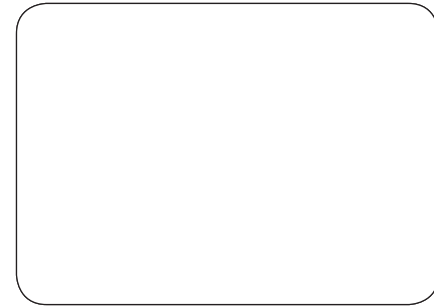
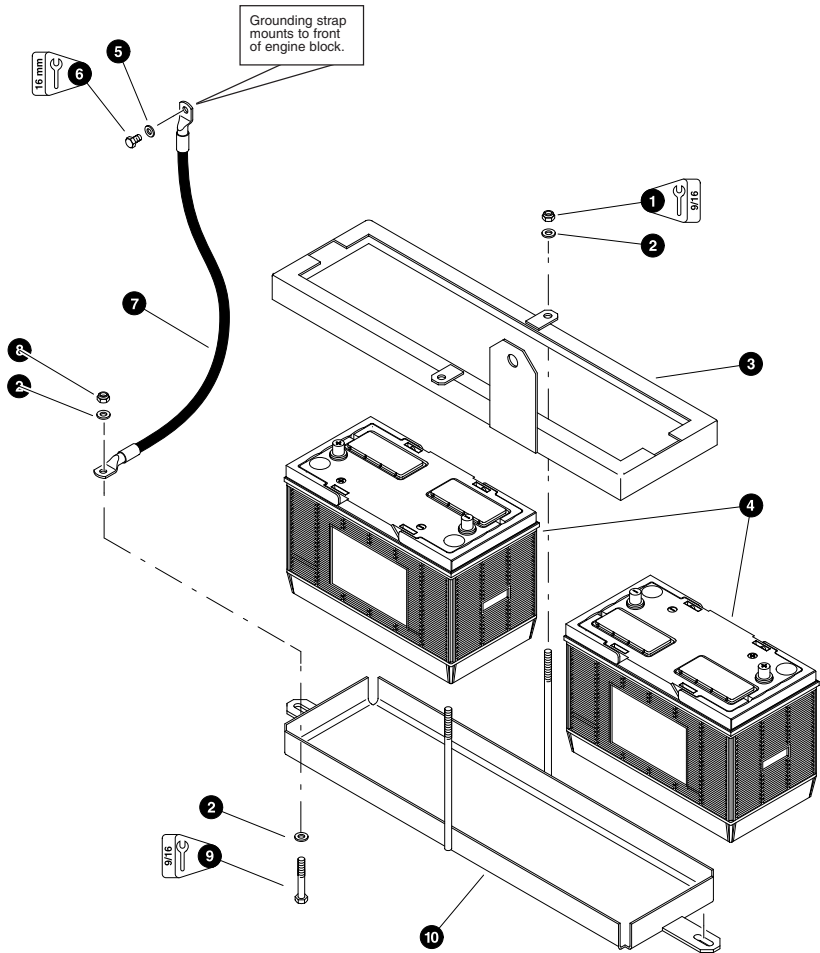


Section ES-1

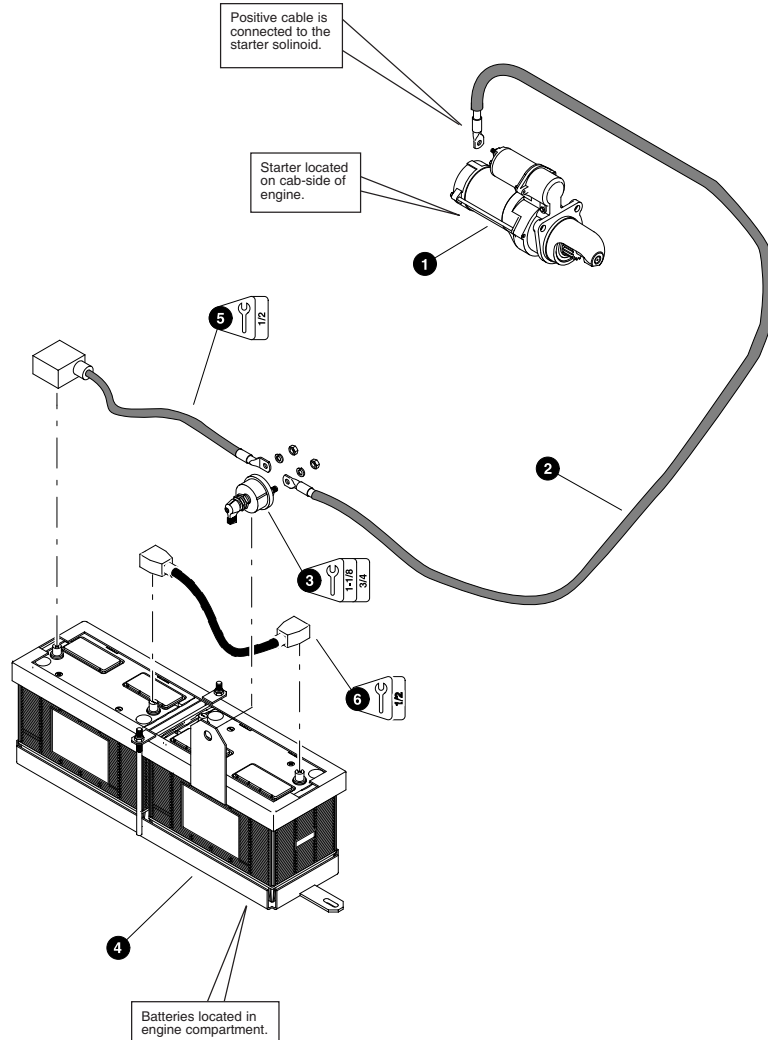


***Electrical System -
Engine***



BATTERY INSTALLATION (Typical)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|------------------------------|-------------|
| 1 | 15507-ES | 2 | NUT, nylock - 3/8" | |
| 2 | 15528-ES | 6 | WASHER, SAE flat - 3/8" | |
| 3 | 17260-ES | 1 | BRACKET, battery hold-down | |
| 4 | 17150-ES | 2 | BATTERY, heavy duty - 12V | |
| 5 | 18735-ES | 1 | WASHER, flat - 12mm | |
| 6 | 17556-ES | 1 | BOLT - 10mm-1.75P x 20mm | |
| 7 | 17394-ES | 1 | CABLE, engine/chassis ground | |
| 8 | 10813-ES | 2 | NUT, lock - 3/8" | |
| 9 | 10702-ES | 2 | BOLT - 3/8" x 2-1/2" | |
| 10 | 17261-ES | 1 | BRACKET, battery box | |

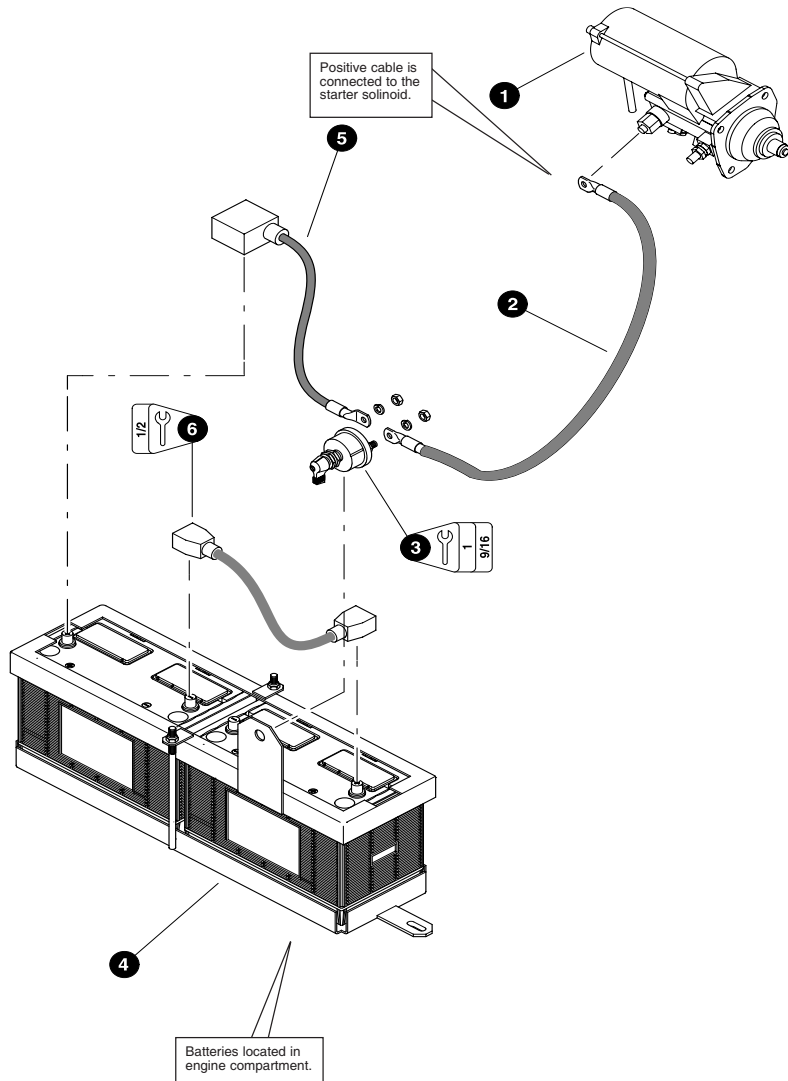


Parts 02411 09/17/2001
18,75

POSITIVE BATTERY CABLE INSTALLATION (Cummins Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | STARTER | EN/EE |
| 2 | 25205-ES | 1 | CABLE, battery - positive (From master shut-off switch to starter post) | |
| 3 | 25200-ES | 1 | SWITCH, master shut-off | |
| 4 | REF. | 1 | BATTERY INSTALLATION | ES-1-2 |
| 5 | 25206-ES | 1 | CABLE, battery master disconnect (From positive battery post to master shut-off switch) | |
| 6 | 24300 | 1 | CABLE, battery jumper (from neg post to positive post) | |

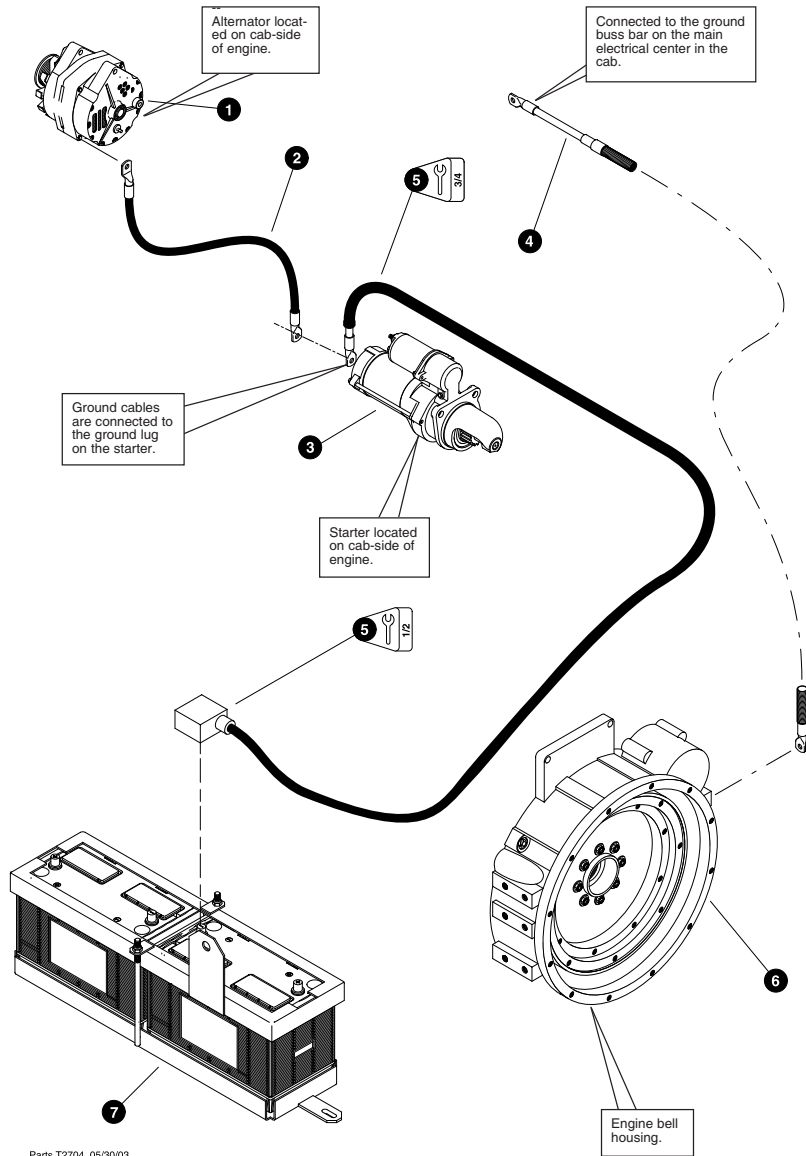
See referenced page for component or assembly breakdown.



POSITIVE BATTERY CABLE INSTALLATION (John Deere 6068 Engine)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | STARTER | JD-3 |
| 2 | 51458-ES | 1 | CABLE, battery - positive (From master shut-off switch to starter post) | |
| 3 | 25200-ES | 1 | SWITCH, master shut-off | |
| 4 | REF. | 1 | BATTERY INSTALLATION | ES-1 |
| 5 | 25206-ES | 1 | CABLE, battery master disconnect (From positive battery post to master shut-off switch) | |
| 6 | 24300-ES | 1 | CABLE, battery jumper (from neg post to positive post) | |

See referenced page for component or assembly breakdown.

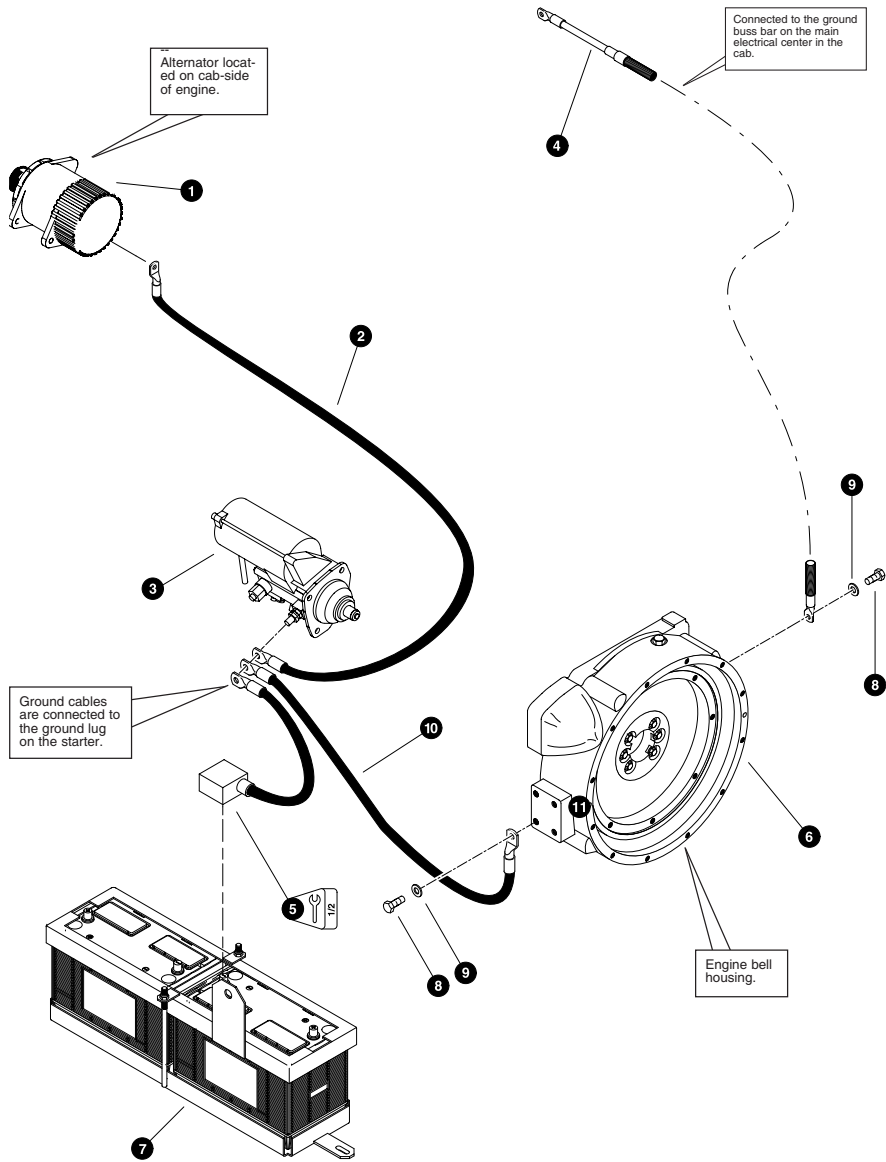


Parts T2704 05/30/03
18,75

GROUNDING CABLE INSTALLATION (Cummins Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | ALTERNATOR | EE/EE |
| 2 | 24304-ES | 1 | CABLE, battery - negative (From starter post to alternator grounding stud) | |
| 3 | REF. | 1 | STARTER | EN/EE |
| 4 | 24306-ES | 1 | CABLE, NEG. FEED - (Bell housing to main electrical center in cab) | |
| 5 | 24302-ES | 1 | CABLE, battery - negative feeder (From starter ground stud to negative post on batteries) | |
| 6 | REF. | 1 | ENGINE BELL HOUSING | EN/EE |
| 7 | REF. | 1 | BATTERY ASSEMBLY | ES-1 |

See referenced page for component or assembly breakdown.

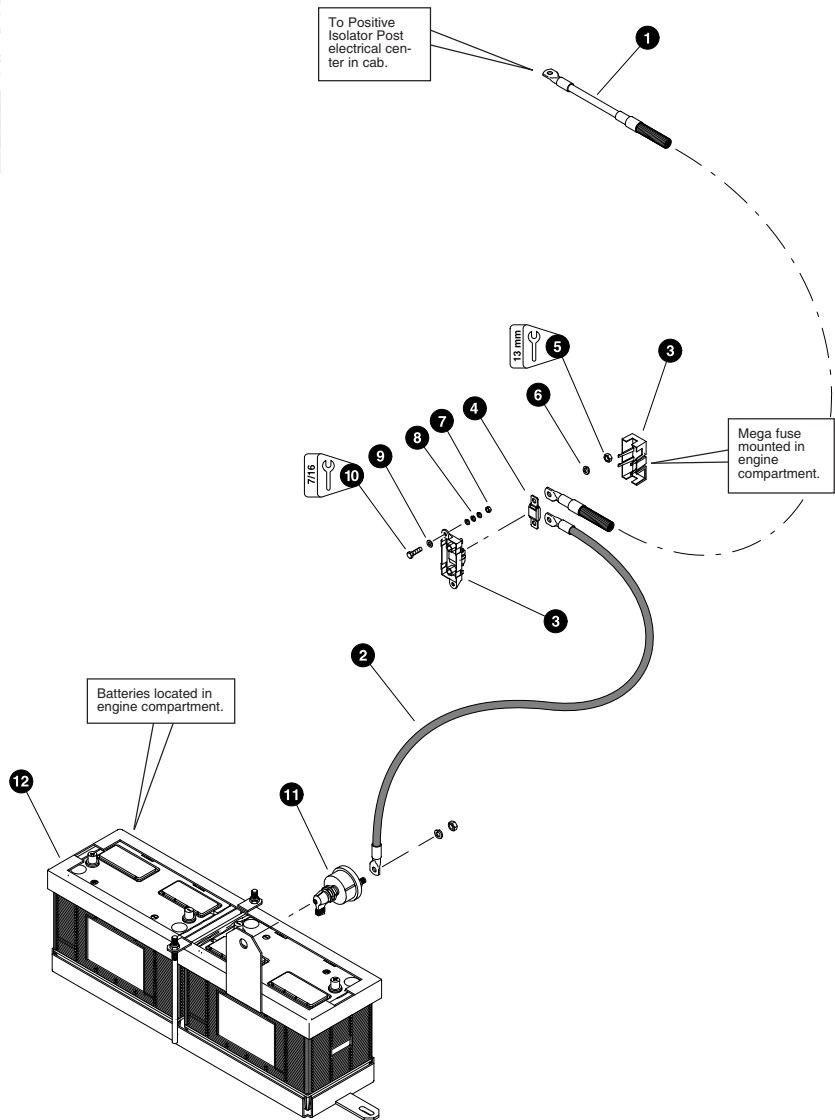


Parts T2998 04/30/04
18.75

GROUNDING CABLE INSTALLATION (John Deere 6068 Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | ALTERNATOR | JD-3 |
| 2 | 51460-ES | 1 | CABLE, battery - negative (From starter post to alternator grounding stud) | |
| 3 | REF. | 1 | STARTER | JD-3 |
| 4 | 24306-ES | 1 | CABLE, NEG. FEED - (Bell housing to main electrical center in cab) | |
| 5 | 51459-ES | 1 | CABLE, battery - negative feeder (Starter to negative post on battery) | |
| 6 | REF. | 1 | ENGINE BELL HOUSING | JD-3 |
| 7 | REF. | 1 | BATTERY ASSEMBLY | ES-1 |
| 8 | 20661-ES | 2 | BOLT - 16MM-2.0P X 35MM | |
| 9 | 10771-ES | 2 | WASHER, SAE FLAT - .625" | |
| 10 | 17394-ES | 1 | CABLE, engine \ starter ground | |

See referenced page for component or assembly breakdown.

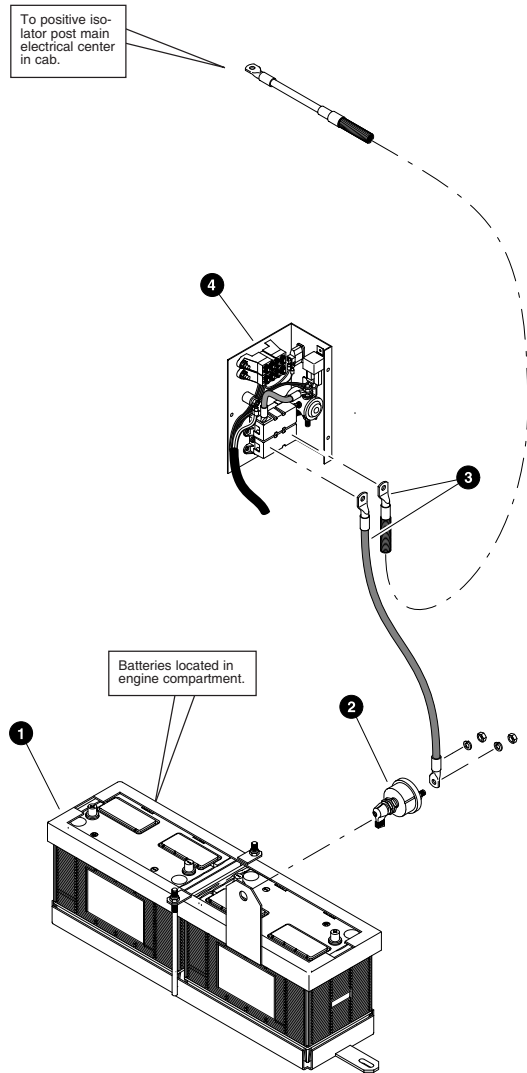


Parts 02414 09/17/2001
18.75

MEGA FUSE INSTALLATION (Cab Power Supply) Cummins C8.3 & John Deere

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | 25204-ES | 1 | ☐ CABLE, positive feeder (From mega fuse to main electrical center in cab) | |
| 2 | ---- | 1 | ☐ CABLE, positive feeder (From positive battery cable to mega fuse) | |
| 3 | 22247-ES | 1 | ☐ HOLDER, mega fuse | |
| 4 | 23619-ES | 1 | FUSE, mega - 100 amp | |
| 5 | ---- | 2 | NUT, hex - 8mm | |
| 6 | ---- | 2 | WASHER, lock - 8mm | |
| 7 | 10811-ES | 2 | NUT, lock - 1/4" | |
| 8 | 10756-ES | 6 | WASHER, lock - 1/4" | |
| 9 | 10757-ES | 2 | WASHER, SAE flat - 1/4" | |
| 10 | 15576-ES | 2 | BOLT - 1/4" x 1" | |
| 11 | REF. | 1 | ☐ MASTER SHUT-OFF SWITCH | ES-1 |
| 12 | REF. | 1 | ☐ BATTERY INSTALLATION | ES-1 |

- ☐ Kit or Assembly - includes all items indented underneath.
- ☐ See referenced page for component or assembly breakdown.

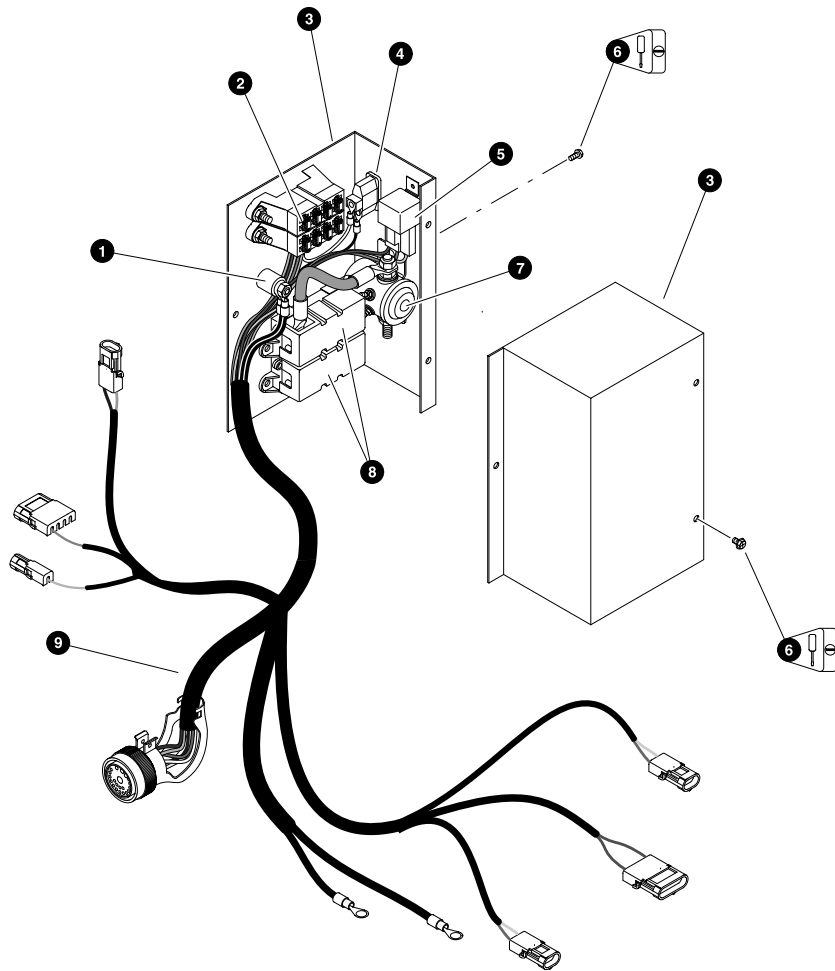


Parts 02413 09/17/2001
18,75

MEGA FUSE INSTALLATION (Cummins Electronic Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | BATTERY INSTALLATION | ES-1 |
| 2 | REF. | 1 | MASTER SHUT-OFF SWITCH | ES-1 |
| 3 | 25204-ES | 1 | CABLE, positive feeder (From mega fuse to main electrical center in cab) | |
| 4 | REF. | 1 | GRID HEATER BOX | ES-1 |

- Kit or Assembly - includes all items indented underneath.
- See referenced page for component or assembly breakdown.

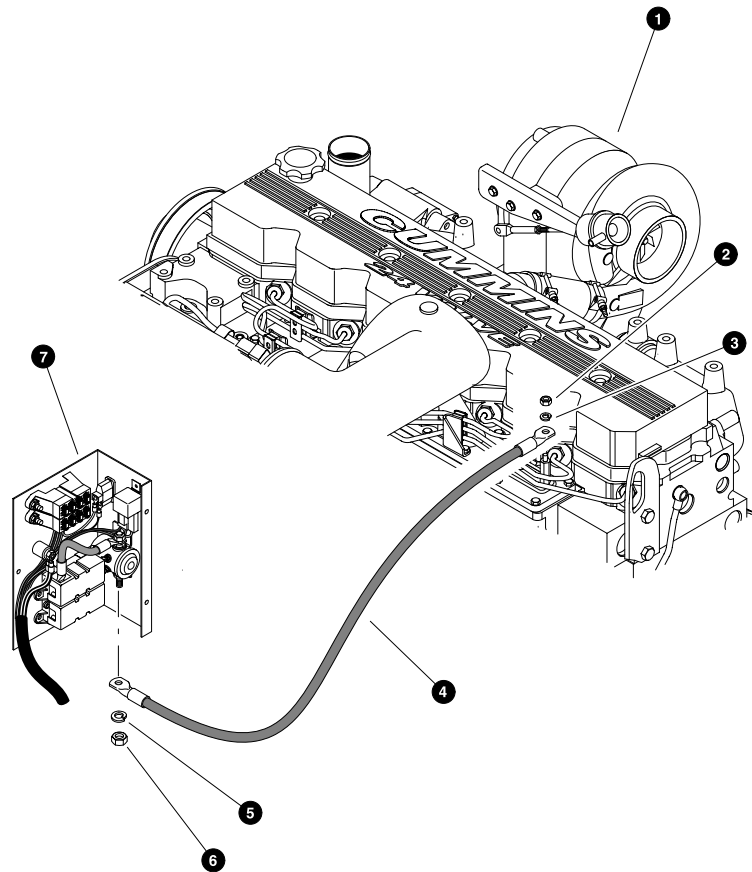


Parts 02235 05/30/2001
37.50

GRID HEATER BOX (Cummins Electronic Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| - | 24305-ES | 1 | <input type="checkbox"/> GRID HEATER ELECTRICAL BOX | |
| 1 | 20817-ES | 1 | ISOLATOR | |
| 2 | 24533-ES | 2 | FUSE, ATO - 5amp (<i>Spade Style</i>) | |
| | 24534-ES | 3 | FUSE, ATO - 7.5amp (<i>Spade Style</i>) | |
| | 24512-ES | 3 | FUSE, ATO - 10amp (<i>Spade Style</i>) | |
| 3 | 14398-ES | 1 | BOX, electrical | |
| 4 | REF. | 1 | <input type="checkbox"/> SWITCH, toggle | |
| 5 | ---- | 1 | RELAY, Fuel Heater 24v | |
| 6 | 17254-ES | 4 | SCREW, self-tapping - #10-24 x 1/2" | |
| 7 | 24262-ES | 1 | RELAY, Grid Heater 24v | |
| 8 | ---- | 2 | <input type="checkbox"/> FUSE HOLDER | |
| | 23619-ES | 1 | FUSE, mega - 100 amp | |
| 9 | ---- | 1 | HARNESS, wiring | |

- Kit or Assembly - includes all items indented underneath.
- See referenced page for component or assembly breakdown.

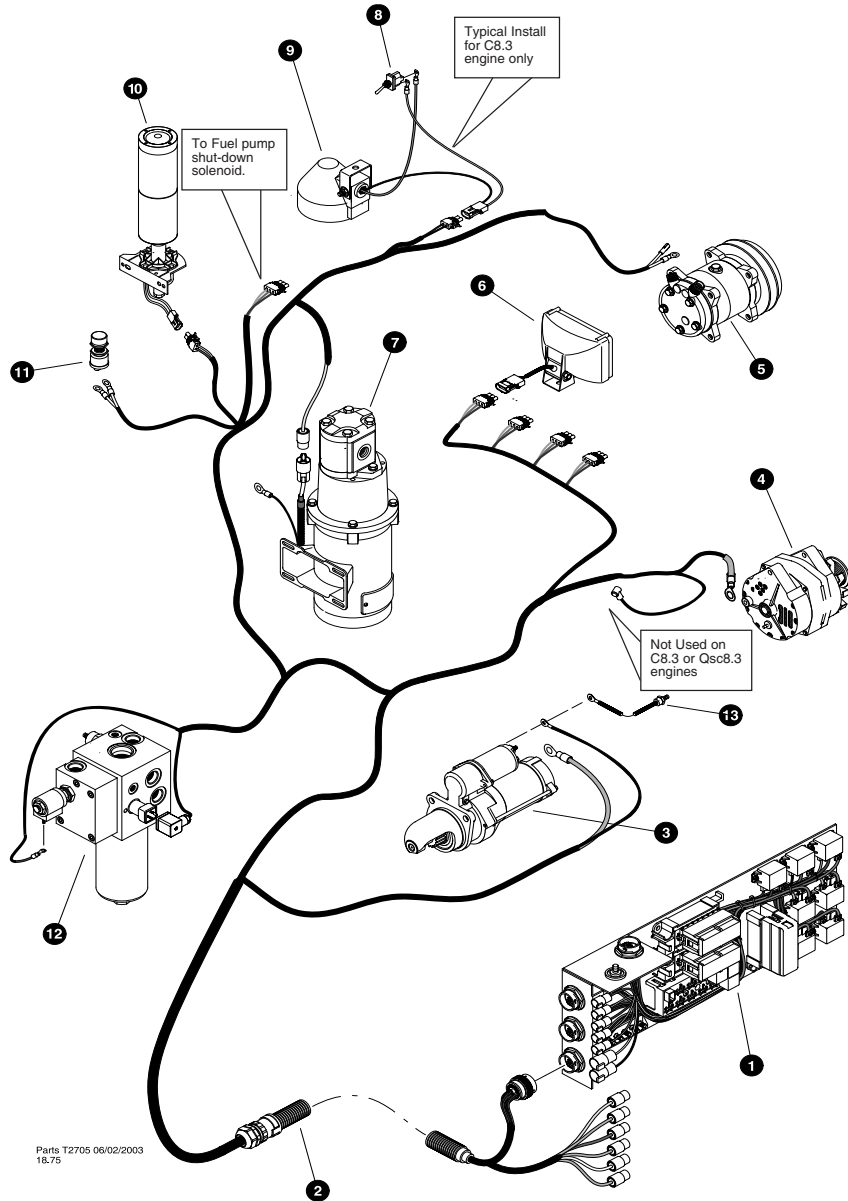


Parts 02242 05/31/2001
18.75

GRID HEATER BOX TO ENGINE GRID HEATER (Cummins Electronic Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | ENGINE | EE-2 |
| 2 | ---- | 1 | NUT | |
| 3 | ---- | 1 | WASHER, lock | |
| 4 | 24303-ES | 1 | CABLE, battery - grid heater (From grid heater box to engine grid heater) | |
| 5 | ---- | 1 | WASHER, lock | |
| 6 | ---- | 1 | NUT | |
| 7 | REF. | 1 | GRID HEATER ELECTRICAL BOX | ES-1 |

See referenced page for component or assembly breakdown.

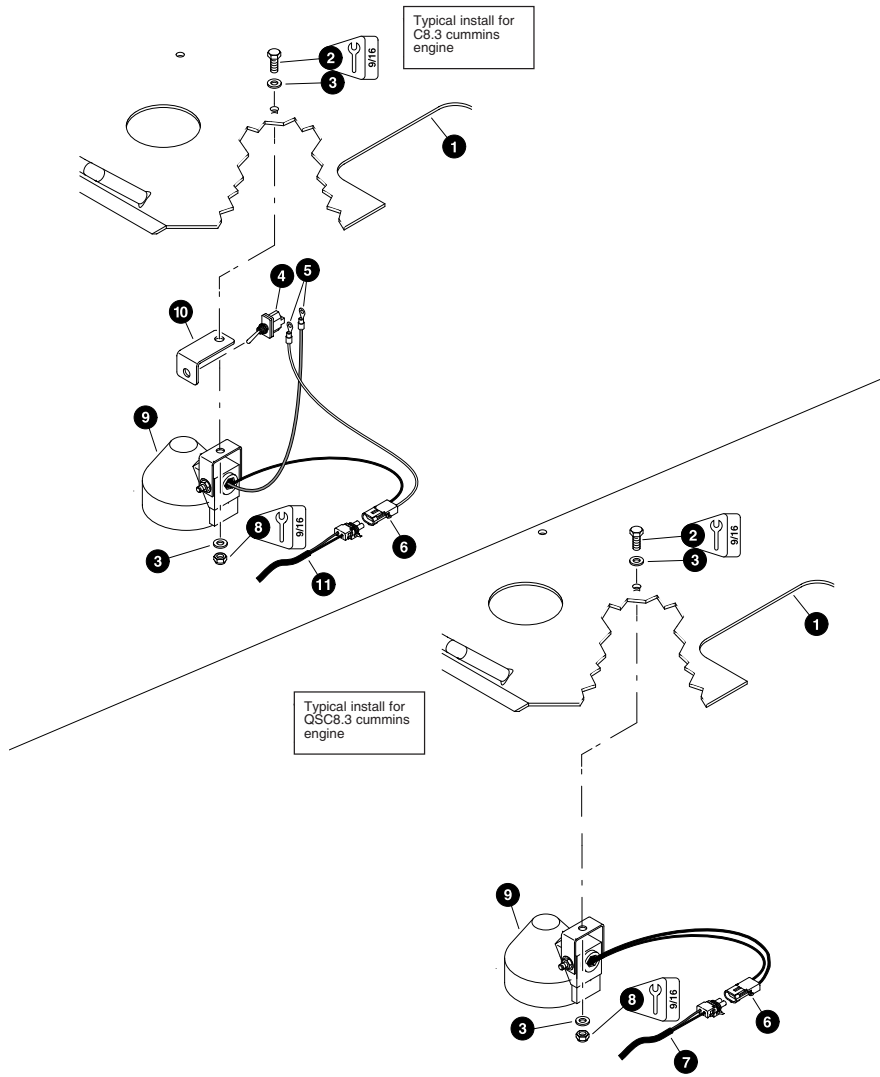


Parts T2705 06/02/2003
18.75

ELECTRICAL HARNESS INSTALLATION Engine (Typical)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|-------------------------------------|-------------|
| 1 | REF. | 1 | MAIN ELECTRICAL CENTER ASSEMBLY | ES-2 |
| 2 | 25203-ES | 1 | HARNESS, engine | |
| 3 | REF. | 1 | STARTER | EN/EE/JD |
| 4 | REF. | 1 | ALTERNATOR | EN/EE/JD |
| 5 | REF. | 1 | A/C COMPRESSOR | EN/EE/JD |
| 6 | 23292 | 1 | LIGHT | |
| 7 | REF. | 1 | ELECTRIC FILL PUMP | UP-3 |
| 8 | REF. | 1 | SWITCH, toggle | ES-1 |
| 9 | REF. | 1 | LIGHT, spot 24V | ES-1 |
| 10 | REF. | 1 | KIT, ether start | ES-3 |
| 11 | REF. | 1 | ELECTRIC FILL PUMP ACTUATION SWITCH | ES-3 |
| 12 | REF. | 1 | TRACK DRIVE CHARGE FILTER ASSEMBLY | WD-3 |
| 13 | 25052 | 1 | DIODE, assembly engine start relay | |

See referenced page for component or assembly breakdown.

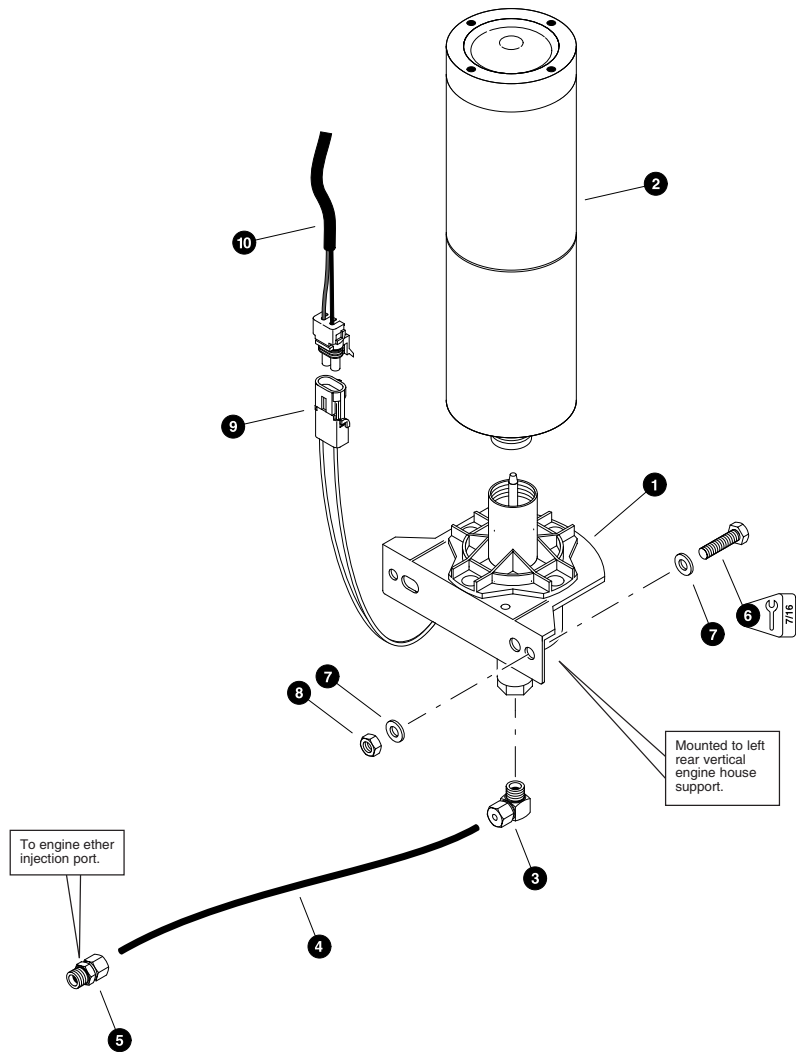


Parts T27061 06/02/2003
15/75

ENGINE COMPARTMENT WORK LIGHT INSTALLATION

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|-------------------------------|-------------|
| 1 | REF. | 1 | AIR CLEANER PANEL | UP-1 |
| 2 | 10731-ES | 1 | BOLT - 3/8" x 1-1/2" | |
| 3 | 15528-ES | 2 | WASHER, SAE flat - 3/8" | |
| 4 | 16383-ES | 1 | SWITCH, toggle | |
| 5 | 16211-ES | 1 | TERMINAL, ring | |
| 6 | 22223 | 1 | CONNECTOR, weatherpack | |
| | 22226 | 2 | TERMINAL, male | |
| | 22225 | 2 | SEAL, terminal | |
| 7 | REF. | 1 | GRID HEATER BOX HARNESS | ES-1 |
| 8 | 10813-ES | 1 | NUT, lock - 3/8" | |
| 9 | 23605-ES | 1 | LIGHT, spot (24V) | |
| 10 | 14394-ES | 1 | BRACKET, switch mounting | |
| 11 | REF | 1 | HARNESS, engine-Cummins | ES-1 |

See referenced page for component or assembly breakdown.

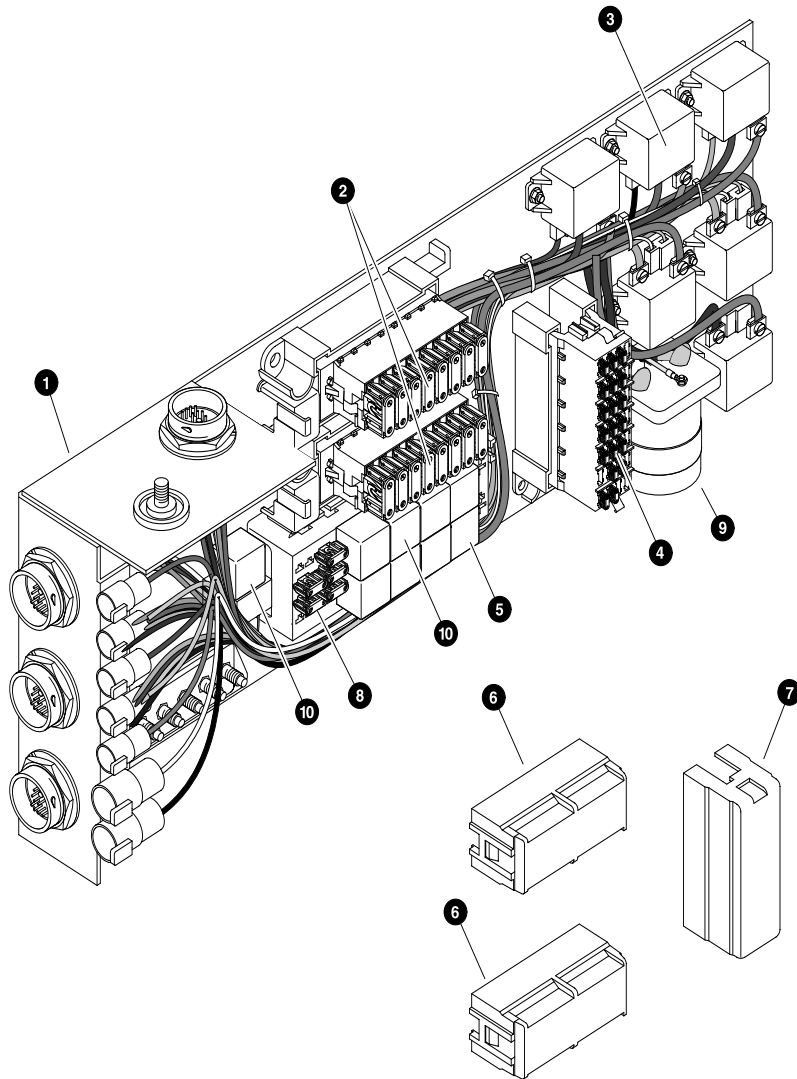


Parts 01290 08/10/99
62.50

OPTIONAL ETHER KIT INSTALLATION
(Used Only on Non-Electronic Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|--------|-----|---|-------------|
| -- | 23295 | 1 | <input type="checkbox"/> KIT, ether start | |
| 1 | NSS | 1 | BASE, mounting (Includes actuation solenoid) | |
| 2 | 16551 | 1 | BOTTLE, ether refill | |
| 3 | NSS | 1 | ELBOW, 90° brass | |
| 4 | NSS | 1 | TUBING | |
| 5 | NSS | 1 | CONNECTOR, brass | |
| 6 | 15576 | 2 | BOLT - 1/4" x 1" | |
| 7 | 10757 | 4 | WASHER, SAE flat - 1/4" | |
| 8 | 10811 | 2 | NUT, lock - 1/4" | |
| 9 | 22223 | 1 | CONNECTOR, weatherpack | |
| | 22226 | 2 | TERMINAL, male | |
| | 22225 | 2 | SEAL, terminal | |
| 10 | REF. | 1 | <input type="checkbox"/> ENGINE HARNESS | ES-1 |

- Kit or Assembly - includes all items indented underneath.
- See referenced page for component or assembly breakdown.

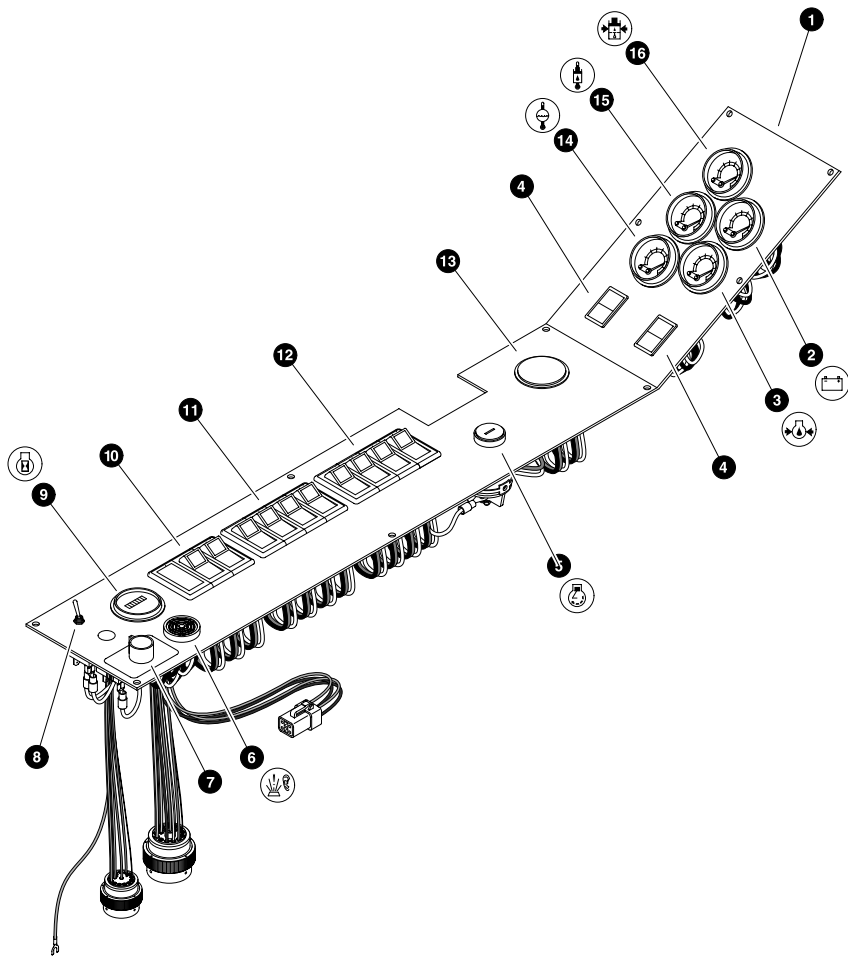


Parts T2707 06/03/2003
50,00

MAIN ELECTRICAL CENTER

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | 21185-ES | 1 | <input type="checkbox"/> MAIN ELECTRICAL CENTER - 24 Volt Fuel System used before (02-01-04) | |
| 1 | 51311-ES | 1 | <input type="checkbox"/> MAIN ELECTRICAL CENTER - 12 Volt Fuel System used after (02-01-04) | |
| 2 | 22657-ES | 1 | ◆ FUSE, maxi - 20 amp (Yellow) | |
| | 21892-ES | 3 | ◆ FUSE, maxi - 30 amp (Green) | |
| | 21894-ES | 3 | ◆ FUSE, maxi - 40 amp (Orange) | |
| | 21893-ES | 7 | ◆ FUSE, maxi - 50 amp (Red) | |
| 3 | 24322-ES | 7 | ◆ RELAY, 24V - 50 amp | |
| 4 | 21891-ES | 3 | ◆ FUSE, mini - 2 amp (Tan) | |
| | 21890-ES | 5 | ◆ FUSE, mini - 5 amp (Light brown) | |
| | 21888-ES | 2 | ◆ FUSE, mini - 7.5 amp (Dark Brown) | |
| | 22658-ES | 6 | ◆ FUSE, mini - 10 amp (Red) | |
| | 21887-ES | 2 | ◆ FUSE, mini - 15 amp (Blue) | |
| 5 | 24323-ES | 3 | ◆ RELAY, 24V - 30 amp | |
| 6 | - - - | 2 | COVER, fuse box (Maxi Fuses) | |
| 7 | - - - | 2 | COVER, fuse box (Mini Fuses) | |
| 8 | 24511-ES | 1 | FUSE, ATO 3 amp | |
| | 50400-ES | 1 | FUSE, ATO 15 amp | |
| | 50401-ES | 3 | FUSE, ATO 30 amp | |
| 9 | 25117-ES | 1 | RELAY, start signal 24V (White-Rogers) | |
| 10 | 20889-ES | 2 | RELAY, 12 volt - fuel lift pump | |
| - | 23615-ES | 1 | KIT, electrical - fuses & relays (24 volt) | |

- Kit or Assembly - includes all items indented underneath.
- ◆ Included in electrical kit Part # 23615.



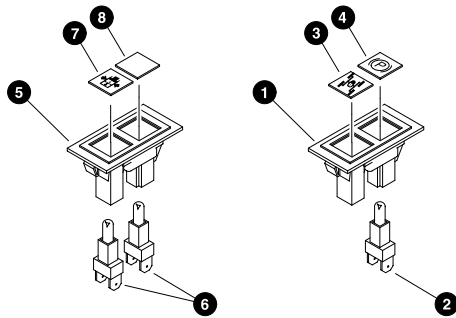
Parts T2709 06/03/2003
37.50

DASH PANEL COMPONENTS

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | 24152-ES | 1 | <input type="checkbox"/> PANEL, dash (24V) | |
| 2 | 23539-ES | 1 | GAUGE, voltmeter(24V) | |
| 3 | 18167-ES | 1 | <input type="checkbox"/> GAUGE, engine oil pressure | |
| | 23923-ES | 1 | LIGHT, gauge (24V) | |
| 4 | REF. | 2 | <input type="checkbox"/> WARNING LIGHT CLUSTER | ES-2 |
| 5 | 15028-ES | 1 | <input type="checkbox"/> SWITCH, ignition | |
| | 16936-ES | 1 | KEY, ignition (NG100) | |
| 6 | 15027-ES | 1 | SIREN, warning | |
| 7a | 20901-ES | 1 | SWITCH, A/C thermal control (machines built before 10/24/02) | |
| | 20902-ES | 1 | KNOB | |
| | 22868-ES | 1 | DECAL, temperature setting | |
| 7b | 50955-ES | 1 | SWITCH, A/C thermal control (machines built after 10/24/02) | |
| 8 | 16383-ES | 1 | SWITCH, ROCKER - reversing engine fan (after 04/26/04) | |
| 9 | 15025-ES | 1 | GAUGE, hourmeter | |
| 10 | REF. | 1 | <input type="checkbox"/> ROCKER SWITCH CLUSTER (A/C controls) | ES-2 |
| 11 | REF. | 1 | <input type="checkbox"/> ROCKER SWITCH CLUSTER (Auxiliary controls) | ES-2 |
| 12 | REF. | 1 | <input type="checkbox"/> ROCKER SWITCH CLUSTER (Travel controls) | ES-2 |
| 13 | --- | 1 | BLANK | |
| 14 | 18168-ES | 1 | <input type="checkbox"/> GAUGE, engine water temperature | |
| | 23923-ES | 1 | LIGHT, gauge (24V) | |
| 15 | 18169-ES | 1 | <input type="checkbox"/> GAUGE, hydraulic oil temperature | |
| | 23923-ES | 1 | LIGHT, gauge (24V) | |
| 16 | 18170-ES | 1 | <input type="checkbox"/> GAUGE, return filter back-pressure | |
| | 23923-ES | 1 | LIGHT, gauge (24V) | |

- Kit or Assembly - includes all items indented underneath.
- See referenced page for component or assembly breakdown.

Warning Light Cluster

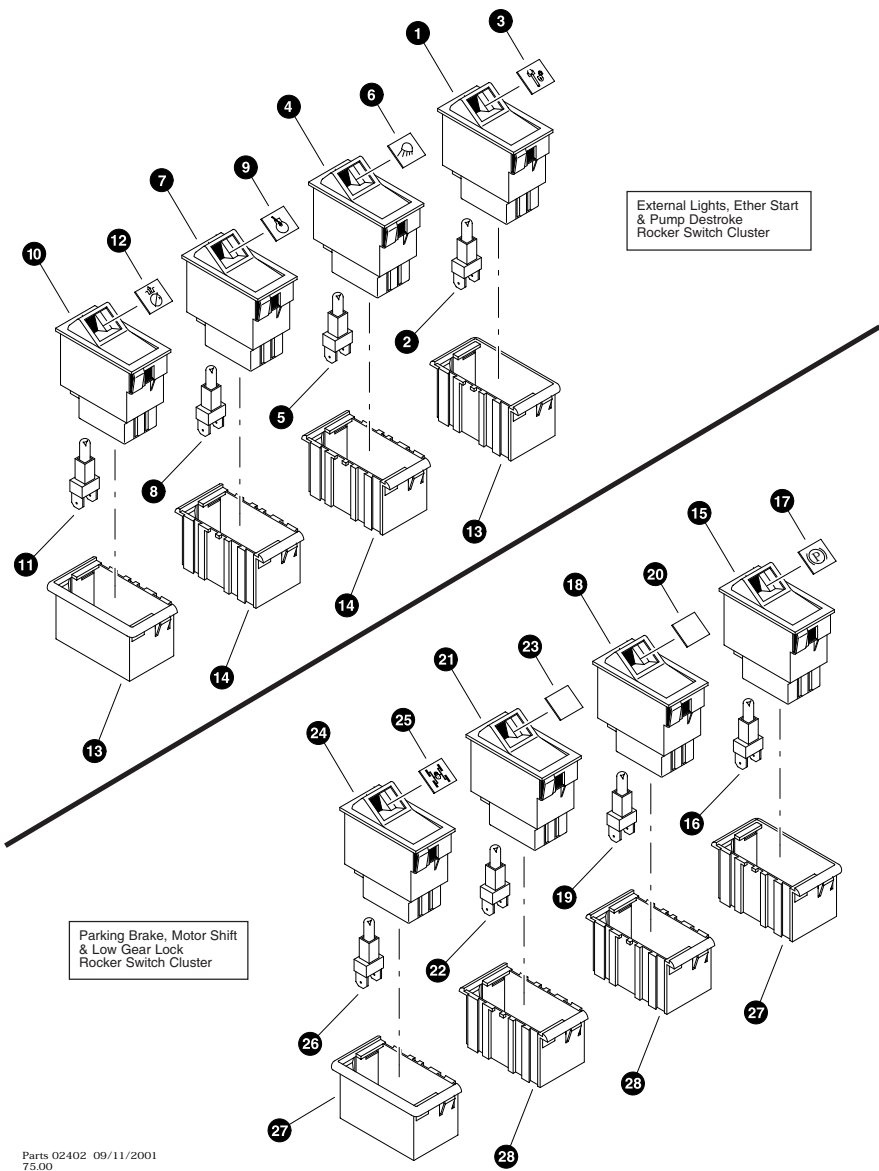


Parts 02403 12/13/2001
75.00

WARNING LIGHT CLUSTERS
(Warning Lights)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | 18171-ES | 1 | CLUSTER, warning light - left mounting | |
| 2 | 23538-ES | 1 | LIGHT - (24V) | |
| 3 | 20609-ES | 1 | LENS, indicator light - yellow (Diff Lock) | |
| 4 | 18175-ES | 1 | LENS, indicator light - red (Parking brake) | |
| 5 | 18171-ES | 1 | CLUSTER, warning light - right mounting | |
| 6 | 23538-ES | 1 | LIGHT - (24V) | |
| 7 | 18174-ES | 1 | LENS, indicator light - yellow (Charge oil bypass) | |
| 8 | 20831-ES | 1 | BLANK,indicator light | |

Kit or Assembly - includes all items indented underneath.
Please specify 12 or 24 Volt when ordering any switch or light.

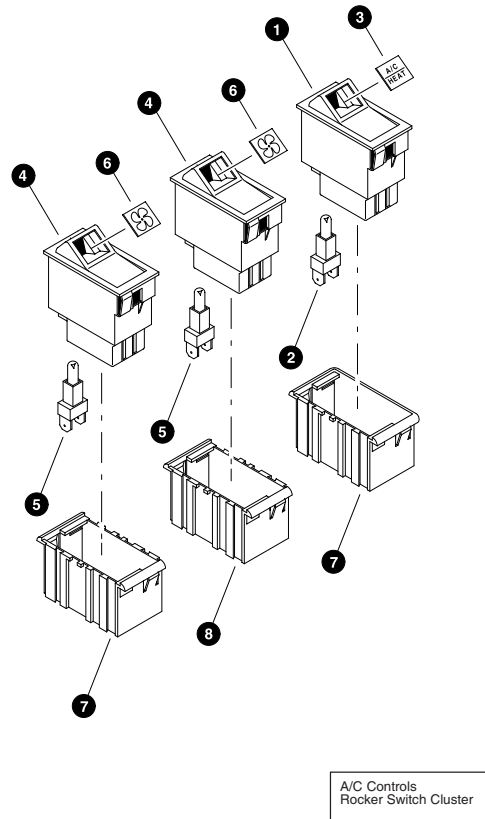


Parts 02402 09/11/2001
75.00

ROCKER SWITCH & WARNING LIGHT CLUSTERS
(Travel & Auxiliary Control Rocker Switches)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | 24834-ES | 1 | <input type="checkbox"/> SWITCH, rocker - ON/OFF (<i>Swing detent</i>) | |
| 2 | 23538-ES | 1 | LIGHT - (24V) | |
| 3 | 20827-ES | 1 | LENS, indicator light - red (<i>Swing detent</i>) | |
| 4 | 24834-ES | 1 | <input type="checkbox"/> SWITCH, rocker - ON/OFF (<i>Exterior lights</i>) | |
| 5 | 23538-ES | 1 | LIGHT - (24V) | |
| 6 | 18178-ES | 1 | LENS, indicator light - green (<i>Exterior lights</i>) | |
| 7 | 24835-ES | 1 | <input type="checkbox"/> SWITCH, rocker - momentary (<i>Ether start</i>) | |
| 8 | 23538-ES | 1 | LIGHT - (24V) | |
| 9 | 20829-ES | 1 | LENS, indicator light - green (<i>Ether start</i>) | |
| 10 | 24835-ES | 1 | <input type="checkbox"/> SWITCH, rocker - momentary (<i>Pump destroke</i>) | |
| 11 | 23538-ES | 1 | LIGHT - (24V) | |
| 12 | 20830-ES | 1 | LENS, indicator light - green (<i>Pump destroke</i>) | |
| 13 | 18288-ES | 2 | FRAME, rocker switch mounting - end | |
| 14 | 18289-ES | 2 | FRAME, rocker switch mounting - center | |
| 15 | 50588-ES | 1 | <input type="checkbox"/> SWITCH, rocker - parking brake | |
| 16 | 23538-ES | 1 | LIGHT - (24V) | |
| 17 | 18175-ES | 1 | LENS, indicator light - red (<i>Parking brake</i>) | |
| 18 | 50588-ES | 1 | <input type="checkbox"/> SWITCH, rocker - ON/ON (<i>Transfer case shift</i>) | |
| 19 | 23538-ES | 1 | LIGHT - (24V) | |
| 20 | 20608-ES | 1 | LENS, indicator light - yellow (<i>Transfer case shift</i>) | |
| 21 | 24833-ES | 1 | <input type="checkbox"/> SWITCH, rocker - ON/OFF/ON (<i>Hydraulic motor shift</i>) (820) | |
| 21 | 24834-ES | 1 | <input type="checkbox"/> SWITCH, rocker - ON/OFF (<i>Hydraulic motor shift</i>) (620) | |
| 22 | 23538-ES | 1 | LIGHT - (24V) | |
| 23 | 18179-ES | 1 | LENS, indicator light - green (<i>Hydraulic motor shift</i>) | |
| 24 | 24834-ES | 1 | <input type="checkbox"/> SWITCH, rocker - ON/OFF (<i>Axle lock</i>) | |
| 25 | 23538-ES | 1 | LIGHT - (24V) | |
| 26 | 20609-ES | 1 | LENS, indicator light - yellow (<i>Differential lock</i>) | |
| 27 | 18288-ES | 2 | FRAME, rocker switch mounting - end | |
| 28 | 18289-ES | 2 | FRAME, rocker switch mounting - center | |

Kit or Assembly - includes all items indented underneath.
Please specify 12 or 24 Volt when ordering any switch or light.

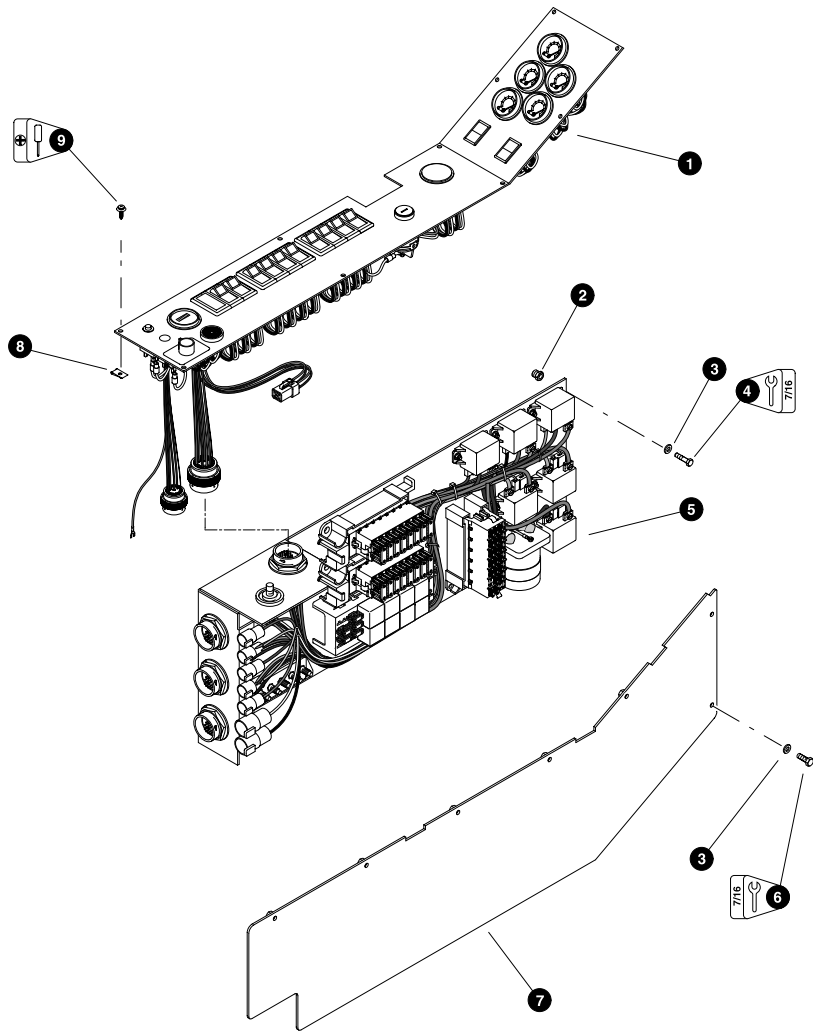


Parts 00510 03/17/98
75.00

ROCKER SWITCH & WARNING LIGHT CLUSTERS (A/C Control Rocker Switches)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | 24833-ES | 1 | <input type="checkbox"/> SWITCH, rocker - A/C mode select LIGHT - (24V) | |
| 2 | 23538-ES | 1 | LENS, indicator light - blue (A/C Mode) | |
| 3 | 20832-ES | 1 | LENS, indicator light - blue (A/C Mode) | |
| 4 | 20835-ES | 2 | <input type="checkbox"/> SWITCH, rocker - 3-way fan speed LIGHT - (24V) | |
| 5 | 23538-ES | 2 | LENS, indicator light - blue (A/C fan) | |
| 6 | 20833-ES | 1 | LENS, indicator light - blue (A/C fan) | |
| 7 | 18288-ES | 2 | FRAME, rocker switch mounting - end | |
| 8 | 18289-ES | 1 | FRAME, rocker switch mounting - center | |

Kit or Assembly - includes all items indented underneath.
Please specify 12 or 24 Volt when ordering any switch or light.

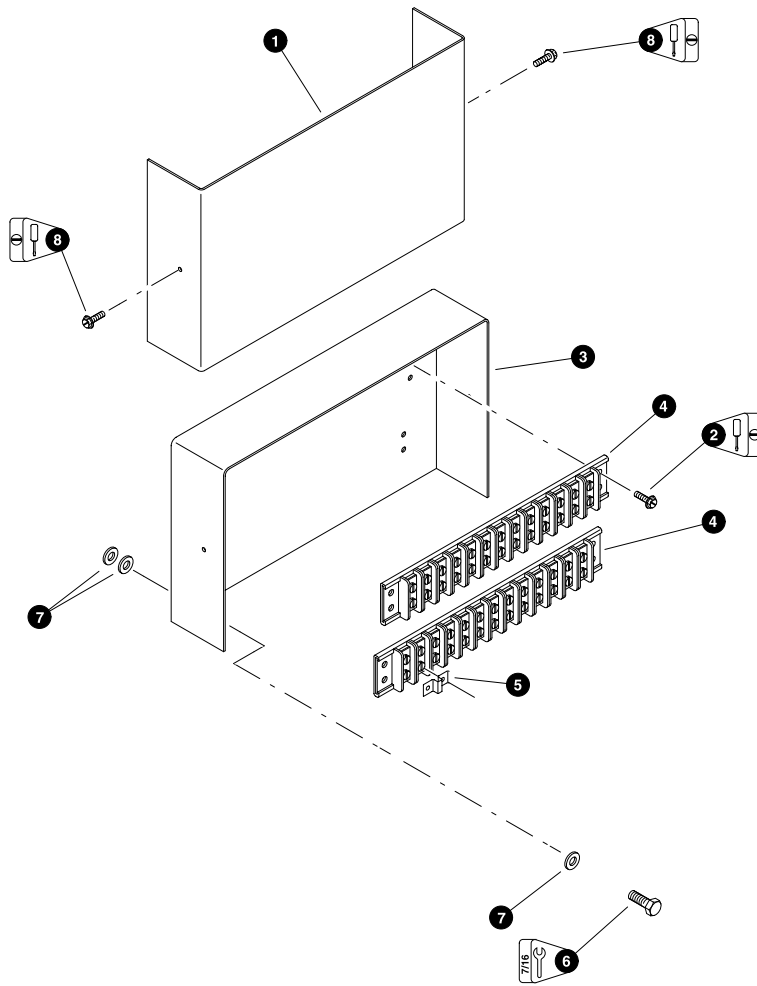


Parts T2710 06/03/2003
25,00

DASH PANEL INSTALLATION

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---------------------------------|-------------|
| 1 | REF. | 1 | DASH PANEL | ES-2 |
| 2 | 15574-ES | 4 | BUSHING, reducer - 5406-4-2 | |
| 3 | 10757-ES | 12 | WASHER, SAE flat - 1/4" | |
| 4 | 15575-ES | 4 | BOLT - 1/4" x 1-1/2" | |
| 5 | REF. | 1 | MAIN ELECTRICAL CENTER ASSEMBLY | ES-2 |
| 6 | 15604-ES | 8 | BOLT - 1/4" x 3/4" | |
| 7 | 20836-ES | 1 | COVER, dash wiring | |
| 8 | 16212-ES | 10 | NUT, speed - #10 | |
| 9 | 16213-ES | 10 | SCREW, phillips - #10-24 x 3/4" | |

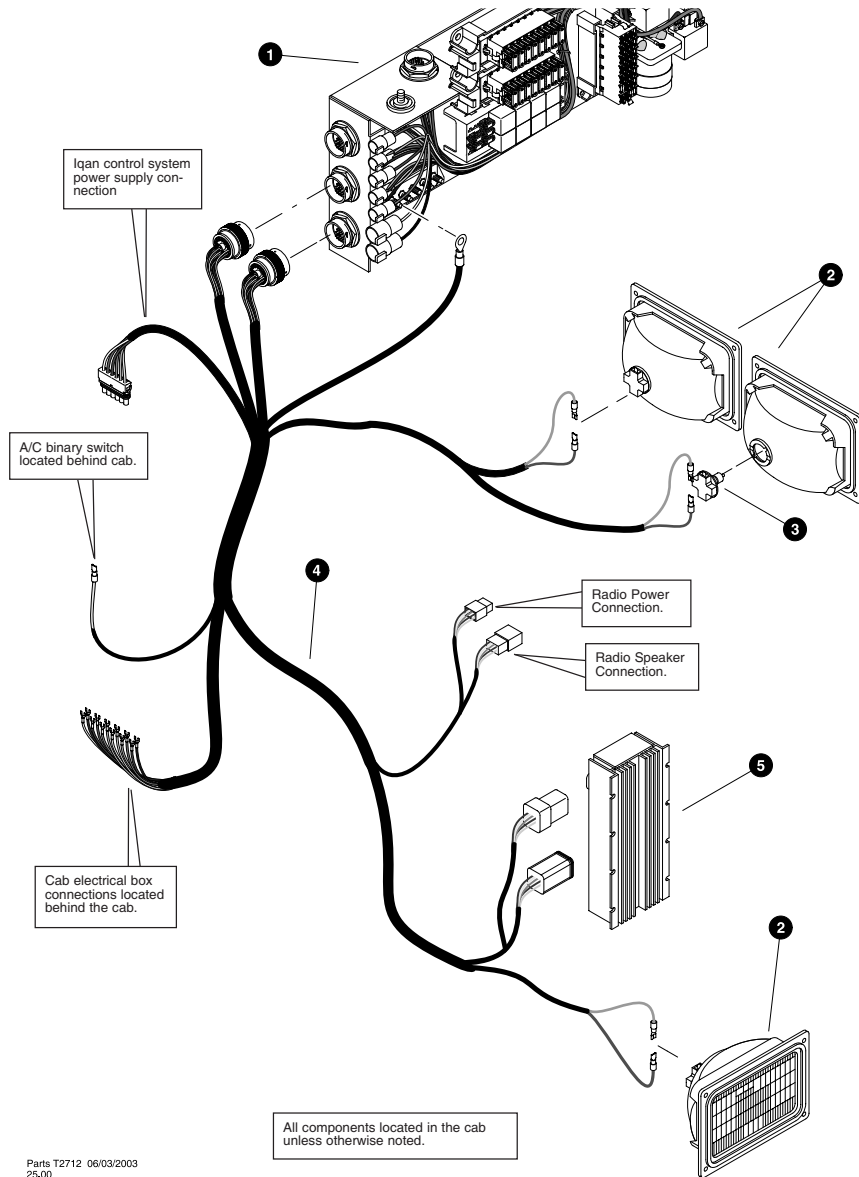
See referenced page for component or assembly breakdown.



Parts T2711 06/03/03
50.00

MAIN ELECTRICAL BOX
(Located Behind Cab)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|-------------------------------------|-------------|
| 1 | 12426-ES | 1 | BOX, electrical terminal - outer | |
| 2 | 17254-ES | 8 | SCREW, self-tapping - #10-24 x 1/2" | |
| 3 | 12425-ES | 1 | BOX, electrical terminal - inner | |
| 4 | 15016-ES | 2 | STRIP, terminal - 13 terminals | |
| 5 | 15053-ES | 1 | JUMPER, tab terminals | |
| 6 | 15604-ES | 2 | BOLT - 1/4" x 3/4" | |
| 7 | 10757-ES | 6 | WASHER, SAE flat - 1/4" | |
| 8 | 50956-ES | 2 | SCREW, sheet metal #8 x .375 | |

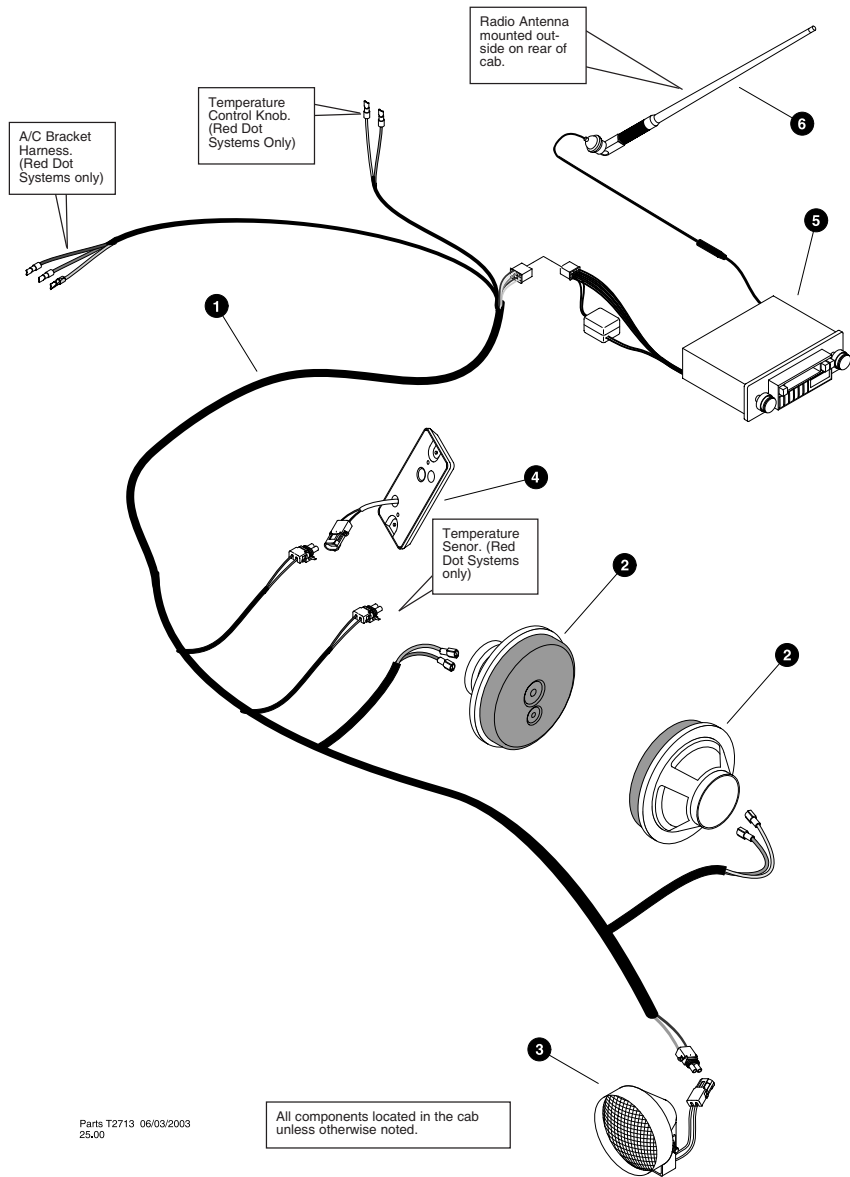


Parts T2712 06/03/2003
25.00

ELECTRICAL HARNESS INSTALLATION (Lower Cab Harness)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | <input type="checkbox"/> MAIN ELECTRICAL CENTER ASSEMBLY | ES-2 |
| 2 | 23604-ES | 3 | <input type="checkbox"/> FLUSH MOUNT LIGHTS 24v | |
| 3 | 24819-ES | 3 | BULB, FLUSH MOUNT LIGHT 24v | |
| 4 | 24130-ES | 1 | HARNESS, cab - lower (24V) | |
| 5 | 23324-ES | 1 | CONVERTER, 24V TO 12V | |

- See referenced page for component or assembly breakdown.
- Assembly includes all items indented underneath

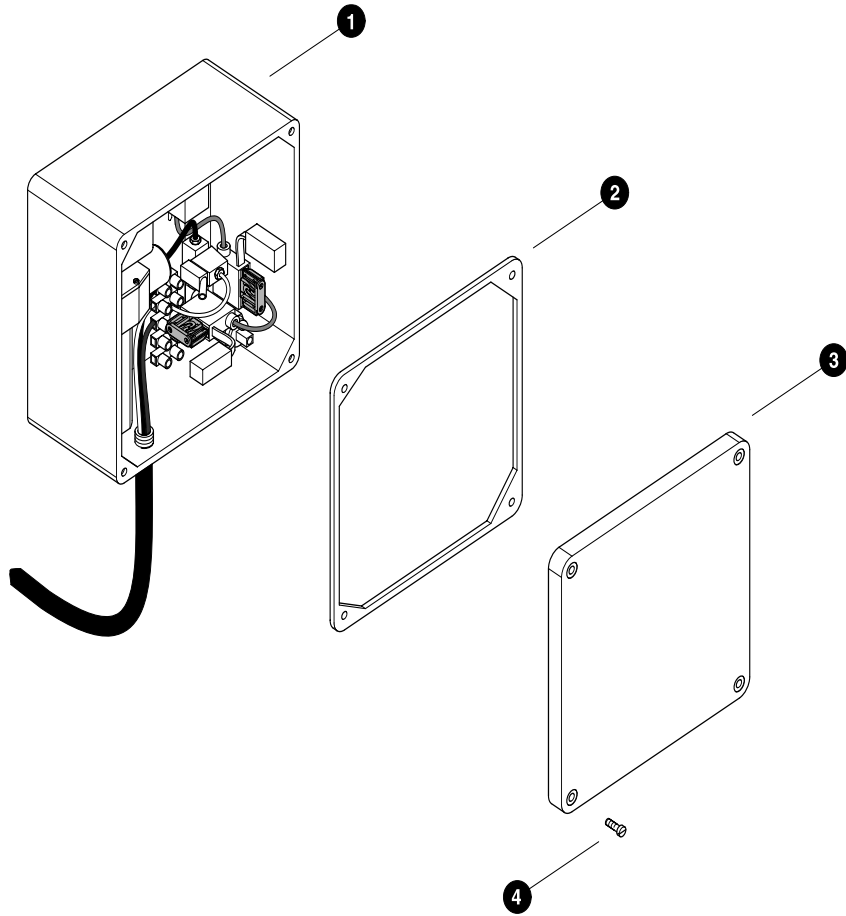


Parts T2713 06/03/2003
25.00

All components located in the cab unless otherwise noted.

ELECTRICAL HARNESS INSTALLATION (Upper Cab Harness)

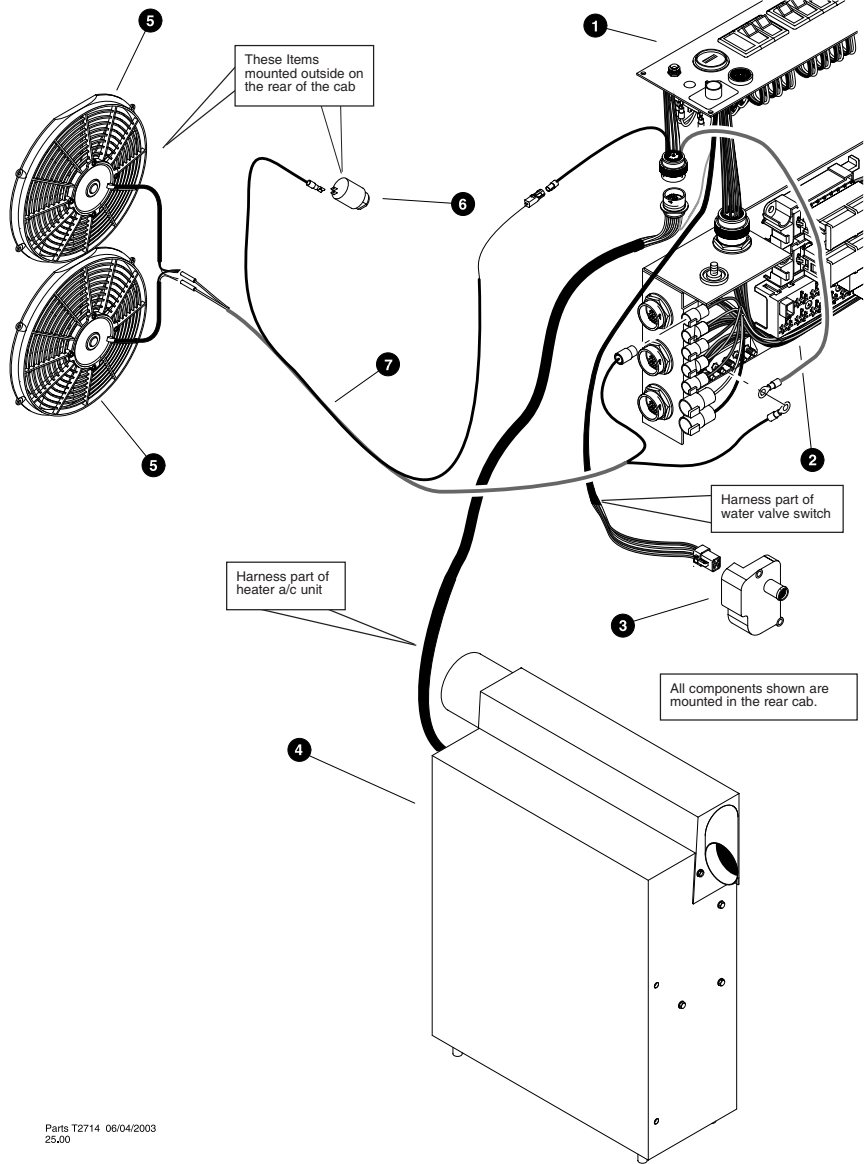
| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|------------------------------|-------------|
| 1 | 24131-ES | 1 | HARNESS, cab - upper (24V) | |
| 2 | 24710-ES | 1 | SPEAKERS | |
| 3 | 23605-ES | 1 | LIGHT, spot - 4.75 Dia - 24V | |
| 4 | 23614-ES | 1 | LIGHT, dome 24V | |
| 5 | 24641-ES | 1 | Radio | |
| 6 | 24583-ES | 1 | Antenna, radio 1" hole | |



REVERSING FAN CONTROL BOX

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| - | 24763-ES | 1 | <input type="checkbox"/> REVERSING FAN CONTROL KIT (24 volt) | |
| 1 | --- | 1 | <input type="checkbox"/> CONTROL BOX | |
| - | 51199-ES | 1 | TIMER, 24 volt | |
| - | 51200-ES | 1 | SOLENOID, control valve | |
| - | 51201-ES | 1 | COMPRESSOR, HD 24 volt | |
| 2 | --- | 1 | GASKET | |
| 3 | --- | 1 | COVER | |
| 4 | --- | 1 | SCREW | |

Kit or Assembly - includes all items indented underneath.

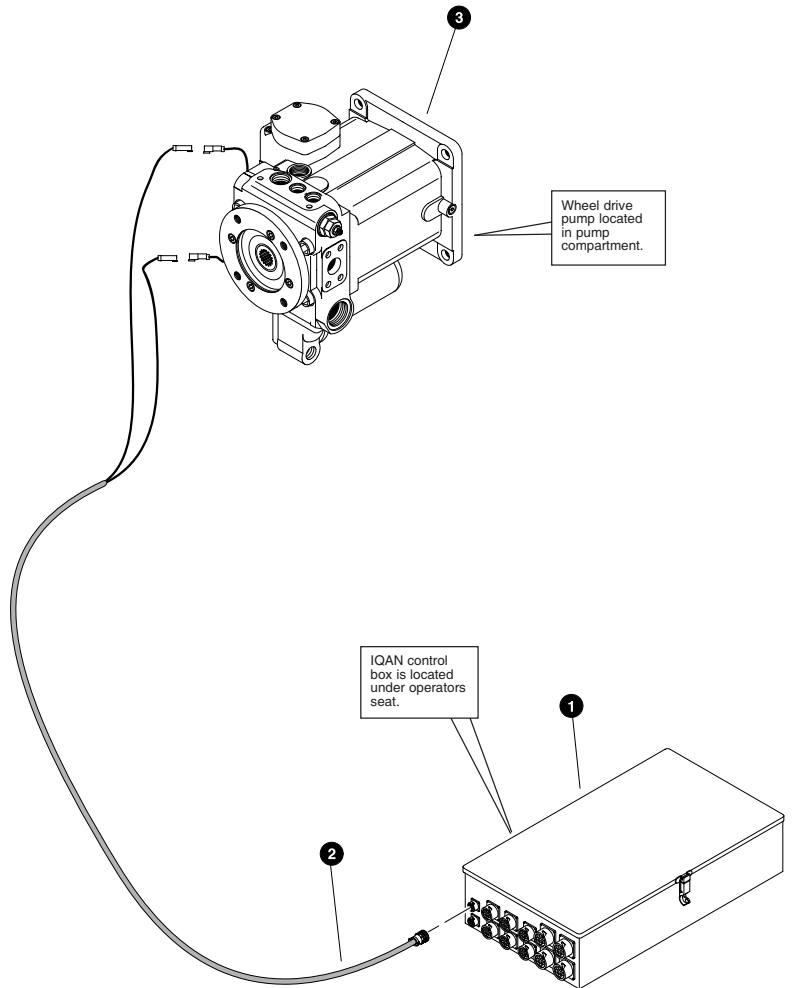


Parts T2714 06/04/2003
25:00

AIR CONDITIONER /HEATER INSTALLATION
(A/C Wire Harness Installation)
(machines built after 10/24/03)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | DASH PANEL | ES-2 |
| 2 | REF. | 1 | MAIN ELECTRICAL CENTER ASSY. | ES-2 |
| 3 | REF. | 1 | VALVE, water kit (Eagle 24v) | OC-4 |
| 4 | REF. | 1 | KIT, heater a/c (Eagle 24v) | OC-4 |
| 5 | REF. | 1 | MOTOR FAN ASSY. (24V) | OC-4 |
| 6 | REF. | 1 | SWITCH, BINARY | OC-4 |
| 7 | 51483-ES | 1 | HARNESS - A/C condensor fans (Eagle unit) | |

See referenced page for component or assembly breakdown.

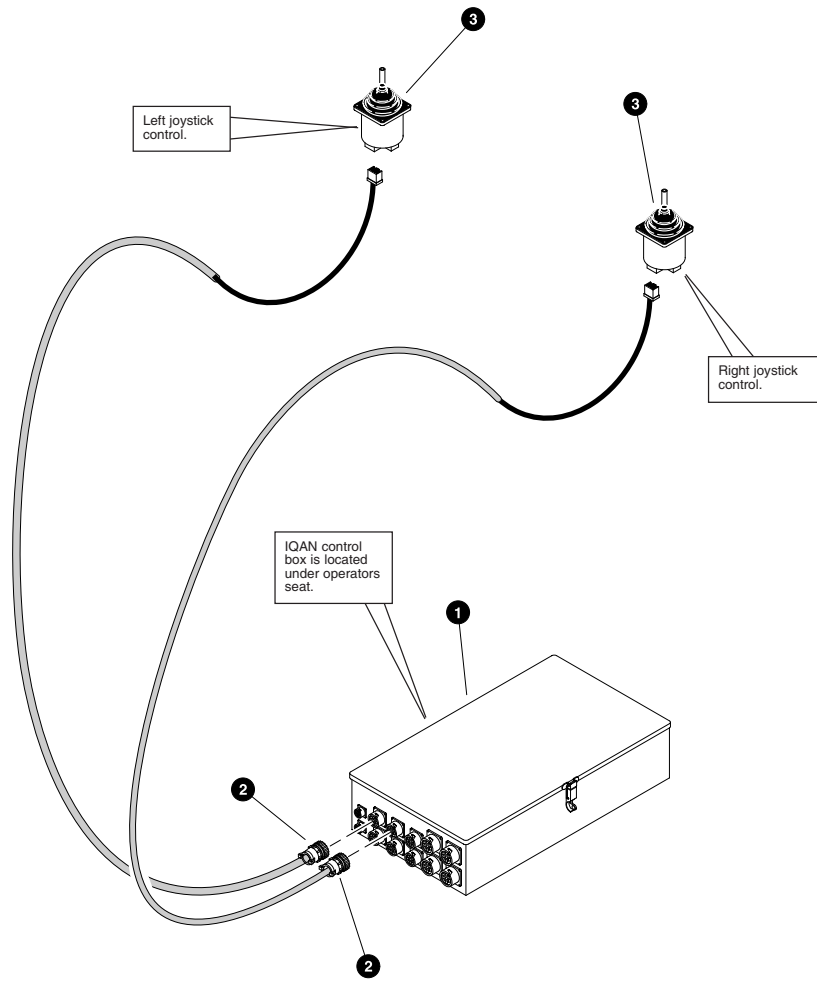


Parts 02416 09/19/2001
18.75

IQAN WIRE HARNESS
(From IQAN Control Box to Wheel Drive Pump)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 24527-ES | 1 | HARNES, IQAN - (From IQAN control box connection 1 to wheel drive pump) | |
| 3 | REF. | 1 | WHEEL DRIVE PUMP | WD-1 |

See referenced page for component or assembly breakdown.

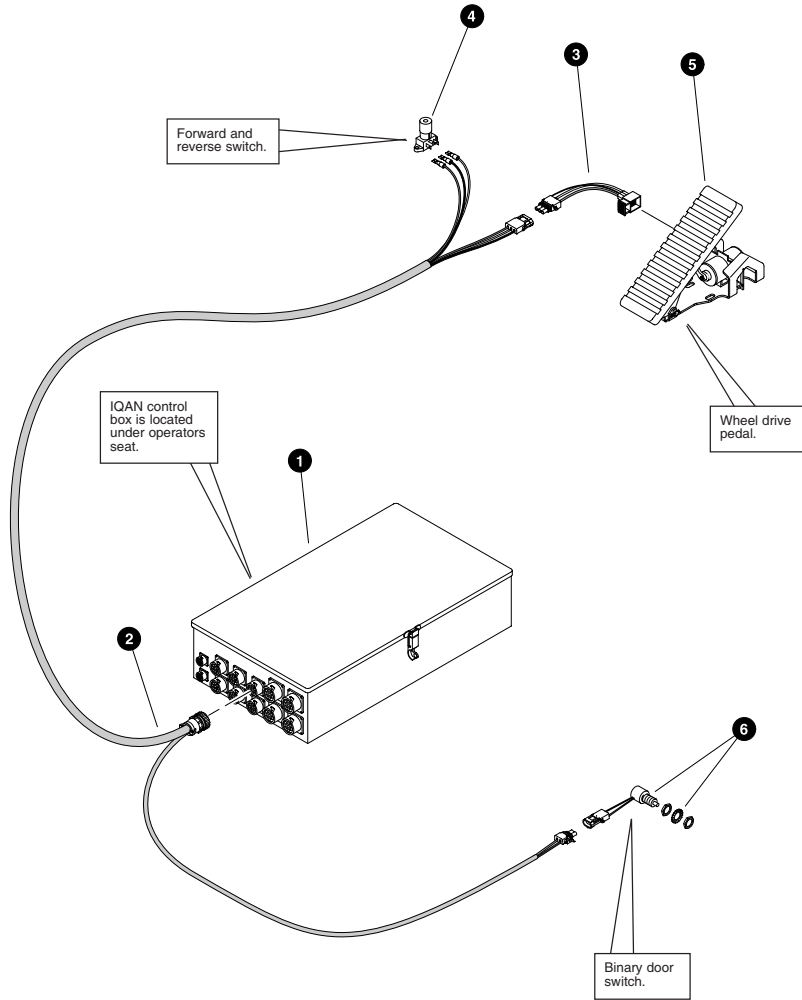


Parts 02417 09/19/2001
18.75

IQAN WIRE HARNESS
(From IQAN Control Box to Joystick Controls)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------------------|--------|---|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 24520-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 2 & 3 to joystick controls) | |
| 3 | 24467-ES 24694-ES | 2 2 | JOYSTICK CONTROL BOOT | |

See referenced page for component or assembly breakdown.

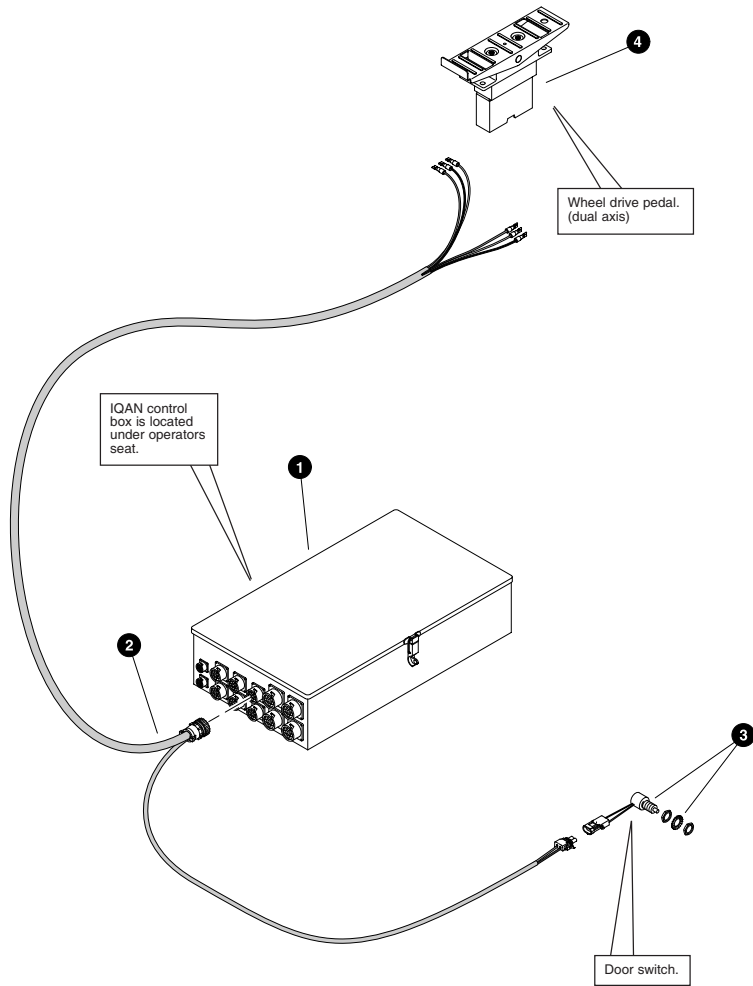


US 24997 ES 24997 ES 24997 ES
 01 01 01

IQAN WIRE HARNESS
 (From IQAN Control Box to Wheel Drive Pedal- Forward/Reverse Switch - Door Switch)
 (Single Axis Drive Pedal)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 24526-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 4 to wheel drive pedal & forward/Reverse switch & binary door switch) | |
| 3 | NSS | 1 | HARNESS, IQAN - pigtail - (From IQAN harness to wheel drive pedal) | |
| 4 | 24997-ES | 1 | FORWARD/REVERSE SWITCH | |
| 5 | REF. | 1 | WHEEL DRIVE FOOT PEDAL | ES-5 |
| 6 | 25104-ES | 1 | SWITCH, door (Included mounting hardware) | |

See referenced page for component or assembly breakdown.

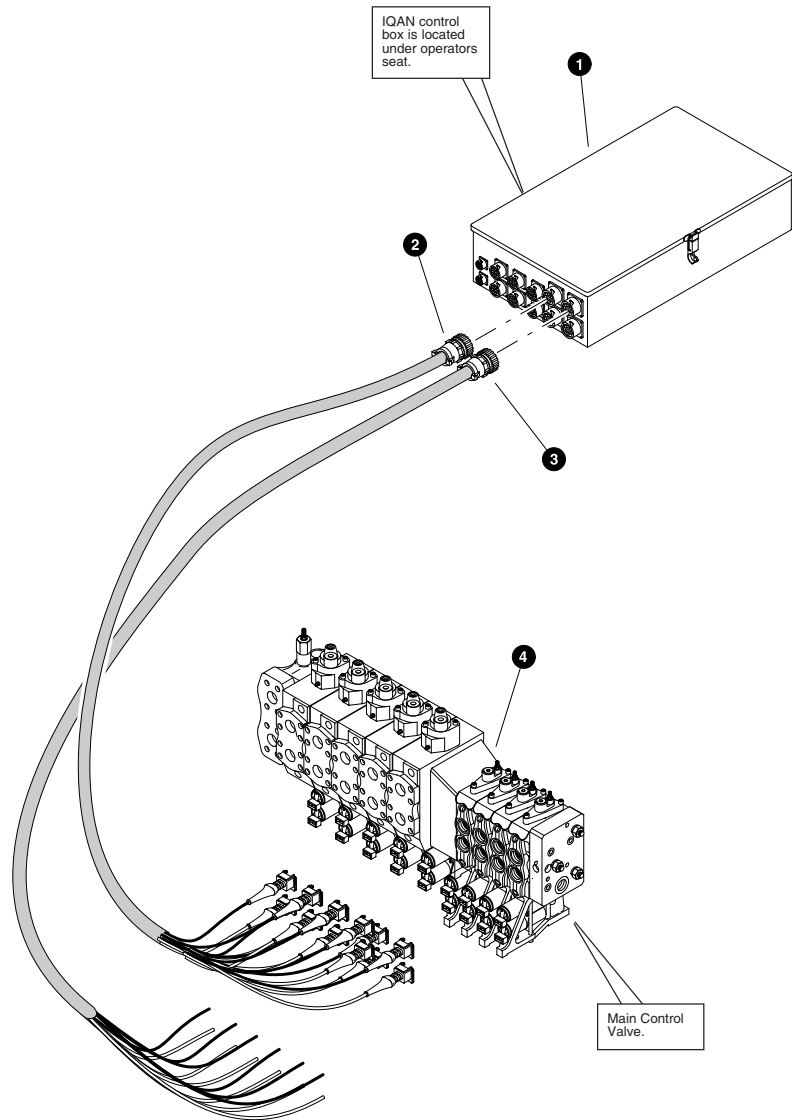


Parts T3000 05/03/2004
18.75

IQAN WIRE HARNESS
(From IQAN Control Box to Wheel Drive Pedal - Door Switch)
(Dual Axis Drive Pedal)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 51484-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 4 to wheel drive pedal & door switch) | |
| 3 | 25104-ES | 1 | SWITCH, door (Included mounting hardware) | |
| 4 | REF. | 1 | WHEEL DRIVE FOOT PEDAL | ES-5 |

See referenced page for component or assembly breakdown.

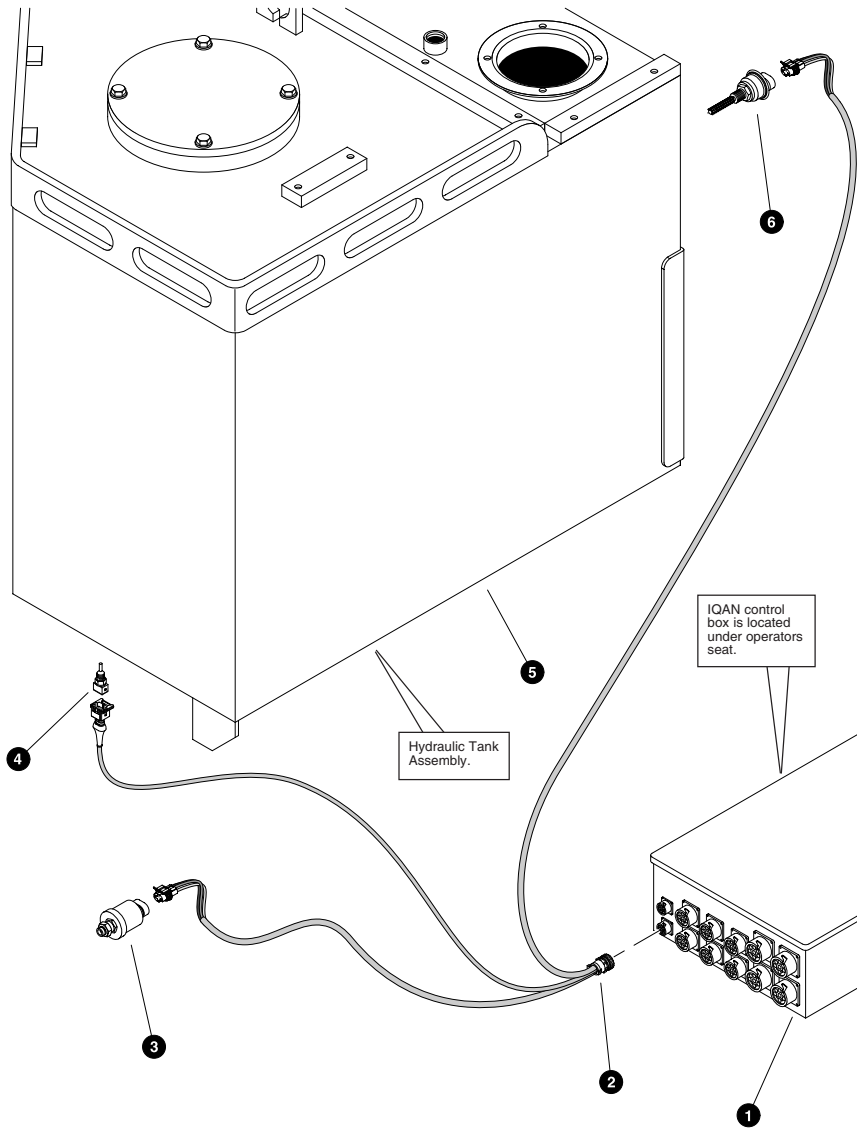


Parts 02419 09/19/2001
18,75

IQAN WIRE HARNESS
(From IQAN Control Box to Main Control Valve & Spare Wires)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 24525-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 5 to main control valve) | |
| 3 | 24516-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 6, Spares 1 - 6) | |
| 4 | REF. | 1 | MAIN CONTROL VALVE | LH\HH |

See referenced page for component or assembly breakdown.

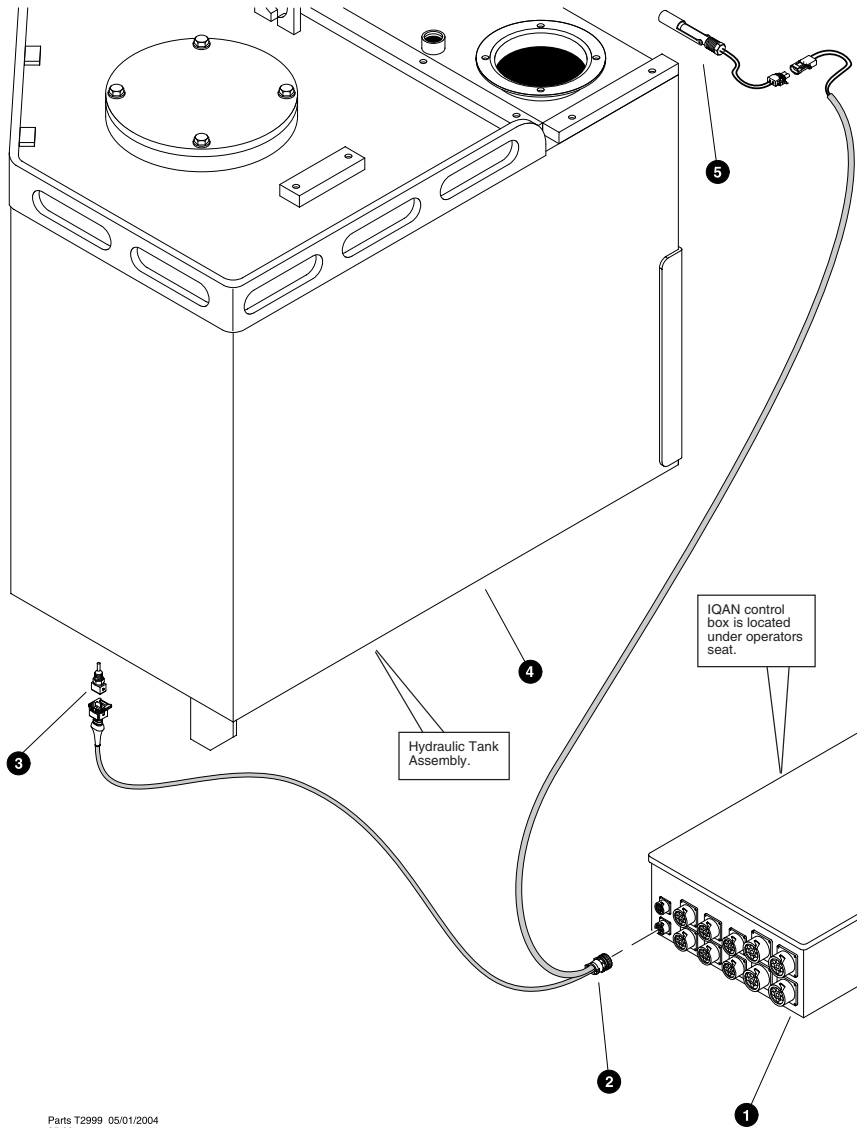


Parts 02420 09/19/2001
25.00

IQAN WIRE HARNESS
(From IQAN Control Box to Pressure Transducer / Hyd. Temp. / Hyd. Level)
(machines built before 03/20/04)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 24523-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 7 to pressure transducer / hyd. temp / hyd. level) | |
| 3 | 24532-ES | 1 | TRANSDUCER, hyd. pressure - 7500 psi | |
| 4 | 24531-ES | 1 | TRANSDUCER, hyd. temp. | |
| 5 | REF. | 1 | HYDRAULIC TANK ASSEMBLY | UP-3 |
| 6 | 17118-ES | 1 | SWITCH, Hydraulic Tank Level | |

See referenced page for component or assembly breakdown.

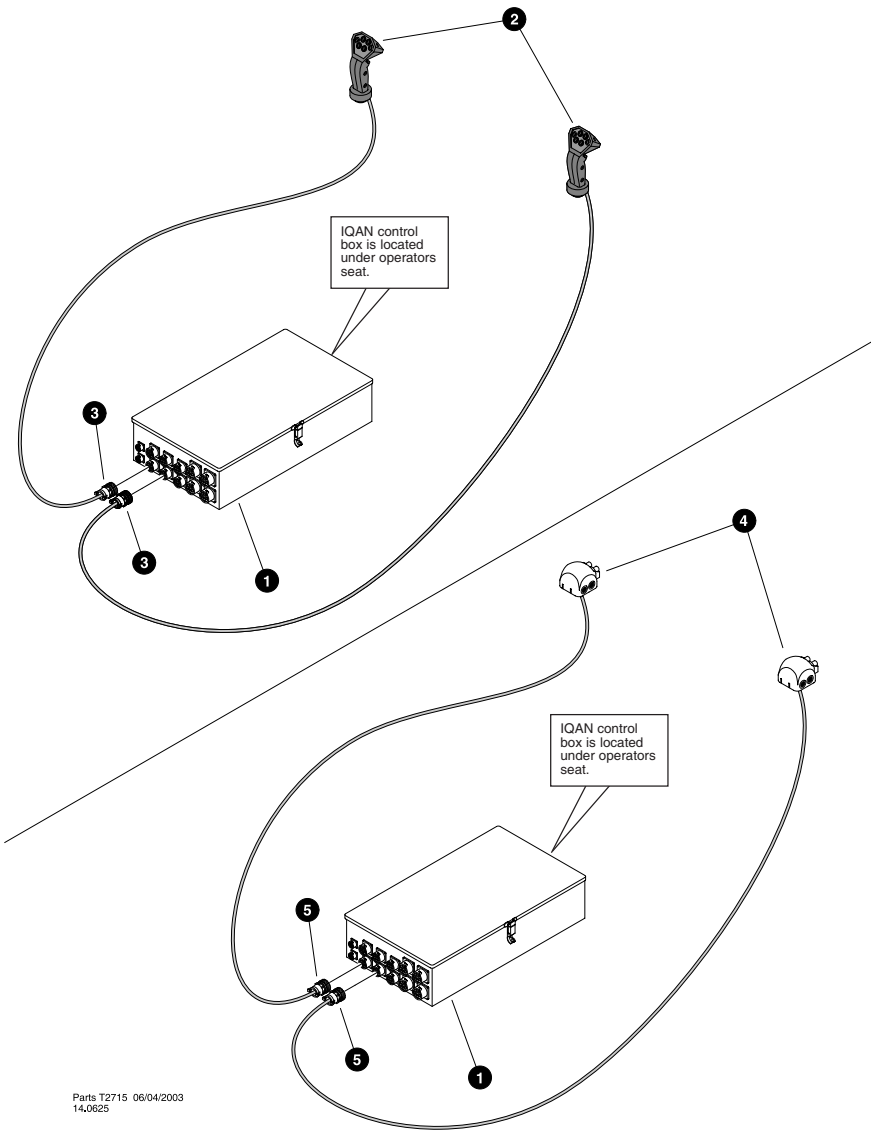


Parts T2999 05/01/2004
25,00

IQAN WIRE HARNESS
(From IQAN Control Box to Hyd. Temp. / Hyd. Level)
(machines built after 03/20/04)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 51485-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 7 to hyd. temp / hyd. level) | |
| 3 | 24531-ES | 1 | TRANSDUCER, hyd. temp. | |
| 4 | REF. | 1 | HYDRAULIC TANK ASSEMBLY | UP-3 |
| 5 | 51379-ES | 1 | SWITCH, HYD. OIL LEVEL .38NPT GEMS | |

See referenced page for component or assembly breakdown.

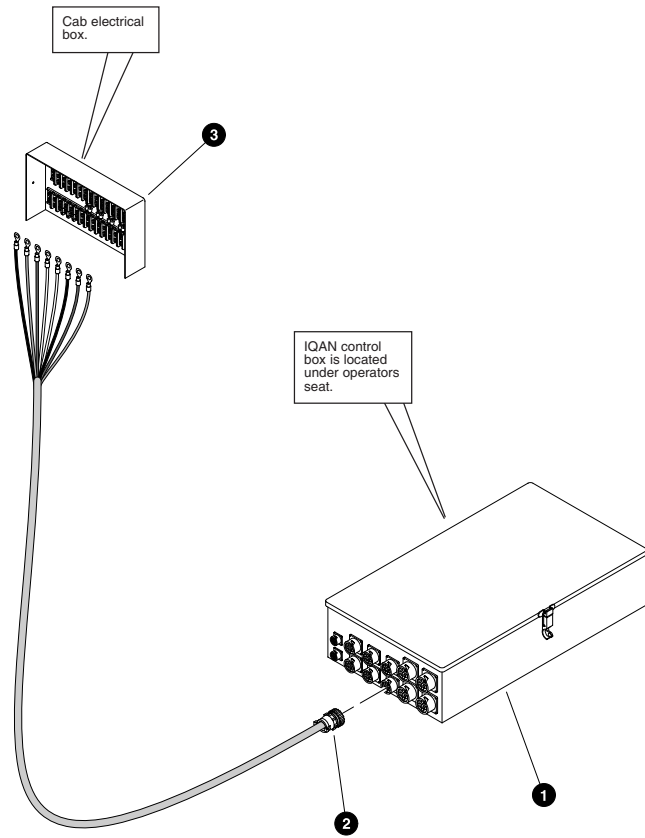


Parts T2715 06/04/2003
14,0825

IQAN WIRE HARNESS
(From IQAN Control Box to Hand Controls)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|--------|-----|---|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 25952 | 2 | SUREGRIP HAND CONTROLS (Prop. Holofax) | ES-5 |
| 3 | NSS | 2 | HARNESS, IQAN | |
| 4 | 50505 | 2 | HAND CONTROL, UPPER - (penny and giles) | ES-5 |
| 5 | NSS | 2 | HARNESS, IQAN | |

- See referenced page for component or assembly breakdown.
- All items indented below are included

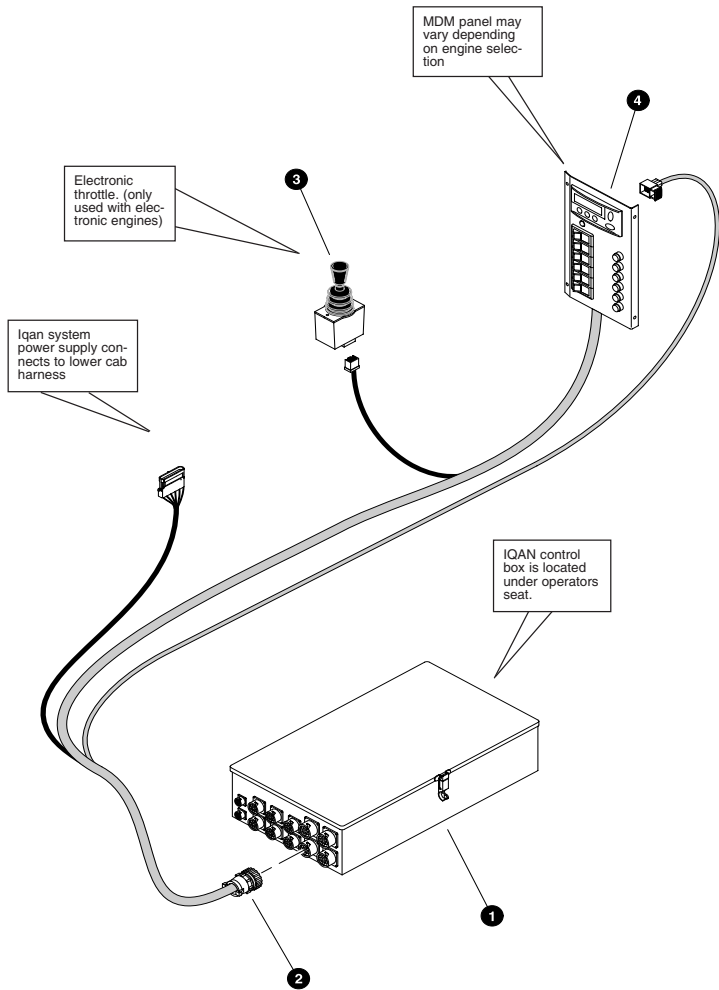


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01 01

IQAN WIRE HARNESS
(From IQAN Control Box to Cab Electrical Box)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|--------|-----|---|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 24528 | 1 | HARNES, IQAN - (From IQAN control box connection 10 to cab electrical box) | |
| 3 | REF. | 1 | CAB ELECTRICAL BOX | ES-2 |

See referenced page for component or assembly breakdown.

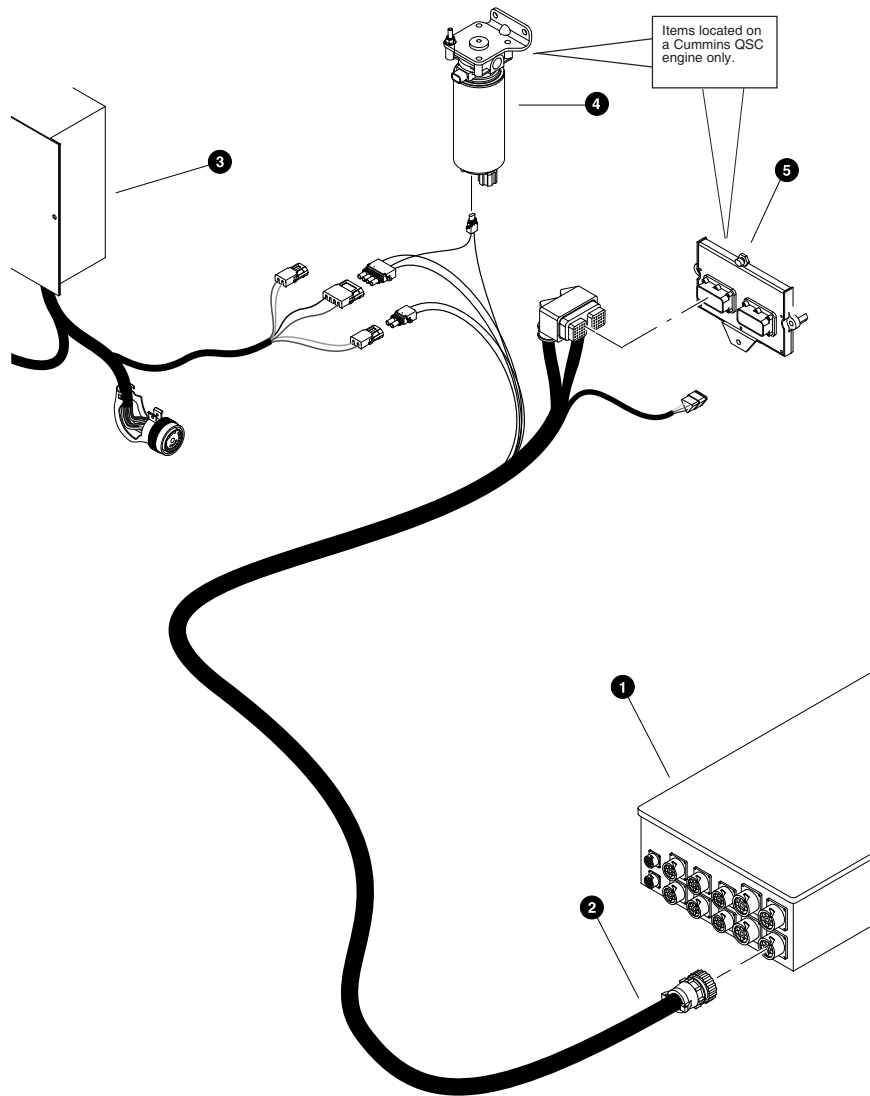


Parts 02422 09/19/2001
18.75

IQAN WIRE HARNESS
(From IQAN Control Box to MDM Dash Panel / Throttle)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 24530-ES | 1 | HARNESS, IQAN - (From IQAN control box connection 11 to throttle / MDM dash panel) | |
| 3 | 24692-ES | 1 | THROTTLE CONTROL (Used only on electronic engines) | |
| | 24693-ES | 1 | BOOT | |
| 4 | REF. | 1 | MDM DASH PANEL | ES-5 |

- See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.

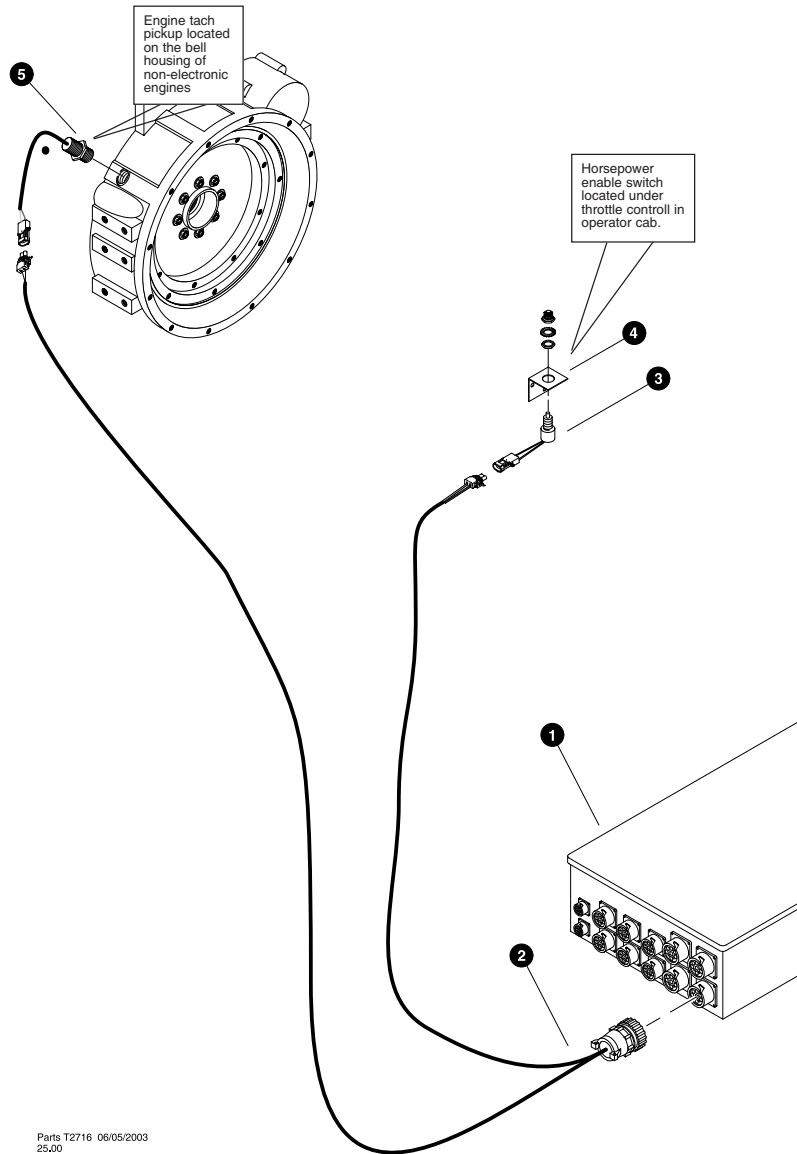


Parts 02424 09/20/2001
25.00

IQAN WIRE HARNESS
(From IQAN Control Box to Engine / Grid Heater Box)
(electronic QSC8.3 engines only)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 50081-ES | 1 | HARNESS, ENGINE - ELECTRONIC (From IQAN control box connection 12 to engine / grid heater box / pressure transducer) (Used only on electronic engines) | |
| 3 | REF. | 1 | GRID HEATER BOX | ES-1 |
| 4 | REF. | 1 | FILTER, FUEL (QSC8.3) | EE |
| 5 | REF. | 1 | MODULE, ECM (QSC8.3) | EE |

See referenced page for component or assembly breakdown.

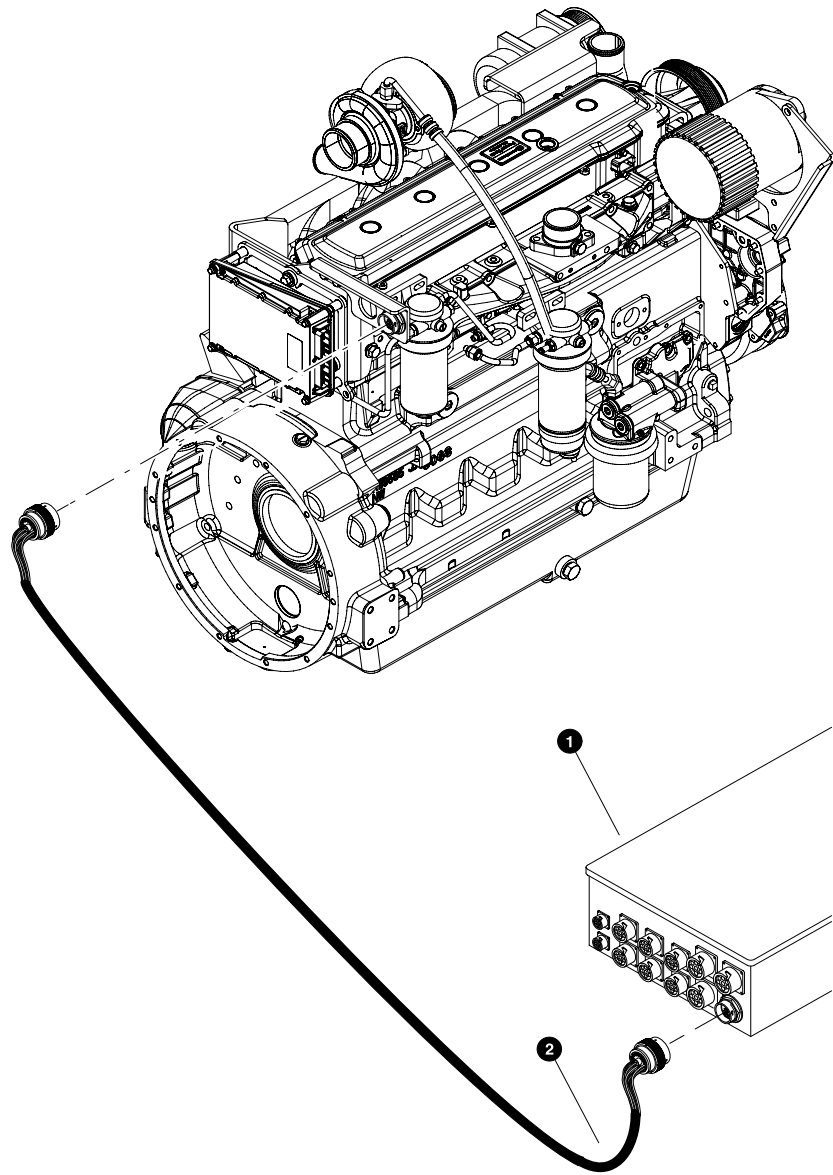


Parts T2716 06/05/2003
25.00

IQAN WIRE HARNESS
(From IQAN Control Box to Engine)
(Cummins C8.3 engines only)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|--------|-----|--|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 50082 | 1 | HARNESS, ENGINE - MECHANICAL (from iqan controll box to non-electronic engine) | |
| 3 | 25104 | 1 | SWITCH, DOOR LIMIT, FILL PUMP | |
| 4 | 16499 | 1 | BRACKET, FILL PUMP SWITCH | |
| 5 | 23118 | 1 | SENSOR, SPEED | |

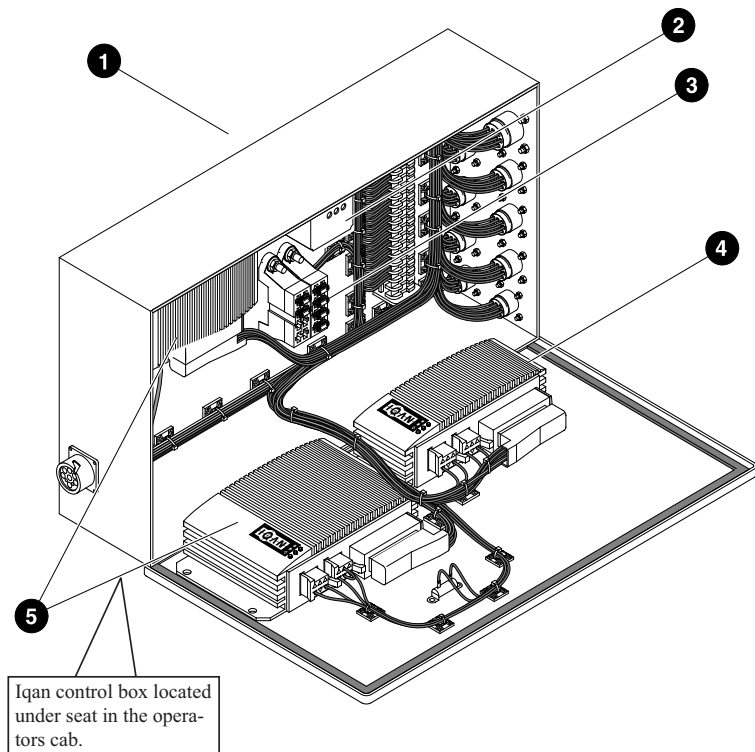
See referenced page for component or assembly breakdown.



IQAN WIRE HARNESS
(From IQAN Control Box to Engine)
(John Deere (250 HP only) Electronic Engines Only)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | REF. | 1 | IQAN CONTROL BOX | ES-5 |
| 2 | 51486-ES | 1 | HARNESS, ENGINE - John Deere (from iqan controll box to John Deere engine) | |
| 3 | REF | 1 | JOHN DEERE ENGINE | JD-3 |

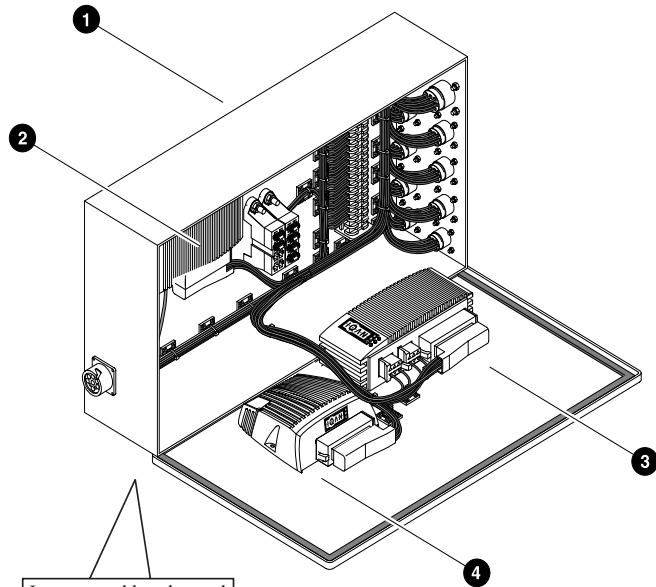
See referenced page for component or assembly breakdown.



IQAN CONTROL BOX (Cummins Engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| - | 23774-ES | 1 | <input type="checkbox"/> IQAN CONTROL KIT (Cummins Engines Only) | |
| 1 | | 1 | CONTROL BOX, Iqan (Cummins) | |
| 2 | 50035-ES | 1 | MODULE, API (Cummins QSC8.3 only) | |
| 3 | NSS | 1 | FUSE BLOCK, (IQAN) | |
| | 24512-ES | 3 | FUSE, ATO - 3 amp | |
| | 24511-ES | 3 | FUSE, ATO - 10 amp | |
| 4 | 50503-ES | 1 | MODULE, XS (IQAN) | |
| 5 | 50482-ES | 2 | MODULE, XP (IQAN) | |

Kit or Assembly - includes all items indented underneath.

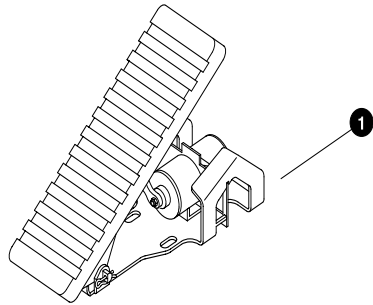


Iqan control box located under seat in the operators cab.

IQAN CONTROL BOX (John Deere Electronic)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| - | 51414-ES | 1 | <input type="checkbox"/> IQAN CONTROL KIT (John Deere Engines Only) | |
| 1 | | 1 | CONTROL BOX (John Deere) | |
| 2 | 50482-ES | 2 | MODULE, XP (IQAN) | |
| 3 | 50503-ES | 1 | MODULE, XS (IQAN) | |
| 4 | 51487-ES | 1 | MODULE, XT2 (IQAN) | |

Kit or Assembly - includes all items indented underneath.



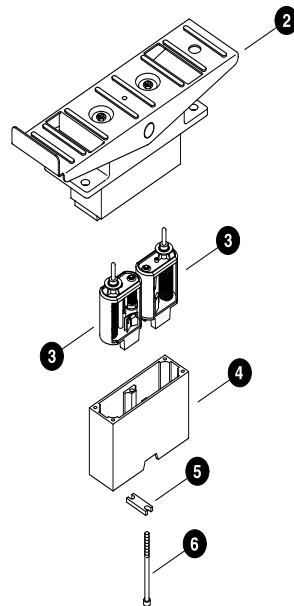
WHEEL DRIVE PEDAL

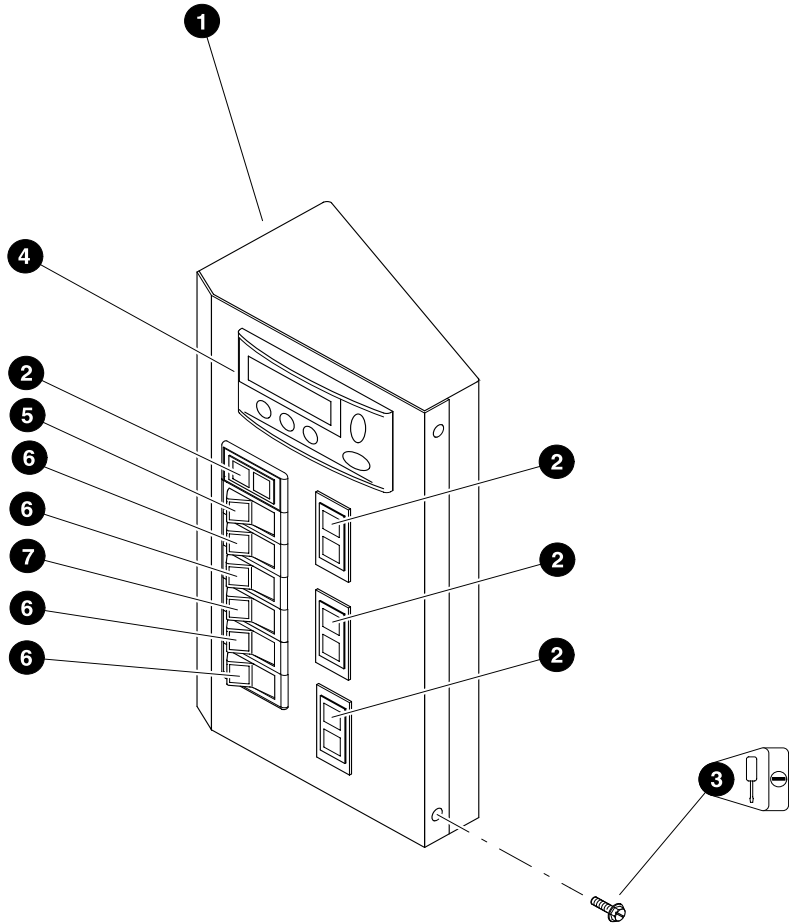
| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | 50963-ES | 1 | WHEEL DRIVE PEDAL (Single Axis) (see note #1) | |
| - | 24496-ES | 1 | WHEEL DRIVE PEDAL (Dual Axis) (24 volt - 1000 ohm) | |
| 2 | NSS | 1 | UPPER FOOT PEDAL ASSY. (Do not disassemble) | |
| 3 | 24709-ES | 2 | POTENTIOMETER (24 volt - 1000 ohm) | |
| 4 | 20631-ES | 1 | HOUSING, LOWER | |
| 5 | 20632-ES | 1 | SPACER, BOLT | |
| 6 | 20633-ES | 2 | BOLT, ALLEN 6mm X 70mm | |

Kit or Assembly - includes all items indented underneath.

NOTE #1

Components need to be factory serviced only. No replacement parts available.

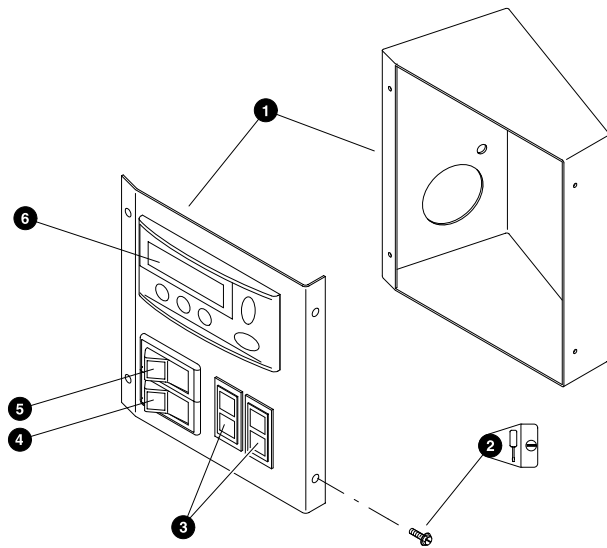




MDM DASH PANEL
(Full IQAN System)
(electronic engines)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| - | 24698-ES | 1 | <input type="checkbox"/> MDM PANEL ASSEMBLY | |
| 1 | 14399-ES | 1 | Panel, MDM large | |
| | 50034-ES | 1 | Decal, MDM overlay - full IQAN | |
| 2 | 24837-ES | 4 | CLUSTER, warning 24V | |
| | 23538-ES | 8 | Light, 24V | |
| | 24705-ES | 4 | LENS, yellow | |
| | 50959-ES | 1 | LENS, red | |
| | 18173-ES | 1 | LENS, red (low hyd oil) | |
| | 24704-ES | 1 | LENS, blue | |
| | 24821-ES | 1 | LENS, green | |
| 3 | 17254-ES | 4 | SCREW, self tapping - #10-24 x 1/2" | |
| 4 | 24415-ES | 1 | MODULE, MDM | |
| 5 | 20835-ES | 1 | SWITCH, momentary | |
| | 24309-ES | 1 | BRACKET, switch - middle | |
| | 23538-ES | 1 | LIGHT - (24V) | |
| | 24821-ES | 1 | LENS, green | |
| 6 | 24834-ES | 4 | SWITCH, ON/OFF | |
| | 24309-ES | 4 | BRACKET, switch - middle | |
| | 23538-ES | 4 | LIGHT - (24V) | |
| | 24705-ES | 2 | LENS, yellow | |
| | 20832-ES | 1 | LENS, blue (heat) | |
| | 20828-ES | 1 | LENS, red (steer reverse) | |
| 7 | 50588-ES | 1 | SWITCH, ON/OFF (dpst) | |
| | 24309-ES | 1 | BRACKET, switch - middle | |
| | 24310-ES | 2 | BRACKET, switch - end | |
| | 23538-ES | 1 | LIGHT - (24V) | |
| | 24705-ES | 1 | LENS, yellow | |

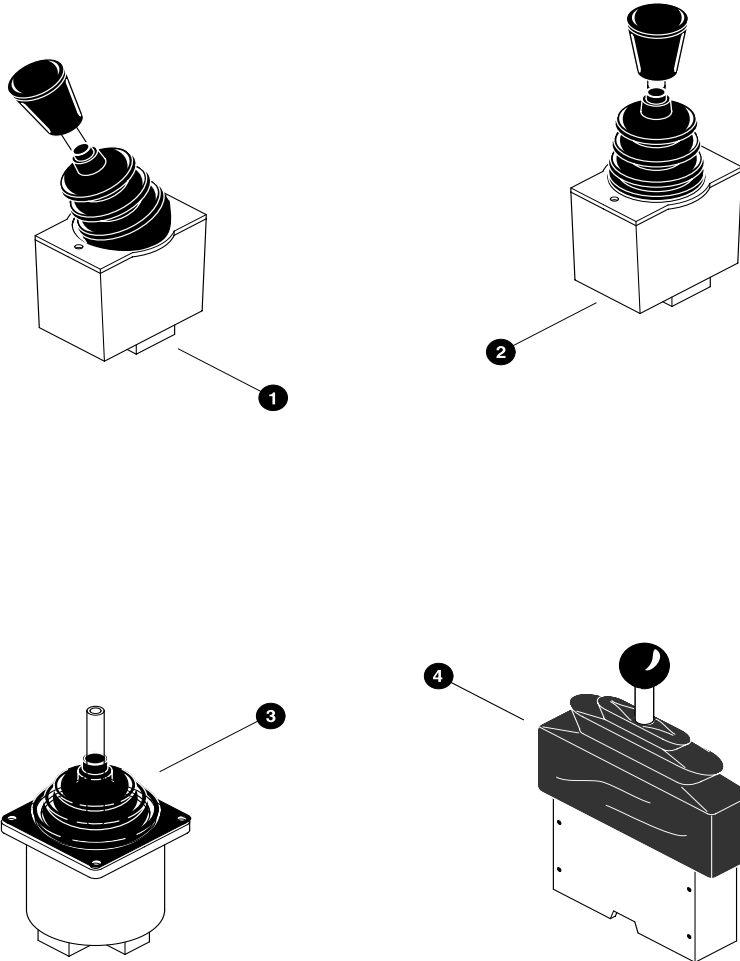
Kit or Assembly - includes all items indented underneath.



MDM DASH PANEL
(Basic IQAN System)
(non electronic engine)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| - | 24697-ES | 1 | <input type="checkbox"/> MDM PANEL | |
| | 50033-ES | 1 | OVERLAY | |
| 1 | 24702-ES | 1 | BOX, MDM panel | |
| 2 | 17254-ES | 4 | SCREW, self tapping - #10-24 x 1/2" | |
| 3 | 18171-ES | 2 | CLUSTER, warning light | |
| | 23538-ES | 1 | LIGHT - (24V) | |
| | 24821-ES | 1 | LENS, indicator light - green (Forward Travel) | |
| | 24704-ES | 1 | LENS, indicator light - blue (Reverse Travel) | |
| | 24705-ES | 1 | LENS, yellow | |
| | 18173-ES | 1 | LENS, red (low hyd oil) | |
| 4 | 24834-ES | 1 | SWITCH, rocker - ON/OFF (Reverse steer) | |
| | 24310-ES | 1 | BRACKET, switch - end | |
| | 23538-ES | 1 | LIGHT - (24V) | |
| 5 | 24312-ES | 1 | SWITCH, rocker - momentary (System arm) | |
| | 24310-ES | 1 | BRACKET, switch - end | |
| | 23538-ES | 1 | LIGHT - (24V) | |
| 6 | 24415-ES | 1 | MODULE, MDM | |

Kit or Assembly - includes all items indented underneath.



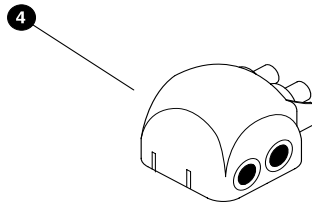
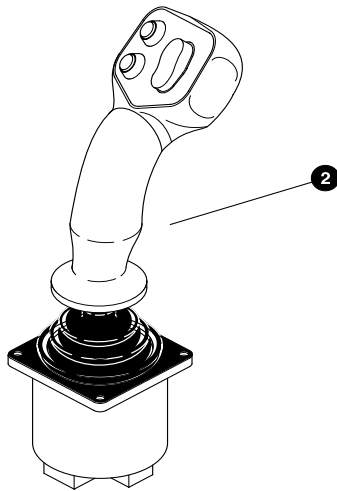
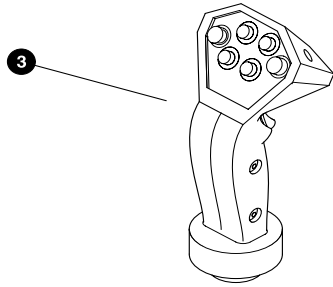
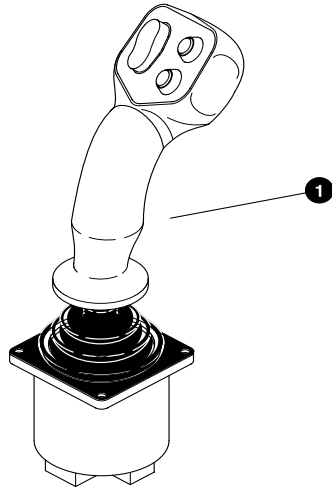
CONTROL JOYSTICKS
(IQAN Control System Only)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|---|-------------|
| 1 | 24692-ES | 1 | <input type="checkbox"/> CONTROL, throttle (electronic engines only) (see note #1) | |
| | 24693-ES | 1 | BOOT | |
| 2 | 50741-ES | 1 | <input type="checkbox"/> HAND CONTROL, steer (penny and giles) (used after 6-01-03) (see note #1) | |
| | 24693-ES | 1 | BOOT | |
| 3 | 24467-ES | 1 | <input type="checkbox"/> HAND CONTROL, (penny and giles) (see note #1) | |
| | 24694-ES | 1 | BOOT | |
| 4 | 24718-ES | 1 | <input type="checkbox"/> HAND CONTROL, (Voac single axis steer) (used before 6-01-03) | |
| | 24709-ES | 2 | CONTROL POENTIOMETER (IQAN system) | |

Kit or Assembly - includes all items indented underneath.

NOTE #1

All Penny and Giles components need to be factory serviced only.



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CONTROL HANDLES
(IQAN control system only)

| REF | PART # | QTY | DESCRIPTION | SEE SECTION |
|-----|----------|-----|--|-------------|
| 1 | 50057-ES | 1 | HAND CONTROL, RH (penny and giles top and bottom) (see note #1) | |
| 2 | 50058-ES | 1 | HAND CONTROL, LH (penny and giles top and bottom) (see note #1) | |
| 3 | 25952-ES | 1 | <input type="checkbox"/> HAND CONTROL, (sure grip w/proportionals holofax) | |
| | 20961-ES | 4 | SWITCH, (digital momentary) | |
| 4 | 50505-ES | 1 | HAND CONTROL, (penny and giles) (see note #1) | |

Kit or Assembly - includes all items indented underneath.

NOTE #1

All Penny and Giles components need to be factory serviced only.

