

REQUIRED ITEMS:

- A. Altronic V^{NG} unit** – see listing and page 5.
 * Single firing unit fires each cylinder individually on the compression stroke only.
 ** Double firing unit fires on the exhaust stroke as well as the compression stroke.
- B. Wiring harness** – see listing and page 6.
- C. Ignition coils** – unshielded, 1 per spark plug:
 501061 – standard
 591010 – long duration

OPTIONAL ITEMS:

- D. Shielded system** – see pages 4 and 6.
- E. Altronic Digital Instruments** – see Altronic website.
- F. Murphy Tattletale Panel / Fuel Valve Adaptor** – 501213.

ENGINE/ MODEL NO.	DRIVE RATIO	ALTRONIC V ^{NG} SINGLE FIRING*		ALTRONIC V ^{NG} DOUBLE FIRING**		QTY. IGN. COILS	NOTES
		UNIT NO.	HARNESS	UNIT NO.	HARNESS		

ALLIS CHALMERS

4-Cylinder	1:1	4A24-A-NG	393023-1	2A14-A-NG	593041-1	4	
6-Cylinder	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	

ARIEL

325JGS/1	1/2:1	2A14-GV-NG	593041-1	—	—	4	
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CATERPILLAR

G3304-NA	1:1	4A24-A-NG	393023-1	2A14-A-NG	593041-1	4	12
G3304-NA	1-1/2:1	4A34-A-NG	393023-1	—	—	4	12
G3306-NA	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
G3306-TA	1-1/2:1	6A34-A-NG	393023-1	—	—	6	

CONTINENTAL

F-163	1:1	4A24-A-NG	393023-1	2A14-A-NG	593041-1	4	
F-226	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
F-227	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
F-245	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	

CUMMINS

G-495	1:1	4A24-D-NG	393023-1	2A14-D-NG	593041-1	4	
G-743 (check mounting flange and drive ratio)	1:1	6A24-D-NG	393023-1	3A14-D-NG	593041-1	6	8, 11
	1:1	6A24-DC-NG	393023-1	—	—	6	8
	1-1/2:1	6A34-GVC-NG	393023-1	—	—	6	

ALTRONIC V^{NG} DIGITAL IGNITION SYSTEM FOR SMALL ENGINES, 1-6 CYLINDERS

ENGINE/ MODEL NO.	DRIVE RATIO	ALTRONIC V ^{NG} SINGLE FIRING*		ALTRONIC V ^{NG} DOUBLE FIRING**		QTY. IGN. COILS	NOTES
		UNIT NO.	HARNESS	UNIT NO.	HARNESS		
CUMMINS (continued)							
G-855	1:1	6A24-D-NG	393023-1	3A14-D-NG	593041-1	6	8, 11
(check mounting flange and drive ratio)	1:1	6A24-DC-NG	393023-1	—	—	6	8
	1-1/2:1	6A34-GVC-NG	393023-1	—	—	6	
GTA-743	1:1	6A24-D-NG	393023-1	—	—	6	8
(check mounting flange and drive ratio)	1:1	6A24-DC-NG	393023-1	—	—	6	8
	1-1/2:1	6A34-GVC-NG	393023-1	—	—	6	
GTA-855	1:1	6A24-D-NG	393023-1	—	—	6	8
(check mounting flange and drive ratio)	1:1	6A24-DC-NG	393023-1	—	—	6	8
	1-1/2:1	6A34-GVC-NG	393023-1	—	—	6	
DEUTZ							
GF4L912, GF4L913	1:1	4A24-GV-NG	393023-1	2A14-GV-NG	593041-1	4	
GF5L912, GF5L913	1:1	5A24-GV-NG	393023-1	—	—	5	
GF6L912, GF6L913	1:1	6A24-GV-NG	393023-1	3A14-GV-NG	593041-1	6	
DORMAN							
GLEG, GQG	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
HERCULES (WHITE)							
G-2300 (1:1) (check mounting flange and drive ratio)	1:1	4A24-GVW-NG	393023-1	2A14-GVW-NG	593041-1	4	1
	1-1/2:1	4A34-GVW-NG	393023-1	—	—	4	2
G-3400	1-1/2:1	6A34-GVW-NG	393023-1	3A64-GVW-NG	593041-1	6	2
G-4800	1-1/2:1	6A34-GVW-NG	393023-1	3A64-GVW-NG	593041-1	6	
INTERNATIONAL							
4-Cylinder	1:1	4A24-A-NG	393023-1	2A14-A-NG	593041-1	4	
6-Cylinder	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
MINNEAPOLIS MOLINE							
4-Cylinder	1:1	4A24-A-NG	393023-1	2A14-A-NG	593041-1	4	
6-Cylinder	1-1/2:1	6A34-AM-NG	393023-1	3A64-AM-NG	593041-1	6	
OILWELL							
F-70RC	1:1	—	—	2A14-GV-NG	593041-1	2	
F-90RC	1:1	—	—	2A14-GV-NG	593041-1	2	
WAUKESHA							
135	1-1/2:1	6A34-AW-NG	393023-1	3A64-AW-NG	593041-1	6	3
140	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
145	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
180	1:1	4A24-A-NG	393023-1	2A14-A-NG	593041-1	4	9
190	1-1/2:1	6A34-AW-NG	393023-1	3A64-AW-NG	593041-1	6	4
195	1-1/2:1	6A34-AW-NG	393023-1	3A64-AW-NG	593041-1	6	4

ALTRONIC V^{NG} DIGITAL IGNITION SYSTEM FOR SMALL ENGINES, 1-6 CYLINDERS

ENGINE/ MODEL NO.	DRIVE RATIO	ALTRONIC V ^{NG} SINGLE FIRING*		ALTRONIC V ^{NG} DOUBLE FIRING**		QTY. IGN. COILS	NOTES
		UNIT NO.	HARNESS	UNIT NO.	HARNESS		
WAUKESHA (continued)							
F11G, F11GS1	1-1/2:1	6A34-GV-NG	393023-1	—	—	6	5
F11G, F11GS1	1-1/2:1	6A34-GVW--NG	393023-1	—	—	6	5
F554GU	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
F817GU	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	
VRG-220	1:1	4A24-AW-NG	393023-1	2A14-AW-NG	593041-1	4	6
VRG-232	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	10
VRG-265	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	10
VRG-283	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	10
VRG-310	1-1/2:1	6A34-A-NG	393023-1	3A64-A-NG	593041-1	6	10
VRG-330	1-1/2:1	6A34-AW-NG	393023-1	3A64-AW-NG	593041-1	6	7
VRG-330S	1-1/2:1	6A34-AW-NG	393023-1	—	—	6	7

NOTES:

1. Drive gear for Altronic VNG unit is White part no. 255446 which requires a 7/8" I.D. x 1/8" thick spacer washer.
2. Drive gear for Altronic unit is White part no. 40-3076701.
3. Drive gear for Altronic unit is Waukesha part no. 135119.
4. Drive gear for Altronic unit is Waukesha part no. 195119.
5. First production engines using attached Waukesha gear no. 355019 use unit 6A34-GVW-NG. Later production engines using standard magneto drive use unit 6A34-GV-NG.
6. Drive gear for Altronic unit is Waukesha part no. 216019.
7. Drive gear for Altronic unit is Waukesha part no. 217019.
8. The mounting flange on 6A24-D has one tapped hole, one slot. Unit 6A24-DC has two slots.
9. Installation requires Waukesha adapter no. D151805; also requires various Waukesha parts to connect adaptor to the engine's oil system.
10. Installation requires Waukesha adapter no. AA 199686; also requires various Waukesha parts to connect adaptor to the engine's oil system.
11. The single firing system (6A unit) is recommended for new installations.
12. Engines with S/N 37Y02112 and lower use unit 4A24-A-NG; engines with S/N 37Y02113 and higher use unit 4A34-A-NG.

SHIELDED SYSTEM

A. SHIELDED HARNESS – Altronic V unit to junction box:

593044 series – 180° connector for models 1A, 2A, 3A

593046 series – 90° connector for models 1A, 2A, 3A

393013 series – 90° connector for models 4A, SA, 6A

See Identification section for complete listing.

B. IGNITION COILS – See Application Guide, Form AIS AG:

501061-S series – shielded coil, standard

591010-S series – shielded coil, long duration

591007 series – integral coil, 1"-20 male thread

591011 A series – integral coil, 13/16"-20 female thread

591011 B series – integral coil, 13/16"-20 female thread

C. SHIELDED PRIMARY CABLE ASSEMBLIES – coil to junction box:

593022 series – 180° connector

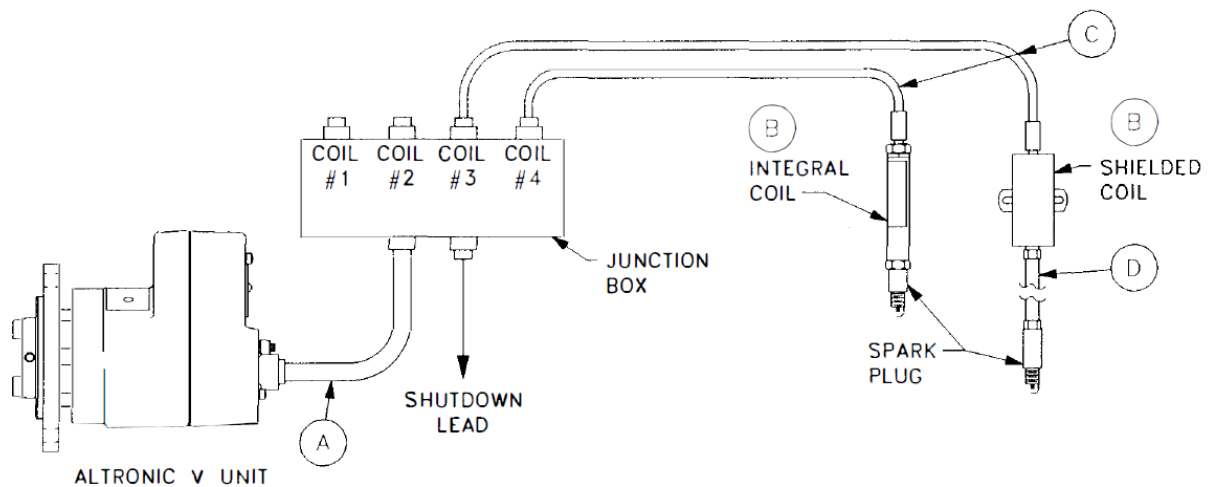
593027 series – 90° connector

See Application Guide, Form AIS AG, for available lengths.

D. SHIELDED SPARK PLUG LEAD ASSEMBLIES (for 501061-S, 591010-S coil):

593020 – 10", 13", 16", 18"

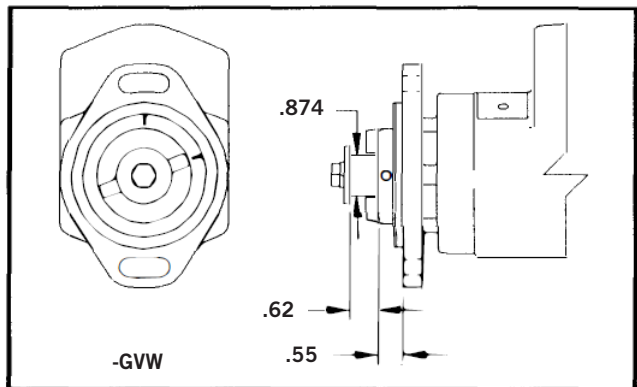
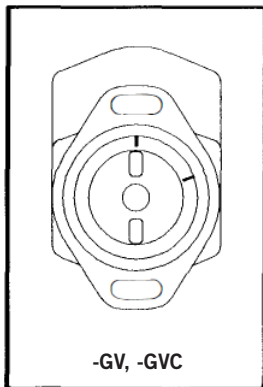
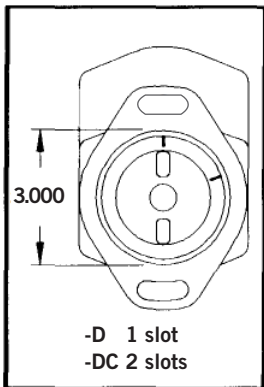
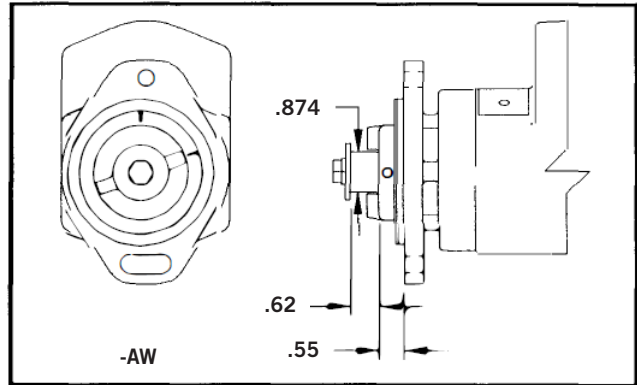
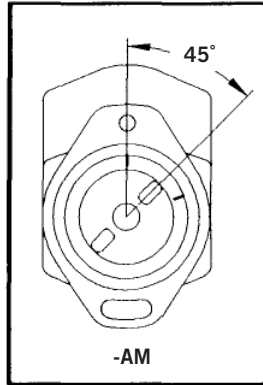
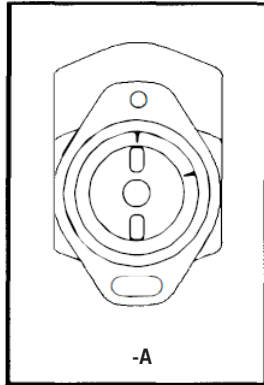
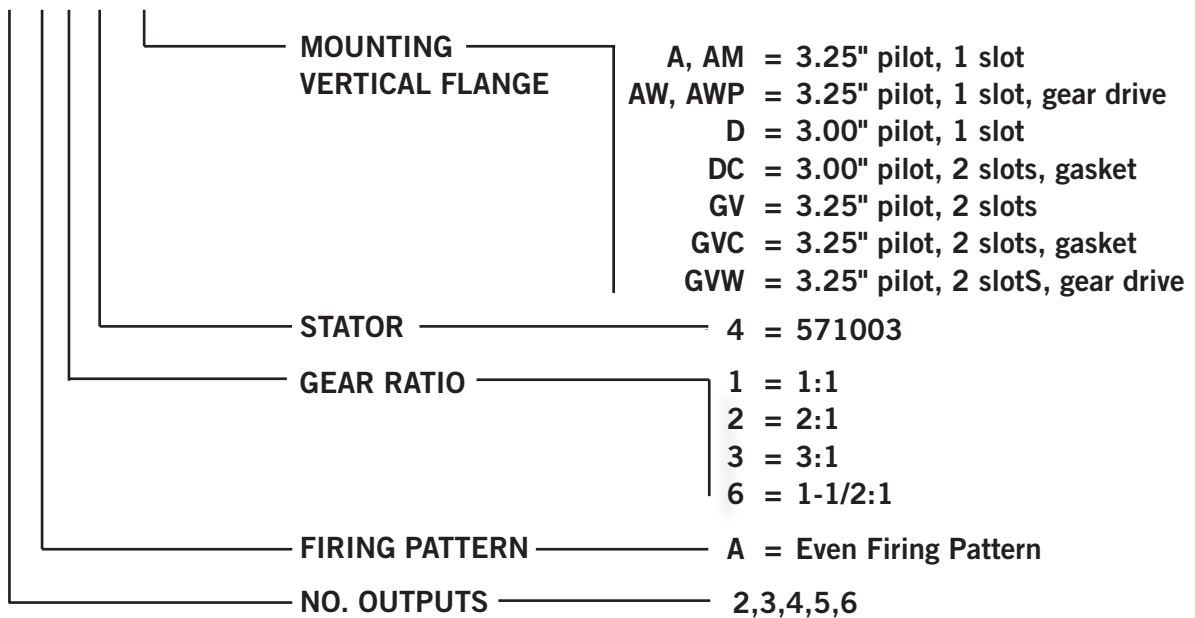
NOTE: Components listed above are CSA Certified/FMR Approved for Class I, Group D, Division 2 locations.



ALTRONIC V^{NG} DIGITAL IGNITION SYSTEM IDENTIFICATION FORM

ALTRONIC V^{NG} UNIT PART NO. DESIGNATION

6 A 3 4 - A - NG



ALTRONIC V^{NG} DIGITAL IGNITION SYSTEM FOR SMALL ENGINES, 1-6 CYLINDERS

BACK COVER LISTING

UNIT	BACK COVER ASS'Y.	CIRCUIT BOARD
2A14	581409-4	580056-2
2A18	USE UNIT 2A14	
3A14	581409-9	580056-3
3A64	581409-8	580056-3
4A24	581409-12	580056-4
4A34	581409-13	580056-4
5A24	581409-7	580056-5
6A24	581409-17	580056-6
6A34	581409-15	580056-6

UNSHIELDED HARNESES

PART NO.	CONNECTOR/PINS	CYLS./L1*	APPLICATION	NOTES
393023-1	180° / 7	4-6 / 72"	unshielded	b
393023-2	180° / 7	4-6 / 180"	unshielded	b
593041-1	180° / 5	2-6 / 72"	unshielded	b
593041-2	180° / 5	2-6 / 96"	unshielded	b

SHIELDED HARNESES

PART NO.	CONNECTOR/PINS	CYLS. / L1* / L2*	APPLICATION	NOTES
393013-1	90° / 7	4-6 / 72" / 48"	shielded	a
393013-2	90° / 7	4-6 / 180" / 48"	shielded	a
593044-12	180° / 5	2-6 / 72" / 12"	shielded	a
593044-18	180° / 5	2-6 / 72" / 18"	shielded	a
593044-24	180° / 5	2-6 / 72" / 24"	shielded	a
593046-12	90° / 5	2-6 / 72" / 12"	shielded	a
593046-18	90° / 15	2-6 / 72" / 18"	shielded	a
593046-24	90° / 5	2-6 / 72" / 24"	shielded	a

NOTES:

- a. CSA Certified for Class I, Group D, Division 2 hazardous locations when used with applicable CSA Certified Altronic ignition unit and coils.
- b. All 180 degree connectors are potted type.
 - * L1 = length of 16 ga. conductor
 - L2 = length of conduit on shielded harnesses