



PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

REV A 06-27-16

P/N 5900140

INSTALLATION AND OPERATION MANUAL

Portable Evaporative Air Cooler

Models:

CB-30L 110/115 V

CB-30H 208/220 V



READ FIRST



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

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

Ranger™ Evaporative Air Coolers are designed and built with safety in mind. However, proper training and thoughtful operation on the part of the operator can increase your overall safety. 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
Toll Free: 1-800-253-2363
Fax: 1-805-933-9160
www.rangerproducts.com

WARRANTY POLICY

Ranger Products™ are backed by over 40 years of manufacturing experience. Every Portable Evaporative Air Cooler bearing the Ranger™ name is sold with the following warranty.

- Each Ranger Product™ is warranted to be free from defects in workmanship and material for a period of one year from the date of shipment provided that a written claim for such defect is made within that time.
- This warranty does not cover damage or defects caused by carelessness of the operator, misuse, abuse or abnormal use which in any way impairs the proper functioning of the equipment or by the use or addition of parts not manufactured by Ranger Products™ or its suppliers.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

If your Ranger Products™ machine is not functioning properly, call your Ranger Products™ dealer immediately. On some occasions, an independent contractor may be hired to do the repairs. Within the warranty period, a customer should not hire his own contractor unless it is authorized in writing by Ranger Products™.

If it is necessary to return equipment for repairs, your dealer will so advise you. When returning equipment for repairs, see that machines are properly crated and protected, and prepay transportation.

Defective parts replaced at no charge must be returned to your dealer or Ranger Products™ within 60 days of the date that the replacement parts are shipped; otherwise, you must pay for the replacement parts at the current selling price.

LIMITED RETURNS / EXCHANGE POLICY

Our limited return and exchange policy allows you to return defective or incorrect merchandise for a full or partial credit of your order. All returned merchandise requires authorization. Contact our service representatives first for shipping instructions and to obtain a return authorization number. Credit will not be issued unless authorization to return merchandise has been received.

For all merchandise returned to BendPak / Ranger for reasons other than warranty, a 20% restocking fee and round-trip shipping costs will be deducted from the credit refund. All returned items must be in their original box or crating and must include all packing material, manuals and all accessories. At our discretion, a restocking fee may be charged if your product is opened or is not returned in its original condition, box, or is missing packing material, manuals, or any accessories.

NO RETURNS, CREDITS OR EXCHANGES FOR:

- Returned items that failed due to an accident, purchaser's abuse, neglect or failure to operate in accordance with instructions provided in the owner's manual(s) supplied.
- Returned items that failed due to incorrect voltage or improper wiring.
- Returned items that failed due to rain, excessive humidity, corrosive environments or other contaminants.
- Any item damaged in shipment or any product failure caused by installing or operating product under conditions not in accordance with installation and operation guidelines or damaged by contact with tools or surroundings.
- Returned items with cosmetic defects that do not interfere with product functionality.
- Returned items with no accompanying RMA number and completed RMA form.
- Returned items that are incomplete or defaced.
- Any consumable or standard wear items.
- Returned items with a different serial number from what was authorized for return.
- Returned items that do not include your original receipt, invoice or sales order.
- Returned items that were special ordered or custom configured.
- Freight damaged items. If your shipment arrives damaged you must note the damage on the carrier's delivery record in accordance with the carrier's policy, save the merchandise in the original box and packing it arrived in, and arrange for a carrier inspection of damaged merchandise.

IMPORTANT SAFETY TIPS

**ALWAYS MAINTAIN A CLEAN WORK AREA.
KEEP VISITORS AND ESPECIALLY
CHILDREN AWAY FROM WORK AREA.**

**THIS PORTABLE EVAPORATIVE AIR COOLER IS TO
BE OPERATED BY PROPERLY TRAINED
PERSONNEL ONLY.
OPERATION BY UNTRAINED
PERSONNEL MAY RESULT IN INJURY
AND /OR PROPERTY DAMAGE.**



THIS OPERATING MANUAL CONTAINS IMPORTANT DETAILS CONCERNING THE SAFE OPERATION OF THE CB-30-L COOL BOSS™ PORTABLE EVAPORATIVE AIR COOLER. THE USER MUST READ AND UNDERSTAND THESE DETAILS BEFORE ANY USE OF THE EVAPORATIVE AIR COOLER. THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE.

OWNER/OPERATOR RESPONSIBILITY:

The owner and/or operator shall study the product instructions and retain them for future reference.

The owner and/or operator shall have an understanding of the product operating instructions and warnings before operating the air cooler.

Warning information shall be emphasized and understood. If the operator is not fluent in English, the product instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/ owner or his designee, making sure that the operator comprehends its contents.



INSPECTION

Visual inspection should be made before each use of the portable evaporative air cooler. This inspection should check for abnormal conditions such as cracked welds, leaks, and damaged, loose or missing parts.

Any CB-30L air cooler that appears to be damaged in any way, is found to be worn or operated abnormally, must be removed from service immediately.

Any CB-30L evaporative air cooler that operates abnormally shall be removed from service until repaired by a qualified repair service center.

It is recommended that an annual inspection is performed on the portable evaporative air cooler and that any damaged or worn parts, decals or warning labels be replaced with manufacturer's specified parts.

ALTERATIONS



Because of potential hazards associated with this type of equipment, no alterations shall be made to the product.



FOR YOUR SAFETY AND TO PREVENT INJURY:

THIS IS AN AIR COOLING DEVICE ONLY.

DO NOT USE THIS EQUIPMENT FOR ANY OTHER PURPOSE.

KEEP HANDS AND BODY CLEAR OF ALL MOVING PARTS.

NO ALTERATIONS TO THE EVAPORATIVE AIR COOLER SHALL BE MADE.

READ, STUDY AND UNDERSTAND THE OPERATING MANUAL PACKED WITH THIS PORTABLE EVAPORATIVE AIR COOLER BEFORE OPERATING.

FAILURE TO FOLLOW THESE WARNINGS MAY RESULT IN DAMAGE TO THIS PRODUCT, AND/OR FAILURE RESULTING IN PROPERTY DAMAGE, PERSONAL OR FATAL INJURY.



CAUTION

The safe operating temperature range for this product is 18°C ~ 45°C

FOR TECHNICAL SUPPORT:

1-800-253-2363 EXT. 196

TO ORDER PARTS:

1-800-253-2363 EXT. 191

BENDPAK / RANGER 1-805-933-9970



IMPORTANT SAFETY INSTRUCTIONS

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. Stay clear of any moving parts that may fall and cause injury. When using your CB-30L Cool Boss Portable Evaporative Air Cooler basic safety precautions should always be followed, including the following:

1. Read and understand instructions and all warning labels.

2. **NEVER** operate if there is any damage to the plug or cord.

3. **DO NOT** route power cord under carpeting or flooring.

4. **ALWAYS** unplug the electric cord before performing inspections or repairs.

5. **NEVER** cover power cord with throw rugs, runners or similar coverings.

6. **ALWAYS** remove plug from electrical receptacle by pulling on the plug and not the cord.

7. Minimize trip hazard by routing power cord away from pedestrian traffic areas.

8. Plug into three-prong grounded GFCI protected electrical receptacle only.

9. **NEVER** step on or roll over power cord with heavy or sharp objects.

10. **DO NOT** operate unit unless media pads are securely in place.

11. **DO NOT** operate this equipment with any covers, panels or inserts removed.

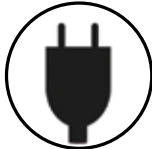
12. **ALWAYS** test the GFCI receptacle or breaker monthly to ensure proper function.

13. **DO NOT** operate near open containers or flammable liquids or gases.

14. Ensure cooler pumps are running continuously to saturate and wet media pads at all times during operation.

15. **ALWAYS** maintain a distance of at least 50 feet from any open flame or sparks.

16. **NEVER** spray or wash unit with a garden hose as water may harm motor and other electrical system components.



17. **DO NOT** use an extension cord or cord adapters with this portable cooler.

18. **NEVER** remove ground prong from plug end.

19. **DISCONNECT POWER** before servicing or removing any panels, covers and doors.

20. Plug into a grounded three-prong GFCI protected receptacle only.

21. Check power outlet for correct polarity before use.

22. **DO NOT** open control box compartment. No serviceable parts located inside.

23. **DISCONNECT POWER CORD** before changing media or opening fan housing.

24. **NEVER** modify this equipment in any way or warranty will be voided.

25. All repairs must be done by authorized technician.

IMPORTANT

REQUIRED POWER SOURCE

Before connecting power supply, check to see if unit is equipped with a dual-voltage selector switch. If so, position switch setting to correct inline voltage. Connect to proper 115/208-230 volt AC, 50/60Hz, 1-phase, 20 amp, fused and grounded electrical supply.



It is recommended that a separate circuit serving only the cooler unit be provided. Use an outlet that cannot be turned off by a switch. **DO NOT** use an extension cord. When making electrical connections, insure that local and national codes are adhered to. Use only with GFCI protected receptacles

INTRODUCTION

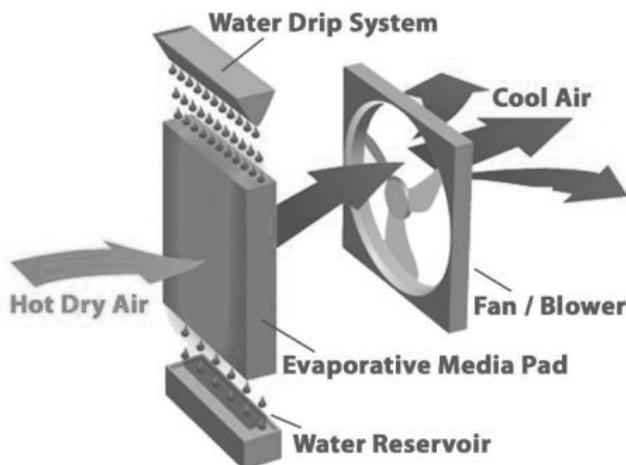
The CB-30L Cool Boss evaporative air cooler by Ranger Products™ provides a low-cost, environmentally friendly way to keep shops cool and workplace areas comfortable even during the hottest summer months. The CB-30L uses ordinary tap water combined with forced air to reduce air temperatures by as much as 26°F.

The CB-30L Evaporative Air Cooler is a high-tech product from Ranger. Its basic principle are as follows: water evaporation drives away the surrounding heat and causes the temperature to cool down.

Its working principle is that negative pressure occurs because of wind draining by exhaust fan: air goes through congruent cooling pad and the motor pump continuously transport water to the pipes and cooling pad at the same time.

The water continuously wetting the cooling pad surface evenly and the wet cooling pad angle makes the water current flow to the side of wind inlet, absorbing a certain amount of heat from the air, which cools down upon contact with the cooling pad.

The wet cooling pad also makes the wind cool and fresh. The circulating water falls to the bottom, forming the water cycle. There is a water level indicator at the panel. So, when the water level indicator reaches the bottom level, the inlet valve will open automatically to add water. When the water reaches the indicated full level, the valve will close automatically.



FEATURES

The CB-30L features a micro-computer programmed control panel with LCD display and comes with a convenient remote control. Built-in timer allow the unit to

be programmed to turn on or off at preselected times. A large 30-inch diameter fan operates all three selectable speeds and a thick cooling pad ensures even water distribution and reliable heat absorption.

Automatic swing-louvers move side to side and help circulate cold air more efficiently providing a larger cooling area than traditional evaporative air coolers. Four rubber casters with brakes allow easy mobility.

This unit has these added advantages and other special features:

1. Specially designed powerful blade and water-proof fan motor.
2. A thicker and bigger cooling pad for better heat absorption.
3. Multi-layered congruent wave and fiber cooling pad makes the water cold.
4. A rigid construction.

SET UP AND OPERATION

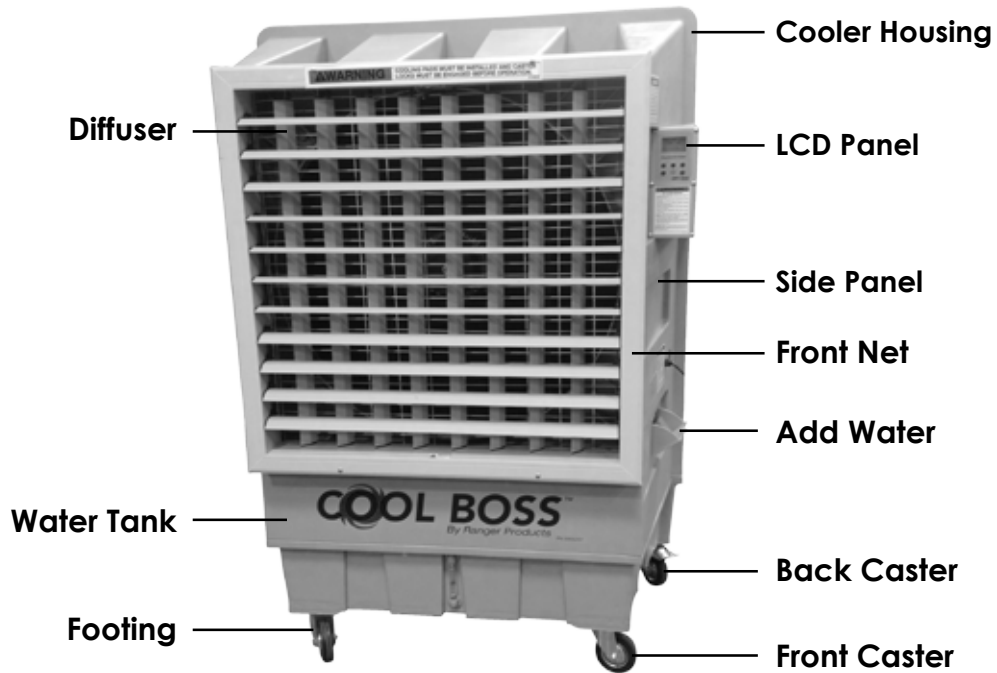


1. **DO NOT RUN PUMP DRY** or severe pump damage or failure will result.
2. Use only in a ventilated open environment with fresh air supply.
3. Area must be free from airborne pollutants, flammable gasses and contaminants.
4. Ambient operating temperature must remain between 65-113°F (18-45°C).
5. Maximum water temperature should never exceed 113°F (45°C).
6. Electric voltage must not exceed 115V +/- voltage.
7. **NEVER** spray unit with water as moisture may harm motor and other electrical system components.
8. Before performing any type of service or cleaning, turn cooler unit to **OFF** setting then disconnect unit from the electrical power source.

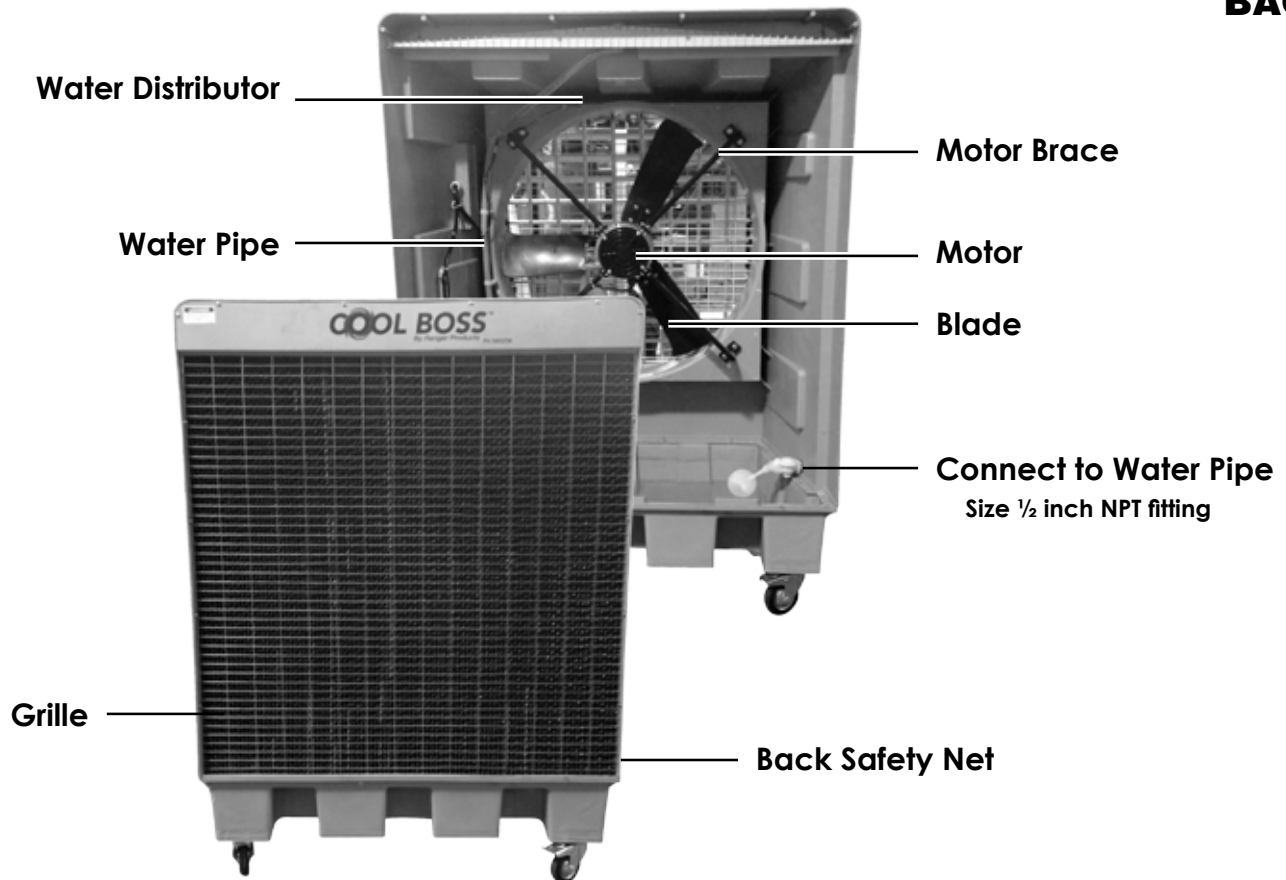
CONSUMER NOTICE: This product contains chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

CB-30L EVAPORATIVE AIR COOLER

FRONT



BACK



CONTROL FUNCTIONS

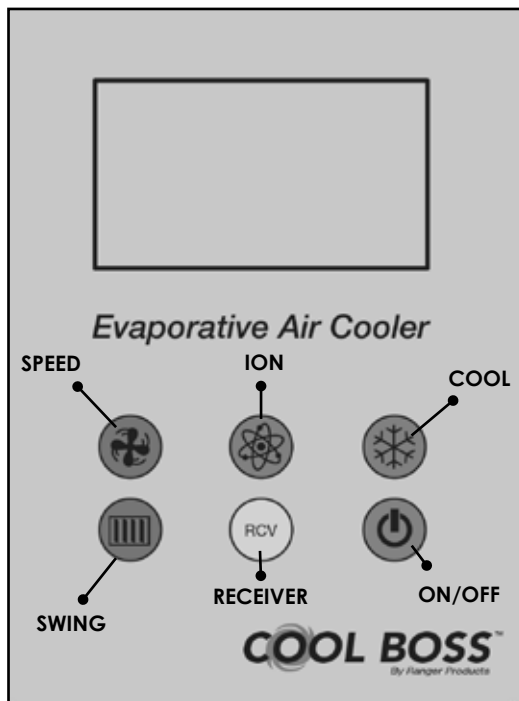
This unit has a Control Panel and a Remote Control with simple buttons for easy usage. Point the Remote Control to the receiver to start operation.

1. Press "ON/OFF switch.
2. Press "COOL" button to activate cooling function, then the water pump will pour the cooling pad for a minute and the fan will work. (NOTE: "COOL" button also serves as water injection on Cooling Pad).
3. Press "SPEED" for desired speed (Low, Medium High).
4. Press "SWING" if desired.

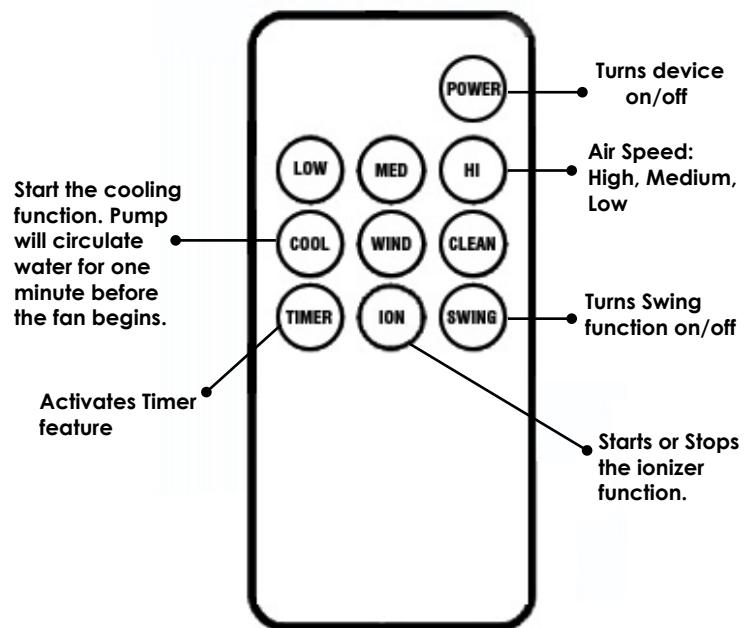
5. Press "TIMER" button, if you need to set time. Start the machine, press "TIMER", to shut down the unit at a regular time, then press it until "00" shows on the screen, which means the canceling of the function of setting time. Press "TIMER",

6. Press "SWING" to move the louvers side to side and help circulate cold air more efficiently.

7. "ION" button. Built-in ionizer to release negative ions for cleaner air. Press this button and built-in ionizer will start to purify the air.



CB-30L Control Panel



CB-30L Remote Control



NOTE:
CLEAN WATER MUST BE USED TO
OPERATE THIS UNIT.
POUR WATER SLOWLY ON THE LEFT SIDE
OF THE UNIT (WATER INLET)
TO AVOID WATER SPILLAGE AND PREVENT RISK
OF ELECTRIC SHOCK.



NOTE:
FILL UP WATER TO "MAX" LEVEL ONLY,
OTHERWISE IT MAY OVERFLOW.

MAINTENANCE

To ensure the CB-30L Cool Boss evaporative air cooler releases fresh and clean air, always change the water when dirty and regularly clean the filter and cooling pad.

1. Remove the Filter Net by removing the screw then press the lock. Rinse under running water to wash off dirt.



NOTE:

NEVER USE PRESSURIZED WATER.
NEVER SPRAY OR WASH UNIT WITH A GARDEN HOSE AS WATER MAY HARM MOTOR AND OTHER ELECTRICAL SYSTEM COMPONENTS.

2. Pull-out the Cooling Pad. Wash the Cooling Pad under running water. NEVER USE PRESSURIZED WATER as it may damage the pad. Wash from the inner-side to the outside of pad (inner side is the side facing the fan motor).

3. Open the drainage valve to remove remaining water then clean the water tank thoroughly with soft cloth to remove dirt. Also, wash off dirt on the water sensor, water pump and the drainage valve.

4. Use mild soap and soft clean cloth in cleaning the outer body chassis.

NOTE:

USE OF STRONG CHEMICALS THAT MAY CAUSE DAMAGE TO THE BODY IS NOT ADVISABLE.



KEEP AWAY FROM FIRE DURING TRANSPORTATION, INSTALLATION AND OPERATION. IF ANY ABNORMALITY OCCURRED DURING OPERATION, CONTACT BENDPAK/RANGER.



USE THIS MACHINE IN ACCORDANCE TO THE MANUAL INSTRUCTIONS. ANY INCORRECT USE CAUSING THE UNIT TO MALFUNCTION, THE SUPPLIER/DEALER WILL NOT BE HELD RESPONSIBLE.



Before using the machine, please read this manual and carefully operate according to the instructions:

- A. Use the machine in the following condition:

- Temperature: 18°C ~ 45°C
- Water Temperature: <45°C
- Electric voltage must not exceed the required volt (+/-) 5%
- No pollution around the working area.



- B. The circuit of the machine must be properly connected and protected to prevent mouse bites. Trampled or over-stretched, which may cause short circuits. Using wrong electric voltage of wrong socket will cause danger of electric shock.

- C. Do not use wrong circuit or other wire metal made of other materials which may cause machine malfunction or explosion.

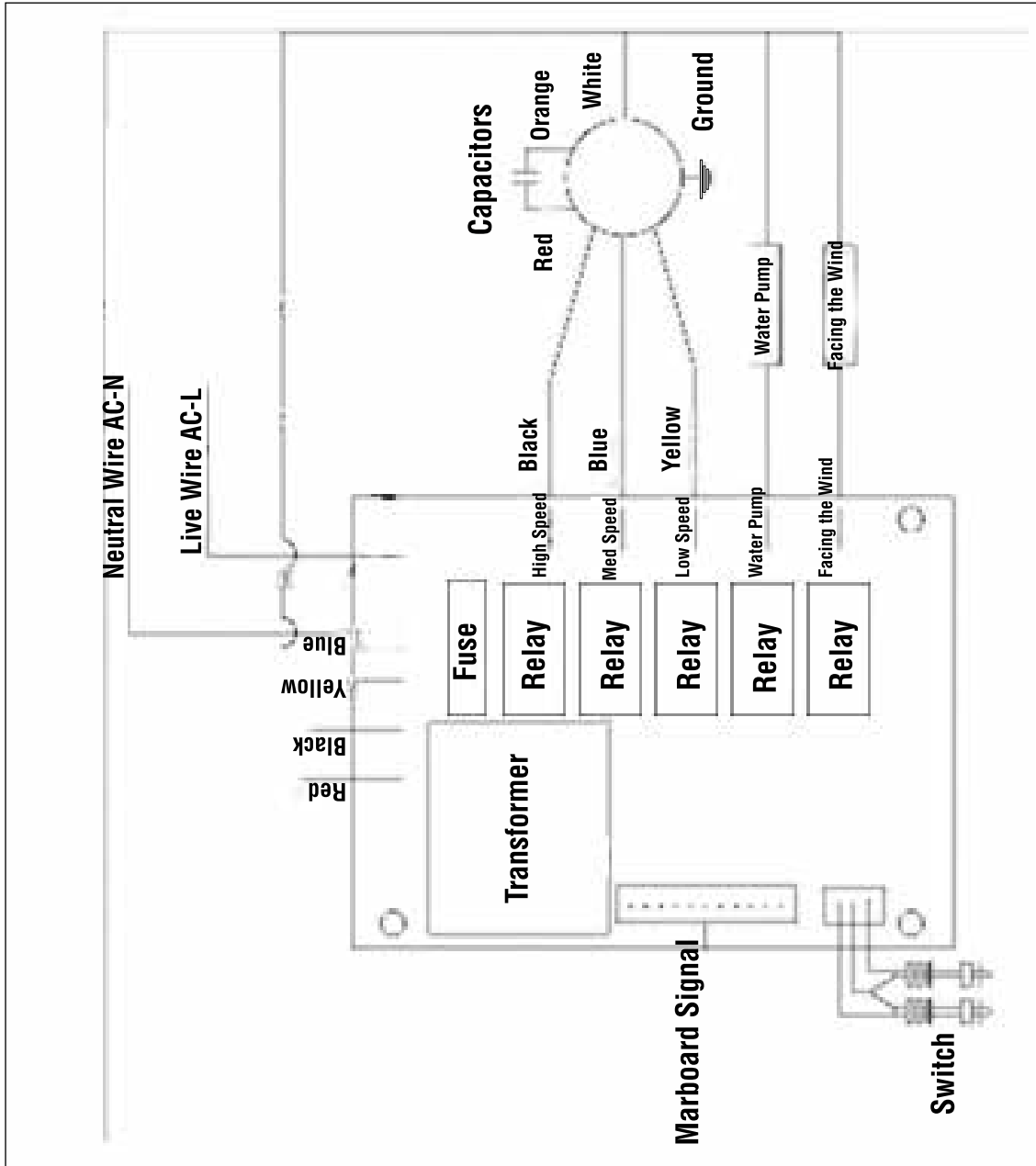
- D. If the CB-30L Evaporative Air Cooler is not operating well or may have unusual malfunction, contact distributor or Ranger Products immediately.

- E. Always open doors and windows when using this unit. Keep area ventilated at all times.

TROUBLESHOOTING

PROBLEM	REASONS	ACTION
Unit indicator doesn't light	<ul style="list-style-type: none"> - No power - Master Control is not working - Fuse is burnt - Panel is not working 	<ul style="list-style-type: none"> - Check the circuit - Change master control board - Change the fuse - (Size: 250V-15Amps) - Change the panel
Unit is not working	<ul style="list-style-type: none"> - Interfered by power - Interfered by environment - Panel is not working 	<ul style="list-style-type: none"> - Power off - Remove or keep away from interference - Change the panel
Display is normal but without wind or the wind speed is too low	<ul style="list-style-type: none"> - The fan gets stuck - Water screen or dust-net is blocked - Fan is distorted - Master control board not working 	<ul style="list-style-type: none"> - Check the fan - Clean/change water screen or dust-net - Change fan - Change master control board
Motor is not working	<ul style="list-style-type: none"> - Master control is not working - Panel is not working 	<ul style="list-style-type: none"> - Change master control board - Change the panel
The drain valve leaks water	<ul style="list-style-type: none"> - The drain valve is loose 	<ul style="list-style-type: none"> - Screw tightly
Fan is not working	<ul style="list-style-type: none"> - The blade and the surrounding locks - Motor is burnt - Master Control is not working 	<ul style="list-style-type: none"> - Check the fan and the surroundings - Change the motor - Change the master control
The diffuser doesn't work	<ul style="list-style-type: none"> - The small motor is burnt - The crankshaft is broken - The crankshaft breaks off the swing rails 	<ul style="list-style-type: none"> - Change the motor - Change the crankshaft - Return the position again
The fan spouts water	<ul style="list-style-type: none"> - The water pipe falls off 	<ul style="list-style-type: none"> - Check the water pipe
Remote Control is not working	<ul style="list-style-type: none"> - Battery is old - Something is blocking the receiver 	<ul style="list-style-type: none"> - Replace the battery - CR2025/3V - Clear blockage

CB-30L WIRING DIAGRAM



TECHNICAL SPECIFICATION

Max. Airflow	10595 CFM
Power Consumption	550W
Style	Axial
Water Consumption	2.65 - 3.96 Gal/Hr.
Water Capacity	16 Gal./60L
Effective Cooling Area	2500 - 2800 Sq. Ft.
Power Cord Length	195" / 4953 mm.
Noise/Decibels	68 db
Motor/Power Consumption	550W
Power Supply	115V/60Hz/1P /(Optional: 208-240V,1-Phase)

MAINTENANCE RECORDS

[illegible]



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