9182

Technical Manual

INTRODUCTION

This publication is provided solely as a guide for individuals who have received METTLER TOLEDO Technical Training in servicing the METTLER TOLEDO product.

Information regarding METTLER TOLEDO Technical Training may be obtained by writing to:

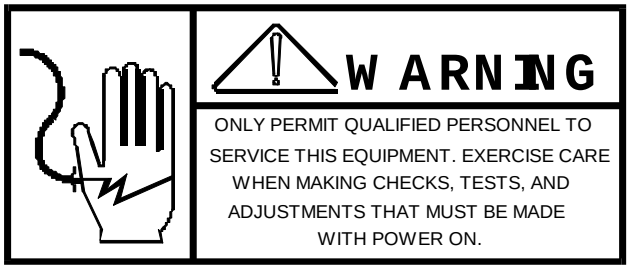
METTLER TOLEDO
Training Center
P.O. Box 1705
Columbus, Ohio 43216
(614) 438-4400

PRECAUTIONS

- **READ** this manual before operating or servicing this equipment.

- **ALWAYS REMOVE POWER** and wait at least 30 seconds **BEFORE** connecting or disconnecting any internal harnesses. Failure to observe these precautions may result in damage to, or destruction of the equipment.

- **ALWAYS** take proper precautions when handling static sensitive devices.



- **DO NOT** connect or disconnect a load cell scale base to the equipment with power connected or damage will result.

- **SAVE** this manual for future reference.

- **DO NOT** allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.

- **ALWAYS DISCONNECT** this equipment from the power source before servicing.

- **CALL** METTLER TOLEDO for parts, information, and service.

CONTENTS

1.0 GENERAL INTRODUCTION AND INSTALLATION

1.1 SERVICE INFORMATION & START-UP ASSISTANCE

Listed in the REFERENCE MATERIALS section of this Technical Manual are forms, Technical Manuals, and other published literature for specific Mettler Toledo equipment provided to Mettler Toledo by others. The publications listed have been provided, along with this Technical Manual as part of the Data Set for your system.

The services of a Mettler Toledo Service Technician are available for assistance with installation, start-up or maintenance. To obtain these services to assist with your service needs, contact your Mettler Toledo Sales Engineer, Mettler Toledo Service Office or your nearest Mettler Toledo Factory Authorized Distributor.

The following information should be available when contacting one of the above for support.

1. The name and telephone number of the person or technician is to contact.
2. Location of the equipment and plant address.
3. The Special Specification Number (SSN) and/or the Order Number (TON) of the controls system.
4. Purchase Order Number.

1.2 SOFTWARE PROGRAM SUMMARY

There are a number of software upgrades that have been made to this product. The following table summarizes the current software version supplies with a given nit is identified on the EPROMS contained on the alphanumeric display on power-up.

TSM860 - Basic unit for use with 8855 or 8843 printers
TSM861D - Advanced unit with SRAM PCB for use with 8855 or 8843 printers, also has selectable decimal point resolution.

NOTE: Custom versions with TSM numbers different than those listed above exist. Check special documentation and/or applicable addendum for details.

1.3 METTLER TOLEDO TECHNICAL TRAINING

Mettler Toledo offers comprehensive, professional instruction for your maintenance personnel. All courses are taught by full-time instructors, each with an extensive background in weighing systems and teaching methods. Complete and professionally prepared course materials are provided as part of all programs for permanent reference for each student. Mettler Toledo technical training provides practical hands-on trouble- shooting experience, along with the basic operating principles of Mettler Toledo weighing control equipment.

Convenient Location:
Mettler Toledo technical training courses are offered at our Worthington, Ohio (a suburb of Columbus) training center, conveniently located adjacent to the Mettler Toledo Worthington Plant. Air transportation to Columbus and local accommodations are readily available.

Customized In-Plant Training:
In addition to the pre-planned courses at our training center, we offer customized in-plant training which could well be the quickest, most cost-effective way to increase your operations up time and productivity.

Designed around your Mettler Toledo scale hardware and systems, the course curriculum contains ample amounts of foundation information to enable your personnel to utilize the practical troubleshooting and maintenance techniques presented during such a course.

Pricing and Scheduling Information:
Telephone: (614) 438-4400
Write to: Mettler Toledo Training Center
1150 Dearborn Drive
Worthington, Ohio 43085

1.4 SYSTEM INSTALLATION

GENERAL
The Mettler Toledo System should be inspected and installed in conformance with all instructions provided in applicable technical literature and drawings. Refer to System Drawings and Reference Materials Lists included with this manual.

STORING EQUIPMENT
For equipment being stored while awaiting installation, the most common dangers are the possibility of unintentional mechanical damage and effects of excessive moisture or condensation. The best protection is for the equipment to remain crated or covered by material provided for shipping. Desiccant drying agents will usually be included in control equipment shipments. The equipment should not be unpacked, except as may be required for inspection or ventilation, unit just before it is to be assembled or installed.

LOCATION OF EQUIPMENT
Control panels and cabinet assemblies should be located where exposure to severe environmental conditions, (dust, dirt, moisture, vibration, etc.) is minimal for the particular installation. Care should be taken to ensure sufficient space is provided around control and instrument panels to allow for adequate ventilation and easy access to cabinet interior through front and/or rear hinged panel doors.

Specific installation instructions for auxiliary and/or accessory equipment used in the system will normally be contained in application literature provided for that particular equipment.

WIRING AND POWER CONNECTIONS
Complete internal and external wiring and interconnection drawings and data are provided for each system. Special wiring instructions are included when necessary. All wiring diagrams are self-explanatory. In making connections, however, the user is advised to observe the procedures and necessary precautions which apply to customers specific industrial application.

Power for operation of the system is usually supplied through one or more power supplies and a power distribution panel mounted in the main control cabinet. Power supply voltage must be within the limits specified for the system. Separate circuit breaker and motor starter panel are often provided for larger systems where various equipment drive motors are required.

FACTORY ASSISTANCE
The services of a Mettler Toledo Service Technician are available for assistance with installation, start-p or maintenance. To obtain these services to assist with your service needs, contact your Mettler Toledo Sales Engineer, Mettler Toledo Service Office or your nearest Mettler Toledo Factory Authorized Distributor.

The following information should be available when contacting one of the above for support.

1. The name and telephone number of the person or technician is to contact.
2. Location of the equipment and plant address.
3. The Special Specification Number (SSN) and/or the Order Number (TON) of the controls system.
4. Purchase Order Number.

1.5 EXTERNAL WIRING INSTALLATION INSTRUCTIONS

1. Operating voltage to be 115V, 60 Hertz (unless otherwise specified) isolated, noise-free, well regulated power source furnished by others. Mettler Toledo recommends a harmonic-free isolation transformer. Transformer shall be sized such that at least 20% of nameplate VA rating will be drawn at minimum load. The power source shall be located outside the Mettler Toledo System. (See the system wiring diagram for specifics on your particular system).
2. The power source should enter the cabinet as close to the power terminals X1 and X2 as possible. Power sources running more than one foot internal to cabinet mist be shielded (steel conduit or shielded cable grounded to cabinet).
3. All external wiring must be in steel conduit (unless otherwise specified).
4. All external AC power and control lines (115 VAC and higher) must be in separate conduit from other external control and logic wiring.

5. All conduit shall enter the cabinet through insulted bushings.
6. The Mettler Toledo system will require an independent true earth ground (for use by Mettler Toledo System only). The ground should consist of a buried grid or driven stake located deep enough to be in moist earth.
7. Connection between ground stake, or grid, and the system's main frame shall be with an insulated "O" gag wire. The ground wire shall be terminated to a special ground plug supplied within and connected to the system's main frame.
8. No wiring other than the Mettler Toledo System wiring may share the conduits with the Mettler Toledo System without approval of Mettler Toledo Systems Engineering.
9. Installation of equipment by others (unless otherwise specified).
10. All external wiring to be No. 14 ga stranded (115V) by others (unless otherwise specified).
11. Mettler Toledo recommends all wired and/or cables to be tagged for future identification.
12. Mettler Toledo recommends approximately 20% spare wires to be run in each conduit; maximum 10 wires - minimum 2 wires. All spare wires entering the control cabinet must be electrically terminated to the cabinet main frame.
13. All electrical wiring to conform to appropriate national and area electrical codes for this type of installation.
14. If limit switches are used, they will be shown in their non-operated condition.
15. All output contract ratings are 115 VAC - 1 AMP non-conductive (unless otherwise specified).
16. External AC and DC signals shall be run in separate conduit.
17. All contact switched inductive loads shall be suppressed. The suppression should be placed as close as possible to the load.

1.6 LOAD CELL & JUNCTION BOX WIRING AND INSTALLATION

1.6.1 LOAD CELL WIRING & INSTALLATION

1. Do not shorten, lengthen,, or otherwise modify load cell cables if they are an assembled part of the load cell. (Consult Mettler Toledo if modifications are absolutely necessary.
2. Mettler Toledo recommends the structure surrounding a load cell be connected to a true-earth-ground. This connection must not connect to any terminals of electronic equipment furnished by Mettler Toledo. The load cell case must then be electrically connected to its supporting frame through mounting or bonding wire.
3. SO not run load cell cable parallel or adjacent to wires of other voltages. Unless otherwise specified, load cell cable must be in steel conduit.

1.6.2 JUNCTION BOX WIRING & INSTALLATION

1. Mettler Toledo recommends: Contractor to supply 1" minimum rigid steel conduit, as well as necessary fittings and reducer to connect to junction box. Do not run any other wired in this conduit. Nylon bushings must be used at each end to prevent cable abrasion.
2. All sealing pylets and necessary fittings required for connection to the junction box, for NAME 4 (water tight) applications, are to be furnished by the customer or electrical contractor at installation.
3. Unless otherwise specified, load cell cable (junction box to indicator) must be 6 conduction #20 AWG shielded cable, Mettler Toledo Part No. 501620370.

1.7 SPECIFICATIONS

1.7.1 ENVIRONMENTAL CONDITIONS

System controls and equipment, unless specially designed to suit a particular customer's need, will operate within the environmental specifications described below. Equipment should not be installed where it will be subjected to conditions that exceed these specifications.

1.7.2 GENERAL

1. Signal wires must be run in separate conduits as specified.
2. Foreign wires shall not pass through Mettler Toledo equipment, nor shall they be run parallel to interconnecting wiring.
3. A separate, true-earth, computer upgrade ground is required for the Mettler Toledo control equipment. When contaminated exist, ether particulate or gaseous, the control system should be housed in an air conditioned room, maintained at a positive pressure between 0.1 and 0.2 inches of water. Fresh air added to the re-circulates air should be kept for pressurization and oxygen content.

1.7.3 ELECTRICAL/ELECTRONIC EQUIPMENT

1. Operating Ambient Temperature:
   Computer & Mettler Toledo Modules: -10 to 40 degrees C (+14 to +104 degrees F)
   Microprocessor : 50-90º F
   Other: +14 to +104 degreesF
2. Relative Humidity (No Condensation)
   Computer, Microprocessor and Mettler Toledo Modules (general): 10-75%
   9182: 0 to 95%
3. Voltage/Frequency:
   9182: 120VAC =+/- 10%, 47-62 Hz
   Otherwise: 120 VAC +/- 10%, 58-62 Hz, with daily average of 60Hz.
4. Power Consumption: 120 VA maximum
5. Enclosure: Desk mounted mild steel (NEMA 1)
   Size - 17" Wide x 9" High x 22" Deep.

1.8 GENERAL SYSTEM MAINTENANCE

1.8.1 ELECTRICAL EQUIPMENT

1. The electrical enclosures are dust tight (in conformance with NEMA, JIC, or other standards specified by the customer), to protect the electronic equipment inside. The door(s) should be opened only when necessary. Since metal is a good conductor of heat, enclosures should be kept away from any sources of heat, and if possible, should be provided with air ventilation (such as fans, natural air breezes from windows, etc.)

2. All power supplies should be checked (under load) for proper voltage level and for absence of ripples. All printed circuit cards should be checked to ensure that they are properly seated in their sockets.

3. Remove power from the system before disconnecting or removing any operator or printed circuit card. Permit only qualified personnel to work on the system electronics. Should problems arise, it is best to call your area Mettler Toledo office first before attempting any repairs. It is also recommended that the customer make use of the Mettler Toledo services to train operators, maintenance personnel, and other persons responsible for the functioning of the system. See contact information at the front of this manual.

1.8.2 MECHANICAL EQUIPMENT

Potential problems in mechanical equipment are usually more readily apparent then those in electrical equipment, and are also easier to prevent. All mechanical levers, pivots, conveyors feeders etc. Should be kept properly lubricated and free from material which might cause moving parts to bind or limit movement. The cause for any unusual or excessive wear to moving parts should be traced and remedied before it becomes a major problem. The vendor of the mechanical equipment may be the best source for required maintenance of their equipment. The Mettler Toledo local office is the proper place to refer problems with Mettler Toledo mechanical equipment, or as an alternative for problems with equipment provided by others.

1.8.3 SCHEDULED MAINTENANCE

Systems and equipment operated in reasonably clean surroundings normally require less maintenance than would be necessary is an extremely dusty or dirty environment. The following suggested schedule of maintenance is for average installations. The frequency of which this maintenance is performed should be regulated to suit conditions of operation.

1. WEEKLY: Inspect control cabinet and/or instrument enclosure interior for accumulation of dirt or foreign material. Clean as needed.

2. BI-WEEKLY: Inspect and/or clean cabinet or enclosure fan filters. Check filters on auxiliary units (i.e. air conditioners) if applicable. Cleanable filters may be removed and cleaned with a mild liquid detergent and warm water. Rinse and all to dry before reinstalling.

3. MONTHLY:

a. Visually inspect system wiring, indicators and components for defects. Check fan motors for proper operation and cleanliness.

b. Clean out control enclosures, using a light weight vacuum cleaner equipped with non-metallic vacuum tip. Power to control panels should be turned off. Observe proper precautions when cleaning control enclosures, modular components, and circuit modules.

c. Inspect and lubricate auxiliary units and control devices as necessary.

4. BI- ANNUALLY:

a. Thoroughly inspect the entire scale system for electrical and mechanical defects. Check instrument cases and enclosures, as applicable, for accumulation of dirt or dust inside unit. Clean all components as necessary. Refer to appropriate technical literature supplied with system for detailed cleaning instructions.

e. Scale systems should be calibrates both mechanically and electrically on a bi-annual basis. See appropriate technical literature supplied with your system for calibration instructions.

NOTE: The above scheduled maintenance procedures are the minimal requirements to ensure dependable operation of scale equipment. Reference materials supplied with individual systems should be reviewed for additional details relating to preventive maintenance requirements.

1.8.4 TROUBLE ANALYSIS

1. If operational difficulties are being encountered, obtain as much information as possible regarding the particular trouble being experiences with the equipment, possible eliminating a lengthy, detailed checkout procedure.
2. Check fuses, primary power line, external circuit elements and related wiring for possible defects. Failures and malfunctions often can be traced to simple causes such as loose or improper circuit or supply load connections of fuse failure.
3. Use the electrical schematic diagram as an aid to locating trouble causes. These diagrams contain various circuit voltages that are averages for normal operation. Measure these voltage using the conditions for measurement specified on the schematic diagrams. Use measuring probes carefully to avoid causing short circuits and damaging circuit components.

NOTE: Do not assume trouble is eliminated with the replacement of one fault component. Replacing a part and then starting up the system before checking for additional defects could damage the replacement part. This is especially true where electronic modules are involved.

1.8.5 REMOVAL AND INSTALLATION OF PARTS.

1. GENERAL - Servicing the system and equipment may require removal of one or more printed circuit boards. Unless otherwise noted, ALL POWER SHOULD BE TURNED OFF until completion of the required operations. Failure to remove power from circuits may cause transient voltages which can damage components.

CAUTION: Printed circuit boards and components used in Mettler Toledo are susceptible to static damage - HANDLE WITH CARE and observe static control measures.

2. PLUG-IN CIRCUIT MODULES/PC BOARDS

a. A circuit module believed to be defective may be checked by replacing it with a like module known to be good and then observing whether system performance is corrected.

b. All printed circuit boards will be properly packed in static shielding bags designed to minimize the chance of electrostatic damage to the board.

c. Any PC board that is replaced with a PC board from a static shielding bag MUST be returned in the same container to prevent static damage to the board.

d. The following is the proposed method of using static control wrist wraps. Three items are required:

1. Wrist strap
2. Static guard mat or Velostat bag.
3. Cliplead

First, put on wrist strap, connect wrist strap to the static guard mat (or use Velostat bag). Next, connect the mat to the chassis ground of the unit with the clip lead. You now have the unit, the work surface and yourself all at the same voltage potential. Place any boards being used on the mat to protect them from electro static damage.

e. To remove a PC board, first remove it's captivating device (if used). Pull the PC board straight out of the socket, being careful not to apply pressure to components on the board.

f. To replace a PC board, make sure it is positioned in the proper socket. Positioning slots are usually numbered. Ensure that the pins or tabs are correctly aligned with the connector before applying pressure to seat the PC board. Replace the captivating device (if used).

2.0 OPERATOR INSTRUCTIONS

2.1 OPERATIONAL OVERVIEW

The Coin Counting Controller (9182) consists of (a) TSM-3001 microprocessor and logic boards, (b) power supply for microprocessor and logic boards, (c) a 8142 Single Display main PC board, (d) power supply for the 8142 PC board, (e) an I/.O isolation PB board, and 24 VDC I/O module for external functions to the microprocessor

The controller numeric keypad and dot matrix alphanumeric display provides setup entry prompting and display of key operating and error condition information. A keylock switch is provided to prevent unauthorized personnel from entering setup information sequences. The 9182 takes a weighment of single denomination coins, converts the weight into a dollar (or count) value, displays the value and provides a printout of the transaction. In addition, a communication port is provided to permit the user to output data from the 9182 or a host computer. An optional harness is available to receive Slot ID's from an external barcode terminal device.

The enhances system (TSM861C) includes an SRAM memory card to allow the following options. These options are not in the basic version.

SLOT MACHINE ID AND DENOMINATION ENTRY VERIFICATION:
The system automatically checks the slow machine number and denomination entered by the operator to assure that (1) the slot ID exists, (2) the ID entered matches the denomination selected, and (3) the ID has not previously been entered.

COUTNS BY ZONES:
Allows you to assign the slot machine to a particular zone in your casino, selected by you. You get a report on the count by zone when a drop of less that the whole floor is made. This feature can also be used to contract games or multiple locations.

STOREAGE BY 5500 SLOT IDENTIFICATION:
Six digits each.

SPLIT BUCKET ID ENTRY:
Allows you to enter double buckets with same ID... and flags seconds bucket entry.

REQUEST PRINT OF SLOT NUMBERS NOT COUNTED:
You may request list of slots not counted by denominations for all denominations, by zone.

There are two modes of operation, SETUP and AUTO. In the SETUP mode the user enters variable data (e.g., denomination value per pound, container tare weight, etc.) required for counting operations performed in AUTO mode. The following sequence of operation details the TSM-3001 operation including the weighing procedure. Sections have been included that show the Error messages and the general report formats

The complete Coin Counting System consists of:

1. The 9182 Coin Counting Controller.
2. A printer, must receive ASCII data RS-232 at 9600 baud. Toledo Scale printer Model 8846, 8856 or equal.
3. An inter-connect cable between the printer and the 9182. **NOTE:** A printer MUST be connected to the 9182 for proper operation.
4. A load cell scale base with one (1) 350 Ohm load cell, scale capacity of 100 pounds minimum. Toledo Scale Model 2095 or equal.
5. An inter-connect cable between the load cell and the 9182. **NOTE:** A printer MUST be connected to the 9182 for proper operation.
6. A coin hopper or other container device mounted on platter of the scale base.
7. An inter--connect cable between the coin hopper and the 9182.

Optional equipment available from Toledo Scale:

1. Bar Code interface (internal to 9182) to allow remote entry of Slot ID's. Scanner and interface, by others, must provide 300 baud, RS-232 ASCII data, 6 characters maximum, using UPC code 39.
2. Remote "Ready to Weight" switch and optional hopper cable to allow connection of switch to the 9182. This equipment with the Bar Code interface will allow the operator to weight or count coins without having to return to the 9182 controller to press the ENTER button.

2.2 SCALE CALIBRATION

The 9182 Coin Counter Controller uses an 8142, Single Display main PC board as the scale analog to digital converter. The digital output of the 8142 PC Board is sent to the TSM-3001 microprocessor.

The printer output port of the 8142 PC board has been factory setup at 4800 baud continuous data (Toledo format) with checksum enabled.

The scale calibration must be done t the time of installation by the installer. use the 8142 Technical Manual, reference to Single Display units, for the sequence steps necessary to calibrate the scale system.

The scale is normally calibrated for 150 x .005 lb. increments, in some applications (i.e. River Boats) it may be required to calibrate the scale for .01 or .02 lb. increments. If .01 or .02 in increments are required, the decimal point location (Statement #5) will need to be changed.

2.3 POWER UP

On power up of the system, a ROM checksum test is performed. If the checksum calculation is incorrect the program will advance to Statement # 1. If the checksum calculation is correct "ROM CHECK OK" will be displayed for 2 seconds. The display will now show "SYSTEM POWERUP". The SRAM MEMORY is checked off got data retention. If the data stored is not valid the display will advance to Statement # 5. If the data stored is valid a sort is performed on the data base file. Depending on many ID's are stored in memory, the sort van take from 1 to 4 minutes. The program will then advance to Statement # 6.

NOTE: If an SRAM memory fault occurs the program will advance to Statement # 2.

Program Statement	**Application [Bracketed Data = Keyboard Inputs] <Angled Brackets = Operator Inputs>**
1	**[ROM FAILURE XX]** The display shows the expected value of the checksum "XX". Display of this message indicates the system EPROMS have failed. The EPROMS and/or CPU board must be replaced. Contact TOLEDO SCALE SERVICE.
2	**[SRAM MEM FAULT]** This Statement will be displayed for 2 seconds. The program will then advance to the next Statement .
3	**[COLD START?]** Press <YES> to have the SRAM MEMORY initialize.

CAUTION: All memory will be cleared.

Press <NO> to have the system retry accessing the SRAM memory.

The program will advance to the next Statement.

4 **[ARE YOU SURE?]**
Press <YES> to have the SRAM MEMORY initialize.

CAUTION: All memory will be cleared.

Press <NO> to have the system retry accessing the SRAM memory.

The program will advance to the next Statement.

5 **[DEC PT LOC? .XXX]**
This prompt only appears in the advanced version. The system is requesting the resolution to be used for tares and internal calculations for the system. Press <NO> to toggle between .XXX and .XX. Press Enter to advance to the next Statement and proceed with cold start.

5a **[SRAM INIT]**
The system is initializing all tables and setups to defaults.

5b **[COLD START]**
All memory has been cleared.

Press <ENTER> to advance the program to Statement # 6.

6 **[TSMXXX X124339]**
This display shows the version number for this particular program. This number should be made available to Toledo Scale Service if there is a problem with the controller.

<SETUP> allows printer selection (Statement # 50a) id Setup switch is on. After selection the program will advance to Statement # 11.

<UPARROW> advances the program to the next Statement .

Press <ENTER> to advance the program to Statement # 11.

7 **[ONLINE DEBUG?]**
Press <YES> to enter the program into debug mode. This mode is intended for use by Toledo Scale personnel only. The program will advance to the next Statement .

Press <NO> to return the program to Statement # 6.

8 **[PASSWORD?]**
Enter the password followed by <ENTER> to allows entry into the debug mode. If the password entered is correct, the program will advance to Statement # 10. If the password is incorrect, the program will advance to the next Statement .

<UPARROW> returns the program to Statement # 7.

9 **[INVALID PASSWORD]**
This Statement will be displayed for 1 second. The program will return to Statement #8.

10 **[@] or [?]**
The debugger is included for use by Toledo Scale personnel only. Press <G> or <SUB GRAND TOTAL> followed by <ENTER> to return the program to Statement #6.

11 **[DATE MM/DD/YY]**
Enter the sate (month.day.year) and press <ENTER> to advance the program to the next Statement . Use a decimal point "." as the field separator when entering data.

<UPARROW> returns the program to Statement #6.
<RESET> returns the program to Statement #6.

12 **[TIME HH:MM:SS]**
Enter the time (hours.minutes.seconds) and press <ENTER>. The program will advance to Statement #40 (system setup) if the system file needs to be setup. The program will advance to the next Statement if the system has been powered up and the system file has been setup. The program will advance to Statement #20 if this is not a power up condition. Use a decimal point "." as the field separator when entering data.

<UPARROW> returns the program to Statement # 11.
<RESET> returns the program to Statement # 6.

13 **[PLEASE WAIT]**
The system setup (Figure 1), valuation setup and tares (if auto tare selected) (Figure 2), and denomination grand subtotals (Figure 10) are printed. Upon completion the program will advance to the next Statement .

14 **[GRAND TOTAL?]**
Press <YES> to have the grand total report printed and all totals and ID counts/values cleared. The program will advance to the next Statement .

Press <NO> to not grand total. The program will advance to Statement #20.

15 **[PLEASE WAIT]**
The grand total report (Figure 3) is printed. Upon completion all denomination totals and individual ID counts/values will be cleared. The display will show "TRANS CLEARED" for 2 seconds and the program will advance to Statement #20.

2.4 FUNCTION SELECT

20 [SELECT FUNCTION]
Press the proper function key to select one of the following modes.
<UPARROW> returns the program to Statement #12.
<RESET> returns the program to Statement #6.

Function Key	**Mode**
SETUP	The program will advance to Statement #30 if the AUTO/SETUP keyswitch is in the SETUP position. If the keyswitch is in the AUTO position the display will show "NOT IN SETUP" for 2 seconds and the program will return to Statement #20.
START	The program will advance to Statement #230 if the AUTO/SETUP keyswitch is in the AUTO position. If the keyswitch is in the SETUP position the display will show "OT IN AUTO" for 2 seconds and the program will return to Statement #20.
Function Key	**Mode (Cont)**
SUBTOTAL	The program will advance to Statement # 180.

TOTAL	The program will advance to Statement # 190
SUBGRAND TOTAL	The program will advance to Statement # 200.
GRAND TOTAL	The program will advance to Statement # 210.
*PRINT SUMMARY	The program will advance to Statement #160 if SOURCE ID USED has been selected (Statement #48).
*PRINT MISSED SLOTS	The program will advance to Statement #160 if SOURCE ID USED has been selected (Statement #48).
*RECORD EMPTY SLOTS	The program will advance to Statement #160 if SOURCE ID USED has been selected (Statement #48).

* These functions are available on enhanced versions only.
NOTE: Any exit from Setup Mode will cause the system to print the valuation setup (Figure 2) and a grand total report (Figure 3) . The program will advance to Statement #35.

30 [SETUP MODE]
Press <ENTER> to advance the program to the next Statement .
<UPARROW> will advance the program to Statement #35.
<RESET> will advance the program to Statement #35.

31 [PASSWORD?]
This prompt will only appear here for Non-Enhanced versions only.
Enter the system, password and press <ENTER> . If the password entered is incorrect the program will advance to the next Statement . If the password entered is correct the program will advance to Statement #33.

<UPARROW> returns the program to Statement #30.
<RESET> will advance the program to Statement #35.

NOTE: The display will NOT show the password as it is being entered. If the system password has not been setup just press <ENTER>. The program will advance to Statement #33.

32 [INVALID PASSWORD]
This Statement will be displayed for 1 seconds. The program will return to Statement #31.

33 [SETUP SYSTEM?]
Press <YES> to advance the program to Statement #40 to setup the system file.
Press <NO> to not setup the system file. The program will advance to the next Statement if Source ID codes are being used. If ID's are not being used the program will advance to Statement #34.

<UPARROW> returns the program to Statement #30.
<RESET> will advance the program to Statement #35.

33a [SETUP ID CODES?]
Press <YES> to advance the program to Statement #80 to setup source ID codes.
Press <NO> to advance the program to Statement #30.
<RESET> will advance to Statement #35.

34 [SETUP DENOMIN?]
Press <YES> to advance the program to Statement #120 to setup the denominations.
Press <NO> to return the program to Statement #33.
<UPARROW> returns the program to Statement # 30.
<RESET> will advance the program to Statement #35.

35 [PLEASE WAIT]

The valuation setup and tares (Figure 2) and the grand total report (Figure 3) is printed. The program will advance to the next Statement .

36 **[REGISTER CLEARED]**
The grand totals have been cleared. This Statement will be displayed for two (2) seconds. The program will advance to the next Statement .

37 **[START OF COUNT?]**
Press <YES> to have the transactions cleared from memory. The program will advance to the next Statement .

Press <NO> to leave the transactions in memory. The program will return to Statement #20.
<RESET> returns the program to Statement 20.

38 **[TRANS CLEARED]**
The transactions have been cleared from memory. This Statement will be displayed for two (2) seconds. The program will return to Statement #20.

2.5 SYSTEM FILE SETUP

NOTE: The system file must be setup before anything else. <RESET> will be disabled until the complete system file has been setup.

40 **[PASSWORD?]**
This prompt will appear here for Enhanced versions only.
Enter the system password and press <ENTER>. If the password entered is incorrect the program will advance to the next Statement . If the password entered is correct the program will advance to statm40B.

<UPARROW> returns the program to Statement #33.
<RESET> the program will advance to Statement #35.

NOTE: The display will NOT show the password as it is being entered. If the system password has not been setup just press <ENTER> . The program will advance to Statement #40B.

40A **[INVALID PASSWORD]**
This Statement will be displayed for 1 second. The program will return to Statement #33.

40B **[CHANGE PASSWORD?]**
Press <YES> to enable entry of a new password. The program will advance to the next Statement .

Press <NO> to leave the system password as is. The program will advance to Statement #44 (43A in enhanced versions).

<UPARROW> returns the program to Statement #33.
<RESET> returns the program to Statement #33.

41 **[ENTER NEW PASSWD]**
Enter up to six (6) characters for the new password and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #40. Password will not be changed.
<RESET> returns the program to Statement #33.

42 **[PASSWORD XXXXXX?]**
The display shows the new password. Press <YES> to have the new password accepted.

Press <NO> to not to accept the new password. The program will advance to the next Statement .
<UPARROW> returns the program to Statement #41.
<RESET> returns the program to Statement #33.

43 **[PASSWORD XXXXXX?]**
The display shows the old password. Press <YES> to use the old password as the system password. The program will advance to the next Statement .

Press <NO> to enter a new password. The program will return to Statement 41.
<UPARROW> returns the program to Statement #33.
<RESET> returns the program to Statement #33.

43A **[CHG SLOT PASS?]**
This prompt will appear here for Enhanced Versions Only.
Press <YES> to enable entry of a new password to allow entry to ID Setup. The program will advance to the next statement.

Press <NO> to leave the slot password as is. The program will advance to Statement #44.
<UPARROW> returns the program to Statement #33
<RESET> returns the program to Statement #33.

43B **[ENTER A NEW PASSWD]**
This prompt will appear here for Enhanced Versions Only.
Enter up to six (6) characters for the new slot password and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to statm43A. Password will not be changed.
<RESET> returns the program to Statement #33.

43C **[PASSWORD XXXXXX?]**
This prompt will appear here for Enhanced Versions only.
The display shows the new password. Press <YES> to have the new password accepted.
Press <NO> to not accept the new password. The program will advance to the next Statement .
<UPARROW> returns the program to statm43B.
<RESET> returns the program to Statement #33.

43D **[Password XXXXXX?]**
This prompt will appear here for Enhanced Versions only.
The display shows the old password. Press <YES> to use the old password as the system password. The program will advance to the next Statement .

Press <NO> to enter a new password. The program will return to statm43B.
<UPARROW> returns the program to Statement #42.
<RESET> returns the program to Statement #33.

44 **[PRINT SETUP?]**
NOTE: This statement will be skipped if the system file has not been setup.

Press <YES> to obtain printout of the system file. The program will advance to the next Statement .
Press <NO> to not to print the system file. The program will advance to Statement #46.
[<UPARROW> returns the program to Statement #40.
<RESET> returns the program to Statement #33.

45 **[PLEASE WAIT]**

The system file listing is printed (Figure 1). Upon completion the program will return to Statement #44.

46 **[AUTO TARE IN? X]**

Press <YES> followed by <ENTER> to select Auto Tare IN. The program will advance to the next Statement .

Press <NO> followed by <ENTER> to select Auto Tare OUT. The program will advance to the next Statement .
<UPARROW> returns the program to Statement # 44.
<RESET> returns the program to Statement #33.

47 **[COMPUTER COUNT] or [COMPUTER VALUE]**

Press <YES> to accept the state (COUNT or VALUE) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between COUNT and VALUE.

IMPORTANT!: If the compute status changes from count to value, or value to count, all denomination values or counts will be cleared.

47A **[AUTO ZERO RECD]**

Basic unit only prompt.
The operator can choose to select in or out the “RECORD EMPTY SCALE” prompting during the RUN mode. (See Statement # 234). To select the prompting IN answer <NO> then <ENTER> to the prompt. To select it OUT answer <YES> then <ENTER> at the prompt.

48 **[COUNT BY ZONES? X]**

Enhanced unit only prompt.
Press <YES> followed by <ENTER> if the counting is to be done by zones. The program will advance to the next Statement .

Press <NO> followed by <ENTER> if the counting will not be don’t by zones. The program will advance to Statement #50.

<UPARROW> returns the program to Statement #47.
<RESET> returns the program to Statement #33.

49 **[QTY OF ZONES? X]**

Enhanced unit only prompt.
Enter the number of zones that will be valid for counting and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #48.
<RESET> returns the program to Statement #33.

50 **[SOURCE ID USED?X]**

Enhanced unit only prompt.
Press <YES> followed by <ENTER> if source ID’s will be used. The program will advance to the next Statement .

Press <NO> followed by <ENTER> if source ID’s will not be used. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #48.
<RESET> returns the program to Statement #33.

50a **[ENABLE 8855? N]**

Press <YES> to select use of the 8855 printer or <NO> to select other printers (8856,8843,etc.) and press <ENTER>. The program will advance to the next Statement . See the schematics supplied for hardware changes.

<UPARROW> returns the program to Statement #50.
<RESET> returns the program to Statement # 33.

51 **[PRINT SPACES? X]**
Enter the desired number of line feeds that will be printed between transactions and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #50a.
<RESET> returns the program to Statement #33.

52 **[EXTRA SPACE? X]**
Press <YES> if there is to be an extra line feed inserted after a selected number of transactions. The program will advance to the next Statement .

Press <NO> if there will not be any extra line feeds used. The program will advance to statm53A.

<UPARROW> returns the program to Statement #51.
<RESET> returns the program to Statement #33.

53 **[WHICH LINE? X]**
Enter the transaction number after which an extra line feed will be inserted and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to Statement # 52.
<RESET> returns the program to Statement #33.

53A **[HOST BAUD XXXX]**
enter the baud rate for the host computer (300, 600, 1200, 2400, 4800 or 9600) and press <ENTER> . The program will advance to the next statement.

<UPARROW> returns the program to Statement #52.
<RESET> returns the program to Statement #33.

53B **[DISC CUTOFF? X.X]**
Enter the discharge cutoff value (values from 0.0 to 1.0 are allowed) and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to statm53A.
<RESET> returns the program to Statement #33.

53C **[MIN DISC TM? X.X]**
Enter the minimum amount of time the discharge gate will be held open in seconds (values from 0.0 to 5.0 are allowed) and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to statm53B.
<RESET> returns the program to Statement #33.

54 **[ENABLE DENOMIN?]**
Press <YES> to advance the program to the next Statement to enable denominations.
Press <NO> to advance the program to Statement #69 without enabling denominations.

NOTE: This Statement will be skipped if the system file has not been setup.

<UPARROW> returns the program to Statement #53a.
<RESET> returns the program to Statement #33.

55 **[PN PENNIES IN] or [PN PENNIES OUT**]
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The pro0gram will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to stam54.
<RESET> returns the program to Statement #33.

56 **[NK NICKELS IN] or [NK NICKELS OUT**]
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 55.
<RESET> returns the program to Statement # 33.

57 **[DM DIMES IN] or [DM DIMES OUT**]
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 56.
<RESET> returns the program to Statement # 33.

58 **[QT QUARTERS IN] or [QT QUARTERS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 57.
<RESET> returns the program to Statement # 33.

59 **[HF HALVES IN] or [HF HALVES OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 58.
<RESET> returns the program to Statement # 33.

60 **[SD DOLLARS IN] or [SD DOLLARS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 59.
<RESET> returns the program to Statement # 33.

61 **[1T $1 TOKENS IN] or [1T $1 TOKENS OUT**]

Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 60.
<RESET> returns the program to Statement # 33.

62 **[2T $2 TOKENS IN] or [2T $2 TOKENS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 61.
<RESET> returns the program to Statement # 33.

63 **[5T $5 TOKENS IN] or [5T $5 TOKENS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 62.
<RESET> returns the program to Statement # 33.

64 **[10 $10TOKENS IN] or [10 $10TOKENS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 63
<RESET> returns the program to Statement # 33.

65 **[20 $20TOKENS IN] or [20 $20TOKENS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 64.
<RESET> returns the program to Statement # 33.

66 **[25 $25TOKENS IN] or [25 $25TOKENS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 65.
<RESET> returns the program to Statement # 33.

67 **[50 $50TOKENS IN] or [50 $50TOKENS OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 66.
<RESET> returns the program to Statement # 33.

67a **[1C $100TOKEN IN] or [1C $100TOKEN OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 67
<RESET> returns the program to Statement # 33.

67b **[5C $500TOKEN IN] or [5C $500TOKEN OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 67a.
<RESET> returns the program to Statement # 33.

67c **[1M $1K TOKEN IN] or [1M $1K TOKEN OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 67
<RESET> returns the program to Statement # 33.

67d **[5M $1K TOKEN IN] or [5M $5K TOKEN OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.
<UPARROW> returns the program to Statement # 67
<RESET> returns the program to Statement # 33.

68 **[W WEIGHT IN] or [W WEIGHT OUT]**
Press <YES> to accept the state (IN or OUT) that is currently being displayed. The program will advance to the next Statement .

Press <NO> to toggle the display between IN and OUT.

NOTE: Selecting WEIGHT as the denomination will cause the 9182 to display the current weight reading.

<UPARROW> returns the program to Statement # 67a.
<RESET> returns the program to Statement # 33.

69 **[PRINT SETUP?]**
Press <YES> to obtain a printout of the system file. The program will advance to the next Statement .
Press <NO> to not to print the system file. The program will return to Statement #33.
<UPARROW> returns the program to Statement #54.
<RESET> returns the program to Statement #33.

70 **[PLEASE WAIT]**
The system file listing is printed (Figure 1). Upon completion the program will return to Statement #69.

2.6 ID CODE SETUP (ENHANCED UNITS ONLY)

NOTE: If no denominations have been enables in the system file the display will show (NO DENOMINATIONS). Press <ENTER> to return the program to Statement #34.

PROGRAM STATEMENT **APPLICATION**

80 **[PASSWORD?]**
Enter the slot or system password and press <ENTER>. If the password entered is incorrect, the program will advance to the next Statement . If the password entered is correct, the program will advance to Statement #80c.

<UPARROW> returns the program to Statement #33a.
<RESET> will advance the program to Statement #35.

NOTE: The display will NOT show the password as it is being entered. If the slot or system password have not been setup just press <ENTER>. The program will advance to Statement #80b.

80a **[INVALID PASSWORD]**
This Statement will be displayed for 1 second. The program will return to Statement # 33a.

80b **[SETUP SOURCE ID]**
Press <ENTER> to advance the program to the next Statement .
<UPARROW> or <RESET> returns the program to Statement # 33a.

81 **[PRINT ID TABLE?]**
Press <YES> to obtain a listing of source ID's stored in memory. The program will advance to Statement #82 if Count by Zones has been selected or to Statement #84 if Count by Zones has not been selected.

Press <NO> to advance the program to Statement # 88.
<UPARROW> returns the program to Statement #80.
<RESET> returns the program to Statement #34.

82 **[PRT ALL ZONES?]**
Press <YES> to have the ID list for all zones printed. The program will advance to Statement #84.

Press <NO> to have the ID list printed for one particular zone. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #81.
<RESET> returns the program to Statement #34.

83 **[SELECT ZONE X]**
Enter the Zone number to obtain a printout of that particular zone. Press <ENTER> to advance the program to the next Statement .

<UPARROW> returns the program to Statement #82.
<RESET> returns the program to Statement #34.

84 **[SELECT DENOM ALL]**
Press <ENTER> when the display is showing ALL to obtain a printout of the ID codes for all denominations. The program will advance to the next Statement .

Select a denomination by using the DENOM UP ARROW or DENOM DOWN ARROW keys. Pressing the DENOM UP ARROW key will cause the display to show the next enabled denomination.

Pressing the DENOM DOWN ARROW key will cause the display to show the previous enabled denomination. Press <ENTER> to obtain a listing of the ID's for the denomination displayed. The program will advance to the next Statement .

<UPARROW> returns the program to Statement # 81, #81, or #83.
<RESET> returns the program to Statement # 34.

85 [PLEASE WAIT]
The source ID listing is printed (Figure 4). Upon completion the program will return to Statement # 81.

88 [CLEAR ID TABLE?]
Press <YES> to have all source ID's deleted from the table. The program will advance to the next Statement .

Press <NO> to leave the source ID's in the table. The program will advance to Statement #91.
<UPARROW> returns the program to Statement #81.
<RESET> returns the program to Statement #34.

89 [ARE YOU SURE?]
Press <YES> to have all source ID's deleted from the table. The program will advance to the next Statement .

Press <NO> to leave the source ID's in the table. The program will advance to Statement #91.
<UPARROW> returns the program to Statement #81.
<RESET> returns the program to Statement #34.

90 [ID TABLE CLEARED]
All source ID's have been cleared from the table. Press <ENTER> to advance the program to the next Statement ,

<UPARROW> returns the program to Statement #88.
<RESET> returns the program to Statement #34.

91 [MODIFY ID TABLE?]
Press <YES> to advance the program to the next Statement to add or delete slots from the ID table.

Press <NO> to return the program to Statement #34.
<UPARROW> returns the program to Statement #88.
<RESET> returns the program to Statement #34.

92 [SELECT DENOM XX]
Select a denomination by using the DENOM UP ARROW <F1> or DENOM DOWN ARROW <F2> keys. Pressing <F1> will cause the display to show the next enabled denomination.

Pressing <F2> will cause the display to show the previous enabled denomination. Once the desired zone is shown on the display press <ENTER>. The program will advance to the next Statement if Count by Zone is enabled or to Statement #94 if Count by Zone is disabled.

93 [SELECT ZONE X]
Enter the number of the zone that ID codes are to be added to or deleted from and press <ENTER>. The program will advance to the next Statement .
<UPARROW> returns the program to Statement #92.
<RESET> returns the program to Statement #34.

94 [ADD SLOTS?]
Press <YES> if slots are to be added. The program will advance to Statement #96.

Press <NO> to advance the program to the next Statement .
<UPARROW> returns the program to Statement #93 or #92.
<RESET> returns the program to Statement #34.

95 **[DELETE SLOTS?]**
Press <YES> if slots are to be deleted. The program will advance to Statement #97.
Press <NO> to return the program to Statement #94.
<UPARROW> returns the program to Statement #93 or #92.
<RESET> returns the program to Statement #34.

96 **[AUTO INCREMENT]**
Press <YES> if the slots are to be added or deleted by the auto increment method, The program will advance to Statement # 104.

Press <NO> if the slots are to be added or deleted individually. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #94.
<RESET> returns the program to Statement #34.

97 **[ENTER ID? XXXXX]**
<ENTER> the ID to be added or deleted and press <ENTER>. If the ID entered is to be added but the ID has already been assigned, the program will advance to Statement #101. If the ID has not already been assigned the program will advance to the next Statement . If the ID entered is to be deleted the program will advance to Statement #99 if the ID is found in memory or to Statement #100 if the ID is not found.

<UPARROW> returns the program to Statement #94.
<RESET> returns the program to Statement #34.

NOTE: A maximum of 5500 ID slots can be stored in the ID table. If this maximum is reached, the program will advance to Statement # 103.

98 **[YY-Z-ADD XXXXXX]**
The display shows the denomination 'YY', the zone 'Z' and the ID that was added to the ID table.

<ENTER> or <UPARROW> returns the program to Statement #97.
<RESET> returns the program to Statement #34.

99 **[ID XXXXXX CLEAR]**
The display shows the ID was deleted from the ID table.

<ENTER> or <UPARROW> returns the program to Statement #97.
<RESET> returns the program to Statement #34.

100 **[ID NOT FOUND]**
The ID entered was either not found or did not have the correct denomination and/or zone associated with it.

Press <ENTER> or <UPARROW> to return the program to Statement #97.
<RESET> returns the program to Statement #34.

101 **[ID PREV ASSIGNED]**
The old ID assignment is printed (Figure 5). Press <ENTER> to advance the program to the next Statement .

<UPARROW> returns the program to Statement #97.
<RESET> returns the program to Statement # 34.

102 **[CHANGE TO AA-Z?**]

Press <YES> to have the old ID assignment deleted and the new assignment used. The program will return to Statement #98.

Press <NO> to leave the ID assignment as is. The program will return to Statement #97.
<UPARROW> returns the program to Statement #97.
<RESET> returns the program to Statement #34.

103 [ID TABLE FULL]
Press <ENTER> or <UPARROW> to returns the program to Statement # 97.
<RESET> returns the program to Statement #34.

104 [ENTER ID RANGE]
Press <ENTER> to advance the program to the next Statement .
<UPARROW> returns the program to Statement # 96.
<RESET> returns the program to Statement #34.

105 [FIRST ID? XXXXXX]
Enter the number for the first of consecutive slots to be stored in the ID table. Press <ENTER> to advance the program to the next Statement .

<UPARROW> returns the program to Statement #104.
<RESET> returns the program to Statement #34.

106 [LAST ID? XXXXXX]
Enter the number for the last of the consecutive slots to be stored in the ID table and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #105.
<RESET> returns the program to Statement #34.

106a [PLEASE WAIT]
The ID table is searching to see if any of the ID's already exist in memory. If there are duplicate ID's they will be listed on the printer and the program will advance to Statement #108. If there are no duplicate ID's, the ID's will be stored in memory and the program will advance to the next Statement .

NOTE: If the ID table becomes full while storing ID's the last ID stored will be printed. (Figure 12) and the program will advance to Statement #110.

107 [ID CODES STORED]
Press <ENTER> to return the program to Statement #104.
<UPARROW> returns the program to Statement #104.
<RESET> returns the program to Statement #34.

108 [ID PREV ASSIGNED]
The old ID assignment is printed (Figure 5). Press <ENTER> to advance the program to the next Statement .

<UPARROW> returns the program to Statement #104.
<RESET> returns the program to Statement #34.

109 [CHANGE TO AA-Z?]
Press <YES> to have the old ID assignment deleted for all the ID's printed and the new assignment used. The ID's will be sorted in memory and the program will return to Statement #107.

Press <NO> to leave the ID assignment as is. The non-duplicate ID's will be stored in memory. The program will return to Statement #107.

<UPARROW> returns the program to Statement #104.
<RESET> returns the program to Statement #34.

110 [ID TABLE FULL]
Press <ENTER> or <UPARROW> to return the program to Statement #104.
<RESET> returns the program to Statement #34.

2.7 MANUAL SLOW ENTRY (ENHANCED UNITS ONLY)

115 [REC SLOTS EMPTY?]
Press <YES> to record slots manually. The program will advance to the next Statement .
Press <NO> to return the program to Statement #20.

116 [ID? XXXXXX]
Enter the ID to be given a zero value/count and press <ENTER>. If the ID is not found in memory the program will advance to Statement # 117. If the ID is found but has already been counted the program will advance to Statement #118. Otherwise, the ID is given a count/value of zero, marked as a manual entry and Figure 12 is printed. The program will return to Statement #116.

<UPARROW> returns the program to Statement #20.
<RESET> returns the program to Statement #20.

117 [ID NOT FOUND]
Press <ENTER> to return the program to Statement #116.
Press <RESET> to return the program to Statement #20.

118 [ID PREV USED]
Press <ENTER> to return the program to Statement 116.
Press <RESET> to return the program to Statement #20.

2.8 DENOMINATION SETUP

NOTE: If no denominations have been enabled in the system file the display with show [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #34.

PROGRAM STATEMENT APPLICATION

120 [PASSWORD?]
This prompt will appear here for Enhanced versions only.
Enter the system password and press <ENTER>. If the password entered is incorrect the program will advance to the next Statement . If the password entered is correct the program will advance to Statement #120b.

<UPARROW> returns the program to Statement #34.
<RESET> will advance the program to Statement #35.

NOTE: The display will NOT show the password as it is being entered. If the system password has not been setup just press <ENTER> . The program will advance to Statement #120b.

120a [INVALID PASSWORD]
This statement will be displayed for 1 seconds. The program will return to Statement #34.

120b [PRINT VALUATION?]
Press <YES> to obtain a printout of valuation data and tare weights (if selected). The program will advance to the next Statement .

Press <NO> to advance the program to Statement # 122 if auto tare has been enabled or to Statement #123 if auto tare has not been selected.

<UPARROW> returns the program to Statement #34.
<RESET> returns the program to Statement #34.

121 [PLEASE WAIT]
The valuation data and tare weights for each denomination are printed (Figure 2). Upon completion the program will return to Statement #120.

122 [TARE SETUP?]
Press <YES> to advance the program to Statement #140 to setup denomination tare weights.

Press <NO> to advance the program to the next Statement .
<UPARROW> returns the program to Statement #120.
<RESET> returns the program to Statement #34.

123 [VALUATION SETUP?]
Press <YES> to advance the program to Statement #124 to setup valuation data.
Press <NO> to return the program to Statement #122.

NOTE: If auto tare has been selected out pressing <NO> will not do anything.

<UPARROW> returns the program to Statement #120.
<RESET> returns the program to Statement #34.

124 [SELCECT DENOM ALL]
Press <ENTER> when the display is showing ALL to setup evaluation data for all enabled denominations. The program will advance to the next Statement .

Select a denomination by using the <DENOM UP ARROW> or <DENOM DOWN ARROW> keys. Pressing <DENOM DOWN ARROW> will cause the display to show the next enabled denomination. Pressing <DENOM UP ARROW> will cause the display to show the previous enabled denomination.

Press <ENTER> to setup the valuation data for the denomination displayed. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #120.
<RESET> returns the program to Statement #34.

125 [AA VAUE ENTRY] or [AA COUNT ENTRY]
Press <ENTER> to being value (or count) setup on this denomination (AA).
<UPARROW> returns the program to Statement #124.
<RESET> returns the program to Statement #34.

126 [AA VAL XXXXX.XXX] or [AA CTN XXXXX.XXX]
The display shows the current value (or count) per pound for this denomination. Press <ENTER> to advance the program to the next Statement .
<UPARROW> returns the program to Statement #125.
<RESET> returns the program to Statement #34.

127 [NEW AA VALUE?] or [NEW AA COUNT?]
Press <YES> if a change to the value (or count) is desired. The program will advance to Statement #129.

Press <NO> if the value (or count) is not to be changed.

The program will advance to the next Statement .

<UPARROW> returns the program to Statement #126.
<RESET> returns the program to Statement #34.

128 **[AA VAL XXXXX.XXX] or [AA CNT XXXXX.XXX]**
The display shows the current value (or count) per pound for this denomination. This Statement will be displayed for 2 seconds. The program will return to Statement #125 if there are mote denominations to be setup or to Statement #120 is there are no more denominations to be setup.

129 **[MANUAL ENTRY?]**
Press <YES> if the new value (or count) entry will be done manually. The program will advance to the next Statement .

Press <NO> if the new value (or count) is to be recorded by the 9182. The program will advance to Statement #131.

<UPARROW> returns the program to Statement # 127.
<RESET> returns the program to Statement #34.

130 **[AA VAL? XXXXX.XXX] or [AA CNT? XXXXX.XXX]**
Enter the value (or count) per pound for this denomination and press <ENTER>.

The program will return to Statement #125 if there are more denominations to be setup or to Statement #120 if there are no more denominations to be setup.

<UPARROW> returns the program to Statement #129.
<RESET> returns the program to Statement #34.

131 **[CALCULATE AA VAL] or [CALCULATE AA CNT]**
Press <ENTER> to advance the program to the next Statement .
<UPARROW> returns the program to Statement #129.
<RESET> returns the program to Statement #34.

132 **[RECORD EMPTY SCL]**
Empty the scale and press <ENTER>. The program will advance to the next Statement .

NOTE: If a scale fault occurs the program will advance to Statement #136. If the scale is over capacity the program will advance to Statement #137.

<UPARROW> returns the program to Statement #131.
<RESET> returns the program to Statement #34.

133 **[PUT SAMPLE ON]**
Place a known dollar amount (or count) on the scale platform, and press <ENTER>. The program will advance to the next Statement .

<UPARROW> returns the program to Statement # 132.
<RESET> returns the program to Statement #34.

134 **[ENT VAL? XXXX.XX] or [ENT CNT? XXXXXXX]**
Enter the value (or count) that has been placed on the scale and press <ENTER>. The 9182 will calculate the value (or count) per pound. The program will advance to the next Statement .

NOTE: If a scale fault occurs the program will advance to Statement #138. If the scale is over capacity the program will advance to Statement # 138a. If the current scale reading is less than or equal to the empty scale reading, the program will advance to Statement #139.

<UPARROW> returns the program to Statement #133.
<RESET> returns the program to Statement #34.

135 **[AA VAL XXXXX.XXX] or [AA CNT XXXXX.XXX]**
The display shows the current value (or count) per pound for this denomination. This Statement will be displayed for 2 seconds. The program will return to Statement #125 if there are more denominations to be setup or to Statement #120 if there are no more denominations to be setup.

136 **[SCALE FAULT]**
No data, invalid data, or checksum error was received from the indicator Press <ENTER> to have the return program to Statement #132.

<RESET> returns the program to Statement #120.

137 **[OVER CAPACITY]**
The scale is over capacity. Press <ENTER> to return the program to Statement #132.
<RESET> returns the program to Statement #20.

138 **[SCALE FAULT]**
No data, invalid data, or checksum error was received from the indicator. Press <ENTER> to return the program to Statement # 133.

<RESET> returns the program to Statement #20.

138a **[OVER CAPACITY]**
The scale is over capacity. Press <ENTER> to return the program to Statement #133.
<RESET> returns the program to Statement #20.

139 **[INVALID WEIGHT]**
Scale weight is less than or equal to the empty scale weight. Press <ENTER> to have the program return to Statement #133.

<RESET> returns the program to Statement #20.

140 **[SELECT DENOM ALL]**
Press <ENTER> when the display is showing ALL to setup tare weights for all enabled denominations. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #120.
<RESET> returns the program to Statement #34.

Select a denomination by using the <DENOM UP ARROW> or <DENOM DOWN ARROW> keys. Pressing <DENOM UP ARROW> will cause the display to show the next enabled denomination.

Pressing <DENOM DOWN ARROW> will cause the display to show the previous enabled denomination.

Press <ENTER> to setup the valuation data for the denomination displayed. The program will advance to the next Statement .

141 **[AA TARE ENTRY]**
Press <ENTER> to begin tare weight setup on this denomination (AA).
<UPARROW> returns the program to Statement #140.
<RESET> returns the program to Statement #34.

142 **[AA TARE XXX.XX] or [AA TARE XXX.XX]**
The display shows the current tare weight for this denomination.
Press <ENTER> to advance the program to the next Statement.
<UPARROW> returns the program to Statement #141.

<RESET> returns the program to Statement #34.

143 **[NEW AA TARE?]**
Press <YES> if a change to the tare weight is desired. The program will advance to Statement #145.

Press <NO> if the tare weight is not to be changed. The program will advance to the next Statement.

<UPARROW> returns the program to Statement # 142.
<RESET> returns the program to Statement #34.

144 **[AA TARE XXX.XXX] or [AA TARE XXX.XX]**
The display shows the current tare weight for this denomination. This Statement will be displayed for 2 seconds. The program will return to Statement # 141 if there are more denominations to be setup, or Statement #120 if there are no more denominations to be setup.

145 **[MANUAL ENTRY?]**
Press <YES> if the new tare weight entry will be done manually. The program will advance to the next Statement.

Press <NO> if the new tare weight is to be recorded by the 9182. The program will advance to Statement #147.
<UPARROW> returns the program to Statement #143.
<RESET> returns the program to Statement #34.

146 **[AA TARE? XXX.XXX] or [AA TARE XXX.XX**]
Enter the tare weight for this denomination and press <ENTER>. The program will return to Statement #141 if there are more denominations to be setup or to Statement #120 if there are no more denominations to be setup.

<UPARROW> returns the program to Statement #145.
<RESET> returns the program to Statement #34

147 **[CALC. AA TARE WT]**
Press <ENTER> to advance the program to the next Statement.
<UPARROW> returns the program to the next Statement.
<RESET> returns the program to Statement #34.

148 **[PUT CNTR ON SCL]**
Place the empty container on the scale and press <ENTER>.

The empty container weight will be read by the 9182 as the tare value for this denomination. The program will advance to the next Statement.

<UPARROW> returns the program to Statement #147.
<RESET> returns the program to Statement #34.

149 **[AA TARE XXX.XXX] or [AA TARE XXX.XX]**
The display shows the current tare weight for this denomination. This Statement will be displayed for 2 seconds. The program will return to Statement #141 if there are more denominations to be setup or to Statement #120 id there are no more denominations to be setup.

2.9 PRINT SUMMARY REPORT (ENHANCED UNITS ONLY)

NOTE: If no denominations have been enabled in the system file, the display will show [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #20.

160 **[PRINT SUMMARY?]**

Press <YES> to obtain a listing of the count data for source ID's stored in memory. The program will advance to Statement #160a if Count by Zones has been selected or to Statement #162 id Count by Zones has not been selected.

Press <NO> to return the program to Statement #20.
<UPARROW> returns the program to Statement #20.
<RESET> returns the program to Statement #20.

160a **[PRT ALL ZONES?]**
Press <YES> to have the summary for all zones printed. The program will advance to Statement #160.

Press <NO> to have the summary list printed for one particular zone. The program will advance to the next Statement.

<UPARROW> returns the program to Statement #160.
<RESET> returns the program to Statement #20.

161 **[SELECT ZONE X]**
Enter a zone number to obtain a summary of one particular zone. Press <ENTER> to advance the program to the next Statement.

<UPARROW> returns the program to Statement #160a.
<RESET> returns the program to Statement #20.

162 **[SELECT DENOM ALL]**
Press <ENTER> when the display is showing ALL to obtain a summary of the ID codes for all denominations. The program will advance to the next Statement.

Select a denomination by using the DENOM UP ARROW <F1> or DENOM DOWN ARROW <F2> keys. Pressing <F1> will cause the display to show the next enabled denomination.

Pressing <F2> will cause he display to show the pervious enabled denomination. Press <ENTER> to obtain a summary of the ID's for the denomination displayed. The program will advance to the next Statement.

<UPARROW> returns the program to Statement #161, #160, or #161a.
<RESET> returns the program to Statement #20.

163 **[PLEASE WAIT]**
The summary listing is printed (Figure 6). Upon completion, the program will return to Statement #160.

2.10 PRINT MISSED SLOTS (ENHANCED UNITS ONLY)

NOTE: If no denominations have been enabled in the system file the display will shot [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #20.

170 **[PR MISSED SLOTS?]**
Press <YES> to obtain a listing of all source ID's that have not been counted. The program will advance to Statement #170a if Count by Zone has been selected or to Statement #172 if Count by Zone has not been selected.

No return the program to Statement #20.
<UPARROW> returns the program to Statement #20.
<RESET> returns the program to Statement #20.

170a **[PRT ALL ZONES?]**
Press <YES> to have the ID list for al zones printed. The program will advance to Statement #172.

Press <NO> to have the ID list printed for one particular zone. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #170.
<RESET> returns the program to Statement #20.

171 [SELECT ZONE X]
Enter a Zone number to obtain a listing of missed slots of one particular zone. Press <ENTER> to advance the program to the next Statement .

<UPARROW> returns the program to Statement #170a.
<RESET> returns the program to Statement #20.

172 [SELECT DENOM ALL]
Select a denomination by using the DENOM UP ARROW <F1> or DENOM DOWN ARROW <F2> keys. Pressing <F1> will cause the display to show the next enabled denomination.

Pressing <F2> will cause the display to show the previous enabled denomination. Press <ENTER> to obtain a listing of missed slots for the denomination displayed. The program will advance to the next Statement .

<UPARROW> returns the program to Statement # 171, # 170, or #171a.

<RESET> returns the program to Statement #20.

Press <ENTER> when the display is showing ALL to obtain a listing of missed slots for all denominations. The program will advance to the next Statement .

173 [PLEASE WAIT]
The missed slot listing is printed (Figure 7). Upon completion the program will return to Statement #170.

2.11 PRINT SUBTOTAL

NOTE: If no denominations have been enabled in the system file the display will shot [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #20.

180 [PRINT SUBTOTAL?]
Press <YES> to obtain a subtotal listing. The program will advance to Statement #181 if Count by Zones has been selected or to Statement #183 if Count by Zone has not been selected.

No return the program to Statement #20.
<UPARROW> returns the program to Statement #20.
<RESET> returns the program to Statement #20.

181 [PRT ALL ZONES?]
Enhanced units only prompt.
Press <YES> to have the summary printed for all zones. The program will advance to Statement #183.

Press <NO> to have the summary printed for one particular zone. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #180.
<RESET> returns the program to Statement #20.

182 [SELECT ZONE X]

Enhanced units only prompt.
Enter a Zone number to obtain a summary of one particular zone. Press <ENTER> to advance the program to the next Statement .

<UPARROW> returns the program to Statement #181
<RESET> returns the program to Statement #20.

183 [SELECT DENOM ALL]
Press <ENTER> when the display is showing ALL to obtain a subtotal printout for all denominations. The program will advance to the next Statement .

Select a denomination by using the DENOM UP ARROW or DENOM DOWN ARROW keys. Pressing DENOM DOWN ARROW will cause the display to show the next enabled denomination. Pressing DENOM UP ARROW> will cause the display to show the previous enabled denomination.

Press <ENTER> to obtain a subtotal printout for the denomination displayed. The program will advance to the next Statement .

<UPARROW> returns the program to Statement # 180, # 181, or #182.
<RESET> returns the program to Statement #20.

184 [PLEASE WAIT]
The subtotal listing is printed (Figure 8). Upon completion the program will return to Statement #180.

2.12 PRINT TOTAL

NOTE: If no denominations have been enabled in the system file the display will shot [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #20.

190 [PRINT TOTAL?]
Press <YES> to obtain a total listing. The program will advance to Statement #191 if Count by Zones has been selected or to Statement #193 if Count by Zone has not been selected.

No return the program to Statement #20.
<UPARROW> returns the program to Statement #20.
<RESET> returns the program to Statement #20.

191 [PRT ALL ZONES?]
Enhanced units only prompt.
Press <YES> to have the summary printed for all zones. The program will advance to Statement #193.

Press <NO> to have the summary printed for one particular zone. The program will advance to the next Statement .

<UPARROW> returns the program to Statement #190.
<RESET> returns the program to Statement #20.

192 [SELECT ZONE X]
Enhanced units only prompt.
Enter a Zone number to obtain a summary of one particular zone. Press <ENTER> to advance the program to the next Statement .

<UPARROW> returns the program to Statement #191
<RESET> returns the program to Statement #20.

193 [SELECT DENOM ALL]

Select a denomination by using the DENOM UP ARROW or DENOM DOWN ARROW keys. Pressing DENOM DOWN ARROW will cause the display to show the next enabled denomination. Pressing DENOM UP ARROW> will cause the display to show the previous enabled denomination.

Press <ENTER> to obtain a subtotal printout for the denomination displayed. The program will advance to the next Statement .

<UPARROW> returns the program to Statement # 190, # 191, or #192.
<RESET> returns the program to Statement #20.

194 **[PLEASE WAIT]**
The total listing is printed (Figure 9). Upon completion the program will return to Statement #180.

195 **[REGISTER CLEARED]**
The total register for the denomination (all denominations if selected) has been cleared. This Statement will be displayed for 2 seconds. The program will return to Statement #20.

2.13 PRINT SUB GRAND TOTAL

NOTE: If no denominations have been enabled in the system file the display will shot [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #20.

PROGRAM STATEMENT **APPLICATION**

200 **[PR SUBGRAND TOT?]**
Press <YES> to obtain a sub grand total listing. The program will advance to the next Statement .

Press <NO> to return the program to Statement #20.
<UPARROW> returns the program to Statement #20.
<RESET> returns the program to Statement #20.

201 **[PLEASE WAIT]**
The sub grand total listing is printed (Figure 10). Upon completion the program will return to Statement #200.

2.14 PRINT GRAND TOTAL

NOTE: If no denominations have been enabled in the system file the display will shot [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #20.

210 **[PRT GRAND TOTAL?]**
Press <YES> to obtain a grand total listing. The program will advance to the next Statement .
Press <NO> to return the program to Statement #20.
<UPARROW> returns the program to Statement #20.
<RESET> returns the program to Statement# 20.

211 **[PLEASE WAIT]**
The grand total listing is printed (Figure 3). Upon completion the program will advance to the next Statement .

212 **[REGISTER CLEARED]**
The grand totals have been cleared. This Statement will be displayed for 2 seconds. The program will advance to the next Statement .

213 **[START OF COUNT?]**
Press <YES> to have the ID counts/values cleared. The display will show “TRANS CLEARED” for 2 seconds and the program will return to Statement #20.

Press <NO> to leave the ID counts/values as is. The program will return to Statement #20.
<RESET> will return the program to Statement #20.

2.15 START

NOTE: If no denominations have been enabled in the system file the display will shot [NO DENOMINATIONS]. Press <ENTER> to return the program to Statement #20.

NOTE: Upon entry into AUTO the scale is read. If the scale reading is less than -1 pound the program will advance to Statement #251. If the scale reading is greater than 1 pound, the program will advance to Statement #249.

230 **[START COUNT]**

Press <ENTER>. The valuation setup will be printed (Figure 2) and the program will advance to Statement #232.

<UPARROW> returns the program to Statement #20.
<GRAND TOTAL> returns the program to Statement #20.

232 **[SELECT DENOM XX]**

Select a denomination by using the <DENOM UP ARROW> or <DENOM DOWN ARROW> keys. Pressing <DENOM DOWN ARROW> will cause the display to show the next enabled denomination. Pressing <DENOM UP ARROW> will cause the display to show the previous enabled denomination.

Press <ENTER> to count using the denomination displayed.

If the WEIGHT denomination has been selected the program will advance to Statement #248, otherwise the program will advance to the next Statement .

<UPARROW> returns the program to Statement #231 or #230.
<GRAND TOTAL> returns the program to Statement #20.

233 **[AA-Z ID? XXXXXX]**

Enter the slot ID for this count and press <ENTER>. If the ID entered does not correspond with denomination and/or zone, the program will advance to Statement # 244. If the ID has already been counted, the program will advance to Statement #242. Otherwise the OK to Count output will be turned on and the program will advance to the next Statement .

NOTE: <UPARROW> key is disabled if RECORD was pressed for last count.

<UPARROW> returns the program to Statement #232.
<GRAND TOTAL> returns the program to Statement #20.

234 **[YYYYYY $XXXXX.XX] or [YYYYY XXXXXXX]**

The display shows the slot ID “YYYYYY” and the value (or count) “XXXXXX”. Place the coins in the scale hopper, wait for the scale to settle and press <ENTER> ‘READY TO WEIGHT” input or <RECORD>/ The OK TO COUNT output will be turned off. When there is no motion on the scale the 9182 will log the count. If host computer has been selected IN the program will advance to the next Statement , otherwise the program will advance to Statement #239.

<UPARROW> returns the program to Statement #233.
<GRAND TOTAL> returns the program to Statement #20.

NOTE: The RECORD key is used when accumulating transactions without discharging the scale.

The READY TO WEIGH input is an external input that the system monitors and reacts to as though the <ENTER> key were pressed.

NOTE: If a scale fault occurs, the display will show [SCALE FAULT]. If the scale is over capacity, the display will show [OVER CAPACITY]. If the scale weight is less than the tare weight when <ENTER> is pressed, the program will advance to Statement #247.

NOTE: If the calculated net weight is negative the display will show [NET UNDER ZERO]. If the operator attempts to record the transaction the display will show [RECORD EMPTY SCL]. The operator must answer with a <YES> or <NO> to continue the operation.

235 [TRANSMITTING]

The count data is sent to the host computer (see appendix A for format of data string). The host computer should respond with an ACK if the data string was successfully received and the data (ID, value, etc.) invalid. The host computer can respond with a NAK followed by a code (defined in appendix C) if the data received was not valid. If the 9182 received one of these responses the program will advance to Statement #237. If the 9182 does not receive a response within 10 seconds the program will advance to Statement #236. If the 9182 receives a response but it is not an ACK or NAK, or a NAK without a following code is received, or a NAK with an undefined code is received, the 9182 will retransmit the string. If the fault occurs after retransmitting the string 3 times the program will advance to the next Statement . If an ACK is received the program will advance to Statement #239.

NOTE: The host communications between the basic and enhances unit verified the SLOT ID, DENOMINATION, SLOT NUMBER AND DATA before it is transmitted. The basic version does not verify the data therefore it MUST BE VALIDATED BY THE HOST.

236 [COMM. FAULT X]

The display shows which type of computer fault that has occurred "X". See Appendix B for definition of computer faults. To retry the communication leave the COM LINK switch in the IN position and press <ENTER>. The program will return to Statement #3.

To abort the communication place the COM LINK switch in the OUT position and press <ENTER>. The program will advance to Statement #239.

237 **[INVALID ID]**
or
[INVALID DENOM] (invalid denomination)
or
[ID PREV USED] (ID previously used)
or
[DATA IMPROBABLE]
or
[NOT ACKNOWLEDGED]
or
[UNKNOWN REPONSE]

Press <ENTER> to advance the program to the next Statement .

238 **[OVERRIDE?]**
Press <YES> to have the 9182 override the host computer response. The override response will be sent to the computer. The override message required an acknowledge response from the host computer.
Press <NO> to return the program to Statement #234.

239 **[PLEASE WAIT]**
The count data is printed (Figure 7) and added to the totals. If <RECORD> was pressed the scale will be tared and the program will return to Statement #233.
Press <ENTER> and the program will advance to the next Statement .

240 **[DISCHARGING]**
The discharge output is turned on for the minimum discharge time entered at Statement #53c. The weight will then be compared to the discharge cutoff value entered at Statement #53b. If the weight falls below this value the discharge output is turned off. The scale must discharge within 10 seconds after the minimum discharge time. If it does not discharge the program will advance to the next Statement . Once the scale has been discharged, the program will return to Statement #233 or #230.

241 **[SCALE OFF ZERO]**
Scale is off zero. Check to see if hopper is completely empty. Empty the hopper and press <ENTER>. The program will return to Statement #240.

<GRAND TOTAL> returns the program to Statement #20.

242 **[ID PREV USED]**
Enhanced units only prompt.
Press <F8> SPLIT BUCKET to advance the program to the next Statement .
Press <ENTER>, <UPARROW>, or <RESET> to return the program to Statement #233.
<GRAND TOTAL> returns the program to Statement #20.

243 **[SPLIT BUCKET?]**
Enhanced unit only prompt.
Press <YES> if this slot ID is a double bucket. The program will return to Statement #234.
Press <NO> to return the program to Statement #233.
<UPARROW> returns the program to Statement #242.
<GRAND TOTAL> returns the program to Statement #20.

244 **[INVALID ID]**
Enhanced unit only prompt.
Press <ENTER> or <UPARROW> to return the program to Statement #233.
<GRAND TOTAL> returns the program to Statement #20.

247 **[RECORD EMPTY SCL]**

Press <YES> to have the net weight forced to zero.
Press <UPARROW> to resume counting.
<GRAND TOTAL> returns the program to Statement #20.

248 [WEIGHT XXX.XX]
The display shows the current weight of the scale. Press <ENTER> to return the program to Statement #230.
<GRAND TOTAL> returns the program to Statement #20.

249 [SCALE OFF ZERO]
Scale is off zero after a discharge. Check to see if hopper is completely empty. Press <ENTER> to advance the program to Statement #250.
<GRAND TOTAL> returns the program to Statement #20.

250 [DISCHARGE?]
Press <YES> to have the discharge output turned on. The program will return to Statement #240.
Press <NO> to have the scale weight read again and checked against the zero tolerance value.
<GRAND TOTAL> returns the program to Statement #20.

251 [NET UNDER ZERO] (NOT USING SPLIT BUCKETS)
Zero the scale by opening the keypad locked door and press the Zero pushbutton and continue weighing.

252 [NET UNDER ZERO] (USING SPLIT BUCKETS)
When this message appears on the display when using split buckets. DO NOT zero the scale. Continue weighing coins. If the scale is off or under zero the program will go to Statement #241 or #253, after the discharge.

253 [SCALE UNDER ZERO]
Scale weight is under zero. Open keyed locked door and press the Zero pushbutton, press the <ENTER> key, then press then <GRAND TOTAL> key to return the program to Statement #20. This will clear the under zero condition. Press <START> to return to Count Mode.

3.0 PRINTOUTS

3.1 FIGURE 1 - SYSTEM FILE LISTING

```
      SYSTEM FILE SETUP
      XX:XX          XX/XX/XX

      AUTO TARE          IN
      COMPUTE            VALUE
*     SOURCE ID          USED
**    'RECORD EMPTY SCALE' PROMPTING OUT
      8855 ENABLEDNO
      PRINT SPACES       1
      EXTRA SPACE        NO
      HOST BAUD          300
*     DISC CUTOFF        1.0
*     MIN DISC TM        0.5
      PN PENNIES         IN
      NK NICKELS         IN
      DM DIMES           OUT
      QT QUARTERS        IN
      HF HALVES          OUT
      SD DOLLARS         IN
      1T $1 TOKENS       IN
      2T $2 TOKENS       IN
      5T $5 TOKEN        IN
```

	10 $10 TOKENS	IN
	20 $20 TOKENS	IN
	25 $25 TOKENS	IN
	50 $50 TOKENS	IN
	1C $100 TOKENS	IN
**	5C $500 TOKENS	IN
**	1M $1000 TOKENS	IN
**	5M $5000 TOKENS	IN
	W WEIGHT	IN

* Indicates Enhanced Units Only feature.
** Indicates Basic Units Only feature.

3.2 FIGURE 2 - VALUATION DATA LISTING

VALUATION DATA or VALUATION DATA
XX:XX XX/XX/XX XX:XX XX/XX/XX

	PN	VAL XXXXX.XXX/LB	PN	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	NK	VAL XXXXX.XXX/LB	NK	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	QT	VAL XXXXX.XXX/LB	QT	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	SD	VAL XXXXX.XXX/LB	SD	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	1T	VAL XXXXX.XXX/LB	1T	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	2T	VAL XXXXX.XXX/LB	2T	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	5T	VAL XXXXX.XXX/LB	5T	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	10	VAL XXXXX.XXX/LB	10	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	20	VAL XXXXX.XXX/LB	20	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	25	VAL XXXXX.XXX/LB	25	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	50	VAL XXXXX.XXX/LB	50	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
	1C	VAL XXXXX.XXX/LB	1C	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
**	5C	VAL XXXXX.XXX/LB	5C	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
**	1M	VAL XXXXX.XXX/LB	1M	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB
**	5M	VAL XXXXX.XXX/LB	5M	CNTS	XXXXX.XXX/LB
		TARE XXX.XXX/LB		TARE	XXX.XXX/LB

* Indicates Enhanced Units Only feature.
** Indicates Basic Units Only feature.

3.3 FIGURE 3 - GRAND TOTAL

XX:XX	XX/XX/XX	or	XX:XX	XX/XX/XX
PN VAL	$XXXX.XX GT		PN CNTS	XXXX GT
NK VAL	$XXXX.XX GT		NK CNTS	XXXX GT
QT VAL	$XXXX.XX GT		QT CNTS	XXXX GT
SD VAL	$XXXX.XX GT		SD CNTS	XXXX GT
COINS	$XXXX.XX GT		COINS	XXXXX GT
1T VAL	$XXXX.XX GT		1T CNTS	XXXX GT
2T VAL	$XXXX.XX GT		2T CNTS	XXXX GT
5T VAL	$XXXX.XX GT		5T CNTS	XXXX GT
10 VAL	$XXXX.XX GT		10 CNTS	XXXX GT
20 VAL	$XXXX.XX GT		20 CNTS	XXXX GT
25 VAL	$XXXX.XX GT		25 CNTS	XXXX GT
50 VAL	$XXXX.XX GT		50 CNTS	XXXX GT
1C VAL	$XXXX.XX GT		1C CNTS	XXXX GT
** 5C VAL	$XXXX.XX GT		5C CNTS	XXXX GT
** 1M VAL	$XXXX.XX GT		1M CNTS	XXXX GT
** 5M VAL	$XXXX.XX GT		5M CNTS	XXXX GT
TOKENS	$XXXX.XX GT		TOKENS	XXXXX GT
ALL	$XXXXX.XX GT		ALL	XXXXXX GT

* Indicates Enhanced Units Only feature.
** Indicates Basic Units Only feature.

3.4 FIGURE 4 - SOURCE ID LISTING

ZONE 1

LIST OF SD ID CODES ENTERED
000001 000002 000004 000005
000006 000007 000045 000055
000077 000078 000079
11 SD CODES LISTED

LIST OF HF ID CODES ENTERED
000003 000008 00009 000010
000011
5 TK ID CODES LISTED

3.5 FIGURE 5 - PREVIOUSLY ASSIGNED ID'S

ID XXXXX PREVIOUSLY ASSIGNED TO AA-Z
ID XXXXX PREVIOUSLY ASSIGNED TO AA-Z
ID XXXXX PREVIOUSLY ASSIGNED TO AA-Z

NOTE: AA is a denomination, z is zone.

3.6 FIGURE 6 - SUMMARY

XX:XX XX/XX/XX

ZONE 1

PN	000001	VAL	$XXX.XX	or	PN 000001 CNTS	XXX.XX
PN	000002	VAL	$XXX.XX	or	PN 000002 CNTS	XXX.XX
PN	000003	VAL	$XXX.XX	or	PN 000003 CNTS	XXX.XX
NK	000004	VAL	$XXX.XX	or	NK 000004 CNTS	XXX.XX
NK	000005	VAL	$XXX.XX	or	NK 000005 CNTS	XXX.XX

ZONE 2

PN	000041	VAL	$XXX.XX	or	PN 000041 CNTS	XXX.XX
PN	000042	VAL	$XXX.XX	or	PN 000042 CNTS	XXX.XX
PN	000043	VAL	$XXX.XX	or	PN 000043 CNTS	XXX.XX
NK	000044	VAL	$XXX.XX	or	NK 000044 CNTS	XXX.XX
NK	000045	VAL	$XXX.XX	or	NK 000045 CNTS	XXX.XX

3.7 FIGURE 7 - MISSED SLOTS

LIST OF SLOTS NOT COUNTED
XX:XX XX/XX/XX
ZONE 1

PN 000001
PN 000002
PN 000003

NK 000004
NK 000005

3.8 FIGURE 8 - SUBTOTAL

XX:XX XX/XX/XX

PN VAL $XXXX.XX ST or PN CNTS XXXXXXX ST
PN BUCKET COUNT XX PN BUCKET COUNT XX

3.9 FIGURE 9 - TOTAL

XX:XX XX/XX/XX
PN VAL $XXXX.XX T or PN CNTS XXXX T

3.10 FIGURE 10 - SUBGRAND TOTAL

	XX:XX	XX/XX/XX		XX:XX	XX/XX/XX
	PN VAL	$XXXX.XX GST		PN CNTS	XXXX GST
	NK VAL	$XXXX.XX GST		NK CNTS	XXXX GST
	QT VAL	$XXXX.XX GST		QT CNTS	XXXX GST
	SD VAL	$XXXX.XX GST		SD CNTS	XXXX GST
	COINS	$XXXX.XX GST		COINS	XXXXX GST
	1T VAL	$XXXX.XX GST		1T CNTS	XXXX GST
	2T VAL	$XXXX.XX GST		2T CNTS	XXXX GST
	5T VAL	$XXXX.XX GST		5T CNTS	XXXX GST
	10 VAL	$XXXX.XX GST		10 CNTS	XXXX GST
	20 VAL	$XXXX.XX GST		20 CNTS	XXXX GST
	25 VAL	$XXXX.XX GST		25 CNTS	XXXX GST
	50 VAL	$XXXX.XX GST		50 CNTS	XXXX GST
	1C VAL	$XXXX.XX GST		1C CNTS	XXXX GST
**	5C VAL	$XXXX.XX GST		5C CNTS	XXXX GST
**	1M VAL	$XXXX.XX GST		1M CNTS	XXXX GST
**	5M VAL	$XXXX.XX GST		5M CNTS	XXXX GST
	TOKENS	$XXXX.XX GST		TOKENS	XXXXX GST
	ALL	$XXXXX.XX GST		ALL	XXXXXX GST

* Indicates Enhanced Units Only feature.
** Indicates Basic Units Only feature.

3.11 FIGURE 11 - TRANSACTION PRINOUT

PN 000001 VAL $XXXXX.XX or PN 000001 CNTSXXXX

NOTE: If the COMPUTER LINK is not used all transaction messages will be preceded by an asterisk (*).

*PN 000001 VAL $XXXXX.XX or *PN 000001 CNTSXXXX

NOTE: A computer fault message that has been overridden will be denoted by an “?”, preceding the transaction message.

?PN 000001 VAL $XXXXX.XX or ?PN 000001 CNTSXXXX

NOTE: A split bucket transaction will be denoted by the word SPLIT being appended to the printout.

PN 000001 VAL $XXXXX.XX SPLIT or PN 000001 CNTSXXXX SPLIT

3.12 FIGURE 12 - MANUAL SLOT ENTRY

PN 000001 VAL $0.00 - - MANUAL or PN 000001 CNTS0 - - MANUAL

4.0 APPENDICES

4.1 APPENDIX A - HOST COMMUNICATIONS - DATA STRING FORMAT

The following defined the data string transmitted by the Host (refer to Statement #235 for more detail).

	FIELD	LEGNTH	FORMAT
	STX	1	02H
	DENOMINATION	2	AA
	ID	6	NNNNNN
	COUNT OR VALUE	8	NNNNNNNN
*	SPLIT BUCKET FLAG	1	30H = NOT SPLIT BUCKET 31H = SPLIT BUCKET
	OVERRIDE	1	30H = NOT OVERRIDDEN 31H = OVERRIDDEN
	ETX	1	03H
	BCC	1	BINARY XOR OVER 7 BITS

The block check character (BCC) is defined as the exclusive or of the lower 7 bits of all characters sent, excluding the STX but including the ETX.

DENOMINATION CODES ARE AS FOLLOWS:

	PN	PENNIES
	NK	NICKELS
	DM	DIMES
	QT	QUARTERS
	HF	HALVES
	SD	DOLLARS
	1T	$1 TOKENS
	2T	$2 TOKENS
	5T	$5 TOKENS
	10	$10 TOKENS
	20	$20 TOKENS
	25	$25 TOKENS
	50	$50 TOKENS
	1C	$100 TOKENS
**	5C	$500 TOKENS
**	1M	$1000 TOKENS
**	5M	$5000 TOKENS

* Indicates Enhanced Units Only feature.
** Indicates Basic Units Only feature.

4.2 APPENDIX B - COMPUTER FAULT DEFINITIONS

CODE	DEFINITION
A	NO RESPONSE
	The TSM did not receive a response from the host computer.
B	INVALID RESPONSE
	The TSM did receive something from the host computer but the data received was incorrect.
C	RECEIVED NAK WITHOUT FOLLOWING CODE
	The TSM received a NAK but did not receive a code after the NAK.
D	RECEIVED NAK WITH INVALID FOLLOWING CODE
	The TSM received a NAK followed by an undefined code from the host computer.

4.3 APPENDIX C - NAK CODE DEFINITIONS

30H = INVALID ID
31H = INVALID DENOM
32H = ID PREV USED
33H = DATA IMPROBABLE

4.4 APPENDIX D - PHYSICAL COMPUTER LINK CHARACTERISTICS

SELECTABLE BAUD RATE 300 TO 9600 BAUD
7 - BIT ASCII
EVEN PARITY
1 STOP BIT

RS232 OR 20 mA LOOP IS AVAILABLE

4.5 APPENDIX E - SPARE PARTS LIST

PARTS LIST - 9182 COIN COUNTER	
KT665032MRX*	CPU106 with E-PROMS
12301300A	A/N Keyboard - 9182
A12889400A	8142 PCB
KT665032BBG	RS232 PCB - Scanner I/O
A12550200A	DSIO - PCB
KT665032BBP	PS102 - PCB
A12937300A	S-RAM Memory PCB
KB574431020	Power Supply Main
09620030000	Opto 22 Input
09620026000	Opto 22 Output
KT665015AAS	Pico Fuse - Opto PCB
KB574432020	8142 Power Supply Transformer
A11748700A	8142 Keypad
12465400A	Fuse - 1.5 AMP Main
* MRS for TSM861 - Enhanced. MRW for TSM860 - Non- Enhanced	

4.6 REFERENCE MATERIALS

1. “Technical Manual” Toledo Scale Model 8142 Digital Indicator

REFERENCE DRAWINGS

A.	KC470421	-	SCHEMATIC WIRING DIAGRAM
B.	KC470420	-	EXTERNAL WIRING DIAGRAM
C.	KC577997	-	ENCLOSUDE ASSEMBLY
D.	KN582073	-	EXPANDED MEMORY ADD-ON, INCLUDING PROGRAM