SINCE 1897

TRINER SCALE

Scales for business and industry

Operating Guide

TSFS-300 Air Parcel Conveyor Scale

With automatic totalizing

TSFS-300

- Automatic Totalized Weight
- Automatic Total Item Count
- Nonvolatile Memory
- Built In Rechargeable Battery

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FEATURES

Fully automated totalizing of weight and item count for parcel weighing and parcel loading sessions.

Nonvolatile memory retains totalized weight and item count, even in the event of power failure.

Extra-large LCD display for largest possible readout.

Easily add one weight multiple times by pressing ADD key while in any mode of operation.

Easily subtract/backout any item's weight and count simply by pressing SUBTRACT key, then re-weigh item in SUBTRACT mode.

Remove most recent transaction from memory with a single press of UNDO key.

Factory calibrated.

Beep tone informs user with distinctive alerts when:

- Scale is ready to weigh item
- Item on scale has been added to total
- Item on scale has been subtracted from total

Three operating modes to accommodate user's preference:

- Mode 1 = Auto Add, Total Weight displayed
- Mode 2 = Auto Add, Item Weight displayed
- Mode 3 = Manual Add, Item Weight displayed

SPECIFICATIONS

Capacity
    300 lb x 0.2 lb

Weighing Platform/Roller Deck
    20" L x 27" W

Digital Indicator
    Triner model TS 500-T, auto totalizing
    5 key front panel
    Built in rechargeable battery
    Stainless steel NEMA 4X enclosure

Construction
    Carbon steel cart frame, permanent-lubed
    rollers, pneumatic tires, with front wheel
    castoring and locking brakes.

Power
    Built in rechargeable battery or 110 VAC

External Dimensions
    36.5" L (w/handle) X 27" W x 30.5" H

To keep the battery fully charged, it is
recommended that the scale be plugged into
110 VAC when not in use.

QUICK START

Power On
Press the On key to power on the scale. If required, plug in the AC adpater to power the scale and charge the internal battery.

Check the Scale's Mode of Operation
Look at the annunicator arrows in the bottom of the display window. The scale has three operating modes:

Mode 1: Auto Add with Total Weight display
Mode 2: Auto Add with Item Weight display
Mode 3: Manual Add with Item Weight display

If the scale is not in the operating mode you require, refer to the "Chainging the Operating Mode" section in this guide.

Clear the Scale's Memory
Always clear the scale's memory before begining a weigh session!

Press RESET key for 3+ seconds until "reset" displays (The scale is now in settings mode. Refer to the graphic below each key for the key's function while in settings mode).

Press the Up Arrow key to change "no" to "yes", then press the SET key.

Proceed With Weigh Session (Mode 1)
Place item on scale. Item's weight briefly displayed, then the weigh session total weight will display (First item and weigh session total will be the same weight).

Continue weighing all items. After each item is weighed and counted, the tolalized weight of all items will display.

To view item count at any time, press the DISPLAY key.

DIGITAL DISPLAY ICONS & ANNUNCIATORS

The status icons and annunciator arrows inform the user of the scale' status, the mode of operation, and the type of information being displayed in the digital readout.
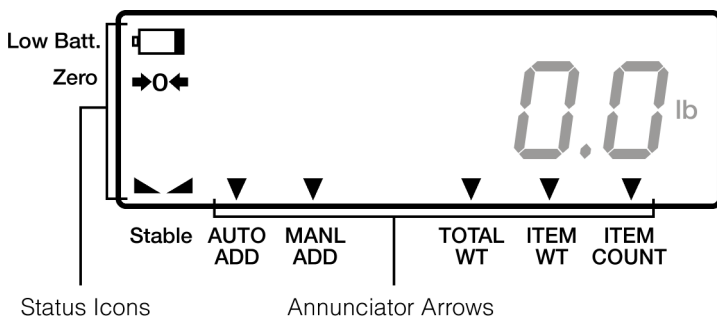

Low Batt.
Zero

0.0 lb

Stable AUTO MANL   TOTAL ITEM   ITEM
        ADD   ADD   WT   WT   COUNT

Status Icons   Annunciator Arrows

Fig. 1

Low Battery Status Icon (▯)
Flashes to indicate the battery power is low.

After approximately 40 hours of continuous battery- powered operation, the low battery icon will flash for 25 minutes, then rapidly flash for 5 minutes before the scale powers off.

Refer to "Battery Operation" in this manual for additional information.

Center of Zero Status Icon (➡0⬅)
Displays when the scale is on Zero.

Indicates there is no weight being registered in the scale's electronics.

Stable Status Icon (�▲)
Displays when the scale is Stable.

Indicates the scale is not fluctuating or drifting.

5

Annunciator Arrows (▼)
Indicate the mode of operation and the type of information that is being displayed in the digital readout.

Refer to "Operating Modes" in this manual for additional information.

KEYPAD KEY FUNCTIONS

Operation of the scale is controlled by the five keys on the front panel keypad.

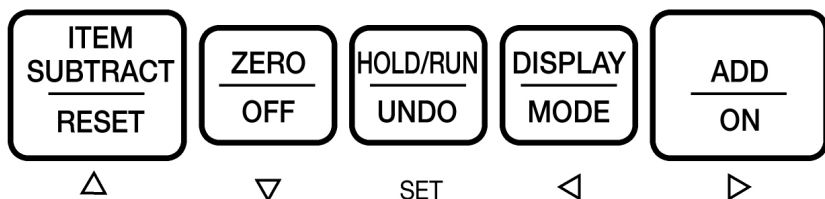| ITEM SUBTRACT RESET	ZERO OFF	HOLD/RUN UNDO	DISPLAY MODE	ADD ON
△	▽	SET	◁	▷

Fig. 2

Item Subtract Key
Puts the scale in a mode that will subtract the next item placed on the scale from the accumulated total.

Press the SUBTRACT key. A dash will display in the readout, indicating subtract mode. Place the item to be subtracted on the platform. The weight and one item count will be subtracted. The scale then returns to normal mode.

Reset Key
Resets the scale's weigh session memory.

Press and hold the RESET key until "reset" displays. Press the up arrow key to change "no" to "yes", then press the SET key.

> **IMPORTANT! The scale's weigh session memory must be reset before each new weigh session.**

Zero Key
Zeroes out any positive or negative weight registered by the scale's electronics.

With nothing on the weighing platform, press the ZERO key to manually zero the scale.

Off Key
Powers off the scale.

Press and hold the OFF key for 3 seconds to turn the scale off.

Hold-Run Key
Holds the weight of an item on the scale. Returns the scale to normal (run) mode.

With an item on the scale, press the HOLD-RUN key to hold the weight displayed. The displayed weight will flash to indicate it is a held weight.

Press the key again to return to normal (run) mode.

Undo Key
Undoes the last transaction (item added or item subtracted).

Press and hold the UNDO key until "Undo" displays. The last item added or last item subtracted will be undone. NOTE: Once the last transaction has been undone, the scale returns to normal operation.

Display Key
Displays the various information for the weigh session.

Press the DISPLAY to cycle through the Total Weight, Item Weight and Item Count. The annunciator arrow indicates which information is being displayed. A flashing arrow indicates the information is being displayed temporarily, and the default display will return in 5 seconds. Pressing the DISPLAY key at any time will cycle through the three displays.

Mode Key
Accesses the three operating modes (1, 2 or 3).

Press and hold the MODE key for 3+ seconds to access the mode setting menu. The display will indicate the mode that the scale is in, i.e., "Mode 1".

To change the mode, press the left ($\triangleleft$) or right ($\triangleright$) arrow key to move through the mode menu, then press the SET key to accept your selection.

Mode 1 = Auto Add, Total Weight displayed
Mode 2 = Auto Add, Item Weight displayed
Mode 3 = Manual Add, Item Weight displayed

Add Key
Press to manually add an item to the cumulative totals.

In any operating mode, press the ADD key to add the weight and count of an item on the platform. The key can be used to add a weight that is on hold.

On Key
Powers on the scale.

Press to turn on the scale.

OPERATING MODES

General Description

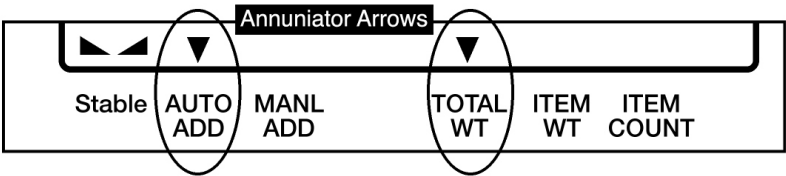The scale has three modes of operation:
Mode 1 = Auto Add, Total Weight displayed
Mode 2 = Auto Add, Item Weight displayed
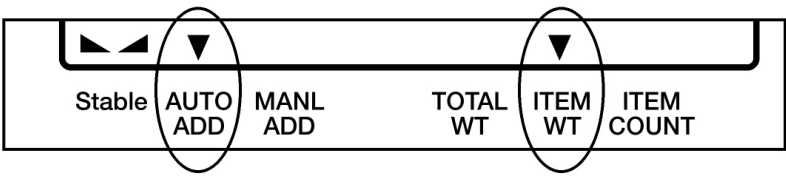Mode 3 = Manual Add, Item Weight displayed

The typical factory setting is Mode 1.

When the scale is powered on, the two annunciator arrows in the bottom of the digital display will indicate the operating mode that the scale is set to:
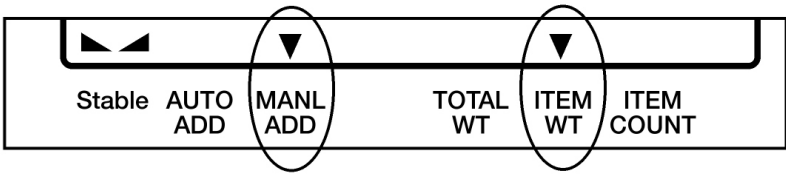

Automatic Add, Total Weight Displayed (Mode 1)   Fig. 3

Automatic Add, Item Weight Displayed (Mode 2)   Fig. 4

Manual Add (Mode 3)   Fig. 5

Changing the Operating Mode
To change the operating mode, press and hold the MODE key for 3+ seconds to access the mode setting menu.

Press the left (◁) or right (▷) arrow key to move through the menu, then press the SET key to accept your selection.

Mode 1 = Auto Add, Total Weight displayed
Mode 2 = Auto Add, Item Weight displayed
Mode 3 = Manual Add, Item Weight displayed

**Operating the Scale in Mode 1
(Auto Add, Total Weight Displayed)**
In this mode, the display will always revert to the totalized weight in the scale's memory.

During a weigh session, the display will momentarily show the weight of the item on the platform, then revert to displaying the totalized weight.

When the item is removed, the totalized weight remains in the display. The annunciator arrow points to TOTAL WT.

To view the Item Weight (weight on the platform) at any time, press the DISPLAY key.

To view the Item Count in the scale's memory, press the DISPLAY key to cycle through the displays.

**Operating the Scale in Mode 2
(Auto Add, Item Weight Displayed)**
In this mode, the display will always revert to the weight of the item on the platform.

During a weigh session, the display will momentarily show the totalized weight, then revert to displaying the item weight.

When the item is removed, the display shows 0.0 lb (weight on the platform). The annunciator arrow points to ITEM WT.

To view the Totalized weight at any time, press the DISPLAY key.

To view the Item Count in the scale's memory, press the DISPLAY key to cycle through the displays.

Operating the Scale in Mode 3 (Manual Add, Item Weight Displayed)
This mode turns off the scale's automatic add function.

Pressing the ADD key while an item is on the scale platform will add the item's weight and count to the totalized memory in the scale.

GENERAL OPERATION

Beep Tone Signals
When the scale is in operation, beep tone signals help inform the operator of the functions and status of the scale.

ONE BEEP:
Item on scale has been added.

TWO BEEPS:
Scale is ready for next item.

THREE BEEPS:
Scale has put into subtract mode.
Item has been subtracted.

The beep tone signal feature allows the user to proceed through the weigh session without having to look at the display to verify that each item has been added and the scale is ready for placing the next item on the weighing platform.

Resetting the Scale's Memory
To reset the scale's memory, press and hold the RESET key for 3+ seconds until "reset" displays in the readout. Press the up arrow key to change the "no" to "yes", then press the SET key to accept the setting.

> **The scale's memory must be reset before each totalizing session.**

Adding One Weight Many Times
While in any mode, with the item on the platform, press the ADD key, wait briefly for the scale to complete the calculation, then repeat as needed.

Each time the item is added, a single beep will sound, confirming that the item's weight and count have been added.

Holding a Weight

To hold a weight of an item on the weighing platform, press the HOLD key. The displayed weight will continually flash, showing that the weight is being held.

The only function available in hold mode is the ADD key function.

To return the scale to normal operation, press the HOLD key again.

Subtracting/Backing Out a Weight

While in Auto Add Mode 1 or Auto Add Mode 2, press the SUBTRACT key.

Dashes will display to left of the indicated weight, showing that the scale is in Subtract Mode.

The next item placed on the scale platform will be subtracted from the cumulative totals for weight and item count.

The scale then returns to normal operation.

Undoing the Most Recent Transaction

While in any mode, press and hold the UNDO key. "Undo" will display in the readout, and the last transaction will be removed from the scale's memory.

The undo feature applies to the last item added or the last item subtracted.

Zeroing the Scale

Occasionally, certain conditions can result in the scale not being on the center of zero when at rest. This condition is indicated by the center of zero icon not displaying in the readout.

To remedy, remove all items from the weighing platform, and press the ZERO key.

Note that the center of zero icon will display, indicating that the scale is on center of zero.

Battery Operation
The TSFS-300 scale is designed to operate 35 to 40 continuous hours on a fully charged battery.

When the battery reaches approximately 80% discharge, the low battery icon will flash for 25 minutes, followed by rapid flashing for 5 minutes, then the system will power off.

Auto Off Feature
To conserve battery power, the scale will automatically power off after 20 minutes of non-use.

Reserve Power Feature
This special feature enables the scale to be operated on reserved battery power after it has shut down due to a low battery condition.

After the scale has powered off, turning the unit back on will access 5 additional minutes of battery powered operation. During this time the battery icon will rapidly flash. Depending on conditions such as ambient temperature and initial charge in the battery, the reserve power feature can be used several times before the reserve power is exhausted.

Charging the Battery
Using the included AC adapter, insert the low voltage jack into the socket located on the front panel of the indicator housing, and plug the 110 volt plug in to a standard 110 VAC outlet. A period of 8 continuous hours is required to fully charge the battery.

To maintain a full charge in the battery, it is recommended that the scale be plugged in to 110 VAC while not in use.

110 VAC Operation
The scale can be operated using the 110 VAC adapter/charger. The adapter also maintains a full charge in the battery while connected to the scale and 110 VAC.

It is not recommended than the scale be operated using an extension cord longer than 75 feet, as the AC current in excessively long cords can result in inconsistencies in the scale's operation.

SUBSTITUTING AN AC ADAPTER WILL VOID THE SCALE'S WARRANTY AND MAY CAUSE DAMAGE TO THE DIGITAL INDICATOR.

TROUBLE SHOOTING

Symptom	Condition	Solution
Display shows six dashes	Under zero	Press ZERO key
Display shows six small zeros	Overloaded	Overloaded remove weight from platform
Scale display is erratic	Bad AC adapter or bad battery	Replace AC adapter or battery
Display shows a small weight (positive or negative) when nothing is on the platform	Scale is off zero	With nothing on the platform, press ZERO key
Scale will not weigh item on platform	Is the display flashing a weight?	Press RUN key to turn off the Hold function
Scale will not automatically add an item placed on the platform	Is the arrow in the lower area of the display pointing to MANL ADD?	Press and hold the MODE key to change from Manual Add Mode to Auto Add Mode
	Is the Center of Zero Icon displaying?	With nothing on the platform, press the ZERO key

FREQUENTLY ASKED QUESTIONS

Q: When the scale is on, and I press down on the platform, the displayed weight doesn't change—why?

A: When the scale is in Mode 1, it will not display the weight on the platform until the weight becomes stable, that is to say, not increasing or decreasing.

As soon as the weight becomes stable, it will be added, displayed briefly, then the totalized weight will display.

Q: Can I use the scale as a standard, straight-weight scale without totalizing?

A: Yes. By selecting operating Mode 3, the weighing operation of the TFS-300 will be similar to that of a standard, non-totalizing bench scale.

The user can also press the ADD key to manually totalize items placed on the platform.

Q: How long should the battery be charged?

A: A period of 8 continuous hours is required to fully charge the battery.

NOTE: To maintain a full charge in the battery, it is recommended that the scale be plugged in to 110 VAC while not in use.

Q: Does the battery have specific requirements for the charging and discharging cycles?

A: No, the battery requires no monitoring of the charge/discharge cycles.

Q: Will using the scale in extreme cold conditions effect battery operation?

A: Generally, extreme cold conditions will shorten the length of time a battery will keep its effective charge. Battery powered operation of the TSFS-300 in extreme cold conditions is likely to result in a somewhat shorter operating time available between recharges.

GENERAL CARE

The TSFS-300 is designed to provide years of trouble-free performance, and requires no maintenance from the user.

NOTE: if the scale is wet when operated in freezing conditions, ice may form on the unit, which could adversely effect the scale's operation. Be sure to check the scale for ice formation while operating in freezing or near-freezing conditions.

CAUTION: DO NOT PRESSSURE WASH ANY PARTS OF THE SCALE, AS DAMAGE TO ELECTRONICS CAN RESULT.

LIMITED WARRANTY

See separate warranty sheet for warranty terms, conditions and limitations, or visit www.trinerscale.com and click "warranties" in the footer section.

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