

PowerMate®

StairClimbing HandTrucks

OPERATING MANUAL



STEEL MODELS



M-2C

M-2B

M -1

S02-040.01

T20-000.15

For Serial Numbers 36000 and higher.

PN 010900 Rev. G
PN 300320 Rev. G
Eng. 04/ 18/ 18

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WARNING

Failure to obey the Instructions and Safety rules in this manual could result in death or serious injury.

Read the Operating Manual completely. Only competent, trained operators may use this equipment.

Training is essential to understanding all the features and capabilities of your PowerMate, and ensure good safe work practices.

**Training courses are available through
L P INTERNATIONAL INC., please call
1-800-697-6283**

PowerMate

MODEL M-SERIES

The **PowerMate**® M-Series Models are motorized electric hand trucks used for the safe movement of heavy and awkward loads. It can move loads up and down stairs, on and off of vehicles or loading docks and across flat surfaces.

The design takes advantage of the principle of leverage. All of the lifting of the load is performed by the equipment.

The **PowerMate**® M-Series units are designed specifically to move loads with a various center of gravity locations. Refer to the Load Recommendation Chart for capacities.

DELIVERY AND WARRANTY REGISTRATION

When your **PowerMate**® Motorized Stairclimber is delivered, unpack and inspect the unit for damage or shortage of parts. If required, make note of any deficiencies on the Delivery Acceptance Form. Registering your unit for the Warranty can be done online at www.powermate.info. Click on Service, fill in the required fields under Warranty and click Send Now.

Standard Equipment

Retractable Dolly Attachment
2 Strapbars
Battery Charger

Optional Equipment

Load Elevator Kit
Wheel Brakes
Step Extension
Twin Lift Attachment
Barrel Attachment
Extended Depth or Width Toe Plate
Refer to the accessory page for details.

WARNING! The use of this equipment with any options other than those specified in this manual may create a hazard.



Manufactured By:

L P INTERNATIONAL INC.
P.O. Box 696, 151 Savannah Oaks Drive
Brantford, Ontario, Canada N3T 5P9
TEL: (519) 759-3292 FAX: (519) 759-3298
1-800-697-6283

OPERATOR TRAINING

The **PowerMate®** M-Series Model has been tested and inspected by both the manufacturer and the distributor to ensure the quality of manufacture and operation. The equipment is delivered by the distributor, fully assembled and ready for use.

The **PowerMate®** M-Series Model is unique in its operation and is used to move heavy and awkward loads. For these reasons, classroom and hands-on training in safe and efficient operating procedures for all operators is absolutely necessary.

During the training, the operator should

LEARN HOW TO DO THE FOLLOWING

General. Use the Load Recommendation Instructions.
Follow the General Safety Rules.

Strapbars. Adjust the location of the strapbars.
Adjust, tighten and release the straps.
Stow loose strapping when not in use.

Flat Surface. Raise the wheels to incline the load back.
Reposition the load in balance over the wheels.
Move over obstacles on the floor.
Bring the load back to an upright position.

Stairclimbing. Position the wheels and heelplate on a stair.
Climb up and down stairs.
Rest safely in a balanced position on stairs.
Pivot on tight landings.

Lifting. Load and unload onto vehicles or loading docks.
Load and unload small vans.

Two Operators. Work as a team with another operator.

HAZARD GRAPHICAL SYMBOLS

The **PowerMate**® products use graphical symbols, safety colours, and signal words throughout the Operators Manual and on the units themselves. Operators using the **PowerMate**® must familiarize themselves with these symbols.



Safety Alert Symbol: This symbol indicates a potential personal injury hazard. Safety information following this symbol must be followed to avoid possible injury or death.



DANGER: Indicates an *imminently* hazardous situation which, if not avoided, will result in death or serious injury.



WARNING: Indicates a *potentially* hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



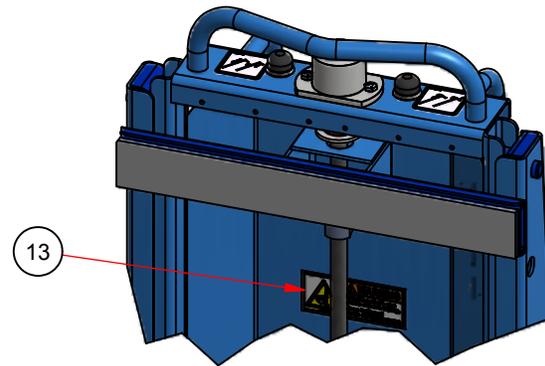
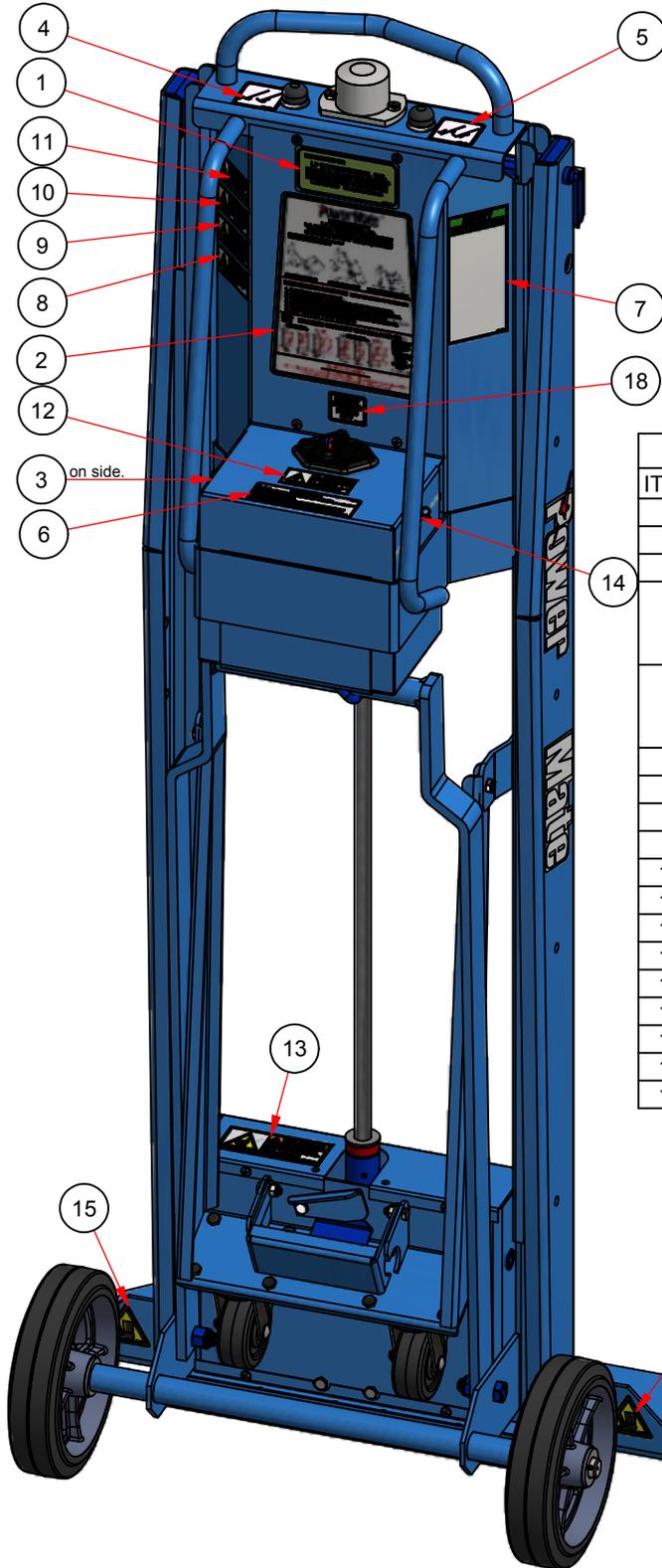
NOTICE: The signal word to address practices not related to personal injury.

SAFETY LABEL MAINTENANCE

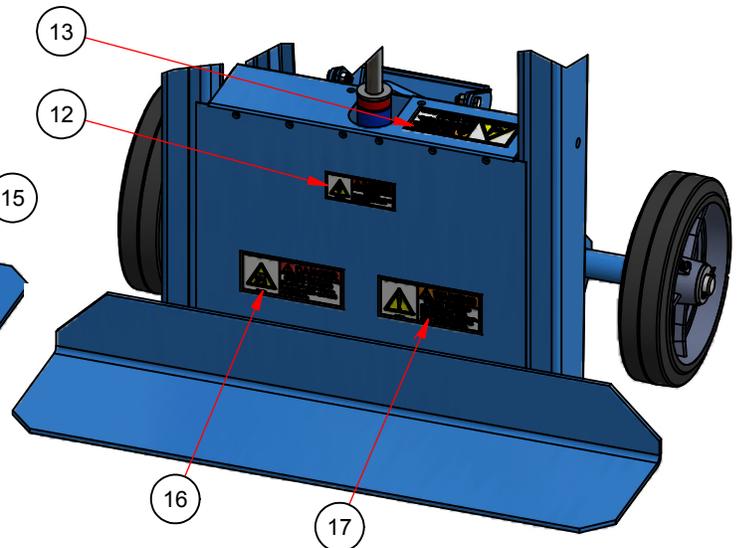
Safety of the operator and surrounding environment must be considered at all times. To that end, safety labelling on the **PowerMate**® must be maintained to provide legible safety information. Clean the labels with soap and water. Do not use solvent-based cleaners because they may damage the labels. Replace damaged or missing labels. Replacement labels may be purchased from L P International Inc. Customer Service Phone number 1-800-697-Mate.

MANDATORY SAFETY LABEL PLACEMENT Standard M-1/M-2B/M-2C PowerMate® Units

NOTE: Model M-1 shown.

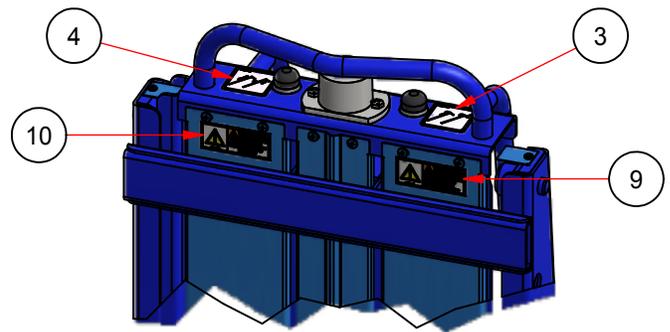
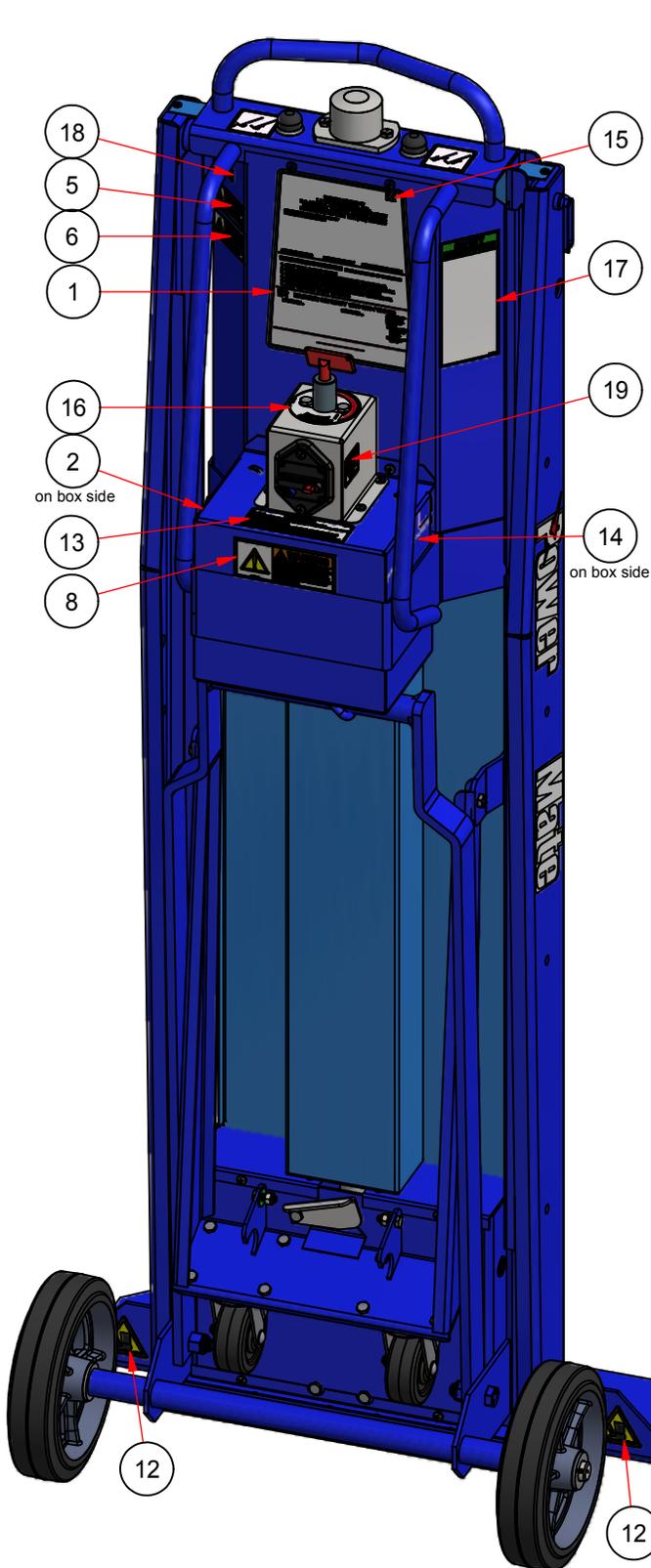


PARTS LIST			
ITEM	QTY	PART No.	DESCRIPTION
1	1	051590C	DECAL MS DISTRIBUTED BY LP
2	1	052620/30/40	DECAL MS MAINTENANCE M-1/M-2B/M-2C
3	1	055820C	DECAL LS CHARGER PLUG
4	1	051640/ 052660/ 051640	DECAL MS LOAD DOWN M-1/ M-2B/ M-2C
5	1	051650/ 052650/ 051650	DECAL MS LOAD UP M-1/ M-2B/ M-2C
6	1	057160A	DECAL - FAULT ALERTS
7	1	057200	DECAL - SAFETY INSTRUCTION MS
8	1	057010A	CAUTION DECAL - AUTHORIZED PERSONNEL
9	1	057080A	WARNING DECAL - MOVING PARTS Small
10	1	057050A	WARNING DECAL - KEEP OFF
11	1	057040A	DANGER DECAL - EXPLOSIVE ENVIRONMENT
12	2	057030A	DANGER DECAL - ELECTRICAL SHOCK
13	2	057110A	WARNING DECAL-ROTATING SHAFT/HAIR Large
14	1	057170A	DECAL - FUSE 10 AMPS
15	2	057140A	WARNING LABEL CRUSH FOOT PICTOGRAM
16	1	057020A	DANGER DECAL - CRUSH HAZARD FOOT
17	1	057090A	WARNING DECAL - PINCH POINT HAZARD
18	1	057150A	DECAL - CIRCUIT BREAKER PRESS OFF

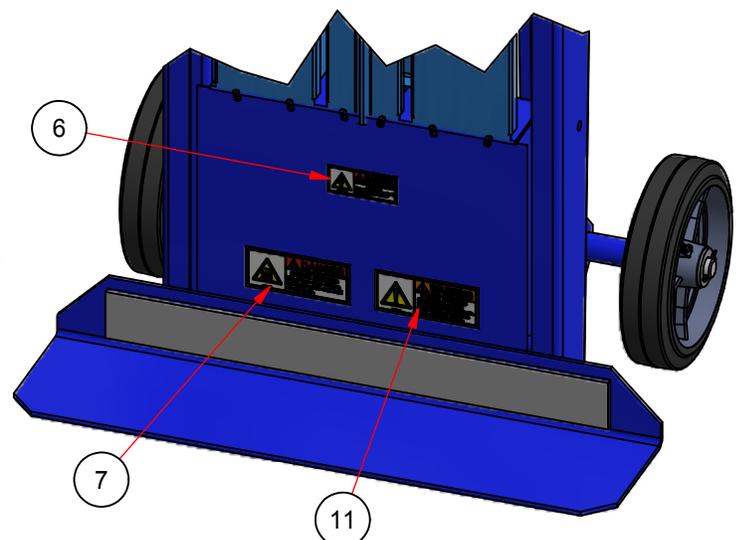


MANDATORY SAFETY LABEL PLACEMENT For M-1/M-2B/M-2C PowerMate® Units with Battery Switch

NOTE: Model M-1 shown.



PARTS LIST			
ITEM	QTY	PART No.	DESCRIPTION
1	1	052620/30/40	DECAL MS MAINTENANCE M-1/M-2B/M-2C
2	1	051630	DECAL MS CHARGER PLUG
3	1	051640/ 052660/ 051640	DECAL MS LOAD DOWN M-1/ M-2B/ M-2C
4	1	051650/ 052650/ 051650	DECAL MS LOAD UP M-1/ M-2B/ M-2C
5	1	057040A	DANGER LABEL EXPLOSIVE ENV.
6	2	057030A	DANGER DECAL - ELECTRICAL SHOCK
7	1	057020A	DANGER DECAL - CRUSH HAZARD FOOT
8	1	057060A	WARNING DECAL - MOVING PARTS Large
9	1	057070A	WARNING DECAL - SCREW GUARD
10	1	057050A	WARNING DECAL - KEEP OFF
11	1	057090A	WARNING LABEL PINCH POINT
12	2	057140A	WARNING LABEL CRUSH HAZARD
13	1	057160A	DECAL - FAULT ALERTS
14	1	057170A	DECAL - FUSE 10 AMPS
15	1	055860	DECAL - CE MARK APPROVAL
16	1	057180A	DECAL - ROTARY SWITCH
17	1	057200	DECAL - SAFETY INSTRUCTION MS
18	1	057210A	DECAL - DATE OF MANUFACTURE
19	1	057150A	DECAL - CIRCUIT BREAKER PRESS OFF



SAFETY PRECAUTIONS



READ THE MANUAL (Mandatory)

Read all safety and operating instructions before anyone operates your PowerMate® Unit. Use the PowerMate® unit only as described in this manual.

Retain all safety and operating instructions for future reference. Ensure they are readily available.

Heed all warnings in the safety and operating instructions.

Follow all installation, operation, service, and safety instructions.

Operator must have received approved training on the PowerMate® unit to be used. Training shall include theory, practice, and testing.

Never allow unqualified or un-authorized personnel to operate the equipment.

Operator must be familiar with normal operating practices and procedures. Whenever there is and doubt as to safety, the operator should stop the operation and not proceed until safe conditions are restored.

Operator is responsible for maintaining proficiency on PowerMate® equipment. Familiarity with instructions, safety procedures, maintenance practices, controls, operation, loading, are required at all times.



WARNING: Only trained personnel shall operate PowerMate® equipment. Failure to comply may result in possible severe injury to the operator and/or others, and damage and/or loss of property.

Wear safety shoes. Keep hair, loose clothing, fingers and all parts of the body away from pinch points and moving/rotating parts. Use equipment handles and controls for manoeuvring and operation.

Operator must have good hearing and vision (with or without correction) and must have good depth perception.

Operator must not be afflicted with any health condition(s) that might cause loss of control or ability.

Do not operate the equipment when using alcohol or taking medication that will affect your physical performance or judgement.

Do not eat or drink during the operation of PowerMate® equipment.

Stay alert when operating PowerMate® equipment.

No horseplay or practical jokes when operating the equipment.

Do not lift people and never ride on the PowerMate® Unit.

Do not abuse the equipment. Use PowerMate® equipment only for their intended use.



SAFETY INSPECTION

WARNING: Do not use PowerMate® equipment if it is damaged. Check for corrosion. Failure to do so may result in catastrophic failure, which may lead to injury, damage or loss of property, and loss of life.

Inspect the PowerMate® unit (see maintenance section) prior to using to ensure the operation can be safely completed. Insure all components of the unit are secure and functioning.

Do not use accessories or attachments not recommended by the manufacturer, as this may increase risk of damage and cause hazards.

Use only PowerMate® accessories best suited for the application ie: Strapbar Attachment for box type loads, Cylinder attachment for cylindrical loads, etc.

Insure that the PowerMate® unit is charged and ready for the operation.



ENVIRONMENT SAFETY

CAUTION: Barriers, warning signs, designated walkways or other safeguards must be provided where pedestrians are exposed to the risk of collision.

Plan your work. Make a plan of action from picking up the load to the point where the load is delivered. Check for doorway size, pathway surfaces, ceiling heights, tight corners, stair step size and integrity, turn radius considerations, etc.. Always use the recommended number of operators for a load.

Check the work site. Inspect the area to be traversed with the PowerMate® unit. Avoid debris, rough surfaces, pot holes, bumps, steep grades, etc. Avoid spills of any kind, slippery surfaces, soft ground, and standing water. Observe any condition that may cause loss of control of the PowerMate® unit leading to injury and/or property damage.

Ensure planned route for PowerMate® operation is clear of obstacles and uninvolved personnel. When visibility is obstructed use spotter person for direction instruction and/or clear path of obstacles and un-involved personnel.

Do Not Place the PowerMate® Unit on an unstable surface. Supporting surface must be capable of carrying the loaded PowerMate® Unit with Operator(s). Check the condition of stairs and the edges of loading docks and vehicle beds. When moving on or off a vehicle, be prepared for movement in the vehicle suspension system.

Do not use PowerMate® equipment in an enclosed space where oxygen, flammable, explosive or toxic vapours are present and/or are given off by oil base paint, paint thinner, some mothproofing substances, or in an area where flammable dust is present.



LOADING SAFETY

CAUTION: Never lift a load that is over the rated capacity of the PowerMate® unit. Estimate the weight and center of gravity position of the load and refer to the unit Load Capacity Chart to ensure the load is within the loading envelope. The capacity may be limited by the weight and strength of the operator(s). Do not operate with a load that is beyond the operator's physical ability.

Do not attempt to increase the load capacity of the equipment by the use of chains, rope, or other means of securing the equipment to the bed or bodies of vehicles, handrails, wall brackets, etc..

Operators shall determine the balance of unfamiliar loads prior moving the load. Work performed in a balanced condition is done easier and safer. New operators should gain practice experience with lighter loads of approximately 250 lbs. with a medium center of gravity before progressing to heavier loads. Do not raise or lower the load too far past the balance point. Jog the equipment control switches so as not to transfer the load weight too quickly. Training is mandatory!

Ensure the load is not damaged, properly packaged, no loose items such as tools used in packaging the load and sharp items (such as nails) projecting from the load.

Protect the PowerMate® strapping material from sharp edges to prevent strap failure. Always inspect straps prior to use. Insure the strapping latching mechanism is fully engaged.

Verify load secureness at the beginning of use, and prior to climbing or descending with the load. Check for any loose items or load shifting.

Never unstrap a load with the PowerMate® unit in an open (extended) condition. The unit will fall over backwards if the wheels are not in contact with a stable surface when the unit is unloaded.

Do not load the PowerMate® unit with a load center of gravity that is outside the side to side limits of the unit wheels.



SAFETY IN MOTION

CAUTION: When transiting a surface, avoid high speed turns that may cause the load and PowerMate® unit to tip. Remember that the load must be secure to the PowerMate® unit to ensure the load cannot shift.

When transiting the unit without a load, ensure the load strapping devices are secure, not dangling, to prevent a trip hazard and prevent entanglement in the PowerMate® moving parts.

Always keep your attention in the direction you are moving, monitoring clearances above, below, and each side of the PowerMate® and load. When visibility is obstructed use spotter person for directional instruction and/or clear path of obstacles and un-involved personnel.



SAFETY IN MOTION continued

Stay alert. Should something break, loosen, or malfunction, on your machine, stop work and seek qualified assistance to correct the condition. When going down a ramp or incline, always walk ahead of the machine and use the open/close controls to engage the rubber guard (foot) with the ground to act as a brake. Do not allow the loaded PowerMate® to attain an un-controllable speed. When moving a PowerMate® unit down a stair without a load, always push the wheels off the step before lowering the wheels to the next step.

Do not compress the top urethane bumper when the machine is under load.

BATTERY SAFETY



Lead-acid batteries contain hydrogen-oxygen gases that can be explosive and sulphuric acid that can cause severe burns. To help avoid risk of danger and injury, observe these precautions when handling or working with a lead-acid battery.



Wear ANSI approved safety glasses or goggles and a face shield. **Wear** proper clothing to protect hands, and body. Wear appropriate rubber gloves and apron.



Never lean over a battery when testing or charging. Cigarettes, flames or sparks, could cause a battery to explode. Keep all ignition sources away from battery. **Do not** strike the sides of a battery with any spark producing item. Make sure work area is well-ventilated.

Never touch both battery terminals with bare hands at the same time. **Remove** rings, watches and dangling jewelry when working with batteries. The metal in the jewelry can cause a shock and burns if contacted with the battery terminals.

Only use insulated/non-conducting tools when making connections on a battery. Never lay tools or other parts on top of a battery.



Because the batteries used in L P International products are of the sealed type, the battery should be replaced if there is evidence of spillage. If there is spilled sulphuric acid present, neutralize with baking soda. **Never** remove vent caps on a sealed battery. In the event of an accident, flush with water and call a physician immediately. If venting gas is significantly inhaled, seek immediate medical attention.

Never store batteries with explosives, flammable materials, chemicals, or food.

Protect batteries from crushing, punctures and shorting.

Do not charge or use booster cables or adjust battery connections without proper instructions and training.

Keep batteries out of reach of children.

Do not accumulate used batteries. Dispose used batteries in accordance with local environmental laws.

CHARGING SAFETY INSTRUCTIONS



Battery Charger

Before using the battery charger, read all instructions and cautionary markings on the battery charger, battery, and product using the battery.

DANGER: Electrical equipment may be hazardous if misused. Operation of this product, and the device it is used on, must always be done with complete knowledge of the product instructions and safety information. Failure to do so may cause serious injury.



DANGER: RISK OF ELECTRICAL SHOCK, BURNS, OR FIRE -The battery charger must be used as supplied. Do not use charger units if the input or output cord is cut or frayed, or damaged in any way. Never replace, splice, or repair cables or connectors supplied with the charger. Do not use the charger if case is damaged in any way. Do not open the charger case for any reason. There are no user serviceable parts. Always be sure that the charger is disconnected from the power source and battery being charged before handling.

NOTICE

Your AC cord came equipped with a three-wire grounding plug (a plug that has a third grounding pin). This plug will only fit only a grounded AC outlet. If you are unable to insert the plug into an outlet because the outlet is not grounded contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not defeat the purpose of the grounding plug. Pay particular attention to convenience of receptacles.

If an extension cord is necessary, use a cord with a current rating at least equal to that of the charger. Cords rated for less amperage than the charger may overheat. Ensure the pins of the extension cord plug are the same number, size, shape, as those on the charger. Ensure the extension cord is wired properly and in good condition.



CAUTION: Position the charger and charger cords so that it is not tripped over, pulled, or placed in contact with heated surfaces. Route charger cords so that they are not likely to be walked on or pinched by items placed upon or against them. Protect the charger from dampness or wet weather, such as rain, snow, and so on. Keep charger away from sources of liquids, such as drinks, washbasins, bathtubs, shower stalls, solvents, flowing water, and so on. Do not allow the charger, or any of its cords and connectors lie in standing water such as a puddle.

CAUTION: Charge only properly maintained and rechargeable lead acid batteries of the same voltage rating that is printed on the charger. Other battery types or voltages, damaged batteries, or improperly maintained batteries may burst or emit dangerous gases.

CAUTION: Only use the supplied charger on PowerMate® products. The charger units supplied by L P International are internally protected against battery polarity reversal and overload. This limits potential damage to the charger. However, the charger does not protect against shorting or overload of external wiring or of the battery being charged. Integrity of the PowerMate® unit wiring should be monitored during routine inspections.

CHARGING SAFETY INSTRUCTIONS continued



CAUTION: Do not operate the PowerMate® unit while connected to the charger.



Do not overload wall outlets or extension cords, as this can result in a risk of fire or electrical shock.

Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in anyway.

To reduce risk of electrical shock, unplug the charger from the outlet before attempting maintenance or cleaning.

Disconnect the power plug by pulling the plug, not the cord.

Do not handle the plug with wet hands.

Unplug the charger when not in use.

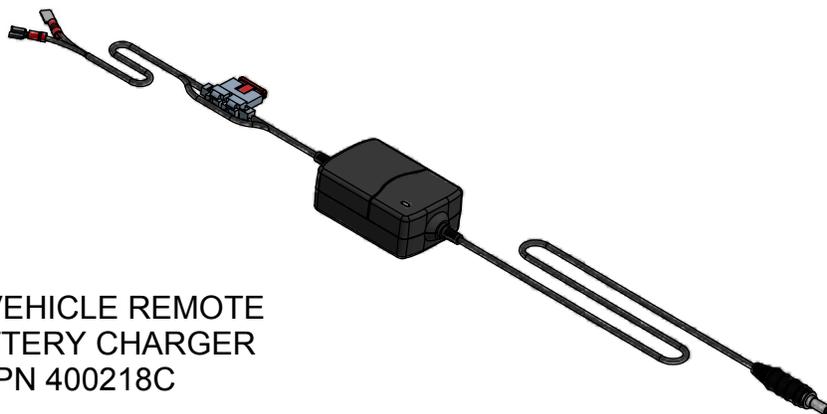


BATTERY CHARGER
PN 400211B

12V IN-VEHICLE CHARGER

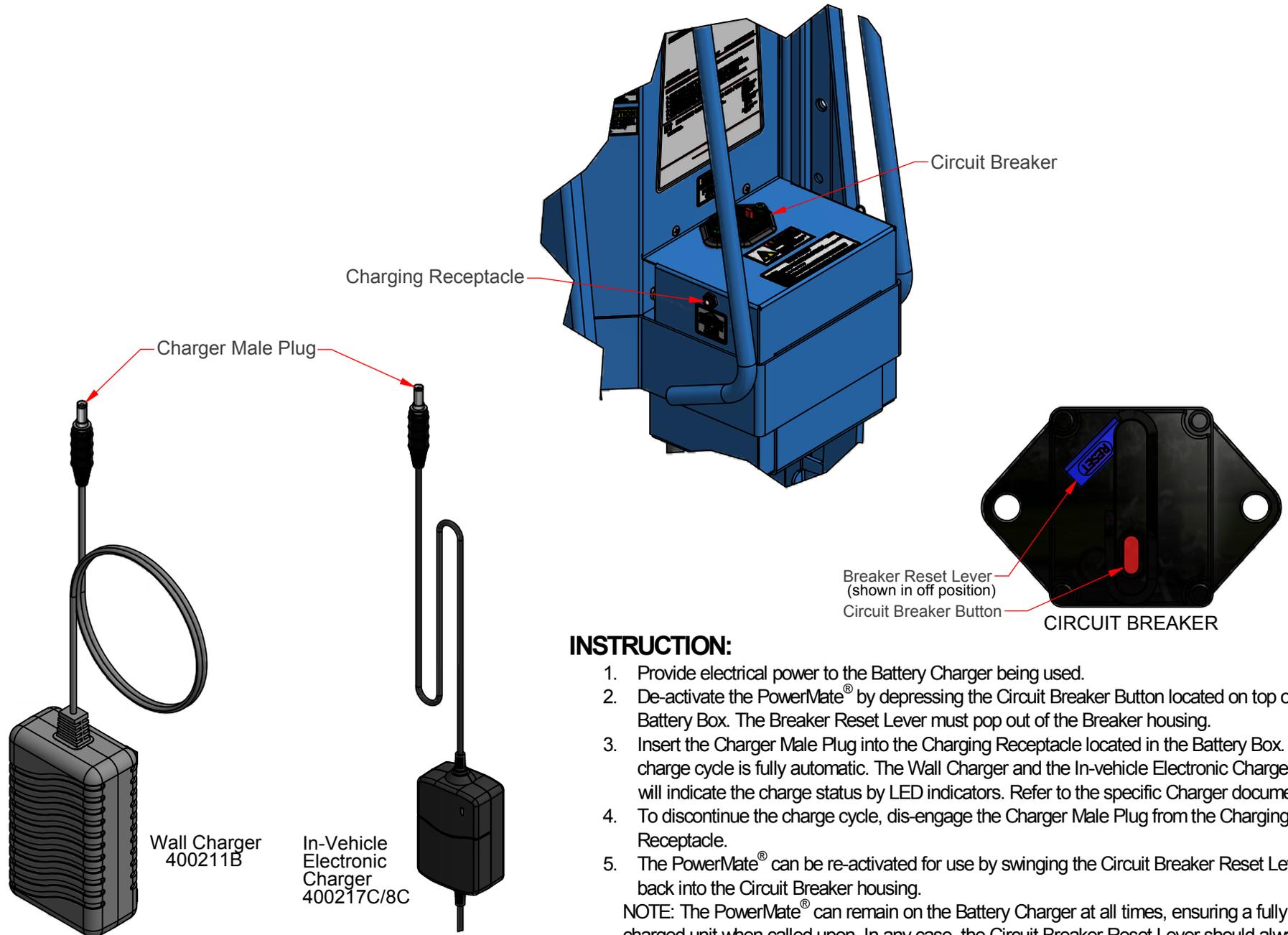


WARNING: The In-vehicle charger cannot protect against vehicle damage caused by faults in the wiring from the vehicle battery to the charger or faults in any other portion of the vehicle wiring harness. The user must ensure that the wiring to the charger adheres to the same vehicle wiring standards and safety precautions required for all vehicle wiring.



IN-VEHICLE REMOTE
BATTERY CHARGER
PN 400218C

M-SERIES POWERMATE CHARGING INSTRUCTION



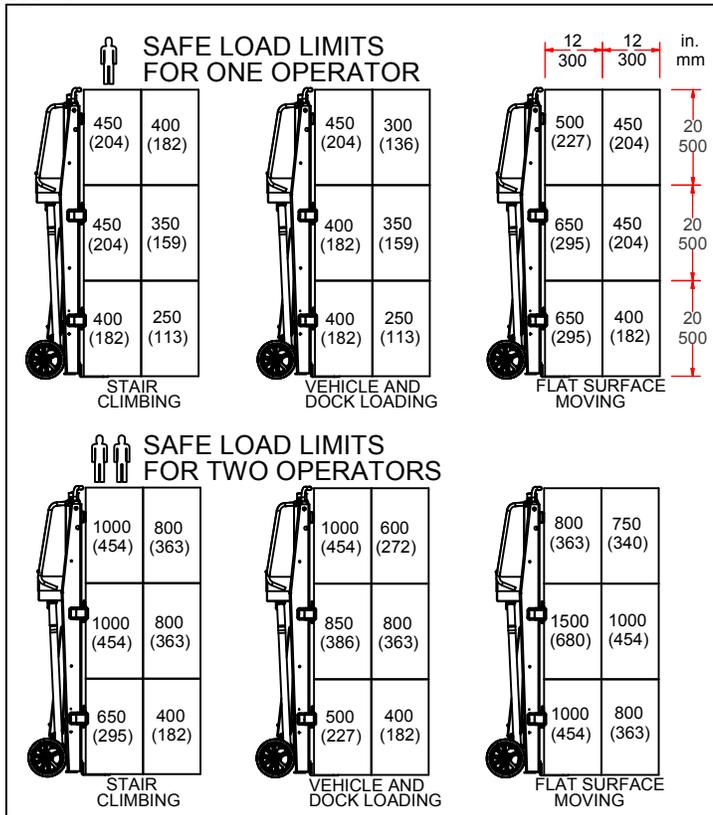
INSTRUCTION:

1. Provide electrical power to the Battery Charger being used.
2. De-activate the PowerMate® by depressing the Circuit Breaker Button located on top of the Battery Box. The Breaker Reset Lever must pop out of the Breaker housing.
3. Insert the Charger Male Plug into the Charging Receptacle located in the Battery Box. The charge cycle is fully automatic. The Wall Charger and the In-vehicle Electronic Charger will indicate the charge status by LED indicators. Refer to the specific Charger documentation.
4. To discontinue the charge cycle, dis-engage the Charger Male Plug from the Charging Receptacle.
5. The PowerMate® can be re-activated for use by swinging the Circuit Breaker Reset Lever back into the Circuit Breaker housing.

NOTE: The PowerMate® can remain on the Battery Charger at all times, ensuring a fully charged unit when called upon. In any case, the Circuit Breaker Reset Lever should always be in the off (extended) position when the PowerMate® is not in use.

M-1 POWERMATE® LOADING INSTRUCTIONS

M-1



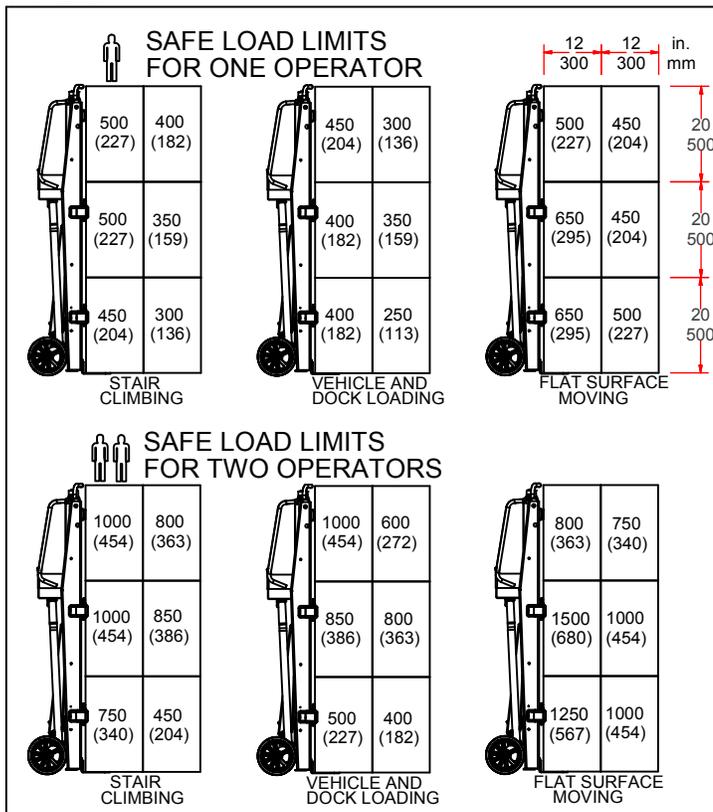
After establishing the weight of your load and its center of gravity, refer to the load drawings to determine:

1. That the capacity of the *PowerMate* is adequate for the intended application.
2. Whether one or two operators are required.

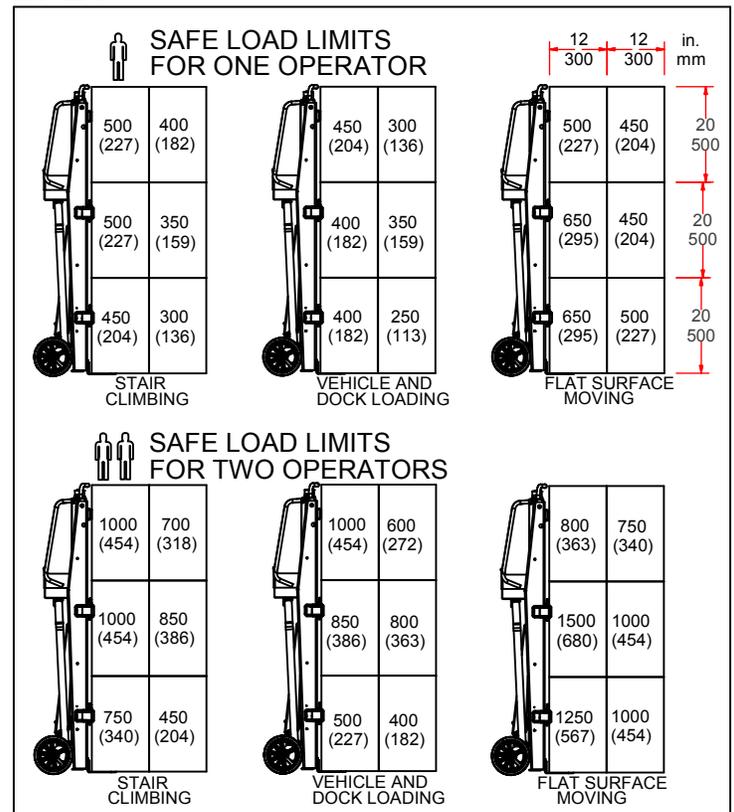
SAFE LOADING RECOMMENDATIONS IN LBS (KG).

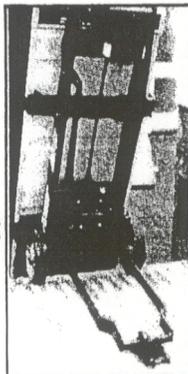
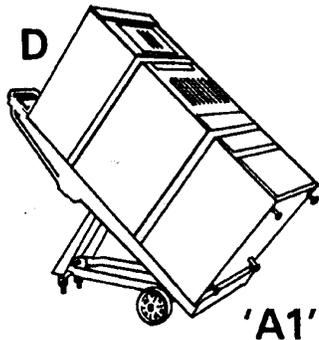
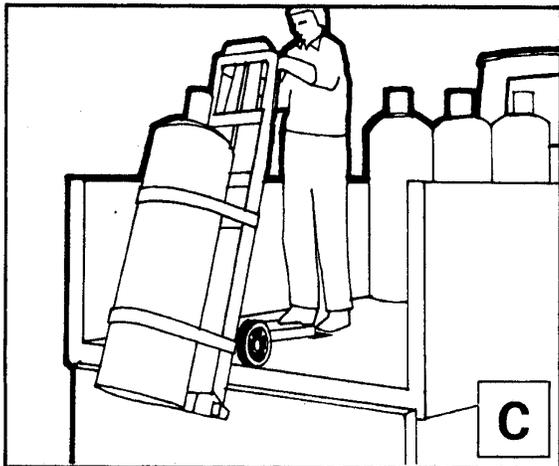
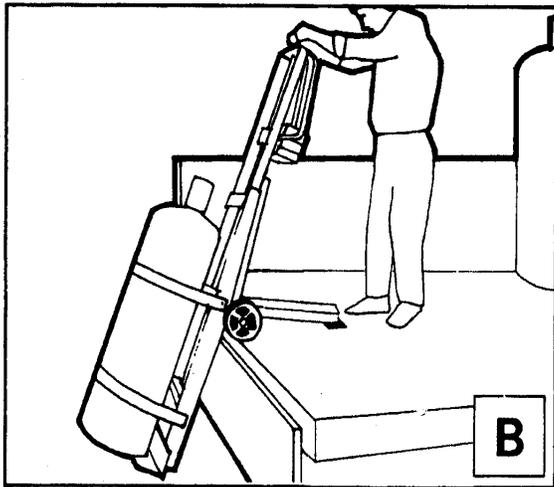
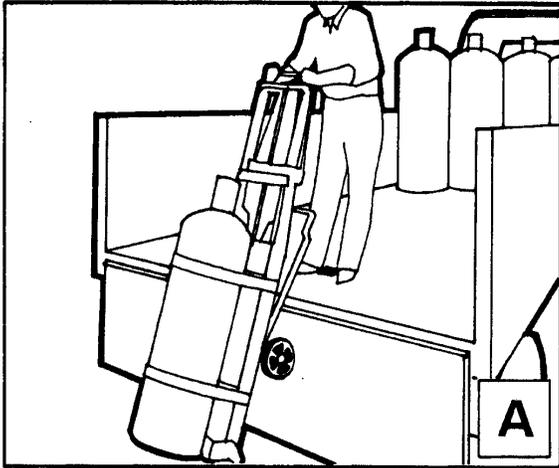
NOTE: LOAD RATINGS ARE CALCULATED FOR TRAINED PROFICIENT, EXPERIENCED OPERATORS AND SHOULD BE USED AS A GENERAL GUIDE ONLY.

M-2B



M-2C



POWERMATE® OPERATION**Loading on a Vehicle**

1. Position the *PowerMate*® as shown in "A" close to the tailgate or rear of the vehicle allowing room for the wheels of the *PowerMate*® to clear the vehicle when raising.
2. Push the "LOAD DOWN" button to raise the wheels until they rest on the vehicle bed. Lower the Hook Bar and engage the Hook Attachment (when installed) on the vehicle bed as shown in "B" and Detail "A1".
3. Push the "LOAD UP" button and raise the toeplate/load to the vehicle floor as shown in "C".
4. Disengage the Hook Attachment by pulling the *PowerMate*® away from the rear of the vehicle. The *PowerMate*® can now be positioned anywhere on the vehicle bed.

Unloading from a Vehicle

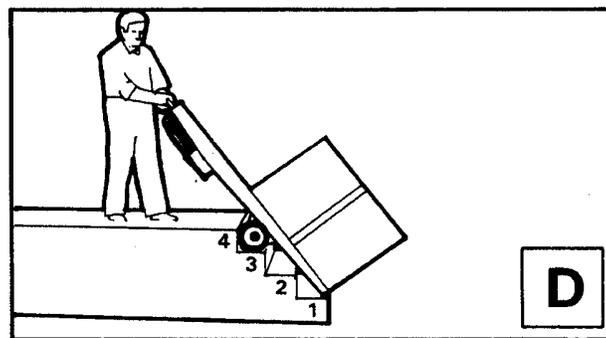
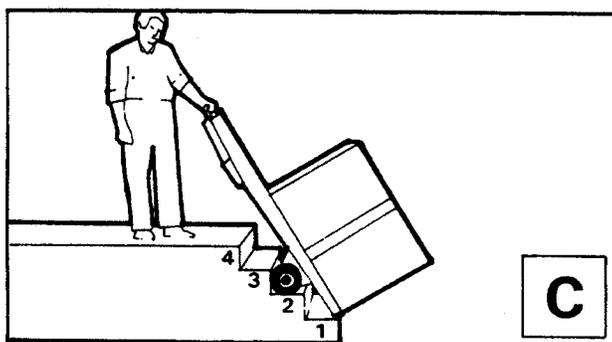
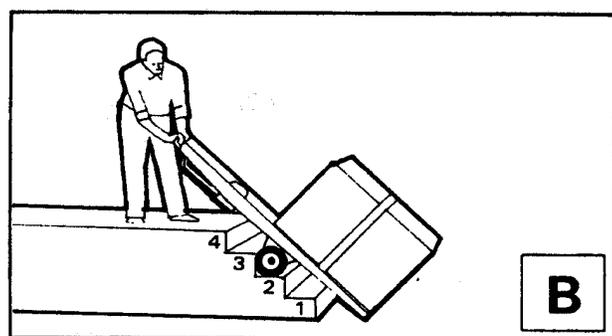
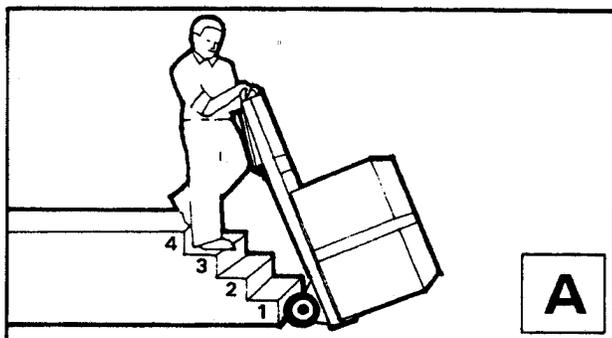
1. Lower the Hook Bar and connect to the Hook Attachment in the vehicle bed by positioning the *PowerMate*® as shown in "C" and Detail "A1".
2. Push the "LOAD DOWN" button to lower the *PowerMate*® toeplate and load to the ground as shown in "B".
3. Disengage the Hook Bar from the Hook Attachment and stand the *PowerMate*® upright.
4. Push the "LOAD UP" button to lower the wheels to the ground, whereupon the *PowerMate*® can be manoeuvred as required.
5. If desired, the retractable dolly can be unclipped and used in connection with the Hook Bar as shown in "D" to take the load and assist handling for horizontal movement.

POWERMATE OPERATION STAIR CLIMBING

Upstairs

- 1 Manoeuvre the **PowerMate®** backwards to the first step as shown in "A", just near enough to allow the wheels to clear the edge of the treads when raised as shown in "B".
- 2 Pivot the **PowerMate®** on the heel of the toe plate as shown in "B". Push the "LOAD DOWN" button to raise the wheels to rest on step 2.
- 3 Raise the toe plate off the ground, pivoting on the wheels of the **PowerMate®**. Push the "LOAD UP" button, raising the **PowerMate®** frame and load and resting the frame on step 1 as shown in "C".
- 4 Pivot the **PowerMate®** on the load frame so that the wheels are clear of the steps and push the "LOAD DOWN" button to raise the wheels to step 3 as shown in "D".

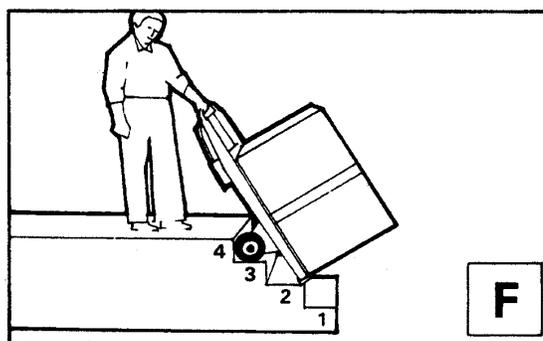
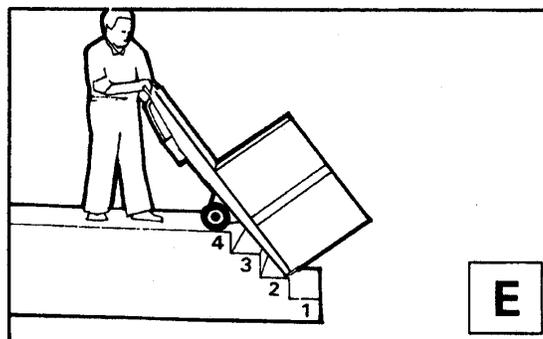
Repeat procedures 3 and 4 until the top of the stairs are reached.



Down Stairs

1. Position the **PowerMate®** at the top of the stairs with the load frame overhanging and clear of the steps. Push the "LOAD DOWN" button to lower the load and load frame, and rest it on step 2 as shown in "E".
2. Pivot the **PowerMate®** on the heel of the load frame and push the "LOAD UP" button which will lower the wheels to step 3 as shown in "F".
3. Pivot the **PowerMate®** on its wheels to lift the load frame clear of the steps and push the "LOAD DOWN" button to lower the load frame to rest on the toe plate on step 1.

Repeat procedures 2 and 3 until reaching the bottom of the stairs.



STORAGE PROCEDURE

If the equipment is not to be used for an extended period of time (over 3 months) then the following storage procedure should be completed by a knowledgeable service person.

1. Remove the front drive screw guard (if installed). Extend the main frames fully. Clean and lubricate the drive screw with light machine oil. Replace the drive screw guard.
2. Disable the equipment by placing the safety toggle switch in the “Off” (O) position.
3. Store the equipment in a dry / dust-free location.
4. Check every 3 months that the battery is fully charged.
5. Before returning the equipment to service, it should be examined by a trained and competent service person.

BATTERY CARE

The 12 volt DC battery system is maintenance free and sealed. The gelled electrolyte inside the battery requires no maintenance whatsoever throughout its life. *DO NOT ATTEMPT TO OPEN THESE BATTERIES.*

The best battery life and equipment performance will be attained by keeping the battery fully charged.

The equipment has a small female battery charging receptacle located on the left side of the battery box cover. This receptacle is connected directly to the battery.

The battery charger output wire has a mating male plug.

Insertion of the male plug into the female receptacle connects the battery charger to the battery. Once connected the battery charger automatically commences charging. The charger stops when the battery is fully charged.

Additional Tips for Operating the M-Series PowerMate

To enjoy "Trouble Free" *PowerMate* operations, remember the following:

1. Keep the battery fully charged.
2. Follow the maintenance schedule and especially keep the screw clean and oiled with light machine oil.
3. *PowerMate*® equipment is designed to take advantage of balance and leverage principles. Work performed will be easier and safer when the load is maintained in a balanced position. The operator should locate the center of gravity position of an unfamiliar load prior to undertaking lifting or lowering operations.
4. New operators should be trained on light loads not exceeding 400 lbs. (182 kg), progressing to heavier loads after gaining experience.
5. Never unstrap a load with the wheels up.
6. Do not compress the top or bottom red bumpers on the drive screw when the unit has a load.
7. Never lay the *PowerMate*® unit down on the battery box when transporting.
8. Ensure the override bearing is properly adjusted on the drive screw.
9. Keep nuts and bolts tight on the dolly attachment and the hook bar.
10. Keep both hands on the handles when operating the *PowerMate*®.
11. When climbing stairs, keep the wheels at the back of the stair tread and the heel of the machine back a safe distance from the step edge.
12. It is essential for reliability, and to conform with current Health and Safety legislation, that your *PowerMate*® is maintained regularly. We recommend a bi-annual Service Agreement with L P International. Inc.