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# TECHNICAL SPECIFICATIONS

**SIZE**
7.33" long x 5.25" high x 3.38" wide (186mm x 133mm x 85mm)

**WEIGHT**
2 lbs (.91 Kg)

**HELP MESSAGES**
Context sensitive help messages in 10 languages
Long messages are scrolled

**TRANSUDER EXCITATION**
8 volts D.C. Nominal
Capable of driving eight 350 Ohms transducers
Short circuit proof

**ATC**
Auto Temperature Compensation of the internal circuitry for high accuracy weighing measurements

**TRANSUDER SIGNAL**
Compatible with transducers having full scale indicator transfer characteristics greater than 0.25 mv/v

**“AUTO RANGE”**
(Selectable) To increase display counts at weight values of 300 and 600 display counts.

**CONNECTOR**
AMP plastic weather resistant circular connector. Gold contacts.

**POWER REQUIREMENTS**
10.5 to 16.0 V.D.C.
160 mA nominal with four 350Ω L.C.

**SET UP AND CALIBRATION**
Via front panel

**GROSS RANGE**
999,999 max.display

**LOW BATTERY WARNING**
Enabled at 10.5V nominal

**POUND/KILOGRAM**
Selectable

**DISPLAY**
STD EZ 6 Digit LCD 1.0. high

**DISPLAY RESOLUTION**
.01, .02, .05, .1, .2, .5, 1, 2, 5, 10, 20, 50, 100

**DISPLAY UPDATE RATE**
Selectable: 1, 2, 3, 4 times/sec.

**MAX. DISPLAY RESOLUTION**
Adjustable to 40,000 counts max.

**ZERO TRACKING**
Selectable, On/Off

**SPAN ACCURACY**
±(.1% + .005%/ °F) or (.1% + 0.009% °C) full scale ± 1 output count

**MOTION DETECTION**
Selectable, On/Off

**ZERO ACCURACY**
(.005%/ °F.) or (0.009% °C) full scale ±1 output count for 0.5 mv/v transducer

**ENVIRONMENTAL ENCLOSURE**
IP65, IEC 529

**WEIGH ALGORITHM**
4 internally selectable digital filters to optimize performance
(General, Slow, Fast and Lock-on)

**NON-VOLATILE MEMORY**
EEPROM for balance

**OPERATING TEMP**
-29°C to 60°C    -20°F to 140°F
SAFETY DURING USE

Caution

Cleaning
Do not use running water (high pressure cleaners, hoses) to clean the indicator.

Batteries
- Use AA Batteries
- Insert batteries negative (-) end first.
- Batteries are not necessary if using an AC power adapter.

Rechargeable Batteries
- Rechargeable batteries may be used.
- Rechargeable batteries will show a lower charge level when fully charged.
- The SW300 does not charge batteries.

Battery Life
- Percent of remaining battery life is displayed at power-up.
- To extend battery life, select a lower backlight level or OFF. See instructions below.

Low Battery Indication
- Low Battery message and arrow is displayed when battery low.
- Rechargeable batteries may cause low battery indication to appear earlier than necessary.
### Battery Life

<table>
<thead>
<tr>
<th>BACKLIT</th>
<th>Estimated Operating Battery Life (Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>40-60</td>
</tr>
<tr>
<td>TIME 3</td>
<td>30-55</td>
</tr>
<tr>
<td>ON 3</td>
<td>25-45</td>
</tr>
<tr>
<td>ON 5</td>
<td>8-16</td>
</tr>
</tbody>
</table>
**INDICATOR OVERVIEW**

Note: See page 16 for installation instructions

1. ▼ - press and hold to zero balance.
2. ✔ - reweigh if scale is locked on.
3. MENU - press and hold for setup menu.
4. ON/OFF - turns indicator on/off.
5. Display Window – Displays current weight or action.
Bottom Panel

SW300 with Load Cell Connectors

The bottom panel has a battery holder, a power connection and load cell connections. Three different load cell connection configurations are available:

- Two load cell connectors (for use with J-Box or Load cells with connectors).
- Two liquid-tight connectors (for use with two bare-wire load cell cables)
- Two dual liquid-tight connectors (for use with up to four bare wire load cell cables)

Power Connection

Use only the 12 Volt AC-DC converter supplied with your Stock Weigh 300.
SW 300 W/Liquid Tight Fittings

Connecting Load Cell Wires in Indicator

- Remove the back cover (nine screws)
- Feed the load cell wires in through the liquid-tight connectors
- Connect one wire to each terminal as shown
- Install the back cover (nine screws)
SW300 W/Dual Liquid Tight Fittings

Connecting Load Cell Wires in Indicator

- Remove the back cover (nine screws)
- Feed the load cell wires in through the liquid-tight connectors
- Connect two wires to each terminal as shown. Tighten snugly.
- Install the back cover (nine screws)
OPERATION

Turn on Indicator

1. Press \( \text{ON/OFF} \).

Zero Balance Indicator

1. Press and hold \( \text{TO ZERO} \) to zero balance the indicator.

Weighing Animals

2. Place animal on platform.
3. "L" on the left side of the display indicates that the weight is "Locked-On".
4. Press \( \text{CHECK} \) while animal is on scale to "re-weigh" the animal.

Turning Off the Indicator

1. Press \( \text{ON/OFF} \) until "BYE" is displayed.
OPTIONAL SETTINGS

Load Cell Setup

1. Press and hold and at the same time until SETUP is shown.
2. Press to advance through selections
3. Press to save.

<table>
<thead>
<tr>
<th>Description</th>
<th>CAP (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3300LB StockWeigh 3300 (pounds)</td>
<td>4,000</td>
</tr>
<tr>
<td>6600LB StockWeigh 6600 (pounds)</td>
<td>7,000</td>
</tr>
<tr>
<td>584 LB StockWeigh 1250 (pounds)</td>
<td>10,000</td>
</tr>
<tr>
<td>10K LB StockWeigh 10000 (pounds)</td>
<td>10,000</td>
</tr>
<tr>
<td>14K LB StockWeigh 14000 (pounds)</td>
<td>15,000</td>
</tr>
<tr>
<td>3300KG StockWeigh 3300 (kilograms)</td>
<td>1,999</td>
</tr>
<tr>
<td>6600KG StockWeigh 6600 (kilograms)</td>
<td>2,999</td>
</tr>
<tr>
<td>584 KG StockWeigh 1250 (kilograms)</td>
<td>5,000</td>
</tr>
<tr>
<td>10K KG StockWeigh 10000 (kilograms)</td>
<td>5,000</td>
</tr>
<tr>
<td>14K KG StockWeigh 14000 (kilograms)</td>
<td>6,999</td>
</tr>
<tr>
<td>OTHER Other load cell (Use Dead Weight Cal.)</td>
<td>_______</td>
</tr>
</tbody>
</table>
Backlight Settings

The Backlight can be set to one of the following settings. When set to TIME, the backlight turns off ten seconds after the last key-press.

**OFF**  
BACKLIGHT IS OFF

**TIME 1**  
TIME = BACKLIGHT WILL TURN OFF  
10 SECONDS AFTER THE LAST KEY PRESS

**TIME 2**  
1 - 5 = BACKLIGHT BRIGHTNESS  
1 = LOW/DIM

**TIME 3**  
5 = BRIGHTEST BACKLIGHT

**TIME 4**  
5 = BRIGHTEST BACKLIGHT

**TIME 5**

**ON 1**  
BACKLIGHT WILL NOT TURN OFF  
1 - 5 = BACKLIGHT BRIGHTNESS  
1 = LOW/DIM

**ON 2**  
5 = BRIGHTEST BACKLIGHT

**ON 3**  
5 = BRIGHTEST BACKLIGHT

**ON 4**  
5 = BRIGHTEST BACKLIGHT

**ON 5**

**Change the Backlight Setting**

1. Press and hold the **MENU** button for 3 seconds (ZTRACK is shown).

2. Press the **MENU** button repeatedly until **BAKLIT** is shown. The current backlight setting will be displayed.

3. Press the **RECHECK** button repeatedly until the desired setting is displayed.

4. Press the **ON/OFF** button to save the setting.
WEIGH METHODS

Select “Lock On” for animal weighing. Use “General” for general weighing.

General Weigh Method

All purpose weigh method for weighing stable loads. It does not “Lock On” the weight.

Lock-on Weigh Method

Weighs active animals and displays stable accurate weight. Lock-On sensitivity is adjusted using “LOCKON” menu (see page 13).

- Scale “Locks-On” to weight.
- Weight is displayed stable, even if motion never stops.
- Small ‘L’ appears on left side of display indicating weight is “Locked-On”.
- Animal’s weight must be greater than 0.67% of scales “capacity” (CAP) before system can “Lock-On”.

Example: If “CAP” = 4000, 27 lbs. or more is required for scale to lock-on.

Note: Use a weight value for Zero Tracking (ZTRACK) (see page 13) that is less than 0.67% of capacity.

To break lock, add or remove WEIGHT FROM SCALE PLATFORM. The default setting is 50%.

- The weight value that is used to “break the lock” and return to normal weighing can be selected by choosing a value from 01 to 99%. (see page 13) For example, if unlock is set to 10(%) and weight is locked at 1000, display will “unlock” and return to normal weighing at 900, once 10% (100) is removed.

- “Locked-On” weight can be “rechecked”, press this breaks “lock” and scale recalculates weight.
WEIGHING ERRORS

Over Capacity Limit (OVRCAP)
- Weight on scale exceeds capacity limit. Capacity value is entered in SETUP to warn of overloading.

Over Range (+RANGE)
- The display shows message "+RANGE" if weight on scale system exceeds maximum weight measurable by scale system.

Under Range (-RANGE)
- Display shows message "-RANGE" if weight on scale system is less than minimum weight measurable by scale system.

RUN SELF TEST

Displays diagnostic tests to aid in troubleshooting.
- Shows battery level
- Shows load cell setup
- Tests display segments
- Shows program ID
- Allows key test

1. Press [MENU] and within three seconds press [ON/OFF] to start self test.
2. Press [ON/OFF] to exit test.
**MENUS AND CALIBRATION**

1. Press and hold \( \text{MENU} \) for 3 seconds.
2. Press \( \text{MENU} \) repeatedly until desired setting shows.
3. Press \( \text{MENU} \) to change setting option.
4. Press \( \text{MENU} \) to save setting and advance to next setting.
5. Press \( \text{MENU} \) repeatedly until indicator returns to weighing mode.

<table>
<thead>
<tr>
<th>SETTING</th>
<th>Options [displayed]</th>
<th>BOLD = DEFAULT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero Tracking</td>
<td>ZTRACK</td>
<td>1-99/OFF</td>
<td>Adjusts to zero for build-up of snow, mud and manure. Weight value can be set from 1 to 99 lbs/kgs or OFF (00)</td>
</tr>
<tr>
<td>Weigh Method</td>
<td>W MTHD</td>
<td>GENERAL, LOCK</td>
<td>Select weight method.</td>
</tr>
<tr>
<td>Lock-On</td>
<td>LOCKON</td>
<td>0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.0, 5.0, 10.0</td>
<td>Higher value will lock on quicker but sacrifice accuracy. Use lowest setting that will consistently lock-on to the same weight for a restless animal.</td>
</tr>
<tr>
<td>Unlock</td>
<td>01-99(50%)</td>
<td></td>
<td>The percent of weight required to break the lock and return to normal weighing.</td>
</tr>
<tr>
<td>Lock-N-Hold</td>
<td>LKNHLD</td>
<td>ON/OFF</td>
<td>Holds “Lock-On” weight restarts when next animal steps on.</td>
</tr>
<tr>
<td>Auto Off</td>
<td>AUTOFF</td>
<td>15,30,45,60,OFF</td>
<td>Indicator shuts “OFF” after set period of inactivity.</td>
</tr>
<tr>
<td>Display Count</td>
<td>COUNT</td>
<td>01,.02,.05,.1,.2,.5, 1,2,5,10,20,50,100</td>
<td>Select display count size (resolution) of scale.</td>
</tr>
<tr>
<td>Auto-Range</td>
<td>RANGE</td>
<td>ON/OFF</td>
<td>Scale increases display count size for weights over 300 again at 600 lbs/kgs.</td>
</tr>
<tr>
<td>Display Unit</td>
<td>LB-KG</td>
<td></td>
<td>When changing weight unit calibration adjusted so scale displays accurately in new display unit.</td>
</tr>
</tbody>
</table>
### Menus and Calibration

<table>
<thead>
<tr>
<th>SETTING [display]</th>
<th>Options [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity [CAP]</td>
<td><strong>04000</strong></td>
<td>Enter maximum weight measurable.</td>
</tr>
<tr>
<td>Span [SPAN]</td>
<td>75%-125%</td>
<td>Displayed weight value can be adjusted by increasing or decreasing the SPAN percentage.</td>
</tr>
<tr>
<td>Back Light [BCKLIT]</td>
<td>OFF TIME 1 TIME 2 <strong>TIME 3</strong> TIME 4 TIME 5 ON 1 ON 2 ON 3 ON 4 ON 5</td>
<td>Backlight intensity, see page 10.</td>
</tr>
</tbody>
</table>
Calibrating Scale Using Known Weights

1. Press and hold $\text{ON/OFF}$ and $\text{0-9}$ at the same time to enter setup menu.

2. Press $\text{CHECK}$ repeatedly to scroll down to $\text{OTHER}$ and press $\text{ON/OFF}$.

3. Press $\text{0-9}$ to zero balance the scale.

4. Then press $\text{ON/OFF}$.

5. Add a known weight and press $\text{ON/OFF}$.

6. Change displayed weight by pressing $\text{CHECK}$ to change value of "flashing" digit and press $\text{0-9}$ key to select which digit of display is flashing.

7. When display reads correct weight, press $\text{ON/OFF}$ to store calibration value.

8. Press and hold $\text{MENU}$.

9. Press $\text{ON/OFF}$ repeatedly to scroll down to $\text{CAP}$ (capacity).

10. Enter maximum expected weight or continue to press $\text{ON/OFF}$ until default weigh screen displays.
## INSTALLATION

### Indicator Mounting

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>403769</td>
<td>BRACKET – STR TOP MOUNT</td>
</tr>
<tr>
<td>B</td>
<td>403980</td>
<td>BRACKET – ROBO MOUNTING</td>
</tr>
<tr>
<td>C</td>
<td>403770</td>
<td>BRACKET – WING MOUNT</td>
</tr>
<tr>
<td>D</td>
<td>405069</td>
<td>U-BOLT, 1/4-20 X 3.25 ZP</td>
</tr>
<tr>
<td>E</td>
<td>403771</td>
<td>MODIFIED PLASTIC WEDGE MOUNT</td>
</tr>
<tr>
<td>F</td>
<td>405124</td>
<td>WEDGE MOUNT BRACKET, INCLUDES U-BOLTS &amp; NUTS</td>
</tr>
<tr>
<td>G</td>
<td>405084</td>
<td>NUT, 1/4-20 TOP LOCKING FLANGE</td>
</tr>
</tbody>
</table>

### Optional Ram Mounting

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>403180</td>
<td>RAM MOUNT</td>
</tr>
<tr>
<td>B</td>
<td>403179</td>
<td>MOUNT BASE-1” BALL U-BOLT</td>
</tr>
<tr>
<td>C</td>
<td>404230</td>
<td>RAM SUCTION CUP W/TWIST LOCK</td>
</tr>
</tbody>
</table>
TROUBLESHOOTING

Does the indicator turn on?

Yes

Does the indicator respond when you step on the scale?

Yes

Does the scale weigh you close to your weight?

No

Check for debris around and under the platform and load cells. Check for warped or damaged mounts on platform.

No

Check for debris under or around the scale mounts or platform. Check the load cell cables for cuts and flattened areas.

See Troubleshooting on Page 18.

Check or replace batteries. Check for 12VDC at the AC/DC converter power cord. If you do not have a multimeter, use a car battery to power the scale. If the indicator still does not come on, send it in for repair.
Indicator Does Not Respond When You Step on the Scale

Disconnect one of the load cells and stand over the connected load cell. Does the indicator display a reading about twice your weight?

**YES**

The other load cell is defective. Check its cable for cuts or flattened areas or send it back for repair. Check the defective load cell by connecting it to the indicator and verify that it does not weigh.

**NO**

Disconnect the first load cell and connect the other load cell to the same connector on the indicator. Does the indicator display a reading about twice your weight?

**YES**

The other load cell is defective. Check its cable for cuts or flattened areas and send it back for repair.

**NO**

Perform the paper clip test. Take two paper clips and carefully insert one into pin 2 and the other in pin 3 of either load cell connector jack on the indicator. Hold one paper clip in each hand (if the touch it will not damage the indicator). Does the reading on the indicator jump around?

**YES**

Both load cells are defective. The indicator is probably OK. Check the cables for damage and send both load cells in for repair.

**NO**

The indicator is defective. Send it in for repair. **Note:** Load cells may also be defective. Check the load cells by attaching to a good working indicator.
The Scale Weighs Close to Your Weight

Disconnect one load cell cable from the indicator. Press the indicator “ZERO” button. (The indicator display should go to zero). Stand on the load cell. Does the indicator display a reading about twice your weight?

YES

This load cell is OK. Disconnect the first load cell and connect the other load cell to the same connector. Now stand over the second load cell. Does it weigh twice your weight?

YES

This load cell is defective. Check its cable for cuts or flattened areas or send it back for repair. Double check the indicator using a known good load cell.

NO

This load cell is defective. Check its cable for cuts or flattened areas and send it back for repair.

NO

The other load cell is defective. Check its cable for cuts or flattened areas and send it back for repair.

YES

Connect the load cell to the other connector on the indicator. Stand on the load cell. Does it display approximately twice your weight?

YES

Check the platform for debris and mud interference. Check mounts for binding and obstructions.

NO

The indicator is defective. Verify this by substituting a good working indicator.

YES

Connect both load cells (one at a time) to the connector on the indicator. Do both load cells weigh you about twice your weight?

YES

Do both load cells weigh you about the same but not within 20% of twice your weight?

YES

One of the load cells is bad. A good load cell will weigh you at approximately twice your weight with only one load cell connected.

NO

NO

NO