5.0. DMC-290 CHARACTER CODE LIST (T – C CODE)

CODE	CHARACTER	CODE	CHARACTER	CODE	CHARACTER
00	SPACE	20	T	40	@
01	A	21	U	41	!
02	B	22	V	42	"
03	C	23	W	43	#
04	D	24	X	44	$
05	E	25	Y	45	%
06	F	26	Z	46	&
07	G	27	,	47	/
08	H	28	.	48	(
09	I	29	-	49	)
10	J	30	0	50	‘
11	K	31	1		
12	L	32	2		
13	M	33	3		
14	N	34	4		
15	O	35	5		
16	P	36	6		
17	Q	37	7		
18	R	38	8		
19	S	39	9		

DIGI

DMC-290
OPERATION GUIDE

MODEL: **DMC-290**

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EDITION	MONTH	YEAR
1ST	MARCH	2000
2ND	JUNE	2000
3RD	JUNE	2001
4TH	DECEMBER	2001
5TH		
6TH		

DMC-290 SERIES OPERATING MANUAL

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4.3. DMC-290 AC / Battery Operation

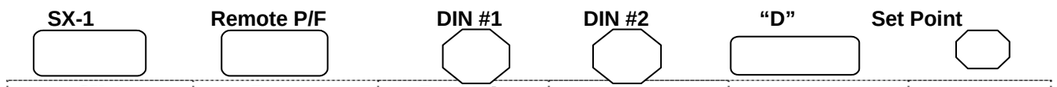
The DMC-290 can be operated with AC power or with the optional internal battery. The battery will automatically charge whenever the scale is plugged into AC power. The charging current is regulated by a battery monitor circuit, so that the battery can not be overcharged.

The DMC-290 system is powered internally at a low power level whenever the scale is plugged into the AC line or the battery switch is in the "ON" position. The battery power switch is located on the bottom of the scale directly under the serial number on the side panel. The front panel "ON/OFF" switch enables the display and primary power.

When the battery switch is "ON" and the AC is not connected, a low level battery current will flow even if the display is "OFF". To prevent battery discharge when stored, turn the battery switch to "OFF" whenever unit is not used.

Do not store the scale without turning off the battery power switch.

4.4. DMC-290 Connector Matrix



SX-1 Platforms	Remote Platforms	Bar Code DIN #1	Din #2	"D"	Set Point
Single SX Platform	Any Remote 2nd Platform	Laser/Pen Spec 14 & 15	Force Balance Spec 13	PC Spec13	
Dual SX Platform	Any Remote 3rd Platform		BCP-30 Spec 10 & 11	BCP-30 Spec 13	
Single SX & Any 2nd P/F	Any Remote 3rd Platform		PC Spec 8 & 9	Force Balance Spec 13	
SX Provides AC or Battery Power					
Single Non SX P/F	Any Remote 2nd Platform	Requires PS-100 A/C Adapter			
Two Non SX Platforms	Any Remote 3rd Platform	Requires PS-100 A/C Adapter And "Y" Cable			

NOTE: WHEN THE DC-190 CONSOLE IS BENG USED WITH A PLATFORM OTHER THAN AN SX PLATFORM THE PS-100 A/C ADAPTER IS REQUIRED

4.5. Remote Platform Wiring

DIGI REMOTE PLATFORM WIRING					
PIN 3	**PIN 4**	**PIN 5**	**PIN 6**	**PIN 7**	**PIN 8**
(+) EXCITATION	**(–) EXCITATION**	**SHIELD**	**(+) SIGNAL**	**(–) SIGNAL**	**GROUND**

4.2. DMC-290 Calibration Procedure:

Prior to the calibration of the scale, please note that the SPEC settings corresponding to Minimum Display, Weight Decimal Point Position and Load Cell Sensitivity for that particular scale have to be set correctly.

1 Enter **[8][7][1][5]** while pressing the [**REZERO]** key. The display will show *Weight* in the *Weight Display* and *Zero Count* in the *Value / $ Display*. The zero count should be 100,000±10,000.

2 Press the **[CODE]** key in order to compute the zero point. It takes a few seconds for the zero calibration.

3 After computing the zero point, the *Value / $ Display* shows the *Zero Counts*. Ensure that the counts are 100,000 ± 10000. If not, repeat Step 2 until the counts are in the above range.

4 Press **[REZERO]** key to zero the weight before span calibration.

5 Place (capacity) 5lb. weight on the platter. In this illustration, capacity weight of 5lb is used as an example.

6 The span weight that appears in the weight display should be as close as possible to the actual weight that is placed on the platter. To adjust the span weight press **[PIECES]** or **[TARE]** key. If this procedure is not done properly, the scale may appear noisy.

EXAMPLE (1)	EXAMPLE (2)
5.1275	5.3985
OR	OR
4.7997	4.9124

Example (1) 5.1275 is closer than 4.7997

Example (2) 4.9124 is closer than 5.3985

7 **REMOVE WEIGHT AND REPEAT STEPS 2 THROUGH 4**

8 Place (capacity) 5 lb weight on the platter. In this illustration, capacity weight of 5lb is used as an example.

9 **Type [5][.][0][0][0][0],** Enter the weight placed on the platter using the **[Numeric]** Keys.

10 Press the **[✱PROG]** key to start span calibration.

11 After a few seconds, the display shows the counts for the weight on the platter in the *Weight/Unit Weight Display* and the *Value / $ Display* shows the *Internal Count* with the zero point counts added to it.

12 Removing the weight, the unit weight should indicate zero and the *Value / $ Display* the *Zero* starting point (If Spec38 bit 1 Internal Count is set to 1,000,000, the count should be around 200,000). If the zero point is not correct, please carry out the calibration procedure again.

13 Pushing the **[MODE]** key once exits calibration mode.

14 Pushing the **[MODE]** key once more returns the scale to the weighing mode.

Note: **(example based on 5.0000 lb. scale)**

Note: **The scale may be calibrated with less than capacity weight, but for the best results capacity weight is recommended.**

Please Note: Pressing **[CODE]** key in step 2 is used for auto finding the zero number. Customer can manually search for zero number by pressing **[+]** and **[–]** keys. Load Cell Sensitivity can be set in SPEC and fine adjustments are made by pressing **[PIECES}** and **[TARE]** keys. The load cell Sensitivity specs may change during the calibration process.

1.0. GENERAL

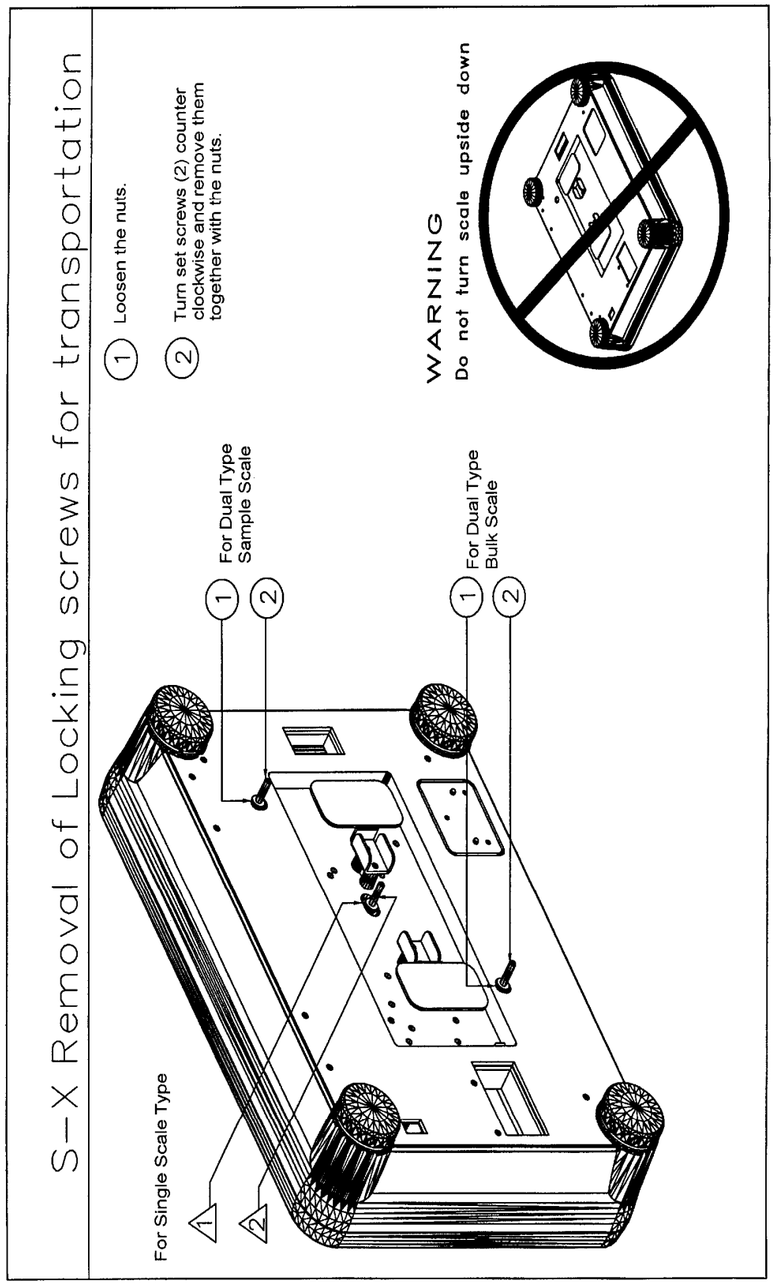
1.1. Indicator Lamps

LAMP	"ON"
Zero	When the gross weight is zero.
Tare	When tare weight is set.
Gross	When **[Net /Gross]** key is pressed.
Insuff	When the net weight is below a specific percentage of capacity weight.
Recomp	When unit weight recomputing is possible.
Memory	When quantity is being accumulated or when memory overflows.
Prog	When in the programming mode with **[MODE]** key pressed.
Kg	When the item is weighed in Kg unit with **[Kg/Lb.]** key pressed.
Lb	When the Item is weighed in Lb. unit with **[Kg/Lb.]** key pressed.
Batt	When battery's power level is low.
Scale 1	When Scale 1 is used.
Scale 2	When Scale 2 is used
Scale 3	When Scale 3 is used.
Scale 4	When Scale 4 is used.
IN	Inventory In
OUT	Inventory Out

1.2. Key Functions

KEY	FUNCTIONS
ON/OFF	For turning the machine ON and OFF.
0 TO 9	Denomination / Numeric Keys.
.	Decimal Point.
REZERO	Used to reset the scale to zero. Used to enter the maintenance mode along with other keys
TARE	Used for setting and clearing tare weight.
Kg/Lb	Used to change the weighing unit between Kilogram and Pound. (Used in Weight Mode)
CLEAR	Used to clear the key entries and unit weight. (See Spc 6 Bit 2)
NET/GROSS	Used to change between Gross and Net. Also used as inventory key
UNIT WEIGHT	Used to enter the unit weight using numeric keyboard.
MODE	Used for entering programming mode from weighing mode.
SCALE	Used to switch between different scales
+	Used for Accumulation function and for incrementing SPEC numbers in SPEC setting mode. Also used to program set point in programming mode
– **DATE**	Used for Subtraction function and for decrementing SPEC numbers in SPEC setting mode. Also used to program Part No in programming item. In Programming mode, it can be used for viewing or setting date/time.
✱ **PROG**	Used for storing the specification data and used to print out weight information when printer is connected.
CODE **IN/OUT**	**[CODE]** key, for calling out ITEM memory data. Also used to program commodity name in programming mode
PIECES	Used for computing unit weight by sampling.

1.3. Unlocking Procedure



4.1. Ver. 2.90 Weights & Measures Specification (continued) :

Spec No.	Bit 3			Bit 2			Bit 1			Bit 0		
30	Load Cell Sensitivities Selection (mV/V) (Scale 1)											
	SPC	MIN	MAX	SPC	MIN	MAX	SPC	MIN	MAX	SPC	MIN	MAX
auto adjust-ing 1 0 0 1	**0000**	3.46	4.00	**0100**	1.95	2.25	**1000**	1.09	1.27	**1100**	0.61	0.71
	0001	3.00	3.46	**0101**	1.69	1.95	**1001**	0.95	1.09	**1101**	0.53	0.91
	0010	2.59	3.00	**0110**	1.46	1.69	**1010**	0.82	0.95	**1110**	0.46	0.53
	0011	2.25	2.59.	**0111**	1.27	1.46	**1011**	0.71	0.82	**1111**	0.40	0.46
31	Load Cell Sensitivities Selection (mV/V) (Scale 2)											
	SPC	MIN	MAX	SPC	MIN	MAX	SPC	MIN	MAX	SPC	MIN	MAX
auto adjust-ing 1 0 0 1	**0000**	3.46	4.00	**0100**	1.95	2.25	**1000**	1.09	1.27	**1100**	0.61	0.71
	0001	3.00	3.46	**0101**	1.69	1.95	**1001**	0.95	1.09	**1101**	0.53	0.91
	0010	2.59	3.00	**0110**	1.46	1.69	**1010**	0.82	0.95	**1110**	0.46	0.53
	0011	2.25	2.59.	**0111**	1.27	1.46	**1011**	0.71	0.82	**1111**	0.40	0.46
32	**Calibration Mode protected by Span Switch**			**Battery Low Lamp**			**Auto Exit from Add Mode**			**External Load Cell (Scale 3)**		
1 0 1 0	**0** : Yes **1** : No			**0:** Yes			**0** : No			**0**: No		
				1: No			**1** : Yes			**1**: Yes		
33	**Over Weight Mask at**			**Weight Decimal Point Position (Scale 3)**								
	0 : +1d			**000** : 00000					**011** : 00.000			
0 _ _ _	**1** : +9d			**001** : 0000.0					**100** : 0.0000			
				010 : 000.00								
34	Not Used			**(For Scale 1)**			**A/D Board (Scale 1)**					
				0 :For Std / Normal Load Cell			**00** : Normal					
				1: For abnormal load cell with too large offset.			**01** : Prevent from Small vibration/ fast change in display					
0 0 0 0							**10** : Prevent from Medium vibration					
							11 : Prevent from Large slow change in display					
35	Not Used			**(For Scale 2)**			**A/D Board (For Scale 2)**					
				0 :For Std / Normal Load Cell			**00** : Normal					
				1: For abnormal load cell with too large offset.			**01** : Prevent from Small vibration/ fast change in display					
0 0 0 0							**10** : Prevent from Medium vibration					
							11 : Prevent from Large slow change in display					
36	**Minimum Display (Scale 3)**						**A/D Board (For Scale 3)**					
	00 : 2			**10** : 5			**00** : Normal					
	01 : 1			**11** : 10			**01** : Prevent from Small vibration/ fast change in display					
_ _ 0 0							**10** : Prevent from Medium vibration					
							11 : Prevent from Large slow change in display					
37	Load Cell Sensitivities Selection (mV/V) (Scale 3)											
	SPC	MIN	MAX	SPC	MIN	MAX	SPC	MIN	MAX	SPC	MIN	MAX
auto adjust-ing 1 0 0 1	**0000**	**3**.46	4.00	**0100**	1.95	2.25	**1000**	1.09	1.27	**1100**	0.61	0.71
	0001	3.00	3.46	**0101**	1.69	1.95	**1001**	0.95	1.09	**1101**	0.53	0.91
	0010	2.59	3.00	**0110**	1.46	1.69	**1010**	0.82	0.95	**1110**	0.46	0.53
	0011	2.25	2.59.	**0111**	1.27	1.46	**1011**	0.71	0.82	**1111**	0.40	0.46
38	**(For Scale 3)**			**Digital Tare When Loaded**			**Internal Count**			**Stability Check When Changing Scales**		
	0 :For Std / Normal Load Cell			**0**: Allow			**0 :** 500,000			**0 :** Yes		
	1: For abnormal load cell with too large offset			**1**:Not Allow			**1:** 1,000,000			**1 :** No		
0 0 1 0												
39	SET SPEC TO “0” “0” “1” “0”											

RS – 232 Specification ver.3.92: To enter this mode, enter the numeric keys **1,4,3** while pressing the Re-zero Key.

Spec No.	Bit 3	Bit 2	Bit 1	Bit 0
40-43	Not used	Not used	Not used	Not used
44	Operator Name (BCP-300) Set To “0”	Company Name (BCP-300) 0 = default only, 1=input w/barbd.	Not used	Not used
_ _ _ _				
45–59	Not used	Not used	Not used	Not used

15 **0 0 1 1**	**RS-232C (BCP) Stop Bit (Optional)** **0** : 1 bit **1** : 2 bits	**RS232C (BCP) With Header** **0:** Yes **1:** No	**RS-232C (BCP)Parity Bit (Optional)** **00** : No **10** : Not Used **01** : Odd **11** : Even	
16 normally set 0 0 0 1 _ _ _ _	**SCALE 1**: **00**: Internal Scale 1 **01**: Internal Scale 2 **10**: External Scale **11**: Force Balance		**SCALE 2**: **00**: Internal Scale 1 **01**: Internal Scale 2 **10**: External Scale **11**: Force Balance	
17 normally set 1 0 1 1 _ _ _ _	**SCALE 3**: **00**: Internal Scale 1 **01**: Internal Scale 2 **10**: External Scale **11**: Force Balance		**SCALE 4**: **00**: Internal Scale 1 **01**: Internal Scale 2 **10**: External Scale **11**: Force Balance	
ALL SCALES ARE UNIQUE AND EACH MUST HAVE THEIR OWN CHANNEL LOCATION.				
18 **0 0 0 0**	**Set Point TTL Output** **0**: Active Low **1**: Active High	**Number Of Set Point:** **000**: 2 Set Points **001**: 3 Set Points	**010**: 4 Set Points **011**: 5 Set Points	
19 **0 0 0 0**	**Display "Not F" Message For Items Not Stored In Memory** **0 :** Yes **1 :** No	**Link To IMS** **0 :** No **1 :** Yes	Not Used	Not Used

Weight and Measures Specification : To enter this mode, enter the numeric key 1,4,2 while pressing the Rezero Key. The Span Switch must be "ON" to enter this mode.

Spec No.	Bit 3	Bit 2	Bit 1	Bit 0
20 _ _ _ _	**Minimum Display (Scale 1)** **00** : 2 **10** : 5 **01** : 1 **11** : 10		**Minimum Display (Scale 2)** **00** : 2 **10** : 5 **01** : 1 **11** : 10	
21 _ _ _ _	Not Used	**Weight Decimal Point Position (Scale 1)** **000** : 00000 **011** : 00.000 **001** : 0000.0 **100** : 0.0000 **010** : 000.00		
22 _ _ _ _	Not Used	**Weight Decimal Point Position (Scale 2)** **000** : 00000 **011** : 00.000 **001** : 0000.0 **100** : 0.0000 **010** : 000.00		
23 **0 0 0 0**	**Display Resolution** **00** : 1/10,000 **10** : 1/2,500 **01** : 1/5,000 **11** : Not Used		**Zero Setting Range** **00** : Unlimited **10** : +- 10% FS - 10% F.S. **01** : +- 2% FS **11** : not avail.	
24 **0 0 0 0**	**Masked Display at Minus Wt.** **0** : Gross **1** : Net	**Display at Minus Wt.** **0** :Minus Display **1** :Masked	**Zero Lamp Lighting Method** **0** : Gross **1** : Net	**When No AC, Display Mask When Battery Low or No Battery.** **0** : Yes **1** : No
25 **0 0 _ 0**	**Scale Starting Method** **0** : Automatic **1** : Manual	**IR Mode protected by Span Switch** **0** : No **1** : Yes	**Scale Type** **0** : Single Scale **1** : Double Scale	**Gross Mode Available** **0 :** Yes **1 :** No
26 **0 0 0 0**	**Zero Tracking When Tare** **0** : Yes **1** : No	**Weight Reset when Tare** **0** : Yes **1** : No	**Initial Start Range** **00** : Unlimited **10** : +- 10% FS - 10% FS **01** : +- 2% FS **11** : not avail.	
27 **0 1 0 0**	**Comma Display** **0** : No **1** : Yes	**Digital Tare Setting** **0** : No **1** : Yes	**Tare Range** **00** : 100%FS **10** : 5% FS **01** : 50%FS **11** : not avail.	
28 **0 0 0 0**	**Auto Tare clear when Rezero** **0** : No **1** : Yes	**Automatic Unit Weight Clear Condition** **00** : Over Net 5d and Gross 21d and Weight Stable **01** : >= Net 1d and Weight Stable **10** : >= Net 1d and Quantity >0 and Weight Stable		**Automatic Unit Weight Clear** **0** : No **1** : Yes
29 **0 0 0 0**	**Digital Tare Rounding** **0** : Tare Exactly **1** : Round to Nearest Increment	**Tare Value Exchange** **0** : Yes **1** : No	**Tare Addition** **0** : Yes **1** : No	**Tare Subtraction** **0** : Yes **1** : No

2.0. DMC-290 OPERATIONAL PROCEDURES

OPERATION GUIDE IN WEIGHING MODE

2.1 Tare Reduction :

2.1.1 One Touch Tare Operation :

1. Display in the weighing mode
2. Place 0.5 Lb weight on the platter.
3. Press the **[TARE]** key to tare the weight on the platter. Bit 0 and 1 in Spec 27 must be set to appropriate tare range value. **(example based on 100.00 lb. scale)**
4. Remove the weight from the platter

2.1.2. Digital Tare Operation :

1. Display in the weighing mode.
2. Example press **[50]** ∠ key
3. Press**[CODE]** key.
4. Keyboard enter the desired tare weight. Example type **[0] [.] [5] [0]**
5. Press the **[TARE]** key. Bit 0 and 1 in Spec 27 must be set to appropriate value. Bit 2 in Spec 27 must be set to '1'.

2.2.1 Using Preset Keys and Extended Codes

1 To Select Scale And Reset Zero Point. Press **[SCALE]** Key And Press **[REZERO]** Key.

2 Select hot key [1] thru [9]. Example press **[25¢/4]** key

3a To Enter Tare Value (one touch tare) (if needed). Place Empty Container On Platter And Press **[TARE]** Key.

2b To Enter Tare Value (digital tare) (if needed). Place Full Container On Platter And Keyboard Enter The Known Tare Weight. (Example Press: **[0] [•] [2] [5] [5]**, Then Press **[TARE]** Key.

4 To Accumulate Value / $. With The First Quantity On Scale, Press **[+]** Key. The Display Returns To Weighing Mode . Place The Second Quantity On Scale And Count Them. Repeat The Procedure Until All Coins Have Been Counted. If A Mistake Is Made During Accumulation, Press **[-]** Key.

Note: quarters, nickels , and dimes etc. may be accumulated by selecting the desired hot key placing that denomination on scale and pressing [+] key. When all coins have been counted pressing the [∗PROG] key will end accumulation and the total will be printed when using the BCP-30 printer.

5 To End Accumulation. Press **[∗PROG]** Key.

Note: **Extended Codes may be used at any time**

Note: **(example based on 100.00 lb. scale)**

2.2.2. Using Extended Code Entry

1 Display in the weighing mode

2 To Select Extended Code. Type Extended Code (Up To Three Digits) Example Press **[CODE] [1] [2] [3]**, Then Press **[CODE]** Key.

3 Place coins or tokens on the scale. The scale displays the value / $ for the coins or tokens placed on the platter.

4.0. MAINTENANCE MODE

4.1. Ver. 2.90 Customer Specification : To enter this mode, press the following key sequence : [R][1][4][1] ie. Numeric keys 1, 4 ,1 while holding Rezero key.

Spec No.	Bit 3	Bit 2	Bit 1	Bit 0
0 0 0 0 0	**Tare When Change Scale** 0 = Hold Tare 1 = Transfer Tare	Digital Tare Entry 0 = Replace **1 = Accumulate**	**Terminator** 0 = Carriage Return 1 = Carriage Return Linefeed (RS-232only) PC	**Weighing unit** 0= U.W. per/1000 1 = A.P.W.
1 0 0 0 0	**Power Auto Off Function** **0000** : Auto Power Off Disable when Net Wt. = 0 **0001 ~ 1111** : Duration to activate Power Off (in Minutes). (1 to 15 minutes)			
2 1 0 0 0	**Scale Specification** **00** : Gram **01** : Kg **10** : Lb **11** : not used		**Kg/Lb Lamp Inhibit** **0 :** No **1 :** Yes	**Inventory Disp by Gross Key** **0:** Gross Disp **1:** No of Invnt
3 0 0 0 0	**"D" Sub RS-232 port commands** 00 = standard RS-232 (F.B.) 01 = ctm-290 (slip printer) 10 = tm-200 (with cutter command) 11 = tm-200 (with feed for tear off)		***Print commands*** 00 = bcp-30 (barcode printer) (F.B.) 01 = ctm-290 (slip printer) 10 = tm-200 (with cutter command) 11 = tm-200 (with feed for tear off)	
4 1 0 0 1	**Set New Item Code during Normal Mode** **0**: Yes **1**: No	**Insufficient sample Level** **00** : 0.1 % **01** : 0.2% **10** : 0.0%		**Negative Counting** **0** : No **1** : Yes
5 1 0 1 1	**Sampling time for Unit Weight Calculation** **0** : 10 times **1** : 5 times	**Unit Wt. Auto Recomputing** **0** : No **1** : Yes	**Date Order** **00**:Year, Month, Date **01**: Date, Month, Year **11**: Month, Date, Year	
6 1 1 0 1	**Display Accuracy of Unit Weight** **0 :** No**, 1 :** Yes	**Clear All Input Key in One Touch** 0 = Yes, 1 = No	**RS232 Continue Sending High** 0 = High 1 = Low	**Auto ShiftTo Next Position After Two Key of Teraoka Code Entry** 0 = No ! = Yes
7 0 0 0 0	**Set Point Buzzer** **0** : Yes **1** : No	**Set Points:** **0:** Latch **1:** No Latch	**Set Point Type** **00** : %Quantity **10** : Quantity **01** : %Weight **11** : Weight	
8 0 0 1 0	**RS-232C (Connection (Force Balance)** **0 :** No **1 :** Yes	**RS-232C (FB) Data Length (Optional)** **0** :7 bits**1** : 8 bits	**RS-232C (FB) Baud Rate (Optional)** **00**:1200 **10** 4800 **01**:2400 **11** 9600	
9 0 1 1 1	**RS-232C (FB) Stop Bit (Optional)** **0** : 1 bit **1** : 2 bits	**Force Balance Type** **0:** SHG-300 **1:** TP-200	**RS-232C (FB) Parity Bit (Optional)** **00** : No **10** : Not Used **01** : Odd **11** : Even	
10 0 1 1 1	**RS-232C Connection (PC / Printer)** **0 :** No, **1 :** Yes	**RS-232C (PC/PRN) Data Length (Optional)** **0** :7 bits **1** :8 bits	**RS-232C (PC/PRN) Baud Rate (Optional)** **00** : 1200 **10** : 4800 **01** : 2400 **11** : 9600	
11 0 1 0 0	**RS-232C (PC/PRN) Stop Bit** **0** : 1 bit **1** : 2 bits	**PRINTER:** **0**: Eltron **1**: BCP-300 or Epson **0 = output on RS-232 comma delimited file** **1 = paper tape output on printer port (in prog mode)**	**RS-232C (PC/PRN)Parity Bit** **00** : No **10** : Not Used **01** : Odd **11** : Even	
12 1 0 0 0	**RS-232 (PC/PRN) Output** **00** : Not Available **01** : When Counting Condition(PC) **10** : By ∗ Key **11** : In Both Cases (DP122)	**Eltron format** **0 : Eltron fixed format** **1 : custom download format**	**RS232C (PC/PRN) With Header** **0:** Yes **1:** No	
13 0 0 0 1	**RS232(PC/PRN) Header:** **0:** Code **1:** Title	**RS232 CONNECTOR** Sub Din Sub Din **000 :** Printer ..... Force Bal. **101 :** Force Bal .....PC **001 :** Force Bal. .....Printer **010 :** Printer .....PC (*1) **100 :** PC .....Force Bal. **011 :** PC .....Printer(*2)		
14 1 0 1 0	**RS-232C Connection (Barcode Pen)** **0 :** No **1 :** Yes	**RS-232C (BCP) Data Length (Optional)** **0** :7 bits**1** : 8 bits	**RS-232C (BCP) Baud Rate (Optional)** **00** : 1200 **10** : 4800 **01** : 2400 **11** : 9600	

3.4. Delete Item Memory

1 Press **[MODE]** key

2 Enter **[•] [•] [0]** while pressing **[REZERO]** key

3 Press **[CLEAR]** key to complete deletion of all memories

Note:

Delete All Value / $ In Stock: Press **[•] [•] [1]**

Delete All Item Unit Weight: Press **[•] [•] [2]**

Delete All Item Tare Weight: Press **[•] [•] [3]**

Delete All Item Part Number: Press **[•] [•] [4]**

Delete All Item Set Point: Press **[•] [•] [5]**

Delete All Item Name: Press **[•] [•] [6]**

Reset SEQ No: Press **[•] [•] [7]** (Use for Printer BCP-300)

Delete All Set Point (Not Item): Press **[•] [•] [+]**

3.5. Check/Set Time And Date

1 Press **[MODE]** key

2 Press **[–]** Key to Check the date and time

3 Press **[–]** Key

4 Enter Month Day and Year to Program the date

5 Press **[–]** key to Program the day

6 Enter Day, 0:Mon,1=Tue….6=Sat

7 Press **[–]** key

8 Enter Time to Program the time

9 Press **[*]** key to store the setting. OR press **[–]** key to bypass the storing.

2.3 Accumulation Operation : When Spec 32 bit1,Default Setting, (Auto Exit when accumulation) is enabled, The Scale will automatically go back to weight mode after the Accumulation.

1 After Code entry. (Hot Key or Extended Code see 2.2)

2 Press the **[+]** key. The *Total* is displayed in the *Value / $ Display.*

3 The memory lamp will glow. After a moment the scale will resume operation mode.

4 Place more coins on the scale.

5 Press the **[+]** key. The *Total* is displayed in the *Value / $ Display.*

6 The memory lamp will glow. After a moment the scale will resume operation mode.

Note: **(example based on 100.00 lb. scale)**

2.4 Subtraction/Reduction Operation :

When Spec Auto Exit From Accumulation is enable.
The Scale will automatically go back to Weight Mode after the Accumulation Mode

1 Display in the weighing mode with memory lamp glowing. From previous operation (See 2.3.)

2 Press the **[+]** key. The *Total Is Displayed* in the *Value / $ Display.*

3 Remove some coin from scale. Take only the coin you wish to subtract.

4 Pressing the **[–]** key deducts the 290.00 in the *Value / $ Display* from the previous Total of 1330.00 to give us a total of *1040.00.*

5 The memory lamp will glow. After a moment the scale will resume operation mode.

2.5. Clearing of Accumulated Data :

1 From previous operations (See 2.3. & 2.4.)

2 Pressing the **[∗PROG]]** key, clears the accumulated total.

Note: **(example based on 100.00 lb. scale)**

2.6. Clearing A Code :

1 Remove coin form scale

2 Pressing the **[CLEAR]** key, clears the Denomination

2.7. Scale 1↔4 Operation :

1. Display in the weighing mode
2. Pressing **[SCALE]** key changes from Scale 1 to Scale 2.
3. Pressing **[SCALE]** key changes from Scale 2 to Scale 3
4. Pressing **[SCALE]** key changes from Scale 3 to Scale 4.
5. Pressing the **[SCALE]** key again changes back to Scale 1

Note: Default Position: The Position for Scale 1 to scale 4 can be set in Spec

Scale 1: Internal Scale 1 Scale 3: External Scale

Scale 2: Internal Scale 2 Scale 4: Force Balance (not used)

*** NOTE: ONLY SCALES PRESENT WILL BE SELECTED. EX. 2 SCALE SYSTEM SWITCHES BETWEEN SCALE 1 AND 2 ONLY.**

3.2.5 Set Point Programming by Weight or by Value / $

Set Point Weight (See Note Below) Set bit 0 and 1 of Spec 7 to 1- 1
Set Point Quantity (See Note Below) Set bit 0 and 1 of Spec 7 to 1- 0

1 Display in the weighing mode

2 Press the **[MODE]** key to go into the programming mode.

3 Press **[+]** key to go into Set Point Programming Mode.

4 **Type [2][.][0][0] (example is based on weight). To** Enter the Weight value for Set Point 1 using the **[Numeric]** keys depending on the capacity of the scale. Please see the note below.

5 Press the **[+]** key to program Set Point 2.

6 **Type [3][.][0][0]. To** Enter the weight value for Set Point 2 using **[Numeric]** keys. Please see the note below.

7 Press the **[+]** key to program set point 3 thru 5 or exits from the Set Point Programming mode (depends on spec 18), but remains in the Programming mode.

8 Pressing the **[MODE]** key exits from Programming mode and returns to Weighing mode.

Note: **(example based on 100.00 lb. scale)**

Note: The DMC-290 can program up to five set points by repeating the process 3 through 5. Spec18 bit 0-1-2 determine the number of set points. The five set points are TTL Output for Value / $ or Weight. These five set points may be programmed 1 through 5 low to high or 1 through 5 high to low.

3.3. Check Item Code In Memory

1 Press **[MODE]** key

2 Press **[CODE]** key

3 Press **[–]** key to check entered code

4 Press **[–]** key to check entered code prior to “CH 3”

5 Press **[MODE]** key to return to the first step

3.2.1. Set Point Programming by Upper and Lower Limit of Value / $

Set Point 1 : Quantity , Set Point 2 : Quantity :Set bit 0 and 1 of Spec 7 to 10

1 Display in the weighing mode

2 Press the **[MODE]** key to go into the programming mode.

3 Press **[+]** key to go into Set Point Programming Mode.

4 **Type [2][0][0][0][0].** To Enter the Quantity value for Set Point 1 using the **[Numeric]** keys. Please see the note below.

5 Press the **[+]** key to program Set Point 2.

6 **Type [1][0][0][0][0].** To Enter the Set Point 2 value using the **[Numeric]** keys. Please see note below.

Note: **(example based on 100.00 lb. scale)**

3.2.2. Set Point Programming by Upper and Lower Limit of Weight is available, not shown here.

Set Point 1 : Weight (See Note Below) Set Point 2 : Weight (See Note Below) Set bit 0 and 1 of Spec 7 to 11

Note : Set Point1 : Must be a weight value depending on the capacity of the scale. Set Point2 : Weight value up to the capacity of the scale but Set Point 2 value must be less than Set Point 1 value

3.2.3.Set Point Programming :by %Value / $

Set Point 1 : Quantity (See Note Below) Set Point 2 : %Quantity (See Note Below) Set bit 0 and 1 of Spec 7 to 00

1 Display in the weighing mode

2 Press the **[MODE]** key to go into the programming mode.

3 Press **[+]** key to go into Set Point Programming Mode.

4 **Type [1][0][0][0][0].** To Enter the Quantity for Set Point 1 using the **[Numeric]** keys.

5 Using the **[CLEAR]** key clears the key entry.

6 **Type [7][5].** To Enter the new Set Point 2 value using the **[Numeric]** keys.

7 Pressing the **[+]** key exits from the Set Point Programming mode, but remains in the Programming mode.

8 Pressing the **[MODE]** key exits from Programming mode and returns to Weighing mode.

Note : Set Point 1 : Must be a quantity value up to 999999. Set Point 2 : Percentage value up to 999% but set according to Set Point 1 value. Ex: Suppose Set Point 1=999999 Set Point 2 cannot be set more than 100%.

3.2.4. Set Point Programming by %Weight is also available, not shown.

Set Point 1 : Weight (See Note Below) Set Point 2 : %Weight (See Note Below) Set bit 0 and 1 of Spec 7 to 01

Note: Set Point 1 : Must be a weight value depending on the capacity of the scale. Set Point 2 : Percentage value up to 999%, but set according to Set Point 1 value. Ex: Suppose Set Point 1=5.0000 (capacity of the scale), Set Point 2 cannot be set more than 100%.

2.8. Inventory Operation:

1 Press **[CODE]** key until Indicator IN is lit.

2 Example press quarter **[25/4]** key

3 Place coin on the scale.

4 Press **[∗PROG]** key to update memory. All displays will show dashes briefly. Renew “VALUE / $ IN STOCK” by adding the Quantity

6 Press **[NET /GROSS]** Key to Check VALUE / $ in Stock

7 Press **[NET/GROSS]** Key

8 Depress **[CODE]** key until Indicator OUT is lit

10 Press **[∗PROG]** key to update memory. All displays will show dashes briefly. Renew “VALUE / $ IN STOCK” by removing the Quantity

11 Press **[NET /GROSS]** Key to Check VALUE / $ in Stock

12 Press **[NET/GROSS]** Key

Note: **(example based on 100.00 lb. scale)**

3.0. PROGRAMMING MODE:

3.1. Data Setting (Program Mode)

3 .1.1. Example 1 : Program Hot Keys

1 To Enter PROGRAM Mode. Press [**MODE]** key

2 Select hot key to program. Example **[1]** thru **[9],**

3 Press **[CODE]** Key. (NOTE: If memory location is already programmed the display will show (CLEAr) press **[CLEAR]** key to delete. Press **[CODE]** Key to view or change existing data.

4a Compute Unit Weight, Place 1000 To 2000 Coins On Scale, Keyboard Enter The Number Of Coins Placed On The Scale, Press **[PIECES]** Key. OR ***See Note 1***

4b Enter Unit Weight, Press **[1] [2] [•] [3] [6] [5]** (for Quarters), Press **[UNIT WEIGHT]** key.

5 To Enter Set Point Mode Press **[+]** key. ***See Note 2***

6a To Enter Setpoint 1, Enter Setpoint 1 (Example $10.00) Type **[1] [0] [0] [0]**, ***See Note 2***

6b Press **[+]** Key. ***See Note 2***

7a Enter Setpoint 2, Enter Setpoint 2 (Example $20.00) Type **[2] [0] [0] [0]**, **]**, ***See Note 2***

7b Press **[+]** Key. ***See Note 2***

8 To Enter Denomination Value, Example : (for pennies), press **[1],** then press **[LB/KG]** key (for quarters), press **[2] [5]**, then press **[LB/KG]** key. Note: Do not use decimal point. Denomination value must be entered after set points.

9 To Enter Denomination Name, Example: penny, nickel, dime, or peso. Press **[–]**, using TC Code chart enter Denomination Name ***See Note 2***

10 To Store Denomination Name, Press **[∗PROG]** Key To Store Denomination Name ***See Note 2***

11 Enter Tare value (if desired), Place empty container on scale and press **[TARE]** key Or Keyboard enter known tare value and press **[TARE]** key ***See Note 2***

12 To Store Data. Press **[∗PROG]** Key To Store Data.

13 To Exit Program Mode. Press **[MODE]** Key.

Note 1:The accuracy of the computation can be improved by increasing the sample size

Note 2: Item # 5, 6, 7, 9, 10 &, 11 May Be Omitted To Fit Your Needs.

Note 3: Item # 1, 2, 3,4, 8, 12 & 13 Are Necessary To Program ID Code Into Memory.

3.1. Data Setting (Program Mode)

3 .1.2 Example 2 : Program extended code Keys

1 To Enter PROGRAM Mode. Press [**MODE]** key

2 To Select extended code number. Example type **[1] [2] [3]**

3 Press **[CODE]** Key. (NOTE: If memory location is already programmed the display will show (CLEAr) press **[CLEAR]** key to delete. Press **[CODE]** Key to view or change existing data.

4a Compute Unit Weight, Place 1000 To 2000 Coins On Scale, Keyboard Enter The Number Of Coins Placed On The Scale, Press **[PIECES]** Key. OR ***See Note 1***

4b Enter Unit Weight, Press **[1] [2] [•] [3] [6] [5]** (for Quarters), Press **[UNIT WEIGHT]** key.

5 To Enter Set Point Mode Press **[+]** key. ***See Note 2***

6a To Enter Setpoint 1, Enter Setpoint 1 (Example $10.00) Type **[1] [0] [0] [0]**, ***See Note 2***

6b Press **[+]** Key. ***See Note 2***

7a Enter Setpoint 2, Enter Setpoint 2 (Example $20.00) Type **[2] [0] [0] [0]**, **]**, ***See Note 2***

7b Press **[+]** Key. ***See Note 2***

8 To Enter Denomination Value, Example : (for pennies), press **[1],** then press **[LB/KG]** key (for quarters), press **[2] [5]**, then press **[LB/KG]** key. Note: Do not use decimal point. Denomination value must be entered after set points.

9 To Enter Denomination Name, Example: penny, nickel, dime, or peso. Press **[–]**, using TC Code chart enter Denomination Name ***See Note 2***

10 To Store Denomination Name, Press **[∗PROG]** Key To Store Denomination Name ***See Note 2***

11 Enter Tare value (if desired), Place empty container on scale and press **[TARE]** key Or Keyboard enter known tare value and press **[TARE]** key ***See Note 2***

12 To Store Data. Press **[∗PROG]** Key To Store Data.

13 To Exit Program Mode. Press **[MODE]** Key.

Note 1:The accuracy of the computation can be improved by increasing the sample size

Note 2: Item # 5, 6, 7, 9, 10 &, 11 May Be Omitted To Fit Your Needs.

Note 3: Item # 1, 2, 3,4, 8, 12 & 13 Are Necessary To Program ID Code Into Memory.