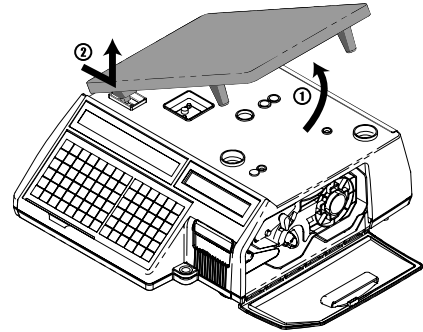


4. Calibration Mode

4.1 Calibration

Execute Weight Calibration and A/D related settings
(Access Authorized CAS Tester only)

Open the tray and remove the calibration sealing.
(CAUTION: Lift the tray Right side first and unlock the left side)



Order to access calibration mode:

Insert a stick into the CAL switch. Switch power on, while pushing the CAL button.



NOTE: For Hanging type: Pull forward the bottom handle to open
Refer to each code of Program and Calibration Menu Tree.

First page of Calibration mode





4.1.1 Span Calibration (Menu Code 8110)

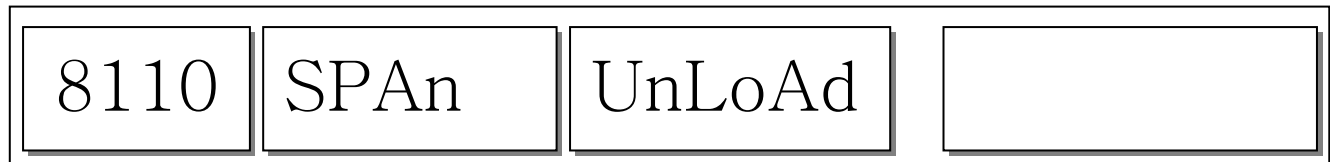
(Calibration MENU → Calibration → Span Calibration)

*Requires set of certified weights. (For best result prepare 15kg/6kg (max) weights)

① Select "Span Calibration"



Press "PRINT"



② Empty tray and press "PRINT"



While calibrating zero display shows "Wait4" ~ "Wait0" and follow next message for Span Calibration.



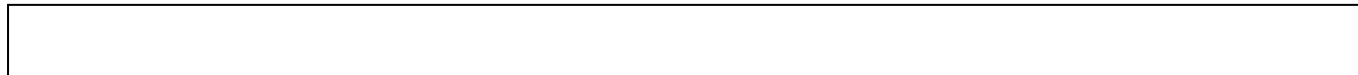
③ Put on the Weight for Max. Capacities then press "PRINT"

*Menu 8130 sets the max capacity for calibration.




Display shows "Wait4" ~ "Wait0" then following message



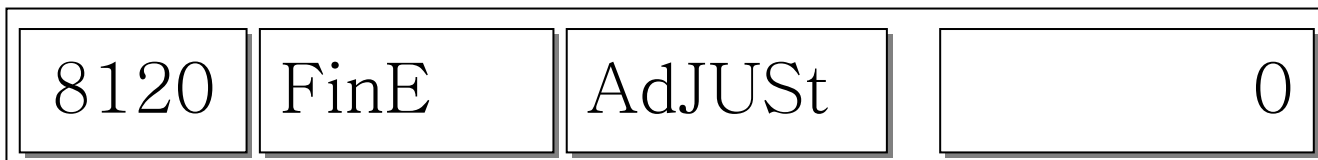


4.1.2 Span/Zero Fine Adjust (Menu Code 8120)

(Calibration MENU → Calibration → Span/Zero Fine Adjust)

This mode is for fine tuning of scale after span Cal. Please put Max weight on the tray and adjust A/D results at 60000, using the cursor key "   ." and Number key.

① Select menu "Span/Zero Fine Adjust", no weight is on the tray




If internal value is not set to zero, press " ZERO" key..

② Put Max. Capacity weight on the tray



And this screen is a just sample data for testing. This sample data are perhaps not the same as the data that you will have with your scale.

- Internal value 60012 needs to change 60000
Press  X 12 Times to decrease internal value.



4.1.3 Capacity & Units (Menu Code 8130)

(Calibration MENU -> Calibration -> Capacity & Units)

Set scale's Weighing unit, capacity, Interval, Cal Unit.

Caution: Span calibration must take place after "Capacity & Units" setting.

Do not change setting after **Span calibration**.

No	Capacity	Middle weight in Hysteresis Cal.
0	6 kg, dual	2 kg
1(default)	15 kg, dual	5 kg
2	30 kg, dual	10 kg
3	60 kg, dual	20 kg
4	150 kg, dual	50 kg
5	300 kg, dual	100 kg
6	600 kg, dual	200 kg
7	1,500 kg, dual	500 kg
8	3,000 kg, dual	1,000 kg
9	6,000 kg, dual	2,000 kg

8130	CALib	CAPA	1
------	-------	------	---

4.1.4 Gravity Constant (Menu Code 8140)

(Calibration MENU → 1. Calibration → 4. Gravity Constant)

CL-5000Jr scale enables to calibrate in any country. You can set according to country standard gravity constant data. For case of full recalibration set the factory gravity first and then local area gravity code.

(For span calibration Local gravity value is automatically matches with Factory gravity value)

First, Enter the gravity value in calibration area (Factory)

8140	Grvty	G-CAL	9.7994
------	-------	-------	--------

Second, Enter the gravity value in using area (local)

8140	Grvty	G-USE	9.7799
------	-------	-------	--------

Use the following table to determine the proper G-Constant for your area.

Country	City	G-Constant	Country	City	G-Constant
Argentina	Buenos Aires	9.7979	Mexico	Mexico City	9.7799
Australia	Sydney	9.7979	Morocco	Rabat	9.7964
Austria	Vienna	9.8099	Netherlands	Amsterdam	9.8129
Belgium	Brussels	9.8114	New Zealand	Wellington	9.8039
Belize	Manamah	9.7904	Norway	Oslo	9.8189
Bolivia	La Paz	9.7844	Panama	Panama City	9.7814
Brazil	Brasilia	9.7889	Peru	Lima	9.7829
Canada	Montreal	9.8069	Philippines	Manila	9.7844
	Ottawa	9.8069	Poland	Swider	9.8159
	Toronto	9.8054	Portugal	Lisbon	9.8009
	Vancouver	9.8099	Rumania	Bucharest	9.8054
Check Republic	Prague	9.8114	Saudi Arabia	Riyad	9.7904
Chile	Santiago	9.7979	Scotland	Stockholm	9.8189
China	Hong Kong	9.8099	Singapore	Singapore	9.7814
Colombia	Bogota	9.7799	South Africa	Johannesburg	9.7919
Costa Rica	San Jose	9.7829	Spain	Madrid	9.8024
Cypruss	Nicosia	9.7979	Switzerland	Bern	9.8084
Denmark	Copenhagen	9.8159	Taiwan	Taipei	9.7904



Ecuador	Quito	9.7724	Tunisia	Tunis	9.7799	
Finland	Helsinki	9.8189	Turley	Ankara	9.8024	
Germany	Dusseldorf	9.8129	Uruguay	Montevideo	9.7964	
Great Britain	London	9.8144	USA	Anchorage	9.8189	
Greece	Athens	9.8009		Atlanta	9.7964	
Guatemala	Guatemala	9.7844		Boston	9.8039	
Hungary	Budapest	9.8069		Chicago	9.8024	
Indonesia	Djakarta	9.7814		Dallas	9.7949	
Iraq	Baghdad	9.7964		Detroit	9.8039	
Japan	Mishima	9.7979		Los Angeles	9.7979	
Korea	Seoul	9.7994		New York	9.8024	
Kuwait	Kuwait	9.7919		Philadelphia	9.8024	
Lebanon	Beirut	9.7964		San Francisco	9.7994	
Mauritius	Port Louis	9.7859		Venezuela	Caracas	9.7829

NOTE: The G-Constant is the acceleration of gravity in meters per second per second.

4.1.5 Hysteresis Calibration (Menu Code 8160)

(Calibration MENU → Calibration → Hysteresis Calibration)

You can re-adjust the med-range weight level for precise calibration.

8160	CALib	HySt	
------	-------	------	--

Hysteresis Calibration for example 15 kg, middle value is 5 kg

① Press "print".

8160	HySt	UnLoAd	10329
------	------	--------	-------

② Clear the tray and press "PRINT", then "Wait4" ~ "Wait0" will display.

8160	HySt	middLE	40329
------	------	--------	-------

③ Put middle weight (5kg) on the tray and press "PRINT", then "Wait4" ~ "Wait0" will display.

8160	HySt	LoAd	70329
------	------	------	-------

④ Put 15kg on the tray and press "PRINT", then "Wait4" ~ "Wait0" will display.

8160	HySt	middLE	40329
------	------	--------	-------

⑤ Put Clear middle weight (5kg) on the tray and press "PRINT", then "Wait4" ~ "Wait0" will display.

8160	CALib	HySt	
------	-------	------	--

4.1.6 A/D Set (Menu Code 8180)

(Calibration MENU -> Calibration -> A/D Set)

4.1.6.1 A/D Initialize (Menu Code 8183)

(Calibration MENU -> Calibration -> A/D Set -> A/D Init)



Wait for a moment after pressing "PRINT" ,and while display shows following message



CAUTION: Must record setting values before Executing menu . This will set the scale first default setting

4.1.6.2 A/D FirmWare Update (Menu Code 8187)

(Calibration MENU -> Calibration -> A/D Set -> Update)



You can change the A/D firmware with your PC in this mode.