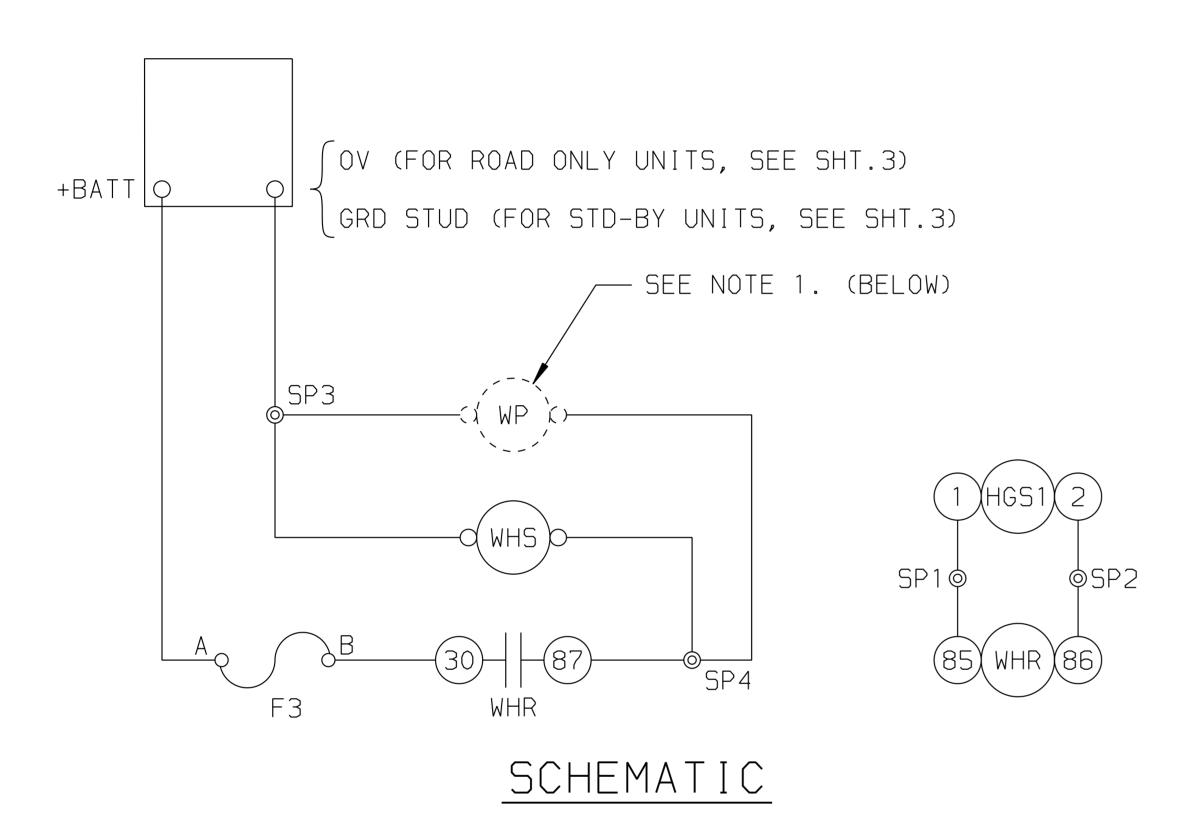
PART NO.	MODEL DESCRIPTION
98-03233-00	30S WATER HEAT ONLY

OPTIONAL PARTS							
PART NO. PART DESCRIPTION							
30-01124-00	WATER PUMP (12V DC)						



0	INDICATES A SPLICE POINT.
1	COMPONENT CONNECTION NUMBER OR LETTER.
	LIGHT LINES INDICATES WIRES IN THE SYSTEM. INDICATES STANDARD OPTIONS. INDICATES A CONNECTION, WIRE, LUG, ETC.
	NORMALLY OPEN CONTACTS.

SYMBOL	DESCRIPTION
F3	FUSE 15A
HGS1	HOT GAS SOLENOID 1
WHR	WATER HEAT RELAY
WHS	WATER HEAT SOLENOID
WP	WATER PUMP (OPTIONAL)

SUPERSEDES

TITLE

NOTE 1. WATER PUMP OPTION INSTALLATION REQUIRES PUMP TO HAVE A FLOODED INLET & AN INSTALLATION LOCATION THAT PROVIDES GENEROUS AIR FLOW FOR MOTOR COOLING.

CONTENTS	SHEET
SCHEMATIC, NOTES & EVAPORATOR PREPARATION	1
WATER COIL INSTALLATION	2
ELECTRICAL CONNECTIONS	3
COIL TEMPLATE	4

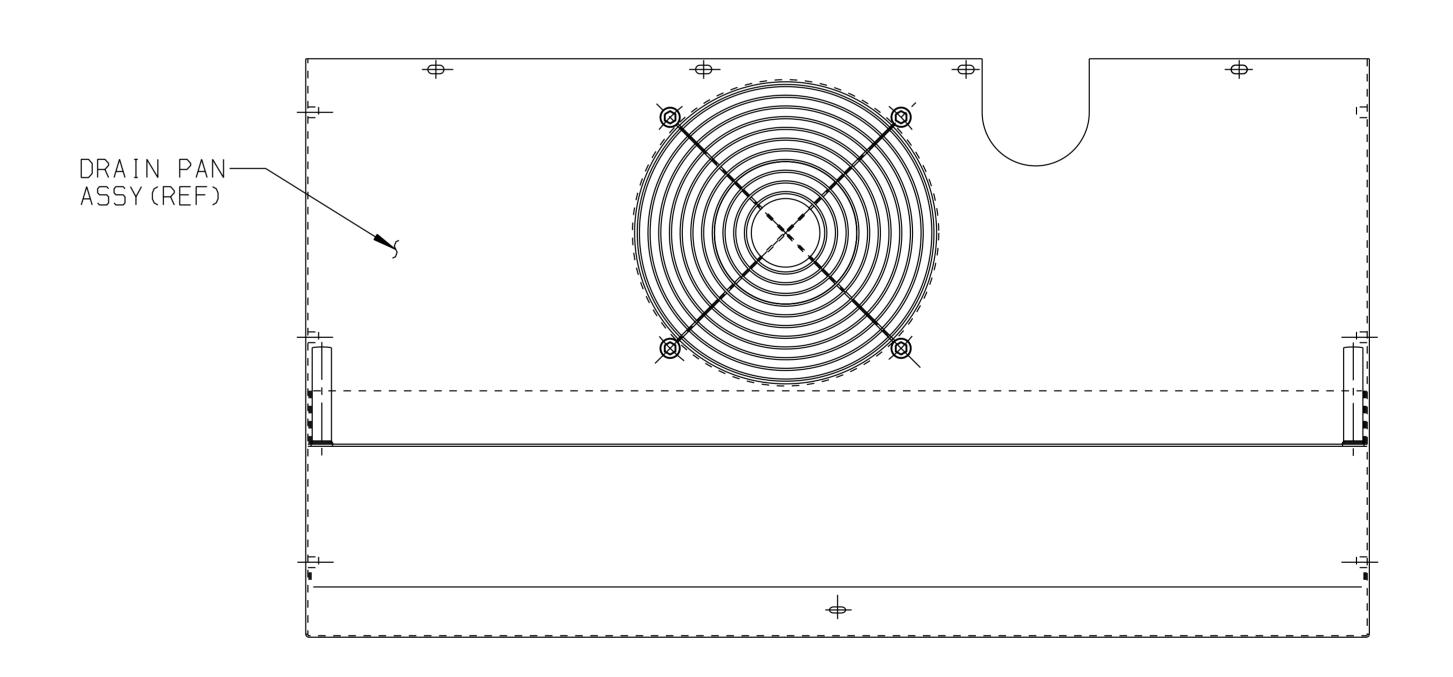
## WATER HEAT INSTALLATION PROCEDURE

CAUTION: TURN THE UNIT OFF, DISCONNECT THE BATTERY & ALLOW SUFFICIENT TIME FOR THE ENGINE & ITS FLUIDS TO COOL BEFORE PROCEEDING.

NOTE: IT IS EXTREMELY IMPORTANT THAT THE UNIT REMAIN DISABLED THROUGHOUT THIS PROCEDURE.

ASSEMBLY NOTE: APPLY THREAD SEALANT DURING ASSEMBLY AS REQUIRED TO ALL FITTINGS.

- 1.0 VERIFY THAT ALL OF THE PIECES FROM THE PARTS LIST ARE PRESENT.
- 2.0 REMOVE THE DRAIN PAN FROM THE EVAPORATOR CASING. RETAIN HARDWARE FOR RE-USE DURING RE-ASSEMBLY.



SHEET	REV	В	В	А	А
INDEX	SHEET	1	2	W	4

SEE SEPARATE PARTS LIST

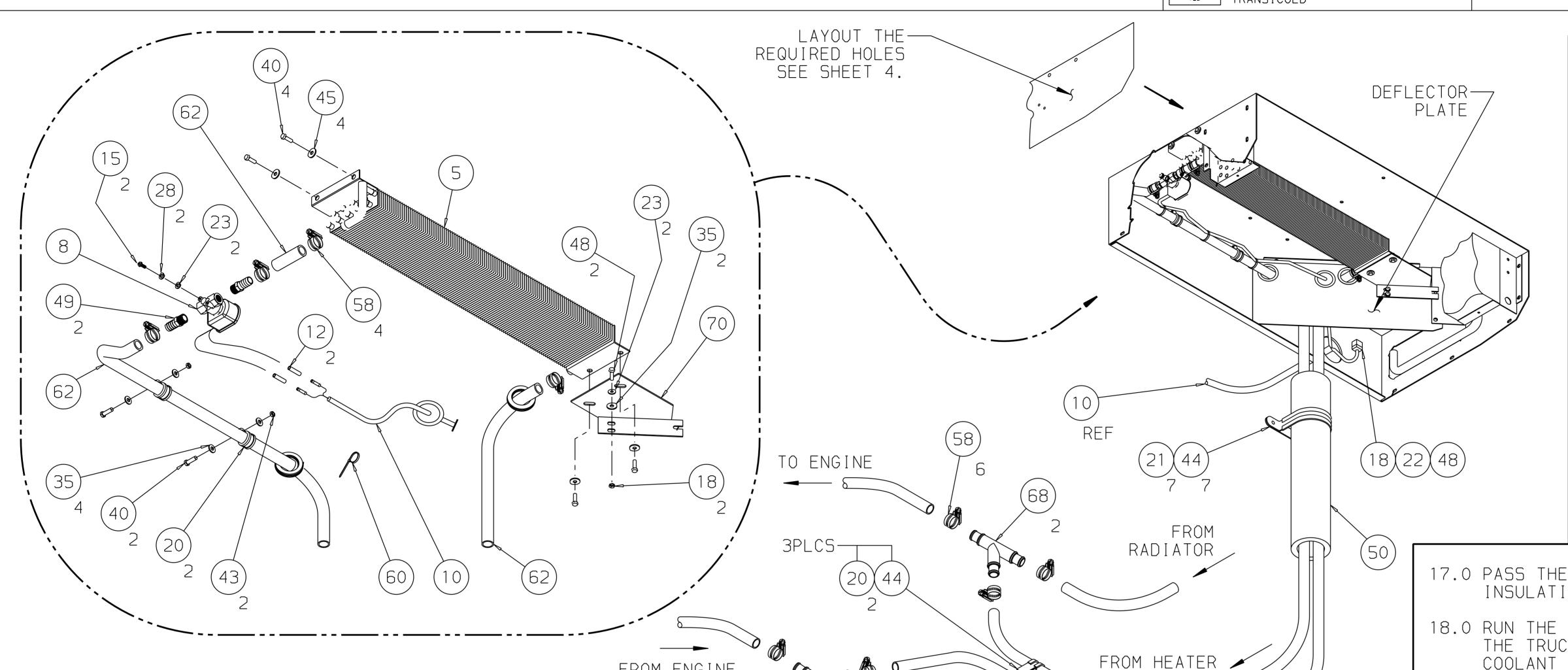
B	NOTE 1, & SCHEM., SYMBOL LEGENDS PER ECN 71N0222P13					MGC	2013
А	INITIAL RELEASE PER PCA71N211GP06					MGC	10 APR 2006
SYM	REVISION RECORD	ENGRG.	DATE	APPLICATION ENGRG.	DATE	DRAWN BY	DATE

INSTALLATION INSTRUCTIONS
30S WATER HEAT

DRAWING NO. 98-03233 SHT.1 OF 4

TO HEATER

COIL



RADIATOR

**SUPERSEDES** 

FROM ENGINE

#### CONTINUED FROM SHT.1

- 3.0 LOOSEN THE TWO BOLTS WHICH HOLD THE EVAPORATOR COIL TO THE DEFLECTOR PLATE.
- 4.0 REMOVE THE TWO SMALL BOLTS WHICH FASTEN THE LIQUID INJECTION VALVE TO THE DEFLECTOR PLATE.
- 5.0 SLIDE THE WATER COIL BRACKET (IT.70) BETWEEN THE EVAPORATOR COIL AND DEFLECTOR POSITIONING THE SLOT ON THE LOWER EVAPORATOR BOLT (SEE ILLUSTRATION).
- 6.0 ALIGN THE WATER COIL BRACKET HOLES WITH THE INJECTOR HOLES AND FASTEN WITH TWO BOLTS (ITEMS 18,23,35 & 48).
- 7.0 REFER TO THE DRAWING ON SHT.4 AND LAY OUT THE REQUIRED HOLES ON THE OUTSIDE OF THE EVAPORATOR CASING AS SHOWN IN DIAGRAM ABOVE. CENTER PUNCH AND DRILL THE NEEDED HOLES.
- 8.0 PLACE WATER COIL (ITEM 5) ON THE TOP OF THE WATER COIL BRACKET AND SECURE IT WITH THE SUPPLIED HARDWARE (ITEMS 40 & 45) USING THE TWO HOLES IN THE CASING FIRST, FASTEN THE COIL TO THE BRACKET.
- 9.0 CUT A 2-1/2" LENGTH OF WATER HOSE (ITEM 62) AND PUSH IT ONTO THE WATER COIL HEADER NEXT TO THE CASING. UNCOIL THE REMAINING HOSE & CUT INTO TWO EQUAL LENGTHS.

TO PUMP

(OPTIONAL)

SEE SHT.1

- 10.0 ASSEMBLE THE BRASS BARBED FITTINGS (ITEM 49) TO THE WATER SOLENOID VALVE (ITEM 8) AND TIGHTEN WITH TWO WRENCHES. (MAKE CERTAIN TO USE THREAD SEALANT ON FITTING THREADS)
- 11.0 LOCATE THE WORDING OR NUMBERS STAMPED ON THE TOP SIDE OF THE VALVE. ORIENT THE WORD OUT OR NUMBER 2 TOWARDS THE WATER COIL, ATTACH THE HOSES, AND SECURE WITH CLAMPS(ITEM 58).

TITLE

- 12.0 FASTEN THE WATER VALVE ASSY TO THE CASING WITH HARDWARE SHOWN (ITEMS 15,23 & 28).
- 13.0 PIERCE THE GROMMETS WITH A SHARP OBJECT SUCH AS A SCREWDRIVER OR AWL. FORCE THE WATER HOSE THROUGH THE GROMMET CLOSET TO THE FRONT OF THE TRUCK AND CONNECT IT TO THE WATER VALVE ASSEMBLY USING HOSE CLAMP (ITEM 58).
- 14.0 FASTEN THE WATER HOSE TO THE CASING WITH HOSE CLAMPS (ITEMS 20,35,40 & 43) TO PREVENT HOSES FROM RUBBING ON THE MOUNTING BOLTS OR BEING DAMAGED BY THE FAN BLADE.
- 15.0 FORCE THE OTHER WATER HOSE THROUGH THE LAST GROMMET AND TIGHTEN THE WATER HOSE TO THE WATER COIL HEADER WITH A HOSE CLAMP(ITEM 58).
- 16.0 CUT A 2-1/2" DIA HOLE IN THE TRUCK FLOOR ALIGNED WITH THE CUT OUT OF THE DRAIN PAN.
- 17.0 PASS THE TWO WATER HOSES THROUGH THE NEOPRENE INSULATING COVER (ITEM 50) AND TRIM OFF EXCESS.
- 18.0 RUN THE HEATER HOSES FROM THE FLOOR HOLE TO THE TRUCKS ENGINE COMPARTMENT. SPLICE ENGINE COOLANT HOSES AND INSERT "Y" FITTINGS (ITEM 68) USING CLAMPS (ITEM 58).
- 19.0 INSTALL NEOPRENE INSULATION COVER OVER HOSES. FASTEN TO TRUCK WALL USING CUSHION CLAMPS & SHEET METAL SCREW (ITEMS 21 & 44).
- 20.0 CUT HEATER HOSES TO LENGTH, PUSH ONTO "Y" FITTINGS AND TIGHTEN WITH CLAMPS (ITEM 58).
- 21.0 ATTACH LOOSE HEATER HOSES TO TRUCK CHASSIS WITH CUSHION CLAMPS (ITEM 20). KEEP HEATER HOSES AWAY FROM SHARP OBJECTS AND ENGINE EXHAUST SYSTEM.
- 22.0 LOCATE THE WHS BREAK OUT OF HARNESS (ITEM 10). INSERT THE HARNESS THROUGH THE REMAINING GROMMET WITH THE CONNECTIONS GOING TOWARD THE SOLENOID. INSERT ONE PIECE OF HEAT SHRINK (ITEM 12) OVER ONE WIRE OF THE SOLENOID & MATE THE WIRE TO ONE SPLICE. CRIMP & REPEAT FOR THE REMAINING WIRE. APPLY HEAT TO THE HEAT SHRINK ASSURING WATER TIGHT CONNECTION.
- 23.0 LOCATE THE WHS RELAY & POSITION THE RELAY INSIDE OF THE EVAPORATOR AT A DESIRABLE LOCATION. MARK THE MOUNTING HOLE LOCATION & DRILL A 3/16" DIA HOLE. MOUNT THE RELAY IN THIS POSITION USING HARDWARE (ITEMS 18,22 & 48).

В	ADDED "SEE SHT.1" TO CALLOUT "TO PUMP (OPTIONAL" PER ECN 71N0222P13					MGC	1 MAY 2013
А	INITIAL RELEASE PER PCA71N211GP06					MGC	10 APR 2006
SYM	REVISION RECORD	ENGRG.	DATE	APPLICATION ENGRG.	DATE	DRAWN BY	DATE

INSTALLATION INSTRUCTIONS 30S WATER HEAT

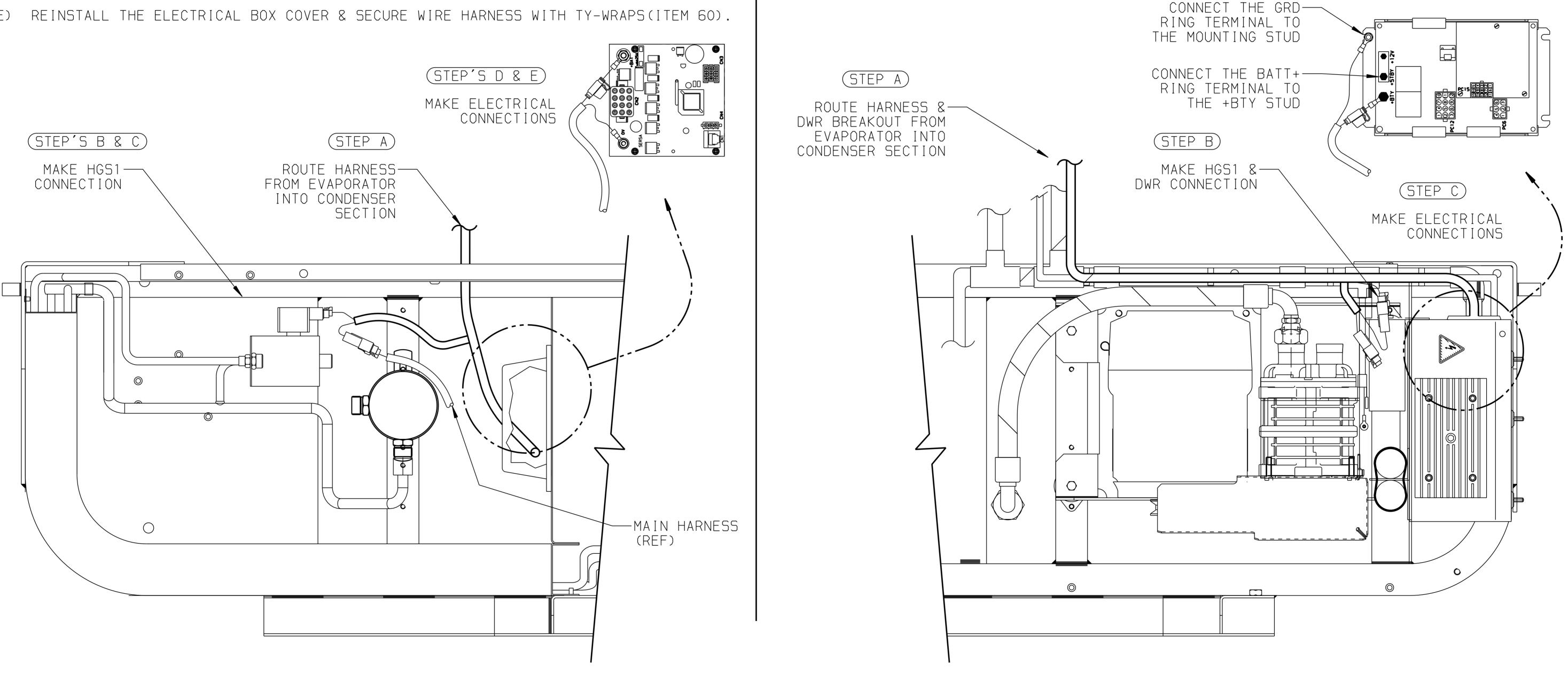
DRAWING NO. 98-03233 SHT.2 OF

## ROAD ONLY MODELS

- A) ROUTE THE WIRES FROM THE EVAPORATOR AREA INTO THE CONDENSER SECTION.
- B) LOCATE HGS1 INSIDE OF THE CONDENSER SECTION & UNPLUG THE WIRE CONNECTOR FROM THE COIL.
- C) PLUG THE HGS1 MALE CONNECTOR FROM THE NEW HARNESS INTO THE COIL. REMOVE THE DUMMY PLUG FROM THE NEW HARNESS & PLUG THE MAIN HARNESS HGS1 CONNECTOR INTO THE FEMALE HGS1 CONNECTOR OF THE NEW HARNESS. DISCARD THE DUMMY PLUG.
- C) REMOVE THE ELECTRICAL BOX COVER. LOCATE THE 12 VOLT & GROUND CONNECTIONS. MAKE THE CONNECTIONS INSIDE THE CONTROL BOX.
- E) REINSTALL THE ELECTRICAL BOX COVER & SECURE WIRE HARNESS WITH TY-WRAPS(ITEM 60).

# STAND-BY MODELS

- A) LOCATE THE WIRE BREAK OUT DWR LOCATED INSIDE OF THE EVAPORATOR. PULL THE DWR WIRE SET FROM THE SPLIT LOOM & ROUTE THE DWR CONNECTOR & THE WATER HEAT HARNESS INTO THE CONDENSER SECTION.
- B) PLUG THE HGS1 CONNECTOR OF THE WATER HEAT HARNESS INTO THE DWR CONNECTOR OF THE MAIN HARNESS.
- C) REMOVE THE ELECTRICAL BOX COVER. LOCATE THE 12 VOLT & GROUND CONNECTIONS. MAKE THE CONNECTIONS INSIDE THE CONTROL BOX.
- D) REINSTALL THE ELECTRICAL BOX COVER & SECURE WIRE HARNESS WITH TY-WRAPS(ITEM 60).

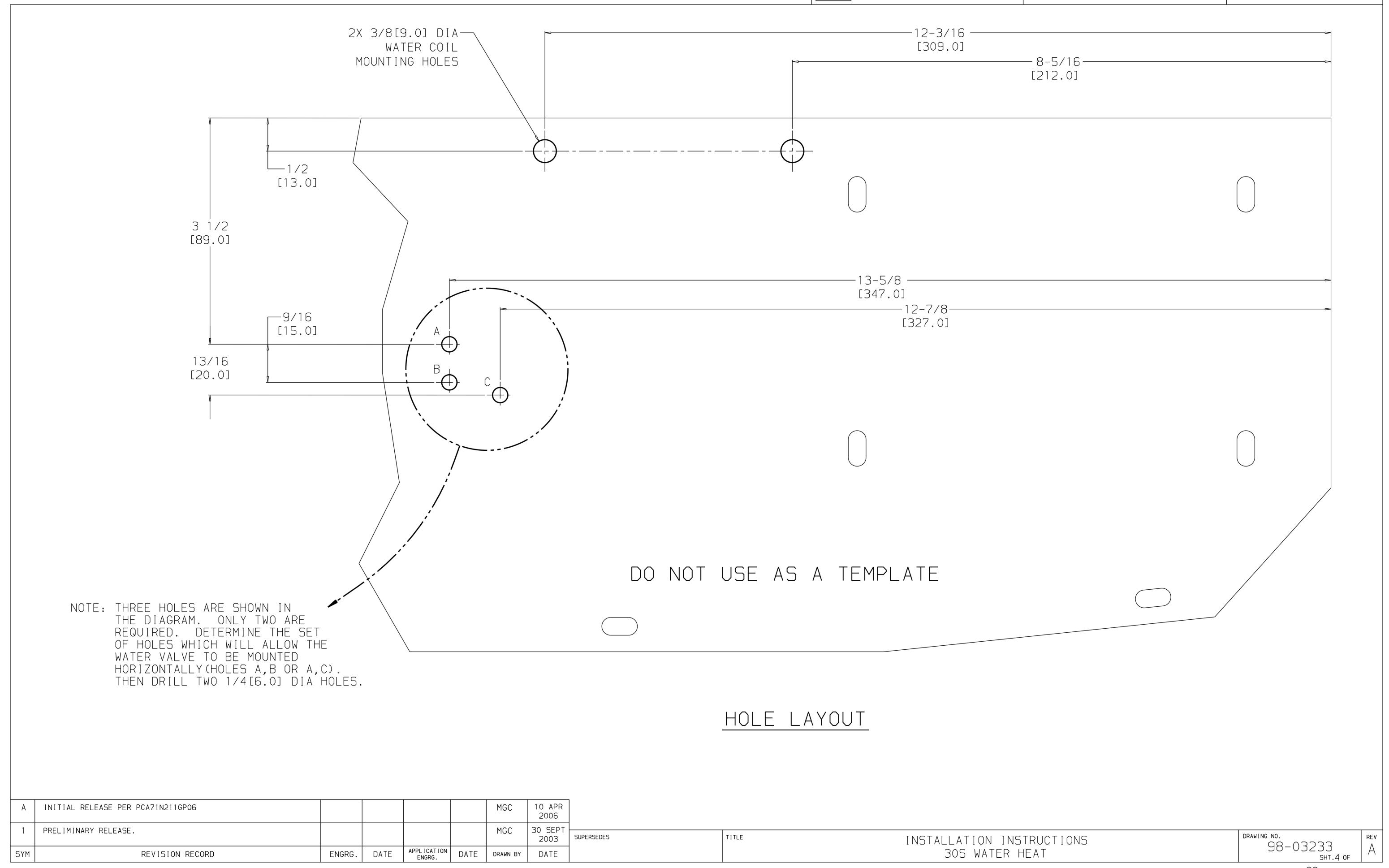


## ELECTRICAL CONNECTIONS

A INITIAL RE	ELEASE PER PCA71N211GP06				MGC	10 APR 2006				
1 PRELIMINAR	RY RELEASE.				MGC	30 SEPT 2003	SUPERSEDES	TITLE	INSTALLATION INSTRUCTIONS	DRAWING NO. REV $98-03233$
SYM	REVISION RECORD	ENGRG.	DATE	APPLICATION ENGRG.	DATE DRAWN BY	DATE			30S WATER HEAT	98-03233 A SHT.3 OF
										00

INSTALLATION INSTRUCTIONS

30S WATER HEAT



TITLE

SUPERSEDES

APPLICATION DATE DRAWN BY

REVISION RECORD