

# Conversion Wiring Diagrams for RM7800/RM7840

*These diagrams and instructions are for converting the following model programmers to RM7800/RM7840 microprocessor based integrated burner control.*

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## **WARNING**

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**Improper configuration jumper selection could cause a fire or explosion hazard that could lead to property damage, severe injury or death.**

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## **CAUTION**

1. Installer must be a trained, experienced, flame safeguard control service technician.
  2. Disconnect power supply before beginning installation to prevent electrical shock and equipment damage. More than one power supply disconnect may be involved.
  3. All wiring must comply with applicable local electrical codes, ordinances, and regulations.
  4. All line voltage terminal wiring shall be no. 14, 16 or 18 copper conductor TTW (60C) or THW (75C) or THHN (90C), 600 volt insulation wire. A maximum of two conductors can be wired to each Q7800 Subbase terminal.
  5. Voltage and frequency of the power supply and flame detector(s) connected to this control must agree with those marked on the device.
  6. Loads connected to the control terminals must not exceed ratings listed in Specification sheets 65-0087 or 65-0117, or on the RM7800/RM7840 label.
  7. All external timers must be listed or component recognized by authorities having jurisdiction for the specific purpose for which they are used.
  8. Perform all required checkout tests after installation is complete.
- 



**IMPORTANT:**

1. For on-off gas-fired systems, some authorities having jurisdiction prohibit the wiring of any limit or operating contacts in series between the flame safeguard control and the main fuel valve(s).
2. Do not connect more than two C7012E,F or C7076A,D Ultraviolet Flame Detectors (with self-checking shutter) in parallel to the same terminals.
3. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause interference to radio communications. It has been tested and

found to comply with the limits for a Class B computing device of Part 15 of FCC rules which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference, in which case, users at their own expense may be required to take whatever measures are required to correct this interference.

4. This digital apparatus does not exceed the Class B limits for radio noise for digital apparatus set out on the Radio Interference Regulations of the Canadian Department of Communications.

**NORMAL OPERATION:**

Device	Initiate	Standby	Purge	Pilot Flame Establishing Period (PFEP)	Main Flame Establishing Period (MFEP) <sup>1</sup>	Run	Postpurge
RM7800/7840E	10 sec.	*	**	4 or 10 sec.	10 or 15 sec.	*	15 sec.
RM7800/7840G	10 sec.	*	**	4 or 10 sec.	10, 15, 30 or Int.	*	15 sec.
RM7800/7840L	10 sec.	*	**	4 or 10 sec.	10 or 15 sec.	*	15 sec.
RM7800/7840M	10 sec.	*	**	4 or 10 sec.	10 sec. or Int.	*	15 sec.

\* STANDBY and RUN can be an infinite time period.

\*\* PURGE will be determined by which ST7800A Purge Card is selected.

<sup>1</sup> The MFEP will be determined by which terminal, configuration jumper and jumper wire is selected.

**APPROVAL BODIES:**

Underwriters Laboratories Inc. Listed: File No. MP268  
 Guide No. MCCZ.  
 Canadian Standards Association Certified, LR9S329-3.  
 Factory Mutual Approved: Report No. J11V9A0.AF.  
 Industrial Risk Insurers Acceptable.  
 Federal Communications Commission: Part 15, Class B.  
 Canadian Department of Communications: CS-03, Certification No. 5733459A.

**MOUNTING:** Q7800A for panel mount or Q7800B for wall or burner mount.

**REQUIRED COMPONENTS:**

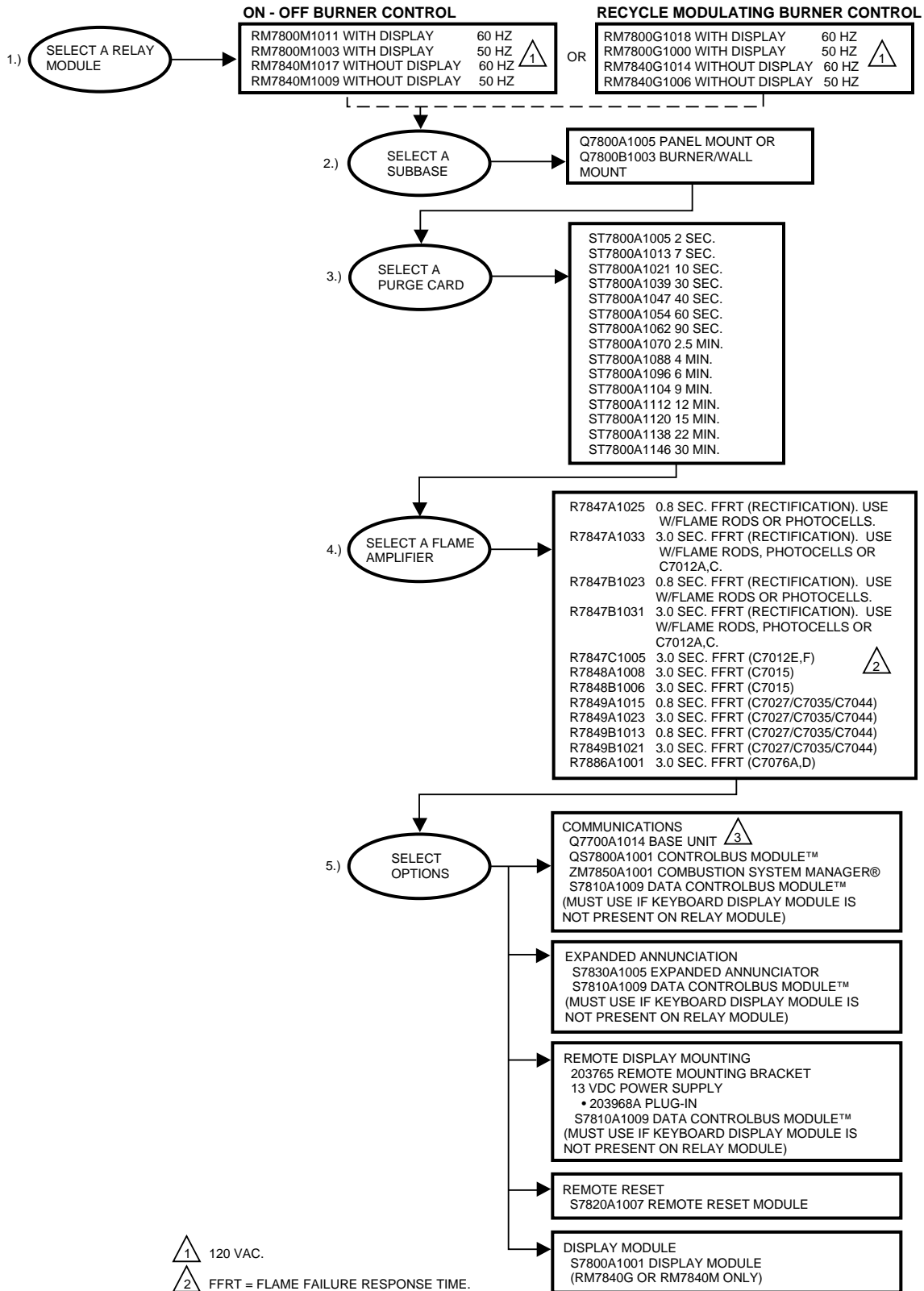
Q7800 Subbase  
 ST7800 Purge Timer  
 RM7847/48/49/86 Flame Amplifier

**ACCESSORIES:**

5-Wire Connector  
 —part no. 203541.  
 Combustion Service Manager  
 —part no. ZM7850A1001.  
 Communication Interface Base Unit  
 —part no. Q7700A1014.  
 Communication Interface ControlBus Module  
 —part no. QS7800A1001.

**DATA CONTROLBUS MODULE™**

—part no. S7810A1009.  
 Dust Cover  
 —part no. 221729 (RM7840 only).  
 Electrical Access Slot Cover  
 —part no. 203765.  
 Expanded Annunciator  
 —part no. S7830A1005  
 Flame Simulators  
 —part no. 203659 UV Flame Simulator.  
 —part no. 123514A Rectification Simulator.  
 Keyboard Display Module  
 —part no. S7800A1001 (RM7840 only).  
 Remote Display Mounting Bracket  
 —part no. 203765.  
 Remote Reset Module  
 —part no. S7820A1007.  
 Tester  
 —part no. A7800A1002.  
 Remote Display Power Supply  
 —part no. 203968 Plug-in.



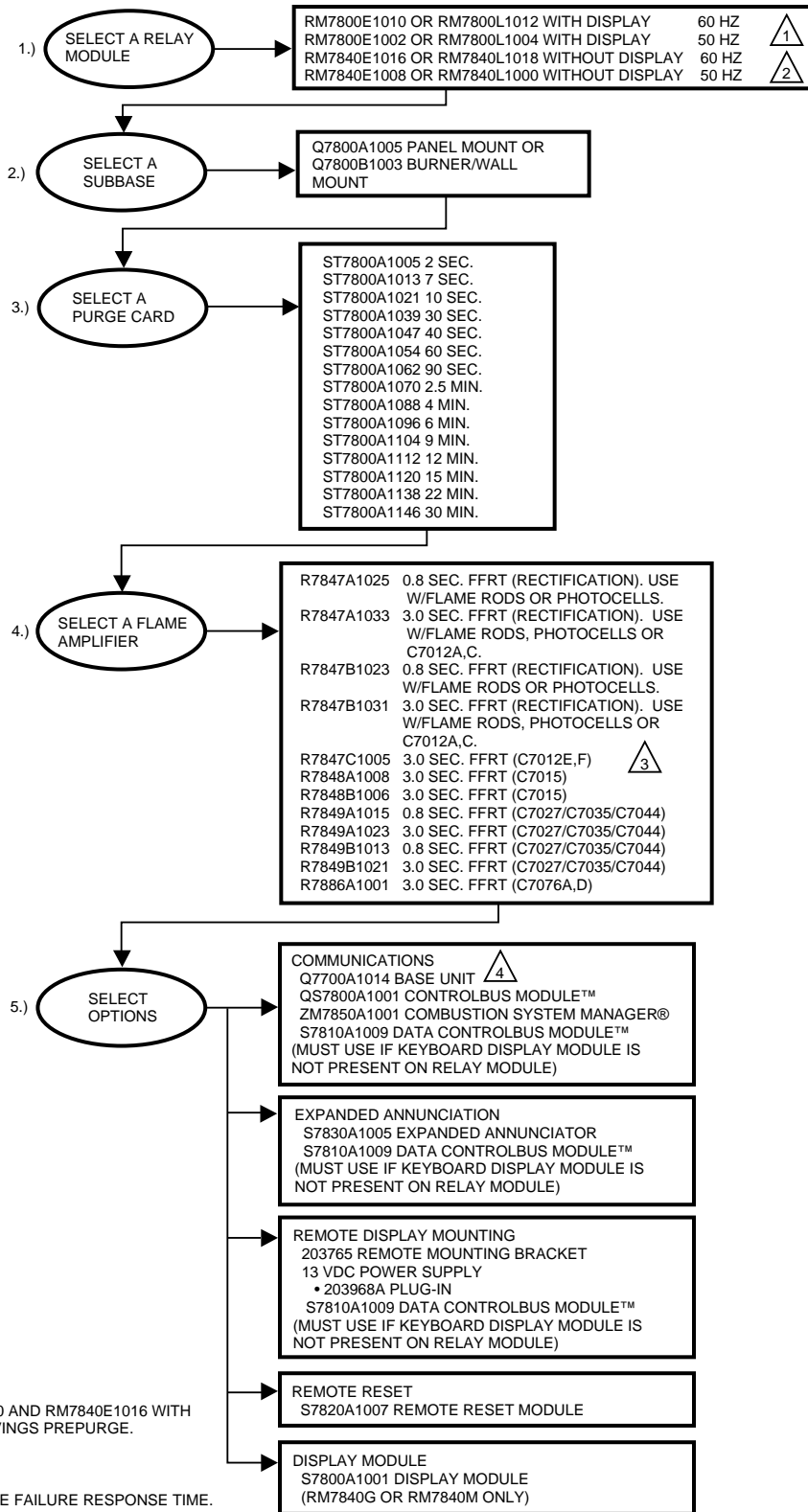
<sup>1</sup> 120 VAC.

<sup>2</sup> FFRT = FLAME FAILURE RESPONSE TIME.

<sup>3</sup> ONE Q7700 WILL SUPPORT ANY COMBINATION OF UP TO SIX (6) QS7700s/QS7800s.

M1940C

# LOCKOUT MODULATION BURNER CONTROL



△1 RM7800E1010 AND RM7840E1016 WITH ENERGY SAVINGS PREPURGE.


△2 120 VAC.

△3 FFRT = FLAME FAILURE RESPONSE TIME.







△4 ONE Q7700 WILL SUPPORT ANY COMBINATION OF UP TO SIX (6) QS7700s/QS7800s.














M1941C

## DIRECTIONS:

1. Disconnect all power to control being replaced. Note that more than one power supply disconnect may be involved.
2. Remove old control from subbase.
3. Mark all wires on subbase; i.e., wires connected to terminal 1 should be marked 1.
4. Disconnect wires from subbase.
5. Remove old subbase.
6. Mount Q7800 Subbase.
7. Connect wires to subbase according to wiring conversion for control being replaced. Pay close attention to footnotes. The triangle symbol  with a number or letter inside designates a footnote.
8. Install the RM7800/RM7840 control. Make sure the proper ST7800 purge card and flame detector were selected for the application.
9. The RM7800/RM7840 have two or three site configurable jumper options. (depends on model number).  
JUMPERS:
  - JR1 selects Pilot Flame Establishing Period.
  - JR2 (RM7800G/RM7840G only) selects intermittent or interrupted pilot.
  - JR3 selects lockout/running interlock input check. Refer to RM7800 instructions, 60-0117 or RM7840 instructions, 60-0087, for assistance and proper selection.
10. Refer to instructions, 60-0087 or 60-0117, for check-out and start-up.

## GENERAL FOOTNOTES:

-  RM7840 operates the same as the RM7800 but does not have the Display Module. (Display Module S7800A1001 can be added later.) The RM7800 must have Display Module installed to operate.
-  Select proper prepurge timer according to the Firing Line cross reference, 70-8313.
-  Select proper flame amplifier according to the Firing Line amplifier cross reference.
-  Proper grounding of the green subbase terminal screw to an electrical earth ground is a MUST for proper operation of the 7800 SERIES device.
-  NOTE: UL allows only two electrical wires to each subbase terminal. Wiring information may show more than two wires to a particular terminal, which may require an external connection to accomplish the connection.
-  Q520 Subbase terminal 16 connection may have been a wire nut connection. Remove wire nut and connect to the Q7800 Subbase terminal 6.

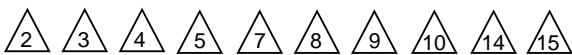
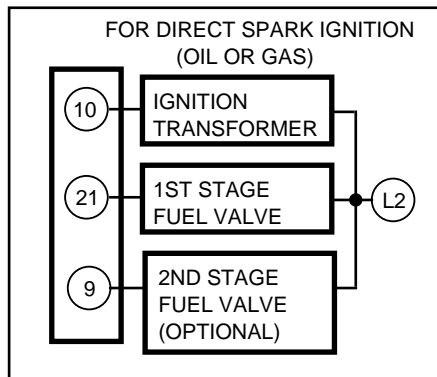
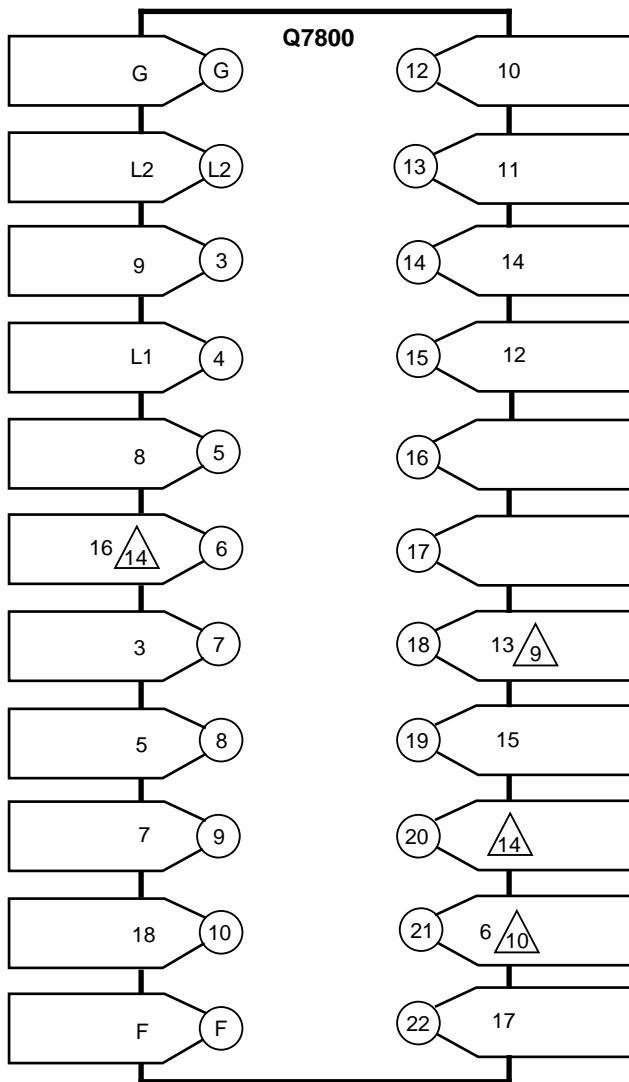
-  Select proper site configurable jumpers specified in the cross reference and shown in the Specifications, 65-0087 for RM7840 or 65-0117 for RM7800.
-  Select proper site configurable PFEP/MFEP specified in the cross reference and shown in the Specifications, 65-0087 for RM7840 or 65-0117 for RM7800.
-  If low fire switch is not used, a jumper is required between Q7800 Subbase terminals 5 and 18. NOTE: This jumper will add 30 seconds to prepurge timing.
-  If replaced device had interrupted pilot on terminal 6, connect to Q7800 Subbase terminal 8.
-  Locate the start interlock on the Q520 Subbase terminal 16 and connect between Q7800 terminals 4 and 20. The start interlocks now become preignition interlocks. If start interlocks are not used, jumper the Q7800 Subbase terminal 4 to terminal 20.
-  Locate the preignition interlocks on the Q520 Subbase terminals 4 and 16. Connect the preignition interlock between the Q7800 Subbase terminals 4 and 20. If preignition interlocks are not used, jumper the Q7800 Subbase terminal 4 to terminal 20.
-  Jumper Q7800 subbase terminal 8 to terminal 19 for 30 second MFEP.
-  Locate the preignition interlock connection on the Q520 Subbase terminal 16 and connect to the Q7800 subbase terminal 20.
-  For direct spark ignition, discard any jumpers between Q520 Subbase terminals 5, 6, and 7 and connect according to the diagram shown.
-  Many R4181 devices were used on North American Company Burners. Because North American uses many unique external circuits, such as Automatic Fuel Changeover, Valve Leak Checker, etc., it is recommended that you contact Honeywell through your local distributor or sales representative before attempting conversions of North American Burners.
-  For models without damper motors, jumper Q7800 Subbase terminal 14 to terminal 18, and terminal 4 to terminal 13.
-  Be sure system is modernized to 120 Vac. The replacement 7800 SERIES control is 120 volts.
-  Select proper flame detector when converting from a non-Honeywell control or when a different flame detection system is desired; i.e., the old flame amplifier was flame rectification and the new flame amplifier is to be ultraviolet. Refer to product selection matrixes on pages 3 and 4.

# **Section I**

## **BC7000**

# 7800 SERIES CONVERSION WIRING DIAGRAM

BC700L1000 WITH  
**FROM** PM720G2005 OR G2103 **TO** RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)

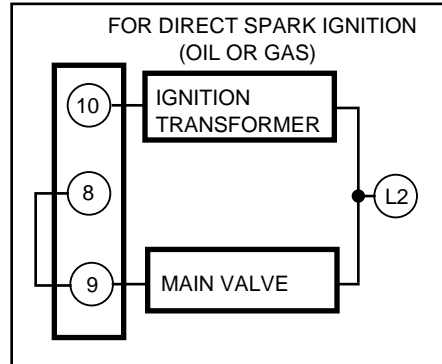
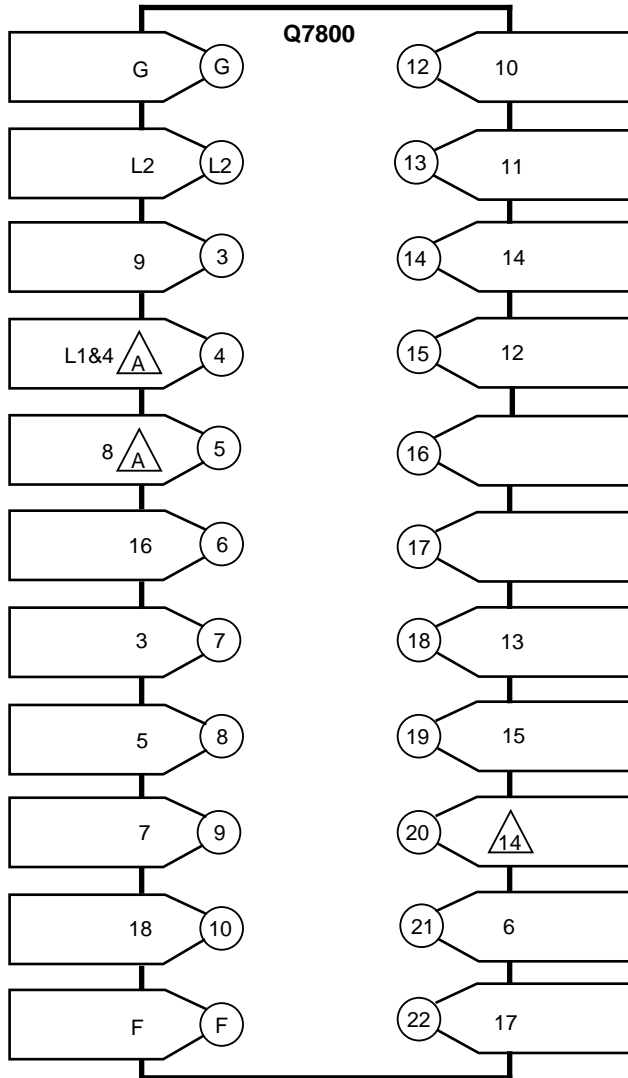


GENERAL FOOTNOTES, SEE PAGE 5.

M2530B

# 7800 SERIES CONVERSION WIRING DIAGRAM

BC7000L1000 WITH  
**FROM** PM720L1030, 1139, L2020 **TO** RM7800L1012 OR RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.

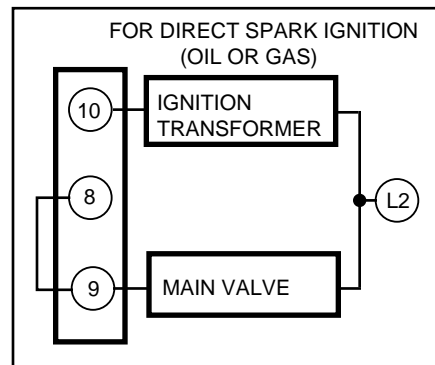
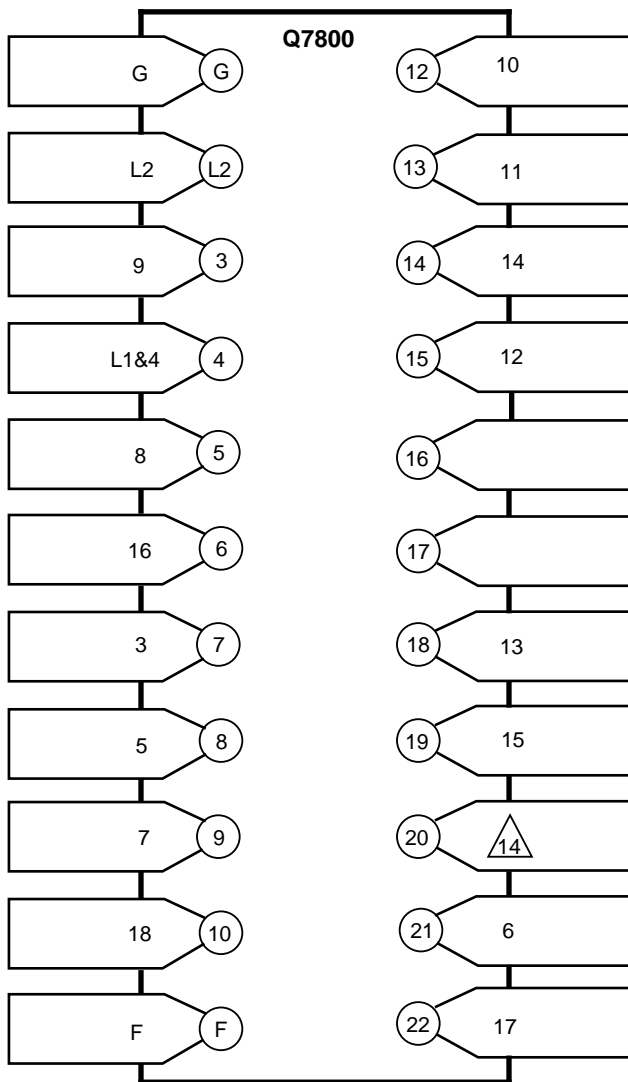
**A** RM7800E ONLY – LOCATE HIGH FIRE SWITCH ON THE Q520 SUBBASE TERMINAL 8 AND CONNECT TO THE Q7800 SUBBASE TERMINAL 4.

M2531B



# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM BC7000L1000 WITH PM720L2004 TO RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)

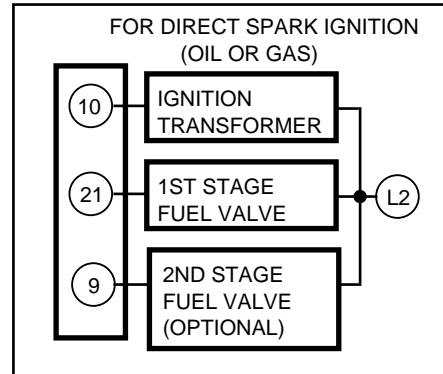
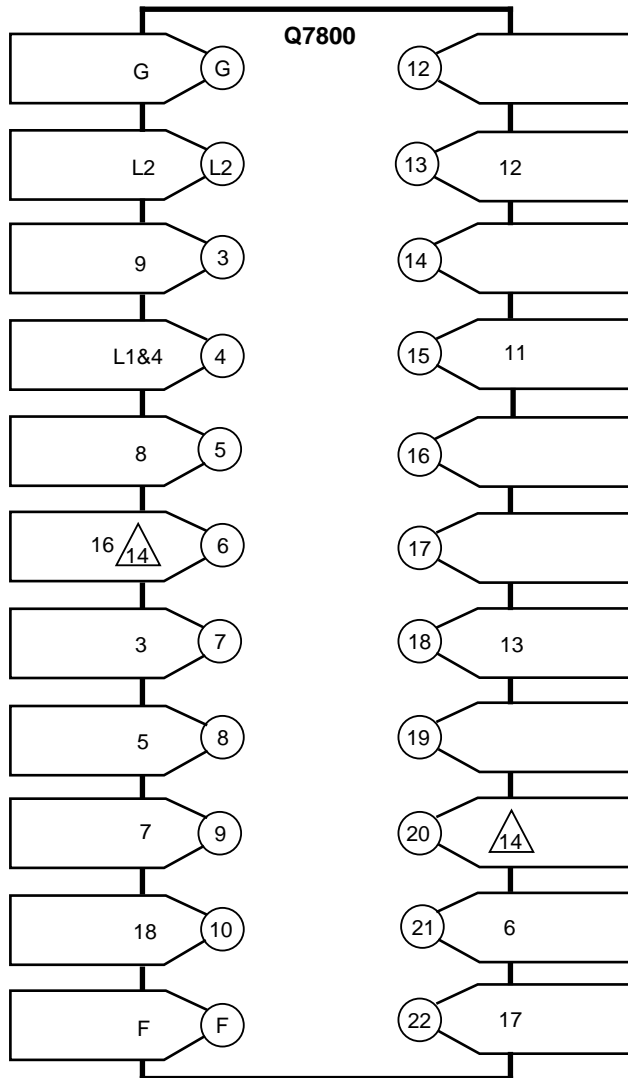


GENERAL FOOTNOTES, SEE PAGE 5.

M2532B

# 7800 SERIES CONVERSION WIRING DIAGRAM

BC700L1000 WITH  
**FROM** PM720M2002 **TO** RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)

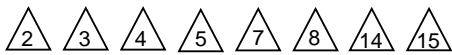
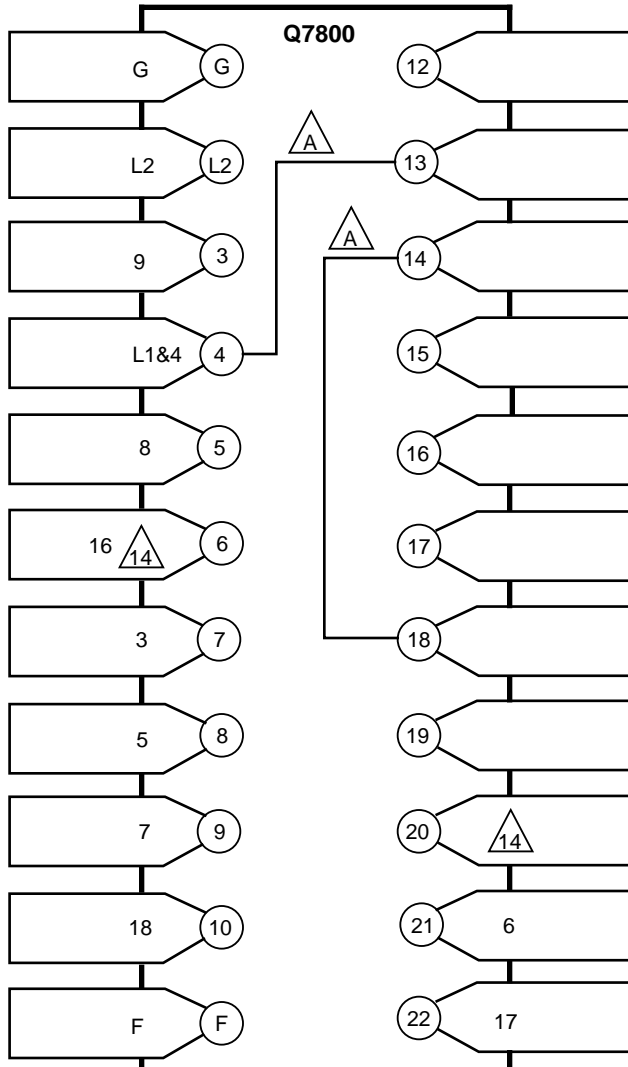


GENERAL FOOTNOTES, SEE PAGE 5.

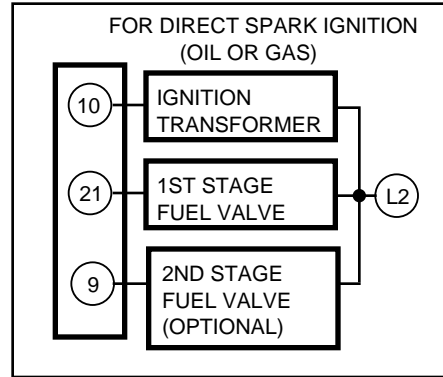
M2533B

# 7800 SERIES CONVERSION WIRING DIAGRAM

BC7000L1000 WITH  
**FROM** PM720M2036 **TO** RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



JUMPER Q7800 SUBBASE TERMINAL  
 14 TO 18 AND 4 TO 13.

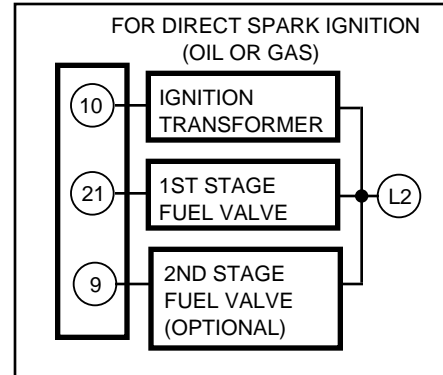
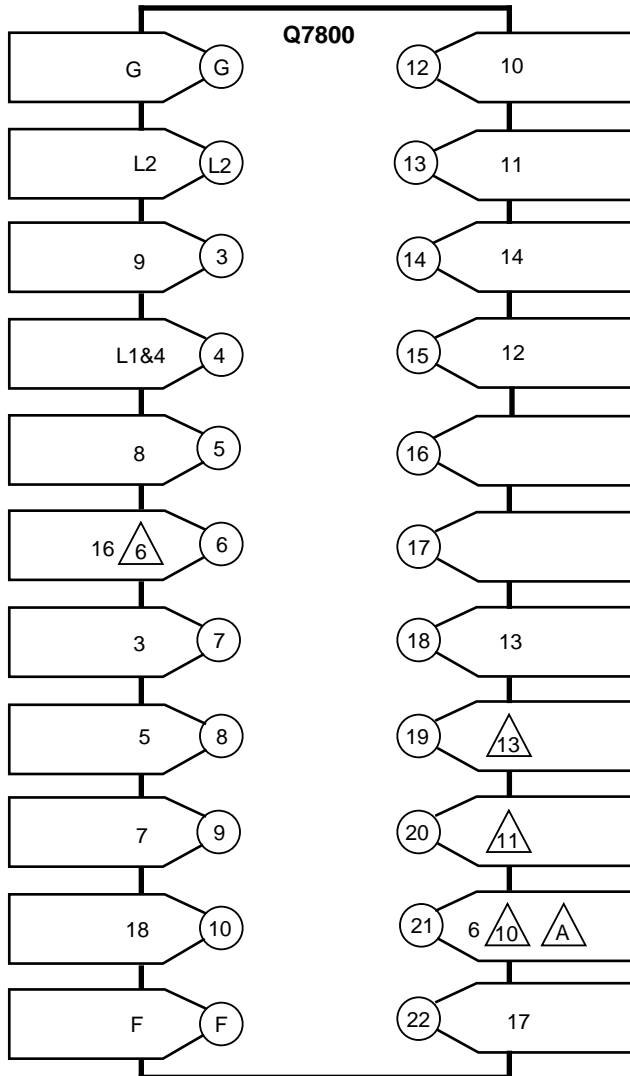
M2534B

# **Section II**

## **Honeywell R4140, R4150**

# 7800 SERIES CONVERSION WIRING DIAGRAM

R4140G WITH  
**FROM** START INTERLOCKS **TO** RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



- △ 1
- △ 2
- △ 3
- △ 4
- △ 5
- △ 6
- △ 7
- △ 8
- △ 11
- △ 13
- △ 15

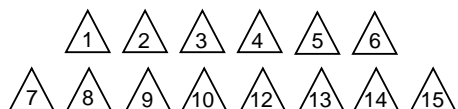
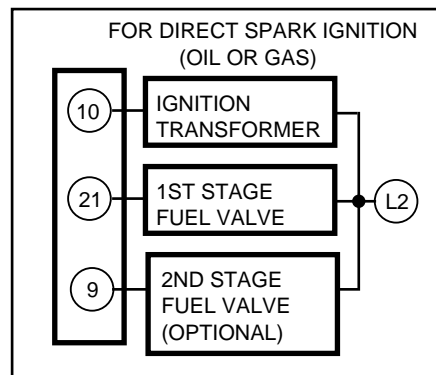
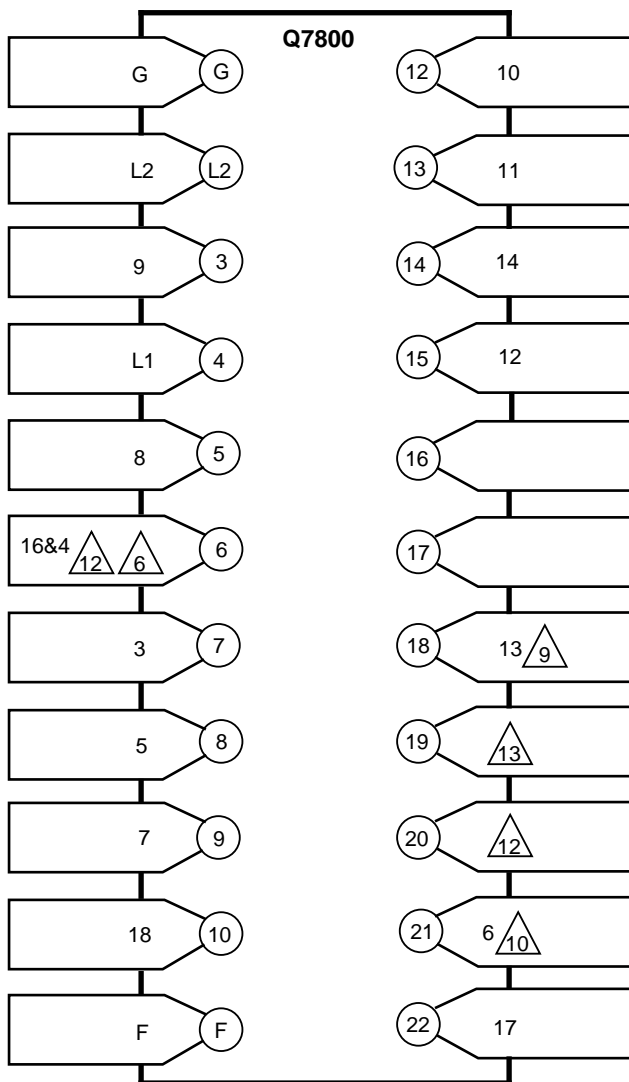
GENERAL FOOTNOTES, SEE PAGE 5.

△ R4140G1171 ONLY—REPLACEMENT CONTROL CANNOT PROVIDE 60 SECOND MFEP.

M2536B

# 7800 SERIES CONVERSION WIRING DIAGRAM

R4140G WITH  
**FROM** PREIGNITION INTERLOCK **TO** RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)

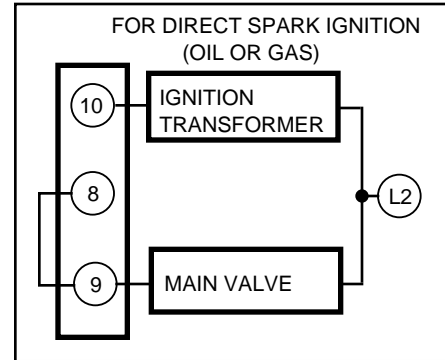
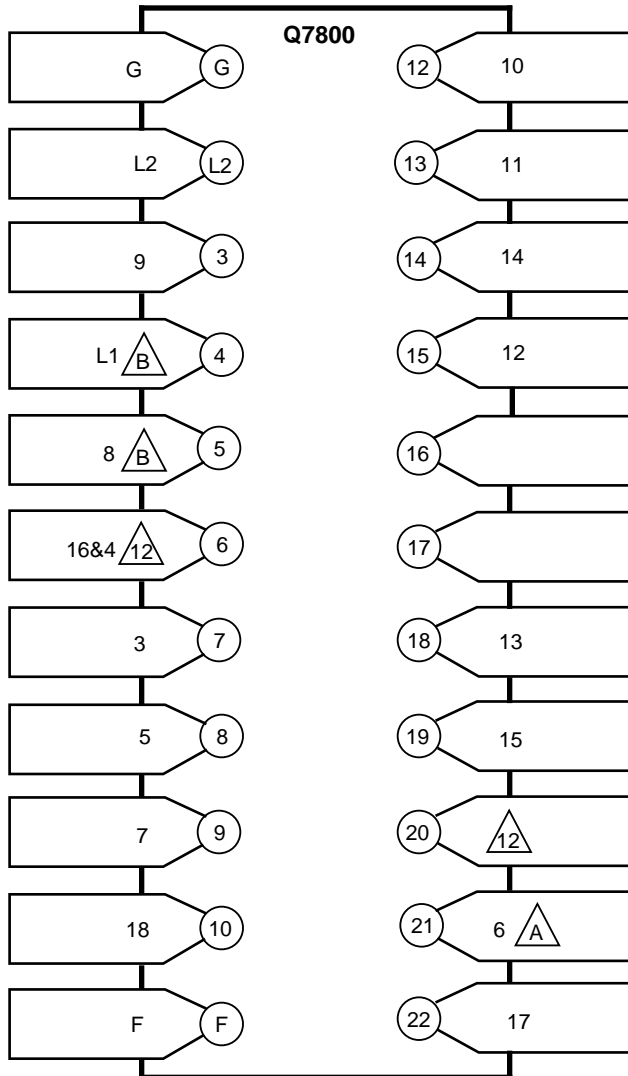




GENERAL FOOTNOTES, SEE PAGE 5.

M2535B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4140L/R4150L (DEVICE TO BE MODERNIZED) TO RM7840E1016 OR RM7800E1010  
RM7840L1018 OR RM7800L1012 (O.S. NUMBER OF RELAY MODULE TO BE USED)



-  NO INTERMITTENT RM7840L/RM7800L MODELS AVAILABLE.
-  RM7840E OR RM7800E ONLY—LOCATE HIGH FIRE SWITCH CONNECTION ON Q520 SUBBASE TERMINAL 8. CONNECT TO Q7800 SUBBASE TERMINAL 4.

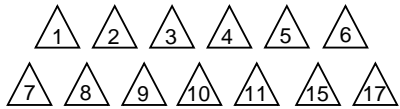
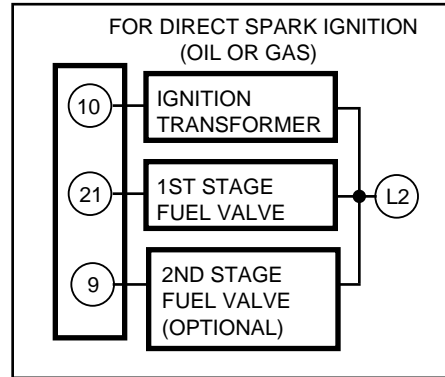
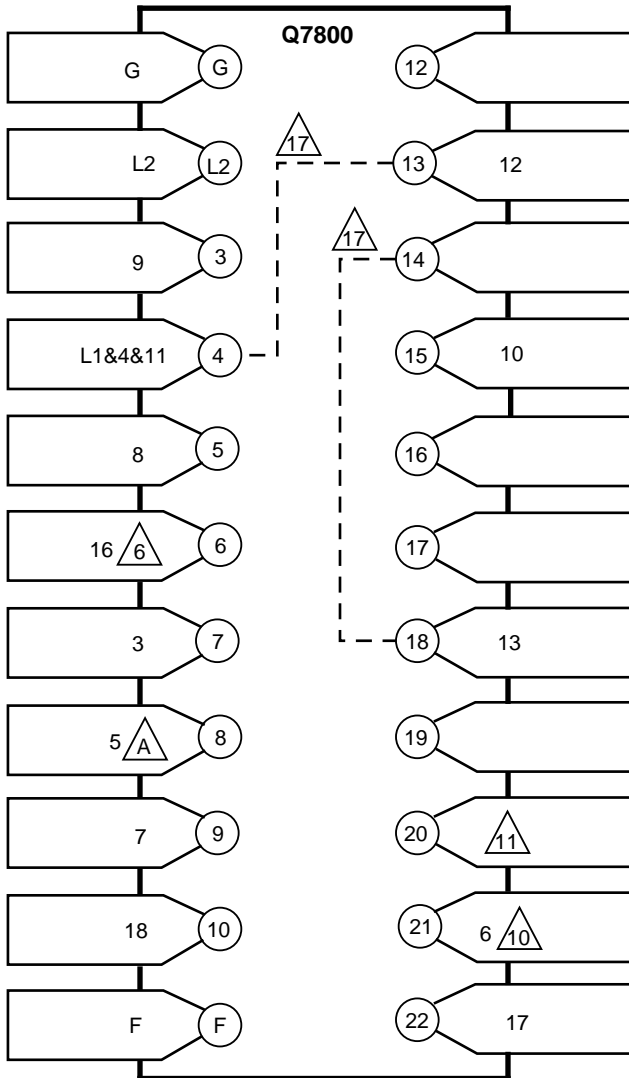
        

GENERAL FOOTNOTES, SEE PAGE 5.

M2537B

# 7800 SERIES CONVERSION WIRING DIAGRAM

R4140M/R4150M WITH  
**FROM** START INTERLOCKS **TO** RM7840M1017 OR RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.

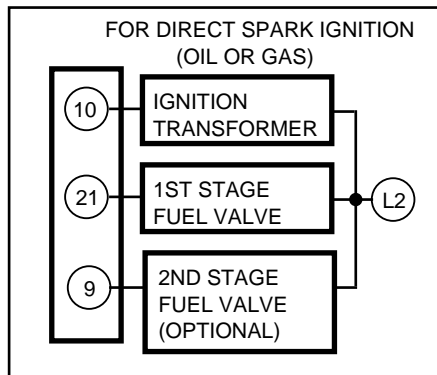
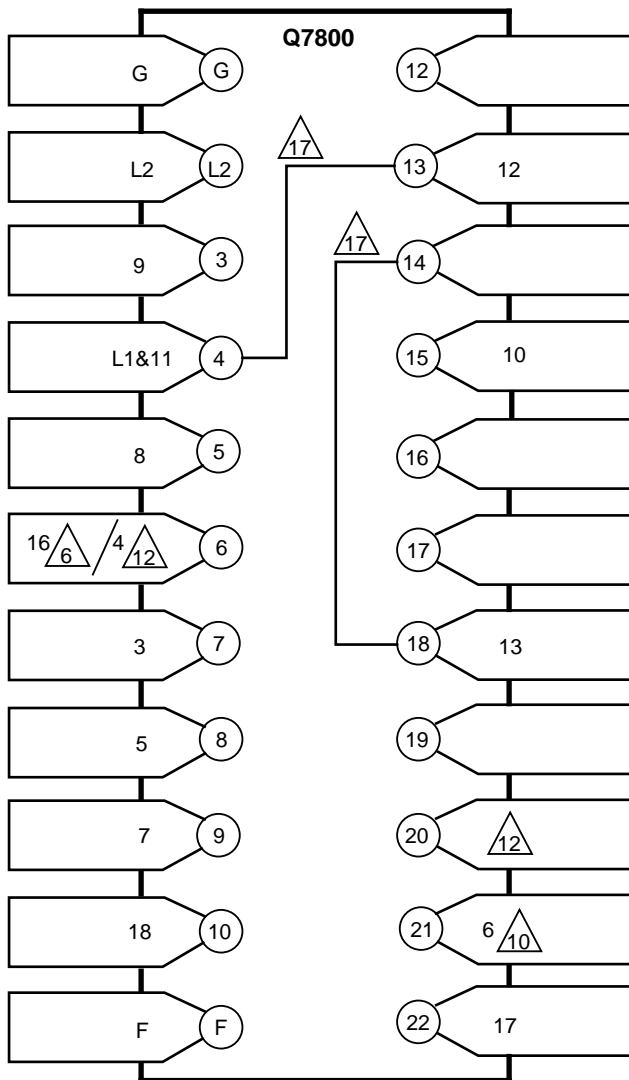
**A** R4140M1103 AND M1111 HAVE 10 OR 30 SECOND MFEP OPTION. REPLACEMENT RELAY MODULE HAS 10 SECOND MFEP OR INTERMITTENT PILOT.

M2538B



# 7800 SERIES CONVERSION WIRING DIAGRAM

R4140M/R4150M WITH  
**FROM** PREIGNITION INTERLOCK **TO** RM7840M1017 OR RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)

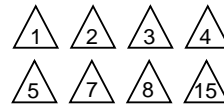
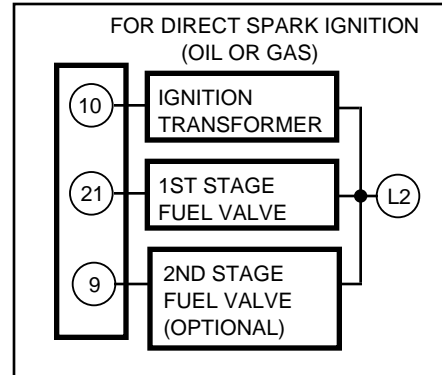
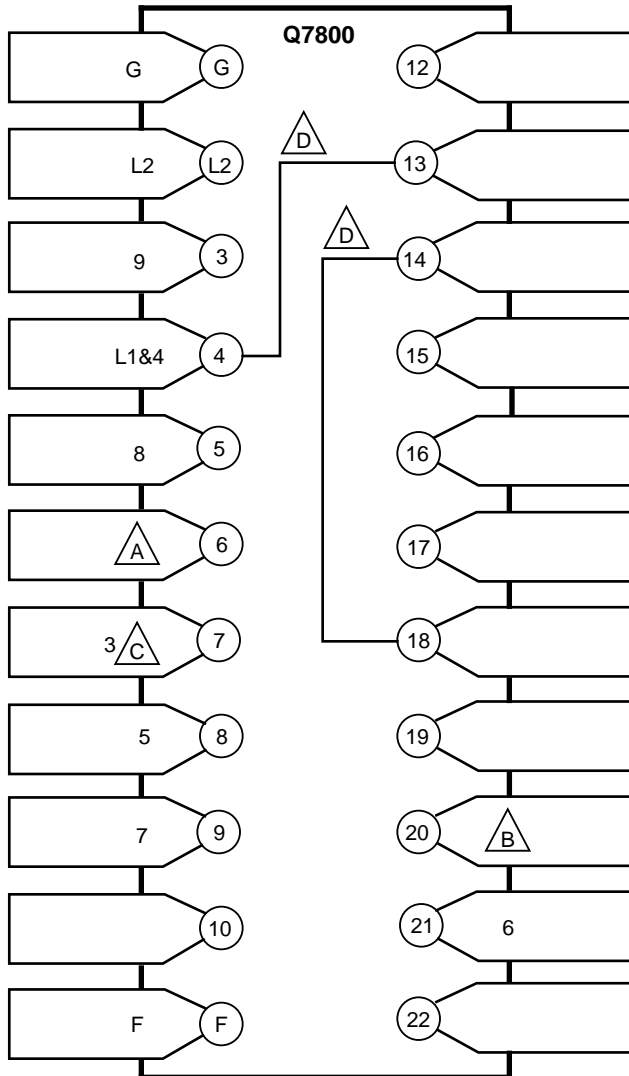


△ 1   △ 2   △ 3   △ 4   △ 5   △ 6  
 △ 7   △ 8   △ 9   △ 10   △ 11   △ 15   △ 17  
 GENERAL FOOTNOTES, SEE PAGE 5.

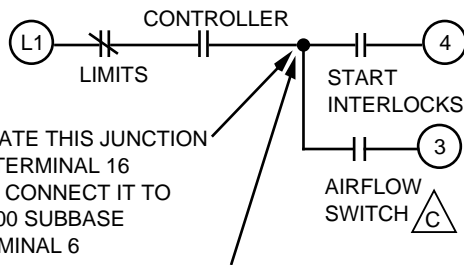
M2539B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150A1007, A1023, A1122, A1247, A1254, A1288, B1005, C1003, C1029 TO RM7840M1017 OR RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



**A** LOCATE THIS JUNCTION OR TERMINAL 16 AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6

**B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

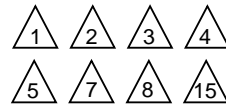
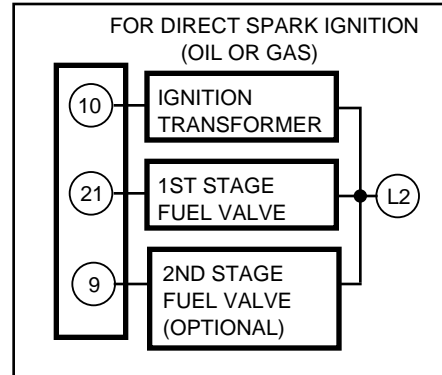
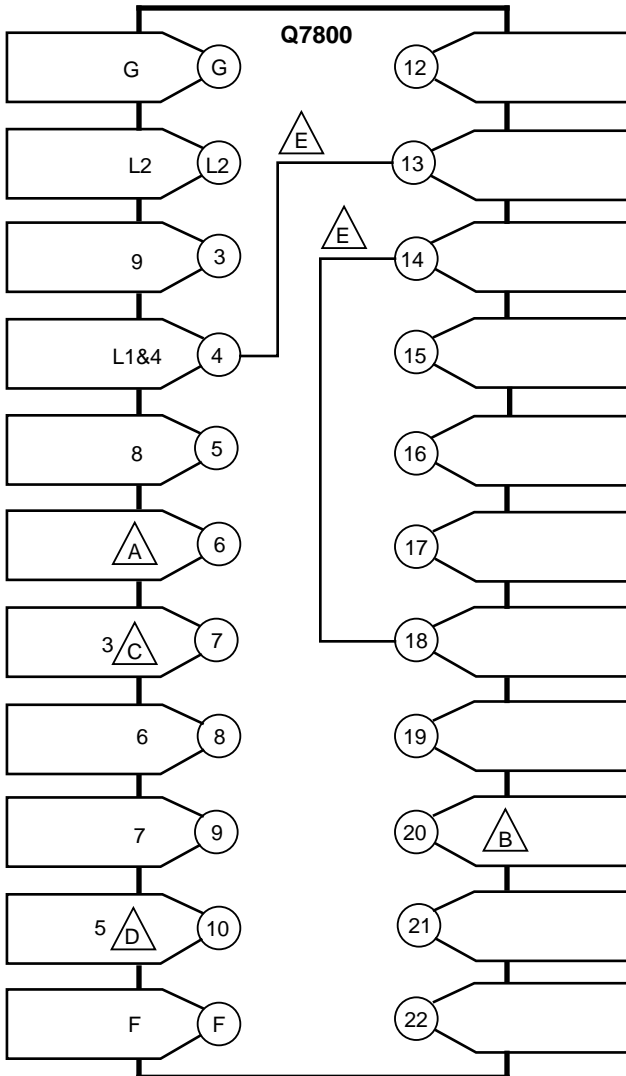
**C** AIR FLOW SWITCH MAY HAVE BEEN CONNECTED BETWEEN Q520 TERMINALS 10 AND 11. CONNECT BETWEEN Q7800 SUBBASE TERMINALS 6 AND 7. BE SURE AIR FLOW SWITCH IS RATED TO HANDLE LOADS ON Q7800 SUBBASE TERMINALS 8, 9, 10 AND 21.

**D** JUMPER Q7800 SUBBASE TERMINAL 4 TO 13 AND TERMINAL 14 TO 18.

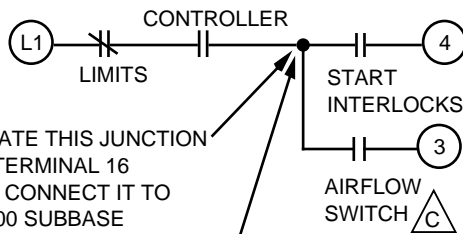
M2540B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150A1056, A1163, A1189, A1239 TO RM7840M1017 OR RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



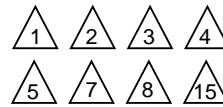
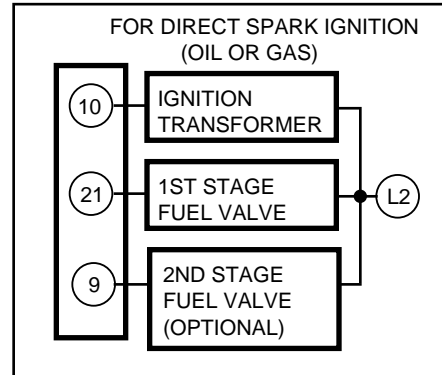
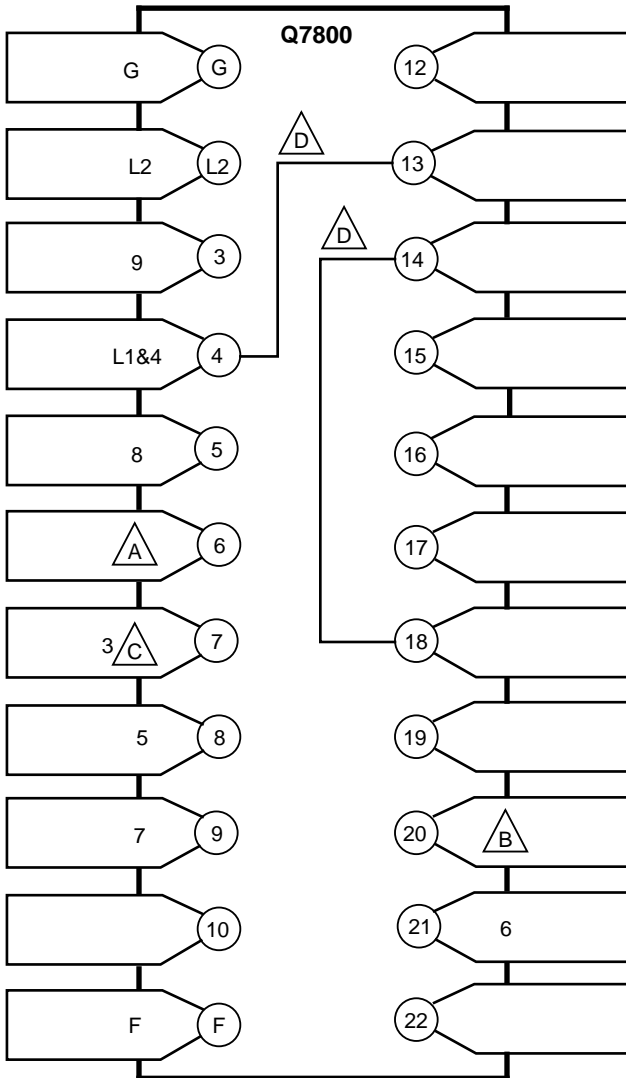
- A** LOCATE THIS JUNCTION OR TERMINAL 16 AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

- C** AIR FLOW SWITCH MAY HAVE BEEN CONNECTED BETWEEN Q520 TERMINALS 10 AND 11. CONNECT BETWEEN Q7800 SUBBASE TERMINALS 6 AND 7. BE SURE AIR FLOW SWITCH IS RATED TO HANDLE LOADS ON Q7800 SUBBASE TERMINALS 8, 9, 10 AND 21.
- D** REPLACEMENT RM7840/RM7800 PROVIDE 5 SECOND IGNITION VS. 10.
- E** JUMPER Q7800 SUBBASE TERMINAL 4 TO 13 AND TERMINAL 14 TO 18.

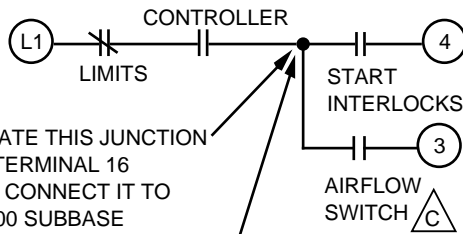
M2544B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150A1064, A1130, A1148 TO RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



- A** LOCATE THIS JUNCTION OR TERMINAL 16 AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

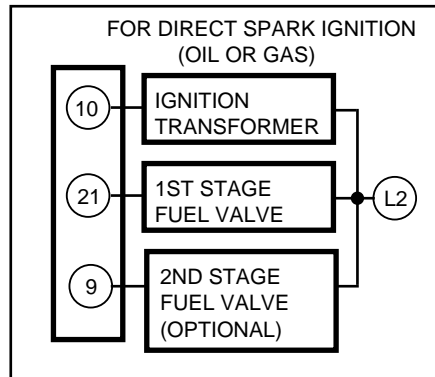
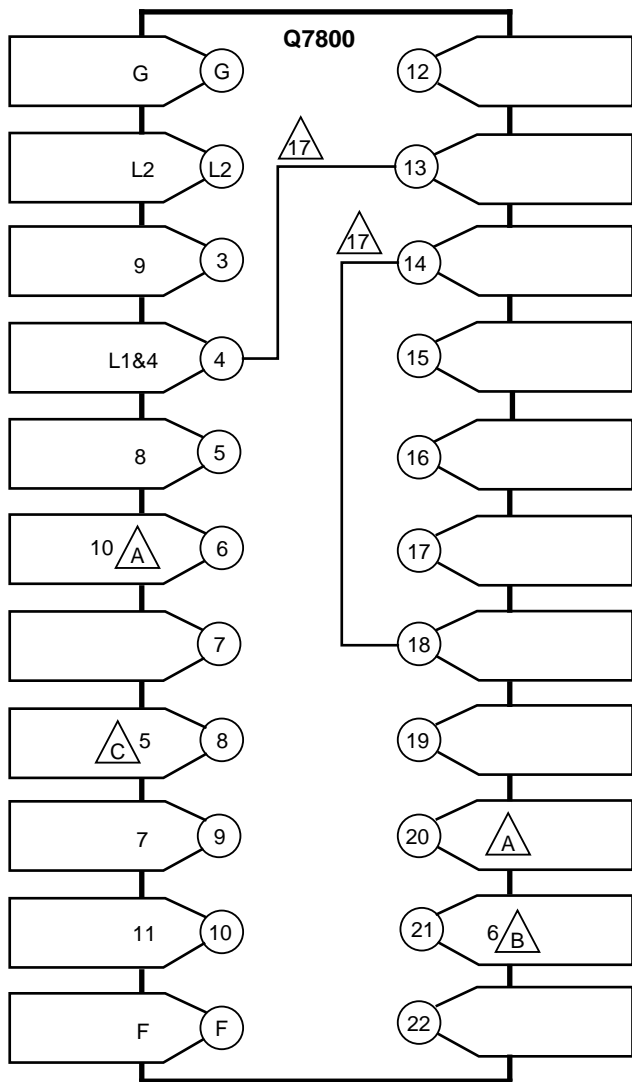
**C** AIR FLOW SWITCH MAY HAVE BEEN CONNECTED BETWEEN Q520 TERMINALS 10 AND 11. CONNECT BETWEEN Q7800 SUBBASE TERMINALS 6 AND 7. BE SURE AIR FLOW SWITCH IS RATED TO HANDLE LOADS ON Q7800 SUBBASE TERMINALS 8, 9, 10 AND 21.

**D** JUMPER Q7800 SUBBASE TERMINAL 4 TO 13 AND TERMINAL 14 TO 18.

M2541B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150A1080, A1155 TO RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



**A** LOCATE START INTERLOCK CONNECTION ON Q520 SUBBASE TERMINAL 10 AND CONNECT TO Q7800 SUBBASE TERMINAL 20. IF START INTERLOCK WAS NOT USED, JUMPER Q7800 SUBBASE TERMINAL 4 TO 20 START INTERLOCKS WILL NOW BECOME PREIGNITION INTRLOCKS.

**B** R4150 TERMINAL 6 PROVIDES 30 SECOND MFEP. JUMPER Q7800 SUBBASE TERMINAL 5 TO 19 AND CLIP JUMPER JR2 TO ACHIEVE 30 SECOND MFEP.

**C** R4150 TERMINAL 5 PROVIDES A 15 SECOND MFEP. TERMINAL 8 OF THE 7800 SERIES CONTROL PROVIDES A 10 SECOND MFEP.

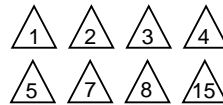
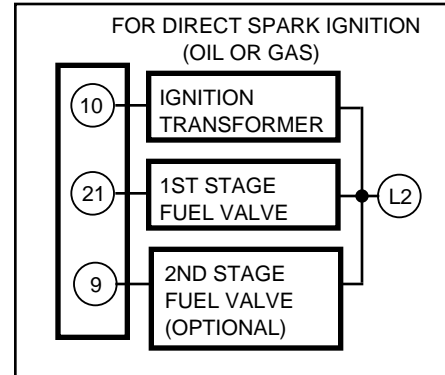
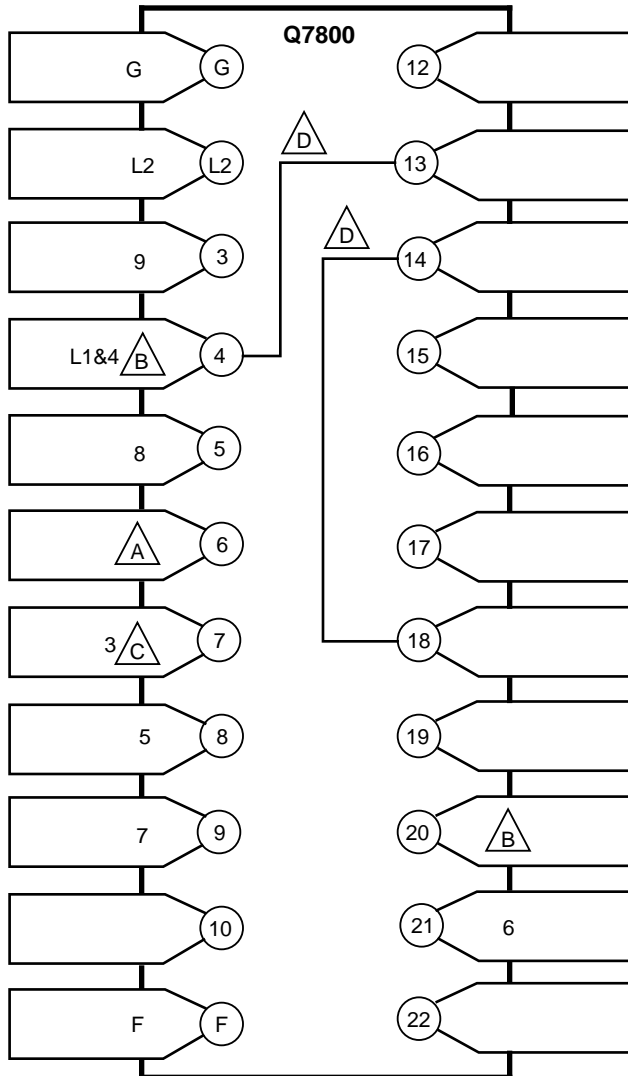


GENERAL FOOTNOTES, SEE PAGE 5.

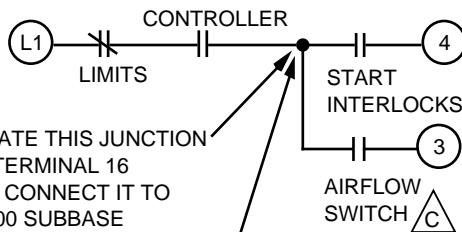
M2545B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150A1106, A1171 TO RM7840M1017 OR RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



- A** LOCATE THIS JUNCTION OR TERMINAL 16 AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

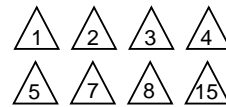
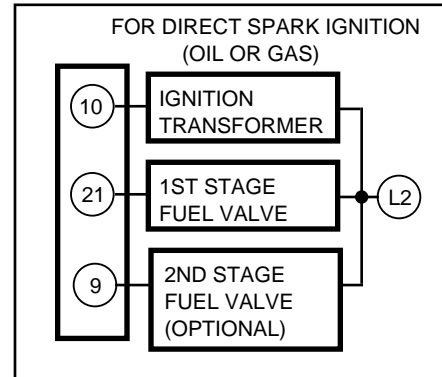
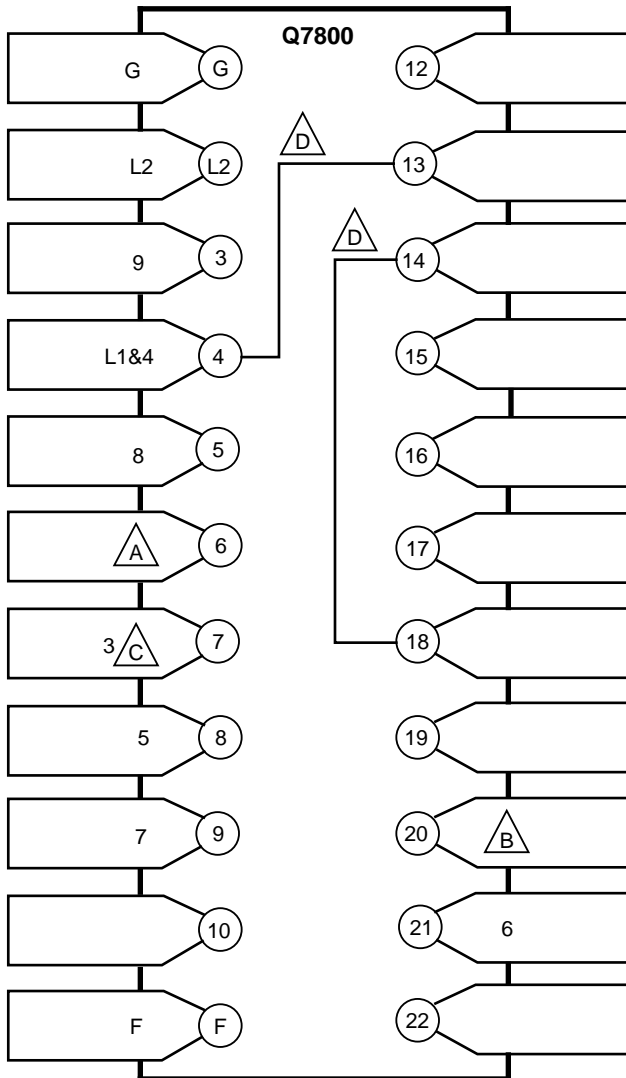
- C** AIR FLOW SWITCH MAY HAVE BEEN CONNECTED BETWEEN Q520 TERMINALS 10 AND 11. CONNECT BETWEEN Q7800 SUBBASE TERMINALS 6 AND 7. BE SURE AIR FLOW SWITCH IS RATED TO HANDLE LOADS ON Q7800 SUBBASE TERMINALS 8, 9, 10 AND 21.

- D** JUMPER Q7800 SUBBASE TERMINAL 4 TO 13 AND TERMINAL 14 TO 18.

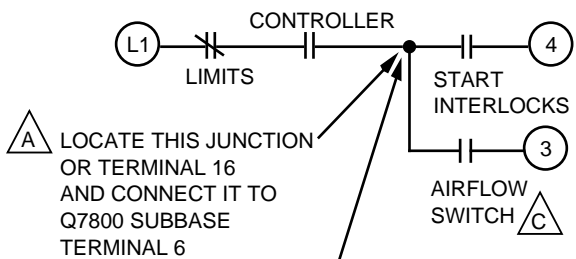
M2543B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150A1197 (DEVICE TO BE MODERNIZED) TO RM7840M1009, OR RM7800M1003 (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



- A** LOCATE THIS JUNCTION OR TERMINAL 16 AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

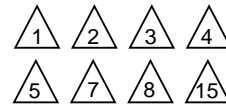
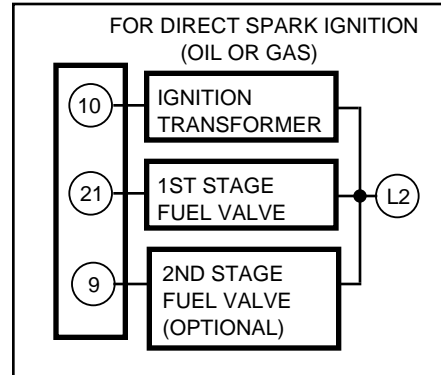
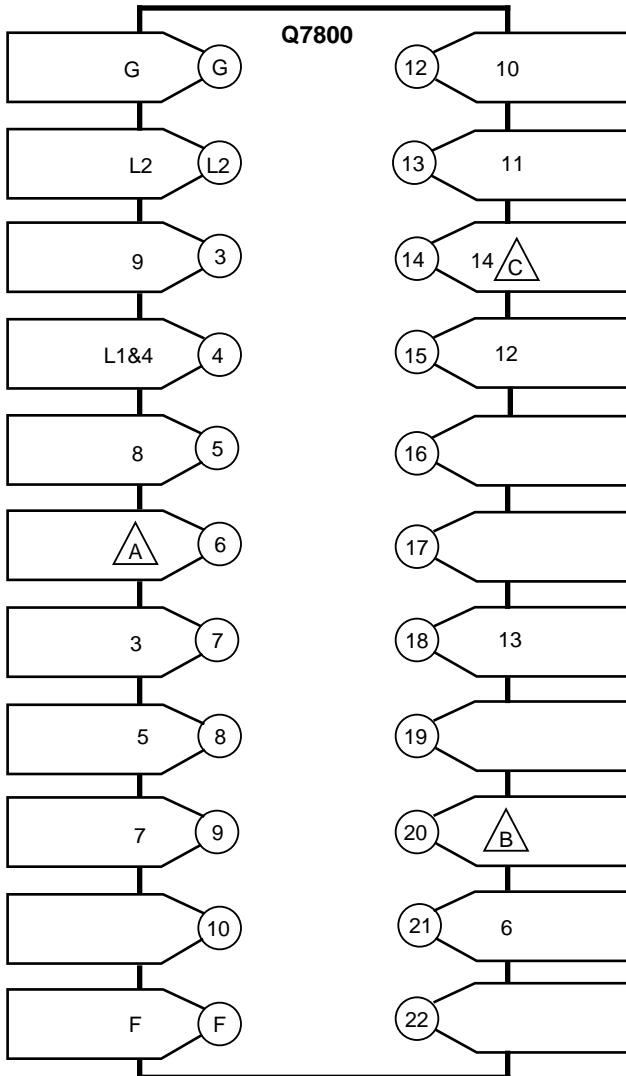
- C** AIR FLOW SWITCH MAY HAVE BEEN CONNECTED BETWEEN Q520 TERMINALS 10 AND 11. CONNECT BETWEEN Q7800 SUBBASE TERMINALS 6 AND 7. BE SURE AIR FLOW SWITCH IS RATED TO HANDLE LOADS ON Q7800 SUBBASE TERMINALS 8, 9, 10 AND 21.

- D** JUMPER Q7800 SUBBASE TERMINAL 4 TO 13 AND TERMINAL 14 TO 18.

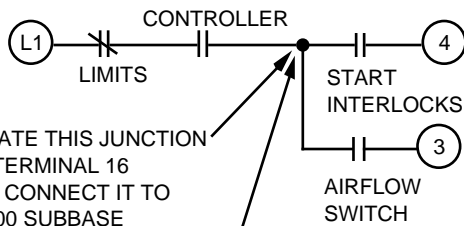
M2542B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150G1004, 1046, 1111, 1145, 1178 TO RM7840G1014, OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



**A** LOCATE THIS JUNCTION OR TERMINAL 16 AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6

**B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

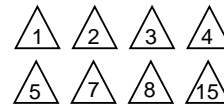
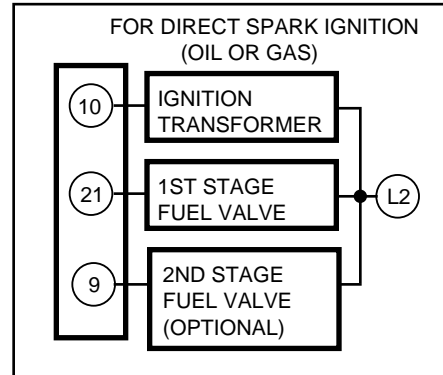
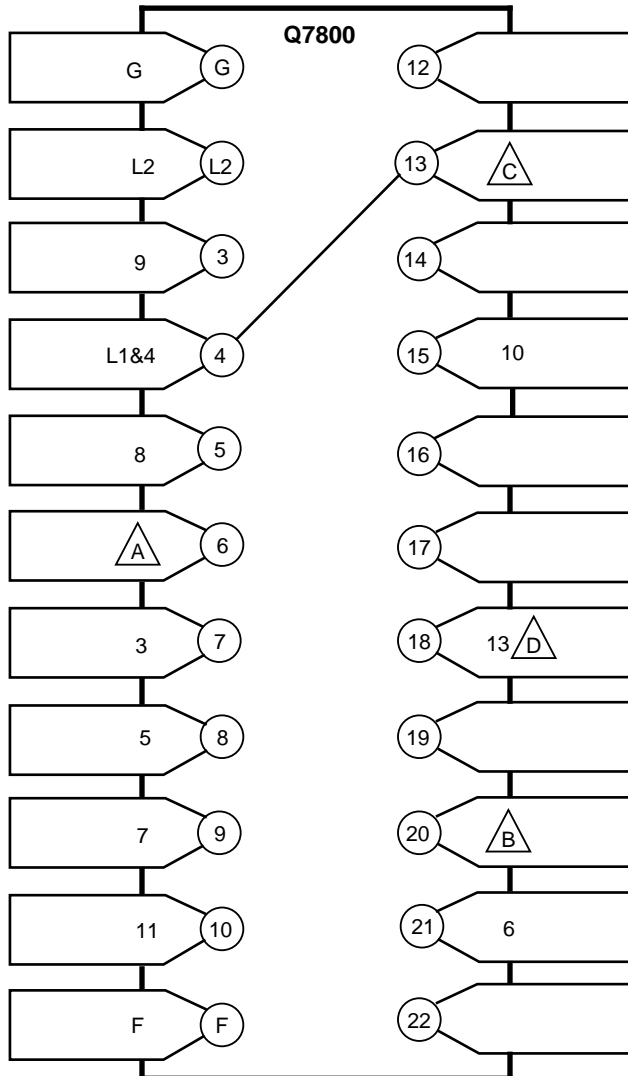
**C** R4150G1004, 1046 ARE 3 WIRE MODULATION DEVICES THAT WILL NOT HAVE Q520 SUBBASE TERMINAL 14 CONNECTION.

M2526B

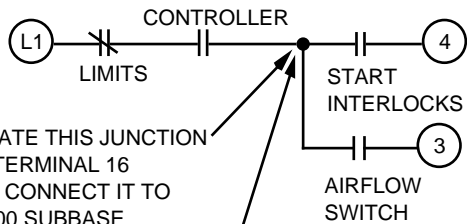


# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150G1012, G1079 TO RM7840M1017, OR RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



- A** LOCATE THIS JUNCTION OR TERMINAL 16 AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

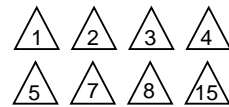
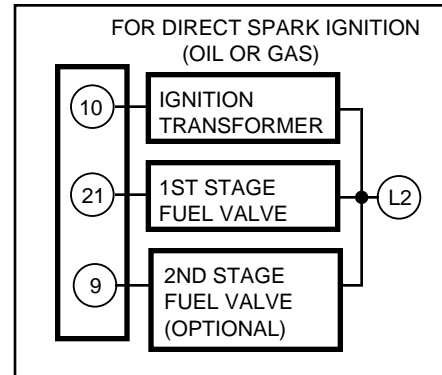
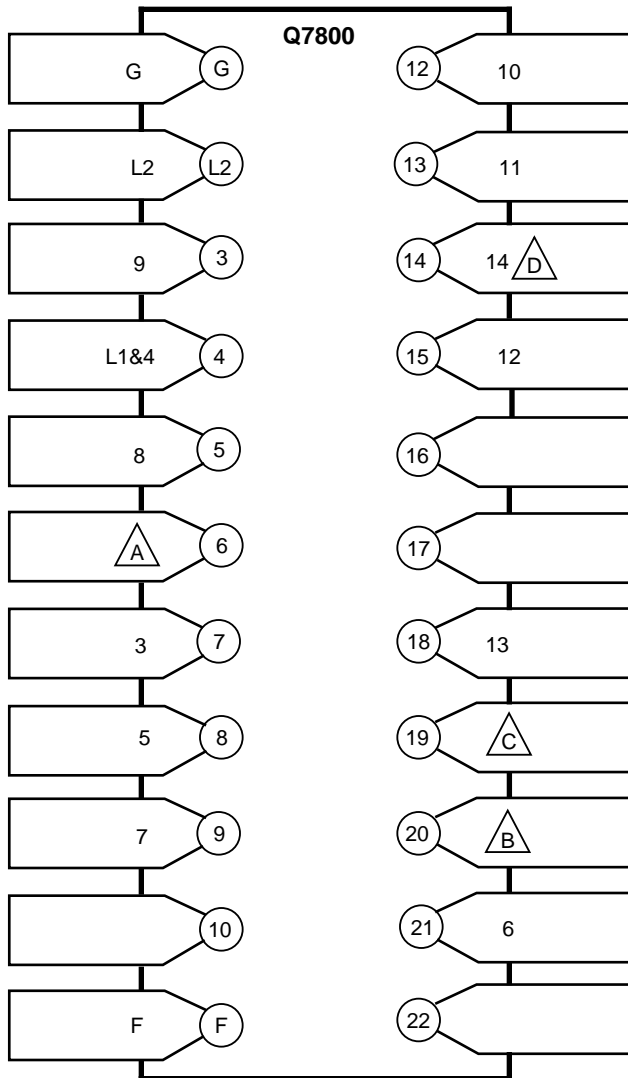
- C** INSTALL JUMPER BETWEEN Q7800 SUBBASE TERMINALS 4 AND 13.
- D** IF LOW FIRE SWITCH IS NOT USED, JUMPER Q7800 SUBBASE TERMINAL 5 TO 18. NOTE: THIS WILL EXTEND PREPURGE 30 SECONDS.

M2527B

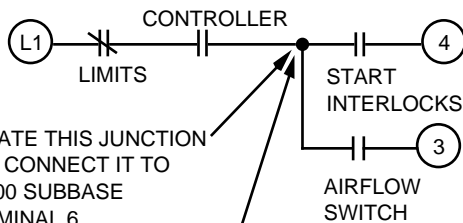
# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150G1103, G1137  
(DEVICE TO BE MODERNIZED)

TO RM7840G1014, OR RM7800G1018  
(O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



**A** LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6

**B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

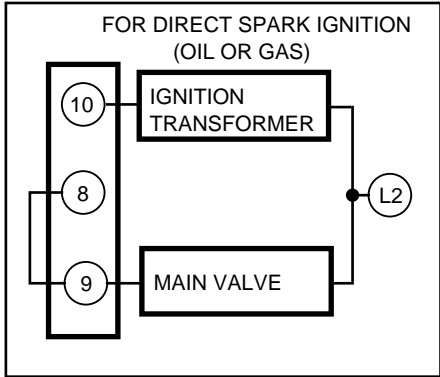
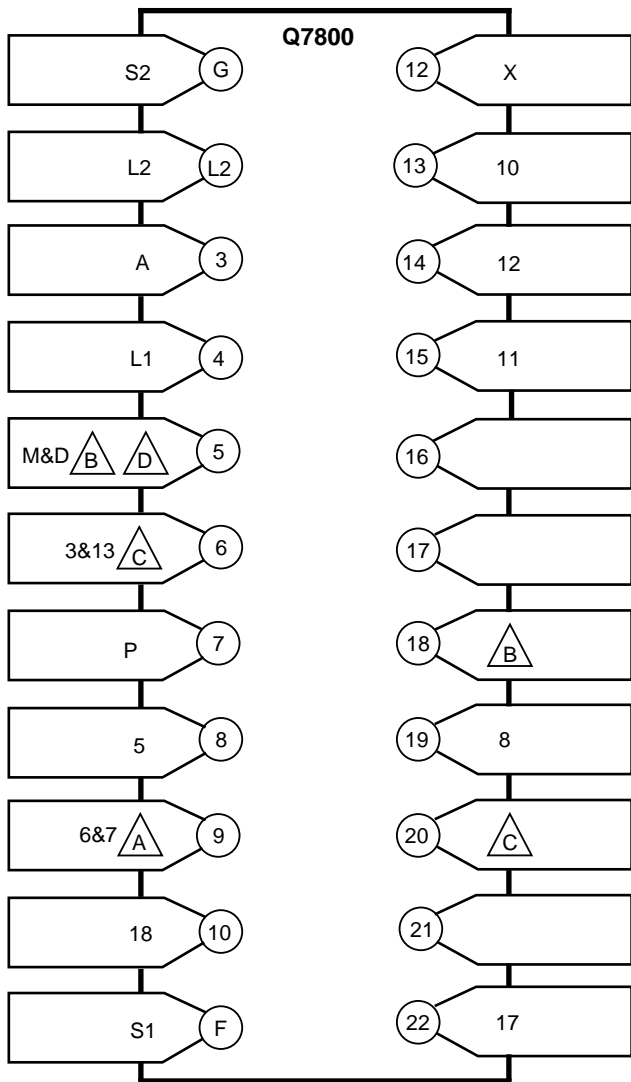
**C** Q520 SUBBASE TERMINAL 6 PROVIDED 30 SECOND MFEP. JUMPER Q7800 SUBBASE TERMINAL 19 TO 5 AND CLIP JUMPER JR2.

**D** R4150G1103 HAD 3 WIRE MODULATION AND DID NOT HAVE Q520 SUBBASE TERMINAL 14 CONNECTION.

M2528B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150G1129(GP200) R4140G1189(GP201) TO RM7840E1016 OR RM7800E1010  
R4150L1078(GP300) R4140L1089(GP301) TO RM7840L1018 OR RM7800L1012  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



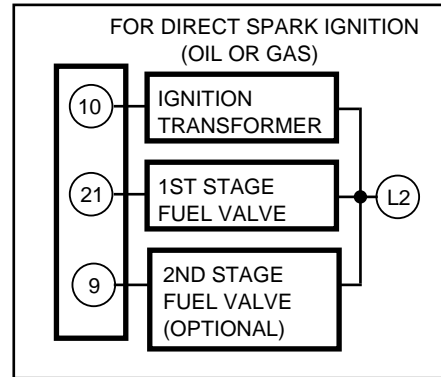
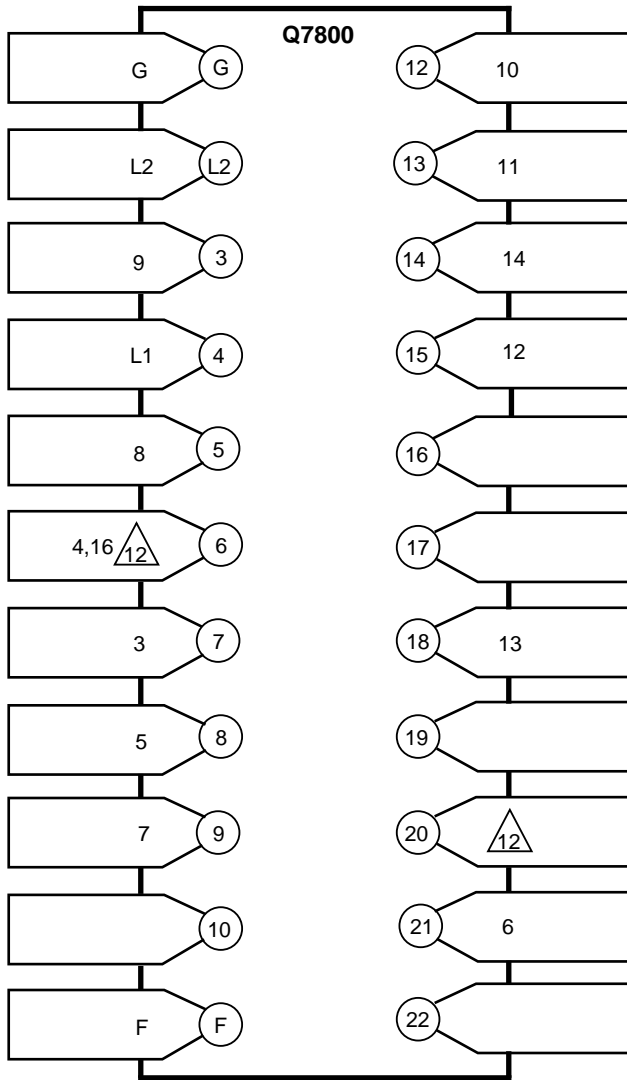
- A** IF Q520 SUBBASE TERMINAL 6 IS USED, CONNECT RM7840, RM7800 FOR DIRECT SPARK IGNITION. NOTE: GP TERMINAL 6 PROVIDED INTERMITTENT PILOT; RM7840L/RM7800L DOES NOT.
- B** LOCATE LOW FIRE SWITCH CONNECTION TO Q520 SUBBASE TERMINAL D AND CONNECT TO Q7800 SUBBASE TERMINAL 18.
- C** LOCATE PREIGNITION INTERLOCK ON Q520 SUBBASE TERMINALS 3 AND 13. CONNECT ONE LEAD TO Q7800 SUBBASE TERMINAL 20 AND THE OTHER LEAD TO Q7800 SUBBASE TERMINAL 4.
- D** RM7840E/RM7800E CONNECT D TO Q7800 SUBBASE TERMINAL 4.

△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 15  
 GENERAL FOOTNOTES, SEE PAGE 5.

M2523B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150G1186 TO RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)

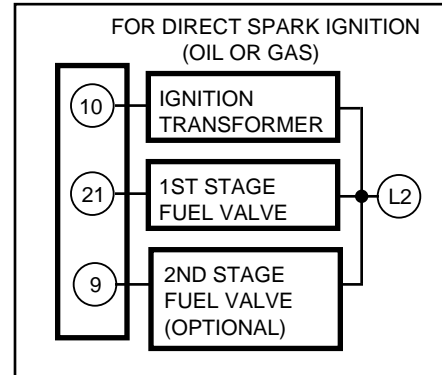
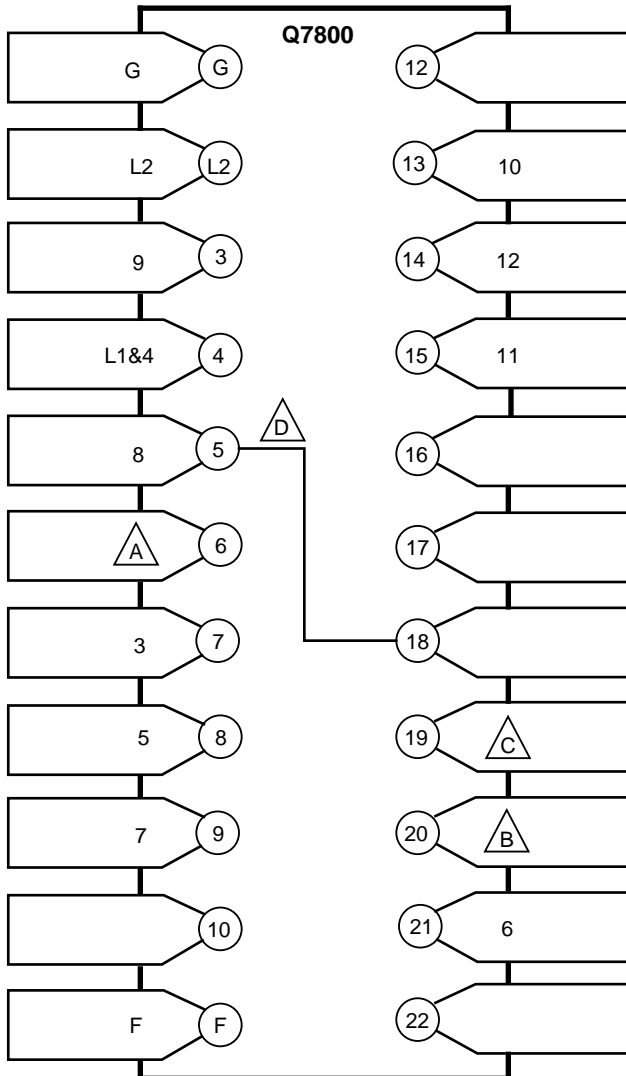


GENERAL FOOTNOTES, SEE PAGE 5.

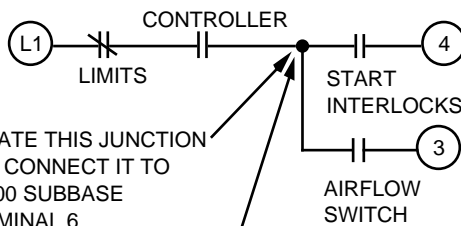
M2529B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150H1002 TO RM7840G1014, OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



△ 1 △ 2 △ 3 △ 4 △ 7 △ 8 △ 15  
 GENERAL FOOTNOTES, SEE PAGE 5.



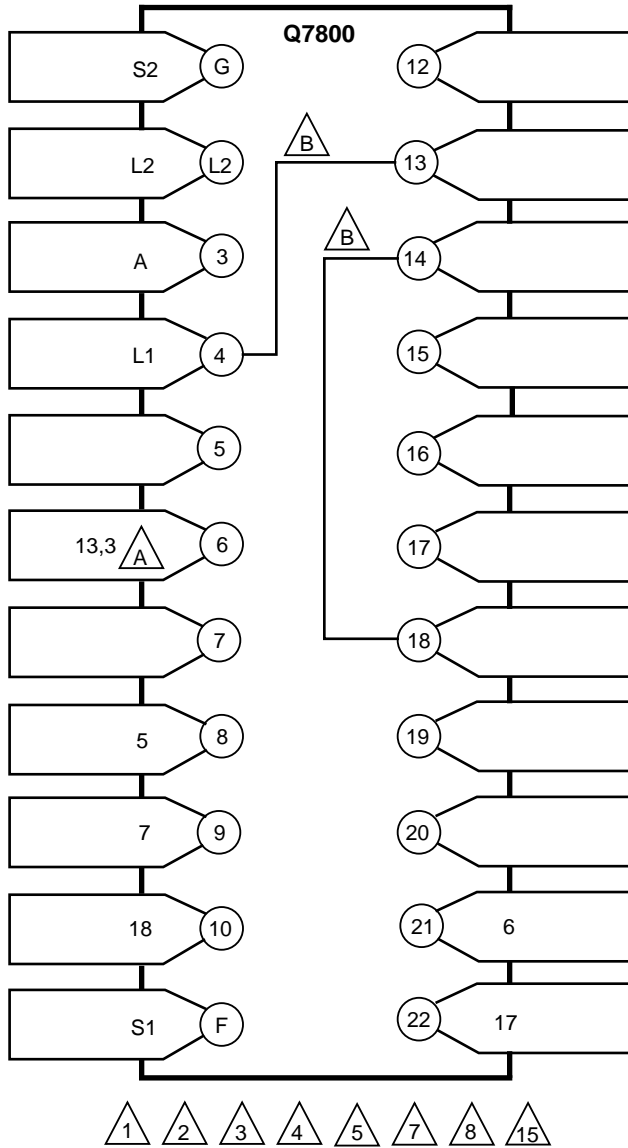
- △ A LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- △ B LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

- △ C Q520 SUBBASE TERMINAL 6 PROVIDED 60 SECOND MFEP. RM7840/RM7800 PROVIDE 30 SECONDS WITH Q7800 SUBBASE TERMINALS 19 TO 5 JUMPED AND JUMPER JR2 CLIPPED.
- △ D JUMPER Q7800 TERMINAL 5 TO 18. NOTE: 30 SECONDS WILL BE ADDED TO PREPURGE TIMING.

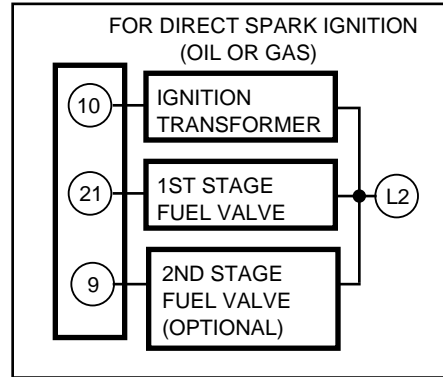
M2525B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4150M1175(GP100) TO RM7840M1017 OR RM7800M1011  
R4140M1079(GP101) (O.S. NUMBER OF RELAY MODULE TO BE USED)  
 (DEVICE TO BE MODERNIZED)



GENERAL FOOTNOTES, SEE PAGE 5.



**A** LOCATE PREIGNITION INTERLOCK CONNECTION ON Q520 SUBBASE TERMINALS 13 AND 3. CONNECT PREIGNITION INTERLOCK BETWEEN Q7800 SUBBASE TERMINALS 4 AND 20.

**B** JUMPER Q7800 SUBBASE TERMINALS 14 TO 18 AND TERMINAL 4 TO 13.

M2524B

# **Section III**

## **Honeywell R4126, R4127, R4181**

# 7800 SERIES CONVERSION WIRING DIAGRAM

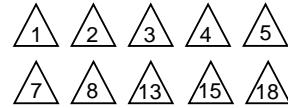
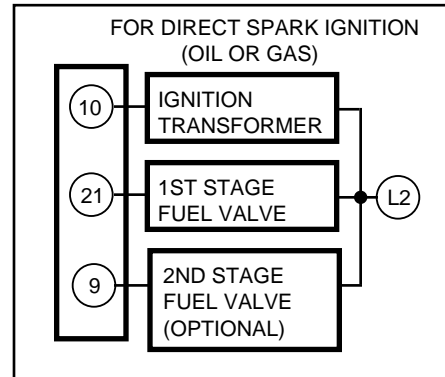
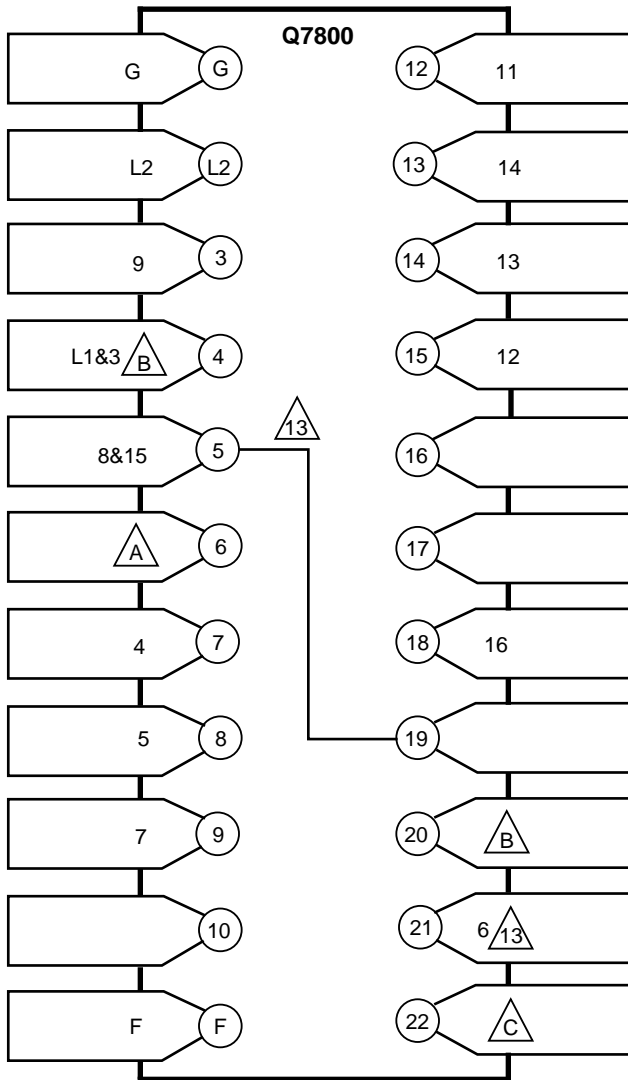
R4126A1008, 1016, A1024, A1032, A1040,  
A1057, A1081, A1149

FROM R4126B1066, B1014, B1022

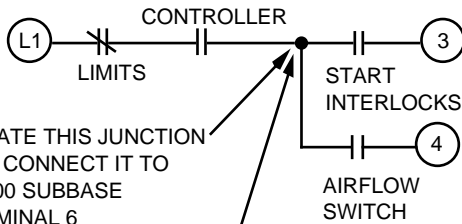
TO RM7840G1014, OR RM7800G1018

(DEVICE TO BE MODERNIZED)

(O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



**A** LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6

**B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

**C** Q535 OR Q536 SUBBASE HAD U1 AND U2 TERMINALS THAT WERE USED FOR C7020 AND C7012E,F FLAME DETECTORS.  
A. TO MODERNIZE C7020 APPLICATIONS, CHOOSE A NEW DETECTOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.  
B. TO MODERNIZE A C7012E,F APPLICATION, USE THE EXISTING SENSOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.

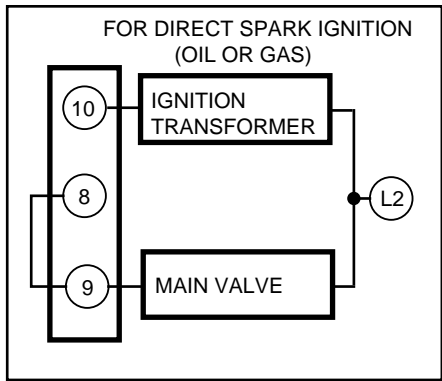
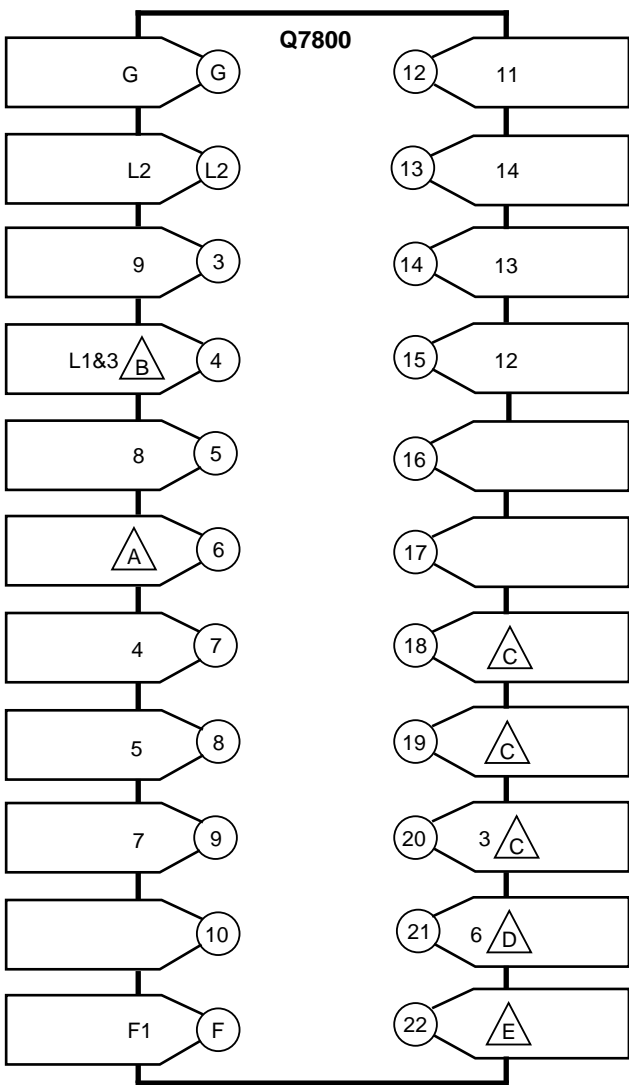
M2513B



# 7800 SERIES CONVERSION WIRING DIAGRAM

For Insurance Requirements

FROM R4126A1008, A1016, A1024, A1032 A1040, A1057, A1081, A1149  
 R4126B1006, B1014, B1022 (DEVICE TO BE MODERNIZED) TO RM7840E1016, RM7800E1010  
 RM7840L1018, RM7800L1012 (O.S. NUMBER OF RELAY MODULE TO BE USED)



△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 15 △ 18  
 GENERAL FOOTNOTES, SEE PAGE 5.

△ C TO MODERNIZE TO AN RM7840L,E OR RM7800L,E TO MEET INSURANCE REQUIREMENTS, THE FOLLOWING INTERLOCKS ARE NORMALLY REQUIRED. (CONNECT OR JUMPER INTERLOCKS AS SHOWN TO THE Q7800 SUBBASE TERMINALS).

INTERLOCKS	RM7840E/ RM7800E	RM7840L/ RM7800L
RUNNING INTERLOCKS	6-7	6-7
PREIGNITION INTERLOCKS	4-20	4-20
HIGHFIRE SWITCH*	5-19	4-19
LOWFIRE SWITCH*	5-18	5-18

\* JUMPER WILL ADD ADDITIONAL 30 SECONDS TO THE PREPURGE TIMING

△ D TERMINAL 6 PROVIDED 30 SECOND MFEP. THE REPLACEMENT CONTROL WILL PROVIDE 15 SECOND MFEP.

△ E Q535 OR Q536 SUBBASE HAD U1 AND U2 TERMINALS THAT WERE USED FOR C7020 AND C7012E,F FLAME DETECTORS.  
 A. TO MODERNIZE C7020 APPLICATIONS, CHOOSE A NEW DETECTION AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.  
 B. TO MODERNIZE A C7012E,F APPLICATION, USE THE EXISTING SENSOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.

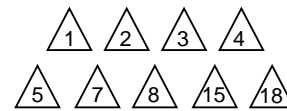
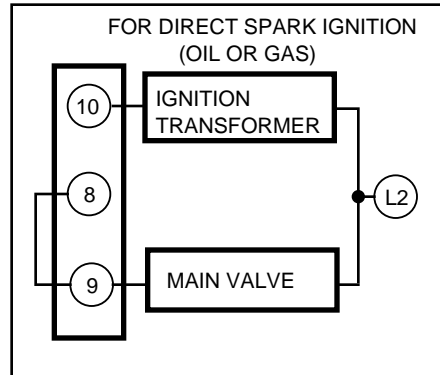
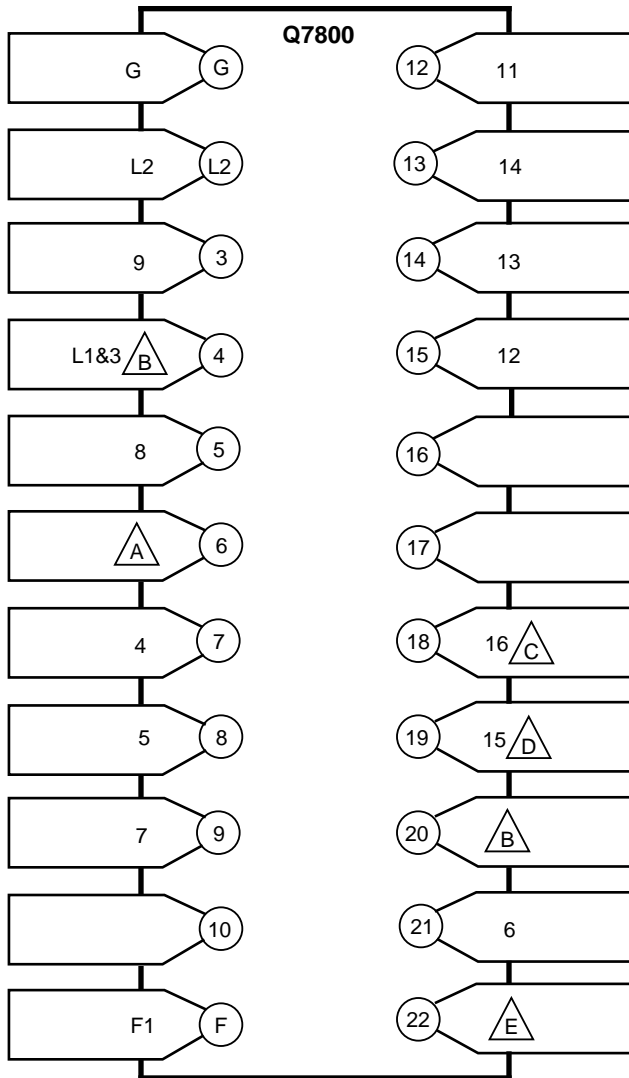
△ A LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6

△ B LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

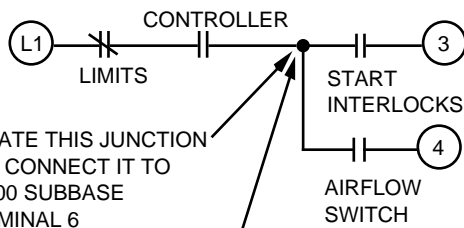
M2514B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM RM7840E1016 OR RM7800E1010 TO RM7840L1018 OR RM7800L1012  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



- A** LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

**C** LOCATE LOW FIRE SWITCH WIRE ON Q535 OR Q536 SUBBASE TERMINAL 15 AND CONNECT TO Q7800 SUBBASE TERMINAL 5. IF LOWFIRE SWITCH IS NOT USED, INSTALL A JUMPER. NOTE: JUMPER WILL ADD 30 SECONDS TO PREPURGE TIMING.

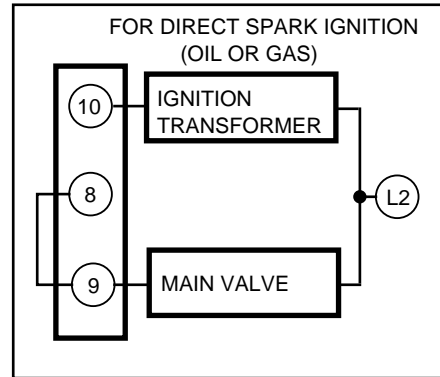
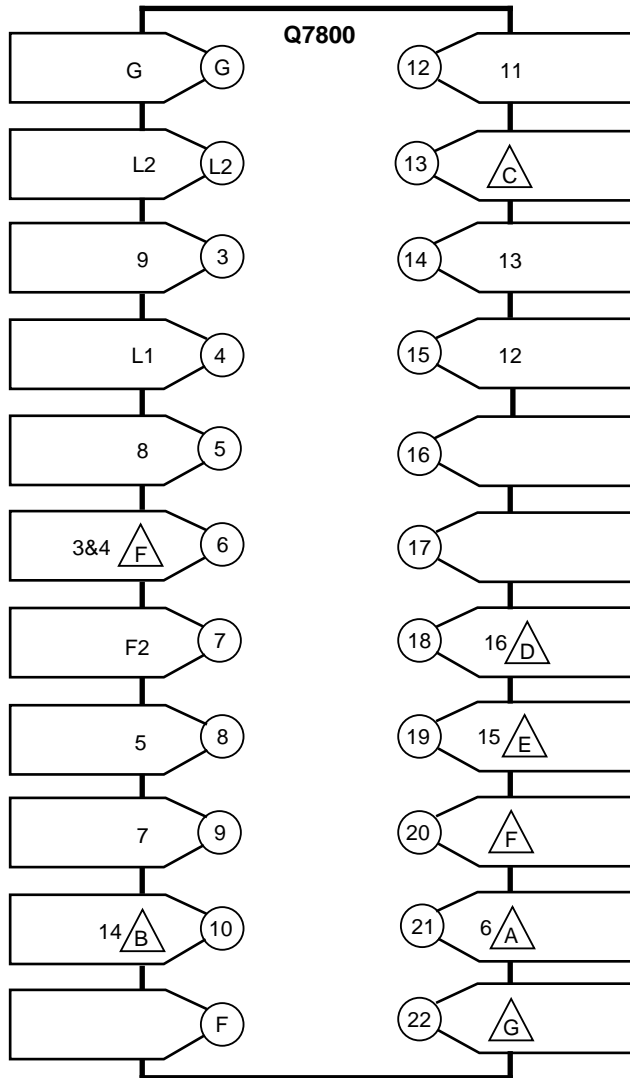
**D** RN7840L/RM7800L—LOCATE Q535 OR Q536 SUBBASE L1 SIDE OF HIGH FIRE SWITCH AND CONNECT TO Q7800 SUBBASE TERMINAL 5. IF HIGH FIRE SWITCH IS NOT USED, INSTALL A JUMPER. NOTE: JUMPER WILL ADD 30 SECONDS TO PREPURGE TIMING.

**E** Q535 OR Q536 SUBBASE HAD U1 AND U2 TERMINALS THAT WERE USED FOR C7020 AND C7012E,F FLAME DETECTORS.  
 A. TO MODERNIZE C7020 APPLICATIONS, CHOOSE A NEW DETECTOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.  
 B. TO MODERNIZE A C7012E,F APPLICATION, USE THE EXISTING SENSOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.

M2511B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4126A1172, A1180, A1198 TO RM7840E1016 OR RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



- △ C** A. TO USE EXISTING GROUNDED MODULATING CIRCUIT, JUMPER Q7800 TERMINALS 13 AND G.  
 B. IF A NONGROUNDED MODULATING CIRCUIT IS DESIRED, IDENTIFY WIRE FROM MOD MOTOR TERMINAL R AND Q535 OR Q536 TERMINAL G. DISCONNECT WIRE AND CONNECT TO Q7800 SUBBASE TERMINAL 13.
- △ D** LOCATE LOW FIRE SWITCH WIRE ON Q535 OR Q536 SUBBASE TERMINAL 15 AND CONNECT TO Q7800 SUBBASE TERMINAL 5.
- △ E** FOR RM7840E/RM7800E APPLICATION ONLY. LOCATE HIGH FIRE SWITCH WIRE ON Q535 OR Q536 SUBBASE TERMINAL 8 AND CONNECT TO Q7800 SUBBASE TERMINAL 4.
- △ F** LOCATE PREIGNITION INTERLOCK WIRE ON Q535 OR Q536 TERMINALS 3 AND 4. CONNECT PREIGNITION INTERLOCK BETWEEN Q7800 SUBBASE TERMINALS 4 AND 20. IF PREIGNITION INTERLOCK WAS NOT USED, INSTALL JUMPER.
- △ G** Q535 OR Q536 SUBBASE HAD U1 AND U2 TERMINALS THAT WERE USED FOR C7020 AND C7012E,F FLAME DETECTORS.  
 A. TO MODERNIZE C7020 APPLICATIONS, CHOOSE A NEW DETECTION AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.  
 B. TO MODERNIZE A C7012E,F APPLICATION, USE THE EXISTING SENSOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.

△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 15 △ 18  
 GENERAL FOOTNOTES, SEE PAGE 5.

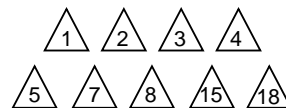
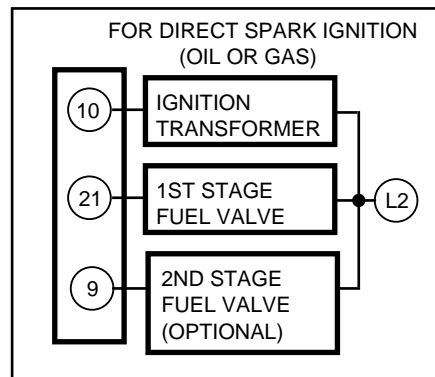
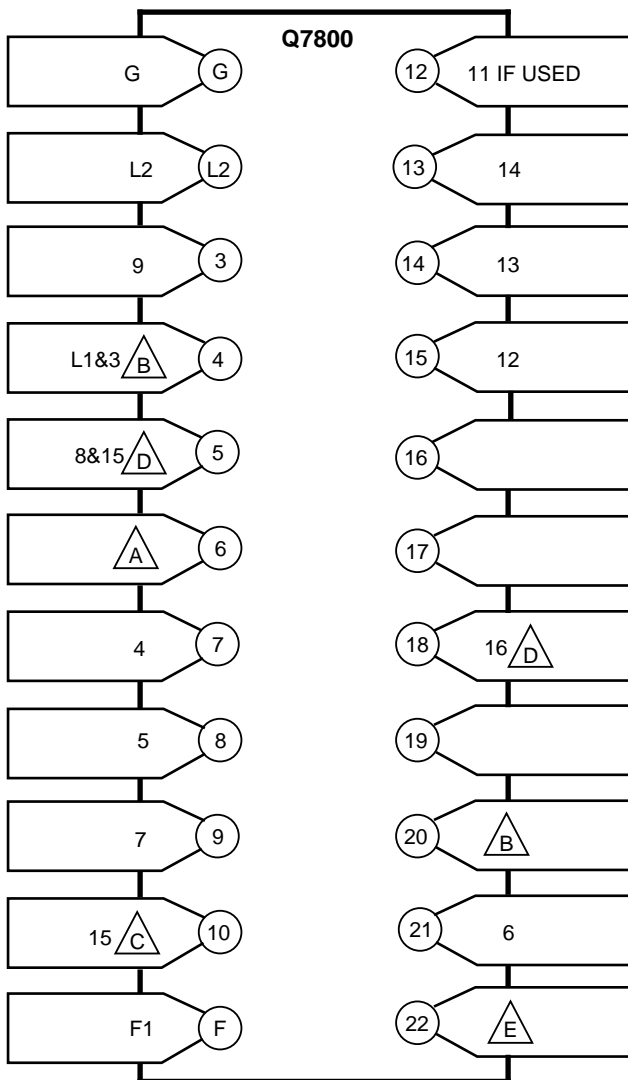
- △ A** R4126A1172, A1180, A1198 HAD 30 SECOND MFEP ON TERMINAL 6. REPLACEMENT RM7840/RM7800 PROVIDE 15 SECOND MFEP ONLY.
- △ B** R4126 PROVIDED 10 SECOND IGNITION TIMING. REPLACEMENT RM7840/RM7800 PROVIDES 5 SECONDS.

M2515B

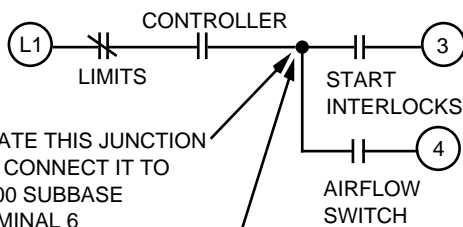
# 7800 SERIES CONVERSION WIRING DIAGRAM

R4127A1007, A1015,1023, A1031, A1049  
 A1064, A1089, A1130, A1189, B1005,  
 B1013, B1021, B1047, C1003

FROM \_\_\_\_\_ TO \_\_\_\_\_  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



- A** LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

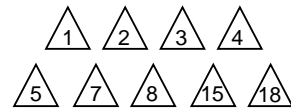
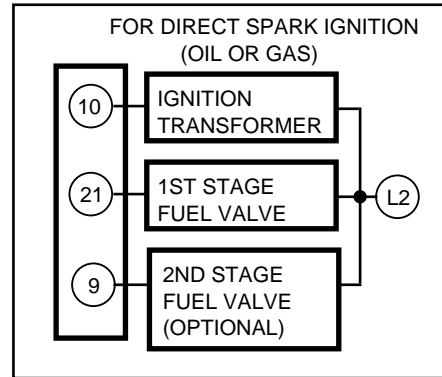
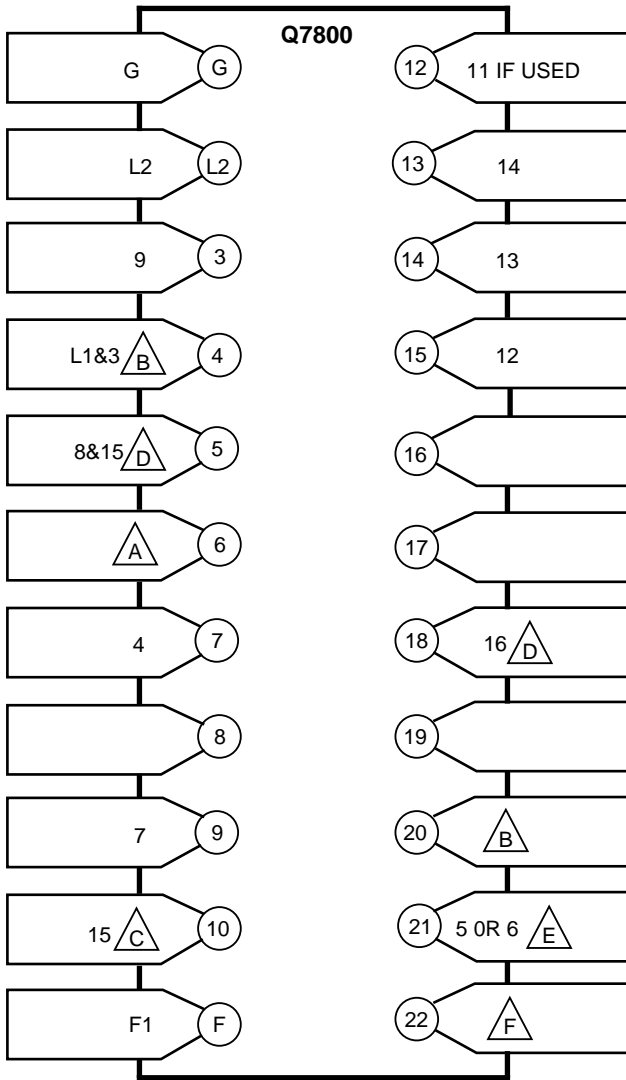
- C** R4127 PROVIDED 10 SECOND IGNITION-REPLACEMENT. RM7840/RM7800 PROVIDES 5 SECONDS
- D** IF LOW FIRE SWITCH IS NOT USED, JUMPER Q7800 SUBBASE TERMINALS 5 AND 18. NOTE: THIS WILL ADD 30 SECONDS TO THE PREPURGE TIMING.
- E** Q535 OR Q536 SUBBASE HAD U1 AND U2 TERMINALS THAT WERE USED FOR C7020 AND C7012E,F FLAME DETECTORS.
  - A. TO MODERNIZE C7020 APPLICATIONS, CHOOSE A NEW DETECTOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.
  - B. TO MODERNIZE A C7012E,F APPLICATION, USE THE EXISTING SENSOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.

M2517B

# 7800 SERIES CONVERSION WIRING DIAGRAM

R4127A1056, A1080, A1122, A1148

FROM A1155, A1171, A1197, B1039, B1054 TO RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.

**A** LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6

**B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

**C** R4127 PROVIDED 10 SECOND IGNITION-REPLACEMENT. RM7840/RM7800 PROVIDES 5 SECONDS

**D** IF LOW FIRE SWITCH IS NOT USED, JUMPER Q7800 SUBBASE TERMINALS 5 AND 18. NOTE: THIS WILL ADD 30 SECONDS TO THE PREPURGE TIMING.

**E** Q535 OR Q536 TERMINAL 5 PROVIDED 15 SECOND MFEP. Q535 OR Q536 TERMINAL 6 PROVIDED EITHER 30, 55, OR 60 SECOND MFEP (DEPENDS ON R4127 MODEL). JUMPER RM7840G/RM7800G TERMINAL 19 TO 5 TO GET 30 SECOND MFEP. 55 AND 60 SECOND MFEP IS NOT ATTAINABLE.

**F** Q535 OR Q536 SUBBASE HAD U1 AND U2 TERMINALS THAT WERE USED FOR C7020 AND C7012E,F FLAME DETECTORS.  
 A. TO MODERNIZE C7020 APPLICATIONS, CHOOSE A NEW DETECTOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.  
 B. TO MODERNIZE A C7012E,F APPLICATION, USE THE EXISTING SENSOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.

M2516B

# 7800 SERIES CONVERSION WIRING DIAGRAM

R4127A1171, B1039, B1047, B1054  
(RAY BURNER)

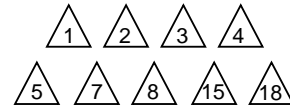
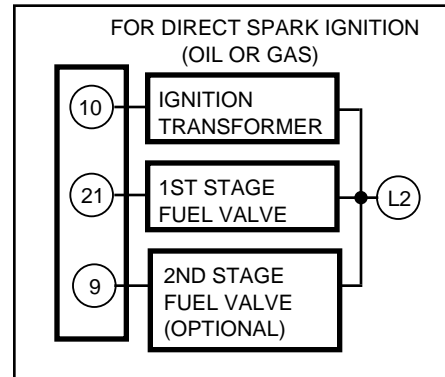
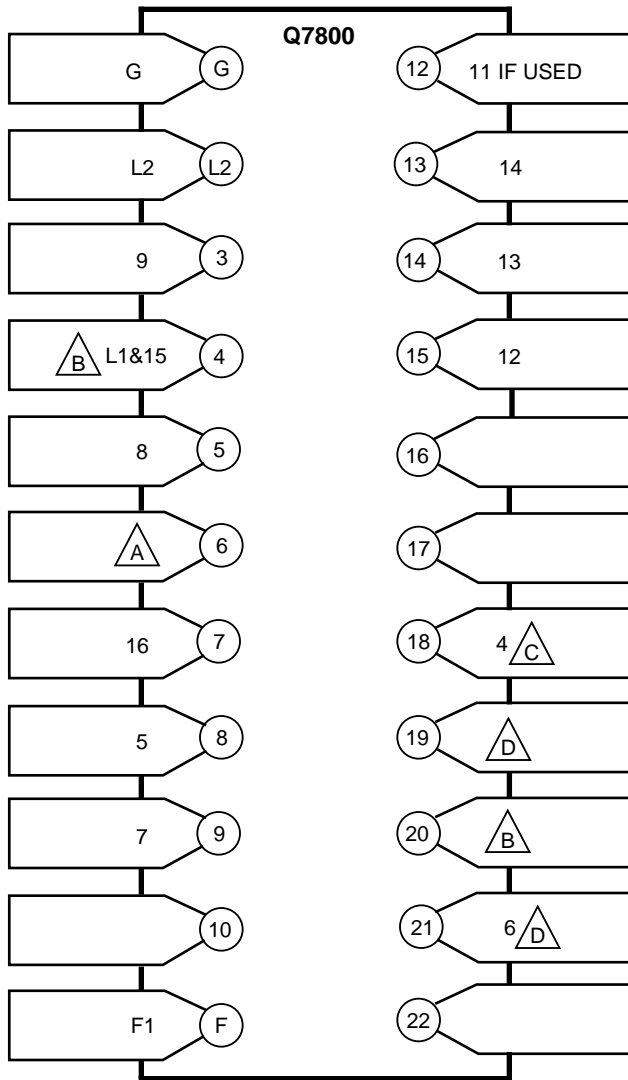
FROM

TO

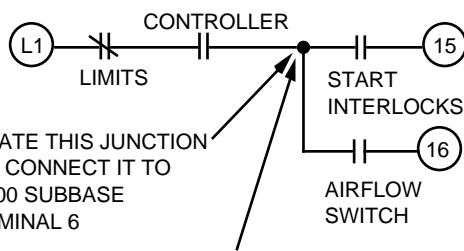
RM7800G1018 OR RM7840G1014

(DEVICE TO BE MODERNIZED)

(O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



- A** LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

**C** IF NO LOW FIRE SWITCH, JUMPER Q7800 SUBBASE TERMINALS 5 TO 18.  
NOTE: ADDING THE JUMPER ADDS 30 SECONDS TO THE PURGE TIMING.

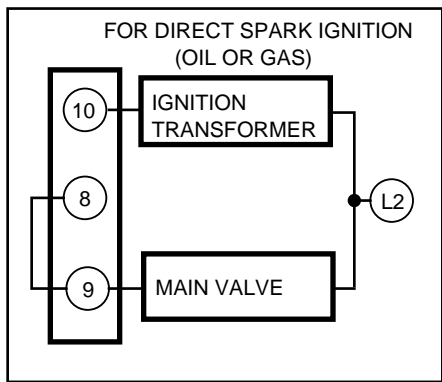
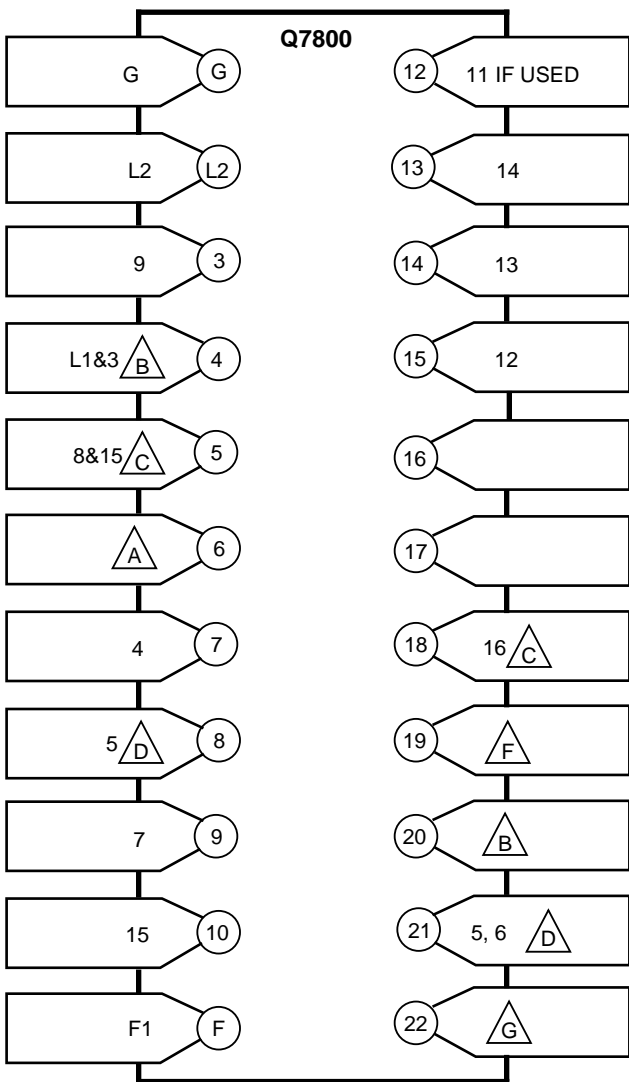
**D** Q535 OR Q536 TERMINAL 5 PROVIDED A 15 SECOND MFEP. Q7800 TERMINAL 8 PROVIDES A 10 SECOND MFEP. Q535 OR Q536 TERMINAL 6 PROVIDED A 30, 55 OR 60 SECOND MFEP (SELECTED BY MODEL NUMBER). JUMPER Q7800 SUBBASE TERMINAL 4 TO TERMINAL 19 AND CLIP JUMPER JR2 OF THE RM7800G/7840G RELAY MODEL TO GET A 30 SECOND MFEP. 55 AND 60 SECOND MFEP ARE NOT AVAILABLE.

M7447

# 7800 SERIES CONVERSION WIRING DIAGRAM

For Insurance Requirements

FROM R4127 (ALL MODELS) TO RM7840E1016 OR RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)  
 RM7840L1018 OR RM7800L1012



△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 15 △ 18  
 GENERAL FOOTNOTES, SEE PAGE 5.

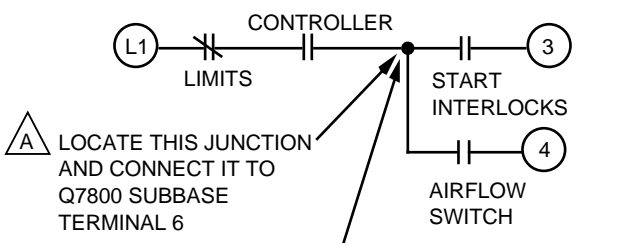
△ C IF LOW FIRE SWITCH IS NOT USED, JUMPER Q7800 SUBBASE TERMINALS 5 AND 18. NOTE: THIS WILL ADD 30 SECONDS TO THE PREPURGE TIMING.

△ D R4127 DEVICE MAY HAVE 15, 30, 55, OR 60 SECOND MFEP. REPLACEMENT DEVICE PROVIDES 10 OR 15 SECONDS ONLY. INSURANCE CODES REQUIRE 10 SECOND MFEP. FOR GAS, NO.2 OIL AND NO.4 OIL APPLICATIONS.

△ E R4127 PROVIDES 10 SECONDS IGNITION-REPLACEMENT RM7840/RM7800 PROVIDE 5 SECONDS.

△ F FOR RM7840L/RM7800L, JUMPER Q7800 SUBBASE TERMINAL 19 TO 5. NOTE: THIS WILL EXTEND PREPURGE TIME 30 SECONDS. FOR RM7840E/RM7800E, JUMPER Q7800 SUBBASE TERMINAL 19 TO 4. NOTE: THIS WILL EXTEND PREPURGE TIME 30 SECONDS.

△ G Q535 OR Q536 SUBBASE HAD U1 AND U2 TERMINALS THAT WERE USED FOR C7020 AND C7012E, F FLAME DETECTORS.  
 A. TO MODERNIZE C7020 APPLICATIONS, CHOOSE A NEW DETECTOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.  
 B. TO MODERNIZE A C7012E, F APPLICATION, USE THE EXISTING SENSOR AND REWIRE PER RM7840/RM7800 SPECIFICATIONS.



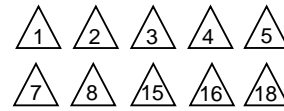
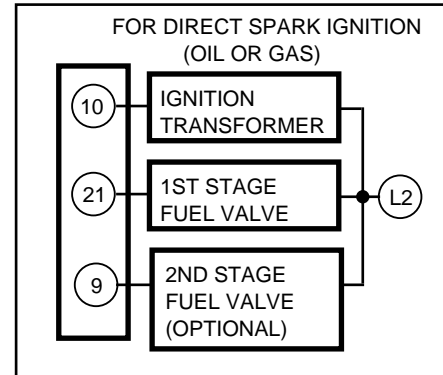
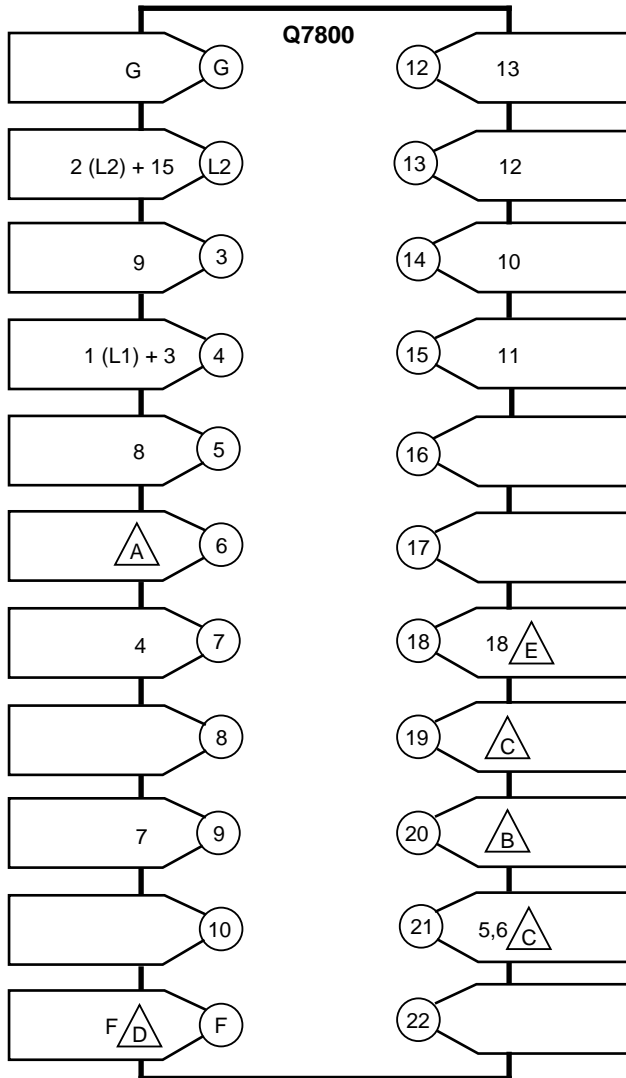
△ A LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6

△ B LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

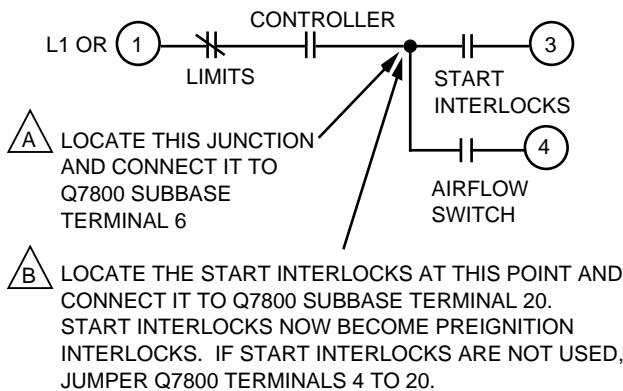
M2518B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4181A1000, A1026 TO RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



**C** CONNECT JUMPER BETWEEN Q7800 SUBBASE TERMINAL 5 AND 19 FOR 30 SECOND MFEP REQUIRED FOR TERMINAL 6 APPLICATION.

**D** DISCARD JUMPER WIRES FROM Q477 OR Q514 SUBBASE TERMINALS F TO 14 OR F TO 16.

**E** THE LOW FIRE SWITCH, IF REQUIRED, WAS CONNECTED BETWEEN Q477 OR Q514 SUBBASE TERMINALS 1 AND 18. THE WIRE FROM THE LOW FIRE SWITCH AND 1 MUST BE IDENTIFIED AND CONNECTED TO Q7800 SUBBASE TERMINAL 8. IF NO LOW FIRE SWITCH WAS USED, Q477, Q514 TERMINALS 1 AND 18 WERE JUMPED. REMOVE TERMINAL 1 AND CONNECT TO Q7800 SUBBASE TERMINAL 8. NOTE: THIS JUMPER ADDS 30 SECONDS TO THE PURGE TIMING.

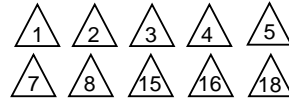
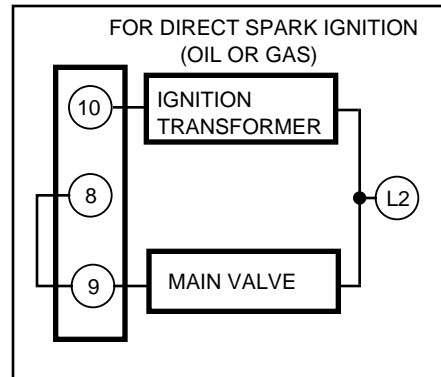
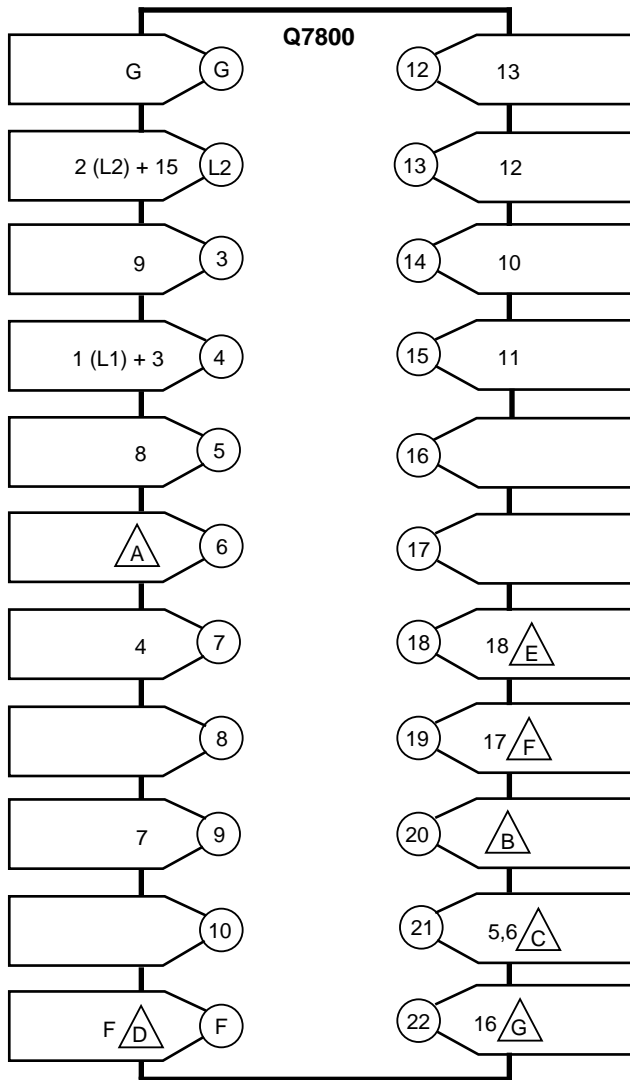
M2522B



# 7800 SERIES CONVERSION WIRING DIAGRAM

For Insurance Requirements

FROM R4181A1000, A1026 TO RM7840E1016 OR RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.

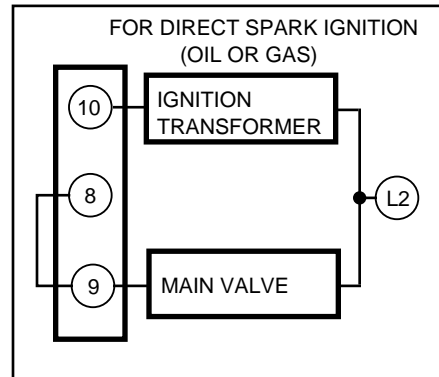
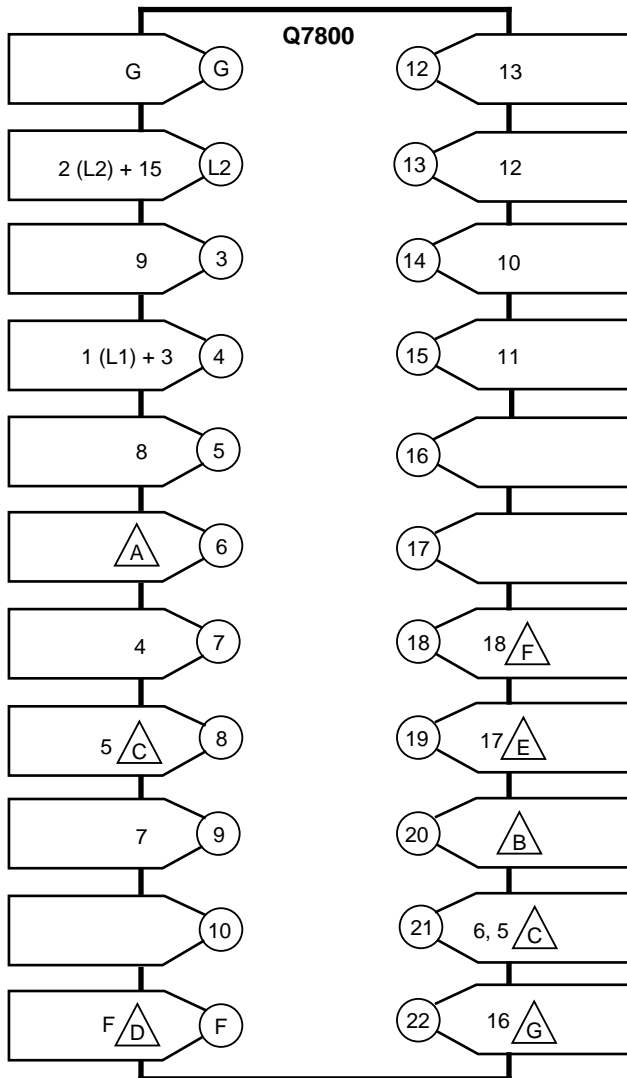
- C** R4181A, TERMINAL 6, PROVIDES 30 SECOND MFEP. REPLACEMENT RM7840/RM7800 PROVIDES 15 SECONDS ONLY.
- D** REMOVE AND DISCARD ANY JUMPERS BETWEEN Q477 OR Q514 SUBBASE TERMINALS F TO 14 OR F TO 16.
- E** RM7840L/RM7800L ONLY – LOCATE LOW FIRE SWITCH CONNECTED TO Q477 OR Q514 SUBBASE TERMINAL 1(L1) AND CONNECT TO Q7800 SUBBASE TERMINAL 5. IF LOWFIRE SWITCH IS NOT USED, CONNECT A JUMPER FROM TERMINAL 18 TO 5. NOTE: THIS JUMPER WILL EXTEND PREPURGE TIME BY 30 SECONDS.
- F** RM7840L/RM7800L – CONNECT JUMPER BETWEEN Q7800 SUBBASE TERMINALS 5 AND 19. NOTE: THIS WILL EXTEND PREPURGE TIME BY 30 SECONDS. RM7840E/RM7800E – CONNECT JUMPER BETWEEN Q7800 SUBBASE TERMINALS 4 AND 19. NOTE: THIS JUMPER WILL EXTEND PREPURGE TIME BY 30 SECONDS.
- G** NOTE: R4181 TERMINAL 16 MAY HAVE BEEN USED FOR THE FLAME DETECTOR. IF R4181 TERMINAL 16 IS NOT CONNECTED TO R4181 TERMINAL F, CONNECT R4181 TERMINAL 16 TO Q7800 TERMINAL 22.

- A** LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- B** LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

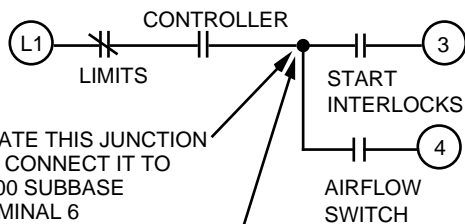
M2521B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4181A1018, A1034 TO RM7840E1016 OR RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 15 △ 16 △ 18  
 GENERAL FOOTNOTES, SEE PAGE 5.



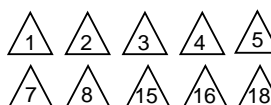
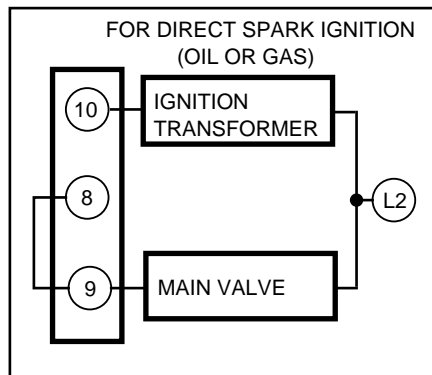
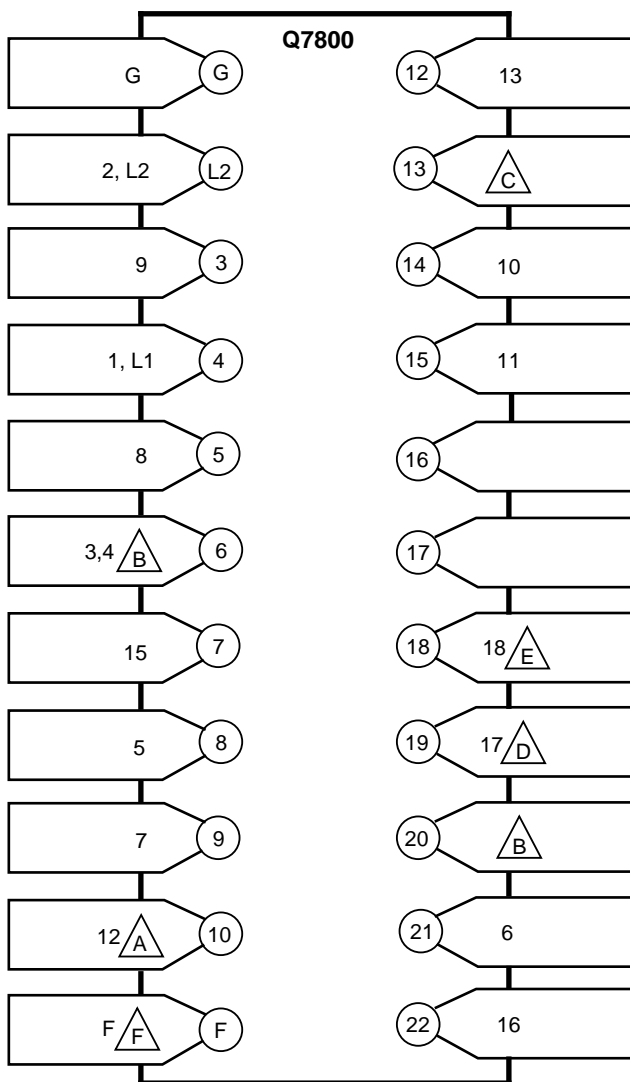
- △ A LOCATE THIS JUNCTION AND CONNECT IT TO Q7800 SUBBASE TERMINAL 6
- △ B LOCATE THE START INTERLOCKS AT THIS POINT AND CONNECT IT TO Q7800 SUBBASE TERMINAL 20. START INTERLOCKS NOW BECOME PREIGNITION INTERLOCKS. IF START INTERLOCKS ARE NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

- △ C A. R4181A1018 ONLY - IF Q477 OR Q514 SUBBASE TERMINAL 5 WAS USED, 15 SECOND MFEP WAS PROVIDED, AND TERMINAL 6 PROVIDED 30 SECOND MFEP. REPLACEMENT RM7840/RM7800 PROVIDE ONLY 10 OR 15 SECOND MFEP. SELECT 15 SECOND PER SPECIFICATION 65-0087 FOR 7840 OR 65-0088 FOR RM7800.  
 B. R4181A1034 ONLY - IF Q477 OR Q514 SUBBASE TERMINAL 5 WAS USED, 10 SECOND MFEP WAS PROVIDED. TERMINAL 6 WAS USED FOR 15 SECONDS. SELECT PROPER CONFIGURATION JUMPER PER SPECIFICATION 65-0087 FOR RM7840 OR 65-0088 FOR RM7800.
- △ D REMOVE AND DISCARD ANY JUMPERS BETWEEN Q477 OR Q514 SUBBASE TERMINAL F TO 14 OR F TO 16.
- △ E RM7840L/RM7800L APPLICATIONS ONLY- LOCATE Q477 OR Q514 SUBBASE TERMINAL (L1) SIDE OF THE HIGH FIRE SWITCH AND CONNECT TO Q7800 SUBBASE TERMINAL 5. NOTE: IF HIGH FIRESWITCH IS NOT USED, INSTALL A JUMPER. PREPURGE TIMING IS EXTENDED 30 SECONDS.
- △ F LOCATE LOW FIRE SWITCH WIRE CONNECTED TO Q477 OR Q514 SUBBASE TERMINAL 17 AND CONNECT TO Q7800 SUBBASE TERMINAL 5. IF LOWFIRE SWITCH IS NOT USED, INSTALL A JUMPER. NOTE: PREPURGE TIMING IS EXTENDED 30 SECONDS.
- △ G NOTE: R4181 TERMINAL 16 MAY HAVE BEEN USED FOR THE FLAME DETECTOR. IF R4181 TERMINAL 16 IS NOT CONNECTED TO R4181 TERMINAL F, CONNECT R4181 TERMINAL 16 TO Q7800 TERMINAL 22.

M2520B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM R4181A1042, A1059 TO RM7840E1016 OR RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.

- A** R4181 HAD 10 SECOND EARLY SPARK TERMINATION; REPLACEMENT RM7840/RM7800 HAS 5 SECONDS.
- B** LOCATE PREIGNITION INTERLOCKS ON Q514 OR Q477 SUBBASE TERMINALS 3 AND 4. CONNECT ONE LEADWIRE TO Q7800 SUBBASE TERMINAL 4 AND THE OTHER TO Q7800 SUBBASE TERMINAL 20. IF PREIGNITION INTERLOCK IS NOT USED, JUMPER Q7800 TERMINALS 4 TO 20.

- C** A. TO USE EXISTING GROUNDED MODULATING CIRCUIT, JUMPER Q7800 TERMINALS 13 AND G.  
 B. IF AN ISOLATED MODULATING CIRCUIT IS DESIRED, IDENTIFY THE WIRE CONNECTED BETWEEN THE MODULATING MOTOR TERMINAL R AND Q477 OR Q514 TERMINAL G. DISCONNECT THE WIRE AND CONNECT TO Q7800 SUBBASE TERMINAL 13.
- D** RM7840E, RM7800E ONLY: LOCATE HIGH FIRE SWITCH CONNECTED TO Q477 OR Q514 TERMINAL 8 AND CONNECT TO Q7800 SUBBASE TERMINAL 4. IF HIGH FIRE SWITCH IS NOT USED, A JUMPER IS REQUIRED BETWEEN Q7800 SUBBASE TERMINAL 4 AND 19. NOTE: THIS ADDS 30 SECONDS TO THE PREPURGE TIMING.
- E** LOCATE THE LOW FIRE SWITCH CONNECTION ON Q477 OR Q514 SUBBASE TERMINAL 17 AND CONNECT TO THE Q7800 SUBBASE TERMINAL 5. NOTE: IF LOW FIRE SWITCH IS NOT USED, JUMPER Q7800 SUBBASE TERMINAL 5 TO 18. 30 SECONDS WILL BE ADDED TO THE PREPURGE TIMING.
- F** REMOVE AND DISCARD JUMPER FROM Q477 OR Q514 SUBBASE TERMINAL F TO 14 OR F TO 16.

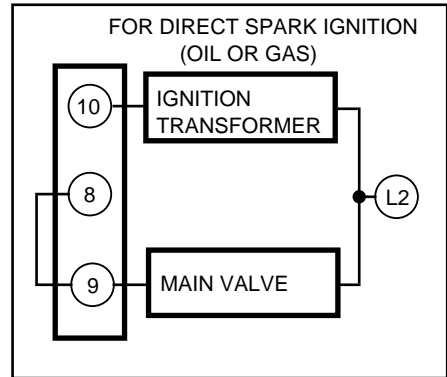
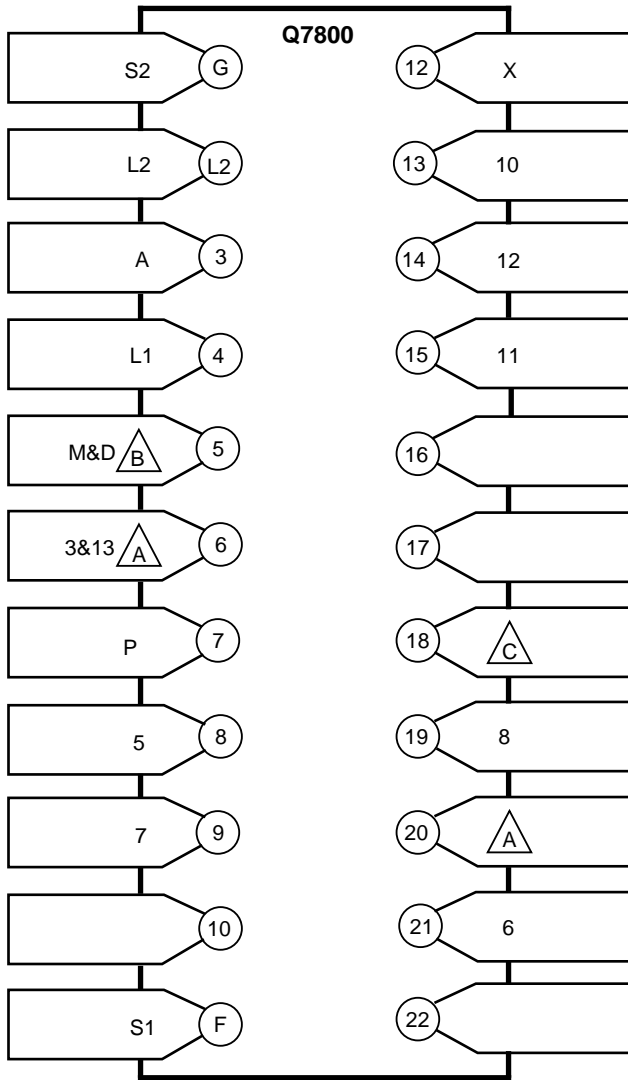
M2519B

# **Section IV**

## **Fireye C, D, and E Series**

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM FIREYE 70D10, 26CF6 5022, 26CU6 5065 TO RM7840E1016 OR RM7800E1010  
EP160/EP161/EP170 RM7840L1018 OR RM7800L1012  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



- A** LOCATE PREIGNITION INTERLOCK LEADWIRES AND CONNECT IT BETWEEN THE Q7800 SUBBASE TERMINALS 4 AND 20.
- B** FOR RM7840E/RM7800E ONLY - CONNECT FIREYE TERMINAL D TO Q7800 SUBBASE TERMINAL 4.
- C** LOCATE LOW FIRE SWITCH LEADWIRE OFF FIREYE TERMINAL M AND CONNECT IT TO Q7800 SUBBASE TERMINAL 18.

GENERAL FOOTNOTES, SEE PAGE 5.

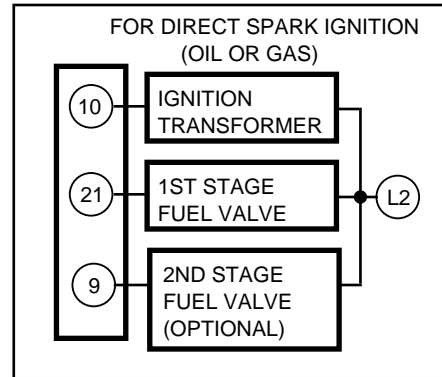
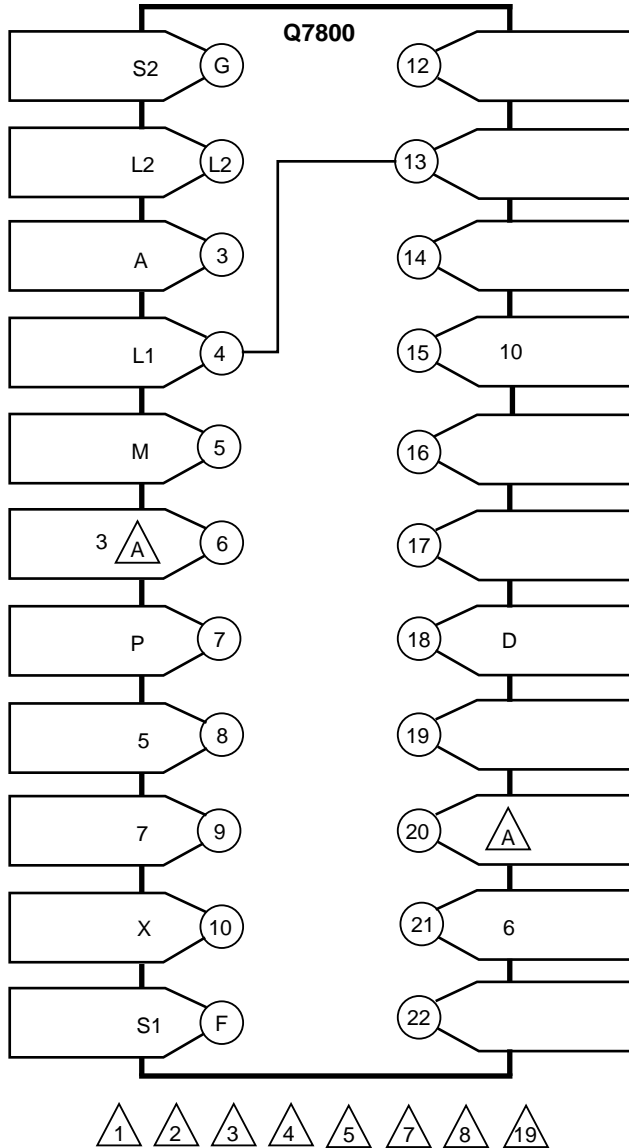
M2549B

# 7800 SERIES CONVERSION WIRING DIAGRAM

For Replacement

FIREYE 24CJ5 5010/5011/3010/3011  
 25CU6 5062/5063/RS2E  
 26CF6 5020/5021/1010/1011  
 70D30

FROM EP380/EP381/EP390 TO RM7840M1017 OR RM7800M1011  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



**A** LOCATE JUNCTION OF CONTROLLER, PREIGNITION INTERLOCK AND RUNNING INTERLOCKS AND CONNECT TO Q7800 SUBBASE TERMINAL 6. LOCATE AND IDENTIFY PREIGNITION INTERLOCK, AND CONNECT ONE LEAD TO Q7800 SUBBASE TERMINAL 4 AND THE OTHER LEAD TO TERMINAL 20. IF NO PREIGNITION INTERLOCK IS USED, JUMPER Q7800 SUBBASE TERMINALS 4 TO 20.

GENERAL FOOTNOTES, SEE PAGE 5.

M2551B

# 7800 SERIES CONVERSION WIRING DIAGRAM

For Insurance Requirements

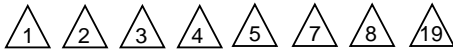
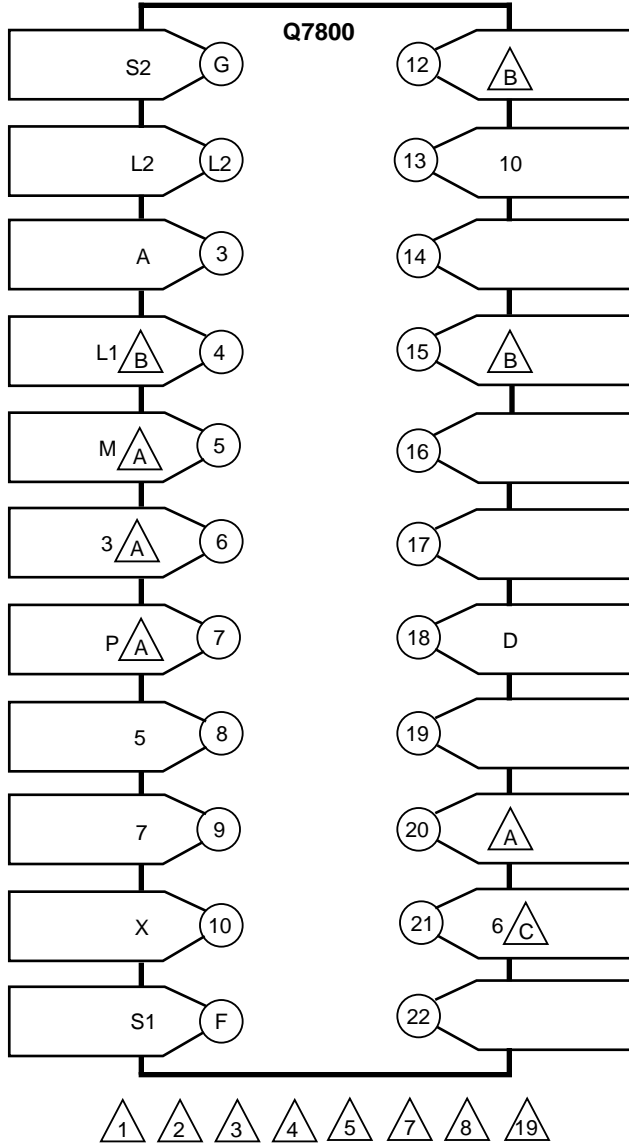
FIREYE 24CJ5 5010/5011/3010/3011  
 25CU6 5062/5063/RS2E  
 26CF6 5020/5021/1010/1011  
 70D30

FROM EP380/EP381/EP390

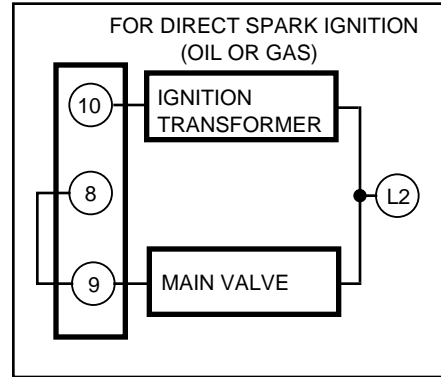
TO RM7840E1016 OR RM7800E1010  
 RM7840L1018 OR RM7800L1012

(DEVICE TO BE MODERNIZED)

(O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



**A** TO MODERNIZE TO MEET INSURANCE REQUIREMENTS, THE FOLLOWING INTERLOCKS ARE NORMALLY REQUIRED: LOCKOUT INTERLOCK, PREIGNITION INTERLOCK, HIGH FIRE SWITCH AND LOW FIRE SWITCH (CONNECT OR JUMPER INTERLOCK TERMINALS ON Q7800 SUBBASE AS SHOWN).

INTERLOCKS	RM7840L/ RM7800L	RM7840E/ RM7800E
LOCKOUT INTERLOCKS	6-7	6-7
PREIGNITION INTERLOCKS	4-20	4-20
HIGH FIRE INTERLOCK*	5-19	4-19
LOW FIRE INTERLOCK*	5-18	5-18

\* JUMPER ADDS ADDITIONAL 30 SECONDS TO THE PREPURGE TIMING.

**B** JUMPER Q7800 SUBBASE TERMINALS 12 AND 15 TO TERMINAL 4.

**C** FIREYE TERMINAL 6 PROVIDED INTERMITTENT PILOT. RM7840L,E/ RM7800L,E PROVIDE 15 SECOND INTERRUPTED PILOT.

M2550B

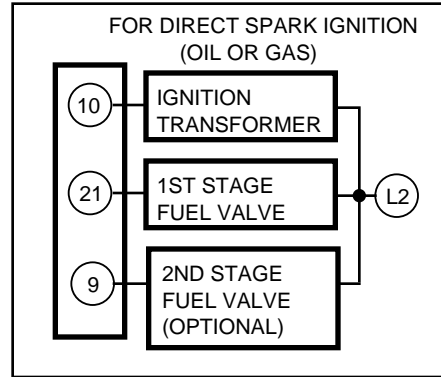
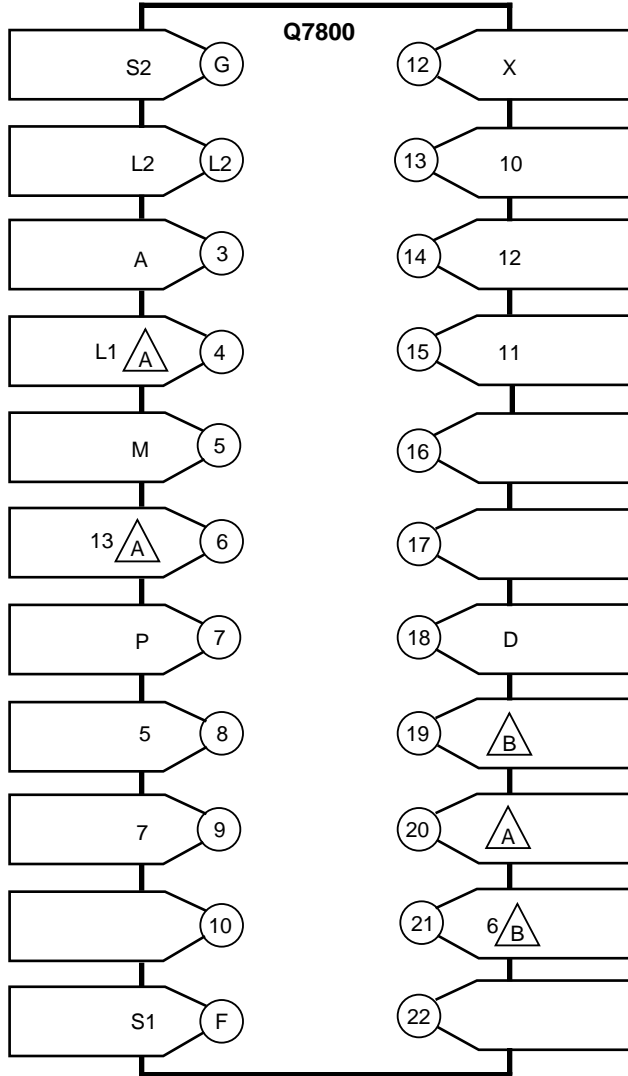
# 7800 SERIES CONVERSION WIRING DIAGRAM

For Replacement

FIREYE 24CJ5 5015  
25CU6 5066  
26CF6 5023  
70D20

FROM \_\_\_\_\_  
(DEVICE TO BE MODERNIZED)

TO RM7840G1014 OR RM7800G1018  
(O.S. NUMBER OF RELAY MODULE TO BE USED)



- A** LOCATE PREIGNITION INTERLOCK, FIREYE SUBBASE TERMINAL 3 AND CONNECT BETWEEN Q7800 SUBBASE TERMINAL 4 AND 20.
- B** TRMINAL 6 PROVIDED 30 SECONDS MFEP. SELECT PROPER CONFIGURATION JUMPER AND JUMPER Q7800 TERMINAL 5 TO 19 IF TERMINAL 6 WAS USED.

△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 19  
GENERAL FOOTNOTES, SEE PAGE 5.

M2552B



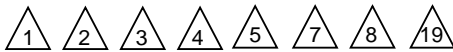
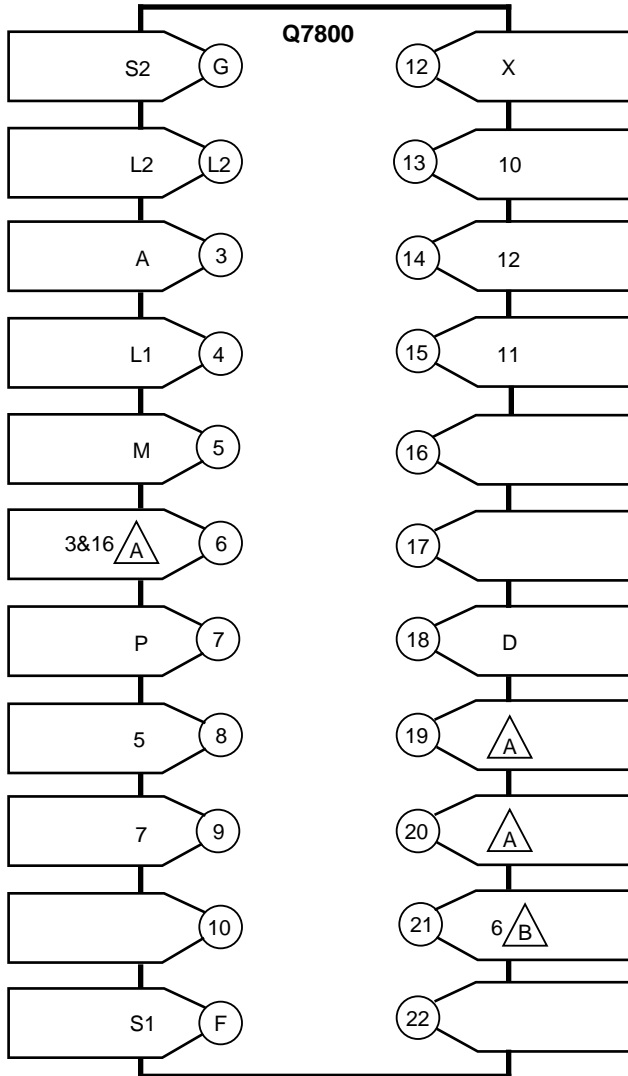
# 7800 SERIES CONVERSION WIRING DIAGRAM

For Insurance Requirements

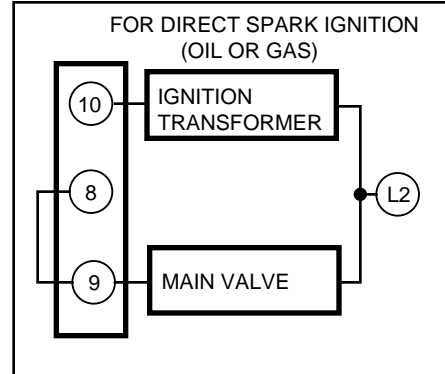
FIREYE 24CJ5 5015  
25CU5 5066  
26CF6 5023  
70D20

FROM EP260/EP261/EP270  
(DEVICE TO BE MODERNIZED)

TO RM7840E1016 OR RM7800E1010  
RM7840L1018 OR RM7800L1012  
(O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.



**A** TO MODERNIZE TO MEET INSURANCE REQUIREMENTS THE FOLLOWING INTERLOCKS ARE NORMALLY REQUIRED: LOCKOUT INTERLOCK, PREIGNITION INTERLOCK, HIGH FIRE SWITCH AND LOW FIRE SWITCH (CONNECT OR JUMPER INTERLOCK TERMINALS ON Q7800 SUBBASE AS SHOWN).

INTERLOCKS	RM7840L/ RM7800L	RM7840E/ RM7800E
LOCKOUT INTERLOCKS	6-7	6-7
PREIGNITION INTERLOCKS	4-20	4-20
HIGH FIRE INTERLOCK*	5-19	4-19
LOW FIRE INTERLOCK*	5-18	5-18

\* JUMPER ADDS ADDITIONAL 30 SECONDS TO THE PREPURGE TIMING.

**B** FIREYE TERMINAL 6 PROVIDES 30 SECOND MFEP. REPLACEMENT CONTROL PROVIDES ONLY 15 SECONDS.

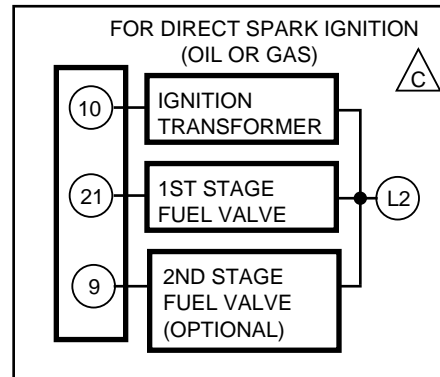
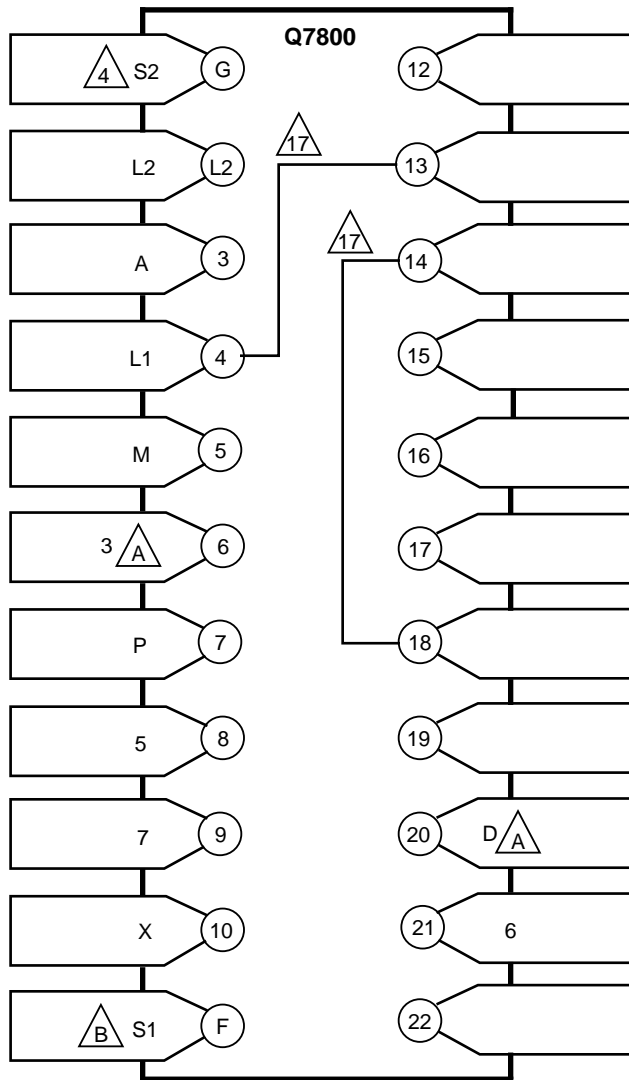
M2553B

# **Section V**

# **Fireye P Series**

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM 25CU6 - 1050 TO RM7840M1017  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



2
4
5
7
8
17
18
19  
 GENERAL FOOTNOTES, SEE PAGE 5.

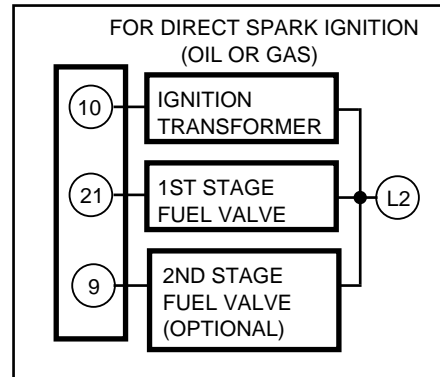
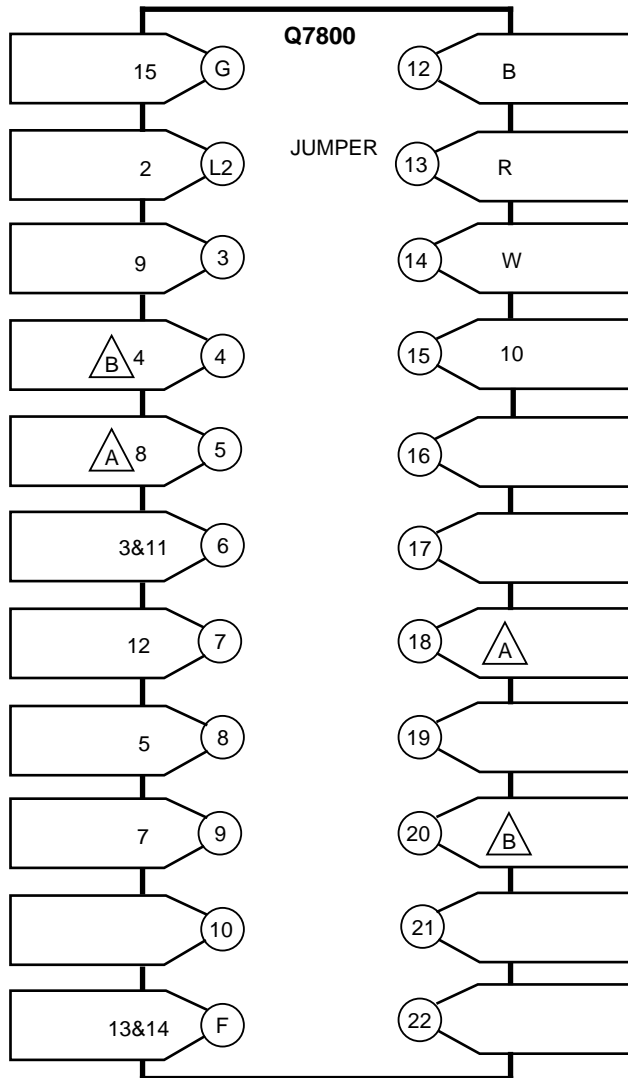
- A IDENTIFY THE STARTING INTERLOCK CONNECTION (USUALLY PROOF OF CLOSURE SWITCH ON GAS VALVE) TO FIREYE CONNECTION 3. MOVE TO Q7800 TERMINAL 4.
- B USE UV FLAME DETECTION:
  - R7847A1033 OR R7847B1031 WITH C7012A,C DETECTOR.
  - OR
  - R7849A1023 OR R7849B1021 WITH C7027 OR C7035 DETECTOR.
- C CLIP CONFIGURATION JUMPER JR1 (4 SECONDS PFEP).

M7446

# 7800 SERIES CONVERSION WIRING DIAGRAM

For Replacement

FIREYE 26RJ8 1016, 1016T  
 FROM 26RJ8 1012, 1012T, 6012, 6016 TO RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



- A** CONNECT LOW FIRE INTERLOCK BETWEEN Q7800 SUBBASE TERMINAL 5 AND 18. IF NO LOW FIRE INTERLOCK, ADD JUMPER. NOTE: JUMPER ADDS 30 SECONDS TO THE PREPURGE TIMING.
- B** CONNECT PREIGNITION INTERLOCK BETWEEN Q7800 SUBBASE TERMINALS 4 AND 20. IF PREIGNITION INTERLOCK, ADD A JUMPER.

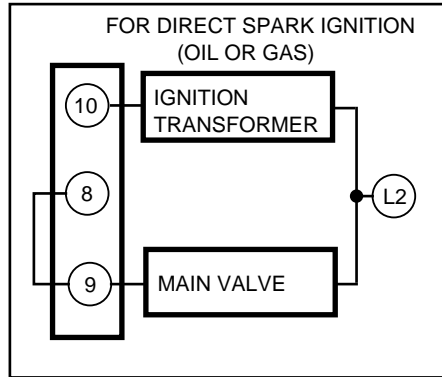
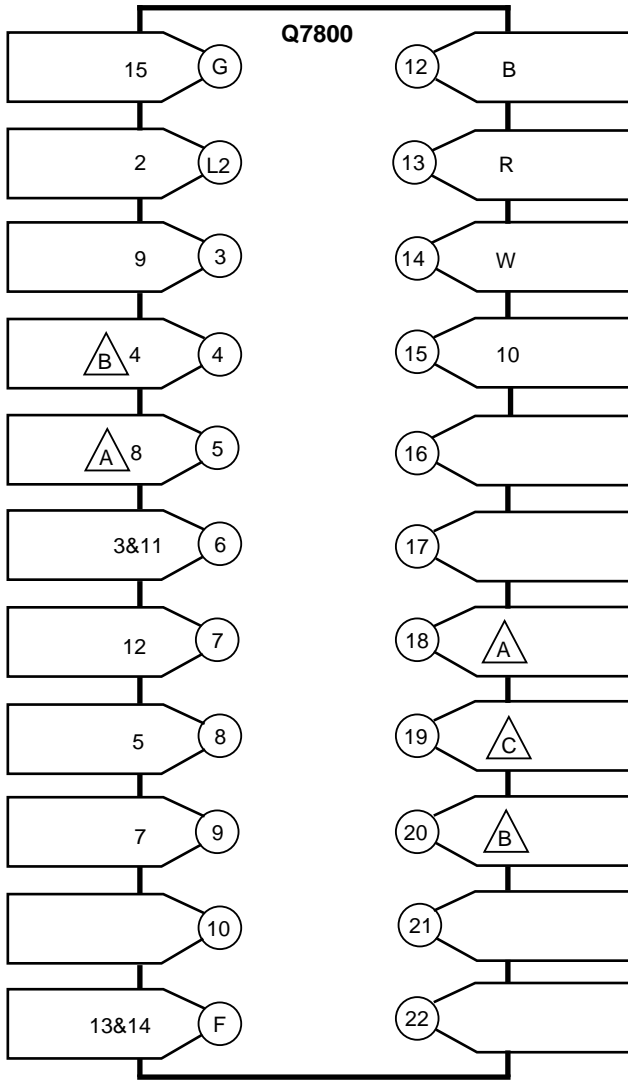


GENERAL FOOTNOTES, SEE PAGE 5.

M2554B

# 7800 SERIES CONVERSION WIRING DIAGRAM

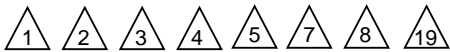
FIREYE 26RJ8 1016, 1016T      RM7840E1016 OR RM7800E1010  
 FROM 26RJ8 1012, 1012T, 6012, 6016      TO RM7840L1018 OR RM7800L1012  
 (DEVICE TO BE MODERNIZED)      (O.S. NUMBER OF RELAY MODULE TO BE USED)



**A** CONNECT LOW FIRE INTERLOCK BETWEEN Q7800 SUBBASE TERMINAL 5 AND 18. IF NO LOW FIRE INTERLOCK, ADD JUMPER. NOTE: JUMPER ADDS 30 SECONDS TO THE PREPURGE TIMING.

**B** CONNECT PREIGNITION INTERLOCK BETWEEN Q7800 SUBBASE TERMINALS 4 AND 20. IF NO PREIGNITION INTERLOCK, ADD A JUMPER.

**C** RM7840L/RM7800L CONNECT HIGH FIRE SWITCH BETWEEN Q7800 SUBBASE TERMINAL 5 TO 19. RM7840E/RM7800E CONNECT HIGH FIRE SWITCH BETWEEN Q7800 SUBBASE TERMINAL 4 TO 19. IF HIGH FIRE SWITCH IS NOT USED, CONNECT A JUMPER BETWEEN THE TERMINALS NOTED. NOTE: JUMPER ADDS 30 SECONDS TO THE PREPURGE TIMING.

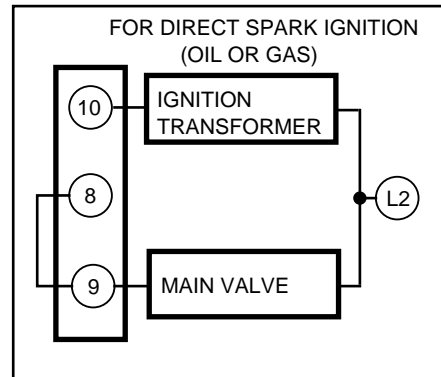
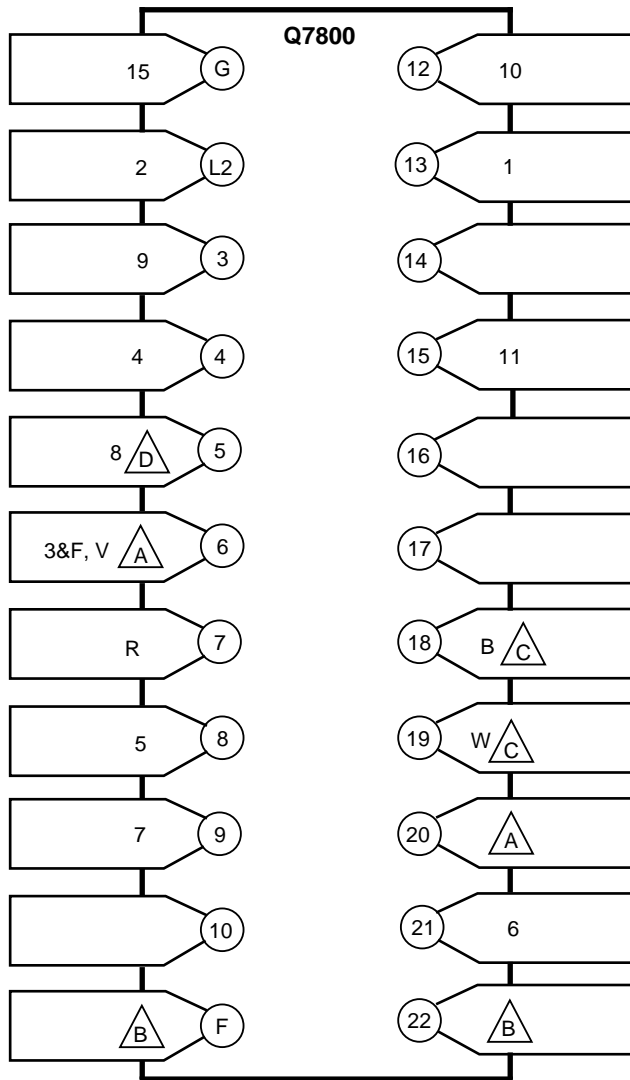


GENERAL FOOTNOTES, SEE PAGE 5.

M2555B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM FIREYE 25RU8 4580 TO RM7840E1016 OR RM7800E1010  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



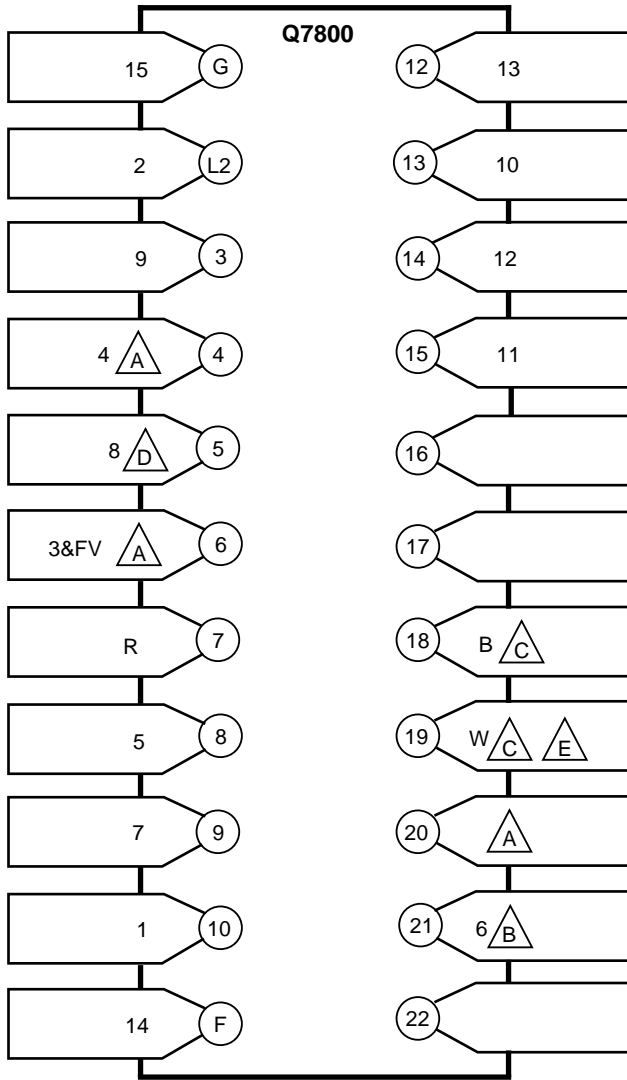
- A** LOCATE FUEL VALVE CLOSED INTERLOCK ON FIREYE TERMINALS 3 AND FV. CONNECT TO Q7800 SUBBASE TERMINALS 4 AND 20. INSTALL JUMPER BETWEEN Q7800 TERMINAL 4 AND TERMINAL 20 IF VALVE CLOSED INTERLOCK IS NOT USED.
- B** WIRE REPLACEMENT DETECTOR AS SPECIFIED IN DETECTOR SPECIFICATIONS.
- C** LOCATE LOW FIRE IGNITION INTERLOCK CONNECTION TO FIREYE W TERMINAL AND CONNECT TO Q7800 SUBBASE TERMINAL 5.
- D** RM7840E/RM7800E ONLY – LOCATE PURGE AIRFLOW INTERLOCK CONNECTION ON FIREYE TERMINAL 8 AND CONNECT TO Q7800 SUBBASE TERMINAL 4.

△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 19  
 GENERAL FOOTNOTES, SEE PAGE 5.

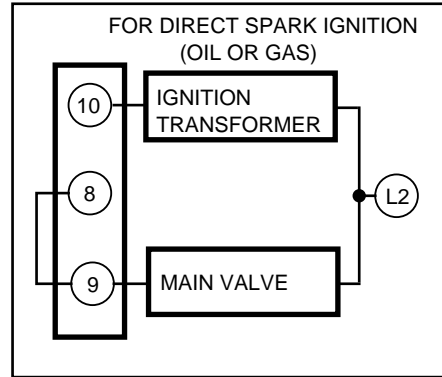
M2556B

# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM FIREYE 25RU8 6560, 6570, 6580 TO RM7840E1016 OR RM7800E1010  
26RJ8 6060, 6070, 6080(D), 6160 TO RM7840L1018 OR RM7800L1012  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



△ 1 △ 2 △ 3 △ 4 △ 5 △ 7 △ 8 △ 19  
 GENERAL FOOTNOTES, SEE PAGE 5.



- △ A LOCATE FUEL VALVE CLOSED INTERLOCK, IF USED ON FIREYE TERMINALS 3 AND FV. CONNECT TO Q7800 SUBBASE TERMINALS 4 AND 20. INSTALL JUMPER BETWEEN Q7800 TERMINAL 4 AND TERMINAL 20 IF INTERLOCK NOT USED.
- △ B REPLACEMENT RM7840/RM7800 PROVIDE 15 SECOND MFEP. FIREYE CONTROL PROVIDED 15, 30, OR 40 SECONDS.
- △ C LOCATE LOW FIRE SWITCH OR IGNITION INTERLOCK, IF USED CONNECTION TO FIREYE TERMINAL W AND CONNECT TO Q7800 SUBBASE TERMINAL 5. IF LOW FIRE SWITCH OR IGNITION INTERLOCK NOT USED, JUMPER Q7800 SUBBASE TERMINALS 5 AND 18. NOTE: JUMPER ADDS 30 SECONDS TO PURGE TIME.
- △ D RM7840E/RM7800E ONLY – LOCATE HIGH FIRE SWITCH CONNECTION ON FIREYE SUBBASE TERMINAL 8 AND CONNECT TO Q7800 SUBBASE TERMINAL 4.
- △ E IF THERE IS NO CONNECTION ON FIREYE SUBBASE TERMINAL W, INSTALL A JUMPER BETWEEN Q7800 SUBBASE TERMINAL 5 AND TERMINAL 19. NOTE: INSTALLING THE JUMPER ADDS 30 SECONDS TO THE PURGE TIME.

M2557B

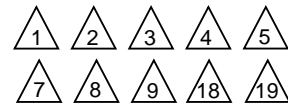
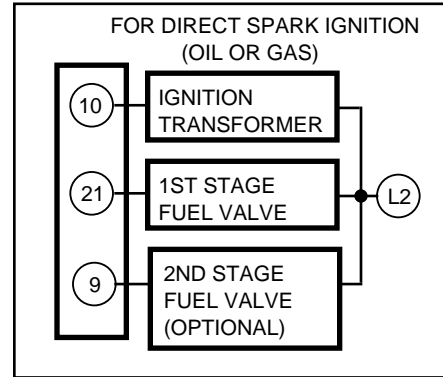
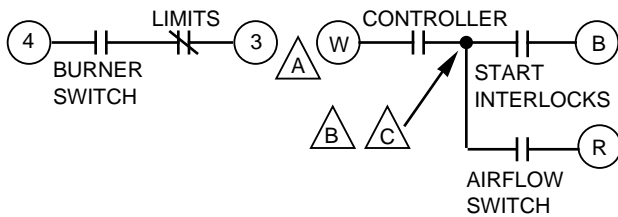
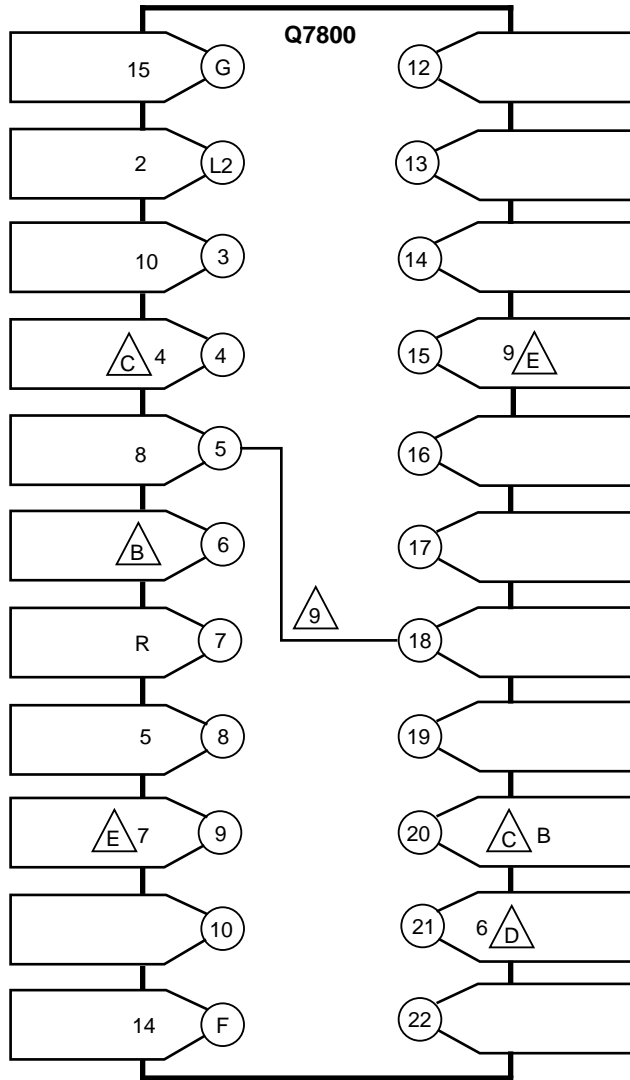
# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM FIREYE 29RF5 1001, 1009, 6009

TO RM7840G1014 OR RM7800G1018

(DEVICE TO BE MODERNIZED)

(O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.

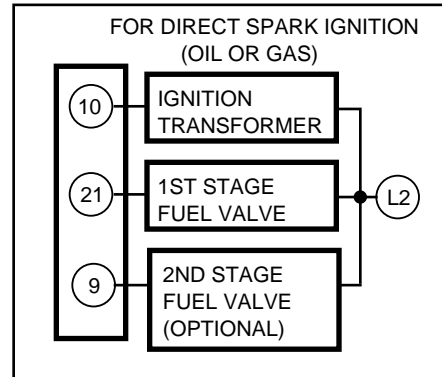
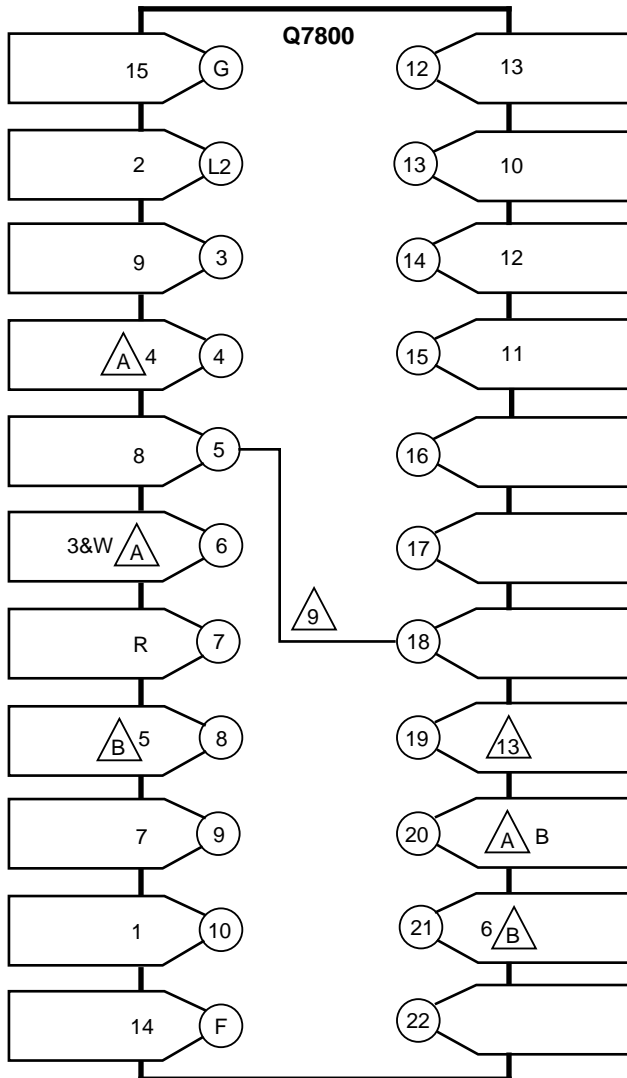
- A** WIRE NUT FIREYE TERMINAL 3 AND W TOGETHER. **NOTE:** CHECK ELECTRICAL RATINGS OF THE CONTROLLER, START INTERLOCKS AND AIRFLOW SWITCH. THEY *MUST BE* RATED 120 VAC AND THE CONTROLLER ALSO *MUST BE* CAPABLE OF HANDLING LOADS OF FIREYE TERMINALS 5,6,7 AND 9.
- B** CONNECT THIS JUNCTION TO Q7800 SUBBASE TERMINAL 6.
- C** IDENTIFY AND REMOVE START INTERLOCK CONNECTION AT THIS POINT AND CONNECT TO Q7800 SUBBASE TERMINAL 4. START INTERLOCK NOW BECOMES A PREIGNITION INTERLOCK. JUMPER Q7800 SUBBASE TERMINAL 4 TO 20 IF START INTERLOCK IS NOT USED.
- D** IF TERMINAL 6 WAS USED, CONFIGURE R7840/RM7800 FOR INTERMITTENT PILOT.
- E** IF APPLICATION HAS A SECOND STAGE FUEL VALVE, INSTALL A JUMPER BETWEEN Q7800 TERMINALS 9 AND 13. CONNECT THE SECOND STAGE FUEL VALVE, FIREYE SUBBASE TERMINAL 9 TO Q7800 TERMINAL 15.

M2558B



# 7800 SERIES CONVERSION WIRING DIAGRAM

FROM FIREYE 26RJ8 6058, 6066, 6068  
25RU8 6558, 6566 TO RM7840G1014 OR RM7800G1018  
(DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



**A** LOCATE LOW FIRE START INTERLOCK CONNECTION ON FIREYE TERMINAL W. DISCONNECT AND RECONNECT TO Q7800 SUBBASE TERMINAL 4. START INTERLOCK NOW BECOMES A PREIGNITION INTERLOCK. IF NO START INTERLOCK, CONNECT JUMPER BETWEEN Q7800 SUBBASE TERMINALS 4 AND 20.

**B** FIREYE 26RJ8 6058 MFEP TIMINGS ARE 15 AND 55 SECONDS. RM7800G AND RM7840G MFEP TIMINGS ARE 10, 15 OR 30 SECONDS AND INTERMITTENT PILOT.

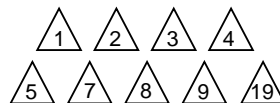
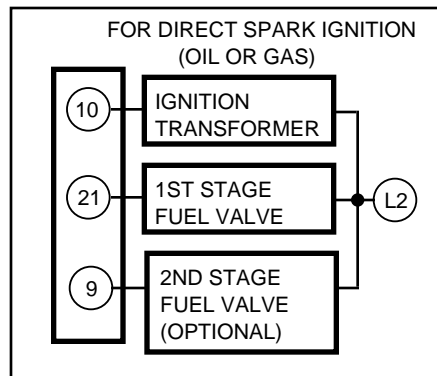
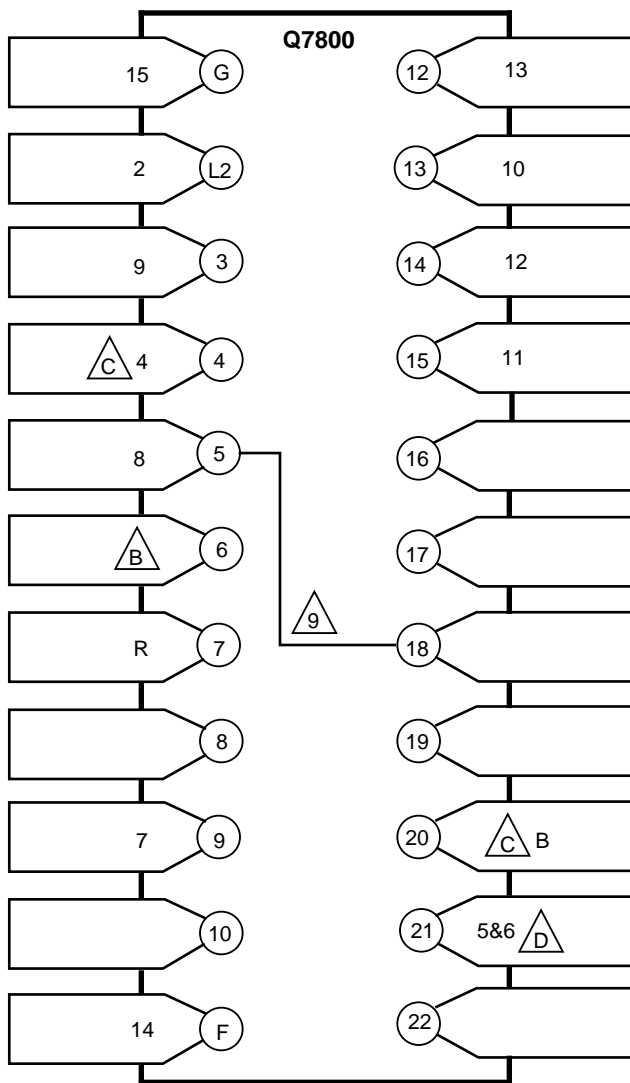


GENERAL FOOTNOTES, SEE PAGE 5.

M2560B

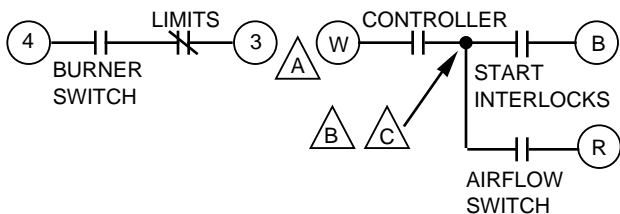
# 7800 SERIES CONVERSION WIRING DIAGRAM

FIREYE 26RJ8 1002, 1003, 1008, 1011, 1018, 6008, 6018  
 29RF5 1000, 1002, 1005, 1015, 1104  
**FROM** 29RF5 6015 **TO** RM7840G1014 OR RM7800G1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



GENERAL FOOTNOTES, SEE PAGE 5.

- A** WIRE NUT FIREYE TERMINAL 3 AND W TOGETHER. NOTE: CHECK ELECTRICAL RATINGS OF THE CONTROLLER, START INTERLOCKS AND AIRFLOW SWITCH. THEY *MUST* BE RATED 120 VAC AND THE CONTROLLER ALSO *MUST* BE CAPABLE OF HANDLING LOADS OF FIREYE TERMINALS 5, 6 AND 7.
- B** IDENTIFY THIS JUNCTION AND CONNECT TO Q7800 SUBBASE TERMINAL 6.
- C** IDENTIFY AND REMOVE START INTERLOCK CONNECTION AT THIS POINT AND CONNECT TO Q7800 SUBBASE TERMINAL 4. START INTERLOCK NOW BECOMES A PREIGNITION INTERLOCK. JUMPER Q7800 SUBBASE TERMINAL 4 TO 20 IF START INTERLOCK IS NOT USED.
- D** FIREYE TERMINAL 5 PROVIDED 15 SECOND MFEP. TERMINAL 6 PROVIDED 30 SECOND MFEP. SELECT PROPER CONFIGURATION JUMPER FOR 15 SECONDS OR ADD JUMPER FROM Q7800 SUBBASE TERMINAL 5 TO 19 FOR 30 SECOND MFEP TIMING.



M2559B

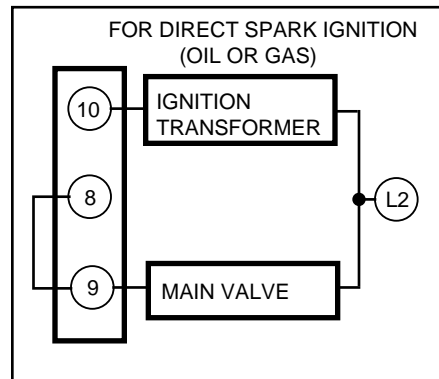
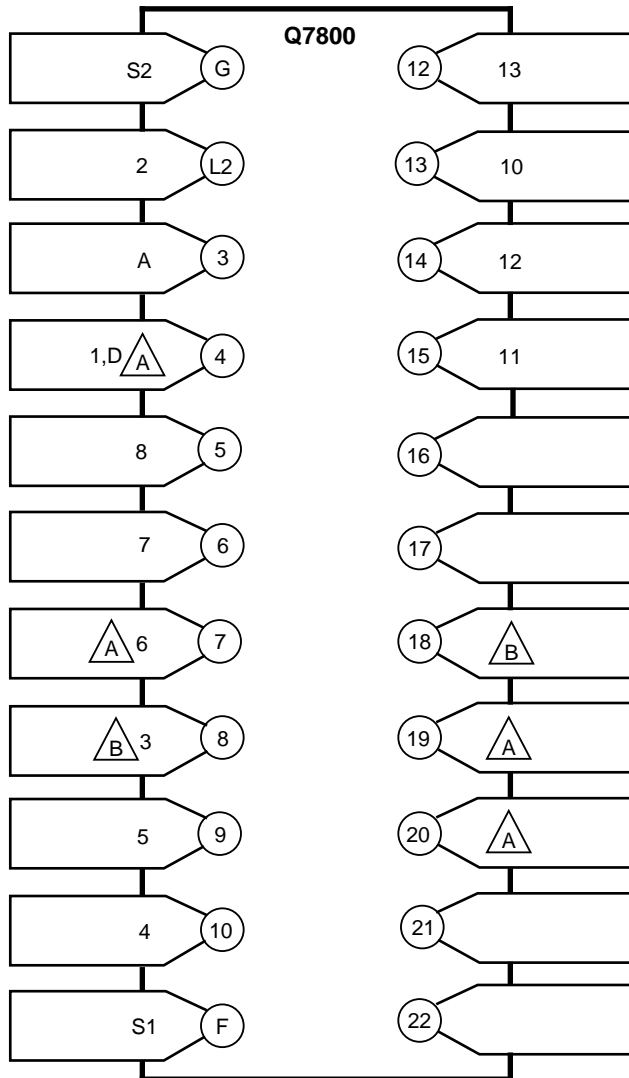
# **Section VI**

## **Eclipse**

# 7800 SERIES CONVERSION WIRING DIAGRAM

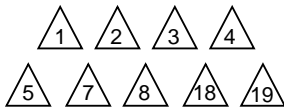
## Lockout Modulation

FROM ECLIPSE 5602 TO RM7800L1012 OR RM7840L1018  
 (DEVICE TO BE MODERNIZED) (O.S. NUMBER OF RELAY MODULE TO BE USED)



**A** 5602 HAS PROOF OF CLOSURE AND HIGH PURGE DAMPER SWITCH LOCATED BETWEEN 6 AND D. LOCATE PROOF OF CLOSURE SWITCH AND CONNECT BETWEEN Q7800 TERMINALS 4 AND 20. LOCATE HIGH PURGE DAMPER SWITCH AND CONNECT BETWEEN Q7800 TERMINALS 4 AND 19.

**B** 5602 HAS LOW FIRE PROVING IN SERIES WITH THE PILOT VALVE. LOCATE PILOT VALVE CONNECTION AND CONNECT TO Q7800 TERMINAL 8. LOCATE WIRE TO LOW FIRE PROVING SWITCH AND CONNECT SWITCH BETWEEN Q7800 TERMINALS 5 AND 18. 5602 HAD PURGE TIME, INTERMITTENT/INTERRUPTED PILOT, AND RECYCLE/NONRECYCLE SELECTIONS MADE BY A DIP SWITCH LOCATED ON THE REAR PLATE OF THE CONTROL UNIT. THE REPLACEMENT RM7800L/RM7840L IS A LOCKOUT DEVICE WITH INTERRUPTED PILOT. SELECT ST7800 TO MATCH 5602 TIMING.



GENERAL FOOTNOTES, SEE PAGE 5.

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