



Forward this manual to all operators.
Failure to operate this equipment as
directed may cause injury.

REV A 10/10/07

INSTALLATION AND OPERATION MANUAL

**1,000 POUND CAPACITY
MOTORCYCLE / ATV LIFT
MODEL:
RML-600**

READ FIRST



Do not operate this machine
until you read and understand
all the dangers, warnings
and cautions in this manual.



Optional equipment shown.

Keep this operation manual near the
machine at all times. Make sure that
ALL USERS read this manual .

SHIPPING DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Consequently, claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

BE SAFE

Your new lift was designed and built with safety in mind. However, your overall safety can be increased by proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.



1645 Lemonwood Dr.
Santa Paula, CA. 93060, USA
Tel: 1-805-933-9970
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1,000 POUND CAPACITY MOTORCYCLE / ATV LIFT

This instruction manual has been prepared especially for you.
Your new lift is the product of over 35 years of continuous research, testing and development.
It is the most technically advanced lift on the market today.

READ THIS ENTIRE MANUAL BEFORE INSTALLATION & OPERATION BEGINS.

PRODUCT WARRANTY

Ranger Motorcycle Lifts are warranted for one year on equipment structure, to be free of defects in material and workmanship. Power units, hydraulic cylinders, and all other assembly components such as turnplates, slip plates, cables, chains, valves, switches etc. are warranted for one year against defects in material or workmanship under normal use. Ranger Products Inc. shall repair or replace at their option for the warranty period those parts returned to the factory freight prepaid which prove upon inspection to be defective. Ranger Products Inc. will pay labor costs for the first 12 months only on parts returned as previously described.

The warranty does not extend to...

- ◆ defects caused by ordinary wear, abuse, misuse, shipping damage, improper installation, voltage or lack of required maintenance;
- ◆ damages resulting from purchaser's neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) and/or other accompanying instructions supplied;
- ◆ normal wear items or service normally required to maintain the product in a safe operating condition;
- ◆ any component damaged in shipment;
- ◆ other items not listed but may be considered general wear parts;
- ◆ damage caused by rain, excessive humidity, corrosive environments or other contaminants.

THESE WARRANTIES DO NOT EXTEND TO ANY COSMETIC DEFECT NOT INTERFERING WITH EQUIPMENT FUNCTIONALITY OR ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF A RANGER PRODUCTS INC. PRODUCT OR THE BREACH OR DELAY IN PERFORMANCE OF THE WARRANTY.

**WARRANTY IS NOT VALID UNLESS
WARRANTY CARD IS RETURNED.**

IMPORTANT NOTICE

These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.

IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures.

Never attempt to lift components without proper lifting tools such as forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.

DEFINITIONS OF HAZARD LEVELS

Identify the hazard levels used in this manual with the following definitions and signal words:



DANGER

Watch for this symbol: It Means: Immediate hazards which will result in severe personal injury or death.



WARNING

Watch for this symbol: It Means: Hazards or unsafe practices which could result in severe personal injury or death.



CAUTION

Watch for this symbol: It Means: Hazards or unsafe practices which may result in minor personal injury, product or property damage.

OWNER'S RESPONSIBILITY

To maintain the lift and user safety, the responsibility of the owner is to read and follow these instructions:

- ◆ Follow all installation and operation instructions.
- ◆ Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State and Federal OSHA Regulations and Electrical Codes.
- ◆ Carefully check the lift for correct initial function.
- ◆ Read and follow the safety instructions. Keep them readily available for machine operators.
- ◆ Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- ◆ Allow unit operation only with all parts in place and operating safely.
- ◆ Carefully inspect the unit on a regular basis and perform all maintenance as required.
- ◆ Service and maintain the unit only with authorized or approved replacement parts.
- ◆ Keep all instructions permanently with the unit and all decals on the unit clean and visible.

BEFORE YOU BEGIN

Receiving:

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgement by the carrier of receipt in good condition of shipment covered by your invoice. If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation on the freight bill of the shorted or damaged goods. Do this for your own protection.

NOTIFY THE CARRIER AT ONCE if any hidden loss or damage is discovered after receipt and request the carrier to make an inspection. If the carrier will not do so, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

IT IS DIFFICULT TO COLLECT FOR LOSS OR DAMAGE AFTER YOU HAVE GIVEN THE CARRIER A CLEAR RECEIPT. File your claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping you process your claim does not make BendPak responsible for collection of claims or replacement of lost or damaged materials.



Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.

Please read entire manual prior to installation. Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual. For additional copies or further information, contact:

BendPak Inc. / Ranger Products

1645 Lemonwood Dr.
Santa Paula, CA. 93060
1-805-933-9970
www.bendpak.com
www.rangerproducts.com

**INSTALLER / OPERATOR
PROTECTIVE EQUIPMENT**

Personal protective equipment helps makes installation and operation safer, however, it does not take the place of safe operating practices. Always wear durable work clothing during any installation and/or service activity. Shop aprons or shop coats may also be worn, however loose fitting clothing should be avoided. Tight fitting leather gloves are recommended to protect technician hands when handling parts. Sturdy leather work shoes with steel toes and oil resistant soles should be used by all service personnel to help prevent injury during typical installation and operation activities.

Eye protection is essential during installation and operation activities. Safety glasses with side shields, goggles, or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing worker protection. Consideration should also be given to the use of hearing protection if service activity is performed in an enclosed area, or if noise levels are high.



1. **READ AND UNDERSTAND** all safety warning procedures before operating lift.
2. **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.

3. **KEEP WORK AREA CLEAN.** Cluttered work areas invite injuries.
4. **CONSIDER WORK AREA ENVIRONMENT.** Do not expose equipment to rain. **DO NOT** use in damp or wet locations. Keep area well lit.
5. **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
6. **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
7. **DO NOT** override self-closing lift controls.
8. **REMAIN CLEAR** of lift when raising or lowering vehicle.
9. **CLEAR AREA** if vehicle is in danger of falling.
10. **ALWAYS INSURE** that the safeties are engaged before any attempt is made to work on or near vehicle.
11. **DRESS PROPERLY.** Non-skid, steel-toe footwear is recommended when operating lift.
12. **MAINTAIN WITH CARE.** Keep lift clean for better and safer performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.
13. **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.
14. **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.
15. **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.

RML-600

INSTRUCTIONS

UNPACKING AND SET-UP



READ ENTIRE MANUAL AND COMPLY WITH ALL SAFETY AND SERVICE PRECAUTIONS. DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY OCCUR UNLESS INSTRUCTIONS ARE FOLLOWED CAREFULLY.

1. Open carton, then remove ramp, and shipping boards.



The lift may be damaged and/or personal injury may result if the pressure exceeds the maximum 100 PSI rating.

2. Connect foot-operated air valve to 100 psi air supply.
3. Stand clear of lift table, and depress the UP side of foot valve to raise table.

VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA.

Suspension components on this lift are intended to raise and lower lift only and are not meant to be load holding devices. Remain clear of elevated lift unless visual confirmation is made that all primary safety locks are fully engaged and the lift is LOWERED onto the safety locks, Refer to installation /operation manual for proper safety lock procedures and /or further instruction.

4. Engage Safety Bar and lower lift onto safety.

TO LOWER LIFT:

1. Lift detent bar from safety latch and lower to next position or to floor.

Insert ramp mounting pins into holes at either end of table to mount ramp.

NOTE: If cycle vise is being installed, ramp must be mounted opposite the cycle vise.

OPERATION

1. Loads must be centered on table at all times.
2. Loads must be firmly positioned and secured on table at all times.
3. All moving parts have been lubricated at the factory and should be re-lubricated every (6) months to prevent galling. Grease zerks are located at each end of frame pivot shaft and at top ends of inside frame assembly.
4. Lightly oil cylinder rod when it becomes dry.
5. Squirt some oil through air bleed hole in plate end of cylinder to lubricate piston and piston seal every (6) months.
6. Pivot shaft set screws should be checked frequently to be sure they are tight. These are located at the top end of the inside frame assembly.

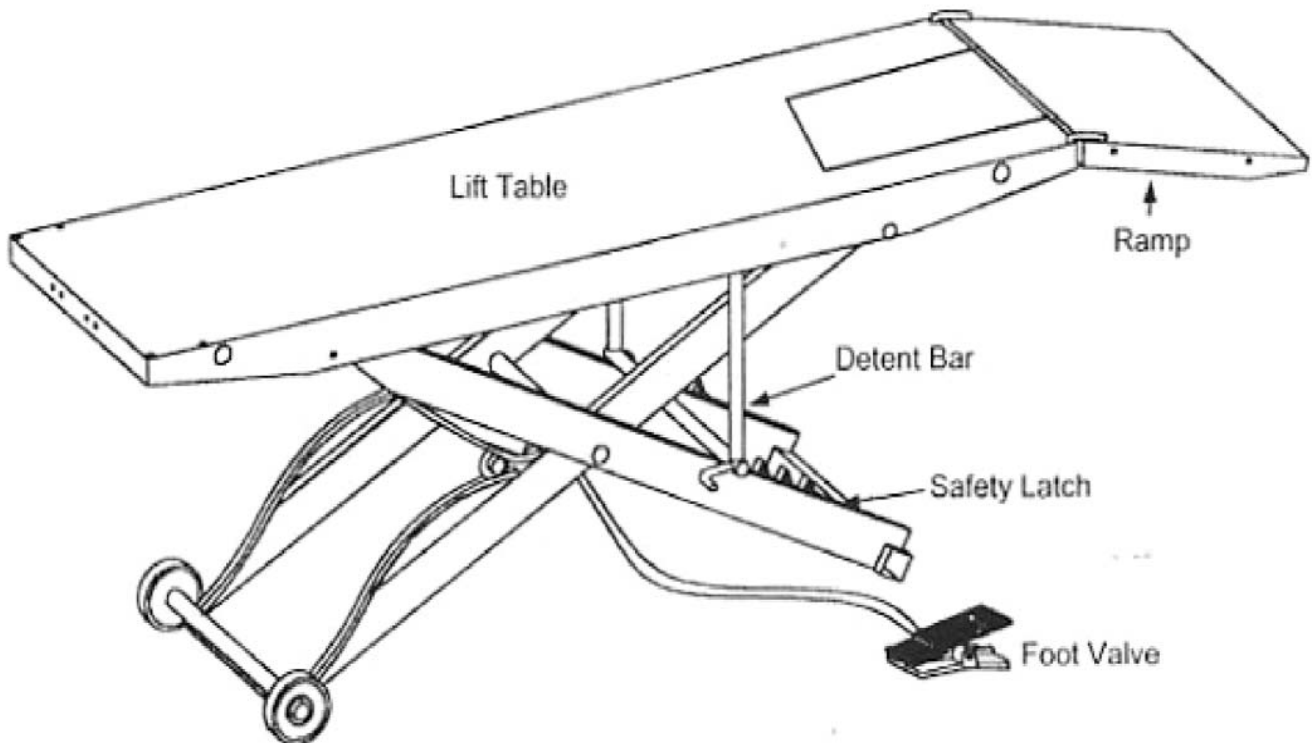
OTHER OPTIONS AVAILABLE

DESCRIPTION

FRONT EXTENSION - Extends lift top to 97" for longer wheel base motorcycles.

SIDE EXTENSION SET - Expands width of lift from 24" to 48" includes stabilizer bar.

RML-600 Instructions



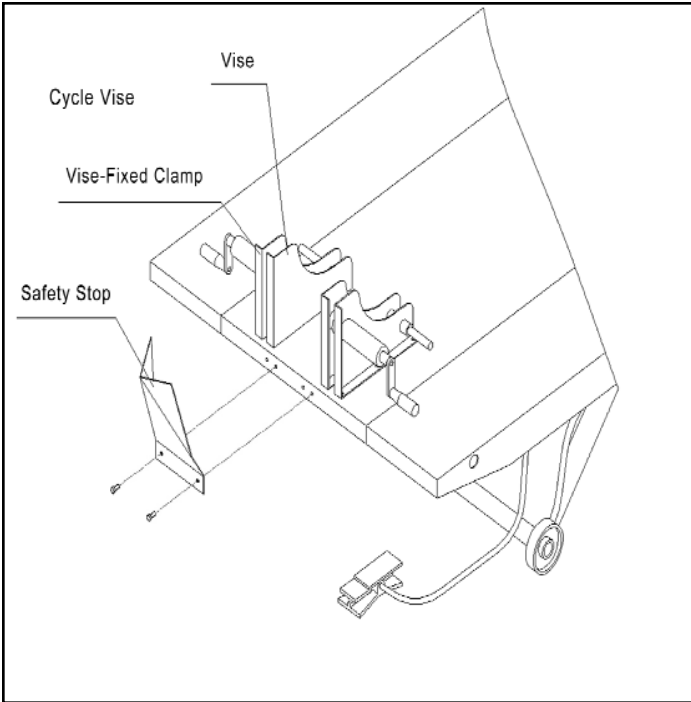
WARNING

1. Center load on table – 1000 lb. maximum.
2. Connect to 100 PSI maximum shop air.
3. Keep safety bar in position at all times – except when lowering.
4. Keep hands and tools from under carriage.
5. Do not mount table when in elevated position.
6. Do not ride vehicle onto lift.
7. Lift must be in the lowered position when moving.
8. Only trained persons should operate Air Lift.
9. The working area should be sufficiently lit.
10. Foot controller should be at least 3 feet away from Air Lift during raising and lowering operation.
11. Lift is recommended for indoor use only.

CYCLE VISE

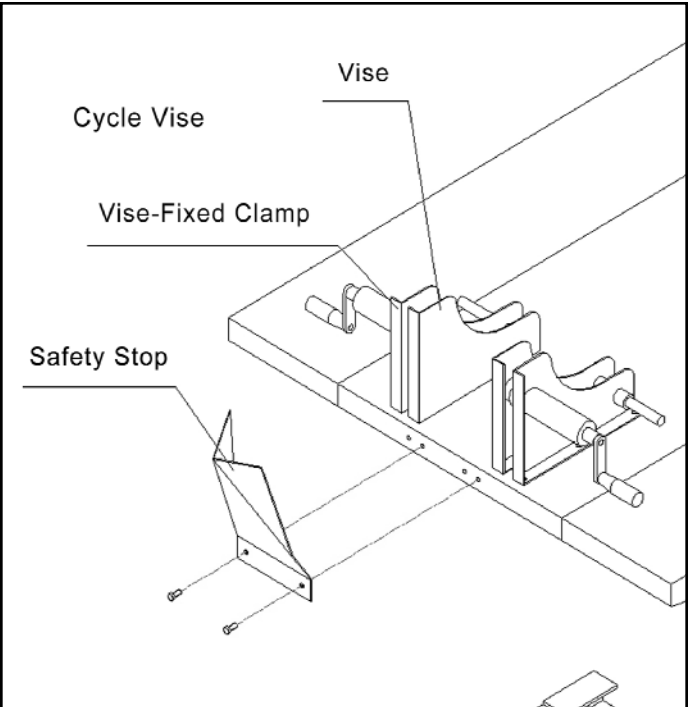
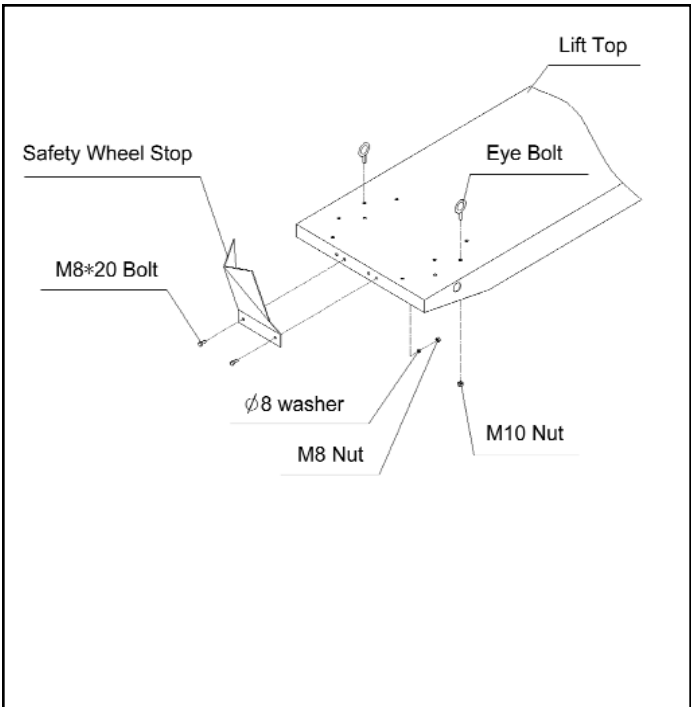
Installation Instructions

The Cycle Vise mounts directly onto the RML-600.

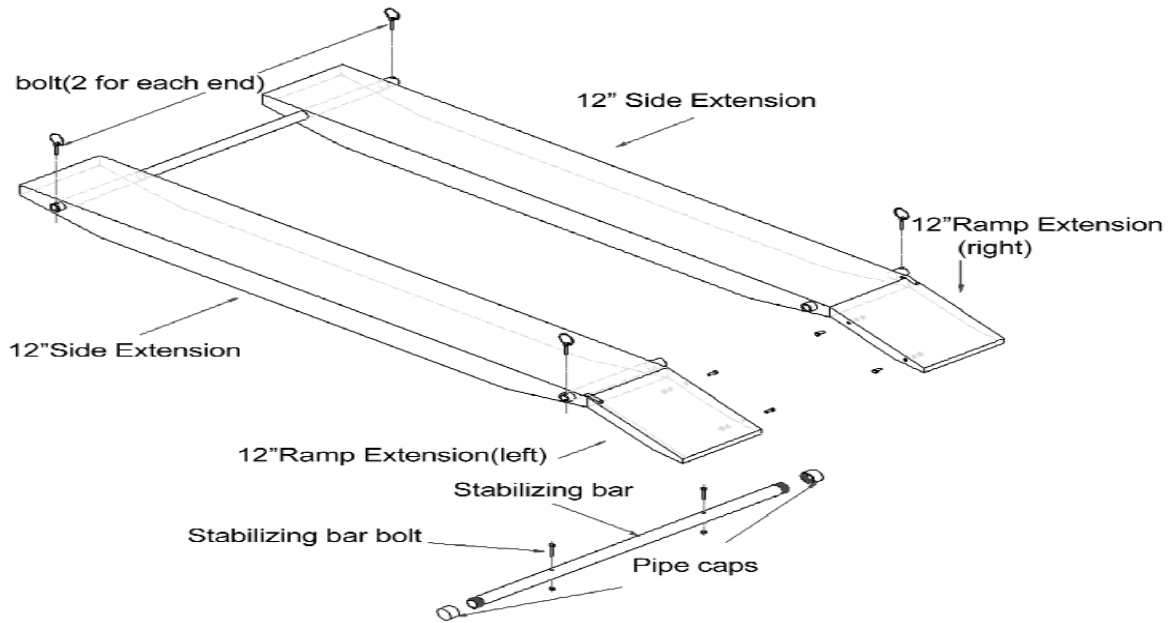


Align two inside holes of the fixed clamp over the existing vise hole pattern as shown.

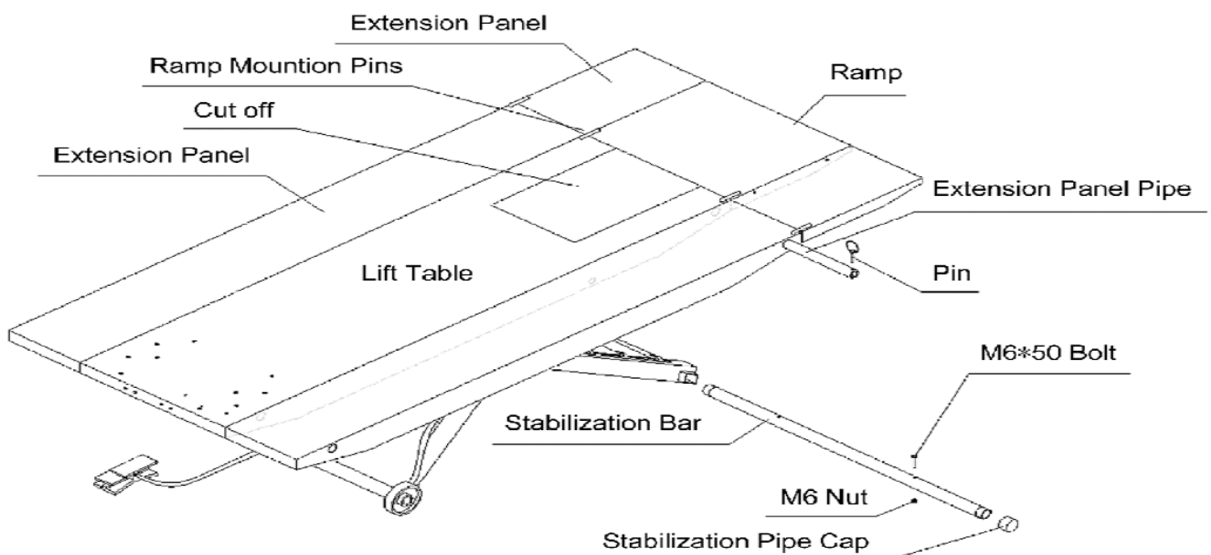
Align the moveable clamp with the locating corner hole.



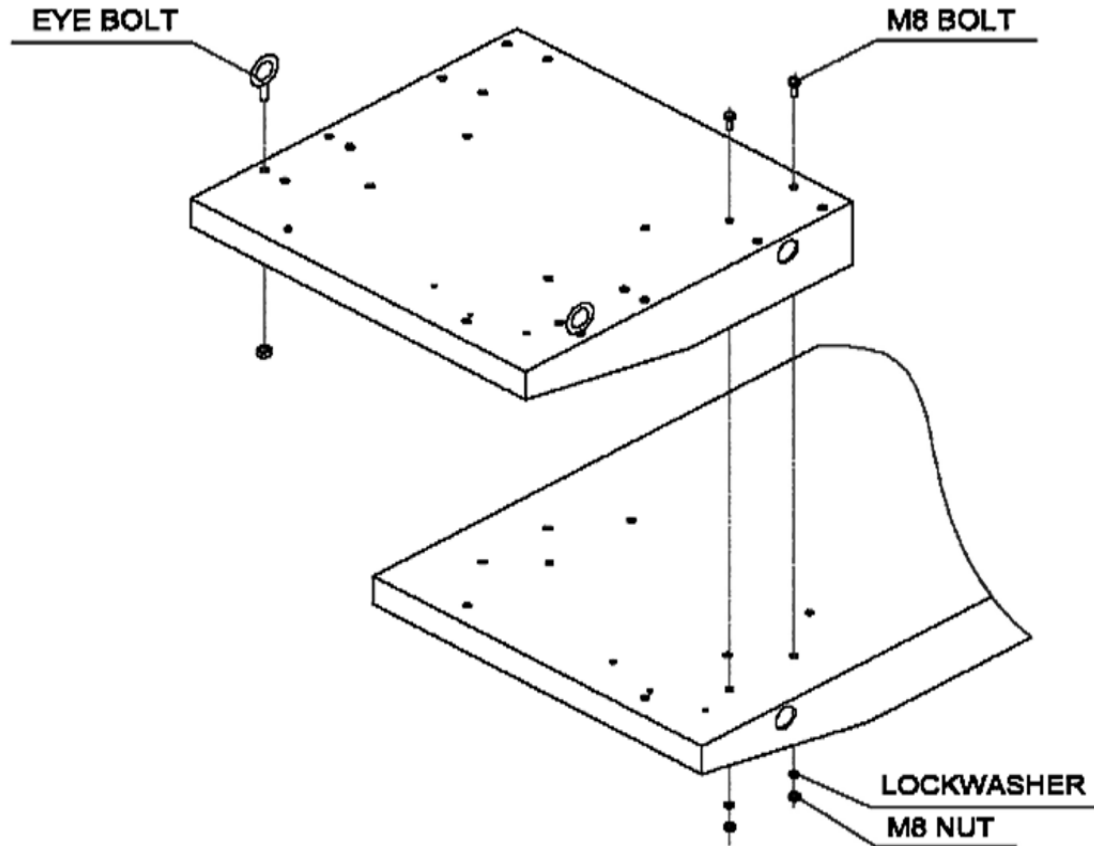
Installation Instructions (Optional) 12" Side Extensions



1. Insert pipes from extension panel package through holes in lift table.
2. Mount panels on ends of pipe on each side of table. With ramp hole to outside.
3. Insert M8 BOLT provided through holes in each end of pipe.
4. Secure ramp extensions to ramp with bolts provided. Make sure ramp hooks are positioned on the outside.
5. Stabilization bar directions – Unscrew cap from one of the ends of the stabilization pipe.
6. Insert bolt in drilled out hole and tighten with nut. Slide pipe through the stationary square tubing on the lift legs. Insert the other bolt, tighten down with nut. Put on the other cap and tighten.



13" FRONT EXTENSION (Optional) Installation Instructions



POSITION THE 13" EXTENSION OVER THE EXISTING TABLE AS SHOWN AND ATTACH WITH FOUR M8 CAP SCREWS, NUTS AND LOCK WASHERS PROVIDED.

EYE BOLTS ARE ALSO PROVIDED WITH THE EXTENSION KIT AND MAY BE INSTALLED AS SHOWN USING M8 HEX NUTS AND LOCKWASHERS.

Safe Lift Operation

Automotive and truck lifts are critical to the operation and profitability of your business. The safe use of this and other lifts in your shop is critical in preventing employee injuries and damage to customer's vehicles. By operating lifts safely you can insure that your shop is profitable, productive and safe.

Safe operation of automotive lifts requires that only trained employees should be allowed to use the lift.

TRAINING SHOULD INCLUDE, BUT NOT LIMITED TO:

- ◆ Proper positioning of the vehicle on the runway. (See manufacturers minimize wheel base loading requirements.)
- ◆ Use of the operating controls.
- ◆ Understanding the lift capacity.
- ◆ Proper use of jack stands or other load supporting devices.
- ◆ Proper use, understanding and visual identification of safety lock devices and their operation.
- ◆ Reviewing the safety rules.
- ◆ Proper housekeeping procedures (lift area should be free of grease, oil, tools, equipment, trash, and other debris)
- ◆ A daily inspection of the lift should be completed prior to its use. Safety devices, operating controls, lift arms and other critical parts should be inspected prior to using the lift.
- ◆ All maintenance and repairs of the lift should be completed by following the manufacturer's requirements. Lift repair parts should meet or exceed OEM specifications. Repairs should only be completed by a qualified lift technician.
- ◆ The vehicle manufacturer's recommendations should be used for spotting and lifting the vehicle.

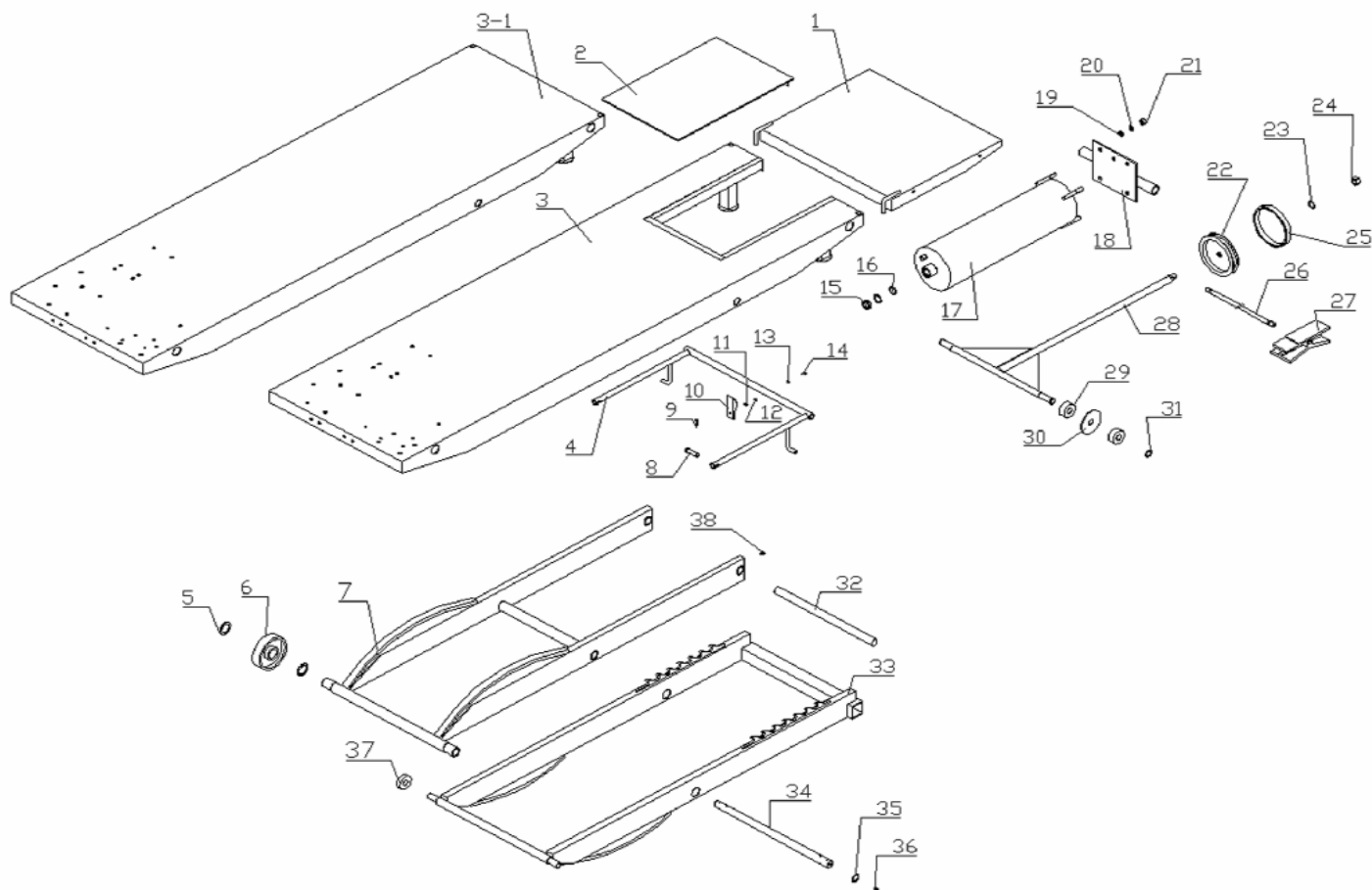
LIFT OPERATION SAFETY

- ◆ It is important that you know the load limit. Be careful that you do not overload the lift . If you are unsure what the load limit is, check the data plate found on one of the lift columns or contact the manufacturer.
- ◆ The center of gravity should be followed closely to what the manufacturer recommends.
- ◆ Always make sure you have proper overhead clearance. Additionally, check that attachments, (vehicle signs, campers antennas, etc.) are not in the way.
- ◆ Be sure that prior to the vehicle being raised, the doors, trunk, and hood are closed securely
- ◆ Prior to being raised, make sure there is no one standing closer than six feet from the lift
- ◆ After positioning the vehicle on the lift runways, set the emergency brake, make sure the ignition is off, the doors are closed, overhead obstructions are cleared, and the transmission is in neutral.
- ◆ Double check that the automatic chock devices are in position and then when the lift is raised, observe the chocks
- ◆ Put pads or adapters in the right position under the contact points that have been recommended
- ◆ The lift should be raised just until the vehicle's wheels are about one foot off the ground. If contact with the vehicle is uneven or it appears that the vehicle is not sitting secure, carefully lower the lift and readjust.
- ◆ Always consider potential problems that might cause a vehicle to slip, i.e., heavy cargo, undercoating, etc.
- ◆ Pay attention when walking under a vehicle that is up on the hydraulic lift.



- ◆ **DO NOT** leave the controls while the lift is still in motion.
- ◆ **DO NOT** stand directly in front of the vehicle or in the bay when vehicle is being loaded or driven into position.
- ◆ **DO NOT** Go near vehicle or attempt to work on the vehicle when being raised or lowered.
- ◆ **REMAIN CLEAR** of lift when raising or lowering vehicle.
- ◆ **DO NOT** rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.
- ◆ **DO NOT** lower the vehicle until people, materials, and tools are clear
- ◆ **ALWAYS INSURE** that the safeties are engaged and lowered on to the safety ladders before any attempt is made to work on or near vehicle.
- ◆ Some vehicle maintenance and repair activities may cause the vehicle to shift. Follow the manufacturer's guidelines when performing these operations. The use of jack stands or alternate lift points may be required when completing some repairs.
- ◆ **READ AND UNDERSTAND** all safety warning procedures before operating lift.
- ◆ **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- ◆ **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- ◆ **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
- ◆ **DO NOT** override self-closing lift controls.
- ◆ **CLEAR AREA** if vehicle is in danger of falling.
- ◆ **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.
- ◆ **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, breakage of parts or any condition that may affect lift operation. Do not use lift if any component is broken or damaged.
- ◆ **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.
- ◆ When the lift is being lowered, make sure everyone is standing at least six feet away.
- ◆ Be sure there are no jacks, tools, equipment, left under the lift before lowering.
- ◆ Always lower the vehicle down slowly and smoothly.

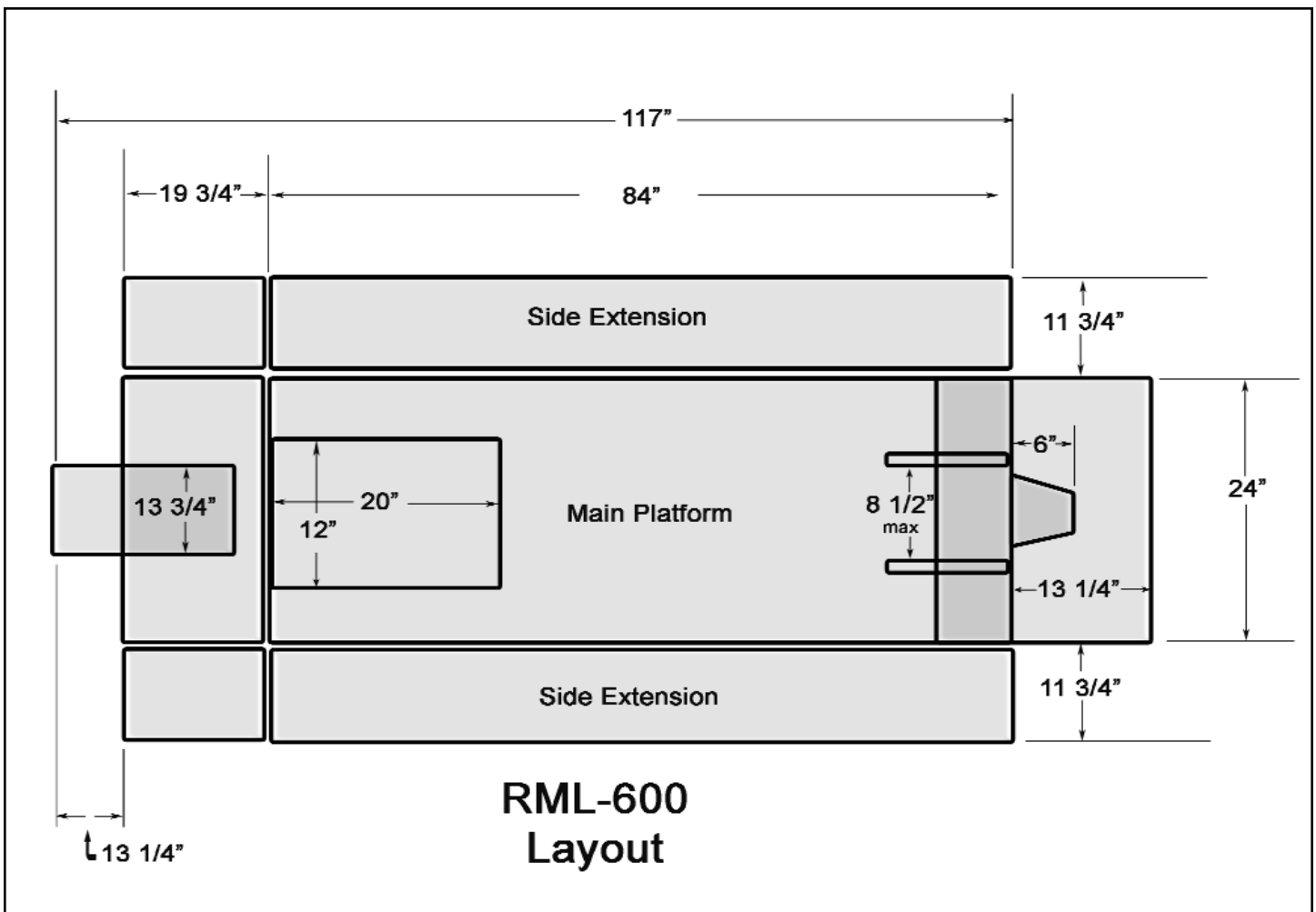
RML-600 PARTS BREAKDOWN

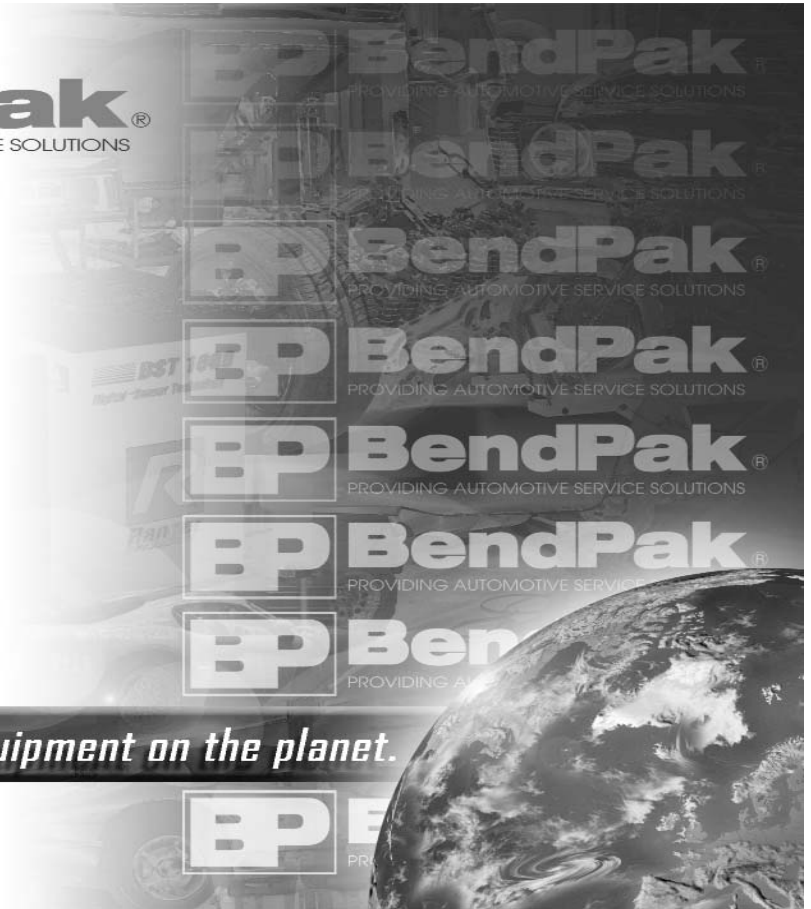


No.	Description	Qty	No.	Description	Qty
1	Ramp	1	20	Lock Washer	4
2	Drop Out Cover	1	21	Nut	4
3	Top Assembly	1	22	Piston	1
3-1	Top Assembly	1	23	O-ring	1
4	Detent Bar	1	24	Nut	1
5	Retaining Ring	4	25	Piston Seal	1
6	Wheel	2	26	Valve Hose W/Fitting	1
7	Stand	1	27	Foot Valve Assembly	1
8	Clevis Pin	2	28	Cylinder Shaft Assembly	1
9	Cotter Pin	2	29	Cam Roller Bearing	4
10	Detent Clip	1	30	Cam Bearing Space	2
11	Nut	1	31	Retain Ring	2
12	Washer	1	32	Cylinder Pivot Shaft	1
13	Lock Washer	1	33	Stand	1
14	Screw	1	34	Frame Pivot Shaft	1
15	Wiper Ring	1	35	Retaining Ring	2
16	O-ring	2	36	Oil Cup	4
17	Cylinder	1	37	Track Roller Bearing	2
18	Cylinder End Plate	1	38	Screw	2
19	Washer	4			

SPECIFICATIONS

Main Lifting Platform.....	.24" W x 84" L
Side Extensions (Optional)	11 3/4" W x 84" L
Approach Ramps.....	19" 3/4" Long
Extended Approach Ramp.....	13 3/4" W x 29" Long
Lowered Height.....	7 1/2"
Lock Potions.....	7
1st Lock position.....	20"
2nd Lock position.....	22"
3rd Lock position.....	23 1/2"
4th Lock position.....	25 1/2"
5th Lock position.....	27"
6th Lock position.....	28 1/2"
7th Lock position.....	30"
Front Wheel Vice Maximum Width	8.5"
Casters	5"
Front Extension (24" x 24") Extends Main Platform Length (Optional).....	13 1/4"
Pneumatic Hose	96"





The best automotive service equipment on the planet.

**For Parts Or Service
Contact:**

**BendPak Inc. / Ranger Products
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Santa Paula, CA. 93060**

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