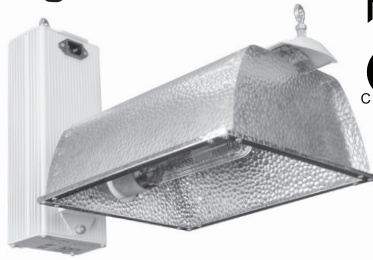




CMH SYSTEM

READ AND SAVE THESE INSTRUCTIONS

315W CMH
 10.94" X 9.49" X 17.87"
 VOLTS: 120/208/240
 WATTS: 315 (354 MAX.)
 AMPS: 3 @ 120V
 1.7 @ 208V
 1.5 @ 240V
 HERTZ: 50/60
 POWER FACTOR: ≥ 0.97
 CREST FACTOR: ≤ 1.6
 TOTAL HARMONIC DISTORTION: ≤ 10%
 IGNITION DELAY: 0-6 SECONDS
 POWER CORD: 8' 120V DETACHABLE



**OPTILUME™ ENHANCED
 315W CMH LAMP**

WATTS: 315
 PAR: 3,100K: 575 UMOL
 4,200K: 540 UMOL
 COLOR TEMPERATURE: 3,100K/4,200K
 CRI: 3,100K: 90
 4,200K: 95
 RATED INITIAL LUMENS: 3,100K: 32,500
 4,200K: 33,000
 RATED LIFE HOURS: 12,000
 LAMP SHAPE: T38
 ANSI CODE: C182/0



! WARNING

- TO PREVENT SERIOUS PERSONAL INJURY AND DAMAGE TO EQUIPMENT OR PROPERTY,
- ALWAYS HANDLE THE UNIT WITH CARE.
 - INSTALL THE UNIT IN A COOL, DRY, WELL-VENTILATED LOCATION.
 - DO NOT HANG THE UNIT BY THE POWER CORD.
 - ENSURE THE POWER SOURCE MEETS THE SPECIFICATIONS OF THE UNIT. THE POWER CORD USED SHOULD ALWAYS MATCH THE VOLTAGE SUPPLIED TO THE UNIT.
 - DO NOT OPERATE IF THE POWER CORD OR PLUG BECOMES DAMAGED.
 - DO NOT OPERATE THE UNIT WITHOUT PROPER ELECTRICAL GROUND.
 - IF USING A TIMING DEVICE, ONLY USE ONE THAT IS FULLY GROUNDED.
 - DISCONNECT THE UNIT FROM THE POWER SOURCE BEFORE SERVICING OR MOVING THE UNIT, OR REPLACING THE REFLECTOR OR LAMP.
 - DO NOT ATTEMPT TO MODIFY THE UNIT. DOING SO WILL VOID THE WARRANTY. DO NOT EXPOSE THE UNIT TO WATER.
 - DO NOT USE THE LAMP IF OUTER GLASS IS SCRATCHED OR BROKEN.
 - DO NOT HANDLE THE LAMP WITH BARE HANDS, AS OILS CAN DAMAGE IT. WIPE THE LAMP CLEAN WITH A SOFT, DRY CLOTH BEFORE OPERATING.
 - DO NOT TURN ON LAMP UNTIL FULLY INSTALLED.
 - WEAR SAFETY GLASSES AND GLOVES WHEN INSTALLING LAMP.
 - DO NOT USE EXCESSIVE FORCE WHEN INSTALLING LAMP.
 - OPERATE THE UNIT INDOORS ONLY.

CAUTION – RISK OF FIRE: THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

NOTE: WAIT 20 SECONDS AFTER POWERING OFF THE BALLAST BEFORE POWERING IT BACK ON. IF IT IS POWERED ON TOO QUICKLY, THE BALLAST WILL NOT RESET AND THE LAMP WILL NOT IGNITE.

INSTALLATION

1. SCREW THE PROVIDED EYEBOLTS INTO THE HOLES AT THE TOP OF THE REFLECTOR ARM AND BALLAST.
2. HANG THE SYSTEM FROM AN ADEQUATE SUPPORT USING CHAIN, RATCHET HANGERS, OR OTHER SUITABLE CABLES. ALLOW SPACE AROUND ALL SIDES OF THE UNIT FOR SUFFICIENT AIRFLOW.
3. ATTACH THE POWER CORD TO THE INPUT RECEPTACLE ON THE BALLAST.
4. (OPTIONAL) CONNECT THE UNIT TO THE ION® DIGITAL LIGHTING CONTROLLER VIA A USB CABLE, FOLLOWING THE CONTROLLER INSTRUCTIONS. IF LINKING MULTIPLE UNITS, USE THE INCLUDED USB CABLE BETWEEN BALLASTS.
5. INSTALL THE CMH LAMP BY INSERTING THE PINS ON THE LAMP BASE INTO THE HOLES IN THE REFLECTOR SOCKET. ROTATE THE LAMP CLOCKWISE 90 DEGREES UNTIL SECURE. USE GLOVES WHILE HANDLING THE LAMP AND ALWAYS WIPE THE LAMP CLEAN BEFORE OPERATING.
6. PLUG THE POWER CORD INTO A PROPERLY GROUNDED OUTLET TO POWER ON THE UNIT.



LED STATUS INDICATORS

THE GREEN LED ILLUMINATES WHILE POWER IS SUPPLIED TO THE BALLAST. IN THE EVENT OF AN ERROR, THE LED WILL FLASH TO INDICATE THE PROBLEM.

# OF FLASHES	STATUS	DESCRIPTION
1	BALLAST LOCKED	THE BALLAST MADE FIVE FAILED ATTEMPTS TO IGNITE THE LAMP. DISCONNECT THE BALLAST FROM THE POWER SOURCE, AND THEN RECONNECT IT.
2	CONNECTION LOCKED	AN UNEXPECTED ERROR OCCURRED, SUCH AS A SHORT OR OPEN CIRCUIT. ENSURE THE LAMP IS INTACT AND SECURELY SEATED IN THE SOCKET, AND ENSURE THE POWER AND LAMP CORDS ARE SECURELY CONNECTED TO THE BALLAST.
3	LOW INPUT VOLTAGE	THE VOLTAGE SUPPLIED TO THE BALLAST IS TOO LOW. ENSURE THE POWER SOURCE MATCHES THE POWER CORD VOLTAGE AND THE SPECIFICATIONS OF THE BALLAST.
4	HIGH TEMPERATURE	THE BALLAST IS OVERHEATED. ENSURE THERE IS SUFFICIENT AIRFLOW AROUND THE BALLAST AND THE OPERATING ENVIRONMENT IS NOT EXCESSIVELY HOT.
5	HIGH INPUT VOLTAGE	THE VOLTAGE BEING SUPPLIED TO THE BALLAST IS TOO HIGH. ENSURE THE POWER SOURCE MATCHES THE POWER CORD VOLTAGE AND THE SPECIFICATIONS OF THE BALLAST.
6	IGNITION BUSY	THE BALLAST IS ATTEMPTING TO IGNITE THE LAMP.
7	LAMP FAULT	THE LAMP RATINGS ARE NOT WITHIN THE REQUIRED RANGES. REPLACE THE LAMP WITH ONE HAVING THE CORRECT SPECIFICATIONS.

TROUBLESHOOTING

NOTE: REMEMBER TO ALWAYS DISCONNECT THE BALLAST FROM THE POWER SOURCE BEFORE SERVICING.

THE LAMP ISN'T IGNITING.

SEE THE LED STATUS INDICATORS SECTION ABOVE, SINCE THE BALLAST MAY BE DIAGNOSING THE PROBLEM OR ATTEMPTING TO IGNITE THE LAMP. CHECK THAT THE OUTLET AND CONTROLLER OR TIMER ARE WORKING PROPERLY. IF THE OUTLET DOESN'T SEEM TO BE WORKING, CHECK THE CIRCUIT BREAKER. VERIFY ALL CABLE CONNECTIONS ARE SECURE AND THE RATED LAMP WATTAGE MATCHES THE BALLAST WATTAGE. USE THE BALLAST WITH A LAMP THAT IS CONFIRMED TO BE FUNCTIONING PROPERLY. IF THE LAMP STILL DOES NOT IGNITE, FOLLOW THE WARRANTY CLAIM STEPS. THIS BALLAST FEATURES END OF LAMP LIFE RECOGNITION, WHICH AUTOMATICALLY POWERS OFF THE BALLAST (FOR SAFETY AND BALLAST PROTECTION) WHEN LAMP DEGRADATION REACHES PRESET LIMITS. IF THIS FEATURE IS TRIGGERED, REPLACE THE LAMP TO RETURN THE BALLAST TO NORMAL OPERATION.

THE BALLAST STOPPED OPERATING.

EXCESSIVE TEMPERATURE, SHORT OR OPEN CIRCUITS, POWER SURGES AND OTHER CONDITIONS CAN TRIGGER INTEGRATED SAFETY FEATURES, RESULTING IN UNIT SHUTDOWN. SEE THE LED STATUS INDICATORS SECTION ABOVE, SINCE THE BALLAST MAY BE DIAGNOSING THE PROBLEM OR ATTEMPTING TO REIGNITE THE LAMP. UNPLUGGING THE BALLAST FOR AT LEAST 15 MINUTES, CHECKING AND RESETTNG THE CIRCUIT BREAKER, AND/OR REDUCING THE NUMBER OF DEVICES CONNECTED TO THE CIRCUIT MAY ALSO RESOLVE THE PROBLEM. IF THE BALLAST STILL DOES NOT POWER ON AND/OR THE GREEN LED CONTINUES TO INDICATE AN ERROR, FOLLOW THE WARRANTY CLAIM STEPS.

IMPORTANT

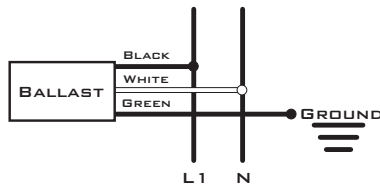
ALWAYS CONTACT TECHNICAL SUPPORT PRIOR TO OPENING THE BALLAST AND ACCESSING INTERNAL COMPONENTS. ANY UNAPPROVED ATTEMPT TO OPEN AND/OR REPAIR THE BALLAST WILL VOID THE UNIT'S WARRANTY.

RECOMMENDED WIRING DIAGRAMS

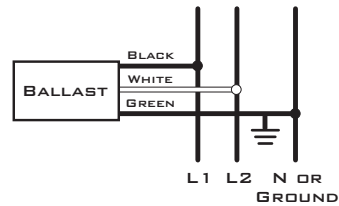
IMPORTANT: WIRE EACH BALLAST TO THE MAIN'S NEUTRAL LINE LEADING BACK TO THE CIRCUIT. DO NOT LINK A NEUTRAL LINE TO ANOTHER BALLAST.

RESIDENTIAL VOLTAGES – SINGLE PHASE POWER

120/208V (SUPPLY VOLTAGE 120/208V)

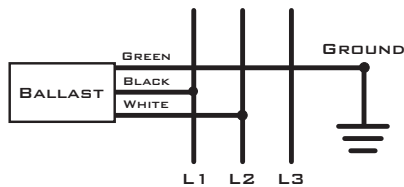


240V (SUPPLY VOLTAGE 120 x 2)

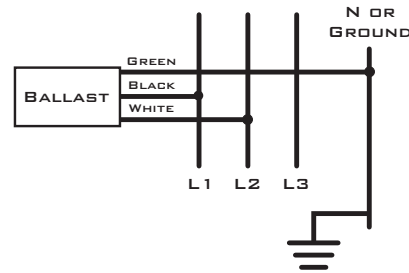


COMMERCIAL VOLTAGES – THREE PHASE POWER

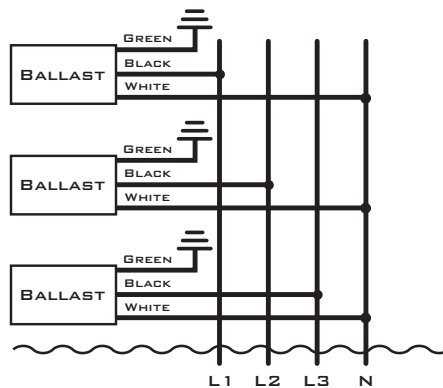
208V (SUPPLY VOLTAGE 208V)



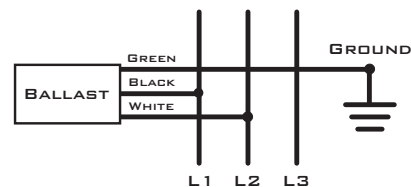
480V (SUPPLY VOLTAGE 480V) ELECTRONIC BALLASTS



277/347V (SUPPLY VOLTAGE 480/600V)



480V (SUPPLY VOLTAGE 480V) MAGNETIC BALLASTS



REPEAT FOR ENTIRE CIRCUIT BALANCING OUT THE NEUTRAL FOR EACH PHASE.

ION® CMH System/OptiLUME™ Enhanced CMH Limited Warranty

What This Warranty Covers This warranty covers defects in materials and workmanship under normal use, with any exceptions stated below.

Who This Warranty Covers This warranty applies to the original purchaser of this ION® product with the original proof of purchase.

How Long Warranty Coverage Lasts This warranty is in effect for a period of three years for all system components, with the exception of the OptiLUME™ Enhanced lamp which is warrantied for a period of one year.

What This Warranty Does Not Cover This warranty does not cover damage or defects resulting from the improper installation, alteration, abuse, accidental damage, unauthorized repair or misuse of this product. Misuse includes but is not limited to outdoor use. This warranty does not apply to cosmetic defects or other defects that do not affect the functionality of the product, and is void if the product has been damaged as a result of fire, flood, or other natural disaster. BWGS shall not be responsible for any incidental or consequential damages of any nature, including damage or injury caused to other products, machinery, buildings or property; loss of profits, time or product; or inconvenience. The original proof of purchase MUST accompany the ION product for this warranty to be valid. This warranty is given in lieu of all other warranties, express or implied, including without limitation merchantability and fitness for a particular purpose.

Some states do not allow the exclusion or limitation of incidental and consequential damages, or limitations on how long an implied warranty lasts, so the above limitation(s) may not apply to you.

What BWGS Will Do

If BWGS determines the warranted product is defective in materials or workmanship during the warranty period, then BWGS, at its option, will either repair or replace the product. In no event shall the cost of repair or replacement exceed the original purchase price.

How to Obtain Warranty Service

Return this product along with the original proof of purchase to the place of purchase in accordance with store policy.

How State Law Applies

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**For technical support and warranty information, call toll-free 888-464-9676 or
email info@bwgs.com.**

