
  W6 (ARCnet Cluster x 10) Always OFF.
  W7 (ARCnet Address x 8) Always ON.
  W8 (ARCnet Address x 4) See chart below.
  W9 (ARCnet Address x 2) See chart below.
  W10 (ARCnet Address x 1) See chart below.

Note: Jumper status is denoted as follows:
ON = jumper in
OFF = jumper out.

- W11 is for factory testing and should be OFF during normal operation. This jumper does not control any diagnostic tests that would aid on-site troubleshooting.W11 may also be used to force entry into setup mode on power-up. If so used, you **must remove** W11 when finished in setup mode.
- Test 1-4 pins are for factory use only and must be left OPEN for normal operation. These pins are only present on early Jaguar models.

ARCnet Terminal Jumper Settings						
	JAGUAR 1	**JAGUAR 2**	**JAGUAR 3**	**JAGUAR 4**	**JAGUAR 5**	**JAGUAR 6**
W1*						
W4	OFF	OFF	OFF	OFF	OFF	OFF
W5	OFF	OFF	OFF	OFF	OFF	OFF
W6	OFF	OFF	OFF	OFF	OFF	OFF
W7	ON	ON	ON	ON	ON	ON
W8	ON	ON	ON	OFF	OFF	OFF
W9	ON	OFF	OFF	ON	ON	OFF
W10	OFF	ON	OFF	ON	OFF	ON

*The W1 jumper is ON for the first and last unit in the network. The W1 jumper is OFF for units between the first and the last.

Analog

Jumpers on the Analog PCB should be set as follows:

- **W1** should be OFF for 3 mV/V, ON for 2 mV/V. W1 is ON when the jumper is inserted over the two male pins.
- **W2** must be ON.
- **W3** (address) should be positioned to address the specific Analog PCB you are working with. If a single analog scale is used, you must position W3 so you can read the letters B1 under the jumper. If two analog scales are present, address the second Analog PCB as B2 as shown in the following diagram:
- **W4 and W5** should be set to the jumper over pins 2 and 3.
- **W6** (interrupt) should be positioned as shown so the designation I7 can be read directly above the jumper.
- The Test 1-10 must be left OPEN for normal operation.

Allen-Bradley PCB

The Allen-Bradley PCB has three jumpers. W2 and W3 must be installed. W1 must be installed in the "I3" position.

POWERCELL I/O PCB

Jumpers on the POWERCELL I/O PCB should be set as shown below:

*W9 is shown in the "internal" position meaning that the POWERCELL I/O PCB is using the internal power supply to power the CMOS load cells. If the application contains more than 14 CMOS Power Cells, an External Power Supply (P/N 0917-0240) must be used.

MMR (IDNET) I/F PCB

Jumpers on the High Precision I/F Module should be set as follows:

W1 = ON
W2 = OFF
W3 = ON, W4 = OFF (Scale 1 PCB)
W3 = ON, W4 = ON (Scale 2 PCB)
W5 = ON if no other scale interface modules are present
= ON if Scale 1 and Scale 2 2 PCBs are both MMR(IDNET) Modules
= OFF if this module is the Scale 2 Module
W6 = I7 (as shown in PCB drawing)
W7 = OFF
W8 = OFF

Multifunction I/O PCB

You can exit the setup mode at any time during your configuration session. You may need to press ESCAPE several times to return to the **Exit Setup?** prompt, then press ENTER.

Jumpers on the Multifunction I/O PCB should be set as shown below:

W1—must be set for the desired voltage that the selected PAR 3 and PAR 4 parallel outputs will be referenced to through 10 kohm pull-up resisters resident on the Multifunction PCB. It is also the voltage that will be present on the V OUT terminal of PAR 3. The choices are +5VDC, +12VDC, and +20VDC.

W2—selects the voltage that will be present at the +V terminal of the COM4 Port. The choices are +5VDC, +12VDC, and +20VDC.

Scale Interface Program Block

The Scale Interface program block lets you set and calibrate the features that affect weighing performance. The following diagram describes this block: **Error! Switch argument not specified.**

Press ENTER at the **Scale Interface** prompt to access the Scale Interface program block and configure the sub-blocks.

Market Sub-block

The Jaguar is factory set for the market you specified when you ordered the terminal. The Market sub-block lets you select a new country or market area and limit parameters that affect legal-for-trade programming options.

1. Press ENTER at the **Market?** prompt to access this sub-block.
2. Press SELECT until the desired Market area is displayed, then press ENTER. Market areas include:
   - USA — United States
   - EC — European Community
   - AUS — Australia
   - CND — Canada
3. The Jaguar automatically continues to the next sub-block, or you can press ESCAPE twice to exit the setup mode.

Scale Type Sub-block

The Scale Type sub-block prompts you for the number of internal scales and type of scale that will be used.

1. Press ENTER at the **Scale Type** prompt to open the sub-block.
2. At the **# Intrnl Scls?** prompt, select the number of internal scales. Choose 1 or 2 depending on the number of scales connected to the Jaguar.

Jaguars with a single analog scale must use Board #1 (BD1). When the board is selected, Jaguar proceeds to the next sub-block.

When configuring Jaguars with two scales, select the first scale (A) to calibrate by pressing the SELECT key (not in setup mode), then enter setup and calibrate scale A.

To calibrate the second scale **you must exit setup mode**, select the second scale (B) with the SELECT key, then reenter setup and calibrate scale B.

3. Press SELECT at the **Type?** prompt until the desired scale type is displayed, then press ENTER. Scale types include

   - Analog
   - DigiTOL (bench or portable)
   - DigiTOL Junction Box (J-Box)
   - UltraRes High
   - UltraRes Low
   - Power Cell
   - High Precision (MMR/IDNET)
   - None

If Analog is Selected
Select board #1 (BD1) or board #2 (BD2) depending on the address of the Analog PCB connected to the scale. The board address is determined by jumper W3 on the Analog PCB. If two analog PCBs are installed, they must have different board addresses.

For example, if Scale A of a two-scale Jaguar has 6 cells and Scale B has 8 cells, Scale A cells would be addressed as 1 through 6. Scale B cells would be addressed as 31 through 38.

If DigiTOL, UltraRes High, or UltraRes Low is Selected
Select the Controller PCB COM port where the scale is connected. Select COM2 then press ENTER. When the COM port is selected, Jaguar exits the setup mode and goes through the power up sequence. You must reenter setup mode to continue configuring the program blocks.

If DigiTOL J-Box is Selected

- Select the Controller PCB COM port where the scale is connected. Select COM2 then press ENTER. When the COM port is selected, Jaguar exits the setup mode and goes through the power up sequence. You must reenter setup mode to continue configuring the program blocks.
- At the **# Load Cells?** prompt, enter the number of load cells connected to the J-Box. (1, 2, 3, or 4).

If Power Cell is Selected

- At the **Loc?** prompt, select the address of the scale's first cell.

  To address the cells of a single scale, or to address the cells of Scale A in a two-scale Jaguar, select PwrCell #1. To configure cells of the second scale (Scale B) of a two-scale Jaguar, select PwrCell #31.

  You must configure each scale of a two-scale Jaguar separately.

- At the **# Load Cells?** prompt, use the numeric keys to enter the number of load cells in the scale you are configuring.

- At the **Shift by?** prompt, whether to perform the shift procedure by single load cells or by pairs of cells (by section). Select **Cells** if the number of load cells is odd. Select **Pairs** if the number of load cells is greater than 16.

  At this point, you must address the individual power cells. This procedure is done through the Diagnostics and Maintenance program block. Please proceed to the section entitled Scale Test Sub-block in the Diagnostics and Maintenance Program Block (later in this chapter) and address the cells.

If IDNET is Selected

- At the **Service Mode** prompt, you may enter the service mode for the understructure. Press SELECT to choose between **Y** and **N** allowing entry into the service mode or to quit without changing any parameters. When the appropriate response is displayed, press ENTER to accept the choice.

  If you have chosen to enter the service mode, the sequence of operation follows the normal calibration sequence for an ID terminal. This sequence is different from other scale types, and is described starting page 3-15.

  If you have decided not to enter the service mode, the display will continue on as described below.

4. Continue to the next sub-block or exit the setup mode.

Calibration Unit Sub-block

This sub-block lets you enter the units of measure to use when calibrating the scale and configuring capacity and increment size**. Recalibration is required if you change the calibration unit.**

1. Press ENTER at the **Calibration Unit** prompt to open the sub-block.
2. At the **Units?** prompt, press SELECT until the desired calibration unit is displayed, then press ENTER. Calibration units include

   - Pounds
   - Kilograms
   - Grams

   The choices will be limited to the current settings for the primary and secondary weight units as specifiec in the Application Environment Program Block, Alt. Weight Units Sub-Block.

For example, if Scale A of a two-scale Jaguar has 6 cells and Scale B has 8 cells, Scale A cells would be addressed as 1 through 6. Scale B cells would be addressed as 31 through 38.

3. Continue to the next sub-block or press ESCAPE to exit the setup mode.

Capacity Sub-block

The Capacity sub-block lets you enter the maximum scale capacity. The capacity is given in the calibration units.

1. Press ENTER at the **Capacity** prompt to open the sub-block.
2. At the **Wgt?** prompt, input the desired scale capacity using the numeric keys.

3. Press ENTER to set the capacity.
4. Continue to the next sub-block or exit the setup mode.

Increment Size Sub-block

This sub-block lets you specify the increment size for one or more weighing intervals. An increment size is the smallest change in weight value that the terminal is able to display. For example, if the increment size is specified as 0.1 then, starting at 0.0 on the scale, adding an increasing load will cause the terminal to display 0.1, 0.2, 0.3 and so on through the entire weighing range of the scale. If you selected 0.2 for the increment size, the addition of an increasing load would display 0.2, 0.4, 0.6 as the weight is rounded to the 0.2 increment through the entire range.

If two or three intervals are selected, the operation is as described above except that two or three increments are now used over portions of the weighing range. For example, consider a scale configured for two intervals with the low increment specified as 0.1 and the high increment as 0.2. The scale displays weight by 0.1 increments through the first interval until weight reaches the "low to high" (LoHi) threshold point, then by 0.2 increments through the second interval to capacity. Increments may count by 1, 2, or 5.

To configure the increment size:

1. Press ENTER at the **Increment Size** prompt to open the sub-block.
2. At the **Nbr of Intvls?** prompt, use the SELECT key to choose 1, 2 or 3 intervals.

If 1 Interval Selected

- At the **Low?** prompt, enter the low increment size (0.00001-100).

If 2 Intervals Selected

- At the **Low?** prompt, enter the low increment size (0.00001-100).
- At the **High?** prompt, enter the high increment size (0.00001-100). The high increment must be greater than the low increment.
- At the **LoHi?** prompt, enter the weight value where the scale will switch from the low increment to the high increment.

If 3 Intervals Selected

- At the **Low?** prompt, enter the low increment size (0.00001-100).
- At the **Mid?** prompt, enter the mid increment size (0.00001-100). The mid increment must be greater than the low increment.
- At the **High?** prompt, enter the high increment size (0.00001-100). The high increment must be greater than the mid increment.

- At the **LoMid?** prompt, enter the weight value where the scale will switch from the low increment to the mid increment.
- At the **MidHi?** prompt, enter the weight value where the scale will switch from the mid increment to the high increment. The MidHi threshold must be higher than the LoMid threshold.

3. Continue to the next sub-block or exit the setup mode.

Shift Adjustment Sub-block

The Shift Adjustment sub-block lets you adjust multiple load cells connected to a DigiTOL J-Box or Power Cell scale. This sub-block only appears if you selected DigiTOL J-Box or Power Cell as the scale type in the Scale Type sub-block.

1. Press ENTER at the **Shift Adjustment** prompt to open the sub-block.
2. At the **Empty the Scale** prompt, remove any weight on the platform, then press ENTER. The display reads **Capturing Zero** as the terminal captures zero.
3. At the **Load On Cell N** or **Load On Pair N** prompt, place on the platform a test weight equaling approximately 50% of the scale's capacity.

   The Jaguar automatically shift adjusts the scale for the current load cell as the display reads **Capturing Cell N** or **Capturing Pair N**.
4. Repeat steps 2 and 3 for each load cell/pair connected to the DigiTOL J-Box or Power Cell.
5. When all load cells are shift adjusted, the terminal indicates **Shift Complete**. Continue to the next sub-block or exit the setup mode.

Linearity Correction Sub-block

Linearity correction lets you calibrate the scale using calibration reference weights at mid-scale and full-scale ranges. Linearity correction allows for compensation of the non-linear performance of a load cell(s) or weighing system. If linearity correction is enabled, the calibration process requires additional steps. The terminal must be calibrated or recalibrated **after** you enable linearity correction.

1. Press ENTER at the **Linearity Corr** prompt to open the sub-block.
2. Select Y to enable or N to disable linearity correction.
3. Continue to the next sub-block or exit the setup mode.

Calibration Sub-block

Calibration involves emptying the scale then placing a known test weight on an empty platform and allowing the Jaguar to capture values for zero and span. You can calibrate a scale with or without linearity correction. The Jaguar prompts you through the calibration.

If you are calibrating two internal scales, you must have two scales selected (Scale Type sub-block), then exit the setup mode after the first scale is calibrated. After exiting, select the second scale. Finally, enter setup mode to calibrate and set the other parameters associated with the scale.

Without Linearity Correction

1. Press ENTER at the **Calibration** prompt to open the sub-block.
2. At the **Empty the Scale** prompt, remove any weight on the platform, then press ENTER. The terminal automatically captures zero and the cursor moves across the lower display indicating the operation is in progress.
3. At the **Add Test Weight** prompt, place on the platform a test weight equaling the scale's capacity or another practical weight. Press ENTER.

   A minimum of 20% of scale capacity is necessary for calibration; Mettler Toledo recommends 60 to 100%. A calibration error will result if insufficient weight is used.
4. At the **Wgt?** prompt, input the amount of weight you added in step 3. Press ENTER. The terminal automatically captures span and the cursor moves across the lower display indicating the operation is in progress.
5. When the terminal indicates **Calibration Successful**, continue to the next sub-block or exit the setup mode.

With Linearity Correction Enabled

1. Press ENTER at the **Calibration** prompt to open the sub-block.
2. At the **Empty the Scale** prompt, remove any weight on the platform then press ENTER. The terminal automatically captures zero and the cursor moves across the lower display indicating the operation is in progress.
3. At the Add **MidScale Wgt** prompt, place a weight on the platform equaling between 35% and 65% of the scale's capacity.
4. At the **Wgt?** prompt, input the amount of weight you added in step 3. Press ENTER. The terminal automatically captures mid-scale.
5. At the Add **FulScale Wgt** prompt, place weight on the platform equaling at least 90% of scale capacity or as much as is practical. Press ENTER.
6. At the **Wgt?** prompt, input the amount of weight you added in step 5. Press ENTER. The terminal automatically captures full scale and the cursor moves across the lower display indicating the operation is in progress.
7. When the terminal indicates **Calibration Successful**, press ENTER.
8. Continue to the next sub-block or exit the setup mode.

Zero Adjustment Sub-block

The zero value is the scale-empty reference as determined during calibration. The Zero Adjustment block lets you re-establish this value to compensate for any change since the last calibration. The scale must be empty before resetting the zero value.

1. Press ENTER at the **Zero Adjust** prompt to open the sub-block.
2. At the **Empty the Scale** prompt, remove any weight on the platform and press ENTER. The terminal automatically captures zero and displays the message **Zero Adjusted** when finished.
3. Continue to the next sub-block or exit the setup mode.

Span Adjustment Sub-block

The Span Adjustment feature lets you make minor span adjustments without completely recalibrating the scale. Adjust the span by placing known test weights on the scale prior to entering span adjust. The terminal guides you through the procedure.

1. Place a test weight on the platform and press ENTER at the **Span Adjust** prompt to open the sub-block.
2. At the **Add Test Weight** prompt, enter the amount of weight placed on the platform in step 1.
3. The terminal captures the new span. When finished the terminal displays the message **Span Adjusted**.
4. Continue to the next sub-block or exit the setup mode.

Gravity Adjustment Sub-block

This sub-block lets you enter a factor to compensate for gravitational differences between where the scale was originally calibrated and where the scale is currently located. The value should be 1.0000 if the scale is calibrated where it is being used.

When you access the **Gravity Adjust** sub-block, the current value is displayed.

1. Press ENTER at the Gravity Adjust prompt to open the sub-block.
2. Press ENTER to accept the current factor or enter a new gravitational factor. Use the charts in Appendix 5 to determine the appropriate constant.
3. Continue to the Reset to Factory sub-block if desired, or exit the setup mode.

Reset to Factory Sub-Block

The last sub-block in each program block is Reset to Factory which returns all parameters **in the current block** to the original factory settings. Using the reset option is the same for all program blocks except Diagnostics and Maintenance.

The Diagnostics and Maintenance block has a Master Reset option that lets you reset **all parameters in all blocks** including or excluding Scale Interface. Reset to Factory is discussed in detail in the section entitled Diagnostics and Maintenance Program Block at the end of this chapter.

Appendix 6 lists the default values for all program block parameters.

Service Mode for MMR (IDNET) Bases

The service mode for K Weighing platforms is used for:

- Input of parameters specific to the weighing platform after replacement of the measuring cell
- Calibration of the base with the calibration weight built into the measuring cell or externally by loading the base with the required weights
- Adjustment of linearity
- Resetting of the measuring cell parameters to the factory setting
- Clearing of a previously assigned scale number.

The first program sub-block RETURN allows you to quit the service mode without changing any parameters or changing the identcode counter.

The program sub-block RESET clears the scale number. Maximum capacity and graduation are reset to the factory default settings.

In the NATION program sub-block, the country is selected. The certification regulations of the country of use are taken into account automatically.

The program sub-block SCALE PARAMETERS is used to enter the parameters specific to the weighing platform, namely certification capability, type, maximum capacity and graduation.

In the program sub-block LINEARITY, the weighing platform can be assigned a new linearity code.

The CALIBRATION program sub-block allows the weighing platform to be calibrated internally with a built-in calibration weight or externally using test weights.

In the program sub-block SAVE PARAMETERS, the programmed configuration is stored.. With certified scales only, the identcode counter is incremented by one. This corresponds to the destruction of a certification seal. Proper steps to recertify the scale is then necessary.

An MMR(IDNET) base can generate three different types of communications errors and a general function failure indication during Service Mode operation. These

are identified in Appendix 5-4. These may be cleared by pressing the ENTER and/or ESC keys

RESET program Sub-block

In this program sub-block, the certification capability, maximum capacity, range and graduation size can be reset to the factory default settings.

To reset these parameters to factory default, use the SELECT key until the display shows a Y. Press ENTER. The display will show **NO RES**. To exit this sub-block, press ENTER. To reset the parameters, press SELECT until the display shows a N. Then press ENTER.

The display will then show **RES ALL Y**. Press ENTER to confirm your choice. If you wish to exit without resetting the parameters, press SELECT, then ENTER.If you have chosen to reset to factory defaults, **POWER OFF** appears in the display. The Jaguar must be powered down and then power must be reapplied. The base will then be calibrated internally and the weighing platform will be assigned a new scale number.

SCALE PARAMETERS program Sub-block

The display shows **SCALE**, allowing you to set specific parameters related to this base. Certification capability, mazimum capacity, range, and graduation are entered. With a **Y** displayed, press ENTER.

The display shows **NO APPR** to allow selecting the scale for a non-certified mode of operation. Use the SELECT key to change to **APPR**, then accept your choice with the ENTER key.

The various types of K bases are displayed using the SELECT key. When the appropriate base model number appears in the display, use the ENTER key to select that choice.

The display shows **CAP xxx kg**, indicating the maximum capacity of the selected weighing platform.The maximum capacity at which the scale operates is selectable in three stages (full capacity, half capacity, or quarter capacity). Depending on the country selected in the NATION sub-block, the capacity may be displayed in pounds. Use the SELECT key to step through the capacity choices. Use the ENTER key to choose the displayed answer.

The readability of the base can be set using the SELECT key. When the display shows **MR**, the display shows the display readability of the first range of a multirange scale. When the display shows **D**, the displayed accuracy of a single range base is shown.

LINEARITY program Sub-block

After a measuring cell is replaced, or the stored linearity code is changed, it must be re-entered. The linearity code is located at the rear of the identcode bracket.

The display shows **LINEA**. Press ENTER to enter this sub-block.

The display indicates the current stored value **LINEA +XXXX.**

Choose the sign of the linearity code by using the SELECT key. When the proper sign is displayed, use the ENTER key to confirm your choice.

Enter the linearity code using a combination of the SELECT key and the ENTER key. The ENTER key will insert zeros in place of the dashes.

The SELECT key is used to increment the right-most zero to the desired number. When the displayed value is correct, press ENTER.

CALIBRATION program Sub-block

This program sub-block is used to calibrate the scale.

The display shows **PRELOAD**. Empty the scale. If a vessel or other container is to be included as part of the initial, place this on the weighing platform. Press ENTER. The display shows **CALIB**, and internally calibrates.

The display shows **CAL EXT**. If calibration using test weights is desired, press ENTER. To go on to internal calibration, press SELECT.

If external calibration has been selected, the display shows **FULL CAP**. Press ENTER if you wish to calibrate using test weights equal to the maximum capacity of the base. Press SELECT to use the selected capacity of the base, or press SELECT again to enter a calibration weight other than the preset values. Enter the test weight value using a combination of the SELECT key and the ENTER Key as follows:

Press the ENTER key to insert zeros from right to left.

Press the SELECT key to increment the required position.

When the desired weight value is displayed, e.g., 00015 kg with all dashes replaced, place the corresponding test weights on the platform and press ENTER.

The base completes the calibration process with the test weight. The display then shows **UNLOAD**. Remove the test weight. The base re-establishes the zero value when you press ENTER.

SAVE PARAMETERS program Sub-block

Please refer to Appendix 1 at the back of this manual for the character set table.

To save the programmed values, press ENTER. For certified scale applications (legal for trade), the indentcode counter increments by one after confirmation (pressing of the ENTER key). This corresponds to destroying the certification seal. Re-certification of the scale must be implemented according to local regulations.

RETURN program Sub-block

If the parameters were not stored using the previous program sub-block, you may return to normal operation by pressing ENTER at this step. Changes to parameters and calibration will NOT be stored, and the indentcode counter will not increment.

Application Environment Program Block

The Application Environment program block lets you set the features of the scale that are specific to the customer's application. The following diagram describes this block:

Character Set Sub-block

The Character Set sub-block lets you select a display character set appropriate for the location where the Jaguar is used. Depending on the character set, some ASCII characters will be replaced with specific international characters.

To configure the sub-block:

1. Press ENTER at the **Character Set** prompt.
2. At the **USA** prompt, press SELECT to display the desired character set. Options include:
   - USA
   - France
   - England
   - Germany
   - Denmark-1
   - Sweden
   - Italy
   - Spain-1
   - Japan
   - Norway
   - Denmark-2
   - Spain-2
   - Latin America
3. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Language Sub-block

A PC keyboard allows easy input of alphabetical, lower case, or special characters.

The Language sub-block lets you select the language in which all Jaguar prompts and messages are displayed.

To configure the sub-block:

1. Press ENTER at the **Language** prompt.
2. At the **English** prompt, press SELECT to display the desired language. Options include:
   - English
   - French
   - German
   - Spanish
3. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Keyboard Type Sub-block

The Keyboard Type sub-block lets you select the type of alternate computer-type keyboard (if used). It does not configure the Jaguar keypad.

1. Press ENTER at the **Keyboard Type** prompt.
2. At the **English** prompt, press SELECT to display the desired keyboard type. Options include:
   - English
   - French
   - German
   - Spanish
3. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Scale ID Sub-block

See the section entitled The Jaguar Keyboard in Chapter 4 of the User's Guide for more information on using the numeric keys for alpha-numeric entries, or enter the ID using an externally connected PC type keyboard.

The Scale ID sub-block lets you assign an identification code to a scale. The identification may be used in printing and when selecting a scale for operator viewing or interaction. Scale ID is determined by the customer and can be up to eight alpha-numeric characters.

The default scale ID is the Jaguar terminal number as determined by the ARCnet address jumpers on the Controller board and by the internal scale designation.

1. Press ENTER at the **Scale ID** prompt.
2. At the **ID?** prompt you can either select a predefined scale identification or create a new ID using the numeric keys to enter the scale identification label.
3. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Time and Date Sub-block

This sub-block lets you set the time and date format. If you do not select a format, the default time and date format based on the Market location will be used.

To configure the sub-block:

1. Press ENTER at the **Time and Date** prompt, then press ENTER at the **Time Format?** prompt.
2. At the **Separator?** prompt, select a character to separate hour, minutes, and seconds. Choices include:
   - (:) colon
   - (-) dash
   - (.) period
   - (sp) space
3. At the **Format?** prompt, select the desired time format. Choices include:

   The time format choices are given with the separator you selected in step 2.

   - 24:MM — 24 hour clock, no seconds
   - 24:MM:SS — 24 hour clock with seconds
   - 12:MM — 12 hour clock, no seconds
   - 12:MM:SS — 12 hour clock with seconds
   - None — Time disabled through MEMORY key

   A Julian date is maintained by the Jaguar and is available for printing.
4. Press ENTER at the **Date Format?** prompt.
5. At the **Separator?** prompt, select a character to separate month, day, and year. Choices include:
   - (:) colon
   - (-) dash
   - (.) period
   - (sp) space
   - (/) slash
6. At the **Fmt?** prompt, select the desired date format. Choices include:

   The date format choices are given with the separator you selected in step 5.

   - DD/MMM/YYYY — Day (num), Month (alpha), Year (4 digits)
   - DD/MM/YY — Day (num), Month (num), Year (2 digits)
   - MM/DD/YY — Month (num), Day (num), Year (2 digits)
   - MMM/DD/YYYY — Month (alpha), Day (num), Year (4 digits)
   - YY/MM/DD — Year (2 digits), Month (num), Day (num)
   - YYYY/MMM/DD — Year (4 digits), Month (alpha), Day (num)
   - None — Date disabled through MEMORY key
7. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Alternate Weight Units Sub-block

The Alternate Weight Units sub-block lets you select the unit(s) of measure for top weight display, enable or disable units switching, and specify another unit of measure to be displayed in the lower weight display in addition to the main units shown in the top display. You can select an alternate weight unit from various pre-programmed standard weight units, or you can create a special weight unit with a custom name and conversion factor.

To configure the sub-block:

1. Press ENTER at the **Alt Weight Units** prompt to open the sub-block.
2. At the **Main Units?** prompt, select a main unit. Choose one:
   - lb (pounds)
   - kg (kilograms)
   - g (grams)—a decal over the kg legend is required
3. At the **Unit Switching?** prompt, select Y or N to enable or disable unit switching. If unit switching is enabled, it will switch between the Main Units and the Second Units.

   Mettler Toledo recommends you disable unit switching to avoid confusion if setpoints are used.
4. At the **Second Units?** prompt, select a secondary weight unit. Choose one:
   - lb (pounds)
   - kg (kilograms)
   - g (grams) — a decal over the kg legend is required

   The unit selected for calibration must be either main or secondary units.

   If the main units selected above are not the calibration units (as selected in the Scale Interface Program Block, Calibration Units Sub-Block), then this coice is restricted to the Calibration Units.
5. At the **Enbl Aux Unit?** prompt, select Y or N to enable or disable display of another unit of measure on the bottom display.

   If auxiliary units are enabled, tare cannot be displayed in the lower display.

If Auxiliary Units Are Enabled

- At the **Aux Unit?** prompt, select the desired pre-programmed auxiliary unit conversion factor or define a custom unit. The auxiliary unit selected here also applies to the rate function. Selections include:

  - lb
  - kg
  - g
  - oz
  - lb-oz
  - ozt
  - dwt
  - t
  - ton
  - custom
  - sum AB

Alternate weight units selection is reset to factory default under the Scale Interface Program Block, NOT the Application Environment Program Block.

If Custom Unit Is Selected

- At the **Factor?** prompt, enter a conversion factor. This factor is the number that will by multiplied by the main units to calculate the custom unit. Some rounding error may occur since this calculation uses a higher internal resolution to determine the converted value. Make sure that the maximum converted value does not exceed the display capacity of the lower display.
- At the **Name?** prompt, enter the name for the custom unit, up to six characters.
- At the **Rate Enabled?** prompt, select Y or N to enable or disable the rate parameters for the custom unit. Rate parameters define the period of time Jaguar uses when displaying average weight change. If disabled, Jaguar continues to the next sub-block. If enabled, configure the next two parameters.

Auxiliary Units must be enabled to use the rate function.

- At the **Time Units?** prompt, select the rate function time units. Options include:
  - Sec—average weight change per second
  - Min—average weight change per minute
  - Hour—average weight change per hour
- At the **Int Period?** prompt, use the numeric keys to enter the sampling period (in seconds) that Jaguar will use to calculate the average weight change for the time interval selected above. You must enter a value between 1 and 30.

If Sum AB is Selected

The lower display shows the sum of Scales A and B. If scale A and scale B use different weighing units, the sum of A and B is given in the unit of the currently displayed scale. For example, if Scale A is currently displayed and uses pounds as the weighing unit, and Scale B units are kilograms, then the sum of scales A and B is given in pounds. When Scale B is displayed, the sum of scales A and B is given in kilograms.

6. Continue to the next sub-block or exit the setup mode.

Power Up Operation Sub-block

The tare value is stored in the Jaguar's memory. In case of power loss, the terminal will display a correct net value when power is restored.

The Power Up Operation sub-block lets you specify a time delay before the scale is operational. This delay allows a sufficient warm-up period for stabilization of the scale and load cell electronics.

Jaguar displays a count-down clock indicating the time remaining in the specified warm up period.

To configure the sub-block:

1. Press ENTER at the **Power-Up Oper** prompt.
2. At the **Pwr-Up Timer?** prompt, enter the number of minutes (0-99) that the Jaguar will delay prior to indicating weight in normal operating mode.
3. Continue to the next sub-block or exit the setup mode.

Tare Operation Sub-block

The Tare Operation sub-block lets you enable or disable the various tare options the Jaguar offers. You can enable or disable any combination of tare options depending on your needs. Three types of tare are available:

- **Pushbutton Tare**—If enabled, pushbutton tare subtracts the weight of an empty container on the scale when the TARE key is pressed. The Jaguar displays the net weight when a sample is placed in the container.
- **Keyboard Tare**—If keyboard tare is enabled, you can enter the known tare weight of a filled container, then press the ENTER key to subtract the container tare weight from the gross weight and display the net weight of the sample. This is also called preset tare.
- **Auto Tare**—If auto tare is enabled the terminal automatically tares the scale when the load on the platform exceeds a predetermined threshold value.

You can also configure:

- **Auto Clear Tare**—If auto clear tare is enabled tare is automatically cleared and the indicator returns to gross mode when the weight goes above, then drops below a predetermined threshold value. You can also specify that tare be automatically cleared after a print operation.
- **Tare Interlock**—If tare interlock is enabled limits are placed on how tare values can be cleared and entered in legal-for-trade applications.

To configure the Tare Operation sub-block:

1. Press ENTER at the **Tare Operations** prompt to open the sub-block.
2. At the **Enable Tare?** prompt, select Y or N to enable or disable tare. If you select N to disable tare, the terminal proceeds to the Zero Operation sub-block. Access to other tare features is not possible if the tare feature is disabled.
3. At the **Tare Interlck?** prompt, select Y or N to enable or disable tare interlock.

4. At the **Enabl PB Tare?** prompt, select Y or N to enable or disable pushbutton tare.

If auto clear tare is enabled, Jaguar does not display the Clear Threshold prompt.

5. At the **Enabl KB Tare?** prompt, select Y or N to enable or disable keyboard tare.
6. At the **Enb Auto Tare?** prompt, select Y or N to enable or disable auto tare.

Tare will not be displayed if an auxiliary unit is selected. Otherwise, tare is displayed in the lower display area.

If Auto Tare Is Enabled

- Press ENTER at the **Tare Threshold** prompt; at the **Wgt?** prompt, enter the desired threshold value. The threshold value is a unit value such as 1.5 pounds. When weight on the platform exceeds the threshold value, then settles to no-motion, the terminal automatically tares.
- Press ENTER at the **Reset Threshold** prompt; at the **Wgt?** prompt, enter the desired reset threshold value. This is also a unit value and must be less than the tare threshold. When weight on the platform falls below the reset threshold value, as when the load has been removed, the terminal automatically rearms the auto tare trigger.
- At the **Check Motion?** prompt, select Y or N to enable or disable the motion check. If enabled, the terminal checks for stability of the load on the platform before resetting the auto tare trigger.

7. At the **Auto Clr Tare** prompt, select Y or N to enable or disable auto clear tare. Auto clear tare depends on the tare interlock condition.

Printing and tare operations will wait until a stable condition exists before proceeding with the action. See Stability Detect sub-block in this chapter for more information on setting the sensitivity.

If Tare Interlock and Auto Clear Tare Are Enabled
The terminal proceeds to the Display Tare prompt. Continue to step 8.

If Tare Interlock Is Disabled, and Auto Clear Tare Is Enabled

- At the **After Print?** prompt, select Y to clear tare after a print command is issued, or select N to clear tare at a predetermined threshold value.

Tare will clear only at gross zero if tare interlock and auto clear tare are both enabled.

If Auto Clear Tare After Print Is Disabled

- Press ENTER at the **Clear Threshold** prompt; at the **Wgt?** prompt enter a unit value. When the gross scale weight exceeds then falls below the threshold value, the terminal automatically clears tare and returns to gross mode.
- At the **Check Motion?** prompt, select Y or N to enable or disable the motion check. If enabled, the terminal checks for stability of the load on the platform before proceeding with auto clear tare.

8. At the **Display Tare?** prompt, select Y or N to enable or disable the tare display. If enabled, the terminal displays the current tare value on the lower display, provided it is not showing other operator messages.
9. At the **Net Sign Corr?** prompt, select Y or N to enable or disable the net sign correction feature. Tare weight is shown in the lower display area, and Gross weight is shown in the upper display area; however, if net sign correction is

enabled, **and if a COM port is enabled to output data from the scale**, net weight is displayed when the ENTER key is pressed.

10. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Zero Operation Sub-block

Mettler Toledo recommends that power-up zero be disabled by setting the Positive and Negative range to 0% for scales such as tanks and hoppers which may lose power in the middle of a control process.

The Zero Operation sub-block lets you set the zero reference parameters. For Jaguars connected to an IDNET base, only the Auto Zero Maintenance portion of this sub-block is accessed. For all other scale base types, you can configure any or all of the following options:

- **Power-up Zero**—automatically zeros the terminal at power-up if weight on the scale is within a given range. If the weight on the scale is beyond the designated range, the display will not read zero until weight falls within the range.
- **Pushbutton Zero**—manually compensates for material build-up on the scale and recaptures zero.
- **Zero Blank**—determines when the display will go blank if weight falls below zero.
- **Auto Zero Maintenance (AZM)**—automatically compensates for small changes in zero resulting from material build-up on the scale or temperature fluctuations.
- **AZM w/Net Mode**—automatically corrects zero close to net zero and gross zero.
- **Center of Zero**—determines if the center-of-zero annunciator lights at gross zero only or at gross and net zero.

Power-up zero capture and pushbutton zero ranges are based on the actual calibrated zero. If the positive and/or negative range value for power-up zero is greater than that for pushbutton zero, it is possible for the scale to automatically capture more weight on power-up than can be compensated for manually.

To configure the sub-block:

1. Press ENTER at the **Zero Operation** prompt to open the sub-block, then press ENTER at the **Power Up Zero** prompt to configure the power up zero option.
2. At the **Positve Rng?** prompt, enter a numeric value for the positive range of zero capture. This value is a percent of scale capacity.
3. At the **Negatve Rng?** prompt, enter a numeric value for the negative range of zero capture. This value is also a percent of scale capacity.
4. Press ENTER at the **Pushbutton Zero?** prompt to access these parameters.
5. At the **Positve Rng?** prompt, enter a numeric value for the positive capture range. This value is a percent of scale capacity.
6. At the **Negatve Rng?** prompt, enter a numeric value for the negative capture range. This value is also a percent of scale capacity.

7. At the **Zero Blank?** prompt, enter 0-98 to specify the number of display divisions behind zero before display blanking. The default is 5 divisions. A setting of 99 programs the Jaguar to display up to 50% of the calibrated capacity under gross zero.
8. Press ENTER at the **Auto Zero Maint?** prompt to enable the option.
9. At the **Range?** prompt, enter a range (in divisions) within which the Jaguar adjusts for small changes in zero. Enter divisions +/- 0.1 - 10. Adjustments are made at a rate of 0.03 increments per second
10. At the **AZM w/Net Mode?** prompt, select Y to automatically correct zero close to net zero and gross zero. Select N for AZM to function only near gross zero.
11. At the **COZ?** prompt, select if the center-of-zero annunciator should illuminate at **Gross Only** or at **Gross and Net** zero.
12. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Zero Operation Sub-block for MMR (IDNET) Bases

The Zero Operation of an MMR (IDNET) base is determined by the electronics of the base.

To configure the sub-block:

1. At the **Restart? Y** prompt press ENTER to accept or SELECT, followed by ENTER to change the response to No and accept that selection. When the restart feature is enabled. the zero setting is saved and restored after a power loss and recovery.
2. Press ENTER at the **AZM? 0** prompt to turn autozero maintenance OFF. If you wish to turn auto zero maintenance ON, press SELECT until the prompt displays a 1, then press ENTER,

A pre-determined number of consecutive readings from the scale must fall within the range specified before the scale compensates for changes in the zero reference.

Stability Detect Sub-block

The stability detection feature determines when a no-motion condition exists on the weighing platform. The sensitivity level determines what is considered stable. Printing and tare operations will wait for scale stability before carrying out the command.

Stability detection occurs over a predefined period of time and allows a predetermined "acceptable" amount of motion in scale divisions. The acceptable amount of motion is considered the range and the period of time is called the interval. When the Jaguar is used with an IDNET base, there are four settings of stability filtering available.

To configure the sub-block:

1. Press ENTER at the **Stability Detect** prompt, then press ENTER at the **Stability Range?** prompt.
2. At the **Range?** prompt, enter the acceptable motion range (+/- 0.1 to 10 divisions).
3. Press ENTER at the **Stable Readings?** prompt to configure the stability parameters.
4. At the **Intrval?** prompt, enter the number of seconds (0 to 1.0) that the weight must remain within the range values for a no-motion condition.
5. Continue to the next sub-block or exit the setup mode.

Stability Detect Sub-block for MMR (IDNET) Bases

Stability Detection of an MMR (IDNET) base is determined by the base electronics. The stability detection feature determines when a no-motion condition exists on the weighing platform. The sensitivity level determines what is considered stable. Printing and tare operations will wait for scale stability before carrying out the command.

The only prompt that will appear will be **STABILITY ? X**. Use the SELECT key to change the value of the stability filter from 1 (fast indication of weight) to 4 (slow indication of weight).

Beeper Operation Sub-block

The Jaguar is capable of an audible beep each time a key is pressed and an audible error alarm when an inappropriate key is pressed. This sub-block lets you enable or disable the keyboard sound. See the section entitled Audible Messages in this section for a description of the beeps and alarms.

To configure the sub-block:

1. Press ENTER at the **Beeper Operation** prompt to open the sub-block.
2. At the **Key Beeper?** prompt, select Y or N to enable or disable sound each time a key is pressed. This also enables the double beep acknowledgment message.
3. At the **Alarm Beeper** prompt, select Y or N to enable or disable an audible alarm that sounds each time an error occurs or an inappropriate button is pressed.
4. Continue to the next sub-block or exit the setup mode.

Application Type Sub-block

The Application Type sub-block indicates whether or not the scale is used for a process application. This sub-block affects the A/D rate and the ability to enable and/or disable the stability filter.

To configure the sub-block:

1. At the **Process Applic** prompt, select Y(es) to indicate that the application is a process application, or select N(o) if the application is not a process application.

   If You Select Y(es)

   Analog load cells—The stability filter cannot be enabled or disabled. Also, the A/D rate is 50 Hz, and the standard continuous output updates the weight 17 times per second.

   If You Select N(o)

   Analog load cells—The stability filter can be enabled or disabled. Also, the A/D rate is 20 Hz, and the standard continuous output updates the weight 10 times per second.

   UltraRes, DigiTOL, High Precision, and Power Cell load cells—the stability filter can be enabled and/or disabled. Also, the A/D rate is the rate of which the load cell is capable, and the standard continuous output update rate is the same as the A/D rate.

Vibration Rejection Sub-block

The Jaguar has several filters to compensate for environmental disturbances such as vibration or noise. This sub-block lets you configure the TraxDSP filters for optimum vibration/disturbance rejection.

The Vibration Rejection sub-block allows programming of values including

- **Lowpass Filter Frequency**—Low Pass Frequency is the frequency above which all disturbances are filtered out. The lower the frequency, the better the disturbance rejection, but the longer the settling time required for the scale.
- **Poles**—The number of poles determines the slope of the filtering cutoff. For most applications, a slope value of 8 is acceptable; however, decreasing this number will improve settling time slightly. Do not enter a value lower than 4 for this parameter.

The Adjust Notch parameter appears only if you are configuring an analog load cell. If configuring a DigiTOL scale, Jaguar proceeds to step 6.

- **Notch Filter Frequency**—The Notch Filter allows selection of one specific frequency below the lowpass filter value that can also be filtered out. This enables setting the lowpass filter higher to filter out all but one frequency (that the notch filter will handle) and obtain a faster settling time.
- **Stability Filter**—The Stability Filter eliminates weight changes within a given range around a stable weight reading. This filter eliminates fluctuations in the weight display created by movement. You cannot enable the stability filter if the **Process Application** parameter is configured Y(es) as for dynamic weighing such as batching or filling applications.
- TraxDSP Filetering is not available in conjunction with an IDNET base. These bases allow you to select between three different types of process applications and three different filter settings.

You cannot enable the stability filter if the **Process Application** parameter is configured Y(es) as for dynamic weighing such as batching or filling applications.

To configure the sub-block:

1. Press ENTER at the **Vibration Reject** prompt to open the sub-block.
2. Press ENTER at the **Adjust Lowpass?** prompt to configure the parameters governing the low pass filter. Disturbances falling below these parameters pass through the filter; disturbances above the parameters are filtered out.
3. At the **Frequency?** prompt, enter the frequency above which disturbances are filtered out.
4. At the **Poles?** prompt, enter the number of poles.
5. At the **Adjust Notch?** prompt, press ENTER to configure the parameters governing selective filtering.
6. At the **Frequency?** prompt, enter the frequency at which any disturbance is filtered out.
7. At the **Stable Filter?** prompt, select Y or N to enable or disable the stability filter. Use this for static weighing applications only.

The default values for vibration rejection that are programmed in the factory are good for most applications; however, if you find that the weight display is still unstable, the following steps may help:

a. Set the Low Pass filter to 9.9, poles to 8, and the Notch Filter to 0.0.

b. Lower the frequency setting of the Low Pass Filter by increments of 1.0 and observe the amount of variation at each setting. When you see a noticeable improvement in display stability, vary the Low Pass Filter setting slightly below the frequency setting in increments of 0.1 for minimum fluctuation.

c. Record the frequency and approximate number of increments variation for the settings that show noticeable reduction in display fluctuation. This is the lowest frequency of vibration causing the display to fluctuate.

d. Set the Low Pass Filter back to 9.9.

e. Set the Notch Filter to the frequency that caused the largest reduction in increments change (recorded in step c.).

f. If the display is still fluctuating too much, repeat step b. observing the display fluctuation. Reduce the Low Pass Filter setting until the display is acceptable.

Always be sure to check the weight display update time after each filter adjustment to be sure that the update rate is fast enough for the application.

Vibration Rejection Sub-block for MMR (IDNET) Bases

When the Jaguar is used with an IDNET base, the following prompts and selections are possible:

1. Press ENTER at the **VIBRATION ADAPT? X** prompt to select the type of vibration filetering should be used.

   a. If the display shows **1**, this is the setting for virtually disturbance free, stable surroundings. The indicator responds quicker to changes in weight, and is more sensitive to external conditions.

   b. If the display shows **2**, this is the appropriate setting for normal ambient conditions. This is the factory default setting.

   c. If the display shows **3**, this is the setting for unstable surroundings. The scale is less responsive than the factory default setting, and is less sensitive to external influences.

   Use the SELECT key to switch between the above choices. Press ENTER when the appropriate vibration filtering setting is displayed.

3. Press ENTER a the **PROCESS ADAPT? X** prompt.

   a. If the dispaly shows **1**, this is appropriate for the dispensing of liquids or powders

   b. If the display shows **2**, this setting is suitable for all types of normal weighing applications, This is the factory default setting.

   c. If the display shows **3**, this is the setting for checkweighing types of applications

Serial Interface Program Block

For example, on a standard Jaguar unit with a single analog scale, you may have a remote display connected to COM1 and a printer connected to COM2.

The Serial Interface program block (Configure Serial) lets you set parameters controlling data flow across the Jaguar's serial communication (COM) ports. The input and output COM ports are used to communicate data on demand or continuously such as for printing applications. COM ports may also be used for information exchange between a PC and the terminal.

Standard Jaguar terminals have two serial I/O ports (COM1 and COM2). While one port might be used to support a DigiTOL type scale, another may be used for data output as needed. If an optional Multifunction PCB is connected, two additional serial I/O ports are available (COM3 and COM4).

A DigiTOL scale can be connected to COM 2 or COM4 and is configured through the Scale Interface block. The port to which the DigiTOL scale is connected is not available for any other application. When DigiTOL or DJ-Box is selected in the Scale Type sub-block of the Scale Interface program block, the serial port (COM2 or COM4) is automatically set for communications to a DigiTOL base.

The Serial Interface program block lets you

- Assign port parameters
- Add a connection
- Delete a connection

The following diagram describes the Serial Interface program block:.

Configure Port Sub-block

This sub-block lets you configure the serial ports on your local terminal for data exchange, and enables communication with other Jaguar terminals in an ARCnet cluster. You can configure only those ports that are physically available. For example, if a DigiTOL scale is connected, its COM port will not be available for configuration.

See Appendix 1 of this manual for detailed information on hardware connections, data output format, and template programming and formats.

To configure the program block:

1. Press ENTER at the **Configure Serial** prompt to open the program block. Press ENTER at the **Configure Port** prompt, then press ENTER again at the **Select Port** prompt.
2. At the **Location?** prompt, select Local or Remote. Local refers COM ports on the Jaguar terminal you are working with at the time. Remote refers to COM ports on other Jaguar terminals connected in an ARCnet cluster.

Local

Configuring a local COM port involves defining the parameters that govern how data is transmitted through the port. You can configure communication

parameters only for your local terminal. Communication parameters for remote terminals must be configured at the remote locations.

- At the **Assign Prt?** prompt, select the local COM port to be configured. COM1 and COM2 are available. COM3 and COM4 are available if an optional Multifunction PCB is installed.
- Press ENTER at the **Port Parameters?** prompt, then configure the following parameters.
- Interface Type (COM2 and COM4 only)
- Baud Rate
- Data Bits
- Parity

Interface Type
If COM2 is being configured, you must identify the interface type. The interface type prompt does not appear if you are configuring COM1.

- At the **I/F Type?** prompt, select the desired interface type. Choices include
- RS-232
- RS-422
- RS-485

Baud Rate
The baud rate is the rate of information transfer in bits-per-second.

- At the **Baud Rate?** prompt, select the desired rate for the selected port. Baud rates include
  - 300
  - 600
  - 1200
  - 2400
  - 4800
  - 9600
  - 19.2k
  - 38.4k
  - 57.6k
  - 76.8k
  - 115.2k

Data Bits
Data bits refers to the number of bits that make up an ASCII character that is transferred between two units. Most Mettler Toledo equipment communicates using seven data bits.

COM1 and COM2 always have 1 stop bit.

- At the **Data Bits?** prompt, select 7 or 8 data bits.

Parity
Parity is an error checking mechanism for each byte.

- At the **Parity?** prompt, select the desired option. Parity options include

  Even—the terminal sends an even number of logic 1 data bits. If the sum is odd, an eighth logic 1 bit is added for an even total. If the sum is even, a 0 bit is included to leave it unchanged.

Odd—the terminal sends an odd number of logic 1 data bits. If the sum is even, an eighth logic 1 bit is added for an odd total. If the sum is odd, a 0 bit is included to leave it unchanged.

None—for use with eight data bits.

Flow

The remote terminal's communication parameters, such as baud rate, are configured in the remote terminal. You cannot configure remote communication parameters through this program block.

The flow parameter lets you control data flow from the selected port to a peripheral device such as a printer that supports XON/XOFF data flow. If enabled, Jaguar monitors the XON/XOFF characters and controls data flow to help eliminate buffer overflow problems that can cause printing errors.

- At the **Flow?** prompt, select the desired data flow option:

  None—Jaguar does not respond to XON/XOFF.

  XON/XOFF—Jaguar stops transmission on receipt of the XOFF character (13h) and resumes on receipt of the XON character (11h).

Remote

If you select Remote, the following steps will identify and list remote Jaguar terminals with which your terminal can communicate through its serial ports. Refer to Appendix 3 for more information on ARCnet networking of Jaguars.

- At the **Node?** prompt, select the remote terminal with which you will communicate. Five terminals are available; the terminal you are configuring is excluded. Terminal numbers are determined by the ARCnet jumpers on the Controller board.
- At the **Assign Prt?** prompt, select the COM port through which communication will take place. COM1 and COM2 are available.

3. Add the connection you just configured. It may be necessary to delete an existing connection that is conflicting with the new connection.

   For example, if you wish to connect a printer, you must configure a COM port and add that port before the Jaguar can communicate with the printer, or you may need to delete a connection that was configured in the factory to allow the addition of a connection you wish to make.

XON/XOFF requires character input. It will only work if the serial port has no other input connections. For example, you cannot configure CTPZSU In and XON/XOFF on the same port.

Add a Connection

The Jaguar is programmed at the factory for COM1 to output scale 1 data on demand. COM2 is not configured at the factory. Before adding additional connections, Mettler Toledo recommends that you delete the existing connection to COM1. See the next section entitled Delete a Connection for more information.

- Press ENTER at the **Add Connection?** prompt.
- At the **Type?** prompt, select the type of serial connection for the scale. Options include:
  - Serial Out
  - CTPZSU In
  - Bar Code In
  - Keyboard In

- Cust Print from template (1 through 5)
- TDC3000

If Serial Out is Selected

- At the **Enter Scale#?** prompt, select the internal scale letter (A or B), then press ENTER.
- The internal scale you select must be displayed on the Jaguar for you to use the PRINT key to complete this connection operation. If you want to print data for both scales in a two scale system regardless of which scale is displayed, you must make a connection for scale A, then make an identical connection for scale B.
- At the **Mode?** prompt, select **Demand** or **Continuous**. Demand refers to information that is sent upon request; continuous refers to a constant stream of information that is sent from the remote terminal.

Serial Out—Demand Mode

1. Press ENTER at the **Flexible Print?** prompt.

   Select Y or N at each of the prompts **Template 1-5?** indicating which template(s) you will print.

2. At the **Net Sign Corr?** prompt, select Y or N to enable or disable net sign correction. If enabled, Net Sign Correction compares the weight in the tare register with the current weight on the scale and configures them so the net weight displayed is always printed as a positive weight.

Templates determine the data to be sent for demand printing and are discussed in the Configure Template sub-block and on page Appendix 1-7.

3. At the **Minimum Print?** prompt, select Y or N to enable or disable minimum print. If you select Y(es), at the **Wgt?** prompt, enter a weight value below which printing cannot be initiated.
4. At the **Print Interlock?** prompt, select Y or N to enable or disable this feature.

   If Y(es) Print interlock allows only one print operation if scale weight is above a threshold value. To print again, weight on the scale must fall below the reset threshold value then settle above the threshold value. Print interlock also must be enabled to access the Auto Print feature.

   Configure the following parameters if print interlock is enabled:

   Print Threshold—Press ENTER at the **Print Threshold?** prompt. At the **Wgt?** prompt, enter the weight value that must be reached before printing can begin.

   Reset Threshold—Press ENTER at the **Reset Threshold?** prompt. At the **Wgt?** prompt, enter the weight value below which the weight on the scale must fall before enabling the next print operation.

The minimum print and print interlock features are related to the scale, not the connection. Therefore, programming these features applies to any demand connection for that scale.

To change any of these parameters, you must delete the entire connection then recreate the connection. It is not possible, to reenter setup and change a parameter.

Control characters affect the selected scale unless preceded by a specific scale designation character (A or B).

Please refer to Appendix 1 in the back of the User's Guide for more details on CTPZSU and remote ASCII control character input.

Check Motion—Select Y or N to enable or disable this parameter. If enabled, check motion prohibits the next print operation until weight on the scale stabilizes (no-motion) below the reset threshold.

Auto-Print—Select Y or N to enable or disable automatic printing. If enabled, printing will begin when a no-motion condition exists and scale weight is above the print threshold. Auto-print requires the weight to drop below the reset threshold before another auto print operation can take place.

If N(o) Continue to the next sub-block or exit setup.

Serial Out—Continuous Mode

1. At the **Status?** prompt, select the mode for the status bits in the continuous mode. Options include:

   Standard —for continuous mode to operate normally.

   4 Setpnt—to include the status of setpoints 1 through 4 in the continuous output format. If enabled, the first setpoint assigned to a scale becomes the first setpoint in the continuous output.

   Template—to use one of the five print templates for continuous output. Select the desired template (1 through 5).

If a 3015 Setpoint Controller is used, the controller should be configured as if it were interfaced to a model 8530 . Follow the instructions in the 3015 Setpoint Controller technical manual.

2. At the **Checksum?** prompt, select Y or N to enable or disable the checksum feature. Checksum is a method of checking each line of data transmitted by encoding a check digit character at the end of the string. The receiving device must be able to calculate and compare this character to verify that the data is correct.

   Checksum is defined as the 2's complement of the seven low-order bits of the binary sum of all characters preceding the checksum including control characters. Bit 8 of the checksum is the parity bit (if enabled) of the seven low-order bits of the checksum character.

If CTPZSU In is Selected

No further parameters need to be configured.

CTPZSU In is a serial connection enabling Jaguar to perform several basic functions when specific ASCII control characters are received through the serial port. Remote ASCII control characters and Jaguar's responses include:

C—clears the scale to gross

T—tares the scale

P—initiates a print command

Z—zeros the scale

S—selects a scale

U1—selects primary units

U2—selects secondary units

If Bar Code In is Selected
This connection type is used for input of serial data (requested from a prompt list step) The prompt list response source (configured in the Memory program block) must be Serial or Both. Please refer to Appendix 1 in the back of this manual for more information on the Bar Code In connection type.

No additional parameters need to be configured.

If Keyboard In is Selected
This connection type is used to receive serial characters emulating keyboard input. Please refer to Appendix 1 in the back of this manual for more information on the Keyboard In connection type.

No additional parameters need to be configured.

If Custom Print from Template is Selected
This connection directs the serial port to output the selected characters and information from the corresponding template (Templates 1 though 5).

- At the **Template 1?** prompt, select Y or N to include the template in the output. You must select Y or N for each template 1 through 5.
- At the **Net Sign Corr?** prompt, select Y or N to enable or disable net sign correction. If enabled, Net Sign Correction compares the weight in the tare register with the current weight on the scale and configures them so the net weight is always printed as a positive weight.

If TDC3000 is Selected
The serial port is assigned to a special Honeywell protocol.

No additional parameters need to be configured.

Delete a Connection

- Select the connection you wish to delete through the Select Port, Location, and Assign Port steps.
- Press SELECT until the **Delete Connect?** prompt is displayed, then press ENTER. The terminal displays the name of the port you have chosen. If the connection you want to delete is not displayed, press SELECT to display the desired connection.
- Press ENTER to delete the connection.

4. Press ENTER to continue to the next sub-block or press ESCAPE to exit setup mode.

Configure Template Sub-block

This sub-block lets you define up to five flexible templates. Templates are preconfigured output strings that are transmitted when a print operation is requested. Appendix 1 lists Jaguar's default templates. You can use the default templates as they are given or edit them to create custom templates.

Templates are composed of elements which are any printed character, special character, or field. The Jaguar is designed to accommodate most template size needs. Each template can store up to 400 format characters. When configuring a template, it is a good idea to test print occasionally since the Jaguar cannot determine if it has run out of space until it "compiles" all the data included in the template and tries to print it. If you do overfill the allocated space, a [TEMPLATE OVERFLOW] error will be displayed and the data that exceeds the 400 character limit will be lost.

The elements are recorded and then sent sequentially when the template is used when a demand print request is received.

The configuration steps that follow pertain to the currently selected scale.

1. Press ENTER at the **Config Template?** prompt to open the sub-block.
2. At the **Temp?** prompt, press SELECT to choose the number and name of the template you wish to edit or create. If an existing template has a customized name assigned to it, the name appears to the right of the prompt: **Temp? 1 Mettler**.
3. Select the action you want to take with the selected template. Actions include:
   - Clear Template
   - Copy Template
   - Edit Template

If the element number you enter is greater than the last element number in the template, the Jaguar automatically displays the last element in the template.

You must respond Y(es) or N(o) to the prompt for each action.

Clear Template

Select Y or N at the **Clear Template?** prompt. If Y(es), you must confirm your decision at the **Are You Sure?** prompt.

Copy Template

Select Y or N to copy another template into the current template. If Y(es), select the new template ID number and confirm your decision at the **Are You Sure?** prompt. The current template will be cleared before the new template is copied.

Edit Template

Select Y or N if you wish to edit the current template. If Y(es), you can edit the template name and/or edit, insert, or delete template components.

If (Y), the display reads **Name?** with the current name of the template given to the right of the prompt.

If you are creating multiple templates that are similar to each other, use the copy and edit template features to save time.

- Change the template name by entering a new name (maximum 8 characters), or keep the current name by pressing ENTER.

The Jaguar displays **E001** (element number 001) in the top display indicating that the first element of the template is displayed in the lower display area. If **End of Template** is shown on the lower display, then the template is empty.

- Press SELECT to display the next element in the template. Press ZERO to display the previous element in the template. You can access any element in the template using the SELECT and ZERO keys.

  You can also access specific elements by entering the number of the desired element. After entering the first digit of a new element, the lower display reads **Element? x** where "x" is the digit just entered. When the complete element number has been entered, press ENTER to access that element.

- Press ENTER to begin editing the displayed element. You can also begin editing at the **End of Template** position.
- At the **Action?** prompt, select an editing option.

  EDIT allows you to "replace" the current element with new data. The current element is automatically deleted.

  INSERT allows you to insert a new field or character before the currently displayed element. All following elements are moved back one element number .

  DELETE deletes the current element and moves each remaining element up one element number.

  DEL END deletes all remaining elements from the displayed position to the end of the template.

The lengths shown in the table reflect the length of the field when matching the template to the desired result. When calculating the number of elements in the template, Jaguar data fields only take up seven characters.

- If you are editing or inserting, at the **What?** prompt, select a data type. Data can be field information, printable ASCII characters, or special characters.

  FIELD refers to actual data fields available through the Jaguar such as time, date, prompts, literals and weight data. Enter a field code defined in the Field Code tables below.

  Although the Field Code table shows codes in lower case, Jaguar accepts field codes entered in upper or lower case.

Jaguar Data Field	Field Code*	Length
Tare Source	wsx07	1 N (0=none, 1=pb, 2=kb, 3=auto)**
Scale ID	csx18	8 A/N
Setpoint Value x = setpoint 1-8	spx05	10 A/N
Current Time[1]	jag20	11 A/N
Current Date[1]	jag19	11 A/N
Day of Week[1]	jag21	10 A/N
Julian Date[1]	jag07	5 A/N
Consecutive Number	jag09	8 N
Literal 01†	lit01	40 A/N
Literal 02†, etc	lit02, lit..	40 A/N
Prompt 01‡	pmt01	16 A/N
Prompt 02‡, etc	pmt02,pmt.	16 A/N
Prompt 01 Response	var01	As Programmed
Prompt 02 Response, etc	var02, var..	As Programmed
Template 1***	ptp01	As Programmed
Template 2***, etc	ptp02, ptp..	As Programmed

* The "x" character in a code represents the number of the internal scale from which data will come (unless otherwise noted). Number 1 represents internal Scale A and 2 represents internal Scale B. For example, to print the scale ID for scale A, the field code is "cs118."

** pb = pushbutton tare, kb = keyboard (preset) tare.

† Refer to the section entitled Configure Literals Sub-block in the Configure Memory Program Block in this chapter for more information on entering literals.

‡ Refer to the section entitled Configure Prompts Sub-block in the Configure Memory Program Block later in this chapter for more information on entering prompts.

*** Using a template field code within a template will insert the entire template into the output.

[1]Updated only at "print" time.

Formatting options allow you to customize the appearance of printed data and helps align data on the page. You can also limit the data field width which can help to eliminate unwanted characters.

Format options Left, Center, and Right use more memory than Default. Each justification takes up six characters in the template.

Although the Weight Data field table shows codes in lower case, Jaguar accepts field codes entered in upper or lower case.

Weight Data Field	Field Code*	Length
Gross Wt.	wtx01	12 A/N
Tare Wt.	wsx02	12 A/N
Net Wt.	wtx02	12 A/N
Wt. Units	wtx03	2 A/N
Auxiliary Gross Wt.	wtx04	12 A/N
Auxiliary Tare Wt.	wsx03	12 A/N
Auxiliary Net Wt.	wtx05	12 A/N
Auxiliary Wt. Units	wtx06	6 A/N
Scale Mode (Gross/Net)	wsx01	1 A/N (G or N)
Custom Unit Conversion Factor	csx03	8 A/N
Custom Unit Name	csx02	6 A/N

* The "x" character in each code represents the number of the internal scale from which data will come (unless otherwise noted). Number 1 represents internal Scale A and 2 represents internal Scale B. For example, to print the displayed gross weight for scale A, the field code is "wt101."

When calculating the number of elements in the template, individual ASCII characters and special ASCII characters take up one character each. CR/LF and repeat characters take up six characters each.

Refer to Appendix 1-13 in the Service Manual for a list of special characters and their decimal equivalents.

CHAR refers to normal printable ASCII characters and CR/LF (carriage return and line feed) characters. You can enter ASCII characters from the remote QWERTY keyboard or the Jaguar keypad. CR/LF makes the termination of a printed line faster than selecting each character individually, and allows quick addition of multiple new lines to advance to the end of the page or to a position a line on a page. To choose CR/LF as a character, press SELECT at the **Character?** prompt.

SPEC CHAR refers to "special" control characters that are not printable ASCII characters such as ASCII SO (shift out - 0E hex) which may be used for printer control. Special characters also include lower case letters and various punctuation not available on the standard Jaguar keypad. Use Jaguar's SELECT and ZERO keys to scroll through the list of these characters and choose a character or the numeric keys may be used to enter the decimal value of any special character between 0 - 255.

- At the **Format?** prompt, select the data position (justification) and field width. If field width is less than the code length default specified in the Field Code tables (above), characters will be stripped off automatically. Justification choices include:

  DEFAULT prints data as defined by Mettler Toledo default.

  LEFT prints data left justified within the field width. At the **Field Width?** prompt, enter the number of characters to define the field width.

Print test allows you to check your data output without exiting the template sub-block.

Print template gives a hard-copy record of the template configuration that can be useful for "debugging" a format as you configure the template.

CENTER prints data centered within the field. At the **Field Width?** prompt, enter the number of characters to define the field width.

RIGHT prints data right justified within the field. At the **Field Width?** prompt, enter the number of characters to define the field width.

When the element is viewed on the lower display, the data is shortened to fit in the display area. The following examples illustrate the displayed data format.

4. At the **Print Test?** prompt, select Y or N to initiate or skip a test print of the template. If Y(es), the data defined by the template will be output to the first COM port selected for Demand Mode.
5. At the **Print Temp?** prompt, select Y or N to print the template elements. If Y(es), template elements are output in the shortened format described above to the first COM port selected for Demand Mode.
6. At the **Finished?** prompt, select Y if you are finished or N to continue editing this template.
7. Continue to the Reset to Factory sub-block or exit setup mode.

The setpoints that are available correspond to the selected scale.

Configure Discrete Program Block

The Configure Discrete program block lets you configure inputs and outputs for PAR 1 and PAR 2 ports. If an optional Multifunction PCB is installed, PAR 3 and PAR 4 will be available. This program block also lets you control the terminal's setpoints. PAR 1 has four discrete inputs; PAR 2 has four discrete outputs. The Jaguar has twelve setpoints. Setpoints are assigned to an internal scale (either A or B) or can be disabled.

When a setpoint is assigned to a scale, the operator can use the MEMORY key to access the setpoint and set its value.

The following diagram describes the Configure Discrete program block:

Discrete Inputs Sub-block

The Discrete Inputs sub-block lets you configure each of the four discrete inputs through PAR 1 (and an additional eight inputs on PAR 3 if an optional Multifunction PCB is installed).

To configure inputs:

1. Press ENTER at the **Config Discrete** prompt, then press ENTER at the **Parallel Inputs** prompt.
2. At the **Port?** prompt, select PAR 1 or PAR 3 depending on the port you wish to configure.
3. At the **Discrete?** prompt, select the specific input number (1 through 4 for PAR 1 or 1 through 8 for PAR 3) to configure.
4. At the **Polarity?** prompt, select the input polarity option that defines the input active state. Options include:
   - **Positive (+)** — The assigned action will take place when the input IN 1-12 is grounded to the GND terminal on PAR 1 (or PAR 3).
   - **Negative (–)** — The assigned action will take place when the connection between the GND terminal on PAR 1 or PAR 3 and the input IN 1-12 is open.
5. At the **Assign?** prompt, select the input action corresponding to the input you are configuring. The assigned action will happen when the input becomes active. Options include:
   - **Tare**—causes the Jaguar to tare a load on the scale when the input is active.
   - **Clear**—causes the Jaguar to clear the scale to gross zero when the input is active.
   - **Print**—initiates a print command when the input is active.
   - **Zero**—causes the Jaguar to zero the scale when the input is active.
   - **Pri Unit**—changes the weight unit to the primary unit when the input is active.
   - **Sec Unit**— changes the weight unit to the secondary unit when the input is active.
   - **Sw Units**—toggles between the primary and secondary weighing units when the input is active.
   - **Sel Scale**—causes the Jaguar to display the second scale data (from scale A or B) when the input is active.
   - **Sel Key**—corresponds to pressing the SELECT key when the input is active.
   - **Escape**—corresponds to pressing the ESCAPE key when the input is active.
   - **Enter**—corresponds to pressing the ENTER key when the input is active.
   - **Cust_Prt (1 through 5)**—initiates a command to print the contents of the selected template when the input is active.
   - **None**—assigns no function to the input when it is active.
6. At the **Scale?** prompt, press SELECT to choose the scale from which discrete data will come. Options include:

- Active—the scale selected during normal operation
- A—Scale A
- B—Scale B

7. When you have finished configuring the first input assignment, Jaguar returns to the **Port?** prompt where you can repeat steps 2 through 5 for each additional input you wish to configure.
8. When you are finished configuring all input assignments, at the **Port?** prompt, press ESCAPE to return to the **Parallel Inputs** prompt. Press SELECT to display the **Parallel Outputs** prompt and continue.

Discrete Outputs Sub-block

The Discrete Outputs sub-block lets you configure each of the four discrete outputs through PAR 2 (and an additional eight outputs for PAR 4 if an optional Multifunction PCB is installed).

To configure outputs:

1. Press ENTER at the **Parallel Outputs** prompt.
2. At the **Port?** prompt, select PAR 2 or PAR 4 depending on the port you wish to configure.
3. At the **Discrete?** prompt, select the specific input number (1 through 12) to configure.
4. At the **Polarity?** prompt, select the output polarity option that defines the output active state. Options include:
   - **Positive (+)** — in the active state, the output is actually switched to ground internally showing 0 VDC and supplying a ground as an output.
   - **Negative (–)** — in the active state, the output is actually switched open internally showing the applied voltage potential and supplying an open circuit as an output.
5. At the **Assign?** prompt, select the output action corresponding to the output you are configuring. The condition is existing when the output becomes active. Options include:
   - **Net Gross**—output is active when the Jaguar is in the net mode.
   - **Zero**—output is active when the displayed weight of the scale is within ± 0.25 increment of gross zero.
   - **Motion**—output is active when the Jaguar is experiencing a motion condition.
   - **Over Cap**—indicates weight on the scale exceeds the calibrated capacity when the output is active.
   - **Undr Zero**—indicates the Jaguar is displaying weight that is below gross zero when the output is active.
   - **Setpoint**—indicates weight on the scale has reached a predetermined target weight.

- **None**—assigns no function to the input when it is active.

If Setpoint is Selected

- At the **Setpoint?** prompt, select the particular output setpoint (1 through 12) you wish to configure.
- At the **Out?** prompt, select the desired setpoint function. Options include:
  - **Feed**—the output turns the feeder off when weight on the scale reaches a predetermined cutoff value.
  - **Fast Feed**—the output controls the transition from fast to slow speed in dual-speed batching applications.
  - **Tolerance**—the output indicates whether residual weight on the scale is within a predetermined tolerance value. Please refer to the section entitled Memory Key Operations in chapter 4 for more information.

If An Assignment Other Than Setpoint is Selected

- At the **Scale?** prompt, select the scale to which the output refers (Scale A or Scale B).

6. When you have finished configuring the first output assignment, Jaguar returns to the **Port?** prompt where you can repeat steps 2 through 5 for each additional output you wish to configure.
7. When you are finished configuring all output assignments, at the **Port?** prompt, press ESCAPE to return to the **Parallel Outputs** prompt. Press SELECT to display the **Assign Setpoints** prompt and continue.

Assign Setpoints Sub-block

This sub-block lets you assign Jaguar's setpoints to a scale or disable setpoints.

To configure setpoints:

1. Press ENTER at the **Assign Setpoints** prompt.
2. At the **Point?** prompt, select the setpoint you wish to configure (1 through 12).
3. At the **Scale?** prompt, select Scl A, Scl B, or None to assign the setpoint you selected in step 2 to scale A, scale B, or to disable the setpoint (none).
4. At the **Name?** prompt, use the numeric keys to enter a description for this setpoint. Please refer to the section entitled Alphabetical and Special Character Entry in Chapter 4 for more information on entering alpha-numeric characters.
5. At the **Source?** prompt, select a scale reference to which the setpoint will respond. Options include:
   - **Net**— the net weight of the selected scale
   - **Gross**—the gross weight of the selected scale
   - **Rate**—the calculated rate of weight change over a predetermined period of time as configured in the Alternate Weight Units sub-block
6. At the **Type?** prompt, select the setpoint operation condition. Options include:
   - **Fill**—if the setpoint will work when weight on the scale is increasing
   - **Discharge**—if the setpoint will work when weight on the scale is decreasing
7. When you have finished assigning the first setpoint, Jaguar returns to the **Point?** prompt where you can repeat steps 2 and 3 for each additional setpoint you wish to assign.
8. When you are finished assigning all setpoints, at the **Point?** prompt, press ESCAPE to return to the **Assign Setpoints** prompt. Press ESCAPE to return to the **Config Discrete** prompt, then press SELECT to continue to the Configure Memory program block.

Configure Memory Program Block

This program block lets you configure literals, prompt lists, and consecutive numbers. These items are accessed when an operator presses the MEMORY key in Normal Operation mode. For more information on the MEMORY key and its function, see its section in Chapter 4. The following diagram describes the Configure Memory program block:2

Configure Literals Sub-block

Literals are text strings such as site name or address that can be printed in a template. They can be up to 40 characters in length and are referenced by a field code (see the section entitled Configure Template Sub-block in this chapter). You can program up to 20 literals.

To configure literals:

1. Press ENTER at the **Config Literals?** prompt to open the sub-block.
2. At the **Literal? 0** prompt, enter a number for the literal you are creating or editing (01-20).
3. At the **Data?** prompt, enter the text for the literal. You can enter up to 40 alpha-numeric characters. To enter lower case letters and characters other than those available on the Jaguar keypad, you will need a QWERTY keyboard. See the section entitled Using a PC Keyboard in Chapter 4 Jaguar Operations.
4. Repeat steps 2 and 3 for each literal you wish to configure.
5. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Configure Prompts Sub-block

A prompt list displays written cues for an operator to perform a task while in Normal Operation mode. You can include up to 20 steps in a prompt list. Refer to the section entitled Memory Key Operations in Chapter 4 for more information on using prompts.

1. Press ENTER at the **Config Prompts?** prompt to open the sub-block.
2. Press ENTER at the **No of Steps** prompt. This number tells you how many steps are in the current prompt list.
3. At the **Clr Prmpt Lst?** prompt, select Y if you wish to clear the existing prompt list and reset the step number to 0, or select N if you want to edit or add steps in the existing prompt list.

   If Y(es)
   At the **Are You Sure?** prompt, select Y or N to clear or keep the current prompt list.

   If N(o)
   At the **Step 1** prompt, begin entering data. If you are editing an existing prompt list, you must scroll through each step in the list to get to the desired step you wish to edit or create.
4. At the **Data Type?** prompt, select the type of data that will be entered by the operator in response to the prompt. Choices include:

Option	Data Type	Max. Length

A/N	Alpha-numeric	40 characters
Num	Numeric	8 numbers
Tare	Tare Weight	N/A
Print	N/A	N/A

Numeric data type prohibits the operator from entering anything other than numbers or a decimal point. Tare data type allows a preset (keyboard), or pushbutton tare entry. Print data type causes a print output to occur when the operator presses ENTER at a print step in the template. If no prompt is entered, print output will occur automatically.

5. At the **Length?** prompt, enter the maximum number of characters that the operator will enter in response to the prompt according to the type of data selected above.
6. Press ENTER at the **Prompt?** prompt, then input the actual text for the operator prompt (up to 16 characters). Press ENTER to accept the text when you have finished keying the string.
7. At the **Source?** prompt, select the entry source for the data. Options include:

A serial port must be configured and a template must be defined to use the Print data type.

- **Serial**—Data input will be from a Jaguar serial port such as from a bar code reader
- **Kybd**—Data input will be from the Jaguar keypad or an external PC keyboard
- **Both**—Data input will be from a keyboard or serial port source

If Serial or Both

At the **First Character?** prompt, enter the number of the first character position to be used by the Jaguar for the prompt response.

For example, consider the prompt response "1521" that is received in the following serial input string:

<STX> <SP> <SP> <SP> 1521 <CR>

The first character of the response ("1") is the fifth character in the string, so you would enter "5" at the First Character? prompt.

Please refer to Appendix 1 at the back of this manual for more information.

Mettler Toledo recommends using Both to accommodate input regardless of its specific source.

8. At the **More Steps?** prompt, select Y or N if more steps will be entered in the prompt list. If Yes. the terminal automatically increments to the next step.

The **Length?** prompt is not displayed if the data type is Print.

9. At the **Loop Mode?** prompt, select Y or N to enable or disable the prompt list loop mode. This feature causes the Jaguar to remain in the prompt list (in normal operating mode) until the operator presses ESCAPE.
10. Continue to the next sub-block or press ESCAPE to exit setup mode.

Configure Consecutive Numbering Sub-block

Consecutive numbering is used for sequencing purposes. The Jaguar automatically increments the number from a defined starting point.

To configure consecutive numbering:

1. Press ENTER at the **Configure CN?** prompt to open the sub-block.
2. At the **Port Loc?** prompt, select the port location through which data will flow triggering the next consecutive number. You must select a port configured for demand output from this specific Jaguar terminal. Choose local or remote.

   If Local
   At the **Assign Prt?** prompt, select the appropriate COM port.

   If Remote
   At the **Node?** prompt, select the appropriate remote Jaguar terminal (1-6), then select the COM port at the **Assign Prt?** prompt as for local.
3. At the **Start?** prompt, enter the first consecutive number to be used (0-99999999) after a reset.
4. Press ENTER to continue to the next sub-block or press ESCAPE to exit setup mode.

Configure JagBASIC Program Block

Jaguars with JagBASIC installed have an additional program block for JagBASIC configuration. This program block will not appear if the JagBASIC option is not installed.

The following diagram describes this sub-block:

Password Sub-block

Enter a 1 to 8 alphanumeric password, or if no password has been entered since the last Master Reset, press ENTER to continue.

Keyboard Sub-block

The Keyboard sub-block lets you select the type of device that will be used to input data to JagBASIC at an Input or Inkey prompt. The selected device is also used for BASIC command line mode.

To configure the Keyboard sub-block:

1. Press ENTER at the **Config JagBASIC** prompt to access the program block.
2. Press ENTER at the **Keyboard** prompt, then select the desired input device:
   - **None**—No keyboard input is required. This option is used with programs designed to operate in the background and monitor data input and output without operator intervention.
   - **Keypad**—The Jaguar keypad will be used for JagBASIC input **and** standard Jaguar functions.
   - **Kboard**—An optional PC-type QWERTY keyboard will be used for JagBASIC input **and** standard Jaguar functions.
   - **Both**—The Jaguar keypad and an optional keyboard will be used for JagBASIC input.

     If Both is selected, standard Jaguar functions (including setup) cannot be accessed with the keyboard. If you need to access setup with both keyboard and keypad selected, short the test jumper W11, then power up to enter setup and change this option to Keyboard. Remove the W11 jumper when finished.
3. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode .

Display Sub-block

The Display sub-block lets you select the display area to be used by a Jag BASIC program when a Print statement is executed.

To configure the sub-block:

1. Press ENTER at the **Display** prompt, then select the display area for JagBASIC output:
   - **None**—JagBASIC output is not displayed.
   - **Jaguar**—The Jaguar lower display area shows JagBASIC output **and** standard Jaguar output.
2. Press ENTER to select the display option and continue to the next sub-block.

Auto Start Sub-block

The Auto Start sub-block lets you start the JagBASIC program (file1.bas) automatically on power-up.

To configure the sub-block:

1. Press ENTER at the **Autostart** prompt, then press SELECT to display Yes or No. If enabled (Yes), the JagBASIC program will automatically start each time power is applied to the Jaguar.
2. Press ENTER to select the auto start option and continue to the next sub-block.

Manual Start Sub-block

The Manual Start sub-block lets you configure JagBASIC as an operation associated with the FUNCTION key.

To configure the sub-block:

1. Press ENTER at the **Manual Start** prompt, then press SELECT to display Enable or Disable. If enabled, JagBASIC programs can be started manually when the operator presses the FUNCTION key.
2. Press ENTER to select the manual start option and continue to the next sub-block.

Send RAM Files Sub-block

This sub-block works with the JagBASIC send and receive programs that must be installed in your personal computer and lets you configure file transfer to and from the Jaguar and your PC. File transfer is initiated and transferred in setup mode. Please refer to the JagBASIC Programmer's Guide for more details on file transfer using a personal computer.

Communications must be established between the PC and Jaguar to transfer files. If communications are not established, the Jaguar will time-out and return to the beginning of this sub-block.

To transfer files:

1. Press ENTER at the **Send RAM Files** prompt.
2. At the **Files to PC?** prompt, select Yes if you want to enable file transfer from the Jaguar to your PC, or select No if you do not want file transfer in this direction.

   If Yes is Selected

   - At the **Are You Sure?** prompt, select Yes to enable the Jaguar to transfer files from its RAM disk to your PC. If you respond No to this prompt, Jaguar prompts **Files From PC?** (see below).

   If No is Selected

   - At the **Files From PC?** prompt, select Yes to enable file transfer from your PC to the Jaguar, then respond Yes at the **Are You Sure?** prompt. The Jaguar displays **"Recving from PC."**

3. Press ENTER to continue to the next sub-block.

Initialize RAM Disk Sub-block

This sub-block lets you delete all files in Jaguar's RAM disk and initialize it for new files.

1. Press ENTER at the **Init RAM Disk?** prompt.
2. At the **Are You Sure?** prompt, select Yes to delete the RAM disk files. Select No if you do not wish to erase all files on the RAM disk at this time.

   Use caution if you select Yes to delete all RAM disk files. These files cannot be recovered once they are deleted.
3. Press ENTER to continue to the next sub-block.

Password Maintenance Sub-block

The Password Maintenance sub-block lets you enter a password that must be used each time the JagBASIC program block is accessed. The password secures the JagBASIC programs against unauthorized access and changes.

To configure the sub-block:

1. Press ENTER at the **Password Maint** prompt.
2. At the **Passwd?** prompt, enter a unique password (up to eight characters).
3. Press ENTER to accept the password and continue to the next sub-block.

Mettler Toledo recommends that you distribute the password to only those who need access to the JagBASIC program block.

After exiting the Configure JagBASIC program block the first time, you must use the password each time you reenter the program block.

Please record the password and keep it in a secure location. If the password is lost, the only way to access the JagBASIC program block again is by performing a Master Reset which will return **all** Jaguar configuration parameters to default values.

Configure Network Program Block

The Jaguar can be configured as a network device on a local area network (LAN). The Network Interface block lets you configure the network port and identify which terminal nodes it may access. Refer to Appendix 3 in the Service Manual for additional information on networking.3

Network Keyboard/ Display Sub-block

This sub-block lets you configure your network and remote Jaguars as network devices. Console Jaguar terminals can act as a remote keyboard/display for both scales on any other networked Jaguar terminal. The console can also be used to program any other Jaguar on the network. Refer to the section entitled Keyboard/ Display Sharing in Appendix 3 in the Service Manual for more information.

To configure the Network Keyboard/Display sub-block:

1. Press ENTER at the **Configur Network** prompt, then press ENTER again at the **Net Key/Display** prompt.
2. At the **Net Console?** prompt, select Y or N to identify this Jaguar's keyboard and display as a network device. Net Console allows the keyboard/display of the Jaguar you are configuring to access other terminals in its ARCnet cluster. You can configure this parameter only if the Jaguar terminal is networked.
3. At the **Terminal #?** prompt, select Y or N to identify terminal # "x" as a network device. Repeat the identification process for the remaining network terminals. The Jaguar will not prompt for your terminal.
4. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

PC Data Sub-block

The PC Data sub-block lets you configure the Jaguar to communicate with a personal computer connected to the ARCnet network. Mettler Toledo offers several PC software programs that can be used to develop an application on the PC that can communicate with Jaguars. Contact Mettler Toledo's Industrial Marketing department for more information about these software products.

To configure a Jaguar for PC communications on ARCnet:

1. Press ENTER at the **PC Data Access** prompt.
2. At the **PC Node #** prompt, select Y or N to enable or disable this Jaguar for ARCnet communications to each PC node (1 through 3).
3. Continue to the next sub-block or press ESCAPE to exit the setup mode.

PLC SP Control Sub-block

The PLC SP Control lets the PLC control setpoints.

To configure the sub-block:

1. Press ENTER at the **PLC SP Control** prompt.
2. At the **Scale-A PLC** prompt, select Y(es) to control scale A setpoints through the PLC option (in either a local or remote terminal). Select N(o) if no control.

3. At the **Scale-B PLC** prompt, select Y(es) to control scale B setpoints through the PLC option (in either a local or remote terminal). Select N(o) if no control.
4. Press ENTER to continue to the next sub-block or press ESCAPE to exit the setup mode.

Diagnostics and Maintenance Program Block

Every Jaguar industrial terminal can perform a series of diagnostic and maintenance tests. These tests detect problems if they occur and perform regular maintenance testing. The tests are done through this block while in the setup mode.

Memory Test Sub-block

The Memory Test sub-block tests the terminal's internal memory. These diagnostics test the Flash memory, RAM, and EEPROM on the Controller board and any optional boards that are installed. The results of the memory tests are displayed on the terminal.

To execute the memory tests:

1. Press ENTER at the **Memory Test** prompt.

   The Jaguar automatically tests the Controller board, and proceeds to any optional boards that are installed. The terminal flashes the software revision and part number of the component currently being tested and its status. As the tests are complete, the terminal flashes the results on the lower display.
2. Continue to the next sub-block or exit the setup mode.

Display Test Sub-block

This sub-block tests the upper and lower display areas of the terminal and tests display ROM and RAM.

1. Press ENTER at the **Display Test** prompt to initiate the display test. The Jaguar automatically tests the display by lighting each segment for visual inspection. The terminal then displays the software revision and part number and tests display ROM and RAM and flashes the results on the lower display.
2. When the test is finished, continue to the next sub-block or exit the setup mode.

Keyboard Test Sub-block

The keyboard test verifies the operation of each key on the Jaguar keypad or an externally connected PC-AT keyboard.

1. Press ENTER at the **Keyboard Test** prompt to initiate the test. You can press ESCAPE to exit the keyboard test.
2. Press each key on the Jaguar keyboard or PC keyboard if attached. If the depressed key works, the key name is displayed. If the depressed key does not work, the terminal does not respond.

   For example, to test the MEMORY key, press MEMORY on the keypad. If it works properly, the display reads **Memory**. If the MEMORY key is inoperative, the display remains blank.
3. Repeat step 2 to test as many keys as you like.
4. When finished, exit the keyboard test by pressing ESCAPE.

Scale Test Sub-block

This sub-block holds several scale operation and calibration parameters that were used when you calibrated the scale through the Scale Interface program block. You can use this sub-block to

- View and record calibration values
- Reenter the values quickly you replace the load cell, or if the load cell fails
- Verify the IDENTCODE value and software version of a connected IDNET base.

If you need to reenter calibration values due to a failure, please understand that this program block lets you get the scale back into operation. You may experience error in linearity or zero reference up to 2% until the scale is recalibrated.

If the scale type is Power Cell, the scale test sub-block lets you address each individual power cell at the time of installation and configuration, or you can re-address power cells if necessary.

MMR (IDNET) Scale Bases

If the Jaguar is connected to an IDNET base, you may confirm the IDENTICODE number and software version number:

IDENTCODE - indicates the number of times the scale has been calibrated.

S/W - indicates the software version currently installed in the base

Use the SELECT key to alternate between the above two choices. Press ESC to exit.

DigiTOL J-Box or Power Cell Bases

If the scale type is DigiTOL J-Box or Power Cell, the scale test sub-block lets you reset the shift value.

1. Press ENTER at the **Scale Test** prompt.
2. Press ENTER at the **Cal Values** prompt, then view or enter new calibration values for the following:

   ZeroCnts—View/enter the zero reference number at gross zero.

   If linearity correction is disabled:

   HighWt—is the test weight used for calibration
   HighCnts—is the analog count at the high weight

   If linearity correction is enabled:

   MidWt—is the test weight used for mid weight during calibration

   MidCnts—is the analog count at mid weight

   HighWt—is the test weight used for calibration

   HighCnts—is the analog count at the high weight

   Cell 01-4—View/enter a shift constant for load cells 1 through 4 for DigiTOL J-Box applications. For CMOS Power Cell applications, the prompt may read Cells 1-24 or 31-35 depending on the number of scales and the number of cells in each scale.

The **PwrCell Maint.** prompt appears only if Power Cell is selected as the scale type.

3. Press ENTER at the **View LC Output** prompt to view the output count of the Analog PCB. For DigiTOL load cells connected to COM2 or COM4, the load cell output is the raw count from the load cell. For DigiTOL J-box or Power Cell scales, you can view each load cell individually.
4. Press ENTER at the **Cell Counts** prompt to view the raw count data. The Cell Counts feature is useful for observing scale output for slow drift, shift adjustment, or for locating an unstable load cell.
5. Press ENTER at the **PwrCell Maint.** prompt, then press select the maintenance procedure to perform. Power Cell maintenance options include Re-Address Cell, Diagnose Cell, and Replace Cell.

The Re-address feature lets you address CMOS Power Cells when you install a new scale.

If Re-Address Cell is Selected

- Press ENTER at the **Re-Address Cell** prompt. The Jaguar disconnects power to the Power Cell and displays the message **Power Now Off.**
- With the power disconnected to the Power Cell, connect the first cell to be addressed (cell 1 for a single scale configuration or cell 31 for a second scale).

  No cells other than the Power Cell to be addressed should be connected at this time.
- Press ENTER at the **Power Now Off** prompt when the cell is connected.
- At the **What Addrs? 0** prompt, use the numeric keys to enter the first cell's address. Enter 1 for a single scale configuration or 31 for the first cell in a second scale. While the cell address is being changed, the display will show **Addressing X** , where X is the cell address which has been entered. When the Jaguar has re-addressed the Power Cell, it displays the message "Addressed OK." When you press ENTER, the Jaguar re-displays the message **Power Now Off**.
- At the **Power Now Off** prompt, disconnect the first cell, then connect the second cell to be addressed.
- Repeat this procedure to address or re-address each power cell. When all cells have been addressed and with the **Power Now Off** message displayed, reconnect all cells.

If Diagnose Cell is Selected

- Press ENTER at the **Diagnose Cell** prompt. The Jaguar disconnects power to the Power Cell and displays the message **Power Now Off.**
- With the power disconnected to the Power Cell, connect the first cell to be diagnosed (cell 1 for a single scale configuration or cell 31 for a second scale).

  No cells other than the power cell to be diagnosed should be connected at this time.
- Press ENTER at the **Power Now Off** prompt when the cell is connected. The Jaguar searches for the cell and confirms its correct address with the message **Addressed=address found**. An error message appears if the cell address is not OK.

  When the cell is diagnosed, the Jaguar re-displays the message **Power Now Off**.
- At the **Power Now Off** prompt, disconnect the first cell, then connect the second cell to be diagnosed.
- Repeat this procedure for each power cell to be diagnosed. When all cells have been diagnosed and with the **Power Now Off** message displayed, reconnect all cells.

If Replace Cell is Selected

- Press ENTER at the **Replace Cell** prompt. The Jaguar disconnects power to the Power Cell and displays the message **Power Now Off.**
- With the power disconnected to the Power Cell, disconnect the cell to be replaced and connect the new cell.
- Press ENTER at the **Power Now Off** prompt when the new cell is connected. The Jaguar searches for the new cell and confirms that the new cell has the same address as the old cell. If the cell address is OK, the message **Addressed OK** is displayed. An error message appears if the cell address is not OK
- The Jaguar displays cell counts on the upper display. When the cell is diagnosed, the Jaguar re-displays the message **Power Now Off**.
- At the **Power Now Off** prompt, repeat this procedure for other power cells to be replaced, or reconnect all cells and press ENTER to reconnect power.

If AutoAddressing Power Cells is Selected

The AutoAddressing Menu Selection helps you to address Power Cells in a new Power Cell Scale or to replace a single Power Cell in an existing Power Cell scale. AutoAddressing searches Power Cells addresses in the network, finds the first missing address in the addressing sequence, and readdresses a Power Cell with address #240 to the missing address. You can have only one Power Cell with address #240 on-line at a time. New Power Cells have address #240.

The beginning of the searching sequence for a Power Cell scale is either address #1 or address #31 whichever is the starting address of the for Power Cells in the scale.You select the starting address for the scale in the **Scale Interface, Scale Type, Loc**? menu selection.

Use the following procedure to address the Power Cells in a new Power Cell scale:

- Press ENTER at the AutoAddress prompt. The Jaguar turns off the electrical power to the Power Cell network and displays the message **Power Now Off.**
- Connect Power Cell #1 to the network. It must have default address #240.
- Press ENTER. The Jaguar displays the message "Searching..." while it is searching for the first missing cell. Once it finds #1 is the missing cell, the Jaguar displays **Addressing 1.** When it completes addressing the cell, the Jaguar displays **Addressed OK**.
- Press ENTER. The Jaguar turns off the network and **displays Power Now Off**.
- Do not disconnect Power Cells that you have already addressed.
- Connect the next Power Cell, #N, to the network. #N represents the sequence of cell addresses #2, #3, #4 .... up to all cells in the scale. #N must have default address #240.

- Press ENTER. The Jaguar displays the message "Searching..." while it is searching for the first missing cell. Once it finds that #N is the missing cell, the Jaguar displays **Addressing N**. When it completes addressing the cell, the Jaguar displays **Addressed OK**.
- Repeat steps 5-7 until you have addressed all the Power Cells. If Jaguar does not find any missing cells when it is doing the search in Step 7, the Jaguar displays **No Missing Cell!**

Use the following procedure to replace a Power Cell in an existing Power Cell scale:

Go to **Diagnostics, Scale Test, PwrCell Maint, AutoAddress** in the Jaguar setup menus.

- Press ENTER. The Jaguar turns off the electrical power to the Power Cell network and displays the message **Power Now Off**.
- Replace the Power Cell, #N, in the network. #N represents the cell to be replaced. It must have default address #240. DO NOT DISCONNECT THE OTHER POWERCELLS.
- Press ENTER. The Jaguar displays the message **Searching...** while it is searching for the first missing cell. Once it finds that #N is the missing cell, the Jaguar displays **Addressing N**. When it completes addressing the cell, the Jaguar displays **Addressed OK**.

If Address All 240 is Selected

- When you press ENTER, the Jaguar displays **Power Now Off**.
- Connect all Power Cells to the network that you want to re-address to 240.
- When you press ENTER, the Jaguar displays the **message Addressing 240**. It can take a few minutes to re-address all cells depending on the number of cells and their old addresses.
- When addressing is complete, the Jaguar displays **Addressed OK**.

6. Press ENTER at the **Shift Functions** prompt to access the shift functions.
   - At the **Reset Shift** prompt, press ENTER to reset the shift adjustment factors for a DigiTOL J-Box 1.0.

     At the **Are You Sure?** prompt, select Y or N to confirm or abort the reset operation.
   - Press ENTER at the **Adjust Cell/Pair** prompt to begin the DigiTOL J-Box/Power Cell adjustment procedure.
   - At the **What Cell?** prompt, enter the number of the cell or pair of cells to be adjusted.
   - At the **Empty the Scale** prompt, remove any weight on the platform, then press ENTER. The display reads **Capturing Zero** as the terminal captures zero .

- At the **Load On Cell N** or **Load On Pair N** prompt, place on the platform a test weight equaling approximately 50% of the scale's capacity.

  The Jaguar automatically shift adjusts the scale for the current load cell as the display reads **Capturing Cell N** or **Capturing Pair N**.

- Repeat this procedure for each load cell/pair connected to the DigiTOL J-Box or Power Cell.

- Refer to Chapter 3 if you want to do a complete shift adjust of D-J Box or Power Cell Scale. This complete shift adjust is more accurate and should be used if more than one Power Cell is being replaced on the scale. The single-cell shift adjust procedure described here allows you to perform a quick approximation of the shift adjust value when a single, bad cell is being replaced on the scale.

  When all load cells are shift adjusted, the terminal indicates **Shift Complete**.

7. Continue to the next sub-block or exit the setup mode.

Serial Test Sub-block

The Serial Test sub-block tests the serial I/O ports. You can transmit a test string of data to a designated port, or you can receive a string of input data. The input data scrolls across the lower display as received. You may see special characters representing control characters in the test string. This serial test is useful in installation and terminal and hardware diagnostics.

1. Press ENTER at the **Serial Test** prompt to test serial ports.
2. At the Test **COM Port?** prompt, press SELECT to choose the serial port you wish to test (COM1 or COM2).

   The terminal can test only COM ports that are physically available on your Jaguar. You cannot test remotely located ports.

   The lower display reads [Testing COMx:] until a serial input is received. When input is received, the characters are displayed in the lower display. The Jaguar is constantly outputting the string [Testing COMx: NN] where x is the COM port number and NN is a transmission number beginning at 00 and counting through 99.

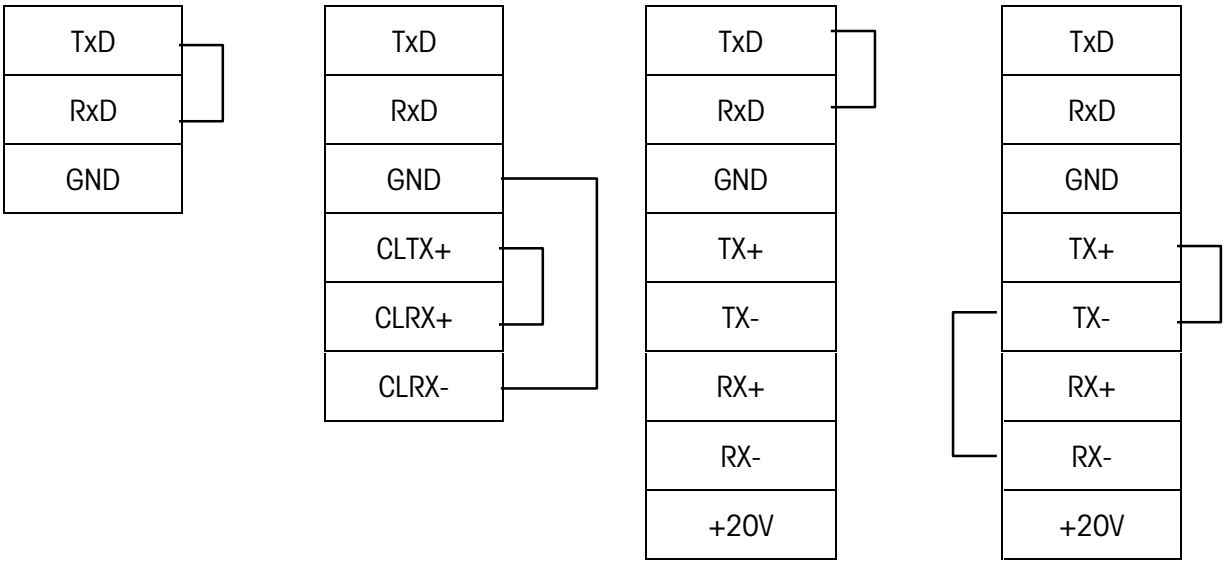
   The serial test cannot test COM2 if it is associated with a DigiTOL scale. In this case, change the DigiTOL scale type to Analog or None through the Scale Interface program block before performing a serial test.

   If a jumper wire is placed between the transmit and receive terminals on the serial port being tested, you can test both the input and output of a port and view the string of data being transmitted on the lower display.

   The following diagram shows how to connect the output to the input for both serial ports and all types of communication.

After testing, remember to change the scale type back to DigiTOL and verify that calibration is correct by applying weight to the scale.

COM1	COM2 and COM4	COM2 and COM4
RS-232		
20 mA	RS-232	RS-422



3. Press ESCAPE to exit the serial test when you are finished.
4. Repeat steps 2 and 3 to test additional COM ports.
5. Continue to the next sub-block or exit the setup mode.

Parallel I/O Test Sub-block

The Parallel I/O Test sub-block tests the discrete I/O ports. The test can "turn on" each output and monitors inputs. The parallel I/O test is useful in installation and terminal and hardware diagnostics. See Appendix 2 of the Service Manual for more information on parallel I/O ports.

1. When you enter the Parallel I/O test, the !WARNING! message is flashed on the display four times. Then, the prompt "Are You Sure?" is displayed. Select Y to continue or N to exit the test.
2. At the Test Par Port prompt, select the desired port to test. The terminal only offers parallel ports that are physically available on your Jaguar.

⚠ WARNING

This test allows you to turn the outputs ON and OFF from the Jaguar Terminal keyboard. It is totally unrelated to the weight. If electrical equipment is connected to the output of the Jaguar during this test, it may start automatically. Make sure that all appropriate precautions have been taken to prevent personal injury during this test. Mettler Toledo suggests unplugging the Discrete I/O connector from the rear of the Jaguar and using LED's or a volt meter to verify correct operation of these outputs.

PAR 1 or PAR 3 (Discrete Input)

The display will read [PAR 1 = FFFF] or [PAR 3 = FFFFFFFF] indicating that the four or eight discrete inputs are all false or "OFF". When one of the inputs is held to logic ground for 100 ms or longer, the "F" will change to a "T" to indicate a true or "ON" condition.

- When done, press ESCAPE to exit the test routine for the discrete inputs.

PAR 2 or PAR 4 (Discrete Output)

The display will read [PAR 2 = 0000] or [PAR 4 = 00000000] indicating that the four or eight setpoint outputs are all logic 0 or "OFF". The first digit will be blinking indicating that output 1 is the active output to be changed for test.

- To turn this output on, press the number "1" key. Pressing "0" returns this output to the "OFF" condition. To move to the next output (output 2), press SELECT. The second digit now blinks. Each of the four setpoint outputs can be turned "ON" or "OFF" using this method.
- When done, press ESCAPE to exit the test routine for the discrete outputs.

3. Press ESCAPE to exit the parallel I/O test and continue to the next sub-block, or exit the setup mode.

Network Test Sub-block

This sub-block tests the network connections. The test is done by first displaying the number of the local terminal, then requesting and receiving the node number and type of all other active nodes on the network.

1. Press ENTER at the **Network Test** prompt. The terminal automatically acquires the local network connection information. Connection information is displayed in the lower display area as follows:

   This is node x refers to the local Jaguar being tested.
   Node x Connected where "x" is the address of the next Jaguar in the network.

   This process continues until all active nodes in the cluster have been identified then the display sequence will start over again.

2. To end the test, press ESCAPE.
3. Continue to the next sub-block or exit the setup mode.

You must configure a network giving access to other Jaguars in order for the Network Test to identify other terminals. See Appendix 3 for more information on networking.

Send BRAM to Jag Sub-block

This sub-block allows you to send the Shared Data BRAM parameters from one Jaguar to another Jaguar over the ARCNET LAN. You can setup the BRAM parameters on one Jaguar and duplicate them on another. Scale calibration parameters are NOT sent.

1. Press ENTER at the **Send BRAM to Jag** prompt.
2. Select the appropriate node and press ENTER.

Print Setup Sub-block

The Print Setup sub-block prints the terminal setup information as it is defined in the program blocks. It may be useful to have a hard-copy of each

terminal's setup parameters as back-up.

Print setup data will be sent out the port that has been selected for demand output. If a network port has been selected, the data is sent through that port.

1. Press ENTER at the **Print Setup** prompt, then press ENTER again at the **Print?** prompt if you wish to print the setup parameters as defined in the program blocks for this Jaguar. If you do not want to print the setup, press ESCAPE.

   Setup data is printed in a 40 column format that is compatible with the Mettler Toledo 8856 Strip Printer. A standard 80 column printer will also work. Label printers are not acceptable devices for printing this information since there are many lines of data.

2. Press ENTER at the Reset to Factory prompt to continue or exit the setup mode.

If a Mettler Toledo model 8886 is used at 9600 baud, connect both TXD and RXD lines. Configure the port for XON/XOFF operation.

Reset to Factory Sub-block

The Reset to Factory sub-block in this program block differs from other blocks. Because this program block has no unique parameters to set, **Reset to Factory performs a master reset which returns all of the parameters for all blocks to their original settings.**

To perform a master reset:

1. Press ENTER at the **Reset to Factory** prompt.
2. Select Y at the **Are You Sure?** prompt to confirm your intention to reset, or select N to exit without resetting all parameters.

   If Y(es)

   - At the **Reset Calib?** prompt, select the default N to reset all parameters except calibration. Select Y to reset all parameters **including** the scale calibration parameters.

     If you choose to reset the calibration values, the current scale capacity, increment size, and span and zero values will all be lost and scale recalibration will be required.

     The Jaguar displays the message **Performing Reset** and all parameters are returned to factory settings.

3. After resetting, the Jaguar will perform its normal power-up sequence.

Options Program Block

Jaguars with a PLC Interface Module installed have an additional program block for its configuration. The Jaguar is available with either an Allen-Bradley RIO, PROFIBUS, or Dual Analog Output Module. This program block will not appear if one of these options is not installed.

For specific details on these interfaces and how they may be configured, please refer to the Jaguar PLC and Analog Output Interface Service Manual (P/N 14884200A).

Error Codes and Actions

The following table lists the Jaguar's error messages, probable cause, and remedy.

Error Message	Description	Probable Cause	Remedy
AB_BAD_DISP_MODE	Bad Display Mode Command in Allen-Bradley Block Transfer Message.	PLC Programming Error.	Correct PLC Program.
AB_BAD_FLD_NAME1	Bad Shared Data Field Name in field 1 of Allen-Bradley Block Transfer Message.	PLC Programming Error.	Correct PLC Program.
AB_BAD_FLD_NAME2	Bad Shared Data Field Name in field 2 of Allen-Bradley Block Transfer Message.	PLC Programming Error.	Correct PLC Program.
AB_BAD_FLD_NAME3	Bad Shared Data Field Name in field 3 of Allen-Bradley Block Transfer Message.	PLC Programming Error.	Correct PLC Program.
AB_BAD_FLD_NAME4	Bad Shared Data Field Name in field 4 of Allen-Bradley Block Transfer Message.	PLC Programming Error.	Correct PLC Program.
AB_WRITE_DISABLE	PLC attempted to write a Shared Data Field that is write protected. When the Jaguar is in legal- for-trade mode, restricted Shared Data fields cannot be written.	PLC Programming.	If necessary, you can access restricted parameters by removing the Legal for Trade jumper.
ALC_EE_CHKSM_ER	A Checksum Error was detected in accessing the Scale Calibration parameters on the Analog Load Cell Card.	Static, power problems, inductive noise. Bad EEPROM.	Reset to Factory in Scale Interface Menu. Recalibrate scale. If problem persists, replace the Analog Load Cell card.
ALC_EE_NO_ACCESS	Jaguar cannot access Scale Calibration parameters on the Analog	You have configured the Jaguar for a nonexistent Analog L/C card; the	Check your configuration; check the jumpers on the L/C card; reseat the L/C card. If none of

Error Message	Description	Probable Cause	Remedy
	Load Cell card.	Analog L/C card is not jumpered properly; the Analog L/C is not seated properly; or the Analog L/C card is not working.	these actions correct the problem, put in a new Analog L/C card.
ALC_EEPROM_ERROR	Analog L/C EEPROM memory error.	Static, power problems, inductive noise. Bad EEPROM.	Re-power and recalibrate. Check for good power, suppress noise; take static precautions. Replace Analog PCB.
ALC_EPROM_ERROR	Analog L/C EPROM memory error.	Defective Analog PCB.	Replace appropriate Analog PCB.
ALC_MELSI_ERROR	Analog load cell A/D error.	A/D error has occurred.	Re-power the unit. Check with weight simulator. If error persists, replace Analog PCB.
ALC_NO_RESPONSE	Analog load cell A/D communications error.	A/D error has occurred.	Re-power the unit. Check all ALC jumpers. Check with weight simulator. If error persists, replace Analog PCB.
ALC_RAM_ERROR	Analog load cell A/D RAM error.	Static, power problems, inductive noise. Bad Analog PCB.	Re-power and recalibrate. Check for good power, suppress noise; take static precautions. Replace Analog PCB.
ALC_RESPONSE_ERR	Analog Load Cell A/D communications response error.	Internal Error.	Re-power the unit. Check with weight simulator. If error persists, replace Analog PCB.
ALC_UNDEFINED_ERR	Analog Load Cell A/D undefined error.	Analog load cell A/D memory error has occurred.	Verify programming and jumpers for Analog PCB are correct. If error persists in software prior to "B" revision, upgrade software to "C" revision or later.

ARCNET_BAD_ADDRS ARCNET_DUP_ADDRS	You have configured the Arcnet address jumpers with either a duplicate address with another node on the network or an illegal Arcnet	The Arcnet address jumpers are not set up properly.	Check network address jumpers on main controller card.

Error Message	Description	Probable Cause	Remedy
	address.		
ARCNET_TEST_ERR	The standard power up testing of the Arcnet adapter failed.	Arcnet Adapter Failure.	Re-power up the Jaguar. If problem persists, replace the controller card.
BAD_NUMBER_CELLS	The Jaguar has been configured with an illegal number of load cells in a Power Cell scale or DJ-Box scale.	Improper Setup.	Check number of load cells configured for both scales. Correct the setup.
BRAM Bad - Rst?	Battery backed RAM error.	Setup parameters in Battery Back RAM have been corrupted. Most likely causes are too long of storage for Jaguar, power has been removed from Jaguar memory too long, battery failure, or hardware failure.	Respond Y(es) to reset to factory settings. Reprogram setup parameters. If problem persists, you may have to replace battery, power supply, or controller card.
BRAM CKSUM ERROR	Setup variables corrupt.	Electrical malfunction. Power has been removed from the Jaguar memory too long. The battery and super-cap on the controller card has been drained.	Press ENTER key to continue. Check setup parameters for desired settings.
BRAM Err - Rst? Y (Will appear during power-up sequence only after loading new software.) BRAM VERSION ERR	Different program version detected. Storage locations for setup para- meters and memory locations have been moved in a new software update.	New software version has been downloaded to Jaguar.	Press ENTER to accept the reset default Y response. All parameters will be reset to factory default values. Reprogram Jaguar setup parameters.
CALIBRATION_ERR	Calibration error.	The most likely cause is an improper setup or cali- bration sequence. Another possible cause is a bad load cell.	Check wiring. Check with simulator. Check load cell and recalibrate. Verify calibration setup parameters.
Can't redim. var	JagBASIC programming error.	Once a JagBASIC application has declared a variable or an array, it can not later be redimensioned to a different size array.	Correct JagBASIC program.
CHANGE PWCEL ERR	There was an error when	Communications error	Run the cell diagnostics to verify

Error Message	Description	Probable Cause	Remedy
	attempting to change a Power Cell address.	with Power Cell.	what the Power Cell address. If it is still at its old address, try changing the address again. If the problem persists, you may have to replace the Power Cell.
CLEAR_TARE_AT_0	According to the scale setup parameters, the scale must be at gross zero in order to clear tare.	If you select Tare Interlock, the scale must be at gross 0 in order to clear tare.	Check you local Legal For Trade requirements. If you don't want this feature, turn off the Tare Interlock selection.
Command error	An error occurred in trying to access a file from the JagBASIC interpreter.	Most likely, you tried to access a file that does not exist. It is also possible that the file system has been corrupted.	Use the DIR command from the JagBASIC Interpreter to verify the directory of the RAM disk. If the file system has been corrupted, you need to re-initialize it from the JagBASIC setup menus and rebuild it from the backup files you are maintaining on a PC.
BRAM Power Fail!	Jaguar detected low power supply voltage while attempting to write permanent data to BRAM Shared Data.	You have either an early version of the Jaguar power supply or you have a bad power supply.	Upgrade the power supply on the Jaguar with the latest version of the power supply.
CONECT_NOT_ FOUND	Serial connection not found.	Improper serial setup.	Reset serial programming block to factory defaults. Reprogram serial setup parameters.
CTL_EE_CHKSM_ERR	Checksum error on accessing the EEPROM on the Controller Board. This EEPROM holds the calibration parameters for single-cell DigiTOL and DJBox scales.	Electrical noise, static discharge, or bad EEPROM chip.	Recalibrate DigiTOL scale. If problem persists, replace the EEPROM on the controller board or replace the controller board itself.
CTL_EE_NO_ACCESS	Physical error on accessing the EEPROM on the Controller Board. This EEPROM holds the calibration parameters for single-cell DigiTOL and DJBox scales.	Hardware malfunction.	Power down/up the Jaguar. If problem persists, replace the EEPROM on the controller board or replace the controller board itself.
DEST_NOT_CONNECT	The remote Jaguar that is the destination for a cluster communications	The remote Jaguar that is the destination for a cluster communications	Verify network setup; verify Arcnet wiring, addresses, and terminations.

Error Message	Description	Probable Cause	Remedy
	message is not connected.	message is not connected.	
Device error	JagBASIC programming error.	The JagBASIC program has referred to an illegal device or a device that is not open.	Correct the JagBASIC program.
DIM not array	JagBASIC programming error.	The JagBASIC program has attempted to dimension a variable that is not an array.	Correct the JagBASIC program.
Divide by zero	JagBASIC programming error.	The JagBASIC program has attempted to divide a number by zero.	Correct the JagBASIC program.
DLC_ERR_NO_COMM	No communication or an intermittent communic- ation failure to the DigiTOL load cell.	Bad DigiTOL base, Interconnect cable, or serial port.	Check voltages. Check with simulator. Verify serial output port. Check cable/cell.
DLC_BAD_PROTOCOL	The Jaguar has detected a bad protocol exchange with a DigiTOL load cell.	Noise being generated on cable between Jaguar and DigiTOL load cell.	Check cabling, grounding, and connections at Jaguar and at DigiTOL base.
DLC_INVALID_CHNL	DigiTOL load cell invalid channel.	Communications port assigned to the DigiTOL load cell is invalid.	Check COM port selection in setup. If setup appears correct, reset Jaguar to factory setup. Reprogram the setup parameters.
DLC_PARITY_ERROR	Parity error has been detected in communic- ation between Jaguar and DigiTOL load cell.	Possible bad load cell, incorrect wiring, or electrical interference.	Check DigiTOL base, wiring, grounding, and power source.
EE A CErr - Rst? Y EE B CErr - Rst? Y	EEPROM Checksum Error. The scale calibration parameters stored on the EEPROM have been corrupted.	Hardware Failure.	Press ENTER to accept the reset default Y response. You must recalibrate Jaguar scale.
EE A VErr - Rst? Y EE B VErr - Rst? Y EE VERSION ERROR	The version number in the EEPROM does not match the version expected by the Jaguar operating system.	The Jaguar scale was calibrated with an earlier version of the Jaguar operating system.	Press ENTER to accept the reset default Y response. You must recalibrate Jaguar scale.
EE Reset Error	An attempt to access the EEPROM for the selected	Usually this is caused by an improperly configuring the Jaguar	Check your scale configuration in setup. You may have to do Reset to Factory. Try reseating

Error Message	Description	Probable Cause	Remedy
	scale has failed.	with nonexistent scale devices. It can be also be caused by an improperly seated scale board or a hardware malfunction on the scale board.	the boards. If these efforts fail, replace the scale board.
EF	Functional error in the weighing cell of an MMR (IDNET) base.	Static, power problems, inductive noise or unexpected operation.	Press the ESC key to continue. Take steps to eliminate probable cause.
EL	A command transmitted to an MMR (IDNET) base has been received, but cannot be executed.	Static, power problems, inductive noise or unexpected operation.	Press the ESC key to continue. Take steps to eliminate probable cause.
END_OF_FILE	End of File encountered while reading Shared Data.	End of File encountered while reading Shared Data.	None.
END_OF_SHIFT_ADJ	Last load cell or pair completed during shift adjust procedure.	Last load cell or pair completed during shift adjust procedure.	None.
ERROR in line	JagBASIC programming error. This message indicates the line in which the error occurred.	JagBASIC programming error. There will also be an error code indicating the type of programming error.	Correct the JagBASIC program.
ES	A command or string transmitted to an MMR (IDNET) base has been received, but is not a recognized command.	Static, power problems, inductive noise or unexpected operation.	Press the ESC key to continue. Take steps to eliminate probable cause.
ET	A transmission to an MMR (IDNET) base was received with a transmission error such as a parity, stop- or start-bit, or UART overflow error.	Static, power problems, inductive noise or unexpected operation.	Press the ESC key to continue. Take steps to eliminate probable cause.
Event def error	JagBASIC programming error.	There is a programming error in defining an event.	Correct JagBASIC program.

Error Message	Description	Probable Cause	Remedy
File open failed	JagBASIC programming error.	Most likely, the JagBASIC program has attempted to open a nonexistent RAM disk file or serial communications device.	Correct JagBASIC program.
FOS_RESP_TIMEOUT	The Formatted Output Server (FOS) generates demand print and continuous print messages. They may be directed to a local or remote serial port. This error occurs when the FOS does not receive a response serial port driver within a specified amount of time.	This error usually occurs when print data is directed to a remote serial port. If the Arcnet LAN is disconnected while the FOS is waiting for a response, this error may occur.	Check Arcnet wiring.
IDN BUFF OVRFLOW	Excessive data.	Unexpected operation.	Power down, then up. If error still occurs, reset Jaguar to Factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
IDN EPROM ERROR	Damaged EPROM chip.	Electrical malfunction.	Replace IDNet PCB.
IDN NO RESPONSE	No response from base.	Bad wiring or pcb(s).	Check wiring. Replace IDNet PCB. Replace IDNet base.
IDN RAM ERROR	Damaged RAM chip.	Electrical malfunction.	Replace IDNet PCB.
IDN RESPNSE ERR	Unexpected response.	Unexpected operation.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
Illegal command	JagBASIC programming error.	The JagBASIC program has issued a command that is not a legal command.	Correct the JagBASIC program.

Error Message	Description	Probable Cause	Remedy
ILLEGL_QUAR_RACK	An illegal quarter rack value has been specified for the Allen-Bradley RIO option.	Invalid setup.	Check the Allen-Bradley setup.
Incomplete line	JagBASIC programming error.	The JagBASIC program contains a line that does not have the full syntax required for a line.	Correct JagBASIC program.
INCRM_CHAIN_TARE	A decreasing chain tare was attempted in a market where only incremental chain taring is permitted.	Chain taring that causes a decrease in the tare weight is not permitted in some markets in legal-for-trade applications. An incre- mental chain tare is a new tare on top of an already existing tare value where the new tare value is greater than the old tare value.	Check the market setting in setup. Check the "tare interlock" setting in setup. Check the legal-for-trade jumper on the controller board. Verify that these are set properly.
Internal Errors 1 Through 13	Various errors.	Programming failure, hardware failure.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041. Replace controller or Analog PCB.
Invalid device #	JagBASIC programming error.	The JagBASIC program is referencing a device # that is not open.	Correct the JagBASIC program.
Invalid SD name	JagBASIC programming error.	The JagBASIC program is referencing an invalid Shared Data name.	Correct the JagBASIC program.
INVALID_FILE_NAME	There was an attempt to access Shared Data with an invalid file name.	This could be caused by an internal or external access of Shared Data.	Try to determine if an internal or external access caused the error. If an external access is causing the error, then correct the PLC or Host PC program.

Error Message	Description	Probable Cause	Remedy
			If an internal source appears to be causing the problem, power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
LADDER_EMPTY	Discrete I/O setup error.	User attempted to delete a rung from the ladder that is empty.	Reset discrete configuration to factory and setup discretes again.
LADDER_FULL	Discrete I/O setup error.	User attempted to add a rung to the ladder that is already full.	Reset discrete configuration to factory and setup discretes again.
Line # invalid	JagBASIC programming error.	The JagBASIC program contains a line number that is greater than 30000 or is a duplicate of an existing line number.	Correct the JagBASIC program.
Line too big	JagBASIC programming error.	The size of a JagBASIC line is greater than 80 characters.	Correct the JagBASIC program.
LOAD::no filename	JagBASIC programming error.	The LOAD command does not contain a file name.	Correct the JagBASIC command.
Memory find fail	JagBASIC programming error.	The JagBASIC program has exceeded the memory limits of the system.	There are many ways to reduce the memory usage of a JagBASIC program. Reduce the number of lines. Eliminate unnecessary spaces in the program. Reduce the number of variables. Reduce the size of the arrays. When chaining JagBASIC programs, you should always load in the largest program first. This will reduce memory fragmentation.
NETWORK_XMIT_ERR	Arcnet communications transmission error.	Faulty Arcnet addresses, wiring, line termination, or adapter.	Check the Arcnet wiring for bad connections, wiring breaks, or improper line terminations.
NEXT without FOR	JagBASIC programming error.	There is a NEXT statement without the required FOR statement.	Correct JagBASIC program.

Error Message	Description	Probable Cause	Remedy
No line number	JagBASIC programming error.	The program line does not have a line number.	Correct JagBASIC program.
No Remote Access	JagBASIC programming error.	The program is attempting to access a device that is already in use by a serial connection or by another JagBASIC program in the Jaguar cluster.	If you want to access a serial device, you must remove all serial connections to the device in setup. If you want to share a serial device among JagBASIC programs, you must set up a scheme where only one program has the device open at a time.
No Scale A Type No Scale B Type	Scale type definition is missing.	No scale type entered in Scale Interface menu.	Go to the "Scale Interface" setup menu and properly set the scale type.
NO_CHAIN_TARE	User attempted to take a second or "chain" tare after a tare was already taken.	When the tare interlock is selected in setup, chain taring is illegal in certain markets.	Check the local "legal for trade" requirements. Check the market selection and tare interlock settings in setup. The system will continue to operate properly but will not allow the chain tare.
NO_DISCRETE_CBCK	There are no more discrete callback structures available.	The setup of this system and the JagBASIC application has exceeded this system limit.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
NO_DMD_PRNT_CON	There is demand print connection configured in setup.	No demand print entered in the "Config Serial, Configure Port" menu.	Change setup parameters.
NO_KEYBOARD_TARE	Keyboard tare disabled.	Keyboard Tare is disabled in the "Application Envn,Tare Operation" setup menu.	Change setup parameters to enable this feature.
NO_PUSHBUTT_TARE	Pushbutton tare disabled.	Pushbutton Tare is disabled in the "Application Envn, Tare Operation" setup menu.	Change setup to enable this feature.

Error Message	Description	Probable Cause	Remedy
NO_PWCEL_OLD_ADR	Power Cell readdressing error.	When readdressing a Power Cell, no Power Cell was found at the specified old address. This problem could also be caused by a entering an invalid address or by a Power Cell communications error.	Run the cell diagnostics to verify the Power Cell address. If the cell is at its old address, try changing the address again. If the problem persists, you may have to replace the Power Cell.
NO_SECOND_UNITS	Secondary units not specified.	No secondary units selected in "Application Envn, Alt Weight Units" mode setup.	Change setup to enable the feature.
ON no GOSUB	JagBASIC programming error.	ON statement is present without required GOSUB.	Correct JagBASIC program.
Oper. File Error	Cannot read language messages file.	Unexpected operation.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
OPTION BASE->DIM	JagBASIC programming error.	The JagBASIC program must define the OPTION BASE before dimensioning an array.	Correct JagBASIC program.
Out of data	JagBASIC programming error.	The JagBASIC program has issued more READ commands to initialize system variables than there is data specified in DATA statements.	Correct JagBASIC program.
OUT_OF_COMM_BUFS	Cluster communications error.	The system has exceeded the fixed limit on the number of communication buffers that can be used at one time. Most likely one Jaguar is sending messages to a second Jaguar faster than the second Jaguar can process them.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
OUT_OF_MEMORY	The Jaguar software cannot get the dynamic	The system is using more dynamic "heap" memory	There are many ways to reduce

Error Message	Description	Probable Cause	Remedy
	memory it needs to continue running.	than is available or the heap memory has become fragmented.	the system memory usage. Reduce the size of a JagBASIC program. Eliminate unnecessary spaces in the program. Reduce the number of variables. Reduce the size of the arrays. When chaining JagBASIC programs, you should always chain in the largest program first. This will reduce memory fragmentation. Eliminate unused network connections, serial connections, and printer templates.
OUT_OF_ZERO_RANG	Operator has attempted to zero the scale outside of the legal zeroing range.	The zeroing limits are set up in the "Application Envn, Zero Operation" menu.	Change zeroing range in setup, if necessary.
Overflow	JagBASIC programming error.	A JagBASIC program causes an overflow error by exceeding certain system limits. In particular, the maximum size of the "gosub" stack, the "for-next" stack, and the "while-wend" stack is 9 entries each. Then, for example, if you try to nest subroutines more than 9 entries deep, you will get an Overflow error. Overflow errors can also be caused by particular language syntax errors.	Correct JagBASIC program.
PLC_COMM_ERROR	There was a timeout in the communications between the Jaguar and a PLC. This error is only reported after there has been a successful connection and the communication subsequently fails.	The most likely cause is improper wiring or wiring termination. A fault at the PLC can also cause this error. Entering and exiting setup at the Jaguar can also cause this error because the PLC adapter is reset.	Check wiring and wiring terminations. Verify PLC operation. Note: The Jaguar will automatically recover communications after an intermittent failure.

Error Message	Description	Probable Cause	Remedy
Prbus config err	Attempts to configure the Profibus card failed.	Most likely, this error is caused by a Profibus card hardware failure.	If problem persists, replace the Profibus card.
PRINT REQUESTED	The operator has requested a Demand Print through the Control Panel.	None.	None.
PRINT_IN_PROGRES	The operator has requested a second demand print while the first is in progress.	None.	None.
PRINT_NOT_READY	Scale is in motion while attempting to print.	None.	None.
Profbus init err	The Profibus card could not be initialized.	Bad Profibus card.	Replace Profibus card.
Program too big	JagBASIC programming error.	First problem: The program exceeds 300 text lines or 15KB. Second problem: This error can also occur while you are typing in a JagBASIC program at they Jaguar when the temporary program buffer becomes full.	For the first problem, separate the program into smaller files that can be run independently or chained together. When chaining, always start execution with the largest program to avoid memory fragmentation. For the second problem, save the current program and load it in again. This will cause a larger temporary program buffer to be allocated.
PWC_PROTOCOL_ERR PWC_TIMEOUT_ERR PWC_UNDEFIND_ERR PWC_BUFF_OVFLOW	Communication Error between controller card and Power Cell card.	Bad Power Cell card.	If error persists, replace the Power Cell card.
PWC_CHECKSUM_ERR	Checksum error on firmware on Power Cell card.	Bad Power Cell card.	If error persists, replace the Power Cell card.
PWC_EEPROM_ACCES	Unable to access EEPROM on Power Cell card.	Bad Power Cell card.	If error persists, replace the Power Cell card.
PWC_EEPROM_ERR PWC_EEPROM_CHECK	Checksum error on power scale calibration data stored on EEPROM on Power Cell card.	New version of Jaguar software. Hardware failure caused corruption of EEPROM	Recalibrate scale. If problem persists, replace the Power Cell card.

Error Message	Description	Probable Cause	Remedy
		data.	
PWC_NO_ERROR PWC_NO_ERROR2	None.	None.	None.
PWC_RAM_ERR	RAM memory error on Power Cell card.	Bad Power Cell card.	If error persists, replace the Power Cell card.
PWCEL_AT_NEW_ADR	You attempted to re-address a Power Cell to a new address that already exists on the Power Cell network.	Your addressing procedure for the Power Cells has created duplicate addresses.	Recheck your addressing scheme. If necessary, reset all Power Cell addresses to the factory default address of 240. Begin addressing the cells again. Use the AutoAddresss capability to minimize addressing errors.
PWCEL_BAD_FMT	The format of the data from the remote Power Cell is invalid.	Most likely, this is a communication error or power supply problem for the remote Power Cells. Bad remote Power Cell.	If problem persists, validate wiring, line terminations, and power in the Power Cell network. Replace the remote Power Cell, if necessary
PWCEL_EEP_ERR	The remote Power Cell has reported a checksum error in its EEPROM.	Bad remote Power Cell.	Replace remote Power Cell.
PWCEL_NEG_RNG	The weight reported by a remote Power Cell is in the negative weight range.	Bad remote Power Cell.	Replace remote Power Cell.
PWCEL_NO_DATA	No weight data is being reported by a remote Power Cell.	Most likely, this is a communication error or power supply problem for the remote Power Cells. It could also be caused by a bad remote Power Cell.	If problem persists, validate wiring, line terminations, and power in the Power Cell network. Replace the remote Power Cell, if necessary
PWCEL_NO_RESP	The remote Power Cell is not responding to polls from the Jaguar.	Most likely, this is a communication error or power supply problem for the remote Power Cells. It could also be caused by a bad remote	If problem persists, validate wiring, line terminations, and power in the Power Cell network. Replace the remote Power Cell, if necessary

Error Message	Description	Probable Cause	Remedy
		Power Cell.	
PWCEL_ROM_ERR PWCEL_RAM_ERR	The remote Power Cell is reporting an error in its local memory.	Bad remote Power Cell.	Replace remote Power Cell.
PWCEL_RESTART	The Jaguar has restarted a remote Power Cell after the Power Cell has not responded with valid data.	Most likely, this is a communication error or power supply problem for the remote Power Cells. It could also be caused by a bad remote Power Cell.	If problem persists, validate wiring, line terminations, and power in the Power Cell network. Replace the remote Power Cell, if necessary
Record not found	JagBASIC programming error.	A record specified in GET statement for an indexed sequential file could not be found in the file.	There should be an ON ERROR statement in the JagBASIC program to handle these potential situations.
REPORT NET ERR	There was a network error in attempting to print a demand print, continuous print, or setup report.	This error typically occurs when the demand print or continuous print is directed to a remote Jaguar. It occurs when Arcnet network messaging fails.	Check network setup, addresses, wiring, terminations, and connections.
Resource in use	JagBASIC programming error.	The JagBASIC applic-ation tried to access a system resource that is already in use by another Jaguar task. In particular, a JagBASIC application cannot open a serial port that has been assigned to a serial port connection in setup. Also, when two or more JagBASIC applic- ations are sharing a remote serial port, only one application can have the port open at a time.	Correct JagBASIC applic- ation. To share remote serial ports between multiple JagBASIC applications, you will have to develop sharing logic that checks for this specific error code.
RETURN no GOSUB	JagBASIC programming error.	RETURN statement is present without required GOSUB.	Correct JagBASIC application.

Error Message	Description	Probable Cause	Remedy
SCALE_IN_MOTION	Scale in motion. This is a normal occurrence and not necessarily an error.	Motion on the scale during taring or zeroing the scale.	Try mechanical methods to stabilize the scale base first. Then, try changing the filtering to a stiffer setting in setup. Then, try changing the motion stability settings to make it less sensitive.
SCALE_UNDER_ZERO	The scale gross weight has gone more than "n" divisions below the current zero. The default "n" is 5, but it can be adjusted in setup.	The zero value for the scale could have been reset by hitting the zero button. There could be a connection problem to the base, particularly, with an analog base.	Take all weight off the scale base and reset the zero value. Zero settings in setup determine the range of how far from the calibrated zero that you can set a new zero value. If your weighing process uses below zero weight values, you can disable the under zero by setting the zero blanking value to 99 divisions. Check the analog base wiring.
SCL_OVERCAPACITY	The weight on the scale exceeds the calibrated capacity of the scale by more than 5 divisions.	There is too much weight on the scale based on calibration parameters.	Reduce the weight on the scale.
SD string > max.	JagBASIC programming error.	JagBASIC can only access Shared Data fields whose length is less than the maximum JagBASIC string size of 80 bytes.	Correct JagBASIC program.
SD_BAD_BUFFER	There was an invalid access to Shared Data.	A Shared Data access request provided a buffer that is not long enough.	Make sure that the external agency is providing a large enough buffer to match the requested Shared Data field.
SD_WRITE_DISABLE	There was an invalid access to Shared Data.	An external agency attempted to access a protected Shared Data field in legal-for-trade mode.	Check external agency program.

Error Message	Description	Probable Cause	Remedy
SER CONST ERROR	The Jaguar could not start or restart a logical serial connection.	Jaguar software error.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
SER_BUFFER_FULL	The Jaguar demand print buffer is full.	Jaguar software error.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
SER_IN_TIMEOUT	There was a timeout waiting for serial input.	Most likely, the serial device talking to the Jaguar is has not sent the required input to the Jaguar. This could also be caused by communication errors.	Verify message exchange between Jaguar and serial device.
SER_MSG_SEQ_ERR	There was an error in the sequencing of demand print messages.	Most likely, when one Jaguar is printing at a remote Jaguar, a message was lost in the Arcnet communications.	If problem persists, check Arcnet wiring, terminations, and connections.
SERIAL_MSG_ERROR	The Serial Services software modules got an invalid request.	Jaguar software error.	Power down, then up. If error still occurs, reset Jaguar to factory settings and reprogram setup parameters. If problem still occurs, print out setup parameters and JagBASIC program and fax to 1-800-786-0041.
SETPOINT_NO_RATE	The user has configured a rate setpoint, but has not configured rate calculation.	The user has not configured the rate calculation.	Configure the rate function in the Alternate Weight Units sub-block.
SHIFT_ADJUST_ERROR	The shift adjustment factors could not be calculated.	The weight placements during the shift adjust procedure was incorrect.	Carefully redo the shift adjustment, perhaps, with bigger weights.

Error Message	Description	Probable Cause	Remedy
SPX_NET_ERROR	SPX returned a network error status.	Most likely, there is a problem with the Arcnet wiring.	Check the network setup, wiring, connections, addressing, and terminations.
Syntax error	JagBASIC programming error.	The JagBASIC program has a syntax error.	Correct the JagBASIC program.
TARE_ABOVE_LIMIT	Tare value exceeds the allowed limit.	In a legal for trade environment in certain markets, the tare value cannot exceed the highest weight in the lowest range of a multi-range scale.	Check local legal-for-trade requirements.
TARE_NOT_IN_INCR	Keyboard Tare is not entered in a rounded value to the nearest increment.	In certain markets, the keyboard tare value must be entered in as a value rounded to the nearest increment.	Make sure the keyboard tare value is rounded to the nearest increment.
TARE_OVER_CAPCTY	Tare exceeds the capacity of the scale.	The tare value cannot exceed the capacity of the scale.	Make sure that the tare value is less than the capacity of the scale.
TARE_TOO_SMALL	Pushbutton tare value is less than one division.	Weight on scale must be at least one division when taking Pushbutton tare.	Make sure scale has at least one division of weight before taking pushbutton tare.
TARE_UNDER_ZERO	Attempted to take tare when scale is under zero and has an invalid weight.	Cannot take tare when scale is under zero.	Make sure scale has valid weight before taking tare.
TEMPLATE_ERROR	Template error.	Error detected in template configuration.	Check template configuration. Correct it as necessary. If problem persists, reset template to factory and reenter template.
Too many dimens.	JagBASIC programming error.	JagBASIC arrays can have at most three dimensions.	Correct the JagBASIC program.
TOO_SMALL_INCRMT	Increment size is too small.	The scale increment size is too small so that you are asking for more resolution than the scale base is capable of supporting.	Choose a larger increment size parameter in setup and recalibrate the scale.

Error Message	Description	Probable Cause	Remedy
Type mismatch	JagBASIC programming error.	The JagBASIC statement is using an invalid data type or is relating two incompatible data types.	Correct the JagBASIC program.
Undefined funct.	JagBASIC programming error.	The JagBASIC statement is referring to an undefined function.	Correct the JagBASIC program.
Value out range	JagBASIC programming error.	The JagBASIC statement is referring to a value out of the range of acceptable values.	Correct the JagBASIC program.
WRONG SCALE MODE	Zeroing scale in net mode.	User attempted to zero the scale in net mode.	Clear tare to put scale in gross mode before zeroing scale.
ZERO_NOT_CAPTURED	Tare attempted before power up zero value was captured.	Tare attempted before power up zero value was captured.	Wait a few seconds after power up before attempting a tare.