

2842KL Veterinary Scale



User Guide

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Thank you for your purchase of this product.

Please read this manual carefully and keep it handy for ready reference.

Merci d'avoir acheté ce produit.

Veuillez lire attentivement ce manuel et le garder à portée de main pour pouvoir le consulter à tout moment

Gracias por la adquisición de este producto.

Lea por favor este manual cuidadosamente y manténgalo a su alcance para una pronta referencia.

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CAUTION AND WARNING



THIS EQUIPMENT CONTAINS NO USER SERVICEABLE COMPONENTS.

Servicing of the equipment must only be carried out by trained and authorized personnel. Use only the AC adapter supplied with the scale. Other adapters may cause damage.



Routine maintenance

Harsh abrasives, solvents, scouring cleaners and alkaline cleaning solutions should <u>not</u> be used; especially on the display window.

The outside of the product may be wiped down with a clean cloth, moistened with water containing a small amount of soap.

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

SPECIFICATIONS

General

Health o meter's Low Profile Veterinary Scale model 2842KL uses highly sophisticated microprocessor technology. Each precision instrument is designed to provide accurate, reliable and repeatable weight measurements and features that make the weighing process simple, fast and convenient.

The actual weighing is performed by motion-sensing weighing technology, to determine the weight of an active

The animal's weight can be displayed in pounds or in kilograms. The scale includes a specially designed removable rubber mat for easy cleaning.

The unit can be operated using its AC power adapter or by 4-AA cell batteries.

SCALE SPECIFICATIONS

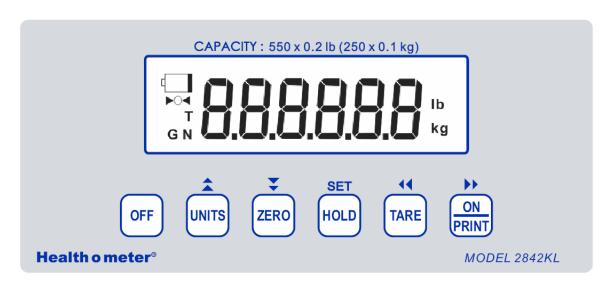
Capacity and Resolution	550 Lb x 0.2 Lb (250 Kg x 0.1 Kg)	
Power Requirements	Adapter 120VAC - 60Hz 4 - AA size batteries	
Environmental	Operating temperatures: 50°F to 95°F (10°C to 35°C) Storage temperatures: 30°F to 125°F (0°C to 50°C) Humidity: 85%	
Physical Dimensions	Length: 42" (1067 mm) Width: 22" (550 mm) Height: 2" (50 mm) & (65.8 mm including scale foot) Weight: 45 Lb (20.45 Kg)	

DESCRIPTION

The 2842KL is a self contained portable platform scale with a remote display. The platform is constructed of mild steel and features four adjustable feet for leveling and a non-slip mat for easy clean up. A bracket is supplied for desk or wall mounting of the indicator head. For best results, always install the platform on a level, flat, hard surface.

MODEL	PLATFORM SIZE	DISPLAY TYPE	POWER SOURCE
2842KL	22" X 42"	LCD	AC adapter - 6 VDC or 4 x "AA" alkaline or rechargeable batteries

KEY FUNCTIONS



KEY FUNCTIONS

OFF key Switches the scale off

Units key Selects weighing units (lb/kg) Zero key Switches the scale on or off

Hold key Arms/disarms semi-auto hold function

Tare key Applies a tare value

On/Print key Switches the scale on/sends weight data out on serial port

ERROR CODES

000000 Overload
----- Below zero

Low battery warning

POWER SUPPLY

The indicator head holds 4-AA sized batteries (not included). The low battery indicator is displayed when the battery power is insufficient to power the scale. Fresh batteries should give approximately 60 hours of continuous use.

You may also use the included AC adapter to power the scale. Always connect the AC adaptor to the indicator head before connecting to the mains power supply. Disconnect from the mains power supply before disconnecting the adaptor from the indicator head.

ASSEMBLY INSTRUCTIONS

This 2842KL scale has been calibrated at the factory. It is shipped in three assembled parts the base assembly, the display assembly, the rubber mat. Remove each assembly from its carton and unwrap packing material carefully to prevent scratching the unit's parts.

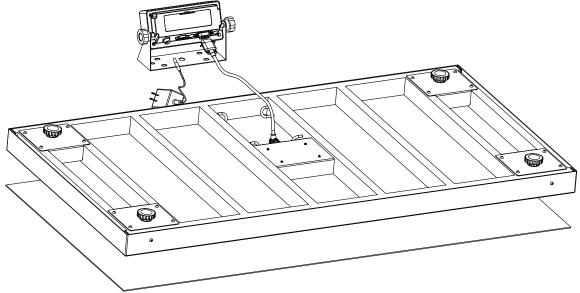


Figure 1. Assembly After Shipment

- 1. Plug the display cable connector into the base cable connector.
- 2. Place the display assembly on the table or mount it on the wall, as desired
- 3. Place the rubber mat on the base assembly

The scale may be operated by an AC power source adapter or by 4-AA cell batteries.

The scale will automatically switch to battery operation when an AC power source is absent.

SET UP

- Place batteries in the battery holder (see "Replacing Batteries" below) or plug the scale's AC adapter into the display assembly and into the power source.
- 2. Press the ON/PRINT button to turn the scale on. The display will count down from all 5's to all 4's, ect. until it reaches 0.0.
- 3. When the self-test function is complete:
 - The digital display should read "0.0".
 - "LB" should be indicated on the right side of the display. (To change the default units of the scale to kilograms (Kg), please contact our Technical Support Center at 1.800.638.3722 or 1.708.377.0600).
- 4. Place a weight [not to exceed 550 Lb (250 Kg)] on the scale.
- 5. Press the UNITS button to select the weight mode, either in kilograms or pounds.
- 6. Remove the weight from the scale. The digital display should return to zero.
- 7. Disconnect the power source connector from the scale, then turn the scale on using ON/PRINT button. The scale should automatically switch to battery power.

NOTE:

If the set up procedure failed, go to the troubleshooting instructions. If the problem is not corrected, refer to qualified service personnel.

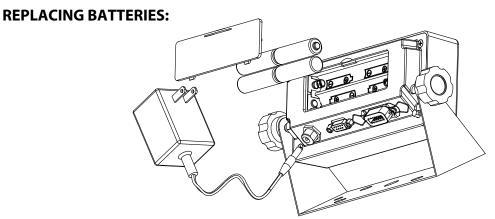


Figure 2. Replacing Batteries

- 1. Disconnect the scale from the AC power source.
- 2. Carefully remove the battery cover from the display assembly.
- 3. Replace the batteries with new ones.
- 4. Position the battery cover into the display assembly.

OPERATION INSTRUCTION

- 1. Press the ON/PRINT button to turn the scale on.
- 2. Wait until "0.0" appears on the digital display.
- 3. If you choose to use a mat, blanket or other accessory on top of the built-in rubber, make sure that the edges of the accessory are on the scale and are not touching the surface on which the scale is positioned. Press the ZERO key to cancel the weight of the accessory that is on the scale.
- 4. Place an animal on the scale. The display will blink "-----" until the weight of the animal is determined.
- Remove the animal from the scale. The digital display should continue to read the animal's weight until HOLD button is pressed.

NOTE: After 5 minutes of inactivity, the scale will turn itself off to conserve power. To restart the scale press the ON/PRINT button.

Weighing an item

- 1. Press ON/PRINT to switch on the scale. The display will show from all 5's to all 4's, ect. until it reaches 0.0. If the display does not show 0.0, then press Zero.
- 2. Select the desired weighing unit by pressing the UNITS key.

Place the object to be weighed on the scale's platter and allow the weight indication to stabilize. If the item weight exceeds the scale's weight capacity, it displays "0000.00"

Automatic Hold

This mode is used to automatically hold the weight of a non-static object, such as an animal, on the platform. It is enabled by selecting "1" for A13. The indicator both automatically locks and unlocks the weight of the object.

Automatic locking takes place when a number of consecutive readings are taken that are within a predetermined motion band setting. Automatic unlocking takes place when the object is removed or when the weight of the locked object decreases by 50%, whichever occurs first.

While the weight is locked, the following keys will work:

- Zero (unlocks weight), Tare (unlocks weight), Units, and Print
- Select the desired weighing unit by pressing the UNITS key. If the display does not show 0. press ZERO.
- 2. Place the object to be weighed on the scale's platter and allow the weight indication to stabilize. If the item weight exceeds the scale's weight capacity, it displays "000000."



General

This section provides instructions for maintenance, cleaning, troubleshooting and operator replaceable parts for the Low Profile Veterinary Scale model 2842KL. Maintenance operations other than those described in this section should be performed by qualified service personnel.

Maintenance

Before first use and after periods of non-use, check the scale for proper operation and function. If the scale does not operate correctly, refer to qualified service personnel.

- 1. Check overall appearance of the total scale for any obvious damage, wear and tear.
- 2. Inspect AC adapter for cord cracking or fraying or for broken or bent prongs.

Cleaning

Proper care and cleaning is essential to ensure a long life of accurate and effective operation.

Disconnect the scale from the AC power source.

- Clean all external surfaces with a clean damp cloth or tissue. Mild soap and water solution may be used.
 Dry with a clean soft cloth.
- 2. Do not immerse the scale base or display assembly into cleaning or other liquid solution.
- 3. Do not use Isopropyl Alcohol or other solutions to clean the display surface.

TROUBLESHOOTING

Refer to the following instructions to check and correct any failure before contacting service personnel.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION	
Scale does not turn on	 Dead Battery Faulty electrical outlet Bad power supply 	 Replace batteries Use a different outlet Replace adapter 	
Questionable weight or the scale does not zero	External object interfering with the scale	Remove interfering object from the scale	
	The display did not show "0.0" before weighing	Remove animal, zero the scale and begin weighing process again	
	Scale is not placed on a stable surface	Place the scale on a stable surface and begin weighing process again	
	4. Scale is out of calibration	Check weight with known weight value	
The display shows "000000"	The load on the scale exceeds the capacity	Remove the excess weight and use the scale according to its limits	
The display shows ""	The scale is in under-load condition	der-load condition Make sure the rubber mat is placed on the base	
The display shows "LO BAT"	The batteries are low	Replace batteries according to instructions	

CONFIGURATION

Overview

The indicator contains two main configuration menus:

- The Setup ("F") menu, which configures the indicator to your weigh platform
- The User ("A") menu, which configures the serial communication port and enables some user options

The Setup and User menus consist of several menu selections, each with its own sub-menu of selections or programming procedures. To configure the indicator you must first enter the appropriate menu mode. Once there, four of the front panel keys become directional navigators to move around in the menus, and one key is used to save or SET the selections.

Accessing the Menu

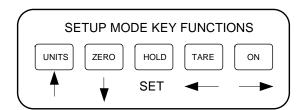
To access the Setup ("F) menu:

- 1. Power off the indicator.
- 2. Press and hold the "SET" key for about three seconds while turning the unit back on. The display shows "F3" to indicate that you are in Setup Menu mode.
- 3. Use the navigation keys shown in the below to move through the menu.

To access the User ("A) menu:

1. Enter the Setup ("F") menu.

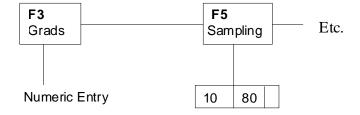
Use the right or left directional keys shown below to move right or left in the Setup ("F") menu until the indicator shows " A 1".



Menu Structure

All menus consist of a top level (heading) and a secondary level. The top level contains the code (e.g. F1) for the parameter to be configured. The secondary level contains the selection list or allows access to a programming sequence.

Use the directional keys to move around in the Menu Structure shown below.



- 1. To move to a new heading, use the TARE (left) or ON/PRINT (right) key to move right or left in the Menu.
- To move to the selection or programming level, press the ZERO (down) key once. The currently saved selection is shown.
- 3. To view the available selections for the current heading, use the TARE (left) or ON/PRINT (right) key to move through the selection field.
- 4. To save a new selection, press the HOLD (Set) key .To exit without saving, press the UNITS (up) key to return to the current heading.

SETUP MENU DESCRIPTIONS

This section provides more detailed descriptions of the selections found in the Setup Menu Chart. Factory-set defaults are shown in bold with a checkmark ($\sqrt{}$).

NOTE: Some selections are subject to local legal metrology regulations

CODE/NAME	DESCRIPTION	SELECTION LIST
F3 Zero Track Band	Selects the range within which the scale will automatically zero. Note that the scale must be in standstill to automatically zero. Selections are in display divisions (d).	0d 0.5d 1d 3d 5d √
F5 Motion Band	Sets the level at which motion is detected. If motion is not detected, the scale can process a Print or Zero command. Maximum value varies depending on local regulations. Expressed as scale divisions per second (d).	1-10 1.0d √
F6 Digital Filter	Averages weight readings to produce higher stability. Choose the speed that works best for your application. "FAST" = Fast "nnEd" = Medium "SLo" = Slow	FAST nnEd √ SLo
F8 Calib. Unit	Selects the primary base unit to be used in the calibration process. Also the default unit for normal operation. "1" = primary unit is lb. "2" = primary unit is in kg.	1 √ 2
F16 Calibration	Places indicator into the calibration routine. Scrolling down with the ZERO key one level begins the procedure.	Press ZERO key to begin sequence
F21 Factory Reset	This sub-menu will reset all parameters in the "F" and "A" menu to the default settings. USE WITH CAUTION!	Press the ZERO key twice to execute.

USER MENU DESCRIPTION

This section provides more detailed descriptions of the selections found in the User Menu Chart. Factory-set defaults are shown in bold with a checkmark ($\sqrt{}$).

CODE/NAME	DESCRIPTION	SELECTION LIST
A1 Baud Rate	Selects the baud rate for data transmission through the serial port.	1200, 2400, 4800, 9600 √ 19200

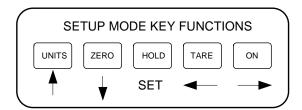
NAME/CODE	DESCRIPTION	CODE/VALUE
A2 Data Bits and Parity	Selects the number of data bits and parity of serial transmission. "8n" = 8 data bits with no parity bit and one stop bit "70" = 7 data bits with odd parity bit and one stop bit "7E" = 7 data bits with even parity bit and one stop bit "7n" = 7 data bits with no parity bit and two stop bits	8n√ 7O 7E 7n
A3 Mode of Serial Transmission	Selects when data will be sent out of the serial port to a printer or computer: "C" = Continuous mode; send data continuously "d" = Demand mode; send data when a PRINT command is issued from the printer, computer, or indicator.	C d√
A4 Display Check	Actuates the function that illuminates all digit segments, decimal points, and LCD annunciators in a test sequence. Pressing the ZERO key to scroll down one level begins the test sequence.	Press ZERO key to begin sequence
A5 Disable the Ib/kg Key	Allows the lb/kg key to be disabled so that an operator cannot accidentally press the key and change the displayed units. "0" = Disable the lb/kg key "1" = Enable the lb/kg key	0 1 √
A6 Serial Port Mode	Selects the mode of the RS-232 serial port: Refer to Appendix B for more information. "0" = Full Duplex Mode "1" = Print Ticket Mode	0 1√
A7 ID No. Enable	Allows the ID number to be disabled in the Print Ticket mode. Valid only when A6 is set to "1". "0" = Disable the ID No. "1" = Enable the ID No.	0 √ 1
A8 ID No. Entry	Actuates the function that allows entry of a new ID No. Valid only when A6 is set to "1". Pressing the ZERO key to scroll down one level begins the sequence.	0 – 999999 123456 √
A9 No. of Line Feeds	Actuates the function that allows entry of the desired number of line feeds to be printed in Print Ticket Mode. Valid only when A6 is set to "1". Pressing the ZERO key to scroll down one level begins the sequence.	0 - 99 8 √
A10 Handshaking Enable	Enables hardware handshaking for Print Ticket Mode. Valid only when A6 is set to "1". "0" = Disable Handshaking "1" = Enable Handshaking	0 √ 1
A11 Print Header	Tells MP-20 printer to print the header information. Valid only when A6 is set to "1". "0" = Do NOT Print Header "1" = Print Header	0 √ 1
A12 Auto Power Off Period	Selects the auto off time period in minutes: "5" = Disabled (Always ON)	Off√ 3 5 10 20 30
A13 Hold Model Enable	Activates the "Hold" mode where weight of the object on the platform is frozen on the display until the applied weight is decreased to one-half of the memorized weight. This is used in conjunction with the Motion Band setting (F5) to capture an unstable load, such as livestock. "0" = Off, "1" = Auto, "2" = Manual	0√ 1 2 √

USER MENU PROCEDURES

This section provides instructions for all of the User Menu procedures.

ID Number Entry (A8)

- While in the User Menu mode, scroll to "A 8", then scroll down once using the ZERO key to enter the ID Number menu.
- 2. The display will momentarily show "ID NO", followed by a value with one flashing digit. This value will be the current ID number value.
- 3. Use the four directional keys (shown below) to adjust the displayed value to the actual ID Number value. Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO key. Pressing the ON/PRINT key or the TARE key will change the position of the flashing digit.



4. After setting the exact value, press the HOLD key to save the ID Number value. The display will show "SET" momentarily, and then revert back up to A8.

LF (Line Feeds) Number Entry (A9)

- While in the User Menu mode, scroll to "A 9", and then scroll down once using the ZERO key to enter the Line Feeds menu.
- 2. The display will momentarily show "LF", followed by the current line feeds value.
- Use the four directional keys shown in Figure 11 to adjust the displayed value to the actual line feeds value.
 Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO key. Pressing the ON/PRINT key or the TARE key will change the position of the flashing digit.
- 4. After setting the exact value, press the HOLD key to save the line feeds value. The display will show "SET" momentarily, and then revert back up to A9.

EXITING THE MENUS

Exit any configuration menu by simply switching off the indicator.



CALIBRATION OVERVIEW

The 2842KL scale has been calibrated at the factory and does not require re-calibration prior to use.

The indicator requires two types of calibration: zero and span. Zero calibration requires the scale to be empty and the the span calibration requires known test weights.

NOTE: This section assumes that the indicator is in Setup ("F") Menu mode. If the indicator is not in Setup Menu mode, refer to previous section for instructions.

CALIBRATION (F16)

- 1. While in the Setup mode, scroll to "**F 16**", then scroll down once using the ZERO key to enter zero calibration menu. The display will momentarily show "**C 0**" followed by a value. This value is the internal A/D count and can prove useful when trying to troubleshoot setup problems.
- 2. After making sure that there are no test weights on the platform, press the ZERO key again to zero out the displayed value.
- 3. Press the HOLD key to save the zero point value. The display will show "EndC0" momentarily, and will momentarily show "C 1" for the first span calibration point, followed by a value with one flashing digit. This value will be zero with the Decimal Point parameter selected in F10.
- 4. Place the first test weight on the weighing mechanism.
- 5. Use the four directional keys to adjust the displayed value to the actual test weight value. Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO key. Pressing the PRINT key or the TARE key will change the position of the flashing digit.
- After entering the exact value, press the HOLD key to save the value. If the C1 calibration was successful, the display will show "EndC1" and the indicator reverts back to F16.

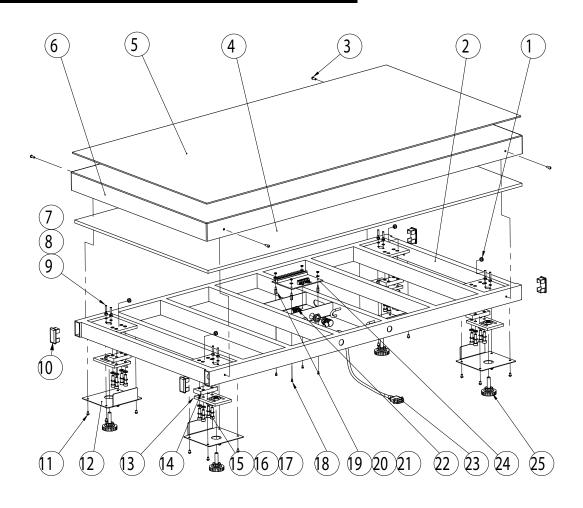
If the calibration was *not* successful, one of the error messages below will appear. Take the indicated action to correct the problem, then perform a new calibration.

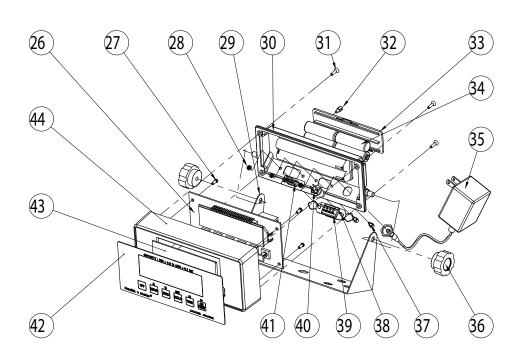
- "Err0" The calibration test weight or the keyed-in weight is larger than the full capacity of the scale. Change the calibration test weight or check the input data.
- "Err1" The calibration test weight or the keyed-in weight is smaller than 1% of the full capacity of the scale. Change the calibration test weight or check the input data.
- "Err2" There is not enough signal from the load cells to establish a proper calibration. Most commons causes include incorrect load cell wiring, a mechanical obstruction or a faulty load cell.

PARTS LIST

Key No.	Part No.	Description	Qty.
1	P380620004	φ6 Load cell Cable Shielding	4
2	380620055	Platform Inside Framework	1
3	P371110412	M4×12 Stainless Steel Button Head Cap Screw	4
4	421620007	Composite Plywood	1
5	P380620057	Platform Rubber Mat	1
6	P380620051	Stainless Steel Cover	1
7	P370520416	M4×16 Overload Protection Adjustment Screw	8
8	P369040004	φ4 Spring Washer	8
9	P369100204	M4 Nickel-plating Nut	8
10	P380620054	Rubber End Cap	4
11	P371110406	M4×6 Stainless Steel Button Head Cap Screw	16
12	P380620052	Vet Scale Load cell Cover	4
13	P2102500075	load cell BAG-75KG (VET)	4
14	P380620053	Load cell Base	4
15	P371330625	M6×25 Stainless Steel Hexagon Socket Screw	16
16	P369040006	φ6 Spring Washer	16
17	P369030006	φ6 Flat Washer	16
18	P371110305	M3×5 Stainless Steel Button Head Cap Screw	4
19	P375010316	Copper column M3×6,5×12	4
20	P369030003	φ3 Flat Washer	4
21	P369100203	M3 Nut	4
22	P318520008	Waterproof Connector (5 Pin male circular with 5 cables)	1
23	P318520009	5 Pin-14 pin 15' cable	1
24	P215909982	JBOX-Animal 981027 PCB Assembly	1
25	380620056	Leveling foot	4
26	P215196710	VET-550 09062K7 PCB Assembly	1
27	P373110308	M3×8 Button Head Cap Screw	4
28	P369100003	M3 Nut	2
29	P380190040	Indicator Bracket	1
30	P380190181	Rear Cover	1
31	P370220312	M3×12 Flat Head Screw	3
32	P375040507	Screw to apply Trimmer 5×7-3×11	1
33	P380190182	Battery Cover	1
34		AA Batteries	4
35	P250115168	110/6V 100mA Adapter	1
36	P380510004	Screw to secure Bracket	2
37	P375010512	Screw 5×12 (3×7, 5×5)	2
38	P370110308	M3×8 Button Head Cap Screw	2
39	P318350914	14-Pin Connector (Female)	1
40	P349060009	SCD-021 Jack	1
41	P318900003	9-Pin Connector (Female)	1
42	P360616310	HoM 2842KL Front Panel	1
43	P380190031	Display Window (Acrylic, clear)	1
44	P380190196	6-key Indicator Enclosures (Aluminum Die Casting)	1

EXPLODED VIEW OF SCALE







LIMITED WARRANTY

What does the Warranty Cover?

Pelstar LLC scales are warranted from date of purchase against defects of materials or in workmanship for a period of one (1) year. If product fails to function properly, return the product, freight prepaid and properly packed to Pelstar. See "To Get Warranty Service" below for instructions. If manufacturer determines that a defect of material or in workmanship exists, customers' sole remedy will be repair or replacement of scale at no charge. Replacement will be made with a new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. All parts including repaired and replaced parts are covered only for the original warranty period.

Who is Covered?

The original purchaser of the product must have proof of purchase to receive warranty service. Pelstar dealers or retail stores selling Pelstar products do not have the right to alter, or modify or any way change the terms and conditions of this warranty.

What is Excluded?

Your warranty does not cover normal wear of parts or damage resulting from any of the following: negligent use or misuse of the product, use on improper voltage or current, use contrary to the operating instruction, abuse including tampering, damage in transit, or unauthorized repair or alternations. Further, the warranty does not cover Acts of God, such as fire, flood, hurricanes and tornadoes. This warranty gives you specific legal rights, and you may also have other rights that vary from country to country, state to state, province to province or jurisdiction to jurisdiction.

To get Warranty Service Make sure you keep your sales receipt or document showing proof of purchase. Call 1 (800) 638-3722 or 1 (708) 377-0600 to receive a return authorization number. Attach proof of purchase to your defective product along with your name, address, daytime telephone number and description of the problem. Carefully package the product and send with shipping and insurance prepaid to:

Pelstar LLC
Attention R/A#_____
Repair Department
11800 South Austin Ave. Unit B
Alsip, IL 60803

If your scale is not covered by warranty, or has been damaged, an estimate of repair costs or replacement costs will be provided to you for approval prior to servicing or replacing.

Pelstar LLC 11800 South Austin Ave. Unit B, Alsip, IL 60803 • 1-800-638-3722 or 1-708-377-0600

www.homscales.com

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