

# White-Rodgers 50D50 Series

# Universal

## Universal Replacement Direct Spark/Intermittent Pilot Non-Integrated Spark Ignition Modules

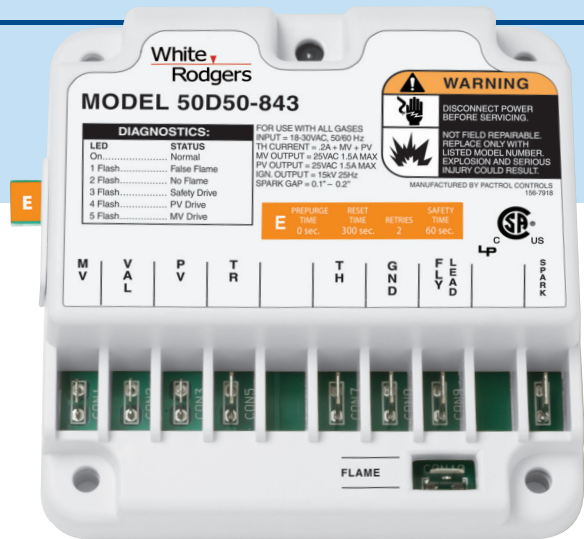
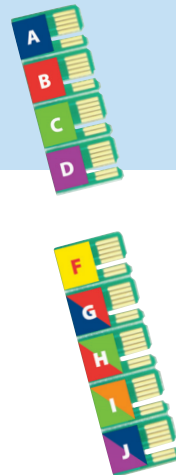
- For Gas-Fired Non-Integrated Forced-Air Furnaces, Boilers and Cooking Appliances

### 50D50-842

Universal  
Direct Spark

### 50D50-843

Universal  
Intermittent Pilot



## Why Carry More...When Less Works Best!

Quality Universal Replacement products to protect your reputation.

White-Rodgers, a leader in Silicon Carbide HSI ignition technology, now has two Universal Non-Integrated Spark Ignition Modules. The 50D50 Electronic Spark modules were developed to replace both Direct Spark (50D50-842) and Intermittent Pilot (50D50-843) single and dual rod systems.

### Kit Includes

Program Keys  
Double-Sided Foam Back Tape  
(for ease of installation)  
Extensive Cross-Reference Guide  
Color-Coded Timing Label  
Pre-Printed Hanging Carton  
Instructions in English/Instrucciones en Español

### Features

Color LED Indicator for Diagnostics  
Direct and Indirect Flame Sense

The 50D50 Universal Spark Modules will replace virtually all competitive spark non-integrated modules. These Universal Spark Modules are designed to give dealers and service technicians reduced inventory providing a complete diagnostic system, thus making installations easier with fewer callbacks.

### Specifications

#### Dimensions

4.13"W x 4.13"H x 1.5"D

#### Electrical Rating

Input 18 to 30 VAC, 25 VAC nominal

Max. Input Current:

50D50-842  
@ 25 VAC: 0.2A + MV @ 25°C

50D50-843  
@ 25 VAC: 0.2A + MV + PV @ 25°C

Each 50D50-842/843 Universal Kit has everything needed for a fast and accurate replacement, including a complete cross-reference and programming keys to quickly customize the modules to the specific application.

### Relay Load Ratings

50D50-842  
Main Valve Relay: 25 VAC, 1.5 Amp Max.

50D50-843  
Main Valve Relay: 25 VAC, 1.5 Amp Max.  
Pilot Valve Relay: 25 VAC, 1.5 Amp Max.

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# 50D50 Series

## Universal Replacement Direct Spark/Intermittent Pilot Non-Integrated Spark Ignition Modules

- For Gas-Fired Non-Integrated Forced-Air Furnaces, Boilers and Cooking Appliances

50D50-842

Universal  
Direct Spark

50D50-843

Universal  
Intermittent Pilot

### Program Key Information

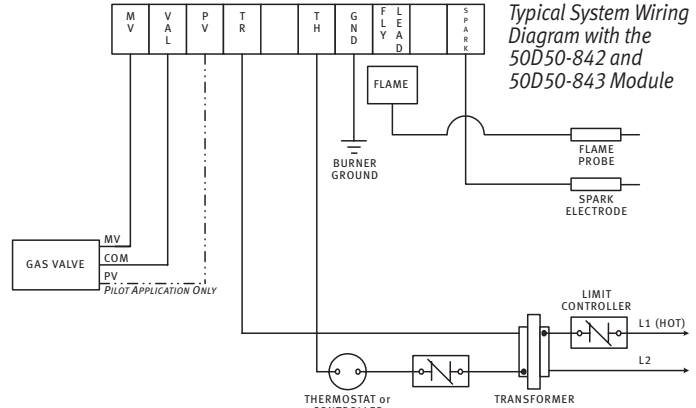
Program Keys are provided for different applications. Refer to the enclosed installation instructions for detailed Program Key selections. This table shows Timings and Retries for each key. After selecting and inserting the proper key, remove or dispose of the remaining keys.

50D50-842 PROGRAM KEY TIMING SPECIFICATIONS QUICK REFERENCE

| Key         | Trial for Ignition | Retries | Purge   | Interurge |
|-------------|--------------------|---------|---------|-----------|
| A-Blue      | 4 sec.             | 2       | 0 sec.  | 90 sec.   |
| B-Red       | 4 sec.             | 2       | 30 sec. | 90 sec.   |
| C-Green     | 7 sec.             | 2       | 0 sec.  | 90 sec.   |
| D-Violet    | 7 sec.             | 2       | 30 sec. | 90 sec.   |
| E-Orange    | 7 sec.             | 0       | 0 sec.  | N/A       |
| F-Yellow    | 7 sec.             | 0       | 30 sec. | N/A       |
| G-Blue/Red  | 11 sec.            | 0       | 0 sec.  | N/A       |
| H-Red/Green | 11 sec.            | 0       | 30 sec. | N/A       |

50D50-843 PROGRAM KEY TIMING SPECIFICATIONS QUICK REFERENCE

| Key            | Purge   | Reset Time | Retries    | Safety Time |
|----------------|---------|------------|------------|-------------|
| A-Blue         | 0 sec.  | 300 sec.   | Continuous | 90 sec.     |
| B-Red          | 30 sec. | 300 sec.   | Continuous | 90 sec.     |
| C-Green        | 0 sec.  | 300 sec.   | Continuous | 30 sec.     |
| D-Violet       | 30 sec. | 300 sec.   | Continuous | 30 sec.     |
| E-Orange       | 0 sec.  | 300 sec.   | 2          | 60 sec.     |
| F-Yellow       | 30 sec. | 300 sec.   | 2          | 60 sec.     |
| G-Blue/Red     | 0 sec.  | 300 sec.   | Continuous | 15 sec.     |
| H-Red/Green    | 30 sec. | N/A        | N/A        | Cont.       |
| I-Green/Orange | 0 sec.  | 300 sec.   | Continuous | 4 sec.      |
| J-Violet/Blue  | 30 sec. | 300 sec.   | Continuous | 4 sec.      |



### The 50D50-842 Universal Module Replaces the Following SPARK Direct Ignition Modules:

|           |          |               |               |           |          |
|-----------|----------|---------------|---------------|-----------|----------|
| Honeywell | S87C1014 | Robertshaw    | White-Rodgers | 50D20-170 | 50D20-51 |
| S8680     | S87D1004 | DS845 780-504 | 50D20-150     | 50D20-180 | 50D20-52 |
| S87B1008  | S87D1012 |               | 50D20-152     | 50D20-250 | 50D21-1  |
| S87B1016  | S87J1026 |               | 50D20-160     | 50D20-350 |          |
| S87C1006  |          |               | 50D20-162     | 50D20-50  |          |

#### Installation Note:

When installing, see the installation instructions for a complete timing specifications cross-reference guide.

### The 50D50-843 Universal Module Replaces the Following SPARK Intermittent Pilot Modules:

|               |            |                  |             |           |          |          |          |
|---------------|------------|------------------|-------------|-----------|----------|----------|----------|
| Camstat       | S86E1002   | S8600C1015       | CSA42A-604R | G60CBG-14 | G60QBG-2 | G60RDG-1 | G65DFM-1 |
| IPI-24-00     | S86E1010   | S8600F1000       | CSA43A-600R | G60CBG-15 | G60QBG-3 | G60RDK-1 | G65DKG   |
|               | S86E1028   | S8600F1034       | CSA44A-600R | G60CBG-16 | G60QBG-4 | G60RGL-1 | G65DKM   |
| Fenwal        | S86E1036   | S8600F1042       | CSA45A-601R | G60CBG-17 | G60QBG-5 | G60RHL-1 | G65DKM-1 |
| 05-203025-005 | S86E1044   | S8600H1006       | CSA45A-602R | G60CBG-2  | G60QBG-6 | G60RHP-1 | G65DLM-1 |
| 05-203026-005 | S86E1051   | S8600H1022       | CSA46A-600R | G60CBG-3  | G60QBG-7 | G60RPL-1 | G65FBG   |
|               | S86E1069   | S8600H1048       | CSA48A-600R | G60CBG-4  | G60QBG-8 | G60RSL-1 | G65FFG   |
| Robertshaw    | S86E1077   | S8600H1055       | CSA49A-600R | G60CBG-5  | G60QBG-9 | G60ZAG-1 | G65FKG   |
| 780-001       | S86E1101   | S8600H1089       | CSA49A-605R | G60CBG-6  | G60QBH-1 | G65BBG-1 | G66AG-1  |
| 780-002       | S86E1119   | S8600H1105       | CSA51A-601R | G60CBG-7  | G60QBK-1 | G65BBG-2 | G66AG-2  |
| 780-003       | S86E1127   | S8600M1005       | CSA52A-600R | G60CBG-8  | G60QBK-3 | G65BBG-3 | G66BG-1  |
| 780-845       | S86F1000   | S8600M1013       | G60AAA-1    | G60CBG-9  | G60QBL-1 | G65BBG-4 | G66MG-1  |
| 780-715       | S86F1018   | S8610A1009       | G60AAG-1    | G60CCG-1  | G60QBL-2 | G65BBG-5 | G66MG-2  |
| 780-735       | S86F1026   | S8610B1007       | G60AAG-2    | G60CCG-1  | G60QCG-1 | G65BBG-6 | G66NG-1  |
| 780-736       | S86F1042   | S8610B1015       | G60AAG-3    | G60CCG-1  | G60QCL-1 | G65BBG-7 | G67AG-3  |
| 780-737       | S86F1059   | S8610C1005       | G60AAG-4    | G60DBG-1  | G60QCL-1 | G65BBG-8 | G67AG-4  |
| SP715         | S86F1067   | S8610F1008       | G60AAG-5    | G60DCG-1  | G60QDG-1 | G65BBM-1 | G67AG-7  |
| SP715A        | S86F1075   | S8610F1016       | G60AAG-6    | G60DCG-2  | G60QDL-1 | G65BBM-2 | G67AG-8  |
| SP735         | S86F1083   | S8610F1024       | G60AAG-7    | G60DCG-3  | G60QHL-1 | G65BBM-3 | G67AG-9  |
| SP735D        | S86F1091   | S8610F1032       | G60CAA-1    | G60DCG-4  | G60QJL-1 | G65BBM-4 | G67AG-10 |
| SP735L        | S86G1008   | S8610H1012       | G60CAA-3    | G60PAG-1  | G60QLG-1 | G65BCG-1 | G67AG-11 |
| USI715U       | S86G1016   | S8610H1038       | G60CAG-1    | G60PAG-2  | G60QPL-1 | G65BCM-1 | G67BG-2  |
|               | S86G1032   | S8610H1046       | G60CAG-2    | G60PAG-3  | G60QRH-1 | G65BFG-1 | G67BG-3  |
| Honeywell     | S86G1057   | S8610H1053       | G60CAG-3    | G60PAG-4  | G60QRL-1 | G65BFG-1 | G67BG-4  |
| S86A1001      | S86G1073   | S8610H1079       | G60CAG-4    | G60PAG-5  | G60QRL-2 | G65BKG-1 | G67BG-5  |
| S86A1019      | S86H1006   | S8610M1003       | G60CAG-5    | G60PAG-6  | G60QRL-3 | G65BKG-2 | G67MG-1  |
| S86A1027      | S86H1022   | S8610M1029       | G60CAG-6    | G60PAJ-1  | G60QSL-1 | G65BKG-3 | G67MG-2  |
| S86A1035      | S86H1048   | S8610U1003       | G60CAG-7    | G60PAK-1  | G60QTH-1 | G65BKM-1 | G67MG-3  |
| S86B1009      | S86H1089   | S8620H1002       | G60CAG-8    | G60PAK-2  | G60QTL-1 | G65BKM-2 | G67MG-4  |
| S86B1017      | S86H1097   | S8620H1028       | G60CAG-9    | G60PFH-1  | G60RAK-1 | G65BKM-3 | G67NG-2  |
| S86B1025      | S86H1105   |                  | G60CBA-1    | G60PFH-2  | G60RAG-1 | G65BLG-1 | G67NG-4  |
| S86C1007      | S86H1121   | Johnson Controls | G60CBA-2    | G60PFL-1  | G60RBG-1 | G65BLG-2 | G600AX-1 |
| S86C1015      | S86H1147   | CSA35A-617R      | G60CBA-3    | G60PFL-1  | G60RBG-2 | G65DBG   | G600AX-2 |
| S86C1031      | S90A1005   | CSA35A-618R      | G60CBG-1    | G60PVL-1  | G60RBG-3 | G65DBM-1 | G600AX-3 |
| S86C1049      | S90B1003   | CSA42A-600R      | G60CBG-10   | G60QAG-2  | G60RBK-1 | G65DBM-2 | G600AY-1 |
| S86C1056      | S90B1011   | CSA42A-601R      | G60CBG-11   | G60QAG-3  | G60RBK-2 | G65DBM-3 | G600LX-1 |
| S86D1005      | S8600A1001 | CSA42A-602R      | G60CBG-12   | G60QAK-1  | G60RCG-2 | G65DCM-1 | G600LX-2 |
| S86D1021      | S8600B1009 | CSA42A-603R      | G60CBG-13   | G60QBG-1  | G60RCJ-1 | G65DFG   | G600LY-1 |

#### Installation Note:

When installing, see the installation instructions for a complete timing specifications cross-reference guide.

|           |           |
|-----------|-----------|
| G600MX-1  | G770RGA-1 |
| G600NX-1  | G770RHA-1 |
| G600RX-1  | G770RHA-2 |
| G670AW-1  | G775RGA-1 |
| G670AW-2  | G775RHA-1 |
| G770LGA-1 | G775RHA-2 |
| G770LGA-2 | Y79ABC-1  |
| G770LGC-1 | Y79ABC-2  |
| G770LGC-2 | Y79ABC-3  |
| G770LGC-3 | Y79ABC-4  |
| G770LGC-4 | Y79ABC-5  |
| G770LHA-1 | Y79ABC-6  |
| G770LHA-2 | Y79ABC-7  |
| G770LHC-1 | Y79ABD-1  |
| G770MGA-1 | Y79ABD-2  |
| G770MGA-2 | Y79BBA-1  |
| G770MGC-1 | Y79BBA-2  |
| G770MGC-2 | G779      |

#### White-Rodgers

|           |
|-----------|
| 50D49-150 |
| 50D49-350 |
| 50D49-360 |
| 50D49-361 |
| 50D49-401 |

White  
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