

## REQUIRED ITEMS:

### A: CPU-95 IGNITION MODULE, 1 PER SYSTEM

| PART NO.   | DESCRIPTION   |
|------------|---|
| 791950-8   | Ignition Module, 8 outputs, single capacitor                                      |
| 791950-16  | Ignition Module, 16 outputs, single capacitor                                     |
| 791950-18  | Ignition Module, 18 outputs, single capacitor                                     |
| 791952-18  | Ignition Module, 18 outputs, dual capacitor                                       |
| 791952-20  | Ignition Module, 20 outputs, dual capacitor                                       |
| 791958-16  | Ignition Module, 16 outputs, Varispark™ extended spark duration                   |
| 791963-16A | Ignition module, 16 outputs, Enhanced Varispark™, Directed Energy Ignition System |

NOTE: Listings show recommended selection; where listing indicates model 791958-16, model 791950-xx was previously specified and may also be used.

MEMORY PART NO. CODE (see application listings). Example: H4A230.FS012#005

| DESIGNATOR                    | DESCRIPTION  |
|-------------------------------|--|
| H                             | Letter in alphabet corresponding to no. of engine cylinders:<br>B=2, C=3, D=4, E=5, F=6, G=7, H=8, I=9, J=10, L=12, N=14, P=16, R=18   |
| 4                             | Engine stroke-cycle: 2 = 2-cycle, 4 = 4-cycle  |
| A                             | Altronic firing pattern code:<br>A = even firing pattern, Other letters = odd firing pattern   |
| 230                           | No. of sensed teeth or holes: 230 = 230 teeth or holes   |
| F                             | Memory series code:<br>F = CPU-95, Ignition Modules 791950-xx, 791952-xx, 791958-xx<br>G = CPU-95, Ignition Module 791955-16   |
| S                             | Timing curve code:<br>A = 48 degree retard for 4-20 mA input, 3 degrees retard default timing<br>B = 36 degree retard for 4-20 mA input, 3 degrees retard default timing<br>C = 24 degree retard for 4-20 mA input, 3 degrees retard default timing<br>D = 16 degree retard for 4-20 mA input, 3 degrees retard default timing<br>E = 8 degree retard for 4-20 mA input, 3 degrees retard default timing<br>N = special range vs. 4-20 mA or RPM, non-factory programmed<br>S = special range vs. 4-20 mA or RPM, factory programmed<br>X = no timing curve programmed |
| 012                           | Special timing curve version number  |
| #005                          | Feature code (add numbers chosen; only one choice permitted per feature):<br>001 = 1-step retard when misc. input is grounded<br>016 = 1-step retard when rpm is less than 250<br>002 = Max. energy when misc. input is grounded<br>032 = Max. energy when rpm is less than 250<br>004 = Extended firing when misc. input is grounded<br>064 = Extended firing when rpm is less than 250<br>Example: 005 = feature 001 + feature 004   |
| 2nd example:<br>L4A180.FC#080 | 12-cylinder, 4-cycle<br>36° firing pattern (J2A)<br>180 sensed teeth<br>24° timing range for 4-20mA<br>Feature codes 016 and 064 selected  |

## CPU-95/CPU-95EVS DIGITAL IGNITION SYSTEM

### REQUIRED ITEMS:

#### B: CPU-95 DISPLAY MODULE, 1 PER SYSTEM

| PART NO.  | DESCRIPTION                      |
|-----------|----------------------------------|
| 791902-1  | Display Module, standard         |
| 791902-1S | Display Module, no test function |
| 791908-1  | Display Module, dual port        |
| 791909-1* | Display Module, enhanced         |

\* Recommended for new installations

#### C: OUTPUT HARNESS

##### CPU-95 UNIT TO J-BOX OR IGNITION COILS, 1 PER SYSTEM (2 WITH 791952-20)

| PART NO.  | DESCRIPTION  |
|-----------|--|
| 793012-8  | Harness, unshielded, 180° connector, 180" leads, 8 outputs             |
| 793012-12 | Harness, unshielded, 180° connector, 180" leads, 12 outputs            |
| 793012-16 | Harness, unshielded, 180° connector, 180" leads, 16 outputs            |
| 793015-8  | Harness, shielded, 180° connector, 48" conduit, 180" leads, 8 outputs  |
| 793015-18 | Harness, shielded, 180° connector, 48" conduit, 180" leads, 18 outputs |
| 793022-8  | Harness, shielded, 180° connector, 84" conduit, 180" leads, 8 outputs  |
| 793022-18 | Harness, shielded, 180° connector, 84" conduit, 180" leads, 18 outputs |
| 293023-9A | Harness, shielded, 90° connector, 48" conduit, 72" leads, 9 outputs    |
| 293023-16 | Harness, shielded, 90° connector, 48" conduit, 72" leads, 18 outputs   |
| 293026-9A | Harness, shielded, 90° connector, 84" conduit, 120" leads, 9 outputs   |
| 293026-16 | Harness, shielded, 90° connector, 84" conduit, 120" leads, 18 outputs  |

NOTE: Above shielded harnesses are CSA certified for Class I, Division 2, Group D hazardous locations when used with other applicable CSA-certified Altronic components.

#### D: MAGNETIC PICKUP, 2 PER SYSTEM

| PART NO. | DESCRIPTION  |
|----------|--|
| 691118-1 | Magnetic Pickup, 5/8"-18 thread x 1.75" threaded body length |
| 691118-2 | Magnetic Pickup, 5/8"-18 thread x 2.50" threaded body length |
| 691118-3 | Magnetic Pickup, 5/8"-18 thread x 3.00" threaded body length |
| 691118-4 | Magnetic Pickup, 5/8"-18 thread x 4.50" threaded body length |
| 691118-6 | Magnetic Pickup, 5/8"-18 thread x 6.00" threaded body length |

#### E: CABLE ASSEMBLY, MAGNETIC PICKUP, 2 PER SYSTEM

| PART NO. | DESCRIPTION   |
|----------|---|
| 693104-1 | Pickup Cable, unshielded, 180° connector, 10 ft. cable  |
| 693104-2 | Pickup Cable, unshielded, 180° connector, 20 ft. cable  |
| 693104-3 | Pickup Cable, unshielded, 180° connector, 30 ft. cable  |
| 693104-4 | Pickup Cable, unshielded, 180° connector, 40 ft. cable  |
| 693104-5 | Pickup Cable, unshielded, 180° connector, 50 ft. cable  |
| 593048-L | Pickup Cable, shielded, 180° connector, L" conduit, 50 ft. cable<br>L = 12", 18", 24", 36", 48", 72", 96", 120" |
| 593054-L | Pickup Cable, shielded, 90° connector, L" conduit, 50 ft. cable<br>L = 12", 18", 24", 36", 48", 72", 96", 120"  |

**E: CABLE ASSEMBLY, MAGNETIC PICKUP (CONTINUED)**

|           |  |
|-----------|--|
| 593048A-L | Pickup Cable, shielded, 180°connector, L" conduit, 100 ft. cable<br>L = 24", 48", 72", 96" |
| 593054A-L | Pickup Cable, shielded, 90°connector, L" conduit, 100 ft. cable<br>L = 24", 48", 72", 96"  |

NOTE: Above shielded cables are CSA certified for Class I, Division 2, Group D hazardous locations when used with other applicable CSA-certified Altronic components.

**F: CYCLE TRIGGER (4-CYCLE ENGINES ONLY), 1 FROM EACH CATEGORY BELOW, PER SYSTEM**

| PART NO.                                | DESCRIPTION   |
|---|---|
| <i>Trigger Magnet (camshaft mount):</i> |   |
| 260604                                  | Trigger Magnet, 3/4" dia. x 8 mm thread (max. rotating circle is 15" dia.)                                    |
| 260605                                  | Trigger Magnet, 3/4" hex x 8 mm thread (max. rotating circle is 15" dia.)                                     |
| 720002                                  | Trigger Magnet, 3/8" hex x 8 mm thread (max. rotating circle is 6" dia.)                                      |
| 790111-1                                | Trigger Magnet disc, 5.0" dia.  |
| <i>Hall-effect Pickup:</i>              |   |
| 591014-2                                | Hall-effect Pickup, 5/8"-18 thread x 2.5" threaded body length  |
| 591014-4                                | Hall-effect Pickup, 5/8"-18 thread x 4.0" threaded body length  |
| <i>Pickup Cable:</i>                    |   |
| 593050                                  | Pickup Cable, unshielded, 180° connector, 48" conduit, 25 ft. cable   |
| 593052-L                                | Pickup Cable, shielded, 180° connector, L" conduit, 25 ft. cable<br>L = 6", 12", 18", 24", 36", 48", 72", 96" |
| 593057-L                                | Pickup Cable, shielded, 90° connector, L" conduit, 25 ft. cable<br>L = 6", 12", 18", 24", 36", 48", 72", 96"  |

NOTE: Above shielded cables are CSA certified for Class I, Division 2, Group D hazardous locations when used with other applicable CSA-certified Altronic components.

**G: IGNITION COILS, 1 PER SPARK PLUG**

| PART NO.  | DESCRIPTION                                    |
|-----------|--|
| 501061    | Unshielded Coil, standard duration             |
| 591010*   | Unshielded Coil, long duration                 |
| 501061-S  | Shielded Coil, standard duration               |
| 591010-S* | Shielded Coil, long duration                   |
| 591018    | Flange Coil, standard duration                 |
| 591012*   | Flange Coil, long duration                     |
| 591007    | Integral Coil, 1"-20 thread x 5.6" length      |
| 591011A   | Integral Coil, 13/16"-20 thread x 6.1" length  |
| 591011B   | Integral Coil, 13/16"-20 thread x 10.8" length |

\* Use coil 591010, 591010-S or 591012 with Ignition Module 791958-16.

**H: -185V DC-DC POWER SUPPLY, 1 PER SYSTEM (USE 1 WITH 791963-XXX ONLY)**

| PART NO. | DESCRIPTION                         |
|----------|-------------------------------------|
| 791911   | DC to DC power supply. 24V to -185V |

## CPU-95/CPU-95EVS DIGITAL IGNITION SYSTEM

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### REQUIRED ITEMS:

- I: **OUTPUT HARNESS CPU-95EVS IGNITION UNIT TO J-BOX OR DC-DC POWER SUPPLY  
(USE 1 WITH 791963-XX ONLY)**

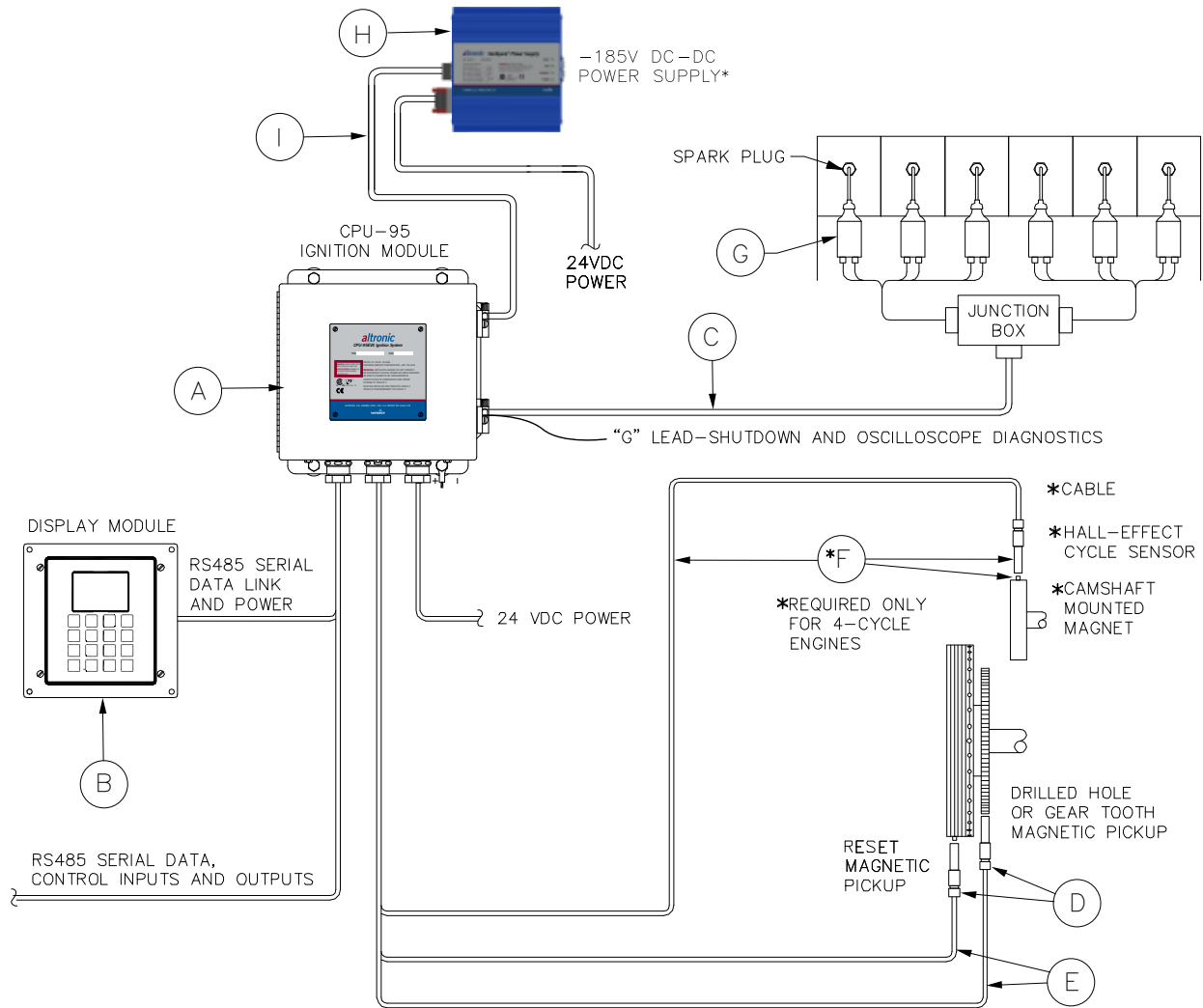
| PART NO.  | DESCRIPTION                          |
|-----------|--------------------------------------|
| 393023-1  | unshielded 180° 72" 16AWG            |
| 393023-2  | unshielded 180° 180" 16AWG           |
| 393011-1  | unshielded 90° 72" 16AWG             |
| 393011-2  | unshielded 90° 180" 16AWG            |
| 393025-2  | shielded 19" overall 72" 16AWG 180°  |
| 393013-1  | shielded 48" overall 72" 16AWG 90°   |
| 393013-2  | shielded 48" overall 180" 16AWG 90°  |
| 393013-4  | shielded 20" overall 60" 16AWG 90°   |
| 393013-5  | shielded 120" overall 300" 16AWG 90° |
| 393013-8  | shielded 60" overall 72" 16AWG 90°   |
| 393013-12 | shielded 26" overall 48" 16AWG 90°   |
| 393013-13 | shielded 30" overall 48" 16AWG 90°   |
| 393013-14 | shielded 30" overall 80" 16AWG 90°   |

### OPTIONAL ITEMS:

- J: **MOUNTING KITS FOR DC TO DC POWER SUPPLY**

| PART NO. | DESCRIPTION   |
|----------|---|
| 720011-1 | Mounting bars and screws for non-vibration mounting environments            |
| 720011-2 | T-nuts, bolts, and lock washers for non-vibration mounting environments     |
| 720011-3 | Mounting bars, screws, and shock mounts for vibration mounting environments |

CPU-95EVS BASIC LAYOUT



## CPU-95/CPU-95EVS DIGITAL IGNITION SYSTEM

| ENGINE MODEL NO.            | FIRING PATTERN | CPU-95 IGN. MODEL | OR | CPU-95 EVS IGN. MODEL | MEMORY CODE NO. | QTY. COILS | NOTES      |
|-----------------------------|----------------|-------------------|----|-----------------------|-----------------|------------|------------|
| <b>AJAX</b>                 |                |                   |    |                       |                 |            |            |
| 2202, DPC-280               | 180°           | 791958-16         | OR | 791963-8              | B2Axxx.FD       | 4          | 7, 8       |
| 2802, DPC-360               | 180°           | 791958-16         | OR | 791963-8              | B2Axxx.FD       | 4          | 7, 8       |
| 2803, DPC-600               | 120°           | 791958-16         | OR | 791963-8              | C2Axxx.FD       | 6          | 7, 8       |
| 2804, DPC-800               | 90°            | 791958-16         | OR | 791963-8              | D2Axxx.FD       | 8          | 7, 8       |
| <b>BERGEN (ROLLS ROYCE)</b> |                |                   |    |                       |                 |            |            |
| BVG                         | -12            | 55°-65°           | OR | 791963-16             | L4P180.FS539    | 12         | 1, 8       |
|                             | -16            | 55°-35°           | OR | 791963-16             | P4F180.FS542    | 16         | 1, 8       |
|                             | -20            | 55°-17°           |    | —                     | T4P180.FS543    | 20         | 1          |
| KRGS                        | - 8            | 90°               | OR | 791963-8              | H4A180.FS532    | 8          | 1, 8       |
|                             | - 9            | 80°               | OR | 791963-16             | I4A180.FS533    | 9          | 1, 8       |
| KVGS                        | -12            | 50°-70°           | OR | 791963-16             | L4V180.FS534    | 12         | 1, 8       |
|                             | -16            | 50°-40°           | OR | 791963-16             | P4V180.FS535    | 16         | 1, 8       |
|                             | -18            | 10°-70°           |    | —                     | R4T180.FS536    | 18         | 1          |
| <b>CATERPILLAR</b>          |                |                   |    |                       |                 |            |            |
| 300 Series                  | G379           | 60°-120°          | OR | 791963-8              | H4B183.FC       | 8          | 1, 4, 8    |
|                             | G398           | 60°               | OR | 791963-16             | L4A183.FC       | 12         | 1, 4, 8    |
|                             | G399           | 60°-30°           | OR | 791963-16             | P4T183.FC       | 16         | 1, 2, 4, 8 |
|                             | G399           | 30°-60°           | OR | 791963-16             | P4P183.FC       | 16         | 1, 2, 4, 8 |
| 3300 Series                 | G3304          | 180°              | OR | 791963-8              | D4A156.FC       | 4          | 1, 8       |
|                             | G3306          | 120°              | OR | 791963-8              | F4A156.FC       | 6          | 1, 8       |
| 3400 Series                 | G3406          | 120°              | OR | 791963-8              | F4A113.FC       | 6          | 1, 8       |
|                             | G3408          | 90°               | OR | 791963-8              | H4A136.FC       | 8          | 1, 8       |
|                             | G3412          | 55°-65°           | OR | 791963-16             | L4P136.FC       | 12         | 1, 8       |
| 3500 Series                 | G3508          | 90°               | OR | 791963-8              | H4A183.FC       | 8          | 1, 8       |
| low emissions               | G3508          | 90°               | OR | 791963-8              | H4A183.G        | 8          | 6, 8       |
|                             | G3512          | 60°               | OR | 791963-16             | L4A183.FC       | 12         | 1, 8       |
| low emissions               | G3512          | 60°               | OR | 791963-16             | L4A183.G        | 12         | 6, 8       |
|                             | G3516          | 60°-30°           | OR | 791963-16             | P4T183.FC       | 16         | 1, 2, 8    |
|                             | G3516          | 30°-60°           | OR | 791963-16             | P4P183.FC       | 16         | 1, 2, 8    |
| low emissions               | G3516          | 60°-30°           | OR | 791963-16             | P4T183.G        | 16         | 6, 8       |
| 3600 Series                 | G3606          | 120°              | OR | 791963-8              | F4A255.FC       | 6          | 1, 8       |
|                             | G3608          | 90°               | OR | 791963-8              | H4A255.FC       | 8          | 1, 8       |
|                             | G3612          | 50°-70°           | OR | 791963-16             | L4V255.FC       | 12         | 1, 8       |
|                             | G3616          | 50°-40°           | OR | 791963-16             | P4V255.FC       | 16         | 1, 8       |

| ENGINE MODEL NO.       | FIRING PATTERN | CPU-95 IGN. MODEL | OR        | CPU-95 EVS IGN. MODEL | MEMORY CODE NO. | QTY. COILS | NOTES   |         |
|------------------------|----------------|-------------------|-----------|-----------------------|-----------------|------------|---------|---------|
| <b>CLARK</b>           |                |                   |           |                       |                 |            |         |         |
| BA, HBA, HLA           | - 5            | 72°               | 791958-16 | OR                    | 791963-16       | E2Axxx.FD  | 10      | 7, 8    |
|                        | - 6            | 60°               | 791958-16 | OR                    | 791963-16       | F2Axxx.FD  | 12      | 7, 8    |
|                        | - 8            | 67.5°-22.5°       | 791958-16 | OR                    | 791963-16       | H2Cxxx.FD  | 16      | 2, 7, 8 |
|                        | - 8            | 22.5°-67.5°       | 791958-16 | OR                    | 791963-16       | H2Hxxx.FD  | 16      | 2, 7, 8 |
|                        | -10            | 36°               | 791958-16 |                       | —               | J2Axxx.FD  | 20      | 7       |
| MA,HMA,HMB,TMB         | - 4            | 90°               | 791958-16 | OR                    | 791963-8        | D2Axxx.FD  | 4 / 8   | 7, 8    |
|                        | - 6            | 60°               | 791958-16 | OR                    | 791963-16       | F2Axxx.FD  | 6 / 12  | 7, 8    |
|                        | - 8            | 22.5°-67.5°       | 791958-16 | OR                    | 791963-16       | H2Hxxx.FD  | 8 / 16  | 7, 8    |
|                        | -10            | 36°               | 791958-16 |                       | —               | J2Axxx.FD  | 10 / 20 | 7       |
| RA, HRA                | -32            | 120°              | 791958-16 | OR                    | 791963-8        | C2Axxx.FD  | 6       | 7, 8    |
|                        | - 4            | 90°               | 791958-16 | OR                    | 791963-8        | D2Axxx.FD  | 8       | 7, 8    |
|                        | - 5            | 72°               | 791958-16 | OR                    | 791963-16       | E2Axxx.FD  | 10      | 7, 8    |
|                        | - 6            | 60°               | 791958-16 | OR                    | 791963-16       | F2Axxx.FD  | 12      | 7, 8    |
|                        | - 8            | 45°               | 791958-16 | OR                    | 791963-16       | H2Axxx.FD  | 16      | 7, 8    |
| <b>COOPER BESSEMER</b> |                |                   |           |                       |                 |            |         |         |
| GMV (short stroke)- 4  | 63°-117°       | 791958-16         | OR        | 791963-8              | D2Fxxx.FD       | 4          | 7, 8    |         |
| GMX series             | - 6            | 63°-57°           | 791958-16 | OR                    | 791963-8        | F2Fxxx.FD  | 6       | 7, 8    |
|                        | - 8            | 63°-27°           | 791958-16 | OR                    | 791963-8        | H2fxxx.FD  | 8       | 2, 7, 8 |
|                        | - 8            | 27°-63°           | 791958-16 | OR                    | 791963-8        | H2Fxxx.FD  | 8       | 2, 7, 8 |
|                        | -10            | 63°-9°            | 791958-16 | OR                    | 791963-16       | J2fxxx.FD  | 10      | 2, 7, 8 |
|                        | -10            | 9°-63°            | 791958-16 | OR                    | 791963-16       | J2Fxxx.FD  | 10      | 2, 7, 8 |
| GMV, GMVA,             | - 4            | 60°-120°          | 791958-16 | OR                    | 791963-8        | D2Bxxx.FD  | 4 / 8   | 7, 8    |
| GMVC, GMVE             | - 6            | 60°               | 791958-16 | OR                    | 791963-16       | F2Axxx.FD  | 6 / 12  | 7, 8    |
|                        | - 8            | 60°-30°           | 791958-16 | OR                    | 791963-16       | H2Txxx.FD  | 8 / 16  | 2, 7, 8 |
|                        | - 8            | 30°-60°           | 791958-16 | OR                    | 791963-16       | H2Bxxx.FD  | 8 / 16  | 2, 7, 8 |
|                        | -10            | 60°-12°           | 791958-16 |                       | —               | J2bxxx.FD  | 10 / 20 | 2, 7    |
|                        | -10            | 12°-60°           | 791958-16 |                       | —               | J2Bxxx.FD  | 10 / 20 | 2, 7    |
| GMW, GMWA,             | - 6            | 36°-84°           | 791958-16 | OR                    | 791963-16       | F2Dxxx.FD  | 12      | 7, 8    |
| GMWC, GMWE             | - 8            | 36°-54°           | 791958-16 | OR                    | 791963-16       | H2Dxxx.FD  | 16      | 7, 8    |
|                        | -10            | 36°               | 791958-16 |                       | —               | J2Axxx.FD  | 20      | 7       |
|                        | -12            | 36°-24°           | 791958-16 |                       | —               | L2dxxx.FD  | 24      | 2, 7    |
|                        | -12            | 24°-36°           | 791958-16 |                       | —               | L2Dxxx.FD  | 24      | 2, 7    |
| JS, LS                 | - 6            | 120°              | 791958-16 | OR                    | 791963-16       | F4Axxx.FC  | 12      | 7, 8    |
|                        | - 6            | 4°-116°           | 791952-18 | OR                    | 791963-16       | L4Sxxx.FC  | 12      | 8       |
|                        | - 8            | 90°               | 791958-16 | OR                    | 791963-16       | H4Axxx.FC  | 16      | 7, 8    |
|                        | - 8            | 4°-86°            | 791952-18 | OR                    | 791963-16       | P4Sxxx.FC  | 16      | 8       |

## CPU-95/CPU-95EVS DIGITAL IGNITION SYSTEM

| ENGINE MODEL NO.      | FIRING PATTERN | CPU-95 IGN. MODEL               | OR            | CPU-95 EVS IGN. MODEL | MEMORY CODE NO. | QTY. COILS | NOTES |         |
|-----------------------|----------------|---------------------------------|---------------|-----------------------|-----------------|------------|-------|---------|
| <b>GUASCOR</b>        |                |                                 |               |                       |                 |            |       |         |
| SFGLD                 | -180           | 120°                            | 791950-8 /-16 | OR                    | 791963-8        | F4A178.FC  | 6     | 1, 8    |
|                       | -240           | 90°                             | 791950-8 /-16 | OR                    | 791963-8        | H4A178.FC  | 8     | 1, 8    |
|                       | -360           | 60°                             | 791950-16     | OR                    | 791963-16       | L4A165.FC  | 12    | 1, 8    |
|                       | -420           | 60°                             | 791950-16     | OR                    | 791963-16       | L4A165.FC  | 12    | 1, 8    |
|                       | -480           | 30°-60°                         | 791950-16     | OR                    | 791963-16       | P4P165.FC  | 16    | 1, 8    |
|                       | -560           | 30°-60°                         | 791950-16     | OR                    | 791963-16       | P4P165.FC  | 16    | 1, 8    |
| <b>INGERSOLL RAND</b> |                |                                 |               |                       |                 |            |       |         |
| KVG, KVGR             | - 26           | 165°-75°                        | 791958-16     | OR                    | 791963-8        | F4Cxxx.FC  | 6     | 7, 8    |
|                       | - 36           | 165°-75°                        | 791958-16     | OR                    | 791963-8        | F4Cxxx.FC  | 6     | 7, 8    |
|                       | - 48           | 90-90-90-135-90-90-90-45        | 791958-16     | OR                    | 791963-8        | H4Exxx.FC  | 8     | 7, 8    |
|                       | - 48           | 90-135-45-135-90-45-135-45      | 791958-16     | OR                    | 791963-8        | H4Kxxx.FC  | 8     | 7, 8    |
|                       | - 62           | 165°-75°                        | 791958-16     | OR                    | 791963-8        | F4Cxxx.FC  | 6     | 7, 8    |
|                       | - 82           | 45°-135°                        | 791958-16     | OR                    | 791963-8        | H4Hxxx.FC  | 8     | 7, 8    |
|                       | - 83           | 90-90-90-135-90-90-90-45        | 791958-16     | OR                    | 791963-8        | H4Exxx.FC  | 8     | 7, 8    |
|                       | -103           | 117°-27°                        | 791958-16     | OR                    | 791963-16       | J4exxx.FC  | 10    | 2, 7, 8 |
|                       | -103           | 27°-117°                        | 791958-16     | OR                    | 791963-16       | J4Exxx.FC  | 10    | 2, 7, 8 |
|                       | -104           | 117°-27°                        | 791958-16     | OR                    | 791963-16       | J4exxx.FC  | 10    | 2, 7, 8 |
|                       | -104           | 27°-117°                        | 791958-16     | OR                    | 791963-16       | J4Exxx.FC  | 10    | 2, 7, 8 |
|                       | -123           | 45°-75°                         | 791958-16     | OR                    | 791963-16       | L4Hxxx.FC  | 12    | 7, 8    |
|                       | -410           | 117°-27°                        | 791958-16     | OR                    | 791963-16       | J4exxx.FC  | 10    | 2, 7, 8 |
|                       | -410           | 27°-117°                        | 791958-16     | OR                    | 791963-16       | J4Exxx.FC  | 10    | 2, 7, 8 |
|                       | -410           | 45-120-75-45-75-45-75-120-45-75 | 791958-16     | OR                    | 791963-16       | J4Gxxx.FC  | 10    | 7, 8    |
|                       | -412           | 45°-75°                         | 791958-16     | OR                    | 791963-16       | L4Hxxx.FC  | 12    | 7, 8    |
| -512                  | 45°-75°        | 791958-16                       | OR            | 791963-16             | L4Hxxx.FC       | 12         | 7, 8  |         |
| KVS, KVSR             | - 36           | 165°-75°                        | 791958-16     | OR                    | 791963-16       | F4Cxxx.FC  | 12    | 7, 8    |
|                       | - 48           | 90-135-45-135-90-45-135-45      | 791958-16     | OR                    | 791963-16       | H4Kxxx.FC  | 16    | 7, 8    |
|                       | -410           | 45-75-45-75-120-45-75-45-75-120 | 791958-16     |                       | —               | J4Sxxx.FC  | 20    | 7       |
|                       | -412           | 45°-75°                         | 791958-16     | OR                    | —               | L4Hxxx.FC  | 24    | 7       |
|                       | -512           | 45°-75°                         | 791958-16     | OR                    | —               | L4Hxxx.FC  | 24    | 7       |
| PKVG, PKVGR           | - 6            | 165°-75°                        | 791958-16     | OR                    | 791963-8        | F4Cxxx.FC  | 6     | 7, 8    |
|                       | - 8            | 90-90-90-135-90-90-90-45        | 791958-16     | OR                    | 791963-8        | H4Exxx.FC  | 8     | 7, 8    |
|                       | - 10           | 117°-27°                        | 791958-16     | OR                    | 791963-16       | J4exxx.FC  | 10    | 2, 7, 8 |
|                       | - 10           | 27°-117°                        | 791958-16     | OR                    | 791963-16       | J4Exxx.FC  | 10    | 2, 7, 8 |
|                       | - 12           | 45°-75°                         | 791958-16     | OR                    | 791963-16       | L4Hxxx.FC  | 12    | 7, 8    |



| ENGINE MODEL NO.                  | FIRING PATTERN | CPU-95 IGN. MODEL                   | OR            | CPU-95 EVS IGN. MODEL | MEMORY CODE NO. | QTY. COILS   | NOTES       |
|-----------------------------------|----------------|-------------------------------------|---------------|-----------------------|-----------------|--------------|-------------|
| <b>INGERSOLL RAND</b> (continued) |                |                                     |               |                       |                 |              |             |
| PKVS, PKVSR                       | - 6            | 165°-75°                            | 791958-16     | OR                    | 791963-16       | F4Cxxx.FC    | 12, 7, 8    |
|                                   | - 8            | 90-135-45-135<br>-90-45-135-45      | 791958-16     | OR                    | 791963-16       | H4Kxxx.FC    | 16, 7, 8    |
|                                   | -10            | 45-75-45-75-120-<br>45-75-45-75-120 | 791958-16     |                       | —               | J4Sxxx.FC    | 20, 7       |
|                                   | -12            | 45°-75°                             | 791958-16     |                       | —               | L4Hxxx.FC    | 24, 7       |
| PSVG                              | - 6            | 185°-55°                            | 791958-16     | OR                    | 791963-8        | F4Pxxx.FC    | 6, 7, 8     |
|                                   | - 8            | 90-90-90-65-<br>90-90-90-115        | 791958-16     | OR                    | 791963-8        | H4Pxxx.FC    | 10, 2, 8    |
|                                   | -10            | 137°-7°                             | 791952-18     | OR                    | 791963-16       | J4pxxx.FC    | 10, 2, 8    |
|                                   | -10            | 7°-137°                             | 791952-18     | OR                    | 791963-16       | J4Pxxx.FC    | 12, 2, 7, 8 |
|                                   | -12            | 65°-55°                             | 791958-16     | OR                    | 791963-16       | L4pxxx.FC    | 12, 2, 7, 8 |
|                                   | -12            | 55°-65°                             | 791958-16     | OR                    | 791963-16       | L4Pxxx.FC    | 12, 2, 7, 8 |
| PVG, XVG                          | - 4            | 180-240-180-120                     | 791958-16     | OR                    | 791963-8        | D4Gxxx.FC    | 4, 3, 7, 8  |
|                                   | - 6            | 60-180-120-<br>60-120-180           | 791958-16     | OR                    | 791963-8        | F4Exxx.FC    | 6, 7, 8     |
|                                   | - 8            | 60°-120°                            | 791958-16     | OR                    | 791963-8        | H4Bxxx.FC    | 8, 7, 8     |
| SVG                               | - 6            | 180°-60°                            | 791958-16     | OR                    | 791963-8        | F4Bxxx.FC    | 6, 7, 8     |
|                                   | - 8            | 90-90-90-60-<br>90-90-90-120        | 791958-16     | OR                    | 791963-8        | H4Gxxx.FC    | 8, 7, 8     |
|                                   | -10            | 132°-12°                            | 791958-16     | OR                    | 791963-16       | J4dxxx.FC    | 10, 2, 7, 8 |
|                                   | -10            | 12°-132°                            | 791958-16     | OR                    | 791963-16       | J4Dxxx.FC    | 10, 2, 7, 8 |
|                                   | -12            | 60°                                 | 791958-16     | OR                    | 791963-16       | L4Axxx.FC    | 12, 7, 8    |
| <b>JENBACHER</b>                  |                |                                     |               |                       |                 |              |             |
| 300 SERIES                        | J312GS         | 50°-70°                             | 791950-16     | OR                    | 791963-16       | L4V164.FC    | 12, 1, 8    |
|                                   | J316GS         | 20°-70°                             | 791952-18     | OR                    | 791963-16       | P4W164.FC    | 16, 1, 8    |
|                                   | J320GS         | 2°-70°                              | 791952-20     |                       | —               | T4S164.FC    | 20, 1       |
| 600 SERIES                        | J612GS         | 60°                                 | 791950-16     | OR                    | 791963-16       | L4A269.FC    | 12, 1, 8    |
|                                   | J616GS         | 30°-60°                             | 791950-16     | OR                    | 791963-16       | P4P269.FC    | 16, 1, 8    |
|                                   | J620GS         | 12°-60°                             | 791952-20     | OR                    | —               | T4B269.FC    | 20, 1       |
| <b>M.E.P.</b>                     |                |                                     |               |                       |                 |              |             |
| M.E.P.                            | - 6            | 60°                                 | 791950-8 /-16 | OR                    | 791963-16       | F2A318.FD    | 12, 1, 8    |
|                                   | - 8            | 45°                                 | 791950-8 /-16 | OR                    | 791963-16       | H2A318.FD    | 16, 1, 8    |
|                                   | -10            | 36°                                 | 791950-16     |                       | —               | J2A318.FD    | 20, 1       |
|                                   | -12            | 30°                                 | 791950-16     |                       | —               | L2A318.FD    | 24, 1       |
| <b>mitsubishi</b>                 |                |                                     |               |                       |                 |              |             |
| KU30G                             | -12            | 50°-70°                             | 791950-18     | OR                    | 791963-16       | L4V184.FS006 | 12, 1, 8    |
|                                   | -14            | 50°-52.86°                          | 791950-18     | OR                    | 791963-16       | N4V184.FS010 | 14, 1, 8    |
|                                   | -16            | 50°-40°                             | 791950-18     | OR                    | 791963-16       | P4V184.FS011 | 16, 1, 8    |
|                                   | -18            | 50°-30°                             | 791950-18     |                       | —               | R4V184.FS012 | 18, 1       |

## CPU-95/CPU-95EVS DIGITAL IGNITION SYSTEM

| ENGINE MODEL NO. | FIRING PATTERN | CPU-95 IGN. MODEL | OR            | CPU-95 EVS IGN. MODEL | MEMORY CODE NO. | QTY. COILS   | NOTES |            |
|------------------|----------------|-------------------|---------------|-----------------------|-----------------|--------------|-------|------------|
| <b>RUSTON</b>    |                |                   |               |                       |                 |              |       |            |
| RK270G           | -12            | 75°-45°           | 791950-16     | —                     | L4C292.FD       | 24           | 1     |            |
|                  | -16            | 45°               | 791950-16     | —                     | P4A292.FD       | 32           | 1     |            |
| <b>SUPERIOR</b>  |                |                   |               |                       |                 |              |       |            |
| G825 Series      | - 6            | 120°              | 791958-16     | OR                    | 791963-8        | F4A230.FC    | 6     | 1, 7, 8    |
|                  | - 8            | 90°               | 791958-16     | OR                    | 791963-8        | H4A230.FC    | 8     | 1, 7, 8    |
|                  | -12            | 48°-72°           | 791958-16     | OR                    | 791963-16       | L4D276.FC    | 12    | 1, 5, 7, 8 |
|                  | -16            | 48°-42°           | 791958-16     | OR                    | 791963-16       | P4G276.FC    | 16    | 1, 5, 7, 8 |
| GT825 Series     | - 6            | 120°              | 791958-16     | OR                    | 791963-8        | F4A230.FC    | 6     | 1, 7, 8    |
|                  | - 8            | 90°               | 791958-16     | OR                    | 791963-8        | H4A230.FC    | 8     | 1, 7, 8    |
|                  | -12            | 48°-72°           | 791958-16     | OR                    | 791963-16       | L4D276.FC    | 12    | 1, 5, 7, 8 |
|                  | -16            | 48°-42°           | 791958-16     | OR                    | 791963-16       | P4G276.FC    | 16    | 1, 5, 7, 8 |
| GTL              | - 6            | 120°              | 791958-16     | OR                    | 791963-8        | F4A230.FC    | 6     | 1, 7, 8    |
|                  | - 8            | 90°               | 791958-16     | OR                    | 791963-8        | H4A230.FC    | 8     | 1, 7, 8    |
|                  | -12            | 48°-72°           | 791958-16     | OR                    | 791963-16       | L4D276.FC    | 12    | 1, 5, 7, 8 |
|                  | -16            | 48°-42°           | 791958-16     | OR                    | 791963-16       | P4G276.FC    | 16    | 1, 5, 7, 8 |
| GTLA, GTLB       | - 6            | 120°              | 791950-8 /-16 | OR                    | 791963-8        | F4A230.FS501 | 6     | 1, 8       |
|                  | - 8            | 90°               | 791950-8 /-16 | OR                    | 791963-8        | H4A230.FS502 | 8     | 1, 8       |
|                  | -12            | 48°-72°           | 791950-16     | OR                    | 791963-16       | L4D276.FS503 | 12    | 1, 8       |
|                  | -16            | 48°-42°           | 791950-16     | OR                    | 791963-16       | P4G276.FS504 | 16    | 1, 8       |
| SGT              | -12            | 48°-72°           | 791958-16     | OR                    | 791963-16       | L4D276.FC    | 12    | 1, 5, 7, 8 |
|                  | -16            | 48°-42°           | 791958-16     | OR                    | 791963-16       | P4G276.FC    | 16    | 1, 5, 7, 8 |
| SGTA, SGTB       | - 8            | 90°               | 791950-8 /-16 | OR                    | 791963-8        | H4A230.FS505 | 8     | 1, 8       |
|                  | -12            | 48°-72°           | 791950-16     | OR                    | 791963-16       | L4D276.FS503 | 12    | 1, 8       |
|                  | -16            | 48°-42°           | 791950-16     | OR                    | 791963-16       | P4G276.FS504 | 16    | 1, 8       |
| 1700 Series      | 1706G          | 120°              | 791950-8 /-16 | OR                    | 791963-8        | F4A182.FS511 | 6     | 1, 8       |
|                  | 1712G          | 60°               | 791950-16     | OR                    | 791963-16       | L4A193.FS512 | 12    | 1, 8       |
|                  | 1712G          | 55°-65°           | 791950-16     | OR                    | 791963-16       | L4P193.FS513 | 12    | 1, 8       |
|                  | 1716G          | 60°-30°           | 791950-16     | OR                    | 791963-16       | P4T193.FS514 | 16    | 1, 8       |
| 2400 Series      | 2406G          | 120°              | 791950-8 /-16 | OR                    | 791963-8        | F4A180.FS521 | 6     | 1, 8       |
|                  | 2408G          | 90°               | 791950-8 /-16 | OR                    | 791963-8        | H4A180.FS522 | 8     | 1, 8       |
|                  | 2412G          | 60°               | 791950-16     | OR                    | 791963-16       | L4A180.FS523 | 12    | 1, 8       |
|                  | 2416G          | 60°-30°           | 791950-16     | OR                    | 791963-16       | P4T180.FS524 | 16    | 1, 8       |

| ENGINE MODEL    | FIRING PATTERN | CPU-95 IGN. MODEL | OR            | CPU-95 EVS IGN. MODEL | MEMORY CODE NO. | QTY. COILS | NOTES |         |
|-----------------|----------------|-------------------|---------------|-----------------------|-----------------|------------|-------|---------|
| <b>WAUKESHA</b> |                |                   |               |                       |                 |            |       |         |
| 7.5" Bore       | H2475G         | 60°-120°          | 791950-8 /-16 | OR                    | 791963-8        | H4B204.FC  | 8     | 1, 8    |
|                 | H2476G         | 60°-120°          | 791950-8 /-16 | OR                    | 791963-8        | H4B204.FC  | 8     | 1, 8    |
|                 | L3711G         | 60°               | 791950-16     | OR                    | 791963-16       | L4A204.FC  | 12    | 1, 8    |
|                 | L3712G         | 60°               | 791950-16     | OR                    | 791963-16       | L4A204.FC  | 12    | 1, 8    |
| VGF Series      | F18            | 120°              | 791950-8 /-16 | OR                    | 791963-8        | F4A150.FC  | 6     | 1, 8    |
| GL, GLD, GSID   | H24            | 90°               | 791950-8 /-16 | OR                    | 791963-8        | H4A150.FC  | 8     | 1, 8    |
|                 | L36            | 60°               | 791950-16     | OR                    | 791963-16       | L4A165.FC  | 12    | 1, 8    |
|                 | P48            | 60°-30°           | 791950-16     | OR                    | 791963-16       | P4T165.FC  | 16    | 1, 8    |
| VHP Series      | F2895          | 120°              | 791950-8 /-16 | OR                    | 791963-8        | F4A208.FC  | 6     | 1, 8    |
| G, GL, GSI      | F3521          | 120°              | 791950-8 /-16 | OR                    | 791963-8        | F4A208.FC  | 6     | 1, 8    |
|                 | L5108          | 60°               | 791950-16     | OR                    | 791963-16       | L4A208.FC  | 12    | 1, 8    |
|                 | L5790          | 60°               | 791950-16     | OR                    | 791963-16       | L4A208.FC  | 12    | 1, 8    |
|                 | L7042/7044*    | 60°               | 791950-16     | OR                    | 791963-16       | L4A208.FC  | 12    | 1, 8    |
|                 | P9390          | 60°-30°           | 791950-16     | OR                    | 791963-16       | P4T208.FC  | 16    | 1, 2, 8 |
|                 | P9390          | 30°-60°           | 791950-16     | OR                    | 791963-16       | P4P208.FC  | 16    | 1, 2, 8 |

\* Note: 7044: ignition only, does not interface to OEM Engine Control System

### WORTHINGTON

|           |     |                |           |    |           |           |    |         |
|-----------|-----|----------------|-----------|----|-----------|-----------|----|---------|
| LTC       | - 3 | 120°           | 791958-16 | OR | 791963-8  | C2Axxx.FD | 6  | 7, 8    |
|           | - 4 | 90°            | 791958-16 | OR | 791963-8  | D2Axxx.FD | 8  | 7, 8    |
|           | - 5 | 72°            | 791958-16 | OR | 791963-16 | E2Axxx.FD | 10 | 7, 8    |
|           | - 6 | 60°            | 791958-16 | OR | 791963-16 | F2Axxx.FD | 12 | 7, 8    |
|           | - 8 | 45°            | 791958-16 | OR | 791963-16 | H2Axxx.FD | 16 | 7, 8    |
| SLHC      | - 4 | 180-90-180-270 | 791958-16 | OR | 791963-8  | D4Sxxx.FC | 8  | 3, 7, 8 |
|           | - 5 | 144°           | 791958-16 | OR | 791963-16 | E4Axxx.FC | 10 | 7, 8    |
|           | - 6 | 120°           | 791958-16 | OR | 791963-16 | F4Axxx.FC | 12 | 7, 8    |
|           | - 7 | 102.86°        | 791958-16 | OR | 791963-16 | G4Axxx.FC | 14 | 7, 8    |
|           | - 8 | 90°            | 791958-16 | OR | 791963-16 | H4Axxx.FC | 16 | 7, 8    |
|           | -10 | 72°            | 791958-16 |    | —         | J4Axxx.FC | 20 | 7       |
| UTC, SUTC | - 5 | 72°            | 791958-16 | OR | 791963-16 | E2Axxx.FD | 10 | 7, 8    |
|           | - 6 | 60°            | 791958-16 | OR | 791963-16 | F2Axxx.FD | 12 | 7, 8    |
|           | - 7 | 51.43°         | 791958-16 | OR | 791963-16 | G2Axxx.FD | 14 | 7, 8    |
|           | - 8 | 45°            | 791958-16 | OR | 791963-16 | H2Axxx.FD | 16 | 7, 8    |
|           | -10 | 36°            | 791958-16 | OR | —         | J2Axxx.FD | 20 | 7       |

## CPU-95/CPU-95EVS DIGITAL IGNITION SYSTEM

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### APPLICATION NOTES:

1. Memory listed is for latest standard engine ring gear. Verify tooth count prior to programming CPU-95 for the application. If a different number of teeth/holes are to be sensed, the memory code no. must be changed accordingly.
2. This application is listed with two memory codes:  
**New Installations:**  
Use the 1st code listed (H2C, H2f, H2T, J2b, J2f, J4d, J4e, J4p, L2d, L4p, P4T); with these codes, start with harness lead "A" to no. 1 cylinder.  
**Replacing CPU-90 System:**  
Use the 2nd code listed (H2H, H2F, H2B, J2B, J2F, J4D, J4E, J4P, L2D, L4P, P4P); with these codes, connect harness lead "A" to the SECOND cylinder in the firing order and continue in accordance with the engine firing order, ending with cylinder no. 1.
3. The maximum number of holes or teeth for this application is 240.
4. Mounting adaptor kit 790005 available; use with disc 790111-1 for cycle trigger on Caterpillar models G379, G398 and G399. Requires housing (Caterpillar P/N 2N7425) if engine has right angle service meter drive.
5. Alternate ring gear has 249 teeth; check number to verify correct memory code no.
6. This application replaces an Altronic III and Interface Box; the engine must have the Caterpillar SI Timing Control.  
The CPU-95 system consists of:  
Item A, Ignition Module 791955-16  
Item B, Display Module 791902-2  
Item C, Output Harness  
Items D, E and G are not required.
7. Ignition Module 791958 series provides an extended spark duration option which may be beneficial for the engine application listed. The 791950 series previously specified for this application may also be used. Use one of the Altronic red coil options (591010, 591010-S, 591012) with Ignition Module 791958-16.
8. Ignition module 791963 series provides a directed energy topology that has the ability to make high current long duration sparks. This unit provides another option which may be beneficial for the engine application listed.