HOBART

SERVICE

AM14 SERIES DISHMACHINE

CUSTOMER MAINTENANCE MANUAL

This manual is only intended for use by properly trained and qualified customer in-house maintenance for the limited procedures herein.

This manual is not intended to be all encompassing. You should read the maintenance or repair procedure you wish to perform, in its entirety, to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Hobart Service technician.

Specification Sheets

Click on image below for most recent edition.

AM14/ AM14C DISHWASHERS


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AM-14/AM-14C DISHWASHERS

STANDARD FEATURES

- 53 racks per hour – hot water sanitizing
- 16 gauge stainless steel tank, chamber, doors, frame and feet
- Stainless steel front panel (AM14)
- Microcomputer controls with LED cycle/temperature display
- Manual by-pass controls
- Field adjustable control box height
- Left hand or right hand controls (AM14)
- 90° controls (AM14C)
- Revolving upper and lower anti-clogging wash arms
- Revolving upper and lower anti-clogging rinse arms
- Scrap screen and bucket system
- Self-draining, high efficiency pump with Ni-resistant impeller
- Automatic fill
- Door actuated drain closure
- Spring counterbalanced doors with nylon door guides
- Vent fan control (gas units only)
- Pass-through or corner installation
- Hot water or chemical sanitation

MODELS

- AM-14
- AM-14C

OPTIONS AT EXTRA COST

- 70° rise electric booster heater
- Flanged feet

ACCESSORIES

- Vent fan control field installed kit (electric heat)
- ¾" pressure regulator valve
- Peg rack
- Combination racks
- Stainless steel tray rack

VOLTAGE

- 208-240/60/1
- 208-240/60/3
- 480/60/3

Model AM-14

Model AM-14C

AM-14/AM-14C DISHWASHERS

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AM14F DISHWASHERS


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AM14F DISHWASHERS

DUAL PURPOSE DESIGN...OPTIMUM WASHING OF DISHES AND UTENSILS

HIGH PERFORMANCE FEATURES

- Split front door design for easy front loading — no tables required
- Large 21.375"tall x 20.84" wide open rack and spacious interior can hold 18" x 26" sheet pans or up to a 60 quart mixing bowl.
- High volume 52 racks per hour.
- Low water usage — 1.42 gal/rack.
- NSF, UL, and CSA approved.
- **Exclusive Hobart Enhanced Washing System** — Stainless steel revolving upper and lower wash and rinse arms with Hobart's special computer designed debossed, anti-clog nozzles — the latest in warewash technology — provide for the most extensive spray pattern.

  Hobart built, heavy-duty, 2 HP wash pump motor is splash-proof with Class H thermal protection.

  Self-draining pump with Ni-resist impeller for long life.

  Rinse system with exclusive Sani Dwell cycle (when hot water sanitizing used).
- **Operator Pleasers** — Easy access front mounted controls with field cycle selector for standard 2, 4, or 6 minute wash.

  Automatically timed tank fill.

  Self-flushing stainless steel strainer pan system with large removable stainless steel wash baskets.

Upper and lower wash arms are interchangeable for ease during removal for cleaning without the use of tools.

Easy cleaning upper and lower rinse arms removable without the use of tools and are wash-angle set.

- **Built-In Hobart Reliability** — Sealed baffle design on split front door minimizes steam, heat and water leakage.

All stainless steel construction including tank, chamber, doors, frame and adjustable feet.

Positive low water protection.

- **OTHER NOTABLE HIGHLIGHTS**
- Choice of electric, gas immersion tube, steam injector or steam coil heat.
- Wide variety of electrical specifications available.
- Slip-on stainless steel front panel is standard.

Specifications, Details and Dimensions on Reverse Side

AM14F

AM-14T/ AM-14TC DISHWASHERS


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AM-14T/AM-14TC DISHWASHERS

STANDARD FEATURES

- 49 racks per hour – hot water sanitizing
- 27½" door opening for 18" x 26" sheet pans or 60-quart mixing bowl
- Timed wash cycles for 1, 2, 4 or 6 minutes
- 16 gauge stainless steel tank, chamber, doors, frame and feet
- Stainless steel front pane (AM14T)
- Microcomputer controls with LED cycle/temperature display
- Manual by-pass controls
- Field adjustable control box height
- Left hand or right hand controls (AM14T)
- 90° controls (AM14TC)
- Revolving upper and lower anti-clogging wash arms
- Revolving upper and lower anti-clogging rinse arms
- Scrap screen and bucket system
- Self-draining, high efficiency pump with Ni-resistant impeller
- Automatic fill
- Door actuated drain closure
- Counterbalanced doors with nylon door guides
- Vent fan control (gas units only)
- Pass-through or corner installation
- Hot water or chemical sanitation
- Sheet pan rack

MODELS

- AM-14T
- AM-14TC

OPTIONS AT EXTRA COST

- 70° rise electric booster heater
- Flanged feet

ACCESSORIES

- Vent fan control (electric heat)
- ¾" pressure regulator valve
- Peg rack
- Combination rack
- Stainless steel tray rack
- Sheet pan rack

VOLTAGE

- 208-240/60/1
- 208-240/60/3
- 480/60/3

Model AM-14T

Model AM-14TC

701 S Ridge Avenue, Troy, OH 45374 • 937 332 3000 • 1 800 333 7447

AM-14T/AM-14TC DISHWASHERS

Tools

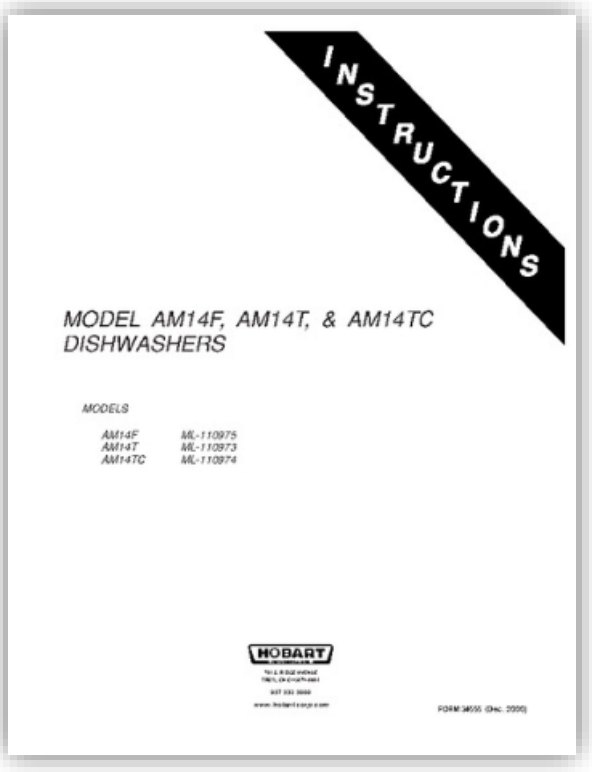
Standard

- Standard set of hand tools.
- Anti-static kit.

Installation & Operation Manual

Click on image below for most recent edition.

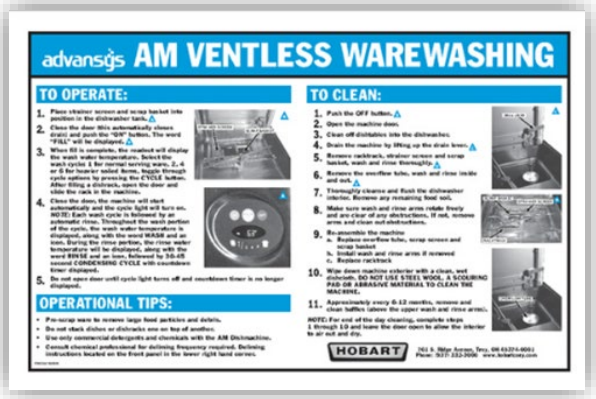
AM Select Dishwashers Instruction Manual



Marketing Materials – Wall Charts

Click on image below for most recent edition.

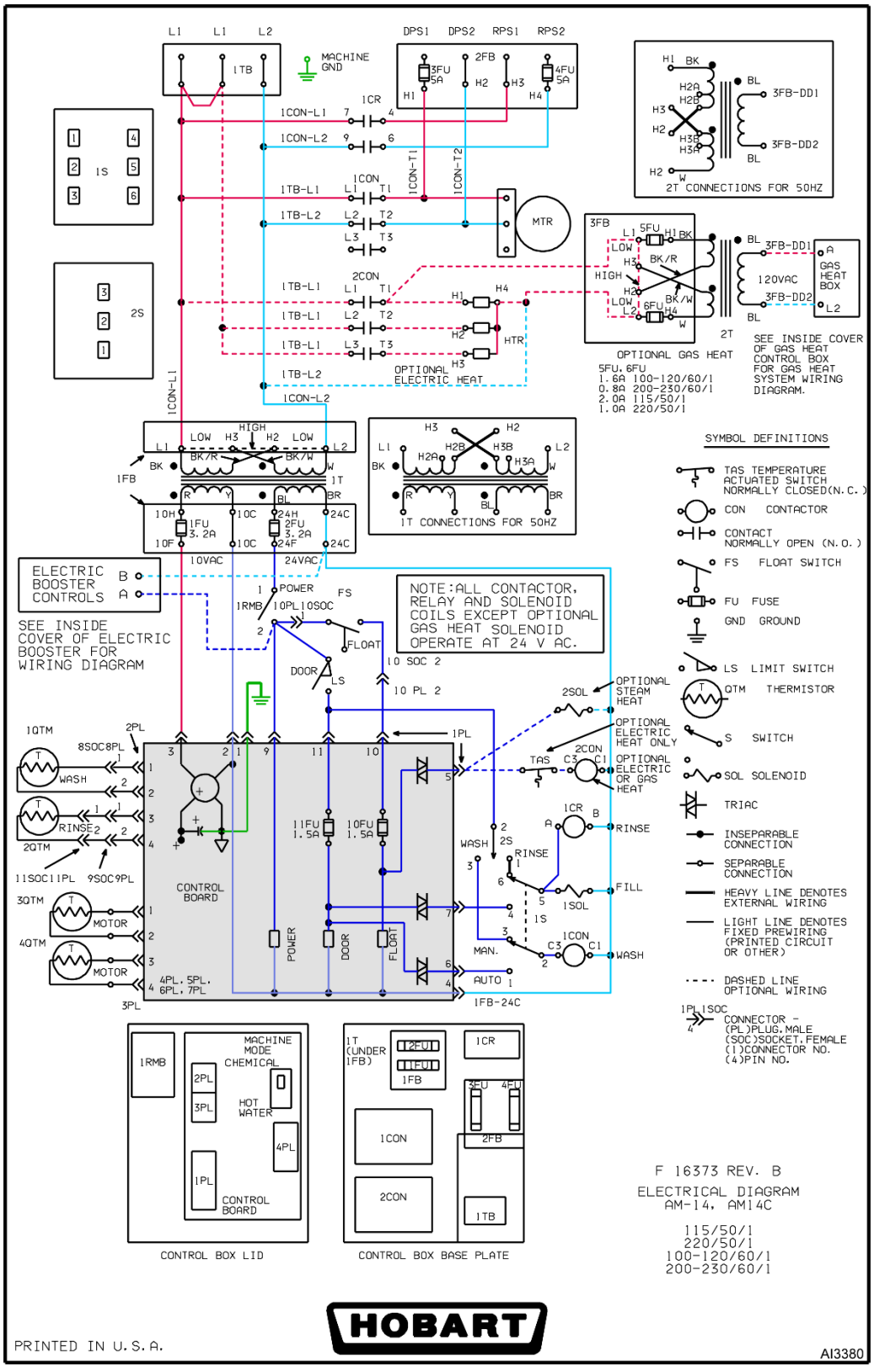
AM Ventless Warewashing



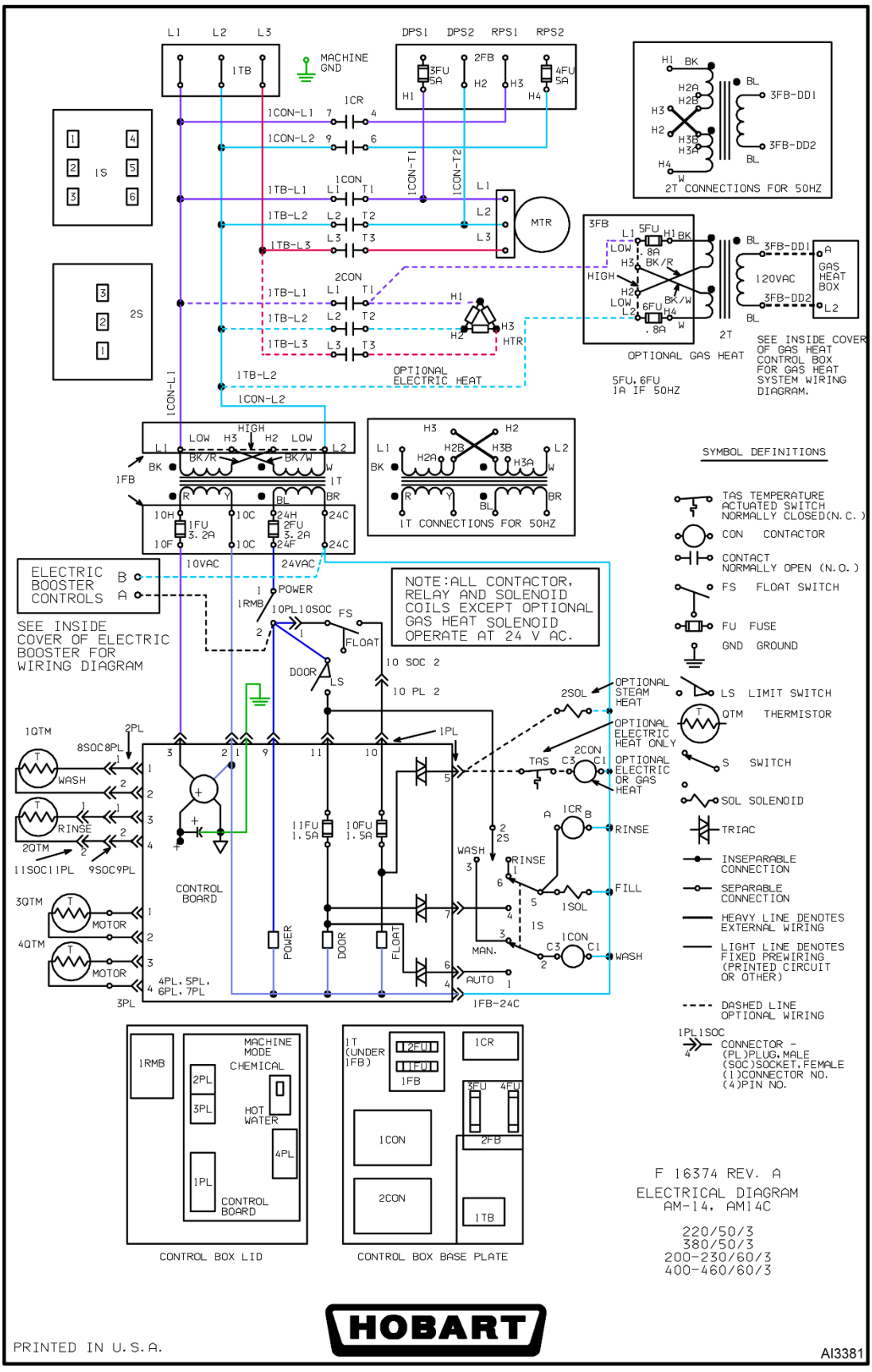
AM Door Types | Delime Instructions

Schematics

AM14 / AM14C Electric Heat (1PH)



AM14 / AM14C Electric Heat (3PH)



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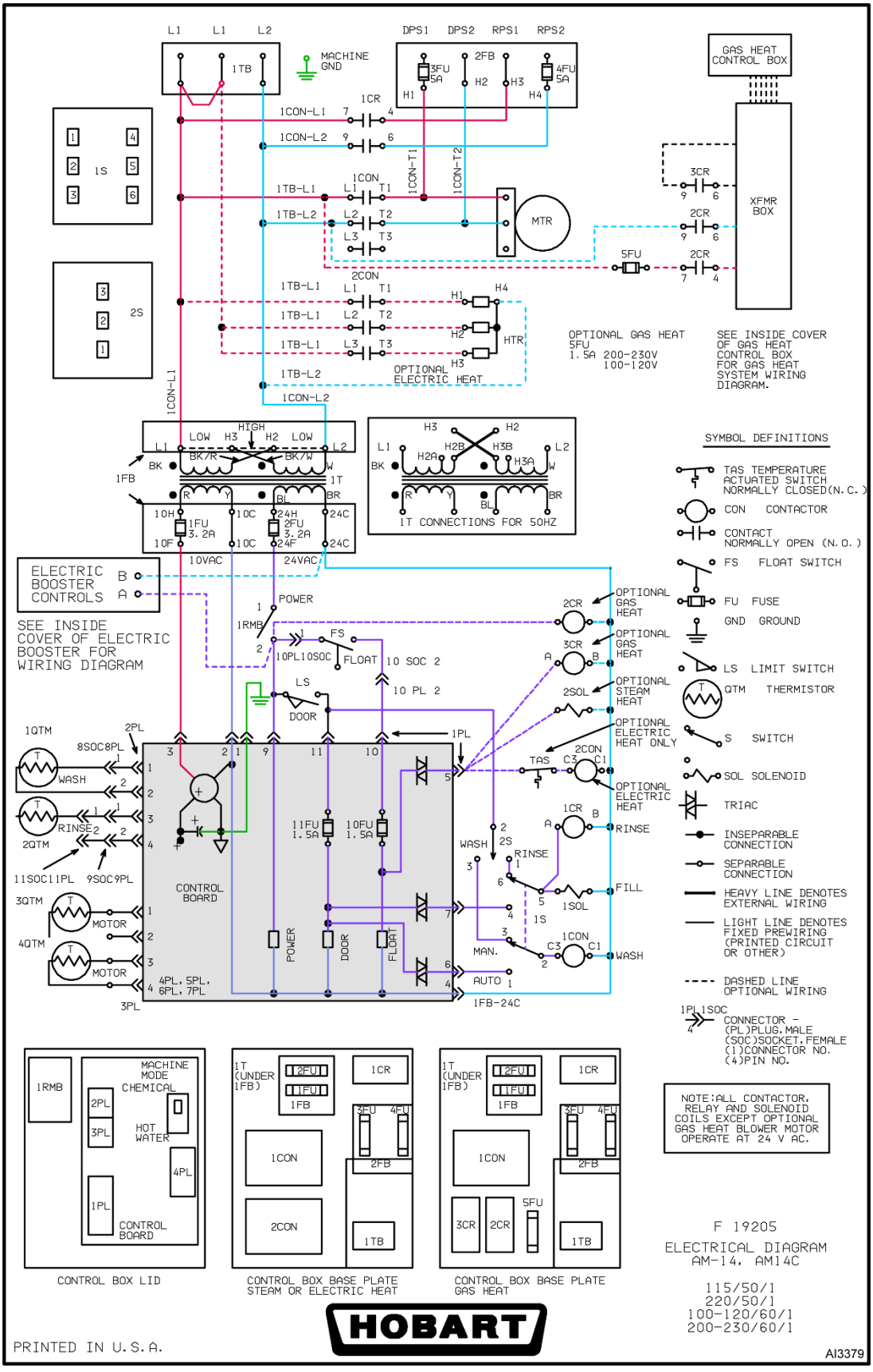
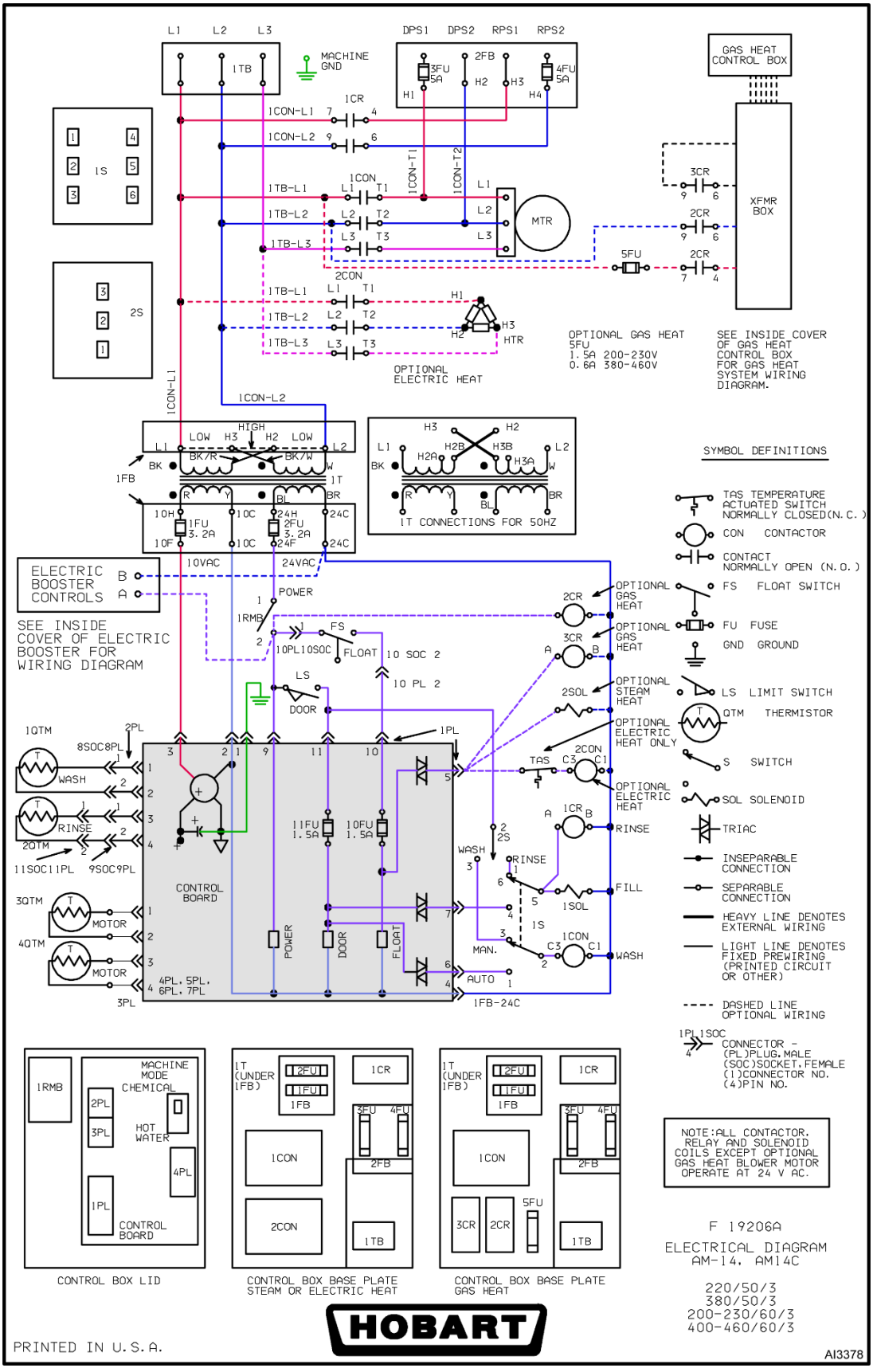
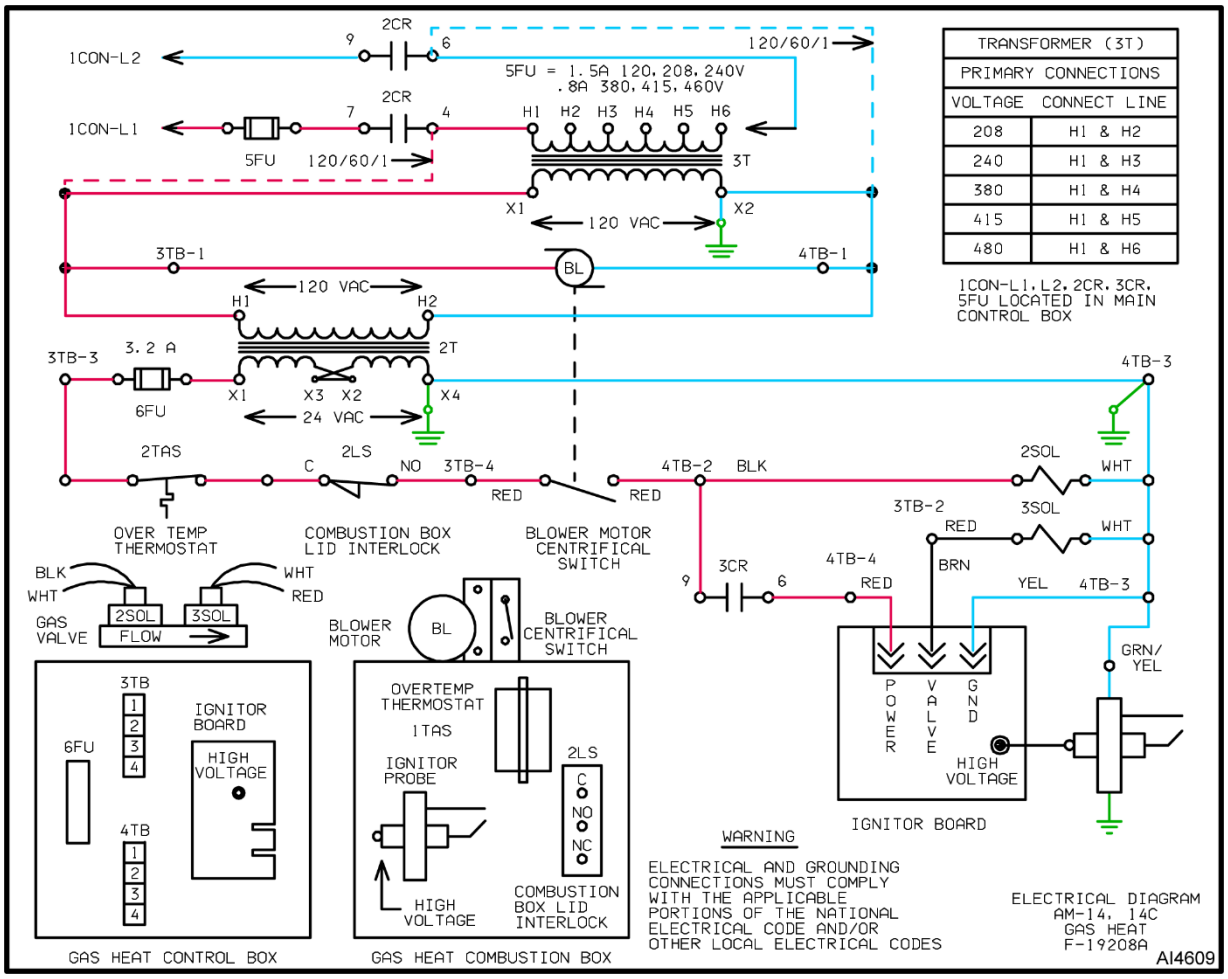
AM14 / AM14C Gas Heat (1PH)



AM14 / AM14C Gas Heat (3PH)



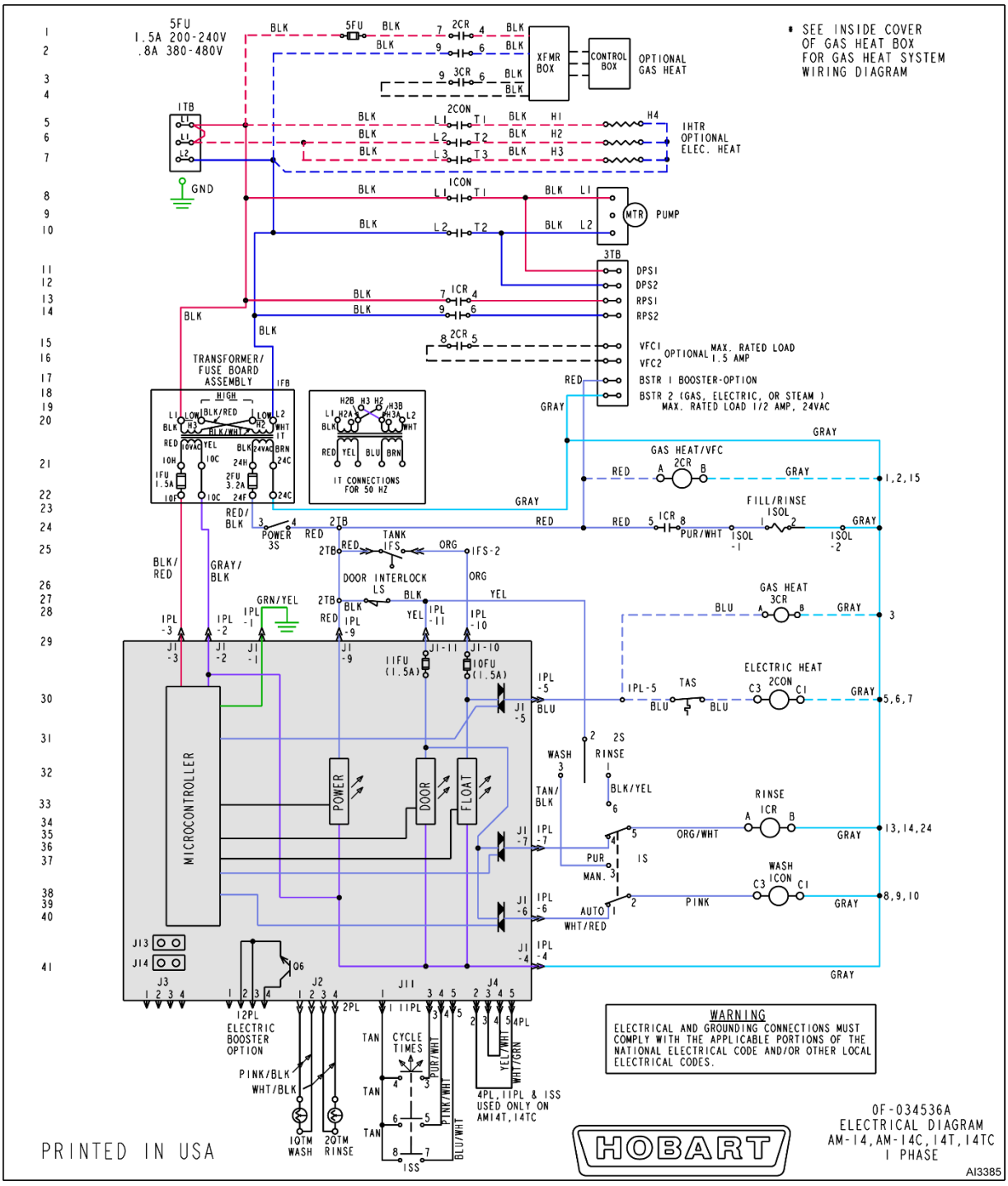
AM14 / AM14C Gas Heat (1PH)



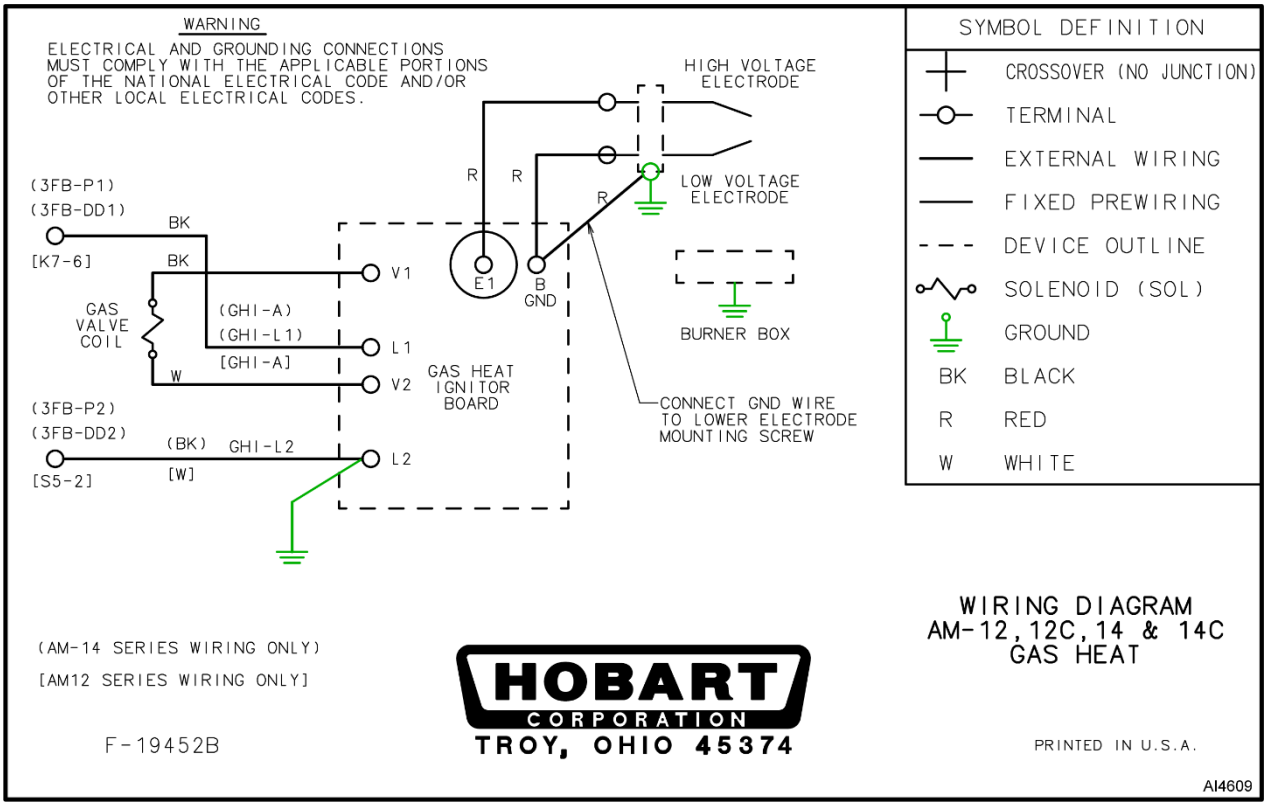
TRANSFORMER (3T)	
PRIMARY CONNECTIONS	
VOLTAGE	CONNECT LINE
208	H1 & H2
240	H1 & H3
380	H1 & H4
415	H1 & H5
480	H1 & H6

1CON-L1, L2, 2CR, 3CR, 5FU LOCATED IN MAIN CONTROL BOX

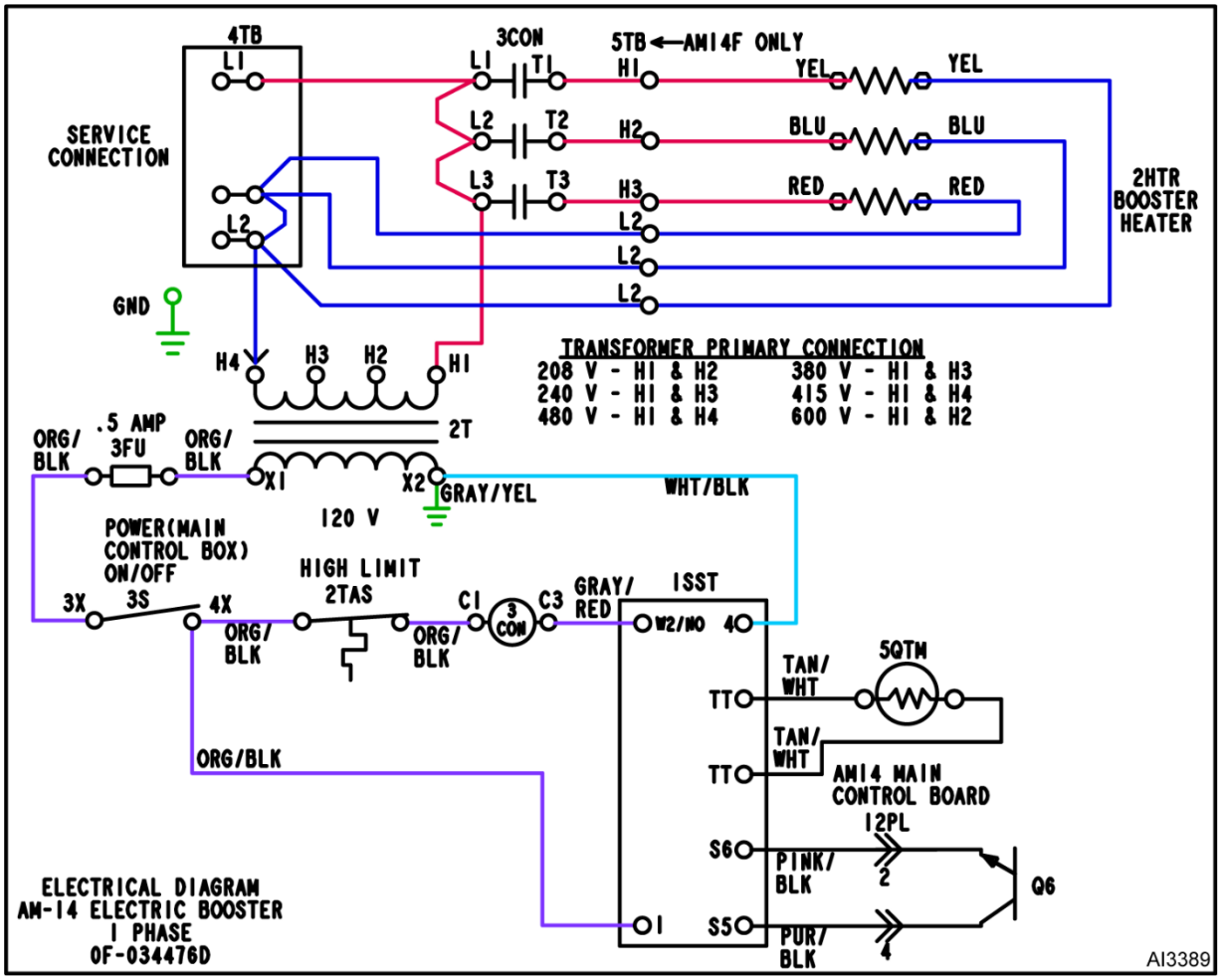
AM14 / AM14C / 14T/ 14TC Electric Heat (1PH)



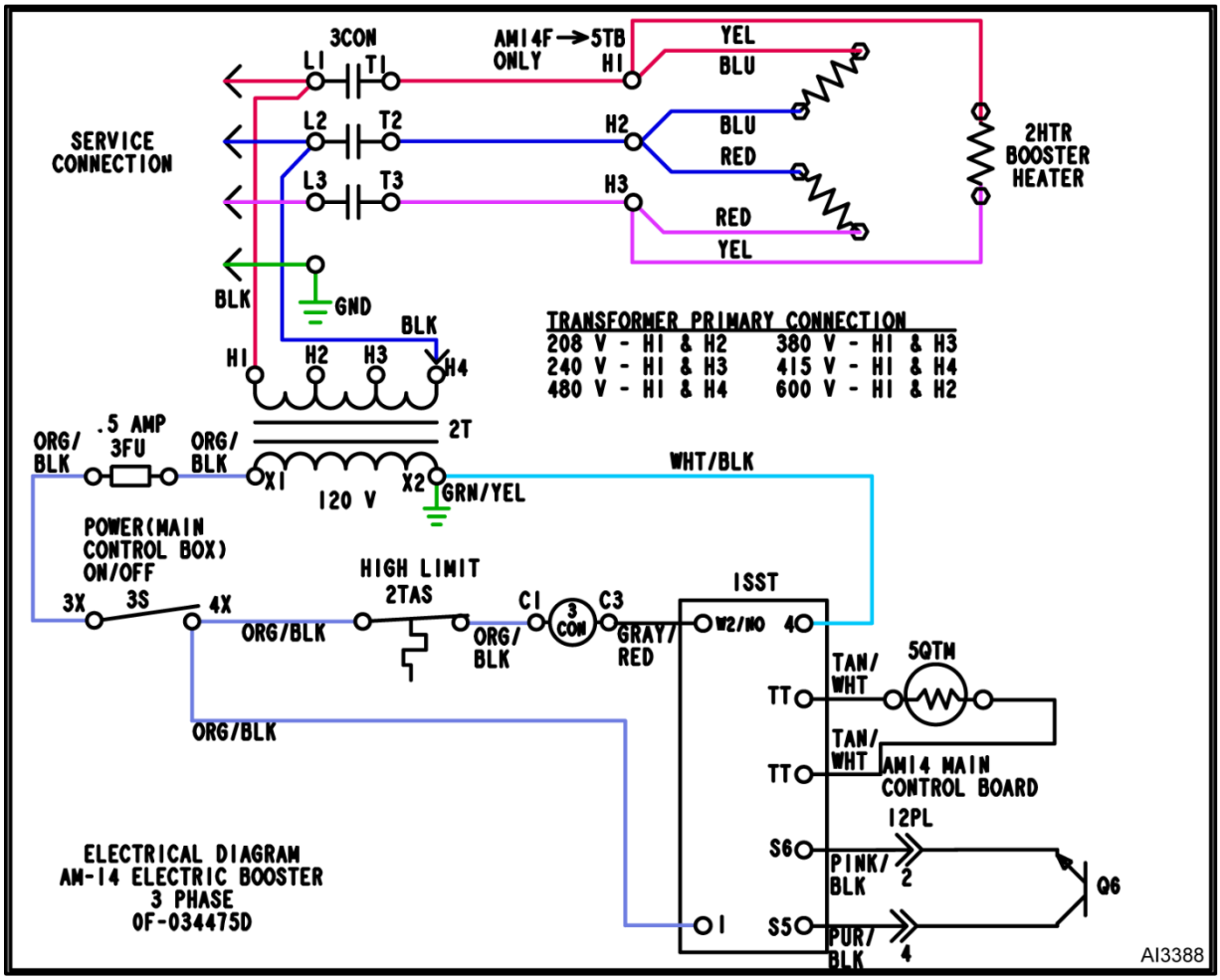
AM12 / 12C / 14 / 14C Gas Heat



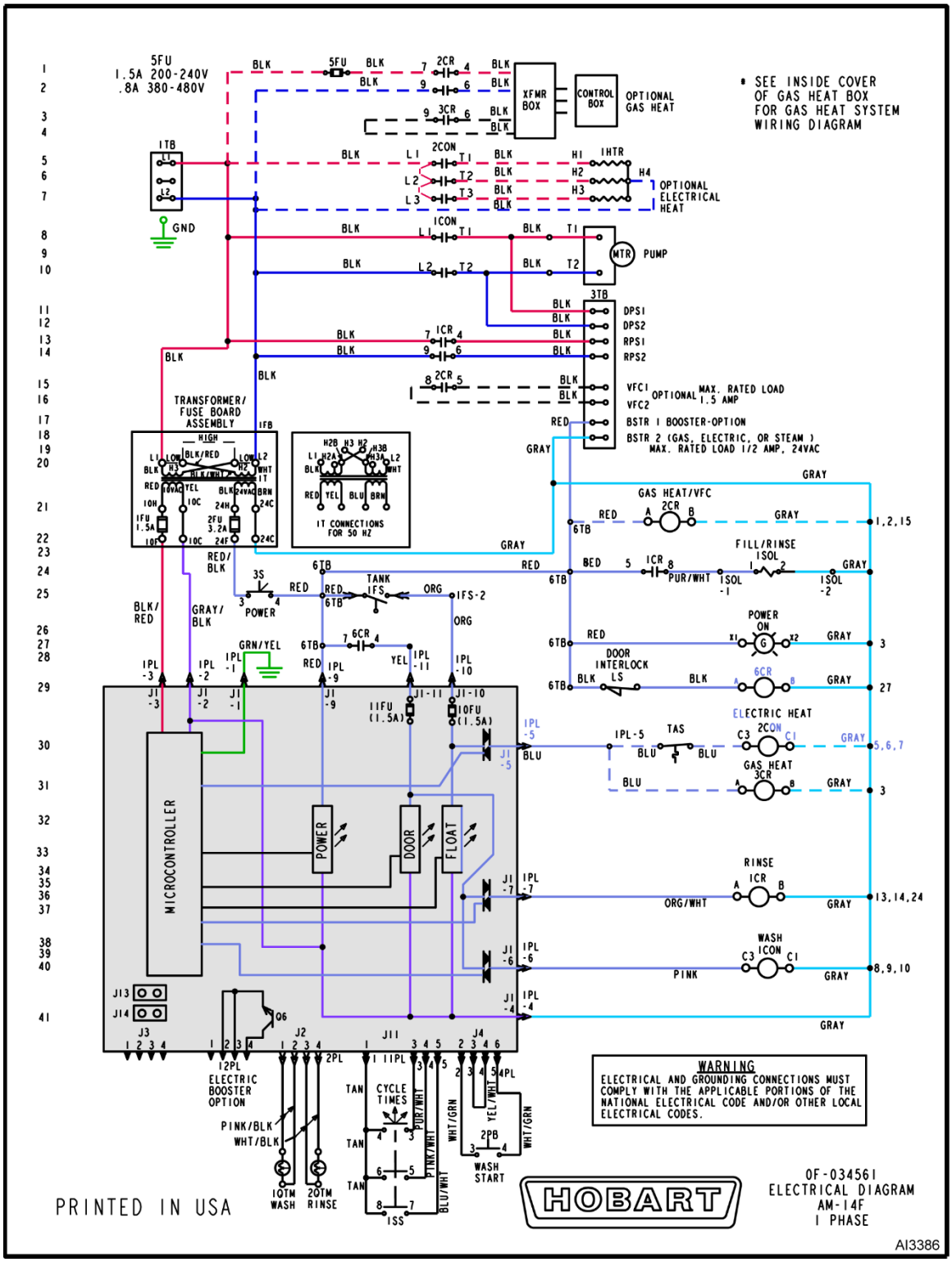
AM14 Electric Booster (1PH)



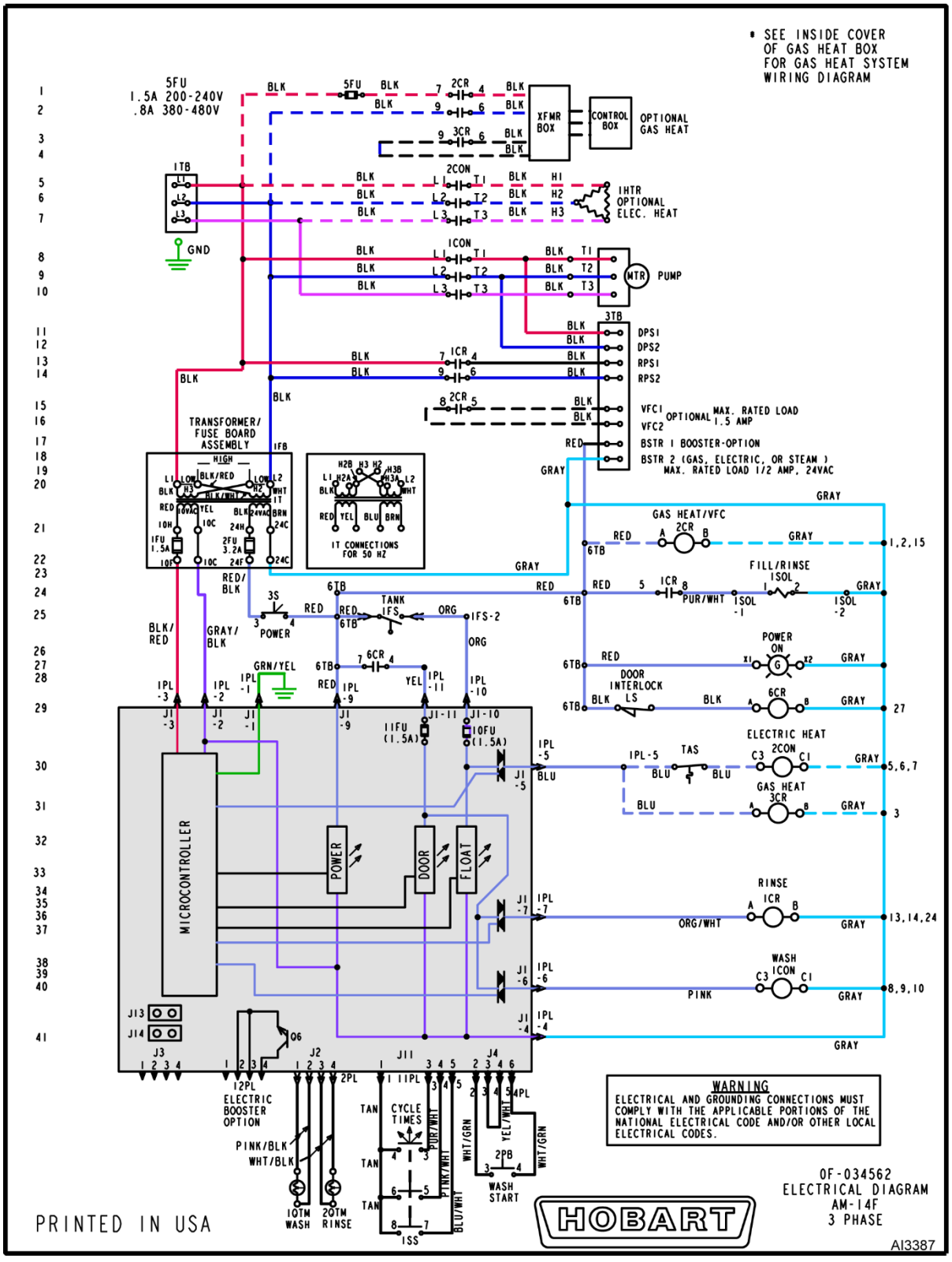
AM14 Electric Booster (3PH)



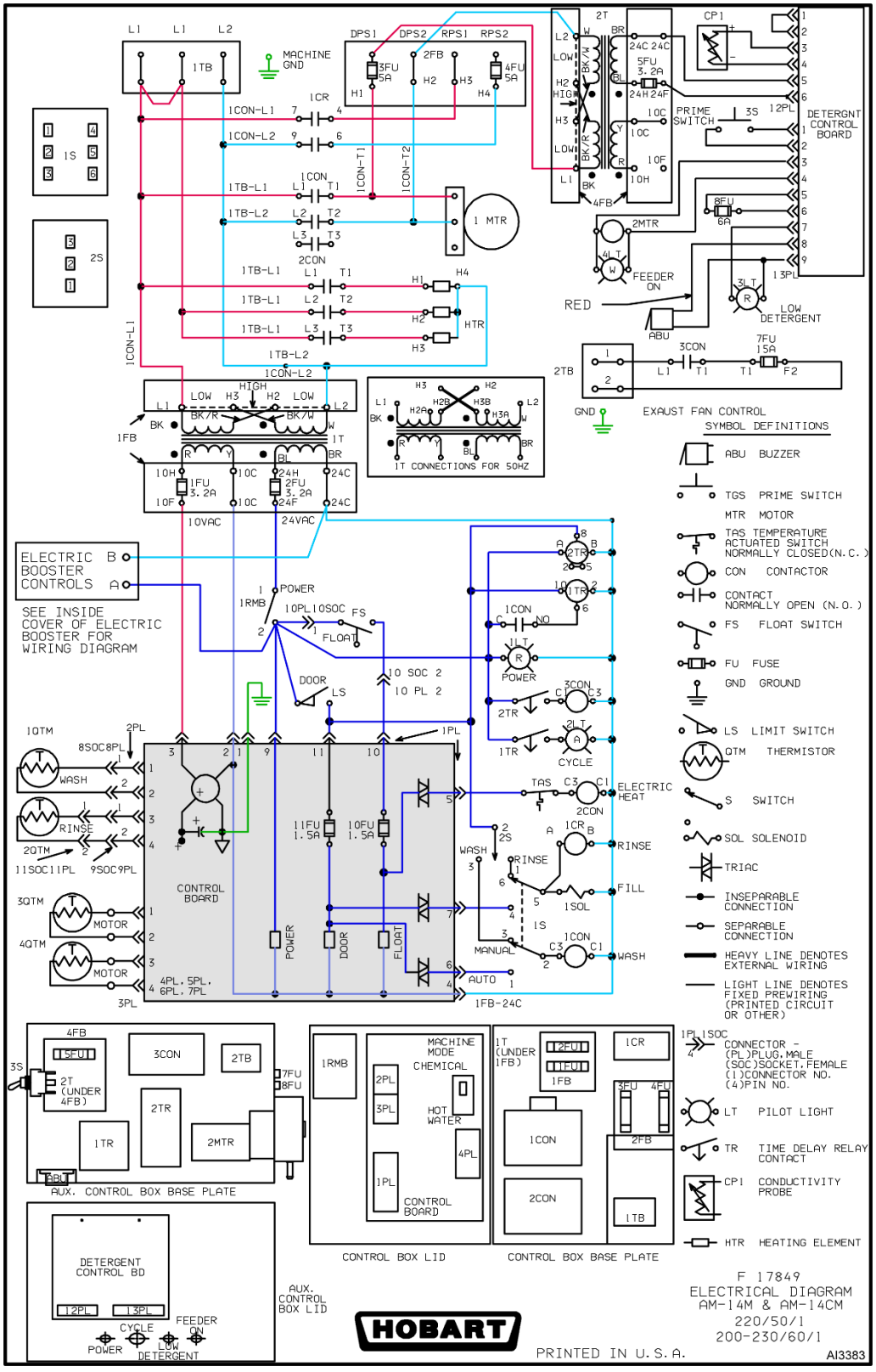
AM14F Electric Heat (1PH)



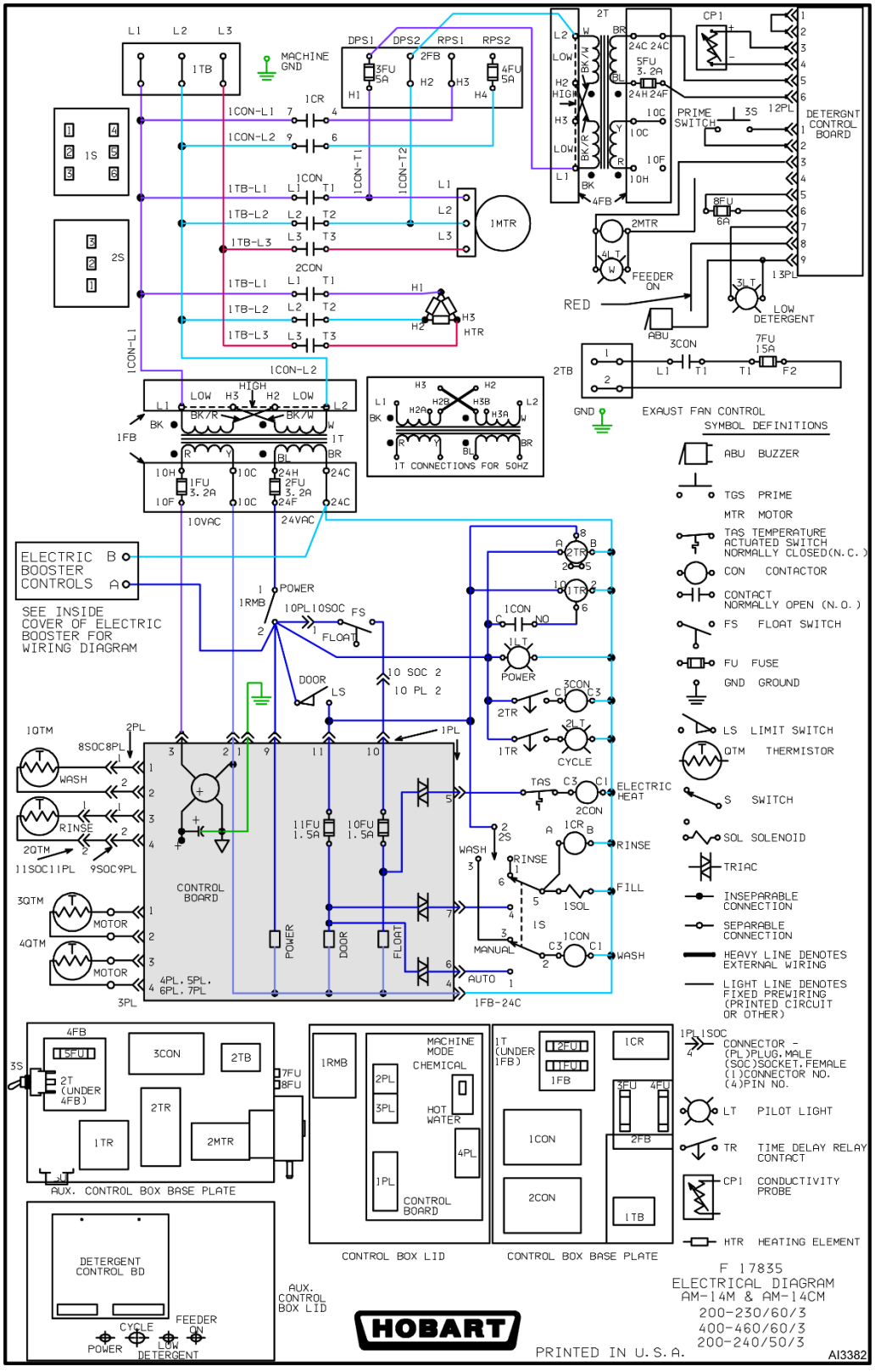
AM14F Electric Heat (3PH)



AM14M / AM14CM Electric Heat (1PH)



AM14M / AM14CM Electric Heat (3PH)



Troubleshooting (Gas)

Symptom	Possible Causes
No heat	1. Control board malfunction. 2. Float Switch inoperative. 3. Temperature Probe inoperative. 4. Fuses (5FU) or (6FU) blown. 5. High Limit Thermostat (2TAS) tripped or open. 6. Heat Box Interlock Switch (2LS) open. 7. Igniter Board inoperative. 8. Igniter Probe inoperative. 9. High voltage lead inoperative or arcing to ground. 10. Gas Solenoid inoperative (2SOL and/or 3SOL). 11. Combustion Blower inoperative. 12. Centrifugal Switch inoperative (open). 13. Transformer (2T) or (3T) inoperative. 14. Heat Relay (3CR) inoperative. 15. Incorrect spark gap. 16. Electrode ceramic housing cracked. 17. Low gas pressure.

Troubleshooting (Booster)

Symptom	Possible Causes
Water reaches 180°F but does not hold temperature through entire dishwashing cycle.	1. Incoming cold water too warm. 2. Cold water solenoid malfunctioning. 3. Cold water line strainer clogged. 4. Check blower motor circuit. 5. Check 5 CON. 6. Check blower motor.
Booster heater does not heat at all.	1. No water in dishwasher tank or float circuit malfunction. 2. No power to booster. 3. Fuse blown in booster circuit or circuit breaker tripped. 4. Power switch (3S) malfunction. 5. Contactor malfunction (3CON). 6. Transformer malfunction 120VAC (2T). 7. High limit thermostat malfunction. 8. Thermistor or SST malfunction. 9. Heater element malfunction.
Temperature does not reach 180°F	1. SST set incorrectly. 2. Heating element malfunction. 3. Incoming water temperature too low (minimum is 110°F). 4. Voltage to booster heating circuit not correct. 5. Incorrect heater being used. 6. Heating elements coated with lime.
Booster heater repeatedly blows fuse or trips circuit breakers.	1. Undersized fuse. 2. Check wire and fuse size. 3. Short circuit in internal wiring. 4. Incorrect voltage or heater.
Heating element burns out repeatedly.	1. Element powered with low or no water in booster. 2. Check for correct heater and voltage. 3. Contactor malfunction (3CON).
High Limit Thermostat trips.	1. High limit thermostat switch malfunction. 2. SST set too high or malfunctioning. 3. Contactor malfunctioning (3CON). 4. No water in booster tank.

Troubleshooting

Symptom	Possible Causes
Warewasher will not operate with power switch ON. No tank heat, no wash no display.	1. No power to warewasher. 2. Power switch malfunctioned. 3. Tripped breaker.
No wash. Rinse and tank heat normal.	1. Pump motor malfunctioned. 2. Contactor (1CON) malfunctioned
Incorrect flow pressure (flow pressure should be between 20 and 25 psi).	1. Line strainer clogged. 2. Regulator not adjusted properly. 3. Regulator malfunctioned
No rinse. Wash and tank heat normal.	1. Door switch malfunctioned.
Warewasher will not operate - Main control box display lit.	1. Cycle switch set to "Manual" and Wash/Rinse Switch "Off". 2. Very low or no water in tank. 3. Door open.
Utensils not clean.	1. Improper racking and shielding of ware. 2. Poor prerinse. 3. Excessively dirty wash water. 4. Wash arm blocked and cannot rotate. 5. Wash arms clogged. 6. Wash arm pivots fouled or worn. 7. Insufficient wash pressure due to: A. Line strainer clogged. B. Low wash volume due to leaking drain. C. Obstruction in pump or impeller eroded or broken. 8. Incorrect wash temperature. 9. Low detergent concentration. (AM-14M/CM Only) This could be due to: A. Detergent supply empty. B. Detergent concentration misadjusted. C. Detergent not flowing in feed line.

Symptom	Possible Causes
White residue, spots or streaks on utensils.	1. Detergent "CONC" set too high. (AM-14M/CM ONLY) 2. Improper racking and shielding of ware. 3. Rinse arm nozzles clogged. 4. Rinse arms not turning due to obstruction. 5. Incorrect rinse temperature. 6. Solenoid valve malfunctioned. 7. Line strainer clogged. 8. Low water pressure. 9. Pressure regulator malfunctioned. 10. Poor quality water. 11. Excessive hardness. 12. Malfunction in water softener.
Lime buildup in warewasher.	1. Detergent supply empty. 2. Detergent not flowing in feed lines. 3. Detergent pump or circuit board malfunctioned. 4. Detergent probe malfunctioned.
Detergent pump leaking. (AM-14M/CM ONLY)	1. Tube connections loose. 2. Detergent pump tubing cracked.
More than usual detergent consumption. (AM-14M/CM ONLY)	1. Prime switch malfunctioned. 2. Prime switch "ON". 3. Poor racking and washing only partial loads. 4. Detergent probe covered with scale. 5. Incorrect wash temperature. 6. Solenoid valve stuck open. 7. Water pressure set too high. 8. Drain leaking. 9. Detergent "CONC" incorrect. 10. Detergent feed lines leaking.
Excessive foaming.	1. Excessive amounts of food soil - especially eggs, milk and shakes. 2. Detergent Concentrate solution getting into wash tank. 3. Wrong detergent used.

Symptom	Possible Causes
Incorrect wash temperature. (Correct wash temperature should be between 150 degrees F and 160 degrees F.)	1. Low incoming water temperature (minimum is 120 degrees F). 2. Primary water pressure too high (must be 20-25 psi with dishwasher rinse valve open). 3. Voltage does not conform to electrical specifications of booster. 4. Heating elements coated with lime.
Booster heater repeatedly blows fuses or trips circuit breakers. NOTE: Fuses or circuit breakers should not be loaded to more than 80% of their rating.	1. Fuse undersized. 2. Short circuit in internal wiring.
Elements burn out repeatedly.	1. Heaters operating "dry" from time to time. 2. Heater turned on after tank is drained for repairs. 3. Overheating due to malfunctioned or improperly adjusted thermostat.
When dishwasher and booster have been idle for several hours, and then operated, relief valve opens or high temperature limit switch trips.	1. Excessive primary water temperature.
Heater functions properly but relief valve leaks.	1. Incorrect pressure reducing valve. 2. There is a check valve installed in the incoming line. 3. High momentary pressure at times.
Heater operates properly but pressure relief valve opens.	1. Pressure set too close to booster operating conditions. 2. Primary water pressure too high, must be 20-25 psi with dishwasher rinse valve open. 3. Primary water temperature above 160 degree, F. 4. Incorrect pressure reducing valve installed, must be 20-25 psi. 5. There is a check valve installed in the incoming line.
High temperature limit switch trips.	1. Bad switch. 2. Primary water temperature too high. 3. Control thermostat set too high or malfunctioned.

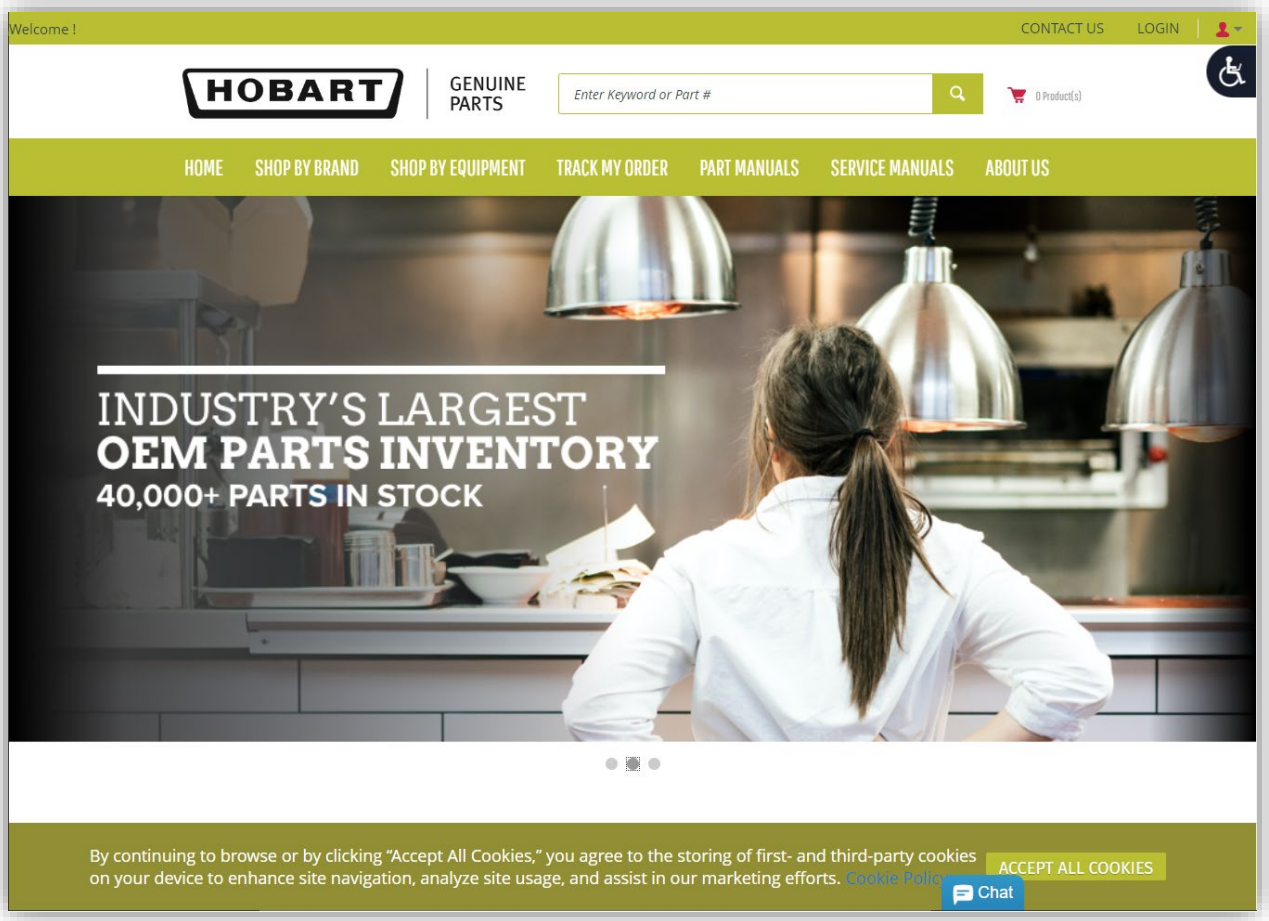
Symptom	Possible Causes
Chattering contactor.	1. Low voltage. 2. Warpage of the frame or distorted coil. 3. Accumulation of dirt under armature.
Warewasher will not fill or fills slowly.	1. Water supply Line turned off. 2. Line strainer clogged. 3. Pressure regulator clogged. 4. Water pressure regulator set too low. 5. Rinse arm nozzles clogged. 6. Solenoid valve malfunctioned. 7. Drain open. 8. Pressure regulator malfunctioned. 9. Clean probe.
Rinse will not shut off.	1. Solenoid valve malfunctioned. 2. Float and probe assembly malfunctioned.
Warewasher drains slowly or overflows.	1. Drain plugged
Yellow or brown coating on inside of warewasher or utensils.	1. Excessive iron in water.
Odor in warewasher.	1. Improper cleaning procedure.
Detergent alert not operating. (AM-14M/CM ONLY)	1. Detergent probe malfunctioned. 2. "CONC" adjustment incorrect.
No tank heat.	1. Gas Units A. Contactor (2con) malfunctioned. B. Cleanprobe. C. Incorrect spark gap. Spark gap should be .125". D. High voltage lead shorted to ground. (.250" minimum distance between electrode and ground.) E. Electrode ceramic housing cracked. F. Gas valve malfunctioned. G. Low gas pressure. H. Gas heat transformer (2T). 2. Electric units A. Contactor (2con) malfunctioned. B. Clean float and switch assembly. C. Temperature actuated switch (TAS). 3. Steam Units A. Steam valve (2 SOL) malfunctioned. B. Control board malfunctioned. C. Float and switch assembly malfunctioned.

Symptom	Possible Causes
Wash Displays 00 degrees F Wash Displays 225 degrees F	Open Thermistor 1QTM Shorted Thermistor 1QTM
Rinse Displays 00 degrees F Rinse Displays 225 degrees F	Open Thermistor 2QTM Shorted Thermistor 2QTM

Hobart Online Parts Store

Order parts by clicking on image below to reach our Hobart Service Parts Store.

http://www.hobartparts.com



Parts Catalogs

Click on image below for most recent edition.

AM 14 Series Dishwashers Catalog of Replacement Parts