



Money Counting Scale

Operation Manual



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DMC-688 SERIES OPERATING MANUAL

The DMC-688 money counting scale offers a practical solution to a full range of precision counting applications. There is a variety of models available ranging from a weight capacity of 6 lb through 60 lb.

This manual will provide the user with information necessary to operate and program the DMC-688. Included in this manual are examples, descriptions, specifications, operating instructions and service guide.

The coin unit weights used to program this scale in the factory were developed using very small samples; actual unit weights will vary. It is recommended that the coin unit weights be re-calibrated before the scale is put into service. It's recommended that a large number of coins be used to obtain the most accurate coin unit weights. Using 500 to 1000 coins will produce a very accurate coin unit weight. Refer to page 8 section 4.2. Program Unknown Coin Data.

1.0. GENERAL

1.1. Unlocking Procedure & <u>Span (calibration)</u> Switch Location: NOTE: Turn Scale On Side, Do Not Turn Scale Upside DOWN!

To Unlock:

1. Loosen nut & remove allen screw.



NOTE: FAILURE TO LOCK SCALE PROPERLY MAY RESULT

IN DAMAGE TO THE LOAD CELL.

Warning : Do Not Turn Scale Upside down! The Drawing Above Is For Illustration Purpose Only!



1.2. SETTING UP:

1.2.1. See Page 2 For Unlocking Procedure

1.2.2. Level Adjustment:

- a. Place scale on firm and flat base.
- b. Level the scale by turning adjusting legs until air bubble is at the center of the Level Indicator.



1.2.3. Place the platter onto scale:

a. Place the platter on the scale. Ensure that the platter is properly aligned.

1.2.4. Power Supply:

- a. Connect to power supply. Or install 6 pcs of "D" cell battery (DC1.5V)
- b. With nothing placed on the platter, depress ON/OFF key.
- c. Scale is ready for operation after segment checking.

1.2.5. Battery Installation

a. Turn scale on side. DO NOT TURN SCALE UPSIDE DOWN!

b. Remove battery compartment cover shown on opposite page.

c. Insert 6 new "D" cell batteries noting the polarity and also make sure that the batteries are properly aligned.

d. Re-install the battery compartment cover.

2.0. SPECIFICATIONS

2.1. Features

* Low cost counting scale.

- * Quick response to weight changes.
- * Capacity
 - acity : 3kg, 6kg, 15kg, 30kg, 6lb, 15lb, 30lb and 60lb. blution : Display Resolution 1/3000.
- * Resolution

Internal Resolution 1/30000.

* Low power consumption : 6 x D size dry battery backup for more than 500 hours of continuous usage or 1000 hours with alkaline batteries.

- * Two-Point battery low detect:
 - A. When battery is weak, the Battery Indicator will light up.

B. When the power from battery becomes so low that the scale can not compute accurately, all displays will shut off except the Battery Indicator. The power is then shut off completely after 1 minute.

- * Calibration by software.
- * Splash proof.
- * 28 switch keys.
 - ON/OFF key.
 - 10 Numeric keys (share with preset keys).
 - 12 Operational keys(3 keys share with preset keys).
 - 18 Preset keys.
- * Large platter : 10" x 13".
- * High impact ABS plastic housing.
- * High contrast LCD display.

2.2. Technical Specification 2.2.1. Operating Conditions

	* Power Source	: AC 117/100V, 240/230/220V (+10%, -15%). : DC 6 x D size dry battery (9V)
	* Operating Temperature	: -10 +40°C (OIML).
	* Operating Humidity	: 15 85% RH.
	* Power Consumption	: 3W when using AC power.
		0.1W when using battery.
2	2.2 Analog Specification	

2.2.2. Analog Specification

- * Input sensitivity : 1mV/V.
- * Zero adjust range : 0 ± 2.5 mV.
- * Zero balance range $: 0 \pm 0.5$ mV.
- * L/C applied voltage : DC 5V.
- * Speed of A/D conversion: 3 times/sec.
- * Internal Resolution : 30000.

2.2.3. External Connectors

* AC receptacle.

2.3. Dimensions

- * Platter size : 10" x 13".
- * Overall size: 13.5" x 14.5" x 4.5".
- * Weight : 9.5lb

2.4. Display and Indicators

2.4.1. Display Specifications



2.4.2. Indicators

ZERO Lamp	: On when zero point is adjusted and weight is stable.	(Re-compute) Lamp	: On when Unit Weight Re-computing is available.
NET Lamp	:On when tare weight is present	SHIFT Lamp	: On when the Shift key is pressed for Numeric entry
RECALL TARE	: On when Preset Tare is		Works as Insufficient lamp in program mode.
	Subtracted.	(Insufficient) Lamp	: On when sampling quantity is too small
MEMORY Lamp	: On when accumulated	PRG Lamp	: On when scale is in program mode.
	data is in memory.	QTY Lamp	: On when quantity is displayed instead of value(\$)
	Works as Re-compute lamp in program mode	\ 1	: On when batteries are weak and need to be changed.

2.5. Keysheet Layout



2.6. Key Functions

ON/OFF kev	: Turn display ON/OFF.	Enter Key	: Clear data in total accumulation.	
SHIFT	: Shift preset keys to numeric keys		(Enter the data in program or maintenance mode)	
	(return to weighing from program mode)	F1 – F18	: Recall coin Unit Weight data and preset Tare data.	
RECALL TARE	: Recall preset Tare value		(F1 – F10 work as numeric keys and F11 as	
QTY/AMT	: Toggle between amount and quantity.		Decimal point in shift , program and maintenance mode	
RE-ZERO Key	: Reset weight display to zero.		(F17is unit weight key, F18 is pieces key in program mode	
TARE Key	: Set or clear tare value.	•	: Decimal point key to enter decimal point	
C lear Key	: Clear the entry data or unit weight.	Numeric Keys	: Input Numeric data.	
- Minus Key	: Subtract parts in total accumulation.	Unit Weight Key	: Set unit weight after numeric data entry.	
+ Plus Key	: Add parts in total accumulation.	Pieces Key	: Enter unit weight by sampling.	

3.0. Operation Mode 3.1. ON/OFF

1. Press [ON/OFF] key. To turn scale ON. Ready to operate

2. Press [ON/OFF] key. To turn scale OFF.

* Note 1: Power On Segment Check Style can be selected by setting SPEC 8.bit2. In this example assume SPEC 8.bit2 = 0.

Note: TARE IS -- THE CONTAINER BIN, BUCKET , BAG, OR TOTE ETC. THAT IS USED TO HOLD THE COIN BEING COUNTED.

Note: Tare Subtraction

Tare subtraction can be performed both in Weighing mode and Unit Weight Entry Mode.

3.2. One Touch Tare Subtraction(Subtract the weight of the container with one key press

1. Place empty container (tare) on platter. Example: 0.27 lb

2. Press [TARE] key to subtract the tare weight. Remove the tare weight

3. Press **[TARE]** key to clear the tare weight.

3.3. Digital Tare Subtraction (subtract the weight of the container by keying in the weight.)

1. Press [SHIFT] key to allow numeric entry.

2. Key in the tare weight. Example: Press [0] [.] [2] [7] [0] for 0.27 lb.

3. Press [TARE] key to subtract the tare weight. Remove the tare weight

4. Press **[TARE]** key to clear the tare weight.

3.4. Recalling Preset Tare (To retrieve A Preset Tare weight stored in memory) NOTE: To store a tare weight in memory for later use See Page 9 Section 4.3. Program Preset Tare Key)

1. Starting in the Weighing mode, press [RECALL TARE] key

2. Call up the tare data. Example: Press [F1] key. In 2 seconds after pressing preset key. Alarm

beeps twice, then subtract the tare weight and Scale switches back to Weighing mode.

3. Press **[TARE]** key to clear the tare weight.

Coin counting 3.5. Basic Counting Operation

Starting in the Weighing mode.

- 1. Re-call the preset data. Ex. Press **[F4]** key for (25ϕ)
- 2. Place coins on platter.

Note: If you wish to see the quantity of coins on the scale Press [QTY/AMT] key. To Switch

from \$ Amount to Quantity of coin and from Quantity of coin to \$ Amount in display

- 3. Remove the coins from platter.
- 4. To clear the recalled data. Press [C] key

3.6. Basic Counting Operation (using one touch Tare)

Starting in the Weighing mode.

- 1. Press **[F4]** key for (25ϕ) . Example: Press **[F4]** key for (25ϕ)
- 2. Place empty container on scale and press [TARE] key
- 3. Place coins into container.

Note: *I*f you wish to see the quantity of coins on the scale Press **[QTY/AMT]** key. To Switch from \$ Amount to Quantity of coin and from Quantity of coin to \$ Amount in display

4. Remove the container of coins from scale platter.

5. To clear the recalled data. Press [C] key

Total transaction 3.7. Multiple Denomination Accumulation is allowed (SPEC15.1 = 0)

Starting in the Weighing mode.

- 1. Press desired preset to Re-call the preset data. Example: Press [F4] key for (25ϕ)
- 2. Place coins on platter.
- 3. Press [+] key to accumulate the data
- 4. Remove the coins, press [C]
- 5. Press desired preset to Re-call the next preset data. Example: Press [F3] key for (10¢)
- 6. Press **[C]** key to clear the coin data.
- 7. Press desired preset to Re-call the next preset data. Example: Press [F5] key for (50ϕ)
- 8. Place coins on platter.
- 9. Press [-] key to subtract the data
- 10. Remove the coins, press **[C]**
- 11. Press [★] key to check total amount.

Note: Pressing **[QTY/AMT]** key an Error beep will sound. Error beep will sound. Can not switch to quantity display while accumulated data is in memory.

12a. press [C] key to continue accumulation

12b. Press [\star] key to clear current total from memory.

NOTE &: Multiple Denomination Accumulation is not allowed (SPEC15.1BIT = 1

4.0. Program Mode (Programming The Pre-Set Keys)

4.1. Program Known Coin Data (this is used if you know the unit weight per 1000 coin that you are programming)

Starting in the Weighing mode.

- 1. Press and hold [RE-ZERO] while pressing [1] [2] [1]. To enter the Program mode.
- 2. Select the preset key number. Example: Press [F4] key for Quarters
- 3. Enter value of a coin. Example: Enter [0] [.] [2] [5] for Quarters
- 4. Press [★] key. Scale switches to unit weight entry mode.

Digital unit weight entry.

5. Enter unit weight by numeric key.	Enter [1] [2] [.] [4] [4] [1] for Quarters
6. Press [UW] key to set unit weight.	Set unit weight.
7. Press [UW] key to verify entry.	Look up full digits of unit weight.
8. Press [UW] key to temporary store.	
9. Press [★] key to save the data.	Save the data.
Removed samples, press [SHIFT] key to return to weighing mode.	Scale switches back to Wghmode.

4.2. Program Unknown Coin Data (Recommended Method – Sampling Improves Accuracy) This is used if you don't know the unit weight (unit weight per 1000 pcs) of the coins. A large population of coin is recommended for this procedure. For the best results use a known full bag of coin. If your full bag is 1000 dollars (quarters) then you should use 4000 piece sample(quarters). If your full bag is 400 dollars (quarters) then you should use 1600 piece sample(quarters).

Starting in the Weighing mode.

1. Press and hold [RE-ZERO] while pressing [1] [2] [1]. To enter the Program mode.

2. Select the preset key number. Example: Press [F4] key for Quarters

3. Enter value of a coin. Example: Enter [0] [.] [2] [5] for Quarters

4. Press $[\star]$ key to save the data. Scale switches to unit weight entry mode. Current unit weight is displayed.

5. Press [C] key to clear unit weight.

Unit weight entry by sampling.

- 6. Place empty container on scale, and press **[TARE]** key
- 7. Place sample coins on platter.
- 8. Enter sample quantity **[1] [0] [0] [0]** example: 1000 pcs.
- 9. Press **[Pcs]** key, to compute unit weight.

When sample pieces are not sufficient, the following procedure 9 (a) - (b) are required. 10 (a) Add required samples. Add exactly 10 pcs.

10 (b) Press **[Pcs]** key, Scale computes the unit weight.

The accuracy of the computation can be improved by increasing the sample size with procedure 10 (c) - (d).

- 11 (c) Add sample pieces. e.g. 126 pcs.
- 11 (d) Press **[Pcs]** key, Scale re-computes the unit weight.
- 12. Press $[\star]$ key to save the data.
- 13. Remove samples, press [SHIFT] key to return to weighing mode

4.3. Program Preset Tare Key

Starting in the Weighing mode.

- 1. Press and hold [**RE-ZERO**] while pressing [1] [2] [1], To enter the Program mode.
- 2. Press **[RECALL TARE]** key, To program a preset tare key.
- 3. Select the preset key number. Example: Press [F1] key. The current tare value is displayed.
- 4. Enter value of a tare. Example: Enter **[0] [.] [2] [7]**
- 5. Press $[\star]$ key to save the data.
- 6. Select the preset key number. Example: Press [F2] key
- 7. Press **[C]** key to clear tare data.
- 8. Press $[\star]$ key to save the data.
- 9. Press [SHIFT] key to return to weighing mode

4.4. Clear Preset Data

Starting in the Weighing mode.

- 1. Press and hold [RE-ZERO] while pressing [3] [6] [3], to enter into Program mode.
- 2. Select the preset key number. Example: .Press [F12] key
- 3. Press [C] key to clear coin data
- 4. Press $[\star]$ key to save the data.
- 5. Press [SHIFT] key to return to weighing mode

4.5. Error Message List

The following error message will appear when a incorrect operation is performed.

Message	Remarks	Appropriate Operation
O F	When displayed weight exceeded capacity+9d, or something is on the platter when power on.	Remove the item on the platter.
UF	When displayed minus weight $>=$ 9d.	REZERO or ON/OFF again.
ERROR	When calibration operation is not correct, or A/D starting check error.	Repeat calibration operation.
888888	When scale is not steady when power on.	Place scale on firm, flat base.

* Note : "888888" - All Segments.

5.0. Maintenance Mode

5.1. Span Adjustment

Prior to the calibration of the scale, please note that the SPEC settings corresponding to Minimum Display and Weight Decimal Point Position are set properly. Ensure that the Span Switch is on.

Starting in the Weighing mode.

1. Press **SPAN** Switch to ON

2. Press and hold [RE-ZERO] while Pressing [8] [7] [1] [5]

3. With no weight on platter, press [★] key to Calibrate zero point.

4. Place weight on platter (e.g. 15lb.). Weight for calibration must $\geq 10\%$ FS.

5. Enter weight [1] [5] example: 15lb. <u>*Note</u>

6. Press [\star] key to Calibrate Span.

After calibration (e.g. F.S = 15lb.). Scale goes back to Weighing mode.

*Note: When use full capacity weight for calibration, it is not necessary to enter weight data.

5.1.2 Escape from Maintenance mode (You May Exit The Maintenance Mode During The Calibration Procedure As Shown Below.)

Starting in the Weighing mode.

The following procedure shows three examples of exiting from calibration prior to completing the process.

1a. Press **SPAN** Switch to ON2a. Press **[TARE]** key to Exit to Weighing mode.

1b. Press SPAN Switch to ON

2b. Press and hold [**RE-ZERO**] While pressing [8] [7] [1] [5]

3b. Press [TARE] key to Exit to Weighing mode.

1c. Press SPAN Switch to ON

2c. Press and hold [RE-ZERO] While pressing [8] [7] [1] [5]

3c. With no weight on platter, press [★] key to Calibrate zero point.

4c. Press [TARE] key to Exit to Weighing mode.

5.2. Specification Setting 5.2.1. Specification Enter (141)

Starting in the Weighing mode.

- 1. Press and hold [RE-ZERO] while pressing [1] [4] [1]
- 2. Press [+] key to advance to the next Specification.
- 3. Press [-] key. To return to previous Specification.
- 4. Press [0] [1] [0] [1], Only '1' & '0' keyboard entry is enable.
- 5. Press [★] key. To store Specification.
- 6. Press [TARE] key. Store SPECS to EEPROM & escape to Weighing mode.

5.2.2. Specification Enter (142)

NOTE: It can only work when SPAN SWITCH is on (Enable)

Starting in the Weighing mode.

- 1. Press SPAN Switch to ON
- 2. Press and hold [RE-ZERO] while pressing [1] [4] [2]
- 3. Press [+] key to advance to the next Specification.
- 4. Press [+] key to advance to the next Specification.
- 5. Press [0] [0] [1] [1]. Only '1' & '0' keyboard entry is enable.
- 6. Press $[\star]$ key to store Specification.
- 7. Press [-] key to return to previous Specification.
- 8. Press [+] key to advance to the next Specification.
- 9. Press [0] [1] [1] [1]. Only '1' & '0' keyboard entry is enable
- 10. Press [C] key
- 11. Press [1] [0] [1] [0]
- 12. Press [★] key to store Specification.
- 13. Press [+] key to advance to the next Specification.
- 14. Press [TARE] key to Store SPECS to EEPROM & escape to Weighing mode.

5.3. Internal Count & A/D Count Display

Starting in the Weighing mode.

1. Press and hold [RE-ZERO] while pressing [0] [0] [9], U Weight window display A/D (Span) Count,

TOTAL PRICE window display Zero Count.

2. Press [TARE] key to go back Weighing mode.

5.4. Specification List 5.4.1. For The Customer - (1 4 1)

SPEC No.	BIT	3	BIT 2	BIT 1	BIT 0				
0	Po	wer auto off	function (for no ke	ey operation & weig	sh operation)				
	0000 - Auto	power off di	sable						
	0001 - 3 mi	nute							
	0010 - 10 m	ninutes							
	0011 - 30 m	ninutes							
	0100 - 1 ho	0100 - 1 hour							
	0101 - 3 ho	0101 - 3 hours							
	0110 ~ 111	1 - Not used							
1	Buzz	Error Beep	Sampling time for	or unit weight	Negative counting				
		calculation							
	0 - On	0 - On 0 - On 0 - 10 times 0 - Inhibit							
	1 - Off 1 - OFF 1 - 5 times 1 - Allow								
2-3									

5.4.2.	Standard default spec settings					
Spec	Bit	Spec	Bit			
no.	3 - 2 - 1 - 0	no.	3 - 2 - 1 - 0			
0	0 - 0 - 0 - 0	12	0-0-0-0			
1	0 - 0 - 1 - 1	13	0-0-0-0			
2	0 - 0 - 0 - 0	14	1 - 1 - 1 - 0			
3	0 - 0 - 0 - 0	15	0 - 0 - 0 - 0			
	1 - 1 - 1 - 0	16	1 - 1 - 0 - 0			
9		17	1 - 0 - 1 - 0			
10		18	0 - 0 - 0 - 0			
11	0 - 0 - 0 - 1	19	0 - 0 - 0 - 0			

5.4.3. For Weight & Measure - (1 4 2)

SPEC NO.	BIT 3	BIT 2	BIT 2		BIT 1		BIT 0	
8	Always set to 1	Selection of segme	nt-check	eck ZERO lamp "ON"		IR mode protected by		
		style0 - Fast 0 -Gross 0,),	SPAN SW			
		1 - Standard		1 - Net 0		0 – NO , 1 - YES		
9	9 Decimal point position on weight display Negative weight displa			weight display				
	00 - No decimal point			00 - Minu	s gross > 9e			
	01 - Not used			01 - Minu	s gross weight			
	10 - 3rd digit (000.00)			10 - Minus net weight				
	11 - 4th digit (00.000)			11 - Not u	ised			
10		Selec	tion of ca	apacity				
	B3 B2 B1 B0	Capac	ity		Increment (Single/M	ulti-Interval)	
	0 0 0 0 3	000 - (3.000kg, 30.00ł	kg, 30.001	lb)	1,			
	0 0 0 1 6	000 - (6.000kg)	-		2 / 1(0~3000)	, 2(3000	0~6000)	
	0 0 1 1 1	5000 - (15.000kg)			5 / 2(0~6000)	, 5(6000	0~15000)	
	0 1 0 1 3	0000 - (30.000kg, 30.0)00lb)		10 / 5(0~1500	0), 10(150	00~30000)	
	1 0 0 0 3	0000 - (30.000kg)			10,			
11	Selection of resolution		Multi-int	erval settir	ng	Tare rang	ge (for single	
	00 - Single interval		0 - Net n	nulti-interv	al	interval only)		
	01 - Multi interval		1 -Gross	multi-inter	rval	0 - 50% H	FS	
	10 - 1/6000 Or 1/7500(15 l	b/15kgonly)				1 - 100% FS		
	11 - Not used							
12	Manual tare cancellation	Tare subtraction	T	Tare accumulation		Recall tare		
	0 – Allow,1 - Inhibit	0 – Allow,1 - Inhib	– Allow,1 - Inhibit 0 – Allow, 1		1 - Inhibit 0 – Allow,		v,1 - Inhibit	
13	Digital tare	Accumulation whe	n tare Z	Zero tracking when tare		Weight reset when tare		
	0 – Allow,1 - Inhibit	0 – Allow,1 - Inhib	0 – Allow,1 - Inhibit 0 –) – Allow,1 - Inhibit		0 – Allow,1 - Inhibit	
14	AUTO tare clear when re-	Tare AUTO clear	Ι	Denominati	ion and unit	AUTO clear condition		
	zero		v	weight AU	TO clear	0 - >= Gross 21e		
			*	*Note1		& >= Net 5e		
	0 - Allow	0 - Allow	C) - Allow		1 - >=Net 1e		
	1 - Inhibit	1 - Inhibit	1	- Inhibit		& Quantity > 10		
15	Accumulation	Subtraction		Plural deno		WT data		
					accumulation		synchronization	
				0 – Allow,1 - Inhibit		(+ Key only)		
	0 – Allow,1 - Inhibit	0 – Allow,1 - Inhib				0 – Allow,1 - Inhibit		
16	Exit from accumulation	ulation Exit from accumulation		Accumulation without		Accumulation without		
	mode after 15 sec time out	-	mode when weight re		removing weight		change weight: for >=	
	0 – Allow,1 - Inhibit	change	_				+/- 10e	
	0 – Allow,1 - Inhibit			0 – Allow,1 - Inhibit		0 – Allow,1 - Inhibit		
17	Denomination rounding me			Amount rounding method for 3 rd				
	00 - No rounding 10 – Truncation			decimal digit				
			0 - Rounding					
			1	- Truncati	ion	1		
18-19								

NOTE: It can only work when the SPAN Switch is on (Enable)

*Note1: Effective when accumulation operation is not performed or plural (multiple) denominations accumulation is allowed by SPEC setting (SPEC15.1 = 0).

6.0.

QUICK GUIDE

Program Unknown Coin Data (Recommended Method – Sampling Improves Accuracy) This is used if you don't know

the unit weight (unit weight per 1000 pcs) of the coins. For the best results use a known full bag of coin.

Starting in the Weighing mode.

- 1. Press and hold [RE-ZERO] while pressing [1] [2] [1]. To enter the Program mode.
- 2. Select the preset key number. Example: Press [F4] key for Quarters
- 3. Enter value of a coin. Example: Enter [0] [.] [2] [5] for Quarters
- 4. Press [★] key to save the data. Scale switches to unit weight entry mode. Current unit weight is displayed.
- 5. Press [C] key to clear unit weight. Clear unit weight.

Unit weight entry by sampling.

- 6. Place sample coins on platter.
- 7. Enter sample quantity [4] [0] [0] [0] example: 4000 pcs.
- 8. Press [Pcs] key. To Compute unit weight.
- 9. Press $[\star]$ key to save the data. To Save the data.

Removed samples, press [SHIFT] key to return to weighing mode.

Program Preset Tare Key

Starting in the Weighing mode.

- 1. Press and hold [RE-ZERO] while pressing [1] [2] [1]. To enter the Program mode.
- 2. Press [RECALL TARE] key. To program a preset tare key.
- 3. Select the preset key number. Example: Press [F1] key the Current tare value is displayed.
- 4. Enter value of a tare. Example: Enter **[0] [.] [2] [7]**
- 5. Press $[\star]$ key to save the data.
- 6. Select the preset key number. Example: Press [F2] key
- 7. Press [C] key to clear tare data.
- 8. Press $[\star]$ key to save the data.
- 9. Press [SHIFT] key to return to weighing mode

Operation Mode / One Touch Tare Subtraction

1. Place empty container (tare) (e.g. 0.27 lb.) on platter

2. Press [TARE] key to subtract the tare weight

Remove the tare weight

3. Press [TARE] key to clear the tare weight.

Basic Counting Operation

Starting in the Weighing mode.

1. Re-call the preset data. Ex. Press [F4] key for (25ϕ)

2. Place coins on platter.

Note: *If* you wish to see the quantity of coins on the scale Press **[QTY/AMT]** key.

To Switch from \$ Amount to Quantity of coin and from Quantity of coin to \$ Amount in display

3. Remove the coins from platter.

4. To clear the recalled data. Press [C] key

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RLWS warrants that the equipment sold hereunder will conform to the current written specifications authorized by RLWS. RLWS warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, RLWS will, at its option, repair or replace such goods returned within the warranty period subject to the following conditions:

- Upon discovery by Buyer of such nonconformity, RLWS will be given prompt written notice with a detailed explanation of the alleged deficiencies.
- Individual electronic components returned to RLWS for warranty purposes must be packaged to prevent electrostatic discharge (ESD) damage in shipment. Packaging requirements are listed in a publication, "Protecting Your Components From Static Damage in Shipment," available from RLWS Equipment Return Department.
- Examination of such equipment by RLWS confirms that the nonconformity actually exists, and was not caused by accident, misuse, neglect, alteration, improper installation, improper repair or improper testing; RLWS shall be the sole judge of all alleged non-conformities.
- Such equipment has not been modified, altered, or changed by any person other than RLWS or its duly authorized repair agents.
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