

682 Synergy Plus Digital Weight Indicator

Checkweigh Features

The 682 Synergy Plus Digital Weight Indicator can be used in checkweighing applications. This document describes all checkweighing features offered by the 682 indicator. For information on other parameters and features not related to checkweighing, see the 682 Technical Manual (PN 204533) on the Rice Lake website.



Manuals are available from Rice Lake Weighing Systems at www.ricelake.com/manuals

Warranty information is available at www.ricelake.com/warranties



IMPORTANT: *Dynamic checkweigh is not approved for Legal for Trade applications.*

Setup and Configuration

This section provides instructions for configuring the 682 indicator for checkweighing applications.

1. Press . Audit displays.
2. Press until Setup displays.
3. Press . Configuration displays.
4. Press until Program displays.
5. Press . Application displays.
6. Press . Checkweigh displays.
7. Press . Enabled displays.
8. Press . A prompt displays with default value Off.

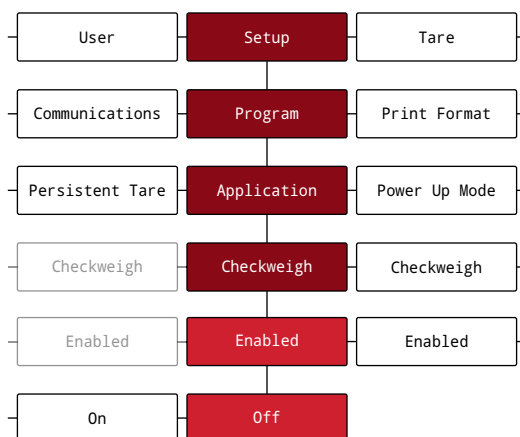


Figure 1. Enabled Menu (Checkweigh Off)

9. Select On to enable checkweighing features.
10. Mode displays (see “Mode Menu” on page 2).

Checkweigh Menu

This table lists available parameters when checkweighing is set to On.

Parameter	Description	EDP Commands
Enabled	Determine if checkweighing is On or Off. Must be set to On to access Mode menu; Yes, No (default)	CW.ENABLED=YES, NO
Mode	Menu for checkweighing modes; See "Mode Menu" on page 2	Various; See "Mode Menu" on page 2
Static	Menu displays if Mode is set to Target, Target% or Range; See "Static Menu" on page 2	Various; See "Static Menu" on page 2
Dynamic	Menu displays if Mode is set to Dynamic; See "Dynamic Menu" on page 3	Various; See "Dynamic Menu" on page 3
ID	Menu for ID settings; See "ID Menu" on page 4	Various; See "ID Menu" on page 4

Table 1. Checkweigh Menu Parameters

Mode Menu

This section provides a flow chart and descriptions for the Mode Menu's checkweighing parameters.

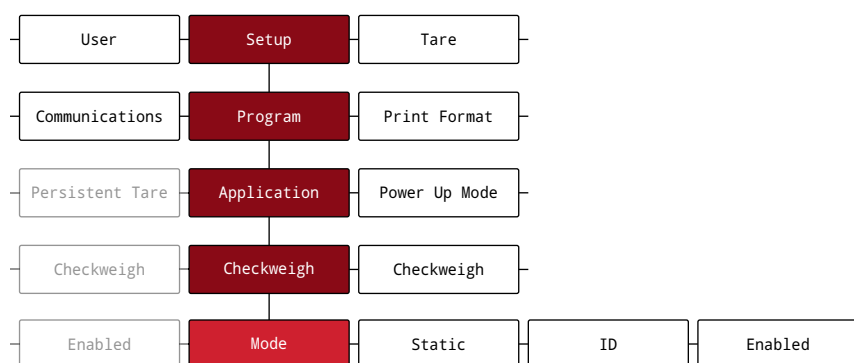


Figure 2. Mode Menu

Parameter	Description	EDP Commands
Target	Define a value and a tolerance	CW.MODE=TARGET
Target%	Define a target. Over and accept values are a percentage of target	CW.MODE=TARGPCT
Range	Define Over and Under values	CW.MODE=RANGE
Dynamic	Setup for in-motion checkweigh; Define Over and Under values (determines if in or outside accept)	CW.MODE=DYN

Table 2. Mode Menu Parameters

Static Menu

This section provides a flow chart and descriptions for the Static Menu's checkweighing parameters.

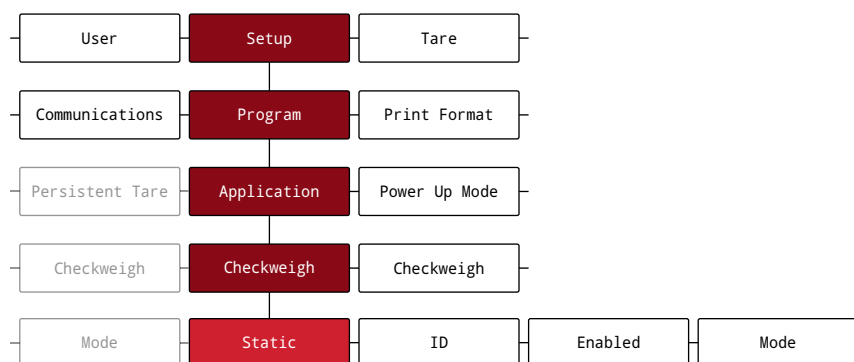


Figure 3. Static Menu

Parameter	Description	EDP Commands
Target	Target value; displays if Mode is set to Target or Target%	CW.TARGET=0
Tolerance	Tolerance on either side of target; displays if Mode is set to Target	CW.TOL=0
Under	Under value (values exceeding under and below over are accept); displays if Mode is set to Range or Target%	CW.UNDER=0
Over	Over value (values below over and exceeding under are accept); displays if Mode is set to Range or Target%	CW.OVER=0

Table 3. Static Menu Parameters

Dynamic Menu

This section provides a flow chart and descriptions for the Dynamic Menu's checkweighing parameters.

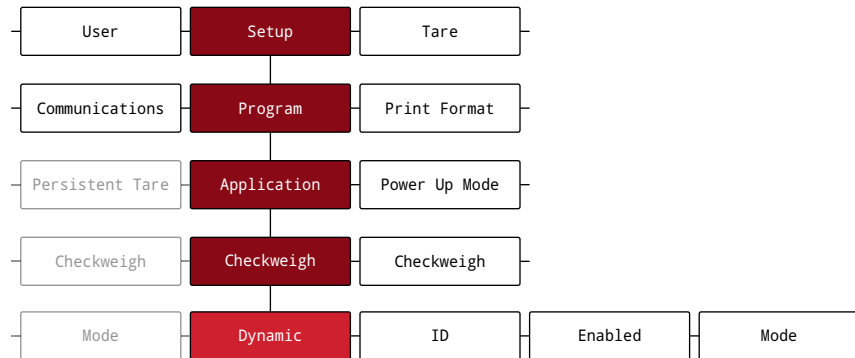


Figure 4. Dynamic Menu

Parameter	Description	EDP Commands
Mode	Select one of two dynamic modes: Weight Threshold or Input Trigger	CW.DYN.MODE=WEIGHT CW.DYN.MODE=INPUT
Weight Threshold	Value at which sampling begins; 1 (Default)	CW.DYN.WVAL=1
Input Trigger	Determine input trigger parameters: Delay to Start and Sample Time	–
Delay to Start	Amount of time after the input trigger before sampling begins; 0 (Default) NOTE: Unit value is 1/100th of a second with an input range of 0 to 1000	CW.DYN.DELAY=0
Sample Time	Amount of time to sample and average weighments; 100 (Default) NOTE: Unit value is 1/100th of a second with an input range of 25 to 1000	CW.DYN.STIME=25
Auto Print	If enabled, GFMT (Gross Mode) or NFMT (Net Mode) format will be pushed after checkweigh is complete; Yes (Default), No	CW.AUTOPRINT=YES CW.AUTOPRINT=NO
Values	Determine Under , Over and Target parameters	–
Under	Under value (values exceeding under and below over are accept)	CW.UNDER=0
Over	Over value (values below over and exceeding under are accept)	CW.OVER=0
Target	Target for printing purposes	CW.TARGET=0

Table 4. Dynamic Menu Parameters

ID Menu

This section provides a flow chart and descriptions for the ID Menu's checkweighing parameters.

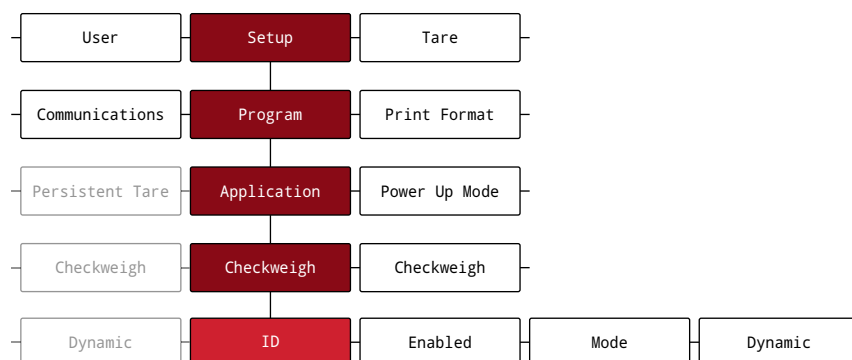


Figure 5. ID Menu

Parameter	Description	EDP Commands
Enabled	Determines if product ID registers can be accessed and selected <i>On, Off (Default)</i>	CW.ID.ENA=ON CW.ID.ENA=OFF
Registers	Submenu for IDs: <i>ID1, ID2, ID3, ID4, ID5, ID6, ID7, ID8, ID9, ID10</i>	–
User Access	If enabled, Checkweigh Registers becomes visible under User menu; <i>On (Default), Off</i>	CW.ID.USERACCESS=ON CW.ID.USERACCESS=OFF

Table 5. ID Menu Parameters

Checkweigh Registers ID Menu

This section provides a flow chart and descriptions for the Checkweigh Registers ID Menu's checkweighing parameters.



NOTE: User Access must be set to On to view the Checkweigh Registers ID menu.

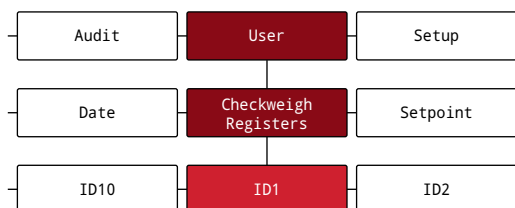


Figure 6. Checkweigh Registers ID Menu

Parameter	Description	EDP Commands
Product Code	Enter a 1-4 digit numeric value for the Product Code	CW.ID.PRODID#n=
Target	Target value for ID	CW.ID.TARGET#n=0
Tolerance	Tolerance value for ID	CW.ID.TOL#n=0
Over	Over value for ID	CW.ID.OVER#n=0
Under	Under value for ID	CW.ID.UNDER#n=0
Tare	Preset Tare for ID	CW.ID.TARE#n=0
Description 1	Description 1 (0-32 characters)	CW.ID.DESC1#n=
Description	Description 2 (0-32 characters)	CW.ID.DESC2#n=
Units	Units (LB, KG, OZ, G)	CW.ID.UNITS#n=LB
Clear ID	Clear data from selected register	CW.ID.CLR#n

Table 6. Checkweigh Registers ID Menu Parameters

Softkey Menu

This section provides a flow chart and descriptions for the Softkey Menu's checkweighing parameters.

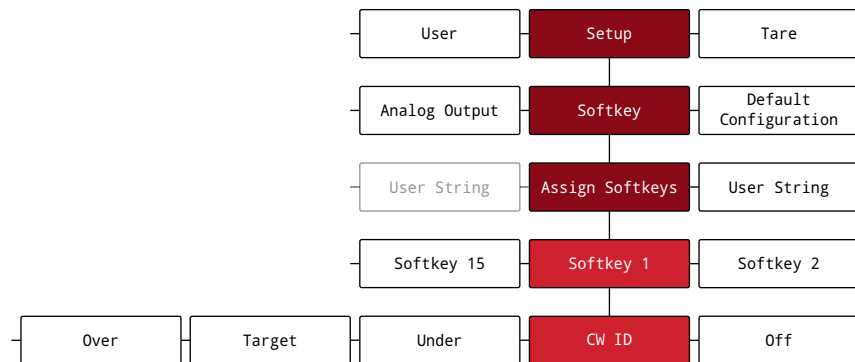


Figure 7. Softkey Menu

Parameter	Description	EDP Commands
Over	Softkey prompts for over value	Over
Under	Softkey prompts for under value	Under
Target	Softkey prompts for target. Once entered, prompt for tolerance displays if in target mode	Target
CW ID	Softkey prompts for ID code	CWID

Table 7. Softkey Menu Parameters

Digital I/O Bit Menu

This section provides a flow chart and descriptions for the Digital I/O Bit Menu's checkweighing parameters.

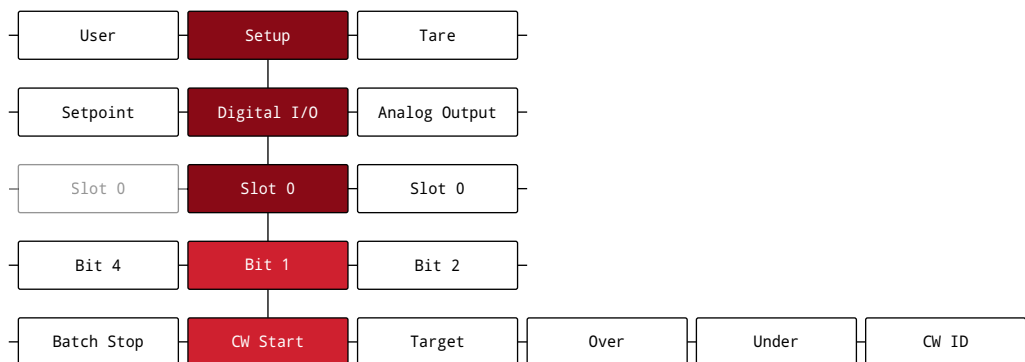


Figure 8. Digital I/O Bit Menu

Parameter	Description	EDP Commands
CW Start	Input begins Dynamic Checkweigh if set to Input Trigger	CWSTART
Target	Input prompts to change Target value; prompt for tolerance displays if in target mode	Target
Over	Input prompts for over value	Over
Under	Input prompts for under value	Under
CW ID	Input prompts for ID code	CWID

Table 8. Digital I/O Bit Menu Parameters

Setpoint Menu

This section provides a flow chart and descriptions for the Setpoint menu's checkweighing parameters.

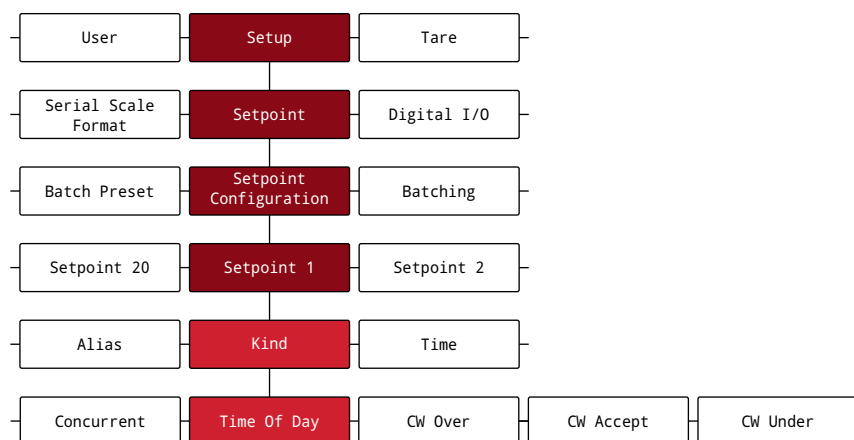


Figure 9. Setpoint Kind Menu

Parameter	Description	EDP Commands
CW Over	Setpoint is satisfied when checkweigh is enabled and weight is Over and in standstill	CWOVER
CW Accept	Setpoint is satisfied when checkweigh is enabled and weight is in Accept range and in standstill	CWACCEPT
CW Under	Setpoint is satisfied when checkweigh is enabled and weight is Under and in standstill	CWUNDER

Table 9. Setpoint Kind Menu Parameters

Operation

With checkweigh enabled, the color of the weight display window changes depending on the returned value of the weighment.

Accept

If the weight is in accept range, the display window lights green.

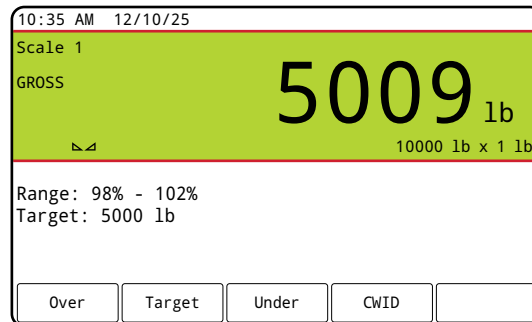


Figure 10. Weight Accepted

Under

If the weight is under, the display window lights red.

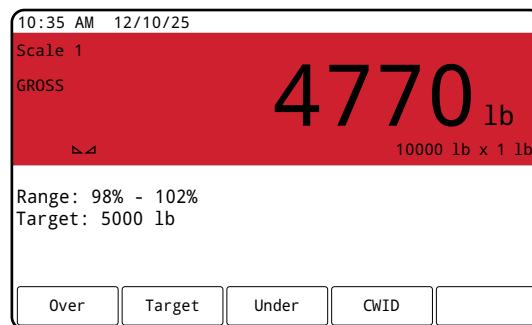


Figure 11. Weight Under

Over

If the weight is over, the display window lights yellow.

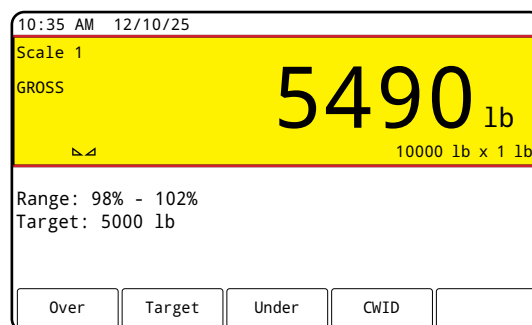


Figure 12. Weigh Over

Print Format/Stream Tokens

This table lists all checkweighing print format and stream tokens.

Token	Description
<i>Print Format Tokens</i>	
<CKS>	Status of over/under/accept; O=Over, U=Under, A=Accept
<CKOV>	Over Value
<CKU>	ID's Units
<CKUV>	Under Value
<CKTV>	Target Value
<CKWGT>	Captured Value (for Dynamic)
<CKID>	Loaded ID
<CKD1>	Description 1
<CKD2>	Description 2
<CKMODE>	Returns the mode: Target, Target%, Range, Dynamic
<i>Stream Tokens</i>	
<CW>	Status of over/under/accept; O=Over, U=Under, A=Accept

Table 10. Print Format/Stream Tokens

EDP Commands

This table lists additional EDP commands for checkweighing not listed above.

EDP Command	Description
ID.SELECT#n	Loads the ID stored in register <i>n</i> into the working register
ID.SELECT=XX	Loads the stored ID with a Product ID of XX into the working register. If Product ID XX is not found, the response "?? - ID not found" is returned NOTE: If XX = 0, the parameters of the selected ID will be deselected and cw.over, target, tolerance and under values will be set to 0.
ID.FINDPROD=XX	Returns the ID register number where Product ID XX is located. If Product ID XX is not found, the response "?? - ID not found" is returned
CW.CLRALL	Clears all ID register values

Table 11. EDP Commands



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