



Industrial Products, Inc.

CobraPRO

Battery Powered Convertible Aluminum Hand Truck Operating Instructions and Parts Manual

ATTENTION: To insure proper use of your WESCO CobraPRO, read these instructions thoroughly before using. It is important that all personnel involved with the maintenance or operation of the truck read this manual.



Specifications

See label on unit for capacities and model number.

This product is manufactured by:
WESCO Industrial Products, Inc.

P.O. Box 47 Lansdale, PA 19446

Tel: 215-699-7031 FAX: 215-699-3836

After reading these instructions contact the factory if you have start-up or parts questions.

Unpacking

When unpacking your truck, check carefully for shipping damage. If damage has occurred, file a claim with the delivering carrier within 24 hours and notify the dealer from whom the unit was purchased.

Start-up

It is strongly recommended that the user first familiarizes himself with the operation of the truck without a load in a safe area before using it under actual load conditions.

With the CobraPRO in the two wheel position do the following:

- (1) Check for signs of damage, especially to the battery module, drive unit, and throttle.(fig. 12) Do not use truck if there appears to be any damage.
- (2) Make sure battery module is fully charged. Charge status meter will point far into the green area. Unit is shipped charged. Fully discharged batteries require 14 hour charge.
- (3) Check throttle switch cable connection for tightness at throttle and drive unit. This is a threaded connection - turn clockwise to hand-tighten only.



General Safety Information

WARNING: The WESCO CobraPRO is intended for a wide range of uses. To insure proper use, the following instructions must be adhered to:

- (1) Load Rating: The capacities of your unit is shown on a label attached to the truck. It is based on two wheel position or four wheel position, and whether unit is used on a ramp.
 - (2) Do not exceed these load capacities:
Flat surface operation:
4-wheel mode - 1200 lbs
2-wheel mode - 600 lbs..

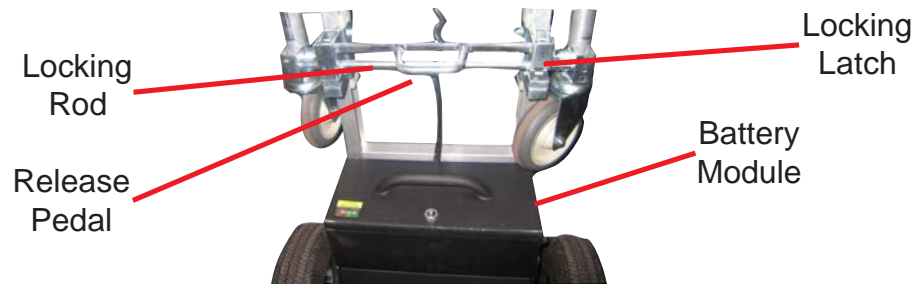
Incline operation: Do not operate on ramps or inclines exceeding 17.5° incline:
4-wheel mode - 950 lbs.
2-wheel mode - 600 lbs.
- Make sure load is secured to prevent shifting on incline.***
- (3) Do not perform any repair work on truck if there is a load on the truck. Turn off power switch located next to throttle. (fig. 5)
 - (4) **Do not stand, sit or climb on truck, or use truck to move personnel.**
 - (5) Custom alterations of units for specific functions not made at the factory void all warranties without exception. User made alterations may result in unsafe conditions during use of unit.

OPERATING PROCEDURE

Converting from 2-wheel to 4-wheel mode - *Never convert with load on the truck.*

1. While securely holding the truck handles, tilt truck towards you and use foot to press down on release pedal (fig. 1). The truck frame will slide down the handle tubes and lock in the 4-wheel position.

fig. 1



Caution: A spring loaded locking knob is located on the right side of the handle tube (fig.2). This automatically locks the cargo bed in the down position when in the 4-wheel mode. Make certain the frame is locked by pulling up on the the edge of the cargo bed (fig. 3). Due to the torque power of the motor the cargo bed could rise up on the handle tubes if not properly locked, causing loss of control of the truck. This scenario would normally only occur when backing the truck up (handle side first) a ramp with a very heavy load concentrated at the toe plate - **DO NOT back up ramp**. Nevertheless, care must be taken to insure that the locking knob pin is always engaged when in the 4-wheel position.

fig. 2

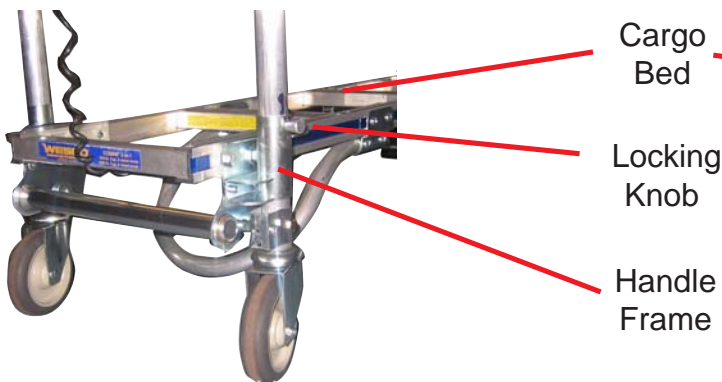
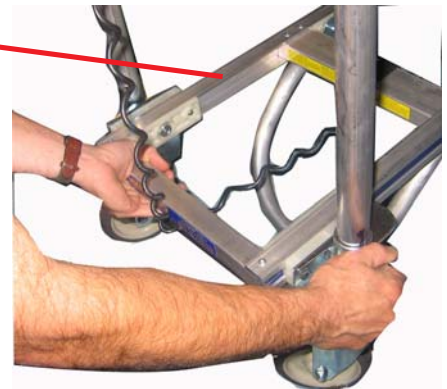


fig. 3



Converting from 4-wheel to 2-wheel mode - *Never convert with load on the truck.*

1. Use left hand to begin pulling frame bed upward. At the same time use right hand to pull out and disengage locking knob. Raise frame until truck is in upright position and snap locking rod into locking latch. (see fig. 1)

The CobraPRO can be operated manually or in power drive mode by following the appropriate operating procedure below for your application.

Manual operation:

1. Place truck in upright position and stand behind the truck facing forward.
2. Place clutch lever located on left side of power unit in the "Disengaged" position (fig. 4).
3. Truck is now in manual mode.

Note: Wheel has been removed for clarity. It is not necessary to remove wheel to set clutch lever.

Clutch Lever

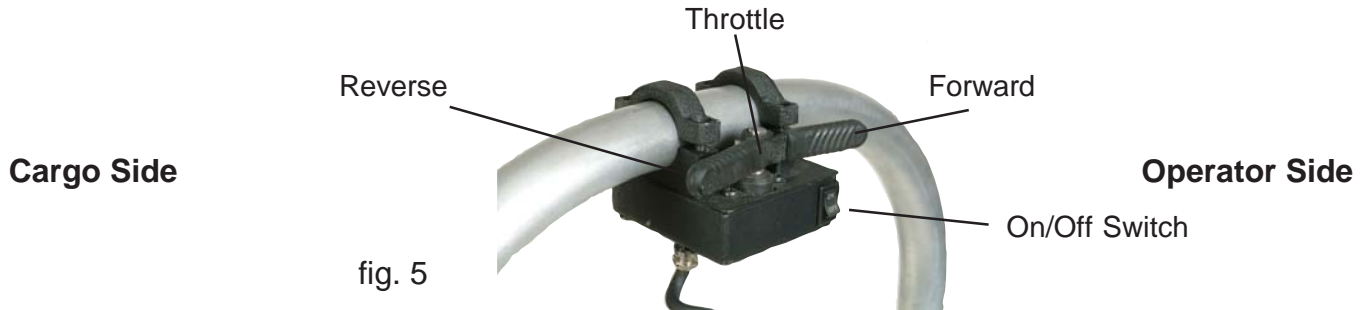
fig. 4



Power operation:

IMPORTANT! - Your CobraPRO may be used in the power mode in the upright (2-wheel) or platform (4-wheel) position. The platform position is preferred because it does not require the user to balance the load while controlling the speed. It also provides maximum cargo capacity. Extra care must be exercised in the upright mode to keep load balanced. ***The CobraPRO is not designed to climb stairs. Attempting to climb stairs in the power mode can result in serious injury.***

1. Place truck in upright position and stand behind the truck facing forward.
2. Place clutch lever located on left side of power unit in the "Engaged" position (fig. 4).
3. Truck is now in power mode.
4. Turn switch located at top of truck to "ON" position (see fig. 4).



5. Place your hands on the truck handle. Use your thumb to push the right side of the throttle control to move forward or the left side to move backwards (fig. 5).

IMPORTANT! - when throttle lever is pushed power is automatically applied *gradually* to the wheels. The truck will begin to move slowly and then accelerate until it reaches the speed matching the throttle lever position. The speed will vary according to how far the throttle lever is pushed.

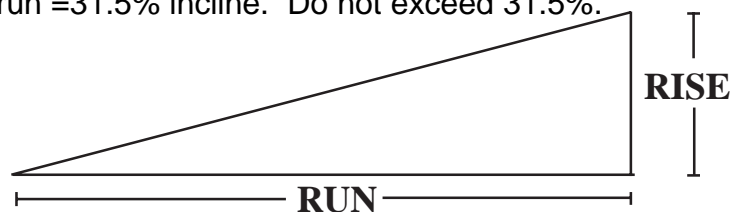
It is strongly recommended that the user first familiarizes himself with the operation of the truck without a load in a safe area before using it under actual load conditions.

6. To reverse direction, release the throttle control lever and allow truck to come to a complete stop before pushing the other side of the throttle control lever to move in reverse (fig. 5).
7. When the throttle is completely released it automatically returns to the center "STOP" position and engages the internal braking system, locking the wheels in place. Clutch may be disengaged (fig. 4) to allow wheels to roll freely.
8. When power option is not required, make sure power switch is in "OFF" position to preserve the battery charge.

Use on Ramp

Your CobraPRO can climb ramps under the following conditions. The ramp must be set at an angle no greater than 17.5° which is equal to a 31.5% incline. This is a standard angle for most ramps. To determine the % of incline divide the rise of the ramp by the run as shown below (fig. 6.) example: 34" rise divided by 108" run =31.5% incline. Do not exceed 31.5%.

fig. 6



Warning: Do not stop truck on ramp. If the truck must be stopped while going up a ramp note that it will stay in place when throttle is released, but will drift downwards about 16" before resuming upward travel when the throttle is pressed.

Warning: Cargo capacity will be reduced as the incline increases. See note under **General Safety Information** on front page of this manual regarding incline operation.

Battery charging:

Warning: Do not use an extension cord to plug in your battery charger. Plug charger directly into a properly grounded standard wall outlet. Do not remove the grounding prong as this can create an electrical hazard. If necessary, properly install an approved 3-prong adapter to an electrical outlet having 2-prong plug access. Failure to heed could result in personal injury and or property damage.

Your CobraPRO is equipped with a battery charge status meter (fig 8). Green indicates the battery is sufficiently charged for use. The further into the green area the meter needle points the longer the unit will run before recharging is necessary. Red indicates recharging is necessary

When charging batteries the following steps must be taken:

1. Position your powered hand truck close to a standard wall outlet. Charge will operate on 100 to 240 volts A.C 50/60hz. Plug adapter may be needed for countries outside the U.S, Canada, and Mexico.
2. Position On/Off switch to off (fig 5).
3. Make certain that the clutch is in "Engaged" position if locking of drive wheels is desired (fig 4)
4. Plug the charger port cord into the charger port located on the lower power unit (fig. 7).
5. Plug the charger power cord into a standard wall outlet.
6. When the batteries are fully charged (14 hours for completely discharged batteries), unplug the charger power cord from the wall outlet and from the charger power port.



Circuit Breaker/Reset

Charger Port
fig. 7



Removing and Re-installing Battery Module

1. While gripping handle press and hold battery module release button. Pull handle straight up to remove. Reverse procedure to install battery module. (fig. 8)

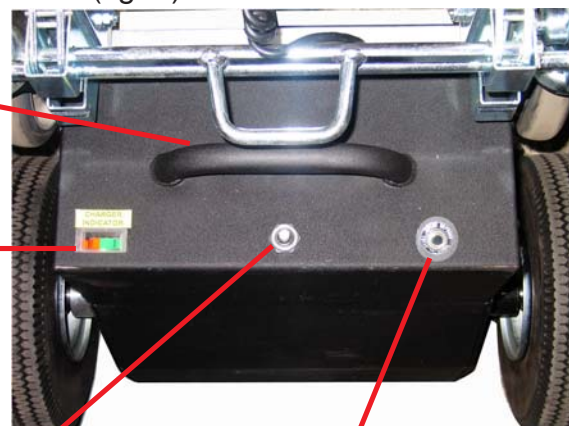
fig. 8

Battery Module Handle

Charge Status Meter

Battery Module Release Button

Circuit Breaker/Reset



TROUBLESHOOTING

Symptom

No Power at All - no reading on charge status indicator

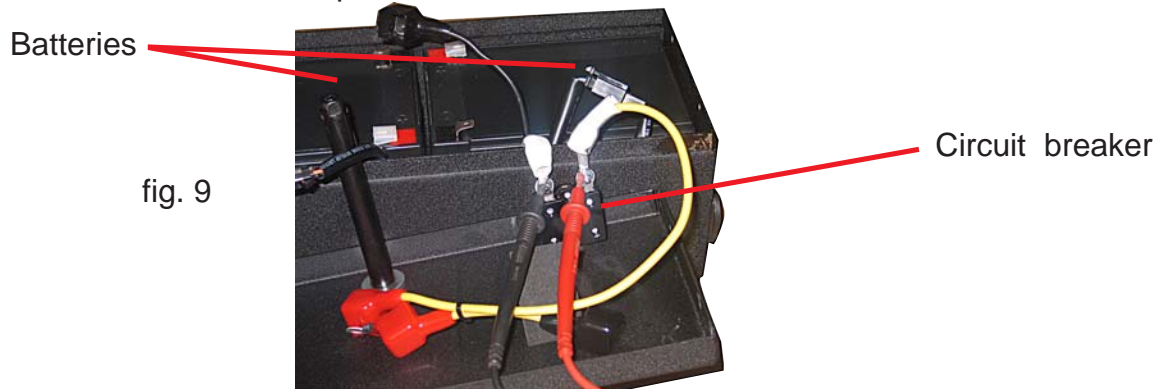
1. Check to see if circuit breaker has tripped (fig 8).

Reset if necessary

2. Test circuit breaker.

Remove four screws holding cover on battery module to expose circuit breaker. Set your volt/ohm meter to continuity setting. Touch the black test lead to the left circuit breaker post, touch the red test lead to the right circuit breaker post (fig. 9). If your circuit breaker is good the meter will read .05 ohms, if you get no reading replace circuit breaker.

Battery Module - consists of (2) 12 volt batteries wired in series to provide 24 volts to the drive motor



3. Check battery cable connections.

Remove four screws holding cover on battery module to expose batteries. The connectors on the batteries slide on the battery post. Make sure they have not come loose. Secure as necessary.

4. Test Batteries

Remove four screws holding cover on battery module to expose batteries. Remove the batteries from the battery module case. Test each battery separately. Using a battery load tester connect the positive test lead to the positive terminal and the negative test lead to the negative terminal. Apply a load to the batteries by pushing the load test button on the tester for 5-10 seconds. The tester's needle should read between 10-12 volts if the battery is good. If the needle reading declines and loses voltage the battery needs to be replaced..

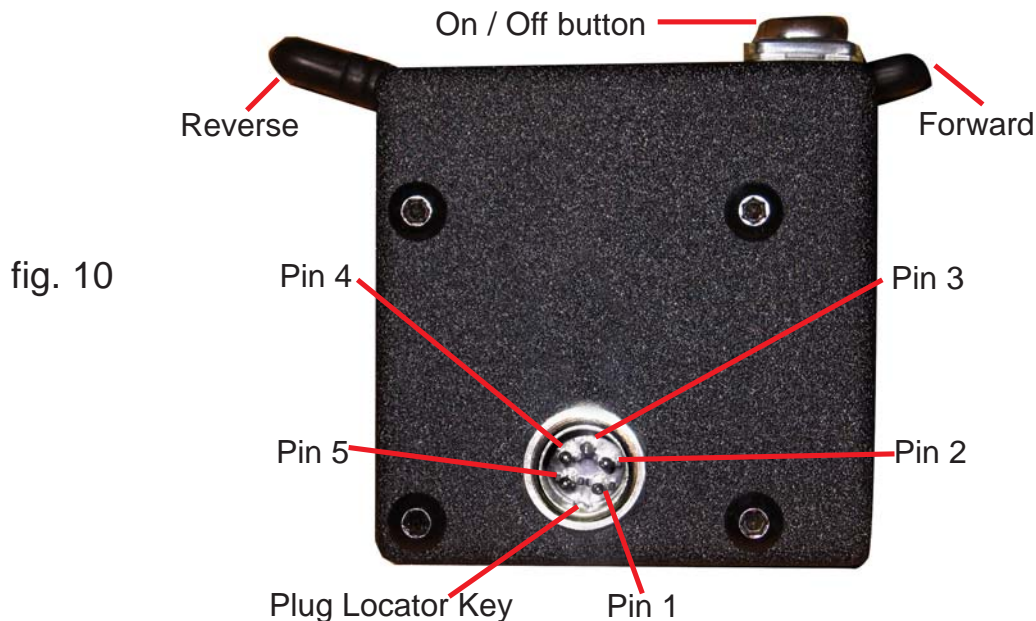
Battery Charge Status meter registers but the unit does not run.

1. Check throttle cable connections

Check at throttle and power drive unit. Connectors are threaded. Turn clockwise to tighten.

2. Check throttle continuity - fig 10

1. Remove cable and test throttle continuity with volt-ohm meter. Set on/off button to "on" position. Check for continuity between pins 1 and 2.
2. Set test meter to read resistance. Touch probes to pins 3 and 5. Resistance should read approx. 5k ohms. Next touch probes to pins 3 and 4. Resistance should read approx. 2.5k ohms. Repeat for terminals 4 and 5. Resistance should read approx. 2.5k ohms.
3. While holding throttle in full forward position touch probes to pins 3 and 4. Resistance should read less than 400 ohms. Touch probes to pins 4 and 5. Resistance should read approx. 5k ohms.
4. While holding throttle in full reverse position touch probes to pins 4 and 5. Resistance should read less than 400 ohms. Touch probes to pins 3 and 4. Resistance should read approx. 5k ohms.



3. Check cable continuity - fig. 11

Disconnect coiled cable at throttle switch and power drive unit. Insert test probe into matching pin holes at each end of cable. Check all 5 pin holes for continuity.

fig. 11



Runs on one speed or runs only in forward or reverse.

1. Replace throttle

Battery will not charge

1. Check circuit breaker as noted above under **No Power at All, #2**

2. Test battery as noted above under **No Power at All, #4**

3. Test Charger

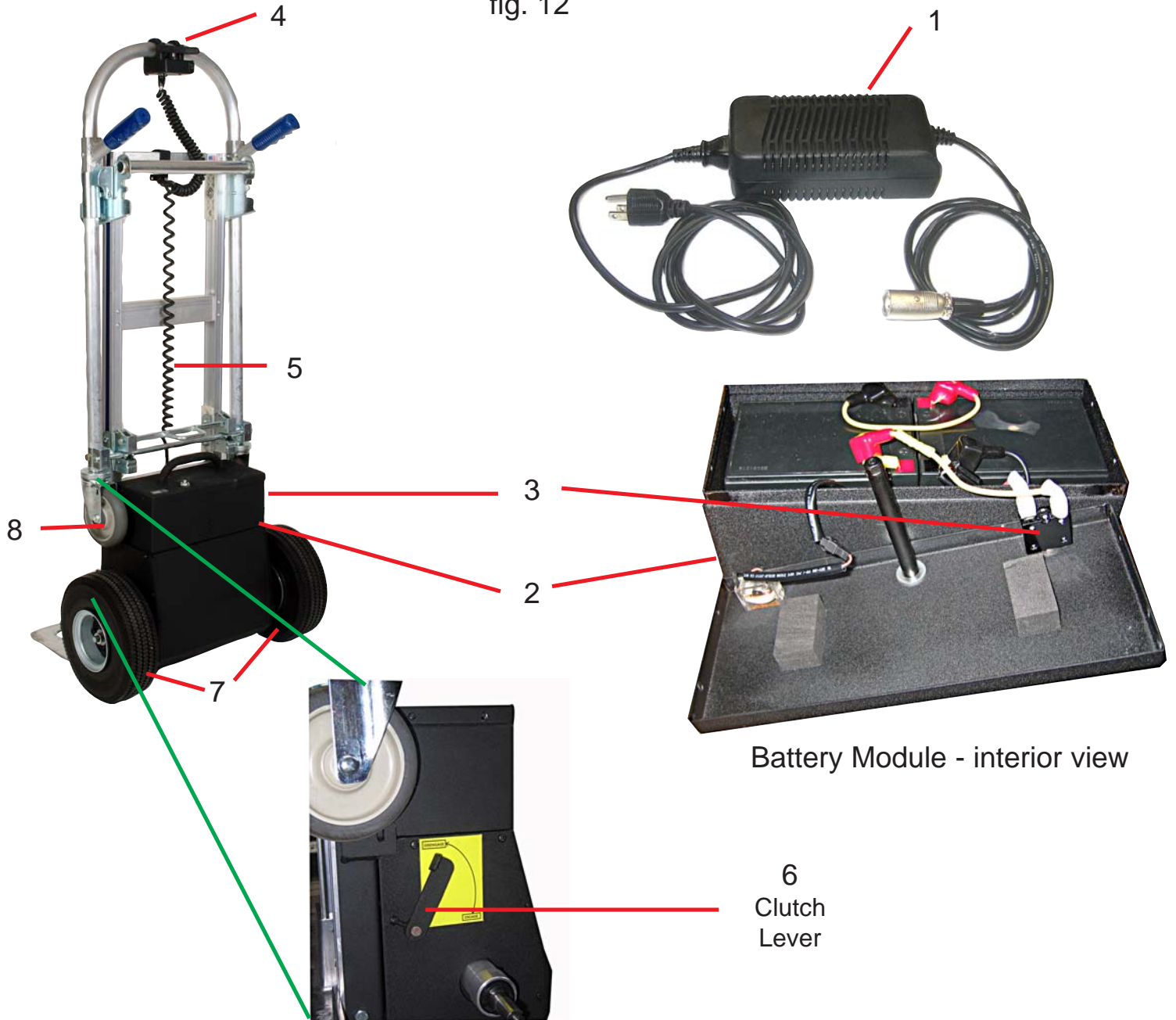
Charger has dual color light. When plugged into the battery module orange indicates charging, green indicates fully charged. If the charger is not plugged into the battery module green light should be lit. If it is not check AC input. If it is okay, charger may be defective.

If batteries are discharged and orange light does not come on charger may be defective. If orange light does not turn green after charging for 14 hours batteries may be defective. Load test each battery as noted under **No Power at All, #4.**

CobraPRO REPLACEMENT PARTS LIST

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	220654	Charger
2	1	220655	Battery Module - includes batteries
3	1	220657	Circuit Breaker
4	1	220659	Throttle Control
5	1	220660	Cable: Throttle Control
6	1	220661	Lever: Clutch
7	2	220662	Wheels
8	2	108979	Casters

fig. 12



Warranty Repairs

If unit does not work properly, contact your dealer or the factory (215-699-7031), within 90 DAYS of purchase date.

Non-Warranty Service

For units older than one year, repairs can be made easily on site with factory supplied parts, or repairs can be made at the factory. **NOTE: Do not send units to the factory for service without obtaining a "returned materials authorization" (RMA) number from the service department. We will not be responsible for goods returned without proper authorization.**

To Purchase Parts

A complete parts list with drawings appears in this manual. **To order parts** contact the factory at the phone or fax numbers shown on page 1 of this manual. **Ask for the Customer Service Department.**

WARNING: CHARGER (P/N 220654) IS ESPECIALLY DESIGNED FOR USE WITH WESCO BATTERY PACK (P/N 220655), USE OF BATTERY PACK OTHER THAN WESCO'S MAY RESULT IN DAMAGE TO CHARGER, AND WILL VOID ALL WARRANTIES.

LIMITED WARRANTY

1. WESCO will supply, at no charge, new or rebuilt replacements for any part that fails through a defect in material and/or workmanship during the warranty period. To obtain warranty service, you must deliver the product prepaid, to the WESCO factory.
2. This warranty does not cover any product or product part which has been subject to accident, misuse, abuse or negligence. WESCO shall only be liable under this warranty if the product is used in the manner intended by the manufacturer as specified in the written instructions furnished with this product.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. ANY EXPRESS WARRANTY NOT PROVIDED IN THIS WARRANTY DOCUMENT, AND ANY REMEDY FOR BREACH OF CONTRACT THAT, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW, IS HEREBY EXCLUDED AND DISCLAIMED. UNDER NO CIRCUMSTANCES SHALL WESCO BE LIABLE TO PURCHASER OR ANY OTHER PERSON FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING OUT OF BREACH OF WARRANTY, EXPRESS OR IMPLIED, A BREACH OF CONTRACT OR OTHERWISE. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long any implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.