OPERATOR'S GUIDE

ACTIVWEIGH

A-Series

Hang-On Weighing
– Carriage
– Sideshifter
– Sideshifting Fork Positioner

Manual Number 6998616

cascade® corporation

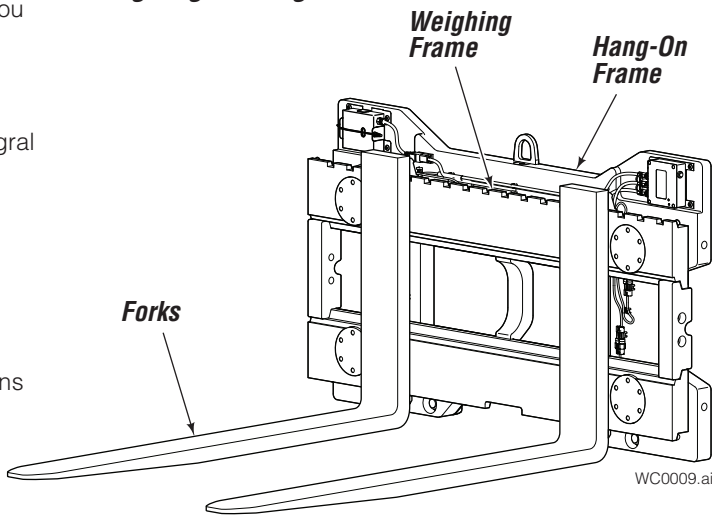
CONTENTS

This section contains operating instructions for the Cascade ActivWeigh Integral attachments. It will help you avoid common errors which often cause damage to the equipment or product being handled.

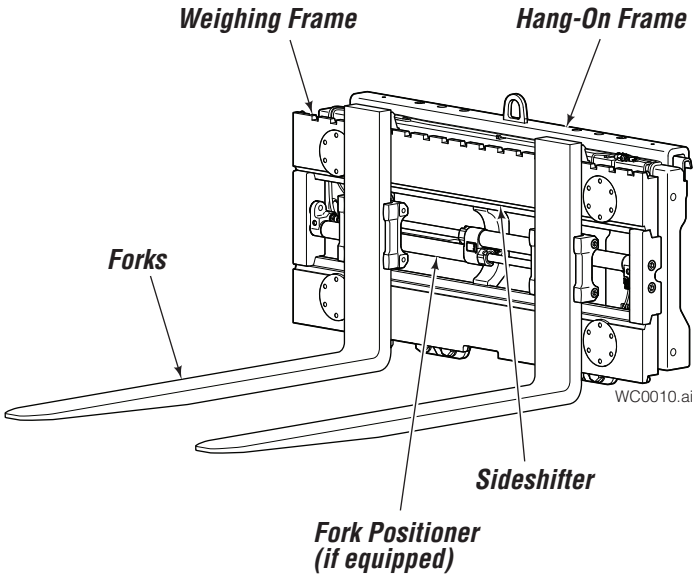
This information is intended to simplify operator understanding about effective and safe ActivWeigh Integral attachments use and operation. Read this information thoroughly before operating the attachment. Be sure you know and understand all operating procedures and safety precautions. If you have any questions or don't understand a procedure, ask your supervisor.

Emphasize Safety! Most accidents are caused by operator carelessness or misjudgment. You must watch for poorly maintained equipment and hazardous situations and correct them.

Weighing Carriage



Weighing Sideshifter with Fork Positioning (if equipped)



Terminology

Legal for Trade or **Legal for Commerce** or **Trade Approved** scales are intended for commercial applications where product is sold by weight and meets legal requirements in the region of sale for design, accuracy, manufacturing quality and labeling. They are certified and secured by local metrology agencies or an approved qualifier. Examples include NTEP, OIML, MC, etc.

WIM – Weigh In Motion

WARNINGS AND SAFETY MEASURES

Carefully read the instructions and guidelines in this manual. Follow the steps shown to install the weigh system onto the truck. If any instructions are not clear, contact Cascade.

WARNING: Rated capacity of the truck/attachment combination is a responsibility of the original truck manufacturer and may be less than shown on the attachment nameplate. Consult the truck nameplate.

WARNING: Operators (Drivers) must read and understand this manual before being allowed to operate this equipment. If the operator does not understand any part of the Operator Guide a supervisor should be asked for an explanation. If it is still not understood, this equipment should not be used.

WARNING: The attachment and weighing system is to be operated by a qualified operator only. Overloading, load positioning, load stability, load security and unqualified operators can result in a hazardous situation.

WARNING: Do not operate the weigh system unless trained and a authorized lift truck driver.

WARNING: The attachment can present a hazard when serviced. This equipment must be serviced by qualified personnel only.

WARNING: Residual risk exists to pedestrians, bystanders and service technicians in the work area. Operate lift trucks and accessory equipment in a safe working area and in compliance with facility, local and national standards and rules.

WARNING: Before operating, perform the Daily Inspection as described in this manual.

CAUTION: High humidity and liquid applications will damage weighing components. Conditions with mud, grime, water, corrosive chemicals and abrasive substances can damage or affect performance of the weighing system.

IMPORTANT: Tampering or removing Legal for Trade Certified security wire (or wires) or label will void certification.

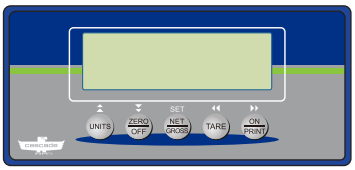
IMPORTANT: Cascade is not responsible for errors that occur due to incorrect weighing or inaccurate scales. The purchaser is responsible to train employees and maintain the weigh system with regular calibration and maintenance.

IMPORTANT: All safety regulations that apply to the truck remain valid and unchanged. Always follow the operating, maintenance and repair instructions for the truck.

IMPORTANT: If display indicator batteries are low, communication to the display indicator can be affected.

Display indicator rated to IP 65.

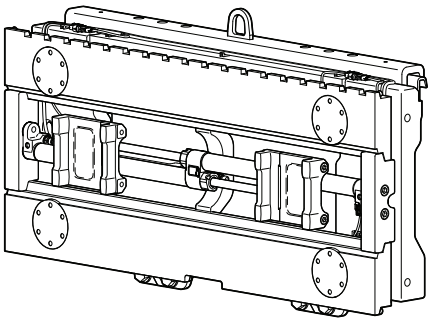
CAUTION: Do not use the display indicator in a moist environment for an extensive period.



IN0117.ai

WARNING: Display Indicator use – Not designed for use while driving the truck. Operators must, at all times, be aware of risk to pedestrians, bystanders and themselves. It is the operator's responsibility to avoid distracted or impeded operation of the equipment while using any display indicator or indicator. Failure to do so may result in severe personal injury or death.

No Pressure Wash/Steam



WC0011.ai

Working Temperature Range:
-4° F (-20° C) minimum
105°F (40° C) maximum

If equipped with display indicator heater:
-40° F (-40° C) minimum.

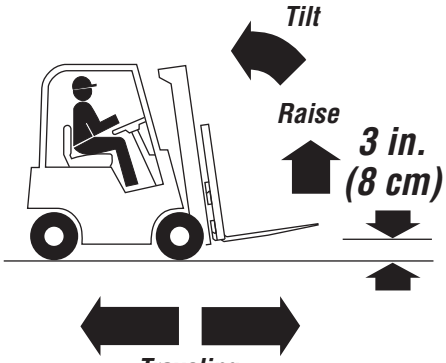
No riders

No reaching through mast

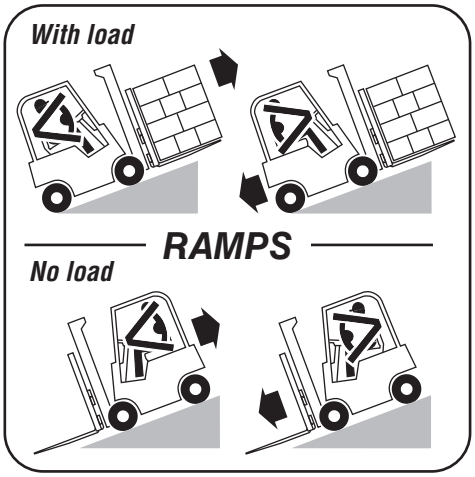
No standing under load

GA0517.ai

Motor off, park, lower load

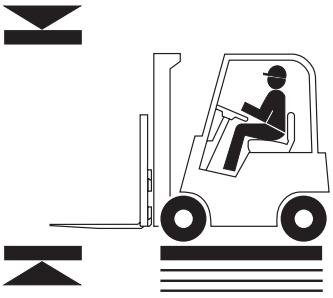


Traveling empty



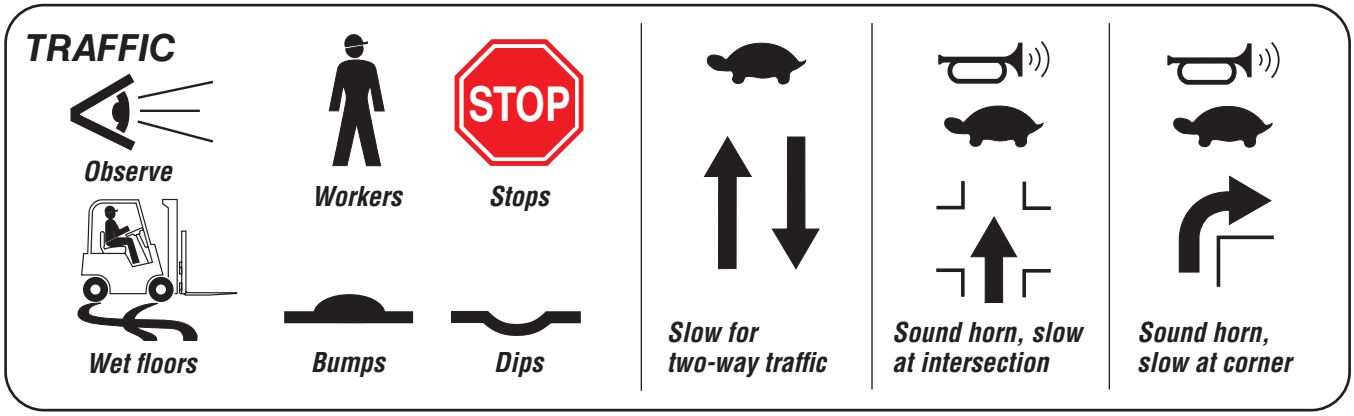
No parking on ramp

No turning on ramp

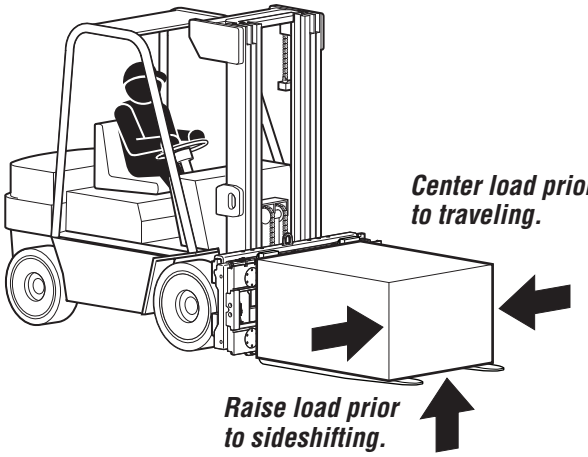


Watch clearances

GA0048.eps

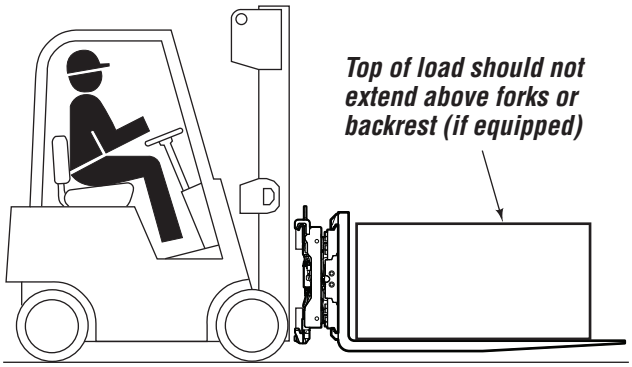


Handling Loads



Center load prior to traveling.

Raise load prior to sideshifting.



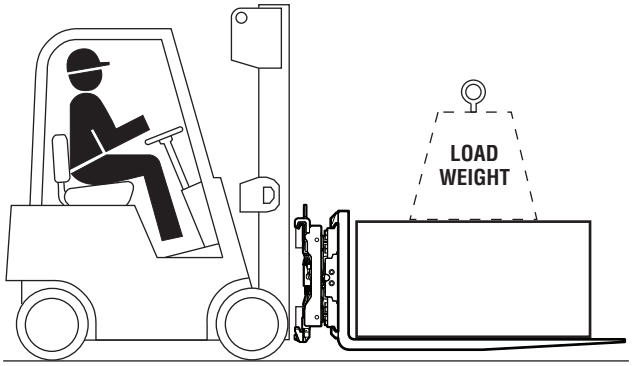
Top of load should not extend above forks or backrest (if equipped)

Limit mast tilting with raised load.

Limit sideshifting with raised load.

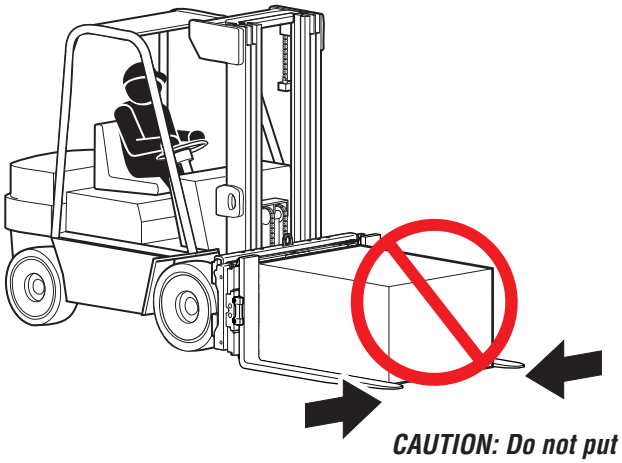
CAUTION: Do not position forks while handling load.

Limit truck movement with raised load.

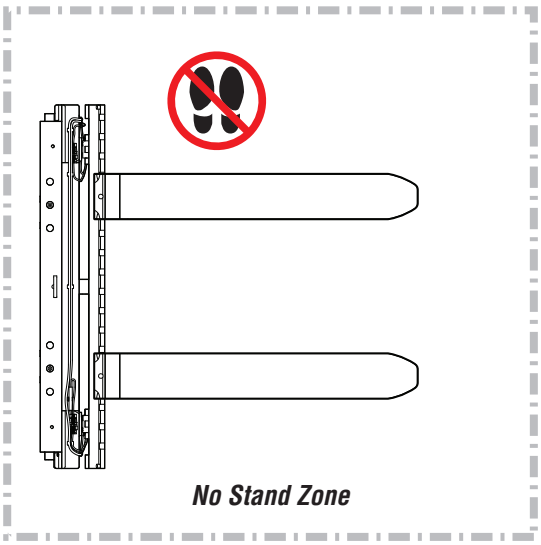


Load weight must not exceed combined truck/attachment capacity (see truck nameplate).

Total fork capacity (LH + RH fork) must be greater than load weight. Check capacity stamp on forks.



CAUTION: Do not put side loads on forks.

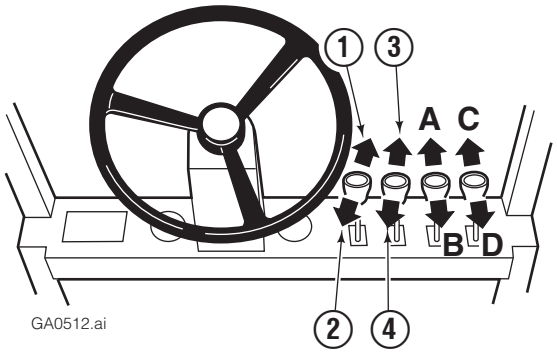


No Stand Zone

WC0012.ai

ATTACHMENT OPERATION

Sideshift & Fork Postioner Equipped



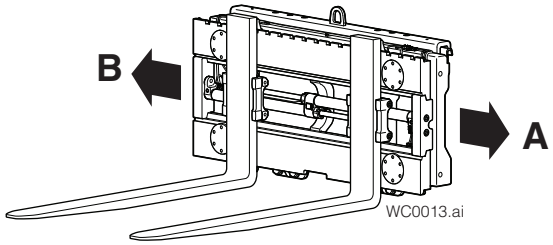
Main Valve Functions

1	Hoist Down	3	Tilt Forward
2	Hoist Up	4	Tilt Back

Auxiliary Valve Functions: A-D

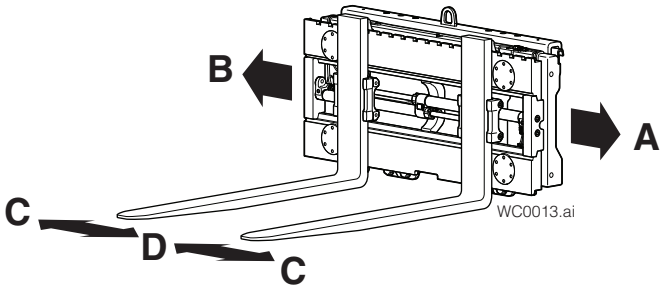
SIDESHIFTING

A *Sideshift Left*
B *Sideshift Right*
C *Not used*
D *Not used*



SIDESHIFTING & FORK POSITIONING

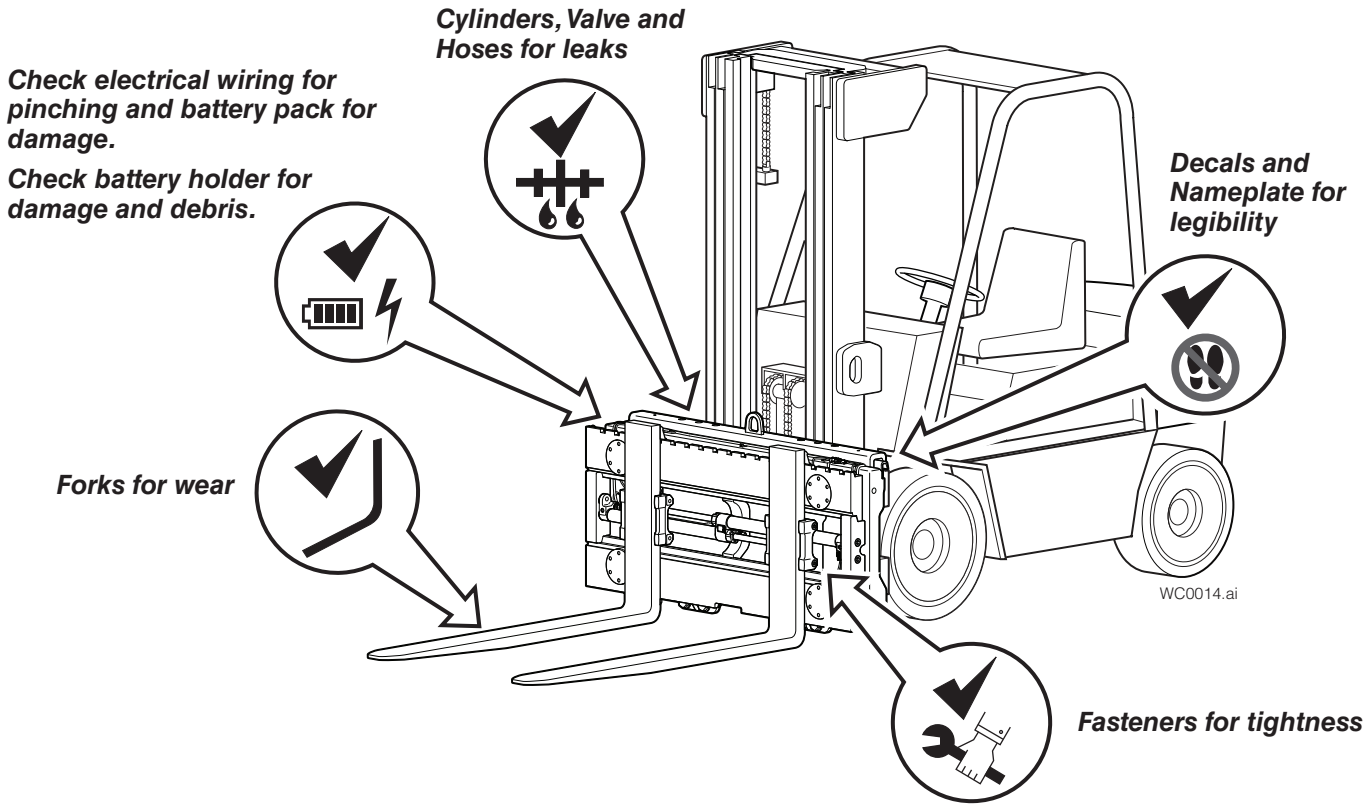
A *Sideshift Left*
B *Sideshift Right*
C *Open Forks*
D *Close Forks*



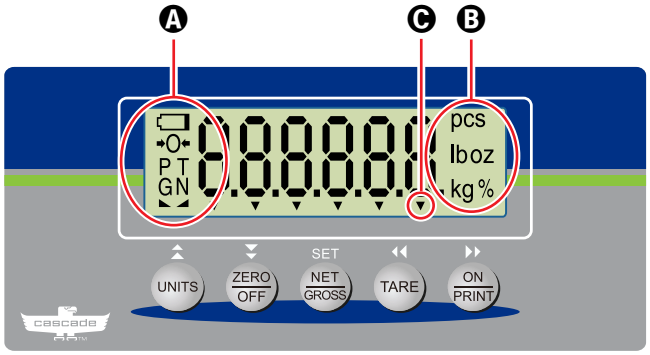
WARNING: Truck control handle and attachment function activation shown here conforms to ANSI/ITSDF B56.1 (ISO 3691) recommended practices. Failure to follow these practices may lead to serious bodily injury or property damage. End user, dealer and OEMs should review any deviation from the practices for safe operation.

DAILY INSPECTION

Check items shown each day. Report problems to a supervisor. Refer to the attachment's service manual for troubleshooting and repair procedures.



Using the Display Indicator – Screen Legend



IN0120.ai

A

→O←	The scale is zeroed
P	The display indicator is showing captured WIM weigh value
T	The display indicator is showing tare weight
G	The display indicator is showing gross weight
N	The display indicator is showing net weight
◣◢	The scale is at rest and is stable to read weight

FK0986.ai

B

pcs	Quantity shown is the number of items on the scale
lb	Weight shown is in pounds
oz	Weight shown is in ounces
kg	Weight shown is in kilograms
g	Weight shown is in grams
%	Value shown is a percentage

FK0987.ai

C

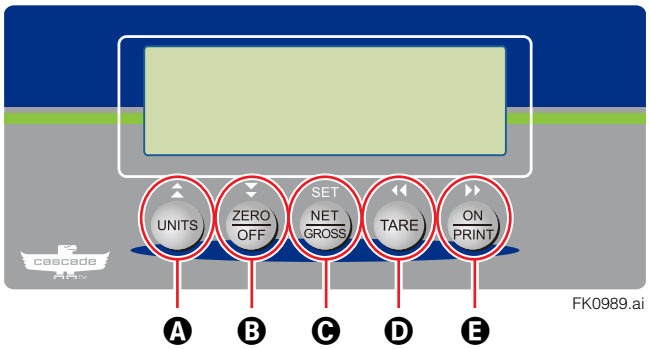
▼

FK0988.ai

Weighing Mode – If equipped with Weight Threshold Indicator features, when this arrow appears, in the position shown, a message is sent out to the server.

Configuration Mode – When calibrating, this arrow (any of the six shown) indicates the load cell position or fork

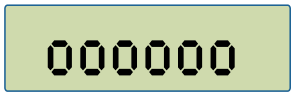
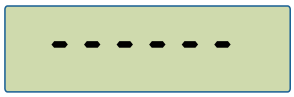
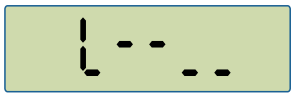
Using the Display Indicator – Button Functions



	Display Indicator Button	Weighing Mode Button Functions		Configuration Mode Button Functions	
A	UNITS	UNITS	Toggle units	▲	Returns to Parameters, Configuration menu or exits configuration mode **OR** Increase the value of the flashing digit
B	ZERO OFF	ZERO / OFF	**ZERO –** Manually zeroes the display indicator (conditions apply) **OFF –** To turn off the display indicator, hold button for 5 seconds	▼	Enters Parameters or Parameter Settings **OR** Decrease the value of the flashing digit
C	SET NET GROSS	NET / GROSS	Toggle between gross weight and net weight. Refer to the note below.	SET	Select value **OR** save value
D	TARE	TARE	Establishes tare weight (conditions apply) and also cancels the current tare weight	◀	Show next menu/parameter/setting **OR** Shift to the next digit on the left
E	ON PRINT	ON / PRINT	**ON –** To power on the display indicator, hold button for 2 seconds **PRINT –** Print weight information (conditions apply)	▶	Show previous menu/parameter/setting **OR** Shift to the next digit on the right

FK0990.ai

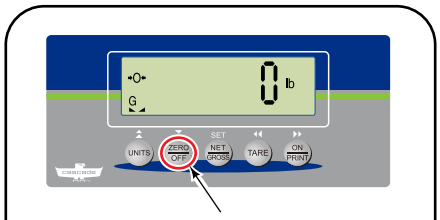
Display Indicator Error Messages

Error Message	Meaning	To Exit Error Mode
	The weighing system is overloaded	Automatic after removing weight
	Weight on scale is negative or load cell signal is negative	Press the ZERO/OFF key. Lift the integral attachment off the ground.
	The weighing system's out-of-level conditions exceed 3° (5%), side to side or front to back	Put the unit in level position.

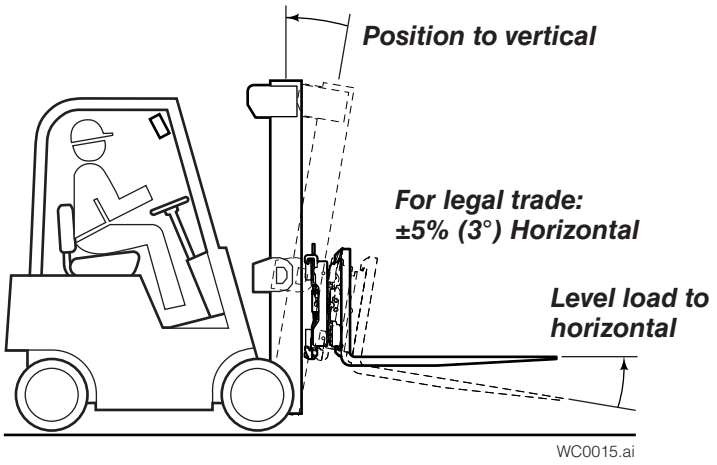
IN0121.ai

Prior To Weighing

Verify the weighing system is free of obstacles prior to zeroing



Verify the indicator shows zero. If necessary, press the "Zero" button.



WC0015.ai

Working Temperature Range:
-4° F (-20° C) minimum
105° F (40° C) maximum

If equipped with display indicator heater:
-40° F (-40° C) minimum

To Weigh A Load (Normal Weighing Mode)

IMPORTANT:

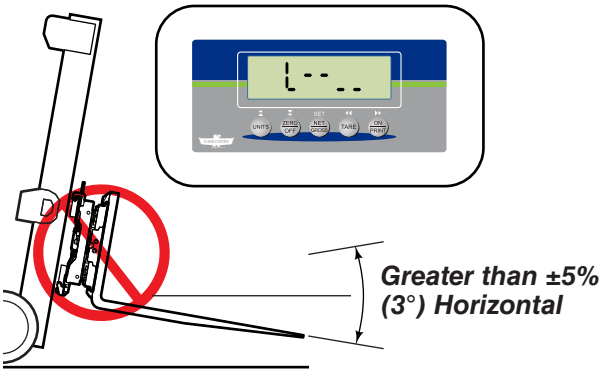
- Refer to "Safety Rules" for load handling rules and guidelines on page 4.
- At initial daily start up, allow 3-5 minutes to warm up the system. Lift and lower a load 2 to 3 times before weighing loads.
- When weighing liquids, more time is needed for display indicator to show a steady weight.
- Loads should not exceed fork tip by 6 in. (152 mm). The load's center of gravity should be centered on the forks.

1 If necessary, zero the weigh system by pressing the "ZERO/OFF" button.

2 Position the load (refer to "Handling Loads" on page 4) on the forks and raise the forks. Transport the load.

NOTE: If necessary, slow down to capture weight.

IMPORTANT: The indicator display will show an error message when the weighing system's out-of-level conditions exceed 3° (5%) side to side or front to back.

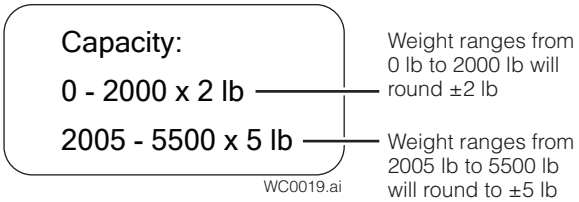


WC0016.ai

3 The display indicator will show the weight of the load.

IMPORTANT: The display indicator will show the weight in divisions (increments). Refer to the capacity label on the display indicator as shown.

Capacity Label Example:



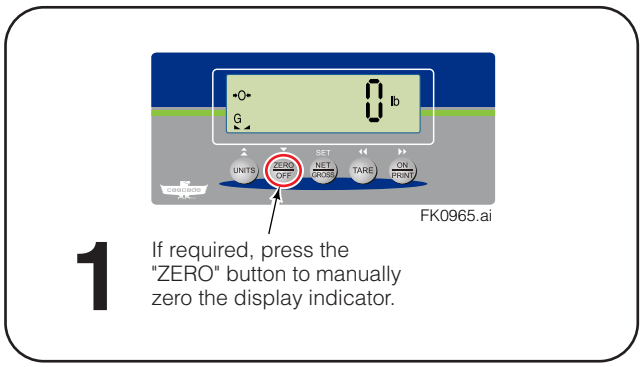
WC0019.ai

Example 1: A load that weighs 1000.5 lb, the display indicator will show 1000 lb.

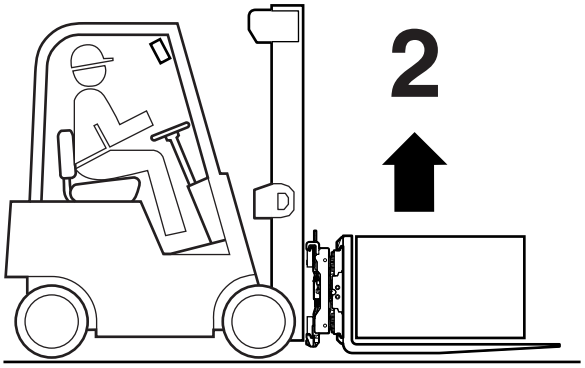
Example 2: A load that weighs 2009 lb, the display indicator will show 2010 lb.

4 Remove load. Before the next weighing, verify that the display indicator is zeroed.

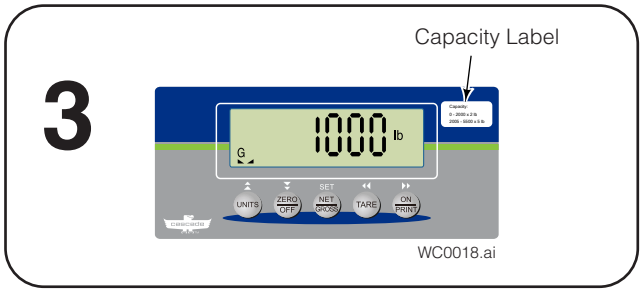
NOTE: Weigh in motion (WIM) if equipped, is enabled by default. This feature allows the operator to travel with a load immediately. When WIM is disabled, the operator is required wait for the weight to be captured before travel. Refer to the following page for more information.



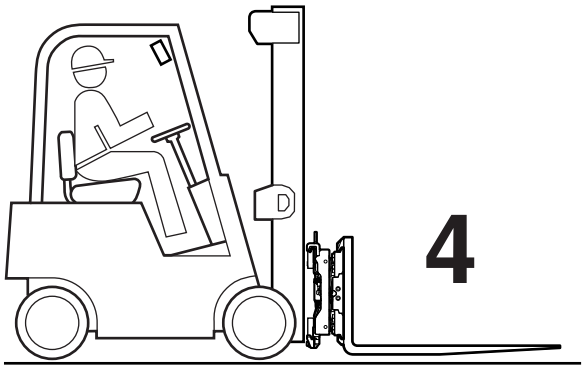
FK0965.ai



WC0017.ai



WC0018.ai



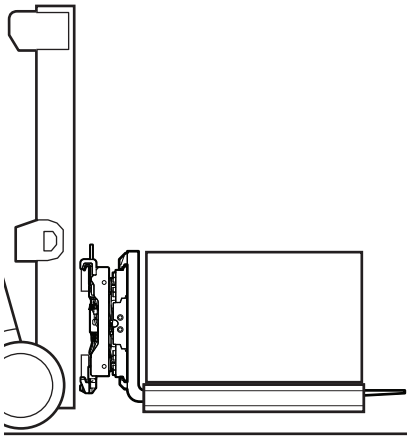
WC0020.ai

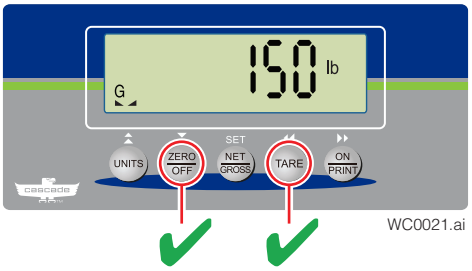
Weigh In Motion (WIM) – If Equipped

Weigh in Motion (WIM) or in-motion weighing is a feature (ON by default) that captures the load's weight while the operator is in motion or stationary. Legal for Trade systems can use this feature, if approved by the local metrology agency such as NTEP, OIML, MC, etc.

IMPORTANT: A minimum weight (200 lb, 100 kg default) is required to capture an accurate weight while in motion. This value can be changed by qualified personnel. When a load is below the minimum weight, the weighing system is live and requires the truck/attachment to remain stationary.

When the load (example: pallet) is stable and less the WIM minimum weight:





WC0021.ai

OK to zero or set tare.

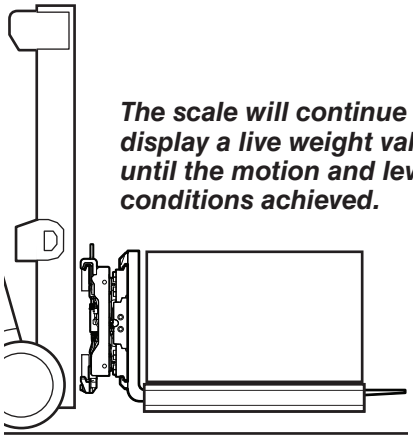
When the load exceeds the WIM minimum weight and is stable, the load's weight is captured:

IN0127.ai

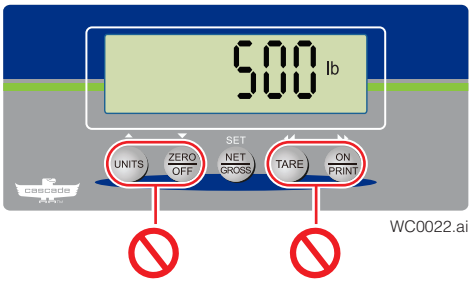
Letter "P" indicates the weight has been captured. Print feature is enabled.

NOTE: The weight will be held until the weighing system is unloaded and value drops below the WIM minimum weight value.

When the load exceeds the WIM minimum weight:



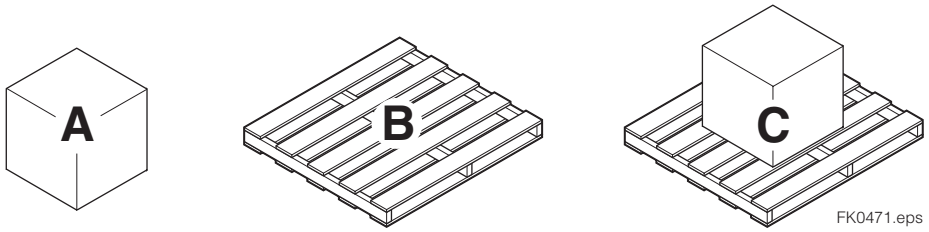
The scale will continue to display a live weight value until the motion and level conditions achieved.



WC0022.ai

Units, Zero, Tare and Print buttons are disabled until the conditions are achieved.

Obtaining Net/Tare/Gross Weight



Net (A) + Tare (B) = Gross (C)

Net – The weight of the load being weighed.
Tare – The weight of an unladen load that is not included (pallet, bin, etc).
Gross – The combined weight of the load and unladen load.

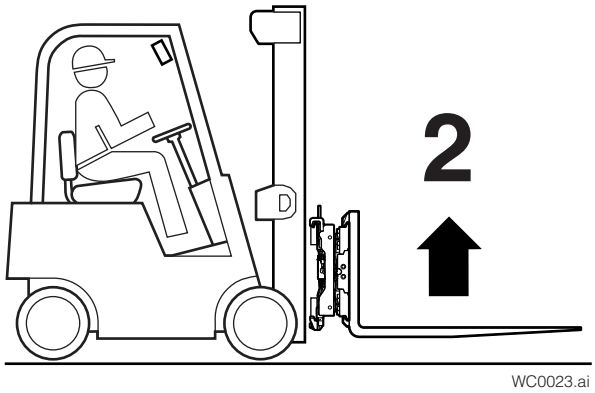
To weigh a load (**Net** weight) but disregard part of the load (**Tare** weigh), example being a pallet, perform the following procedure:

NOTE: The display indicator must be in normal weighing mode prior to performing the following procedure.

Unknown Tare Weight Method

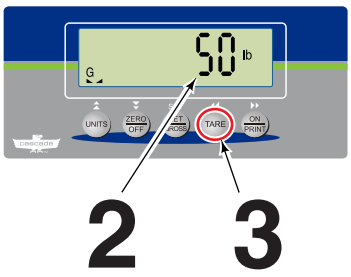
1 If required, zero the display indicator.

2 Position a pallet or bin (**Tare** weight) on forks and raise forks. The weight of the pallet or bin will show on the display indicator.

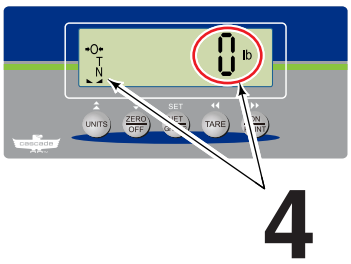


3 Press the "TARE" button.

NOTE: If piece count is enabled, press the "TARE" button two times.



4 The display indicator will be set to zero and the **N** and **T** icons will appear. **N** indicates only **Net** weight value and **T** indicates Tare mode.

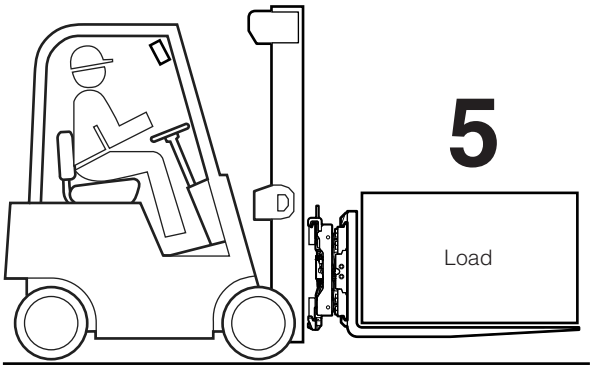


Procedure continued on next page

Obtaining Net/Tare/Gross Weight (Continued)

Unknown Tare Weight Method *(Continued)*

5 Add a load onto the forks.



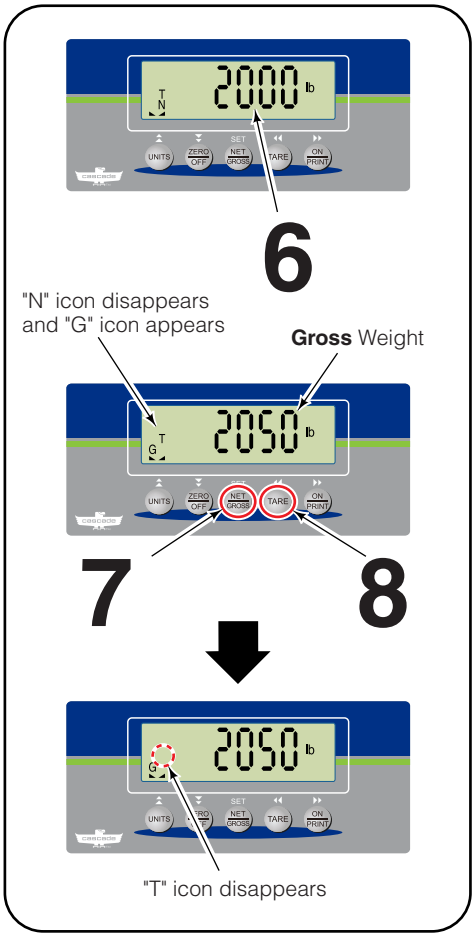
WC0024.ai

6 The display indicator will show the load's weight (**Net** weight).

7 To view the **Gross** weight (**Tare** weight + **Net** weight), press the "NET/GROSS" button.

NOTE: If piece count is enabled, the "NET/GROSS" button is not available.

8 To clear the current **Tare** weight value, press the "TARE" button. The display indicator will return to **Gross** weighing mode.



Obtaining Net/Tare/Gross Weight (Continued)

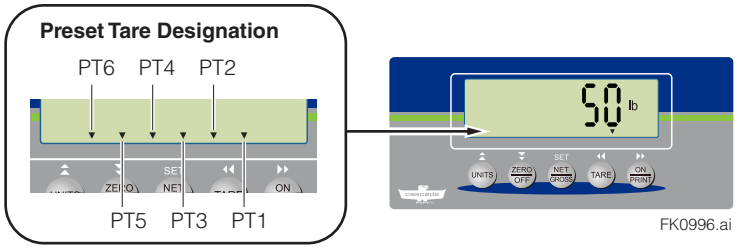
IMPORTANT: Tare presets must be pre-programmed to perform the following section.

IMPORTANT: Pre-set Tare is disabled in Legal for Trade units.

Pre-set Tare Weight Method

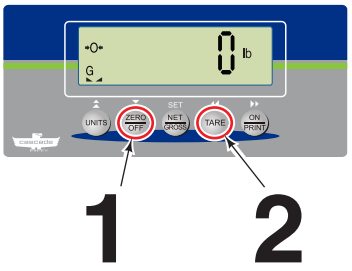
PT values:

PT1	
PT2	
PT3	
PT4	
PT5	
PT6	

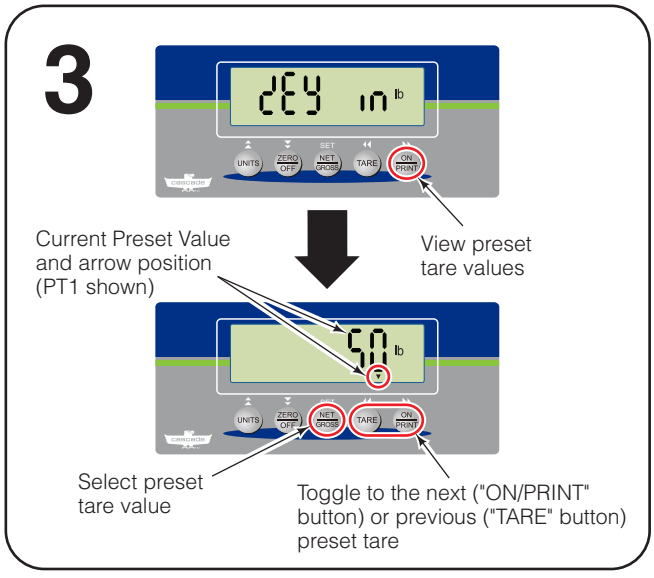


1 If required, zero the display indicator.

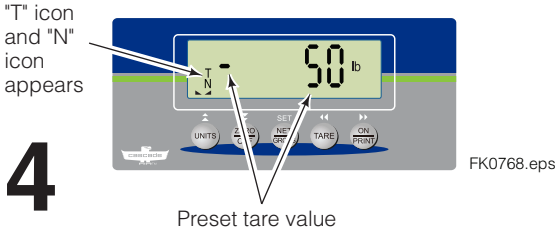
2 Press and hold the "TARE" button for 5 seconds.



3 The display indicator will show "key in". Press the "ON/PRINT" button to continue and view each preset tare value (up to 6 preset values). An arrow at the bottom of the screen and its position shows which preset tare value. Use the "ON/PRINT" (next) and "TARE" (previous) buttons to view each preset tare. To select a preset tare value, press the "NET/GROSS" button.



4 The display indicator will show the preset tare value as a negative value and the **N** and **T** icons will appear. **N** indicates only net weight is shown and **T** indicates Tare Mode.

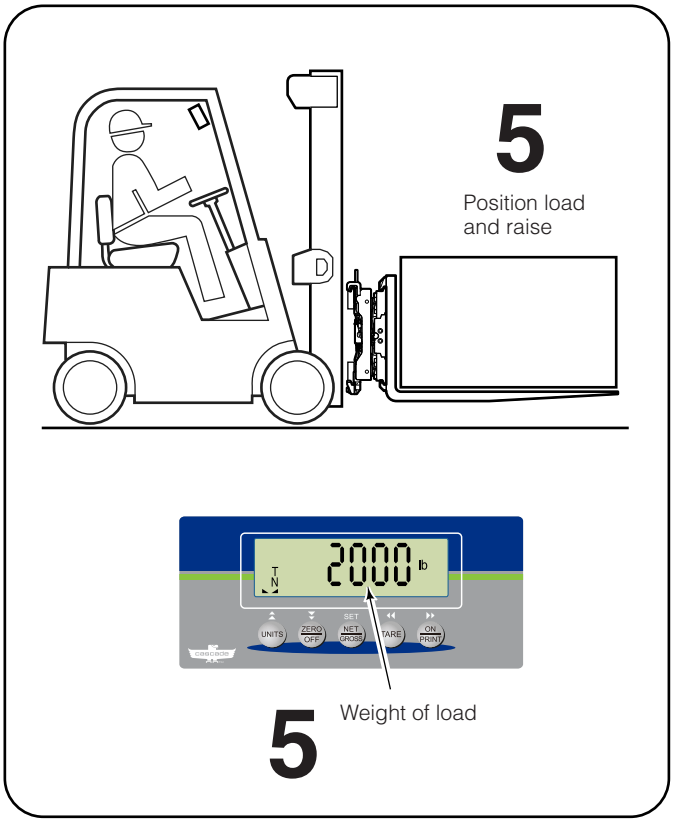


Procedure continued on next page

Obtaining Net/Tare/Gross Weight (Continued)

Pre-set Tare Weight Method *(Continued)*

5 Position a pallet (or bin) (**Tare** weight) with load (**Net** weight) on forks and raise forks. The weight of the load will only show on the display indicator.

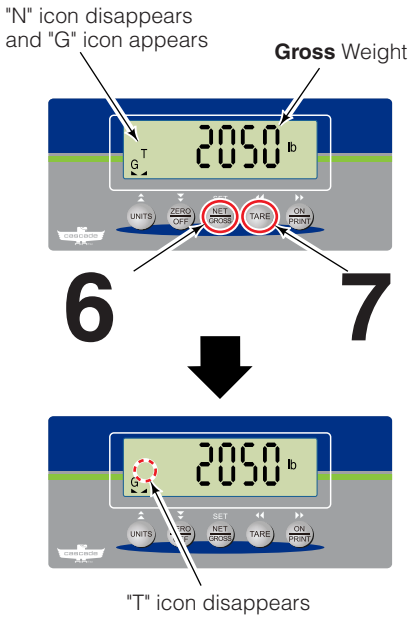


WC0025.ai

6 To view the **Gross** weight (**Tare** weight + **Net** weight), press the "NET/GROSS" button.

NOTE: If piece count is enabled, the "NET/GROSS" button is not available.

7 To clear the current **Tare** weight value, press the "TARE" button. The display indicator will exit Tare Mode and return to **Gross** weighing mode.

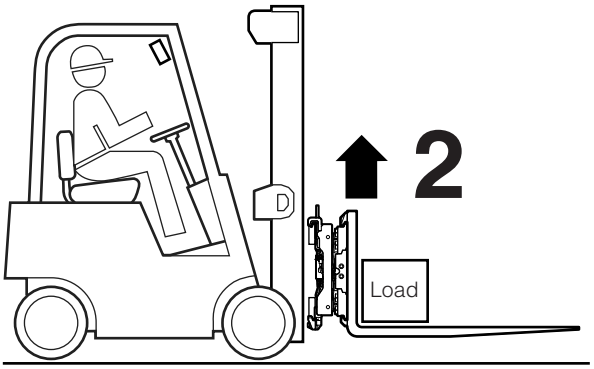


Print Weight

1 If required, zero the display indicator.

2 Position load on forks and raise forks.

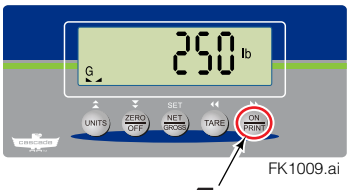
3 Weigh the load.



WC0026.ai

4 Press the "ON/PRINT" button to print.

5 Printer will print out load weight.



FK1009.ai

4

5

ID. No.	123456
GROSS	255.0 lb.
TARE	50 lb.
NET	205.0 lb.
DATE	09/15/2018

- TARE and NET fields will not print unless established.
- ID number and/or date will not print, unless enabled. This feature can be enabled by qualified personnel.

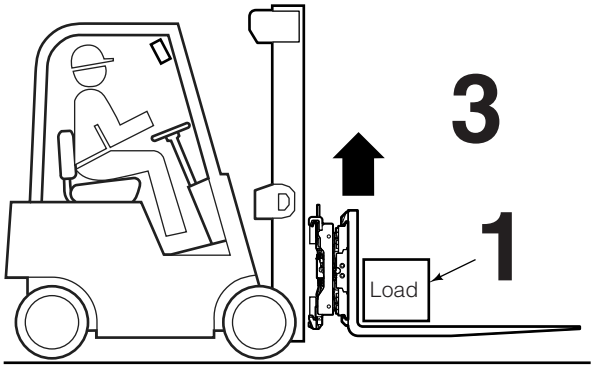
Totaling (Accumulation)

This mode adds and totals a group of weights.

IMPORTANT: This advanced feature can only be enabled by qualified personnel.

IMPORTANT: Totaling feature is disabled in Legal for Trade units.

1 If required, position a pallet or bin on forks. Raise forks (and pallet or bin).

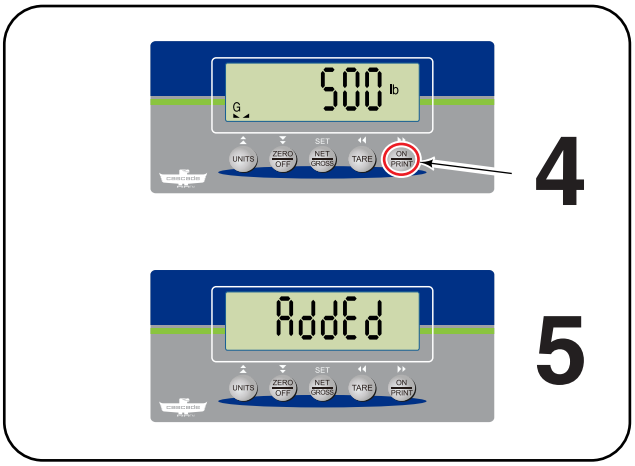


WC0027.ai

2 Press the "TARE" button (tares a pallet or bin; the value will show up on print out) or "ZERO/OFF" button (zeros the pallet or bin).

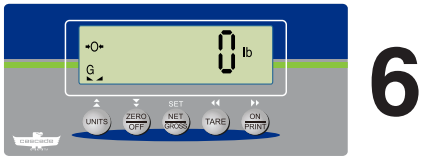
3 Place a load on the pallet. Wait for the display indicator to read the load weight.

4 Press the "ON/PRINT" button. This begins the adding sequence of totaling.



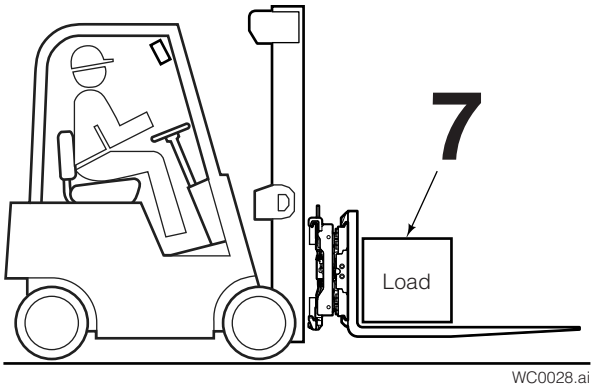
5 The display indicator will show "AddEd".

NOTE: If a printer is installed, the print out will show the **Gross**, **Net** and **Tare** weights.



6 Remove the load. Wait for the display indicator to return to normal weighing mode and zero.

7 Place a new load on the pallet. Wait for the display indicator to read the load weight.



WC0028.ai

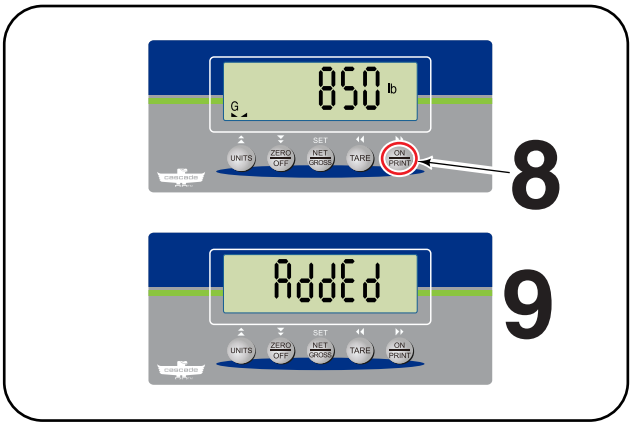
Procedure continued on next page

Totaling (Accumulation) (Continued)

8 Press the "ON/PRINT" button to add load weight to the total.

9 The display indicator will show "AddEd".

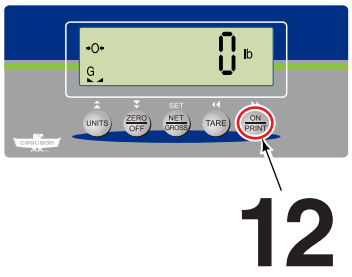
NOTE: If a printer is installed, the print out will show the **Gross**, **Net** and **Tare** weights.



10 Repeat Steps 7-10 until all loads are weighed.

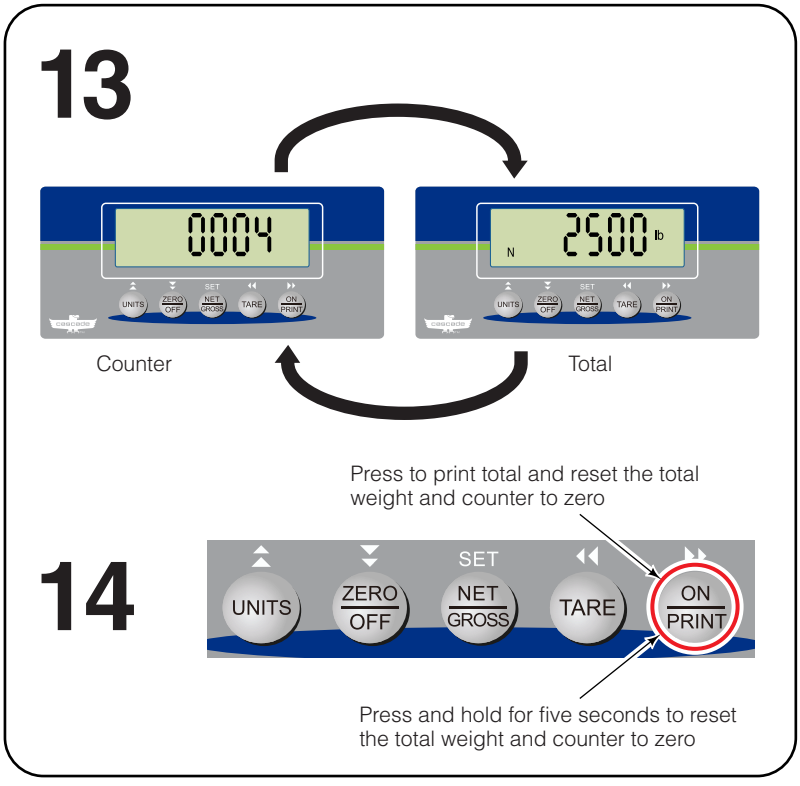
NOTE: The subtotal can be viewed by pressing and holding the "ON/PRINT" button for three seconds. The counter (number of loads weighed) and subtotal will flash for three seconds.

11 Remove the load.



12 Press and hold the "ON/PRINT" button for approximately three seconds to view the total weight and number of loads weighed.

13 The counter (number of loads weighed) and total weight will flash for three seconds.



FK1000.ai

14 While the display indicator screen flashes, the following can be performed:

- Press the "ON/PRINT" button to print the total and reset the total weight to zero and the counter to zero.
- Press and hold the "ON/PRINT" button for approximately five seconds to reset the total weight to zero and the counter to zero. The total will not print.

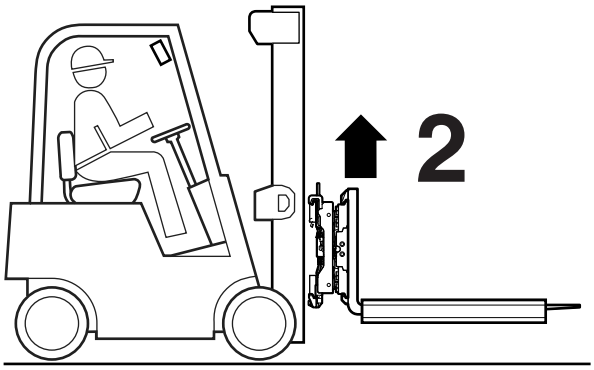
NOTE: If no button is pressed while the display indicator screen flashes, the total weight and counter value stays in the display indicator's memory. The system will return to normal weighing mode after 60 seconds.

Piece Count (Sampling Method)

This mode uses the sampling method to determine the average piece weight (APW) of a load that requires counting. First, a sample is taken and then the load is measured.

IMPORTANT: This advanced feature can only be enabled by qualified personnel.

IMPORTANT: Piece counting is disabled in Legal for Trade units.

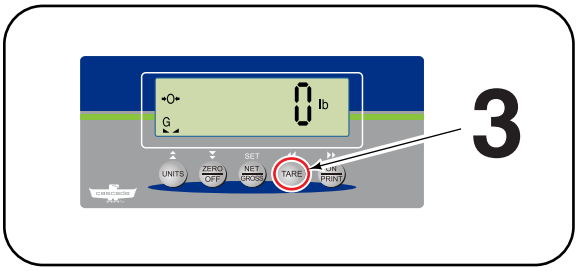


WC0029.ai

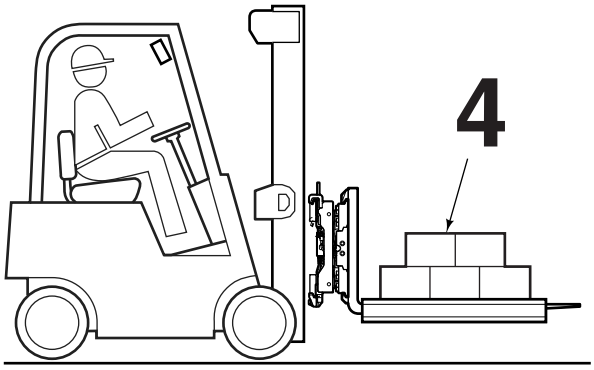
1 Determine the number of pieces to be sampled.

NOTE: The default setting is set to 5 pieces.

2 Position an empty pallet (or bin) on the forks. Raise the forks and pallet (or bin).

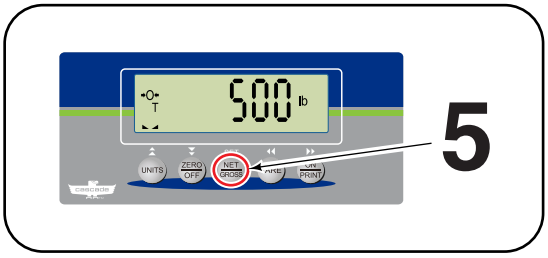


3 Press the "TARE" button.



WC0030.ai

4 Add the sample pieces onto the pallet (or the bin).



5 Press "NET/GROSS" button.

Procedure continued on next page

Piece Count (Sampling Method) (Continued)

6 The screen will show "AddPCS". Press "NET/GROSS" button.

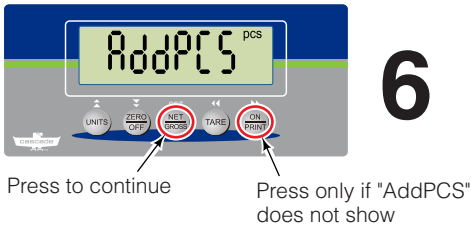
NOTE: If "AddPCS" does not show, press the "ON/PRINT" button until "AddPCS" shows.

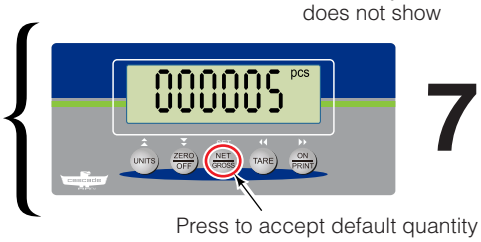
7 The display indicator will show "5" (default value). To sample with a different quantity, refer to the "Configuration Mode Button Functions" (below) to change the quantity. To accept the default or enter value, press "NET/GROSS" button.

Configuration Mode Button Functions

To change quantity:

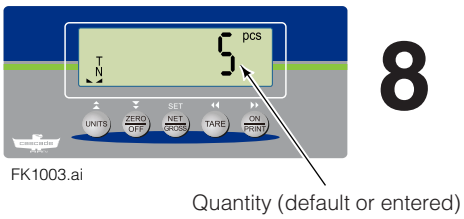
UNITS	ZERO OFF	SET NET GROSS	TARE	ON PRINT
Increase Value	Decrease Value	Accept Value	Shift to the next digit, left	Shift to the next digit, right





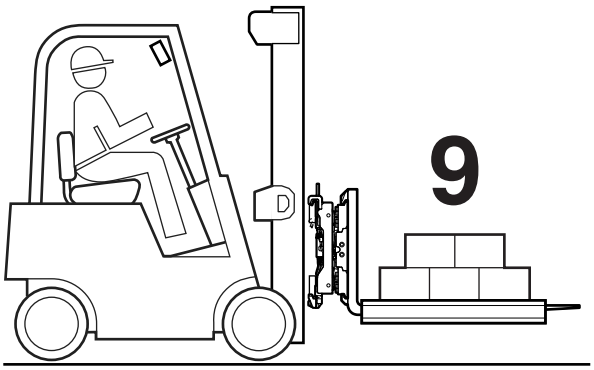
8 The display indicator will show the sample load quantity, as entered, and "pcs" icon.

NOTE: The indictor will show "–Lo_" briefly when APW is too light and cannot be sampled.



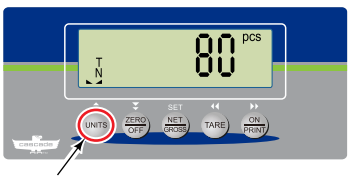
FK1003.ai

9 Remove the sample load and add a load to count on the pallet (or into bin).



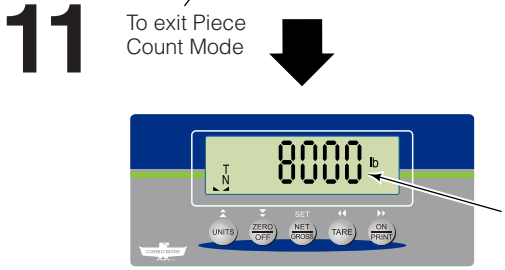
WC0031.ai

10 The display indicator will show the quantity of the load.



11 Continue to acquire quantities of loads with the same sample APW. To exit this mode, press the "UNITS" button.

NOTE: The display indicator does not retain APW after exiting this mode or being turned off.



FK1005.ai

Piece Count (Sampling Method) (Continued)

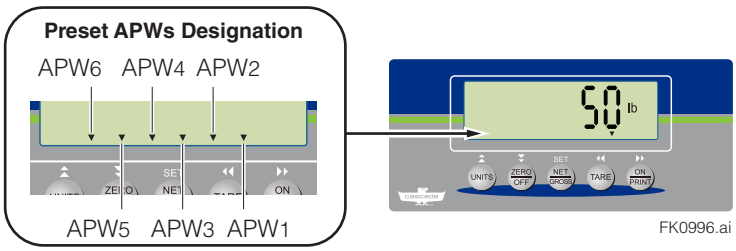
IMPORTANT: APW presets must be pre-programmed to perform the following section.

IMPORTANT: The Piece Counting feature is disabled in Legal for Trade units.

Piece Count With Known Weight (Pre-set APWs) Method

Record APW values:

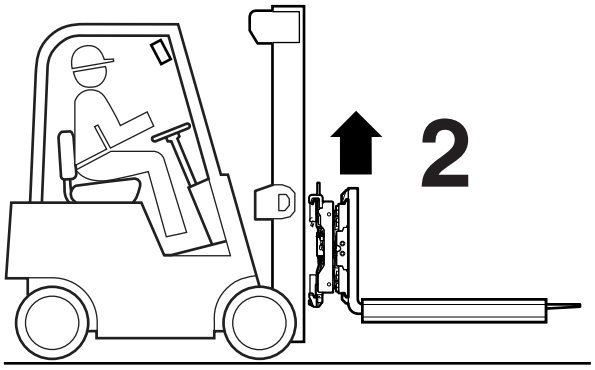
APW1	
APW2	
APW3	
APW4	
APW5	
APW6	



FK0996.ai

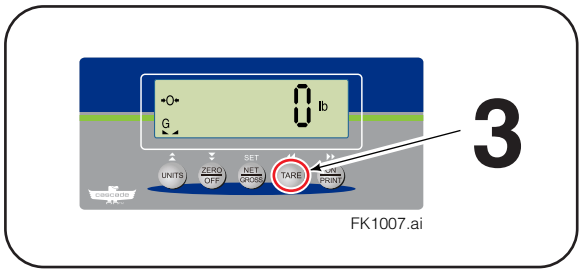
1 If required, zero the display indicator.

2 Position an empty pallet (or bin) on the forks. Raise the forks and pallet (or bin).



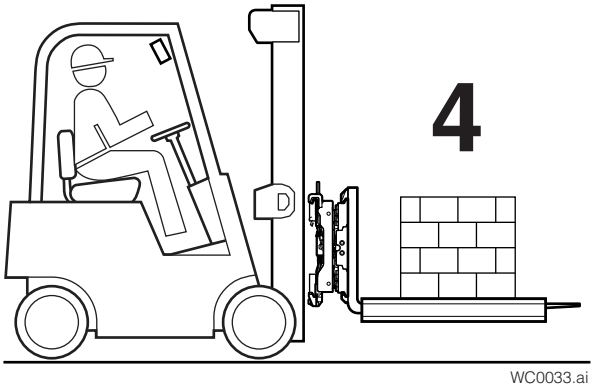
WC0032.ai

3 Press the "TARE" button.



FK1007.ai

4 Place the pieces to be counted on the pallet (or into the bin).

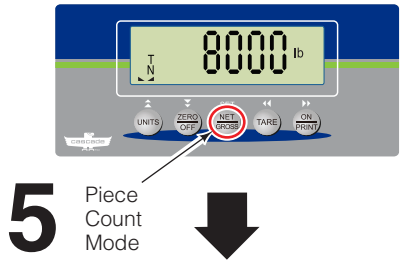


WC0033.ai

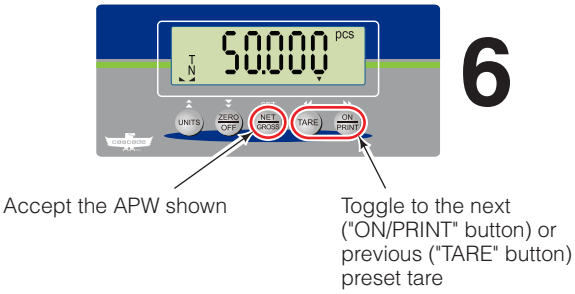
Piece Count (Sampling Method) (Continued)

***Piece Count With Known Weight (Pre-set APWs) Method** (Continued)*

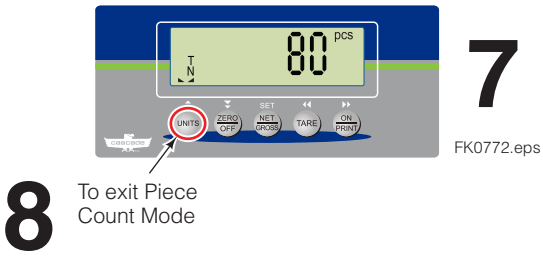
5 Press "NET/GROSS" button to enter Piece Count Mode.



6 Use the "TARE" and "ON/PRINT" buttons to navigate to a list of the average piece weights. Choose from the listed APW of products being weighed. For example, count the products with the average piece weight of 50 lbs. The display indicator will show "50.000" and "pcs". Press "NET/GROSS" to select the APW pre-set.



7 The display indicator will show the number of pieces on the pallet (or bin).



8 Continue to acquire load quantities with the same sample APW. To exit this mode, press the "UNITS" button.

NOTE: The display indicator does not retain APW after exiting this mode or being turned off.

OSHA Regulations – Industrial Trucks and Attachments

WARNING: The safe operation and maintenance of industrial trucks is regulated by Occupational Safety and Health (OSHA) regulations 1910.178 and American National Standards Institute (ANSI) Safety Standard for Powered Industrial Trucks, ANSI B56.1. When operating and maintaining industrial trucks equipped with attachments you should pay particular attention to the following sections of these regulations. You should be familiar with all sections of these regulations. **Ask your employer for the complete regulations.**

(a) **General Requirement**

(4) Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturers prior written approval. Capacity, operation and maintenance instruction plates, tags or decals shall be changed accordingly.

(5) If the truck is equipped with front-end attachments other than factory installed attachments, the user shall request that the truck be marked to identify the attachments and show the appropriate weight of the truck and attachment combination at maximum elevation with load laterally centered.

(6) The user shall see that all nameplates and markings are in place and maintained in a legible condition.

(e) **Safety Guards**

(2) If the type of load presents a hazard, the user shall equip fork trucks with a vertical load backrest extension in accordance with (a)(2) following.

(a)(2) All new powered industrial trucks acquired and used by an employer after February 15, 1972 shall meet the design and construction requirements for powered industrial trucks established in the “American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1”, except for vehicles intended primarily for earth moving or over-the-road hauling.

(l) **Operator Training**

Only trained and authorized operators shall be permitted to operate a powered industrial truck. Methods shall be devised to train operators in the safe operation of powered industrial trucks.

(m) **Truck Operations**

(1) Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.

(2) No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

(3) Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of trucks is authorized.

(4) The employer shall prohibit arms or legs from being placed between the uprights of the mast or outside the running lines of the truck.

(5i) When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off and brakes set. Wheels shall be blocked if the truck is parked on an incline.

(5ii) A powered industrial truck is unattended when the operator is 25 feet or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

(5iii) When the operator of an industrial truck is dismounted and within 25 feet of the truck still in his view, the load engaging means shall be fully lowered, controls neutralized and the brakes set to prevent movement.

(6) A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock or platform or freight car. Trucks shall not be used for opening or closing freight doors.

(10) A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.

(n) **Traveling**

(4) The driver shall be required to slow down and sound the horn at cross isles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.

(7i) When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.

(7iii) On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.

(o) **Loading**

(1) Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.

(2) Only loads within the rated capacity of the truck shall be handled.

(3) The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.

(4) Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.

(5) A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.

(6) Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

(p) **Operation of the Truck**

(1) If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.

(q) **Maintenance of Industrial Trucks**

(1) Any power-operated industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel.

(5) All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.

(6) Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter-weighting of fork trucks shall not be done unless approved by the truck manufacturer.

(7) Industrial trucks shall be examined before being placed in service and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examinations shall be made at least daily. When industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

Do you have questions you need answered right now?
Call your nearest Cascade Service Department.
Visit us online at www.cascorp.com

AMERICAS

Cascade Corporation
U.S. Headquarters
2201 NE 201st
Fairview, OR 97024-9718
Tel: 800-CASCADE (227-2233)
Fax: 800-693-3768

Cascade Canada Inc.
5570 Timberlea Blvd.
Mississauga, Ontario
Canada L4W-4M6
Tel: 905-629-7777
Fax: 905-629-7785

Cascade México
Almacén Dicex PDN
Libramiento Noroeste
4001 Km 27.5
Parque Industrial Puerta del Norte
Escobedo N.L 66050
México
Tel: 800-CASCADE (227-2233)

Cascade Brasil
Av. Casa Grande, 850
Casa Grande, Diadema SP,
09961-350
Tel: +55 11 4930-9800

Anval – Cascade Distributor
Av. El Ventisquero 1225,
Bodega 99,
Renca – Santiago, Chile
8661516
Tel: +56 2 29516907

EUROPE-AFRICA

Cascade Italia S.R.L.
European Headquarters
Via Dell'Artigianato 1
37030 Vago di Lavagno (VR)
Italy
Tel: 39-045-8989111
Fax: 39-045-8989160

Cascade (Africa) Pty. Ltd.
PO Box 625, Isando 1600
60A Steel Road
Sparton, Kempton Park
South Africa
Tel: 27-11-975-9240
Fax: 27-11-394-1147

ASIA-PACIFIC

Cascade Japan Ltd.
2-23, 2-Chome,
Kukuchi Nishimachi
Amagasaki, Hyogo
Japan, 661-0978
Tel: 81-6-6420-9771
Fax: 81-6-6420-9777

Cascade Korea
121B 9L Namdong Ind.
Complex, 691-8 Gojan-Dong
Namdong-Ku
Inchon, Korea
Tel: +82-32-821-2051
Fax: +82-32-821-2055

Cascade-Xiamen
No. 668 Yangguang Rd.
Xinyang Industrial Zone
Haicang, Xiamen City
Fujian Province
P.R. China 361026
Tel: 86-592-651-2500
Fax: 86-592-651-2571

Cascade India Material Handling Pvt Ltd
Gat. No. 319/1 & 319/2, Village Kuruli,
Taluka Khed, Pune 410 501
Maharashtra, India
Tel: +91 77200 25745

Cascade Australia Pty. Ltd.
36 Kiln Street
Darra QLD 4076
Australia
Tel: 1-800-227-223
Fax: +61 7 3373-7333

Cascade New Zealand
9 Blackburn Rd
East Tamaki, Auckland
New Zealand
Tel: +64-9-273-9136

Sunstream Industries Pte. Ltd. – Cascade Distributor
18 Tuas South Street 5
Singapore 637796
Tel: +65-6795-7555
Fax: +65-6863-1368

11-2023 Manual Number 6998616