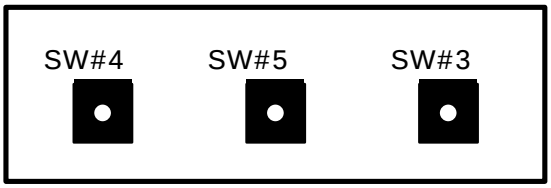
PROGRAMMING FOR PD-1 CAL MODE OPTIONS

1. Make sure that the scale is ***OFF***. Remove the platter. Remove the *CALIBRATION BOLT* and plate located on the top center front of the scale.

2. After removing the *CALIBRATION BOLT* and plate you will see 3 black *MICRO-SWITCHES.* Press and hold down SW#3.



3. Turn scale ***ON***. The *WEIGHT* display should flash "CAL" 3 times. Release SW#3. By then the display will show "Ad-1 ".

4. Put the platter upside down (with the edges facing up) and place it on the scale platform. Make sure that the platter is pushed back far enough as to allow access to all 3 *MICRO SWITCHES* and forward enough to be able to safely place 30 lb (or 15 kg) on the platter.

5. Make sure that there is nothing on the platter. Press SW#3 three times.

6. After a second the scale will say "CAPA" and a number. This number determines the scale's capacity. Using SW#4 you can select what capacity the scale will be. (See chart below.) Once you select your choice press SW#5.

CAPA #	SETS SCALE CAPACITY TO…
0	6 x 0.002 lb / 3 x 0.001 kg
1	15 x 0.005 lb / 6 x 0.002 kg
2	30 x 0.01 lb /15 x 0.005 kg

7. The displays will read " UNIT" and a number. This number determines the scale's units: (pounds or kilos). Using SW#4 you can select what unit the scale will use. (See chart below.) Once you select your choice press SW#5.

UNIT #	SETS SCALE UNIT TO…
0	Kilograms (kg)
1	Pounds (lb)

8. The displays will read " TYPE" and a number. This number determines the scale's interface type. The scale has 1 **Physical Port**: it is a 25 pin port. It has 2 logical ports both on the same 25 pin connector: LPT1 & COM1. LPT1 is a Parallel port. COM1 is a serial (RS-232) port. The setting of TYPE changes the output of both the ports. Using SW#4 you can select what type of interface the scale will use. *(See chart on next page.)* Once you select your choice press SW#5.

TYPE #	LPT1 OUTPUTS…	COM1 OUTPUTS…
0	TEC 4 digit 4 Bit Parallel (NEW kg.)	TEC P.O.S. RS-232
1*	TEC 5 digit 4 Bit Parallel (OLD kg.)	TEC P.O.S. RS-232
2	Universal 4 Bit Parallel	TOLEDO 8213 RS-232
3	Universal 4 Bit Parallel	TOLEDO/P.O.S. 8213 Continuous RS-232
4	Universal 4 Bit Parallel	NCI ECR RS-232
5	Universal 4 Bit Parallel	NCI General RS-232

*Please use the **PD1 Interface Cross Reference Chart.***

9. The display will read " End", then flash "CAL" 3 times, and then it will show " Ad-1".

10. Turn scale ***OFF***. Place the platter properly on the platform. Turn the scale ***ON***. The scale will do its count up test cycle and then go to ZERO.

11. If scale is **NOT** OK, repeat steps **1** to **11**.

OR

If scale is **OK**, remove platter, replace the plate and the *CALIBRATION BOLT*, and replace the platter.

If scale still reads " Err-1", try setting the PD-1 Span Calibration for 30Lbs or 15Kgs. If after properly setting PD-1 Span Calibration using proper capacity and trouble still persists, then you must call CAS for service help.

If you are having trouble communicating with the Cash Register, P.O.S. System, or other, please check that you have the right setting in TYPE. Check the table on top of this page and also cross check the Cross Reference # on this page with the Cross Reference # on the PD1 Interface Chart.

***NOTE:** On TEC MA-1650 option #35 is **13** by default. Please set option #35 to **3** on the cash register and set Type to 1 on the PD-1.

PD-1 Interface Cross Reference Chart

Cash Register Description	*CABLE NAME*	*CABLE PART #*	*Type*	*MOST COMON MODELS*
CASIO	CASIO I/F CABLE, 4 BIT PARALLEL	7880-PD0-4120	2	CE-4700, TK-2700, & ALL older models.
CASIO	CASIO I/F CABLE, RS-232	7880-PD0-4121	5	SA-3000.
COMTREX	COMTREX I/F CABLE, 4 BIT PARALLEL	7880-PD0-4143	2	ALL Comtrex registers with scale interface.
CRS	CRS I/F CABLE, RS-232	7880-PD0-4141	4	CRS3000.
DataSym	IBM/PC 9 PIN I/F CABLE, RS-232	7880-PD0-4128	4	D-2000, ALL Models.
ESPER,	ESPER I/F CABLE, 4 BIT PARALLEL	7880-PD0-4123	2	ALL older models with scale interface.
ESPER	ESPER I/F CABLE, RS-232	7880-PD0-4122	4	7810, 9700.
IBM/PC 25 PIN	IBM/PC 25 PIN I/F CABLE, RS-232	7880-PD0-4129	5	IBM PCs & Compatibles with 25 PIN COM ports.
IBM/PC 9 PIN	IBM/PC 9 PIN I/F CABLE, RS-232	7880-PD0-4128	5	IBM PCs & Compatibles with 9 PIN COM ports.
JCM	SUPER CHARGER I/F CABLE, 4 BIT PARALLEL	7880-PD0-4144	2	G-4800, G-3800.
NCR*	NCR I/F CABLE, OCIA	7880-PD0-4124	-	*N/A.
NCR	NCR I/F CABLE, RS-232	7880-PD0-4125	4	2170, 7452, 7453, 7445 Falcon, & ALL registers with serial I/F.
OMRON*	OMRON I/F CABLE, 40 BIT SERIAL	7880-PD0-4126	-	*N/A.
OMRON	OMRON I/F CABLE, RS-232	7880-PD0-4127	4	RS-4841, 4810, 4541, 4341, 4310, 4510, 4540, Vantage 7000.
PANASONIC	PANASONIC I/F CABLE, RS-232	7880-PD0-4142	4	ALL Panasonic registers with serial scale interface.
SAMSUNG	SAMSUNG 9 PIN I/F CABLE, RS-232	7880-PD0-4130	4	ER-550, 6500, 6540.
SAMSUNG	SAMSUNG 6 PIN I/F CABLE, RS-323	7880-PD0-4140	4	ER-5100, 5140.
SANYO	SANYO 9 PIN I/F CABLE, 4 BIT PARALLEL	7880-PD0-4131	2	ECR-630, 635, 640, 645, & ALL older registers with scale I/F.
SANYO	SANYO 25 PIN I/F CABLE, RS232	7880-PD0-4132	2	ECR-425, ALL new models with serial scale interface.
SANYO	SANYO 25 PIN I/F CABLE, 4 BIT PARALLEL	7880-PD0-4145	2	ECR-695
SHARP	SHARP I/F CABLE, 4 BIT PARALLEL	7880-PD0-4133	2	ER-3550S & ALL older registers with scale interface.
SHARP	SHARP I/F CABLE, RS-232	7880-PD0-4134	2	ER-A880, 850, 750, 650, 610, 570, 550S, 470, 460, 430.
SUPER CHARGER	SUPER CHARGER I/F CABLE, 4 BIT PARALLEL	7880-PD0-4144	2	This is a scale interface board that can be used with many brands.
SWINTEC	SWINTEC 25 PIN I/F CABLE, RS-232	7880-PD0-4136	4	2250.
SWINTEC	SWINTEC 9 PIN I/F CABLE, RS-232	7880-PD0-4135	4	2250.
TEC	TEC I/F CABLE, 4 BIT PARALLEL	7880-PD0-4137	0,1	MA-1650, FS-1650, ALL older registers with scale interface.
TEC	TEC I/F CABLE, RS-232	7880-PD0-4138	0,1	ST-4500, ST-5500 P.O.S. systems.
UNIWELL	UNIWELL I/F CABLE, RS-232	7880-PD0-4139	4	UX-7500, 7000, 6000, 4303, 4001, 750, M720, 75, 70, 60.

* **NOTE:** H.W.= Hardware. **NCR OCIA & OMRON 40 BIT SERIAL ARE NOT AVAILABLE AS OF 4-15-97.**

Type 0 = EPROM #305 Type 1 = EPROM #305 Type 2 = EPROM #304 Type 3 = EPROM #306 Type 4 = EPROM #307

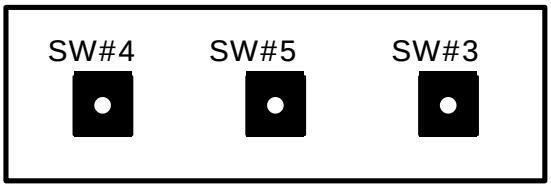
Type 5 = (N/A) EPROM#309=Type 0, 1, 2, 3, 4, and 5.

SPAN CALIBRATION FOR PD-1

1. Make sure that your CAL Mode Options are set properly. If you think that the settings are wrong or you are uncertain, refer to PROGRAMMING FOR PD-1 CAL MODE OPTIONS.

2. Make sure that the scale is ***OFF***. Remove the platter. Remove the *CALIBRATION BOLT* and plate located on the top center front of the scale.

3. After removing the *CALIBRATION BOLT* and plate you will see 3 black *MICRO-SWITCHES.* Press and hold down SW#3. *(See fig. below.)*



4. Turn scale ***ON***. The *WEIGHT* display should flash "CAL" 3 times. Release SW#3. By then the display will show "Ad-1 ".

5. Put the platter upside down (with the edges facing up) and place it on the scale platform. Make sure that the platter is pushed back far enough as to allow access to all 3 *MICRO SWITCHES* and forward enough to be able to safely place 30 lb (or 15 kg) on the platter.

6. Make sure that there is nothing on the platter. Press SW#3 two times.

7. The display should read "ULOAd". Press SW#4 one time.

8. After 2 seconds the scale will read "LOAd". Place 30 lb or 15 kg depending upon whether the scale is set up for pounds or kilos.

9. Once the proper weight is on the platter, press SW#4 one time. After a second, the display will read " End ", then "CAPA2". If not, then follow step **1**.

10. Press SW#5 three times and the displays will read "End", then flash "CAL" 3 times, and then it will show " Ad-1".

11. Remove all weights from the platter. Turn scale ***OFF***. Place platter properly on platform. Turn the scale ***ON***. The scale will do its count up test cycle and then go to ZERO.

12. Test scale for accuracy:

    If scale is **NOT** accurate, repeat steps **2** to **12**.

    OR

    If scale is **OK**, shut it ***OFF***, remove the platter, replace the plate and the *CALIBRATION BOLT*, and replace the platter.

If scale still reads " Err-1", try setting the PD-1 CAL Mode Programming Options.
If after properly setting <u>ALL</u> CAL Mode Programming Options trouble still persists, then you must call CAS for service help.