

# Operator Card



**Warning** Do not open the indicator enclosure!  
Refer all repairs and modifications to your distributor or service technician.

This *Operator Card* describes the IQ plus 390-DC LCD display, weighing and counting operations, and procedures for battery replacement and AC adapter use.

## LCD Display and Annunciators

The IQ plus 390-DC display uses a set of LCD annunciators to provide additional information about the value being displayed. The illustration below shows these annunciators and their meanings.

**G** The displayed weight is a gross weight.

**N** The displayed weight is a net weight.



Scale is at standstill or within the specified motion band. Some operations, including zero, tare, and printing functions, can only be done when the standstill symbol is shown.



Center of zero. Gross weight is within 0.25 graduations of zero. This annunciator lights when the scale is zeroed.



Indicates that a tare has been entered. The tare value can be entered by pressing the TARE key on the keypad or by sending the KTARE EDP command.



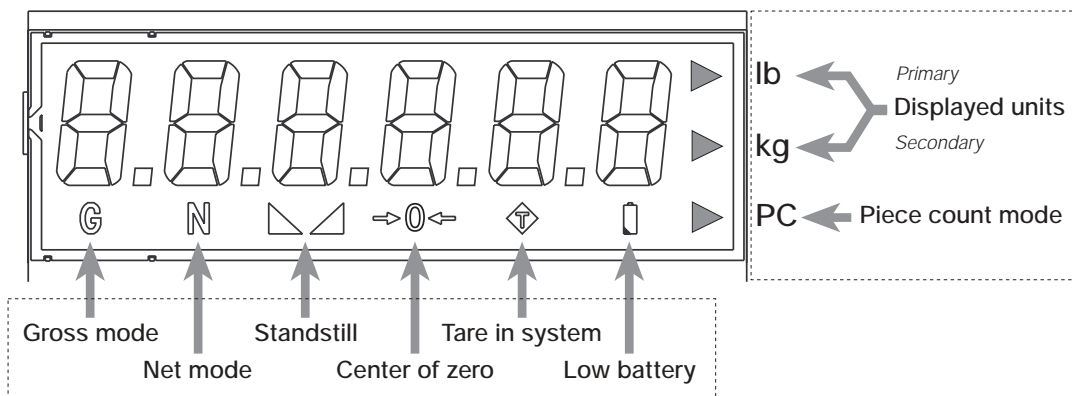
Indicates that the battery charge is low.

### lb, kg, PC

Three arrow annunciators on the right side of the LCD display indicate the units associated with the displayed value. The bottom arrow annunciator (PC) is lit when the indicator is in piece count mode. The top and middle arrows, labeled lb and kg, show primary and secondary units, as described below:

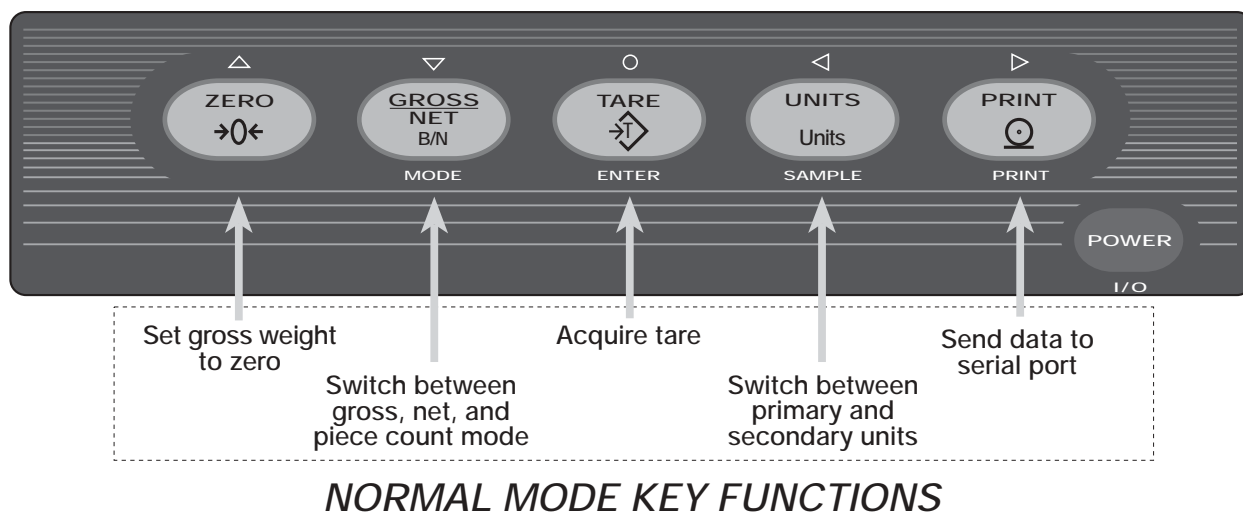
- If the displayed weight is in pounds, the top arrow (lb) is lit; if kilograms, the middle arrow (kg) is lit.
- If the primary unit of weight is pounds, the middle (kg) arrow is lit for secondary units—or, if the primary unit is kilograms, the top (lb) arrow is lit for secondary units, unless the secondary unit of weight is the same as the primary unit.
- If neither primary nor secondary units are pounds or kilograms, the top arrow is used as a primary units annunciator and the middle arrow is used as the secondary units annunciator.

A set of replacement overlay decals is included in the parts kit for units other than pounds and kilograms.



# Weighing Operations

The illustration below shows the IQ plus 390-DC keypad and normal mode key functions.



Basic IQ plus 390-DC weighing operations are summarized below:

## Toggle Gross/Net/Piece Count Mode

Press the **GROSS/NET** key to switch the display mode between gross, net, and piece count modes. If a tare value has been entered or acquired, the net value is the gross weight minus the tare. If access to piece count mode is disabled, pressing the **GROSS/NET** key switches between gross and net modes only.

Gross mode is shown by the **G** annunciator; net mode is shown by the **N** annunciator. Piece count mode is shown by the LCD annunciator adjacent to the **PC** at the right edge of the display.

## Toggle Units

Press the **UNITS** key to switch between primary and secondary units. The units annunciator arrow on the right side of the LCD display points to the units identifier.

## Zero Scale

1. In gross mode, remove all weight from the scale and wait for the standstill annunciator (▲▲).
2. Press the **ZERO** key. The center of zero (→0←) annunciator lights to indicate the scale is zeroed.

## Acquire Tare

1. Place container on scale and wait for the standstill annunciator (▲▲).
2. Press the **TARE** key to acquire the tare weight of the container.
3. Net weight is displayed and the **T** annunciator lights to show the tare value was acquired.

## Remove Stored Tare Value

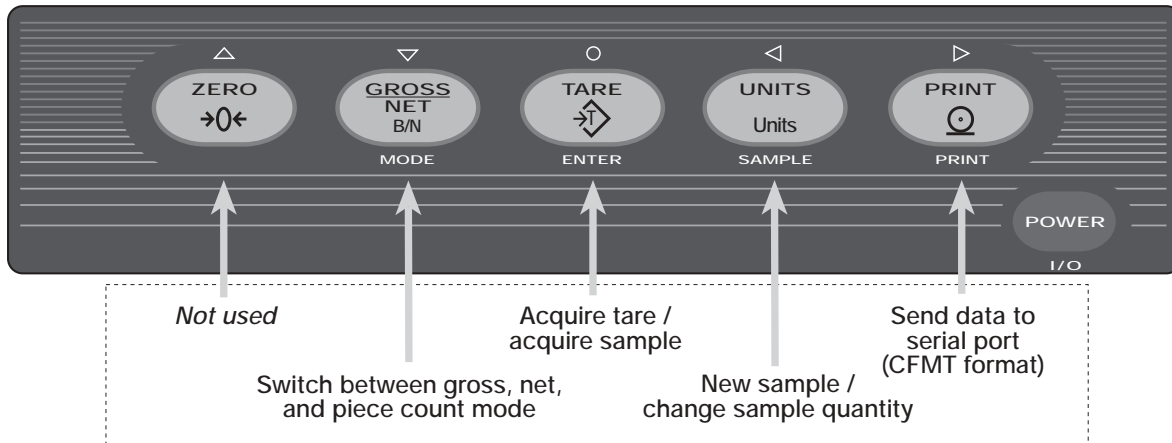
1. Remove all weight from the scale and wait for the standstill annunciator (▲▲).
2. Press the **ZERO** key. The **T** annunciator goes off, indicating the tare value has been removed.

## Print Ticket

1. Wait for the standstill annunciator (▲▲).
2. Press the **PRINT** key to send weight data to the serial port.

# Counting Operations

The illustration below shows the IQ plus 390-DC keypad and piece count mode key functions.




## COUNTING MODE KEY FUNCTIONS

**NOTE:** Legal-for-trade applications require product to be sold by weight rather than an equivalent parts count. Operator access to piece count mode is disabled when the indicator is shipped from the factory. To use piece count mode, access must be enabled when the indicator is configured.

Piece count mode is entered by pressing the MODE (GROSS/NET) key from normal weighing mode. In count display mode, the display shows the number of parts rather than weight, the arrow annunciator at the right side of the LCD display points to piece count (PC), and pressing the PRINT key sends the CFMT print format data string to the serial port.

IQ plus 390-DC counting operations are summarized below:

### Acquire Parts Sample


1. Place empty parts container on scale. Wait for the standstill annunciator (  ), then press TARE to acquire the tare weight of the container.
2. Press MODE to enter piece count mode.
3. Press the SAMPLE (UNITS) key to enter sample acquisition mode.
4. The indicator display shows the message *Addnnn*, where *nnn* is the sample quantity to be placed on the scale. Add the number of parts shown or choose a different sample size by pressing the SAMPLE key to scroll through the selectable sample quantities (5, 10, 20, 50, 100).
5. Once the sample quantity is on the scale, press ENTER to calibrate the indicator for counting the new parts. The indicator display shows the message *-CNT-* as it acquires the sample weight, then switches to count display mode and shows the part quantity.

If the weight of the sample quantity is insufficient for piece counting, the indicator automatically requests the next higher sample quantity by showing the *Addnnn* message again. If the sample quantity is at maximum (100) and the sample weight is still not sufficient, the indicator shows the message *CNTERR*.

### Display Part Weight

To view gross and net weight of parts, press MODE to switch from count display mode to normal weighing mode.

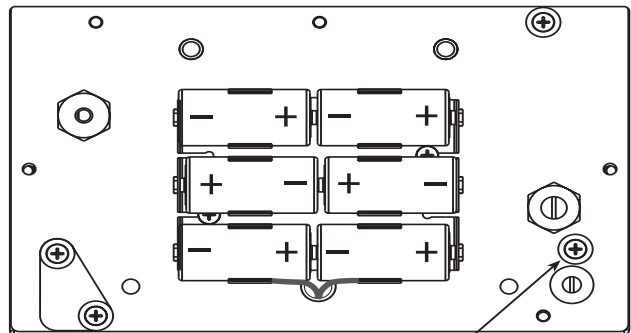
### Print Ticket

1. Wait for the standstill annunciator (  ).
2. Press the PRINT key to send piece count data to the serial port.

## Battery Installation

To install or replace batteries, do the following:

1. Remove the four thumbscrews that hold the battery cover to the enclosure backplate.
2. Install six alkaline C-cell batteries as shown in Figure 1.
3. Replace the battery cover and reinstall thumbscrews. Torque thumbscrews to 15 in-lb (1.7 N-m).



Attachment for external ground

Figure 1. Battery Installation

## Using the AC Adapter

The AC adapter can be used to provide power to the indicator if battery power is low and AC power is available. Use only the adapter supplied with the indicator.

To use the AC adapter, do the following:

1. Remove the top screw from the AC adapter port cover.
2. Loosen the bottom screw, then rotate the port cover to expose the AC adapter port (see Figure 2).
3. Reinstall the top screw in the backplate.
4. Plug AC adapter from power outlet to the indicator adapter port.

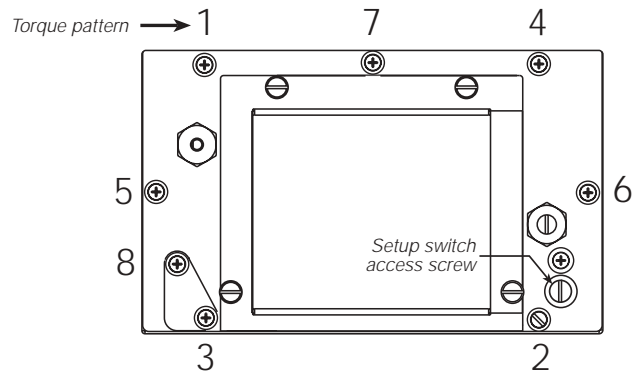
When not using the AC adapter, close the adapter port cover and reinstall all backplate screws. Use the torque pattern shown in Figure 3 to prevent distorting the backplate gasket. Torque screws to 15 in-lb (1.7 N-m).



### Caution

The IQ plus 390-DC enclosure cannot be rated for NEMA 4X/IP66 applications with the AC adapter port cover open.

Do not use the AC adapter in washdown environments.



Torque backplate screws to 15 in-lb (1.7 N-m)

Figure 3. Enclosure Backplate

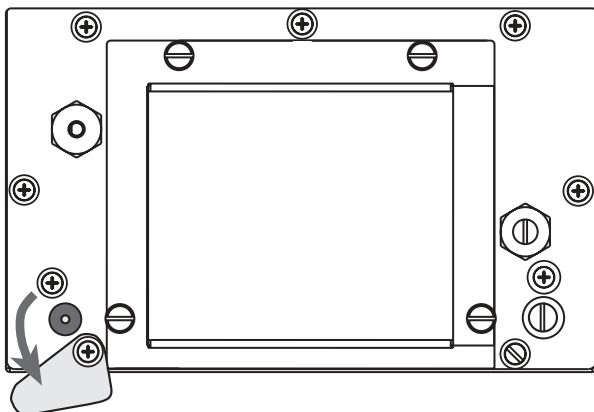


Figure 2. AC Adapter Port Cover