IOWA MOLD TOOLING CO., INC.
BOX 189, GARNER, IA 50438-0189
CUSTOMER SERVICE TEL: 1-800-554-4421

MANUAL PART NO: 99903299
Revised: July 17, 2019

Iowa Mold Tooling Co., Inc.
is an Oshkosh Corporation
Company.
FROM FALL 2010 TO PRESENT
## REVISIONS LIST

<table>
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<tr>
<th>DATE</th>
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<th>DESCRIPTION OF CHANGE</th>
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<tbody>
<tr>
<td>20020416</td>
<td>2-12</td>
<td>MANUAL RELEASE - COMBINED PREDATORS</td>
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<tr>
<td>20020416</td>
<td>3-12</td>
<td>NEW DRAWER ASSEMBLIES 3-1-7, 14, 3-11-12, 4-2-8</td>
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<tr>
<td>20020520</td>
<td>3-12</td>
<td>ECN 8895 - UPDATED AIR SYSTEM</td>
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<td>20020828</td>
<td>2-13-15, 3-10</td>
<td>ADDED 52715970, NEW AIR TANK DRAIN ASM.</td>
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<td>20021121</td>
<td>3B-27</td>
<td>ADDED BLOWDOWN INFO. TO COMP. TROUBLESHOOTING CHART</td>
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<tr>
<td>20021204</td>
<td>2-13-2-18</td>
<td>ECN 9023 - PAINTED DRAWERS ON BODY</td>
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<td>20021230</td>
<td>3B-6</td>
<td>ECN 9090 - 99903452 AIR END ASM CHANGES</td>
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<tr>
<td>20030129</td>
<td>3B-12</td>
<td>ECN 9172 - ADDED BOLT TO PANEL ASM; CHANGED DESC OF FORD MANUAL ON PTO CHART</td>
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<tr>
<td>20030310</td>
<td>2-9,10</td>
<td>ECN 9151 - MOVED ROD GUIDES TO BODY ASM FROM DOOR</td>
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<td>20030408</td>
<td>3B-30,31</td>
<td>ECN 9161 - UPDATED DECALS 70396160, 70396168 AND REPLACED 70395315 (P. 31) WITH</td>
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<td>20030505</td>
<td>2-10</td>
<td>ECN 9157 - ADDED UPDATED SOUTH REELKit 51706347</td>
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<td>20030605</td>
<td>3B-7,33</td>
<td>ECN 9178 - ADDED BOLT TO PANEL ASM; CHANGED DESC OF FORD MANUAL ON PTO CHART</td>
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<tr>
<td>20030620</td>
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<td>ECN 9157 - 1 CHANGE REELS FROM REEL CRAFT TO HANNAY</td>
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<td>20030707</td>
<td>4-3,6</td>
<td>ECN 9195 - NEW FORD 2002 WIRING COLORS</td>
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<td>20030718</td>
<td>5-13</td>
<td>ECN 9195 - CORRECTED REVERSED WIRING COLORS</td>
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<td>20030731</td>
<td>3B-25</td>
<td>ADDED PTO/ENGINE DISENGAGE NOTE</td>
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<td>20030825</td>
<td>3B-6</td>
<td>ECN 9224 - UPDATE TO 99903452</td>
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<td>20030929</td>
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<tr>
<td>20031105</td>
<td>3B-33</td>
<td>ECN 9225 - TEAM PTO ON ALLISON ENGINE, NEW DRIVELINE FOR GMC 4500/5500 W ALL.</td>
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<td>ECN 9236 - UPDATE TO 99903452</td>
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<td>20040126</td>
<td>2-5</td>
<td>ECN 9266 - COOLER AND HOSES ON INSTALLATION 41715869-1</td>
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<td>20040127</td>
<td>3B-33</td>
<td>ECN 9390 - ADDED 51718525 FREIGHTLINER M2 WITH ALLISON 1000 TO COMPRESSOR INSTALL</td>
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<td>20040504</td>
<td>3B-33</td>
<td>ECN 9410 - ADDED CHEVY 4500/5500 WITH DURAMAX TO COMPRESSOR INSTALL</td>
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<td>20040520</td>
<td>4-2</td>
<td>ECN 9430 - ADDED AXLE REINSERTED FITTINGS ON 51716138</td>
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<td>20040909</td>
<td>3-2</td>
<td>ECN 9432 - ADDED NEW HOSE ROUTING FROM FLR 51715850</td>
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<td>20050321</td>
<td>3-2,3,4</td>
<td>ECN 9532 - ADDED ALLISON 3000/4000 INTERFACING</td>
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<td>20050601</td>
<td>3B-4-5, 4-12 THRU 16</td>
<td>ECN 9604 - UPDATE TO 99903452</td>
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<td>20050601</td>
<td>3B-34, 2-11,12</td>
<td>ECN 9605 - ADDED SHIMS TO 93715374 AND 93715720 INSTALL KITS, ADDED</td>
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<tr>
<td>20051018</td>
<td>2-3,4-24</td>
<td>ECN 9606 - ADDED SHIM 93715374 AND 93715720 INSTALL KITS, ADDED</td>
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<td>20060224</td>
<td>3B-3-9</td>
<td>ECN 9636 - ADDED FULLE FILL DRAWING</td>
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<td>20060620</td>
<td>3B-3-9</td>
<td>ECN 9649 - ADDED FULLE FILL DRAWING</td>
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<td>20060718</td>
<td>2-8, 3B-9</td>
<td>ECN 9650 - ADDED INSTALLATION DWG 99904040, UPDATE TO 99903908</td>
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<tr>
<td>20061127</td>
<td>3B-34</td>
<td>Added Fuller chassis information to PTO Driveline Installation chart (ETO Job)</td>
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<tr>
<td>20070613</td>
<td>3B-13</td>
<td>ECN 10390 - New door latch; Added 99904243 cab caddy bracket drawing</td>
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<tr>
<td>20070802</td>
<td>2, 3B-38</td>
<td>ECN 10336 - Removed compressor from Predator manual, created individual manuals for cmprs.</td>
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<tr>
<td>20080103</td>
<td>2-9,10-16</td>
<td>ECN 10686 - Removed lock from drawers. Added serial number note to pages 9-10.</td>
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<td>20080122</td>
<td>2-17-19</td>
<td>ECN 10626 - Removed lock from drawers. Added serial number note to pages 9-10.</td>
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<tr>
<td>20080807</td>
<td>2-27-30</td>
<td>ECN 10654 - Updated CAS440UH installation 99903962.</td>
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<tr>
<td>20080808</td>
<td>2-27, 3-7,10, 6-2</td>
<td>ECN 10746 - Removed clamp 72066000 with 72661657 and added 99904411 stepless ear clamp installation.</td>
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<tr>
<td>20090709</td>
<td>3B-34</td>
<td>ECN 10844 - Added 51721788 fuel fill kit part number; ECN 10841 - Updated sheet 2 of 99903962.</td>
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<td>20091022</td>
<td>3-13</td>
<td>ECN 10896 - Added 99904497 compressor panel assembly drawing.</td>
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<td>20100903</td>
<td>2-31</td>
<td>Added 9073440 friendly user manual</td>
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<td>20110203</td>
<td>3-13</td>
<td>ECN 11060 - Changed compressor plumbing.</td>
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<td>20110203</td>
<td>3-13</td>
<td>ECN 11256 - Predator design upgrades</td>
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<td>20120808</td>
<td>3-13</td>
<td>ECN 11711, 11740 - Updated panel assembly from 41715741 to 41724679</td>
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<td>20130617</td>
<td>3-13</td>
<td>ECN 11791 - Changed compressor plumbing.</td>
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<td>3-13</td>
<td>ECN 11800 - Predator design upgrades</td>
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<tr>
<td>20131020</td>
<td>4-2-4-6</td>
<td>ECN 12100 - New compartments from design upgrade (Effective SN PREP1010016).</td>
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<td>20151116</td>
<td>4-2-4-6</td>
<td>ECN 12227-1 - Updated prints and BOM</td>
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<td>20160303</td>
<td>4-2-4-6</td>
<td>ECN 12227-1 - Updated prints and BOM</td>
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<td>20190702</td>
<td>4-2-4-6</td>
<td>ECN 12227-1 - Updated prints and BOM</td>
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<td>20161014</td>
<td>99906123</td>
<td>CN464-1 2017 FORD CHASSIS CHANGES</td>
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<td></td>
<td>99906122</td>
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<td></td>
<td>99906124</td>
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<tr>
<td>20190523</td>
<td>99906462</td>
<td>CN971-Installation, Predator convert floods to LED.</td>
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</table>
PARTS ORDERING INFORMATION

Before placing an order, take the time to record the following information. This information should then be given to an IMT representative when placing your order.

BODY MODEL NUMBER:
BODY SERIAL NUMBER:
PART NUMBER, DESCRIPTION AND QUANTITY REQUIRED:

If left or right side is applicable, please specify.

Contact IMT at the following address:
IODA MOLD TOOLING CO., INC.
BOX 189, GARNER, IA 50438-0189
CUSTOMER SERVICE TEL: 1-800-554-4421

CRITICAL WEAR PARTS AVAILABILITY

Your Predator has designated critical maintenance and repair parts that can be shipped from IMT on the next business day or sooner. Listed below are the designated parts. When ordering these as needed please advise the customer service representative that you need these shipped the next day or sooner.

**NOTE:** These critical wear parts are used on units built after Fall 2010.

<table>
<thead>
<tr>
<th>BODY ASSEMBLY</th>
<th>CRANE ASSEMBLY</th>
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<tr>
<td>P/N</td>
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<td>70073310</td>
<td>FRL assembly</td>
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<td>70048206</td>
<td>Air filter</td>
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<tr>
<td>72661599</td>
<td>Door latch - 3 point (Eff 5/07)</td>
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<tr>
<td>70733731</td>
<td>Hose reel - curbside application</td>
</tr>
<tr>
<td>70733732</td>
<td>Hose reel - streetside application</td>
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<tr>
<td>77040408</td>
<td>Wireless light control transmitter</td>
</tr>
<tr>
<td>77040407</td>
<td>Wireless light control receiver</td>
</tr>
<tr>
<td>77040444</td>
<td>Strobe headlight assembly</td>
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<tr>
<td>77040465</td>
<td>Strobe headlight bulb</td>
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<tr>
<td>77040445</td>
<td>Strobe light power control unit</td>
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<tr>
<td>77040384</td>
<td>Compartment light</td>
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<tr>
<td>70048015</td>
<td>Gauge-press air 300# Cntr mnt</td>
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<tr>
<td>70048036</td>
<td>Gauge-press air 300# Btm mnt</td>
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SERIAL NUMBERS FROM FALL 2010 TO PRESENT
**TORQUE DATA CHART**

### FINE THREAD BOLTS

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<tr>
<th>SIZE (DIA-TPI)</th>
<th>BOLT DIA (INCHES)</th>
<th>PLAIN (FT-LB)</th>
<th>PLATED (FT-LB)</th>
<th>PLAIN (FT-LB)</th>
<th>PLATED (FT-LB)</th>
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<tr>
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<td>14</td>
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<td>420</td>
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<td>7/8-11</td>
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<td>445</td>
<td>325</td>
<td>670</td>
<td>500</td>
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<td>1-12</td>
<td>1.0000</td>
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<td>485</td>
<td>995</td>
<td>745</td>
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### COARSE THREAD BOLTS

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<th>PLAIN (FT-LB)</th>
<th>PLATED (FT-LB)</th>
<th>PLAIN (FT-LB)</th>
<th>PLATED (FT-LB)</th>
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<td>7/16-14</td>
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<td>1-8</td>
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<td>595</td>
<td>1290</td>
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<td>1950</td>
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<td>3160</td>
<td>2370</td>
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**NOTES**

1. Tightening torques provided are midrange.
2. Consult bolt manufacturer’s particular specifications, when provided.
3. Use flat washers of equal strength.
4. All torque measurements are given in kilogram-meters.
5. Torque values specified are for bolts with residual oils or no special lubricants applied. If special lubricants of high stress ability, such as Never-Seez compound graphite and oil, molybdenum disulphite, colloidal copper or white lead are applied, multiply the torque values in the charts by the factor .90. The use of Loctite does not affect the torque values listed above.

**WARNING**

Anytime a gear-bearing bolt is removed, it must be replaced with a new bolt of the identical grade and size. Once a bolt has been torqued to 75% of its proof load and then removed, the torque coefficient may no longer be the same as when the bolt was new thus giving indeterminate clamp loads after torquing. Failure to replace gear-bearing bolts may result in bolt failure due to metal fatigue causing serious injury or DEATH.

**SERIAL NUMBERS PRED021074 TO PRESENT**
# SECTION 1. SPECIFICATIONS

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<td>OPTIONAL EQUIPMENT – MODEL 8511</td>
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<tr>
<td>STANDARD FEATURES – MODEL 8513</td>
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<td>OPTIONAL EQUIPMENT – MODEL 8513</td>
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<td>STANDARD FEATURES – MODEL 8516</td>
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<td>CHASSIS INFORMATION-F350</td>
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<td>WEIGHT DISTRIBUTION</td>
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<td>CHASSIS INFORMATION-F450</td>
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SERIAL NUMBERS PRED991001 TO PRESENT
### GENERAL SPECIFICATIONS

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<th>Model 8513</th>
<th>Model 8516</th>
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<tbody>
<tr>
<td>CHASSIS CAB-TO-AXLE (CA) (* Distance dependent on chassis model)</td>
<td>84 - 88&quot; * (213.4 - 223.5 cm *)</td>
<td>84 - 88&quot; * (213.4 - 223.5 cm *) (w/o crane)</td>
<td>120&quot; (305 cm)</td>
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<tr>
<td>CHASSIS GVWR</td>
<td>17,500 lb (7937 kg)</td>
<td>15,000 lb (6805 kg)</td>
<td>19,000 lb (8618 kg)</td>
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<tr>
<td>BODY CUBIC CAPACITY</td>
<td>259 ft³ (7.33 m³)</td>
<td>309 ft³ (8.75 m³)</td>
<td>403 ft³ (11.41 m³)</td>
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<td>TIRE HAULING CAPACITY</td>
<td>Tire Size 11R22.5</td>
<td>20 tires</td>
<td>24 tires</td>
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<td>Tire Size 33.25-29</td>
<td>2 tires</td>
<td>2 tires</td>
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<tr>
<td>LIFTGATE CAPACITY</td>
<td>1600 lb (725 kg)</td>
<td>1600 lb (725 kg)</td>
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### COMPARTMENT SPECIFICATIONS

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<th></th>
<th>Model 8511</th>
<th>Model 8513</th>
<th>Model 8516</th>
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<tbody>
<tr>
<td>LEFT FRONT COMPARTMENT (A) (Air reels, tools)</td>
<td>All models</td>
<td>63&quot;H X 36&quot;W X 23.5&quot;D (160 X 91.4 X 59.7 cm)</td>
<td>30.84 ft³ (0.87 m³)</td>
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<tr>
<td>LEFT FRONT COMPARTMENT EXTENSION (C) (Tire bars, tools)</td>
<td>9&quot;H X 14&quot;W X 18&quot;D (22.9 X 35.6 X 45.7 cm)</td>
<td>19&quot;H X 22&quot;W X 23&quot;D (48.3 X 55.0 X 58.4 cm)</td>
<td>19&quot;H X 22&quot;W X 23&quot;D (48.3 X 55.0 X 58.4 cm)</td>
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<tr>
<td></td>
<td>1.31 ft³ (.04 m³)</td>
<td>5.56 ft³ (0.15 m³)</td>
<td>5.56 ft³ (0.15 m³)</td>
</tr>
<tr>
<td>RIGHT FRONT COMPARTMENT (B) (Storage, drawers)</td>
<td>All models</td>
<td>63&quot;H X 36&quot;W X 23.5&quot;D (160 X 91.4 X 59.7 cm)</td>
<td>30.84 ft³ (0.87 m³)</td>
</tr>
<tr>
<td>RIGHT FRONT COMPARTMENT EXTENSION (D) (Blocks, tools)</td>
<td>9&quot;H X 14&quot;W X 18&quot;D (22.9 X 35.6 X 45.7 cm)</td>
<td>19&quot;H X 22&quot;W X 23&quot;D (48.3 X 55.0 X 58.4 cm)</td>
<td>19&quot;H X 22&quot;W X 23&quot;D (48.3 X 55.0 X 58.4 cm)</td>
</tr>
<tr>
<td></td>
<td>1.31 ft³ (.04 m³)</td>
<td>5.56 ft³ (0.15 m³)</td>
<td>5.56 ft³ (0.15 m³)</td>
</tr>
<tr>
<td>LEFT REAR COMPARTMENT (E) (Tool storage)</td>
<td>All models</td>
<td>15&quot;H X 40&quot;W X 21&quot;D (38.1 X 101.6 X 53.3 cm)</td>
<td>7.29 ft³ (0.21 m³)</td>
</tr>
<tr>
<td>RIGHT REAR COMPARTMENT (F) (Tool storage)</td>
<td>All models</td>
<td>15&quot;H X 40&quot;W X 21&quot;D (38.1 X 101.6 X 53.3 cm)</td>
<td>7.29 ft³ (0.21 m³)</td>
</tr>
<tr>
<td>RIGHT REAR JACK BOX (G) (optional) (Jack storage, torque)</td>
<td>All models</td>
<td>10.25&quot;H X 16&quot;W X 50&quot;D (26.0 X 40.6 X 127 cm)</td>
<td>4.74 ft³ (0.13 m³)</td>
</tr>
<tr>
<td>CARGO/PAYLOAD AREA (H) (Tires, rims, payload)</td>
<td>41&quot;H X 95&quot;W X 127.5&quot;D (104.1 X 241.3 X 323.8 cm)</td>
<td>41&quot;H X 95&quot;W X 149.5&quot;D (104.1 X 241.3 X 379.7 cm)</td>
<td>41&quot;H X 95&quot;W X 191.5&quot;D (104.1 X 241.3 X 486.4 cm)</td>
</tr>
<tr>
<td>Note: Compartment dimensions are nominal.</td>
<td>76.12 ft³ (7.07 m³)</td>
<td>90.63 ft³ (8.42 m³)</td>
<td>120.53 ft³ (11.20 m³)</td>
</tr>
</tbody>
</table>

**IMT reserves the right to change specifications and design without notice.**
STANDARD FEATURES
- 1/2” x 50’ hose reel (2)
- 1/2” moisture separator/regulator/oiler
- Amber strobe light each corner
- Four 12V floodlights
- Four compartment lights
- Back-up alarm
- ICC safety kit
- Hour meter
- Adjustable shelving
- Wireless controlled lights
- Compartment weatherproofing
- Black composite T-handle latches
- Stainless steel hinges
- Body mounting kit
- Integrated electrical control system
- Automotive style wiring harness
- Truck-Lite® light and reflector kits
- Rubber matting on compartment floors and shelves

IMT reserves the right to change specifications and design without notice.

OPTIONAL EQUIPMENT
- Cab caddy
- Commercial fleet tool package
- Dual 1/2” air line coupler plumbing
- 400 gallon portable calcium chloride system
- Liftgate side rail and tire stop
- Two-bar fold-up tire inflation cage with body installed carrying bracket and 6’ inflation hose
- Customer identification
- Rack extension kit to 72” high

SERIAL NUMBERS PRED991001 TO PRESENT
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- 1/2" x 50' hose reel (2)
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REF DRAWING 99904916
SERIAL NUMBERS PRED991001 TO PRESENT
STANDARD FEATURES
- 1/2" x 50' hose reel (2)
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- Four compartment lights
- Back-up alarm
- ICC safety kit
- Hour meter
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- Wireless controlled lights
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- Customer identification
- Rack extension kit to 72" high

SERIAL NUMBERS PRED991001 TO PRESENT
CHASSIS INFORMATION-F350

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<tr>
<th>CHASSIS MAKE &amp; MODEL</th>
<th>FORD SUPER DUTY F350</th>
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<tbody>
<tr>
<td>CHASSIS MODEL YEAR</td>
<td>2000</td>
</tr>
<tr>
<td>WHEELBASE</td>
<td>164.80&quot;</td>
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<tr>
<td>CAB TO AXLE</td>
<td>84.00&quot;</td>
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<tr>
<td>GVW RATING</td>
<td>12,500 LBS</td>
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<td>FRONT AXLE RATING</td>
<td>4,850 LBS</td>
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WEIGHT DISTRIBUTION

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SERIAL NUMBERS PRED991001 TO PRESENT
CHASSIS INFORMATION-F450
CHASSIS MAKE & MODEL FORD SUPER DUTY F450
CHASSIS MODEL YEAR 2000
WHEELBASE 164.80"
CAB TO AXLE 84.00"
GVW RATING 15,000 LBS
FRONT AXLE RATING 5,790 LBS
REAR AXLE RATING 10,880 LBS

WEIGHT DISTRIBUTION

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SUBTOTAL

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TOTAL WEIGHT DISTRIBUTION:

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<tbody>
<tr>
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<tr>
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TOTAL VELOCITY WEIGHT:

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<tr>
<td>PAYLOAD</td>
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<tr>
<td>EMPTY UNIT W/ BODY &amp; CRANE</td>
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<td>307</td>
</tr>
<tr>
<td>EMPTY UNIT W/ BODY &amp; CRANE</td>
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<td>5,420</td>
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</tr>
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<tbody>
<tr>
<td>PAYLOAD</td>
<td>2,854</td>
<td>2,854</td>
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<tr>
<td>FUEL (38 GAL)</td>
<td>307</td>
<td>307</td>
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<tr>
<td>EMPTY UNIT W/ BODY &amp; CRANE</td>
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SERIAL NUMBERS PRED991001 TO PRESENT
# CHASSIS INFORMATION-F550

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<tr>
<th>CHASSIS MAKE &amp; MODEL</th>
<th>FORD SUPER DUTY F550</th>
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<tbody>
<tr>
<td>CHASSIS MODEL YEAR</td>
<td>2000</td>
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<tr>
<td>WHEELBASE</td>
<td>164.80&quot;</td>
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<tr>
<td>CAB TO AXLE</td>
<td>84.00&quot;</td>
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<tr>
<td>GVW RATING</td>
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## WEIGHT DISTRIBUTION

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<td>A</td>
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<tr>
<td>B</td>
<td>FUEL (38 GAL)</td>
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<td>307</td>
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<td>C</td>
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<td>COMPLETED UNIT WEIGHT</td>
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<td>TOTAL VEHICLE WT W/MAX PAYLOAD</td>
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 SERIAL NUMBERS PRED991001 TO PRESENT

![Diagram of chassis and measurements]
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Fastener on left front of RAM Fender

Supply enough additional harnessing so if the RAM fuse panel is to be accessed, this IMT electric panel can be dismounted and set off to the side.

Mounting hole in LH Battery Mount. Use .25" fastener to mount IMT panel.

### 2019 RAM BODY INSTALLATION KIT

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
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<td>60251867</td>
<td>BRACKET-EFM DOM II SERIES II RAM 2019</td>
<td>REF</td>
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</table>

REV. INITIAL RELEASE
BODY INSTALLATION KIT

FORD DIESEL CHASSIS (F350, F450, F550) MUST BE EQUIPPED WITH DEF (URBA) TANK BETWEEN FRAMERAILS.

UREATANK LOCATION WITH AFF-OF-AXLE FUEL TANK ONLY

UREATANK LOCATION WITH MID-SHIP FUEL TANK, WITH OR WITHOUT AFF-OF-AXLE FUEL TANK

DELT TANK USED WITH MT BODIES IS NOT ALLOWED OUTSIDE CHASSIS FRAME RAILS.

NARROW FRAME CHASSIS CAB DETAIL A
2019 Chevy / IH CV Chassis Installation (99906409)

99906409 PARTS LIST

<table>
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<td>BRACKET-BODY FRT DOM1 84CA CHEVY/IH CV</td>
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<td>CAP SCR .62-11X 2.00 HH GR8 Z</td>
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REV. A 20190320

NOTE: ZIP TIE FUEL LINES UNDER THE WELDED ANGLE ON LEFT SIDE OF FLOOR TUBE.
BODY INSTALLATION KIT – FORD 2017 CHASSIS ONLY (99906122)

FRAME EXTENSION REQUIRED ON LY WHEN CALLED FOR IN JOB ORDER FOLLOW CHASSIS MANUFACTURE WELDING PROCEEDURE TO PROTECT CHASSIS ELECTRICAL DURING WELDING PROCESS.

99906122 COMPLETE PARTS LIST

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<td>72601144</td>
<td>CAP SCR .56-12X 2.00 HH GR8 Z</td>
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REV. NEW 20161014
BODY INSTALLATION – 2017 FORD CHASSIS ONLY (99906123)

ADD POLY HOSE COUPLER AND CLAMPS TO EXTEND DEF HOSE LENGTH AS REQUIRED.

SMALL VENT HOSE WILL FOLLOW SAME PATH AS LARGER DEF FILLING HOSE

CUT OFF FORD DEF FILL NECK. LEAVE ENOUGH HOSE ON FILL NECK SO A POLY HOSE COUPLER CAN BE INSERTED.

INSTALL FORD DEF FILL NECK.
VENT HOSE MUST BE TOWARDS UPPER PORTION OF DEF FILL NECK.

99906123 COMPLETE PARTS LIST

<table>
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<tr>
<th>ITEM</th>
<th>PART NO.</th>
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<td>72060004</td>
<td>CAP SCR .25-20X 1.00 HH GR5 Z</td>
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REV. NEW 20161014
INSTALLATION KIT-18,000 GVW (93715374) - 851

1. 60122077 BRACKET-REAR MTG-LH REAR 1
2. 60122088 BRACKET-FRONT MTG W/CRANE 2
3. 60122091 BRACKET-REAR MTG-RH REAR 1
4. 76395819 MUD FLAP 2
5. 51716036 HARDWARE KIT 1
6. 60125330 SHIM, REAR A/R
7. 72062275 NUT 9/16-12 HEX TOP LOCK GR8 16REF
8. 72063117 WASHER 9/16 FLAT HARD 32REF
9. 72601144 CAP SCR 9/16-12X2 HHGR8 16REF
10. 72606004 CAP SCR 1/4-20X1-1/4 HHGR5 6REF *
11. 72062104 NUT 1/4-20 LOCK 6REF *
12. 72063001 WASHER 1/4 WRT 6REF *
13. 72661471 WASHER 1/4X1 OD FENDER 6REF *
14. 76395819 MUD FLAP 2

* PART OF PREDATOR BODY ASSEMBLY

PREDATOR BODY ASSEMBLY

SERIAL NUMBERS PRED991001 TO PRESENT
**INSTALLATION KIT-18,000 GVW (93715720) - 8513 - 8516**

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<td>51716036</td>
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* PART OF BODY ASSEMBLY

**SERIAL NUMBERS PRED991001 TO PRESENT**
Prior to installing the Predator 8511 body, take the following steps to prevent crane radio remote damage:
1) Locate radio remote receiver on driver’s side of crane base.
2) Locate electrical harness connection to receiver.
3) Disconnect harness connection from remote control box. Secure out of the way.
4) After installing body, reattach harness connection to remove control box.
### INSTALLATION KIT-19,500 GVW (93716273) - 8513-8516

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<td>60122775 BRACKET-REAR MTG-LH REAR</td>
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<td>60122776 BRACKET-REAR MTG-RH REAR</td>
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<td>13</td>
<td>72661471 WASHER 1/4X1 OD FENDER</td>
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<td>51716036 HARDWARE KIT-PRED INSTALL</td>
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*PART OF PREDATOR BODY ASSEMBLY*

![Diagram](image-url)
### INSTALLATION-BODY/FORD SUPER-DUTY (41715869-1)

<table>
<thead>
<tr>
<th>Manual</th>
<th>Automatic</th>
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<td>51395431</td>
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<td>HOSE ASM 1/2X90</td>
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<td>51395404</td>
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### INSTALLATION REFERENCE DWG-CRANE BASE/BODY

### SERIAL NUMBERS PRED021074 TO PRESENT
INSTALLATION-BODY/CRANE/FORD SUPER-DUTY (41715869-2) -8511

SECTION 2 – BODY COMPONENTS

MODEL 8511

SERIAL NUMBERS PRED991001 TO PRESENT
INSTALLATION-BODY/CRAINE/FORD SUPER-DUTY (41715869-3)- 8511

SERIAL NUMBERS PRED991001 TO PRESENT
INSTALLATION KIT-PREDATOR 8516/FORD SUPER-DUTY (99904044)

FOR FORD SUPERDUTY ONLY:

• LENGTHEN FRAME OF CHASSIS BY ADDING TWO 60130200 FRAME EXTENSION PIECES.
• INSTALL STANDARD SPACER ON TOP OF CHASSIS FRAME IN REAR AFTER FRAME AREA.
• SHIM ENTIRE LENGTH OF CHASSIS FRAME BY ADDING TWO 60130199 SPACERS AND TWO 60117637 SPACERS TO TOP OF CHASSIS FRAME. THIS WILL CREATE A FLAT SURFACE OVER THE CHASSIS FRAME RIVETHEADS.
• SHIMS WILL BE WELDED DOWN ONLY IN THE AREA BEHIND THE REAR SPRING SHACKLE BRACKET. THE SHIMS WILL BE HELD DOWN AHEAD OF THE REAR AXLE USING METAL BANDS (SHIPPING STYLE) OR EQUIVALENT.

* FOR FORD SUPER-DUTY - 0.13" DUE TO SPACER
** FOR FORD SUPER-DUTY - 0.38" DUE TO SPACERS
INSTALLATION DW - DUAL FUEL TANKS - FORD SUPERDUTY (99903407)

FASTENER KIT (51717296) INCLUDES:

1. 72062275 NUT 9/16-12 HEX LOCK GR8  2
2. 72063117 WASHER 9/16 FLAT  4
3. 72601144 CAP SCR 9/16-12 x 2.00 HH GR8  2
FUEL FILL, CHEVY/GMC (99903710)
1. 70396444 ELBOW, 90 DEG FUEL HOSE 2" (RUBBER) 2
2. 72066062 HOSE CLAMP 4
3. 60128989 TUBE 1

REFERENCE KIT # 51721788 - CHEVY2006 FUEL FILL (PREDATOR)
COMPARTMENT NOTCH, PREDATOR ON 2011 DODGE CHASSIS (99904915)

ADD 6" WIDE X 6" HIGH X 1" DEEP NOTCH

2011 DODGE CHASSIS WITH DEF SYSTEM.
PREDATOR WITHOUT CRANE

WITH 3" CAB TO BODY SPACE:
ADD NOTCH SO BODY CLEARS DEF CONTROL MODULE WHICH IS BEHIND CAB AND OUTSIDE OF LH CHASSIS FRAME RAIL.
INSTALLATION, DEF TANK HOSES ON 2011 FORD F550 (99904938)

70034515
ELBOW-FPT/90/BARB .50 .50 POLY

70034514
ELBOW-MPT/90/BARB .50 .38 POLY

70034516
ELBOW-BARB/90/BARB .75 .75

TO FILL NECK INSIDE OF BODY

TO FUEL TANK OF CHASSIS
HYDRAULIC INSTALLATION, PREDATOR ON FORD 201 1 4X2 CHASSIS, CRANE & COMPRESSOR (99905027)

NOTES:
Priority flow control valve 73540418 effective on units with serial numbers:
PRED101009 (VIN 1FDGF5GT0BEA48691)
PRED101010 (VIN 1FDGF5GT5BEA60657)
PRED101014 (VIN 1FDGF5GT3BEA60656)
and beyond.
This drawing shows the hydraulic installation requirements for the new priority flow control valve only.
BODY ASM-W/CRANE (REF 51715371) - 8511

1. 72601008 STOVE BOLT #10-24X1-1/2 FLH SST 8
2. 72601593 CAP SCR 1/4-20X1-1/2 FLH SS 4
3. 72062123 NUT #10-24 LOCK SS 8
4. 72063181 WASHER #10 WRT SS 8
5. 72062194 NUT 1/4-20 LOCK SS 4
6. 72063166 WASHER 1/4-5/8 OD WRT SS 4
7. 72661639 PLUNGER (WAS 72066376) 4
8. 72661640 SOCKET (PART OF 7) 4REF
9. 60131214 ROD-DOOR 16 LG 3/4 OFFSET 4
   (WAS 60120400)
10. 60131215 ROD-DOOR 26.25 LG W-.75in OFFSET REF
    ** QTY 4 - Predator & CAS440HT Compressors
    ** QTY 2 - CAS440HU Compressors
   (WAS 60122078)
10a. 60130818 ROD-DOOR 14.88 LG W-.75in OFFSET 2
    60128488 ROD-DOOR 9.25 LG W-.75in OFFSET 2
    ** Used on CAS440HU Compressors only
11. 70029119 SERIAL NUMBER PLACARD 1
12. 70034366 PLUG 1-1/8 8
13. 70393719 PLUG .266 8
14. 72066340 RIVET POP 1/8X3/8GRIPT 2
15. 72661599 LATCHASM 3PT COMPRESSION 4
   (WAS 72661510(2); 72661512(2); AND 76393253(4))
18. 89393607 WEATHERSTRIP 5/8X1/2 44
19. 60350058 TREAD 12X26 2
   (REPLACED WITH WELD ON ROCK GUARDAS PART OF
   TAILGATE EFFECTIVE 9-1-10)
20. 52715372 BODY WELDMENT 1
21. 51716037 HARDWARE KIT-PRED BODY
   (INCL. 1-6,11-14)

NOTE
Please check serial number of Predator prior
to calling for support. Predators produced prior
to 5-18-05 include different parts than
Predators produced post 5-18-05.

MODEL 8511

VIEW-LEFT REAR UBTB AFTER SOCKET LOCATION IS
DETERMINED. DRILL .266 HOLD THRU SIDE AND KICK
PANEL, THEN FROM INSIDE OF BODY DRILL HOLE IN KICK
PANEL ONLY TO A SIZE THAT WILL ACCEPT TOOL SOCKET.

SERIAL NUMBERS PRED991001 TO PRESENT
BODY ASM-W/O CRANE (REF 5171571 1) - 8513

1. 72601008 STOVE BOLT #10-24X1-1/2 FLH SST 8
2. 72601593 CAP SCR ⅝-20X1-1/2 FLH SS 4
3. 72062123 NUT #10-24 LOCK SS 8
4. 72063194 WASHER #10 WRT SS 8
5. 72063166 WASHER 1/4-5/8 OD WRT SS 4
6. 72661639 PLUGER (WAS 72066376) 4
7. 41715741 ELECTRICAL INSTALLATION KIT 1
8. 60161214 ROD-DOOR 16 LG 3/4 OFFSET 4
(WAS 60120400)
9. 60131215 ROD-DOOR 26.25 LG W-.75 OFFSET REF 1
**QTY 4-Predator & CAS440HT Compressors**
10. 72601593 CAP SCR ⅝-20X1-1/2 FLH SS 4
11. 72062123 NUT #10-24 LOCK SS 8
12. 72063166 WASHER 1/4-5/8 OD WRT SS 4
13. 72661639 PLUGER (WAS 72066376) 4
14. 41715741 ELECTRICAL INSTALLATION KIT 1
15. 60161214 ROD-DOOR 16 LG 3/4 OFFSET 4
(WAS 60120400)
10a. 60131215 ROD-DOOR 26.25 LG W-.75 OFFSET REF
**QTY 2-CAS440HU Compressors**
(WAS 60122078)
10b. 60131215 ROD-DOOR 26.25 LG W-.75 OFFSET REF
**Used on CAS440HU Compressors only**
11. 70029119 SERIAL NUMBER PLACARD 1
12. 70034366 PLUG 1-1/8 8
13. 70393719 PLUG 266 8
14. 72066340 RIVET POP ⅞X3/8GRIP 2
15. 72661599 LATCH ASM.3PT COMPRESSION 4
(WAS 72661510(2); 72661512(2); AND 76393253(4))
18. 89393607 WEATHERSTRIP ⅞X1/2 44
19. 60350058 TREAD 12X26 2
(REPLACED WITH WELD-ON ROCK GUARDAS PART OF TAILGATE EFFECTIVE 9-1-10)
20. 52715712 BODY WELDMENT 1
21. 51716037 HARDWARE KIT, BODY ASM 1
(INCL. 1-6,11-14)

NOTE
Please check serial number of Predator prior to calling for support. Predators produced prior to 5-18-05 include different parts than Predators produced post 5-18-05.

VIEW-LEFT REAR UBTB AFTER SOCKET LOCATION IS DETERMINED. DRILL 266 HOLD THRU SIDE AND KICK PANEL, THEN FROM INSIDE OF BODY DRILL HOLE IN KICK PANEL ONLY TO A SIZE THAT WILL ACCEPT TOOL SOCKET.
NOTES:
1. Additional top deck compartments are available on the left side, right side or both sides.
2. 99904959 shows the standard Predator Model 8511 with an additional welded-in top deck compartment.
3. The compartment depth is 13".
4. The compartment height is up to the "bottom" of the center horizontal side channel (19.38" h)
5. The rear of the additional top deck compartment(s) will stop at the front of the rear corner posts. This will leave the vertical cavity within the rear corner post, exposed in order to route electrical wiring up to the top RR/LF lights.
6. The front of the additional top deck compartments will start 28" behind the back of the standard top deck compartments. This will provide a 28" space between the standard compartments and the front of the additional compartments, for installation of the Calcium Chloride system.
7. The top and back of the additional top deck compartments will be 19" aluminum deck plate.
8. The door opening of the additional top deck compartments will be a minimum of 52" wide.
9. Doors for additional compartments are the same design as LR/RR underbody toolbox doors, and they will have door rods.
10. The socket/plunger for standard rear underbody toolbox doors will be mounted on the rear door of the additional top deck compartment.
11. The socket/plunger for the additional top deck doors will be mounted on the upper racks of the body
NOTES:

1. Additional top deck compartments are available on the left side, right side or both sides.
2. 99904391 shows the standard Predator Model 8513 with an additional welded-in top deck compartment.
3. The compartment depth is 13".
4. The compartment height is up to the “bottom” of the center horizontal side channel (19.38" h)
5. The rear of the additional top deck compartment(s) will stop at the front of the rear corner posts. This will leave the vertical cavity within the rear corner post, exposed in order to route electrical wiring up to the top RR/LF lights.
6. The front of the additional top deck compartments will start 18" behind the back of the standard top deck compartments. This will provide an 18" space between the standard compartments and the front of the additional compartments, for installation of the Calcium Chloride system.
7. The top and back of the additional top deck compartments will be 19" aluminum deck plate.
8. Include an internal divider in the additional top deck compartments in order to separate the larger rear section from the remaining front section.
9. The rear door opening of the additional top deck compartments will be a minimum of 52" wide.
10. The front door opening of the additional top deck compartments will be as wide as possible in the remaining space.
11. Doors for additional compartments are the same design as LR/RR underbody toolbox doors, and they will have door rods.
12. The socket/plunger for standard rear underbody toolbox doors will be mounted on the rear door of the additional top deck compartment.
13. The socket/plunger for the additional top deck doors will be mounted on the upper racks of the body.
BODY ASSEMBLY-ADDITIONAL TOP-DECK COMPARTMENTS (99904960) - 8516

NOTES:
1. Additional top deck compartments are available on the left side, right side or both sides.
2. 99904960 shows the standard Predator Model 8516 with an additional welded-in top deck compartment. The compartment depth is 13”.
3. The compartment height is up to the “bottom” of the center horizontal side channel (19.38” h)
4. The rear of the additional top deck compartment(s) will stop at the front of the rear corner posts. This will leave the vertical cavity within the rear corner post, exposed in order to route electrical wiring up to the top RR/LF lights.
5. The front of the additional top deck compartments will start 18” behind the back of the standard top deck compartments. This will provide an 18” space between the standard compartments and the front of the additional compartments, for installation of the Calcium Chloride system.
6. The top and back of the additional top deck compartments will be 19” aluminum deck plate.
7. Include an internal divider in the additional top deck compartments in order to separate the larger rear section from the front section.
8. The rear door opening of the additional top deck compartments will be a minimum of 61” wide.
9. The front door opening of the additional top deck compartments will be a minimum of 61” wide.
10. Doors for additional compartments are the same design as LR/RR underbody toolbox doors, and they will have door rods.
11. The socket/plunger for standard rear underbody toolbox doors will be mounted on the rear door of the additional top deck compartment.
12. The socket/plunger for the additional top deck doors will be mounted on the upper racks of the body.

SERIAL NUMBERS PRED101016 TO PRESENT
BODY ASSEMBLY-ADDITIONAL UNDERBODY TOOLBOX COMPARTMENTS (99904961) - 8516

REF KIT 51723147
1. 52723151 DOOR-WLDMT PRED 61.75H X 14.12 W A/R
2. 72661599 LATCHASM-3PT COMPRESSION (BLACK) A/R
3. 60132952 ROD-DOOR 14.13 LG W-.75in OFFSET A/R

NOTES:
1. Right hand view shows the layout with a CAS440HU compressor
2. For a configuration without a CAS440HU compressor, mirror the left hand side.

Optional underbody toolbox

Maintain space behind front compartment and front of underbody toolbox for CAS440HU components.

SERIAL NUMBERS PRED101016 TO PRESENT
CALCIUM CHLORIDE BACK WITH ADDITIONAL TOP DECK COMPARTMENTS
(99904962)

1. 60251391 ANGLE-CALCIUM TANK PREDATOR W-TD COMPT 1
2. 60251390 BACK-CALCIUM TANK PREDATOR W-TD COMPT 1
4. 72602051 BOLT-CRG .31-18X 1.00 SQNK GR2 8
5. 72063002 WASHER-FLAT .31 W ANSI B27.2 Z 16
6. 72062109 NUT .31-18 HEX NYLOC ZINC 15
7. 60251260 BAR-CALCIUM TANK PREDATOR W-TD COMPT 1
8. 72060026 CAP SCR .31-18X 1.25 HH GR5 Z 7
9. 72601341 SCR-SELF TAP .31-18X .75 HH SST 9

Step #1:
Bolt angle to panel first.

Detail A

Step #2:
Lower panel in place.
Bolt panel in place.
Add support bar.

Detail B

SERIAL NUMBERS PRED101016 TO PRESENT
COMPARTMENT DOORS, PRED 8513 W/ CAS440HU (99904964)

1. 52723086 DOOR-WLDMT PRED 53.88HX 30.50W (NON-IMT) 1
2. 52717859 DOOR-WLDMT PRED 53.88HX 30.50W (IMT) 1
3. 52715718 DOOR-WLDMT PRED 33.50HX 13.75W 2
4. 60251364 PANEL-DOOR 13.56H X 17.00 W (1.04 D) 1
5. 52720766 DOOR-WLDMT PRED 31.94H X 30.50W 1
6. 72661506 HINGE-SS 10GA BUTT POLISHED FLUSH (NON-IMT) 12
7. 72661886 HINGE-SS 10GA BUTT W/IMT LOGO (IMT) 12
8. 72661599 LATCH ASSEMBLY-3PT 6
9. 60131215 ROD-DOOR 26.25 LONG W/.75 OFFSET A/R
10. 60131214 ROD-DOOR 16.00 LONG W/.75 OFFSET 4
11. 60130818 ROD-DOOR 14.88 LONG W/.75 OFFSET A/R
12. 72661639 PLUNGER-SOCKET 2.5 STEEL/ZINC PLATE A/R
13. 72661640 PLUNGER-SOCKET ALUM (W/RUBBER INSERT) A/R
14. 72062194 NUT-SS .25-.20 NYLOC A/R
15. 72062264 WELD NUT .25-.20 FOR HINGE A/R
16. 72063166 WASHER-FLAT .25 R WRT SS A/R
17. 72601652 SCREW-MACH .25-20 X .75 TRHTORXS A/R

SERIAL NUMBERS PRED101016 TO PRESENT
**DECAL KIT (51715853) - 8513**

1. 70396709 DECAL-PM KIT PREDATOR 1
   (WAS 70395651)
2. 71393886 DECAL-DANGER EXPLODING TANK 1
3. 70391601 DECAL-AIR TANK DRAIN 1
4. 70039057 REFLECTOR-RED 4
5. 70039058 REFLECTOR-AMBER 2
6. 70392213 DECAL-CAUTION WASH/WAX 1
7. 70392309 DECAL-DIESEL FUEL ONLY 1
8. 70039057 REFLECTOR-RED 4
9. 70392387 DECAL-CAUTION WASH/WAX 1
10. 71039134 DECAL-CAUTION OIL LEVEL 1
11. 70392387 DECAL-CAUTION WASH/WAX 1
12. 70392387 DECAL-CAUTION WASH/WAX 1
13. 70393309 LICENSE PLATE-IMT DIAMOND 1
14. 70395654 DECAL-PREDATOR ID 3
15. 70395656 DECAL-PREDATOR LIGHTS 1
16. 70395657 DECAL-PREDATOR TRK/COMP 1
17. 70396160 DECAL-CMPRS START UP 1REF
18. 70396161 DECAL-CMPRS FLUID 1REF
19. 70396162 DECAL-WARNING READ MANUAL 1REF
20. 70396163 DECAL-DANGER DRIVE LINE OP 1REF
21. 70396164 DECAL-DANGER BREATHING 1REF
22. 70396165 DECAL-DANGER HOT OIL 1REF
23. 70396064 DECAL-FUSE BOX BEHIND PANEL 1
   * LOCATE ITEM 13 ON FRONT LICENSE PLATE HOLDER.
   ** LOCATE ITEM 21 NEAR FLR.
   *** LOCATE ITEM 20 ON COMPRESSOR MTG BRACKET

---

**SERIAL NUMBERS PRED021074 TO PRESENT**
## DECAL KIT (51715852) - 8511

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<td>70396064</td>
<td>DECAL-FUSE BOX BEHIND PANEL</td>
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* LOCATE ITEM 13 ON FRONT LICENSE PLATE HOLDER.
** LOCATE ITEM 23 NEAR FLR.
*** LOCATE ITEM 22 ON COMPRESSOR MTG BRACKET

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**Serial Numbers**: PRED021074 To Present
DRAWER ASM 1-3” H X 26” W X 16” D SGL PULL (51715842)

1. 70731440  DRAWER SLIDE 16”  2
2. 60119271  BRACKET  2
3. 70734320  DRAWER W/DIV 3” X 16” X 26”  1
   (WAS 70733798)
   (UNPAINTED-70733414-REF FOR SERVICE)
4. 72063002  WASHER 5/16 WRT  8
5. 72062109  NUT 0.31-18 HEX NYLOC  4
6. 72060025  CAP SCR 5/16-18X1 HHGRS  4
7. 72062106  NUT #10-24 LOCK  32
8. 72601283  MACH SCR #10-24X1/2 PH SLT  16
9. 72601284  MACH SCR #10-24X5/8 FH SLT  16
10. 60119271  BRACKET  2

SERIAL NUMBERS PRED021074 TO PRESENT
DRAWER ASM 2-3” H X 26” W X 16” D SGL PULL (51715864)

1. 60112288 BRACKET 2
2. 70731440 DRAWER SLIDE 16” - PAINTED 4
3. 60119271 BRACKET 4
4. 70734320 DRAWER W/DIVIDERS - PAINTED 2
   (WAS 70733798)
   (REFERENCE FOR SERVICE - UNPAINTED - 70733414)
5. 60131205 BRACKET 12
6. 72063002 WASHER 5/16 WRT 12
7. 72062109 NUT 0.31-18 HEX NYLOC 6
8. 72060025 CAP SCR 5/16-18X1 HHGR5 6
9. 72062106 NUT #10-24 LOCK 32
10. 72601283 MACH SCR #10-24X1/2 PH SLT 16
11. 72601284 MACH SCR #10-24X5/8 FH SLT 16

SERIAL NUMBERS PRED021074TO PRESENT
### DRAFTER ASM 2-3” H X 13” W X 16” D SGL PULL (51716628)

1. 60122288 Bracket 2
2. 70731440 DRAWER SLIDE 16” 4
3. 72062106 NUT #10-24 HEX LOCK 32
4. 72601283 MACH SCR #10-24X1/2 PH SLT 16
5. 72601284 MACH SCR #10-24X5/8 FH SLT 16
6. 60119271 BRACKET 4
7. 72060025 CAP SCR 5/16-18X1 HHGR5 4
8. 72063002 WASHER 5/16 WRT 8
9. 72062109 NUT 5/16-18 HEX 4
10. 70733800 DRAWER W/DIVIDERS - PAINTED 2

(UNPAINTED - 70733486 - REF, SERVICE)

**NOTE:**

NOT AVAILABLE. REFERENCE FOR SERVICE ONLY.

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**SERIAL NUMBERS** PRED021074 TO PRESENT
SHELF PACKAGE - PREDATOR WITH LH REELS, W/O CACl2 SYSTEM (99905227)

1. SHELF
2. SHELF
3. PANEL ASSEMBLY WITH BULKHEAD
4. SIDE RAIL
5. DRAIN ASSEMBLY
6. BODY ASSEMBLY-PRED
7. HOSE REEL-PRED
8. DRAWER ASSEMBLY, 3 X 26 X 16"
9. PULR-1/2" HOSE REEL W/O CACl2
10. DIVIDER-WELDMENT, FRONT COMPT
11. WEAR PAD-LOADGATE
12. SHELF-ADJUSTABLE 17X21.38"
13. CHANNEL-HOSREEL
14. ANGLE-REEL SHELF
15. SHELF-ADJUSTABLE
16. BRACKET-STOP TIRE CAGE
17. BRACKET-TIRE CAGE BOTTOM
18. PANEL-LOADGATE DECAL
19. INSERVICE VIDEO
20. LOADGATE
21. MAT-RUBBER .38X19X39.75
22. CAP SCREW .31-18X.75 HHGR5Z
23. 25. CAP SCREW .31-18X1 HHGR5Z
26. CAP SCREW .38-16X1.25 HHGR5Z
27. CAP SCREW .50-13X1.25 HHGR5Z
28. MAT-RUBBER .38X21.5X21.5
29. NUT .38-16 HEX NYLOCK ZINC
30. NUT .50-13 HEX NYLOCK ZINC
31. NUT .31-18 HEX NYLOCK ZINC
32. WASHER .31 W FLAT ANSI B27.2Z
33. WASHER .38 W FLAT ANSI B27.2Z
34. WASHER .50 W FLAT ANSI B27.2Z
35. WASHER .31 LOCK ZINC
36. RIVET-POPPS .19X.50 GRIP
37. MAT-RUBBER .38X21.5X35.5
38. ICC KIT & FIRE EXT
39. MAT-RUBBER .08 X 16.5 X 20.5
40. MAT-RUBBER .38X19.75X22.5
41. MAT-RUBBER .08X18.25X24.5
42. CLAMP
43. CAP SCREW .31-18X1.25HHGR5Z
44. WASHER .50 LOCK ZINC
45. CAP SCREW .50-13X1.75 HHGR5Z

NOTE: REPLACED 51715867 EFF JUNE 2011
SHELF PACKAGE - PREDATOR SHELVING WITH RH REELS, W/O CACL 2 SYSTEM

(99905228)

2.
3. REF PANEL ASSEMBLY WITH BULKHEAD 1
4. 51706132 SIDE RAIL 1
5. 51717633 DRAIN ASSEMBLY 1
6. REF BODY ASSEMBLY-PRED 1
7. REF HOSE REEL-PRED 2
8. 51715864 DRAWER ASSEMBLY, 3 X 26 X 16" 2
9. 51715850 FLR - 1/2" HOSE REEL W/ HOE NCAUM 1
10. 52715818 DIVIDER-WELDMNT, FRONT COMPT 1
11. 60030309 WEAR PAD-LOADGATE 2
12. 60121842 SHELF-ADJUSTABLE 17X21.38" 3
13. 60122138 CHANNEL-HOSEREEL 1
14. 60122216 ANGLE-REEL SHELF 2
15. 60122217 SHELF-ADJUSTABLE 2
16. 60122241 BRACKET-STOP TIRE CAGE 1
17. 60122242 BRACKET-TIRE CAGE BOTTOM 1
18. 60135998 PANEL-LOADGATE DECAL 1
19. 660247 INSERVICE VIDEO 1
20. 70734521 LOADGATE 1
21. 60122504 MAT-RUBBER .38X19X39.75 REF
22. 72060023 CAP SCREW .31-18X.75 HHGR5Z 4REF
23. 72060025 CAP SCREW 31-18X1 HHGR5Z 8REF
24. 72060047 CAP SCREW 38-16X1.25 HHGR5Z 21REF
25. 72060092 CAP SCREW 50-13X1.25 HHGR5Z 8REF
26. 60122500 MAT-RUBBER .38X21.5X21.5 REF
27. 72062103 NUT .38-16 HEX NYLOCK ZINC 21REF
28. 72062080 NUT .50-13 HEX NYLOCK ZINC 10REF
29. 72062109 NUT .31-18 HEX NYLOCK ZINC 18REF
30. 72063002 WASHER .31 W FLAT ANSI B27.2Z 27REF
31. 72063003 WASHER .38 W FLAT ANSI B27.2Z 42REF
32. 72063005 WASHER .50 W FLAT ANSI B27.2Z 20REF
33. 72063050 WASHER .31 LOCK ZINC 1REF
34. 72066349 RIVET-POSS .19X.50 GRIP 14REF
35. 60122502 MAT-RUBBER .38X21.5X35.5 REF
36. 92091010 ICC KIT & FIRE EXT 1
37. 60122499 MAT-RUBBER .08 X 16.5 X 20.5 REF
38. 60136465 MAT-RUBBER .38X19.75X22.5 REF
39. 60122503 MAT-RUBBER .08X18.25X24.5 REF
40. 72066580 CLAMP 4REF
41. 72060026 CAP SCREW 31-18X1.25 HHGR5Z 6REF
42. 72060053 WASHER .50 LOCK ZINC 2REF
43. 72060094 CAP SCREW .50-13X1.75 HHGR5Z 4REF
44. 72060025 CAP SCREW 31-18X1 HHGR5Z 8REF
45. 72060047 CAP SCREW 38-16X1.25 HHGR5Z 21REF

NOTE: REPLACED 51717217 EFF JUNE 2011
### SHELF - PREDATOR W/ CACL₂ SYSTEM (51715868)

1. 60131205 BRACKET-ROLLOUT DRAWER SRD 1
2. 52715818 DIVIDER 1
3. 60121842 ADJUSTABLE SHELF - 17 X 21.38 3
4. 60124755 CHANNEL 1
5. 60122228 BRACKET-ROLLOUT DRAWERS 2
6. 60250816 SHELF-CALCIUM PUMP 1
7. 60122241 BRACKET-STOP TIRe CAGE 1
8. 60122242 BRACKET-TIRE CAGE BOTTOM 1
9. 60250817 BRACKET-SILLOCK MTG 1
10. 72060023 CAP SCR 5/16-18X 3/4 HHGRSZ 4REF
11. 72060025 CAP SCR 5/16-18X1.00 HHGRSZ 10REF
12. 72060092 CAP SCR 1/2-13 X 1.25 HHGRSZ 8REF
13. 72062080 NUT 1/2-13 HEX NYLOC 8REF
14. 72062109 NUT 5/16-18 HEX NYLOC 14REF
15. 72063002 WASHER 5/16 FLAT 25REF
16. 72063005 WASHER 1/2 FLAT 16REF
17. 72063050 WASHER 5/16 LOCK 1REF
18. 70733798 DRAWER W/DIVIDERS - PAINTED (UNPAINTED - 70733414 - REF SERVICE) 2
19. 60119271 BRACKET-ROLLOUT DRAWER 4
20. 72601284 SCR-MACH 10-24 X 5/8 FLH SLOT 16REF
21. 72601283 SCR-MACH 10-24 X 1/2 PN SL 16REF
22. 72602106 NUT 10-24 HEX NYLOC 32REF
23. 70731440 DRAWER-SLIDE 16" 4
24. 60123357 BRACKET-REEL SHELF SUPPORT 2

![Diagram of SHELF - PREDATOR W/ CACL₂ SYSTEM](image-url)
I.C.C. SAFETY KIT (92091010)
1. 70073146 TRIANGULAR REFLECTOR KIT 1
   (Includes 3 reflectors and case)
2. 70073147 FIRE EXTINGUISHER (with bracket) 1

RACK EXTENSION KIT-72" (51715984) - 8513
1. 52725531 RACK EXTENSION 2
2. 52725532 RACK EXTENSION-FRONT 1
3. 76392821 WASHER 3/8 BONDED 12REF
4. 60122535 CHANNEL 4
5. 60122536 PLATE 2
6. 60122575 SPACER 2REF
7. 52716013 DIVIDER BAR 3
8. 71731461 T-PIN QUICK RELEASE 6REF
9. 72062167 NUT 5/16-18 LOCK SS 84REF
10. 72063152 WASHER 5/16 WRT SS 84REF
11. 72601590 CAP SCR 5/16-18X1 TRH PHH SS 84REF
12. 60025255 CORNER GUSSET 2
13. 51705828 CROSS CHAIN KIT-LIGHT DUTY 1

SERIAL NUMBERS PRED991001 TO PRESENT
TIRE INFLATION / PRESSURE CHECK TOOL ASM (51717984)
CAS440HT COMPRESSOR INSTALLATION (99903908)

1. 52717980 GATE 1
2. 52720046 LID 1
3. 23000080 COMPRESSOR, CAS440HT 1
4. 60251190 PANEL 1
5. 60109403 GATE STOP 2
6. 60109404 GATE HOLDER 2
7. 60010921 LATCH 2
8. 60251209 ANGLE 2

NOTES:
1. MOUNTING HARDWARE FOR BULKHEAD, GATE AND LID INCLUDED IN KIT 51720048.
2. INSTALL GATE WITH 5/16 FASTENERS.
3. INSTALL LID SUPPORT ANGLES WITH 3/8 FASTENERS.
4. SECURE LID IN PLACE WITH 5/16 FASTENERS.
5. INSTALL BULKHEAD WITH 3/8 FASTENERS.

DO NOT WELD STANDARD COMPRESSOR MOUNTING ANGLES (2 EACH 60250717, 60250815) TO COMPARTMENT BACK.

LID WILL BE HELD DOWN WITH CAP SCREWS THAT SECURE LID (#3) TO ANGLE (#15).

NOTE:
WHEN DRILLING HOLES FOR THE LARGE DEUTSCH ELECTRICAL CONNECTORS, MOVE THE HOLES DOWN TO MAINTAIN 5" OF COMPARTMENT SPACE ABOVE THE CONNECTORS, SO THERE IS SPACE TO MOUNT THE LID.

SCHEMATIC TO WIRE COMPRESSOR
CAS440HU COMPRESSOR INSTALLATION (99903962-1)

1. 52720150 FRAME-COMPRESSOR 1
2. 60129552 BRACKET-MOUNTING 2
3. 51720149 COMPRESSOR-DA440HU FOR PRED 1
4. 72062080 NUT. 50-13 HEX NYLOCK 9
5. 72063005 WASHER .50 FLAT 16
6. 72060093 CAP SCREW .50-13X1.50 HH GR5 Z 8
7. 72532552 HOSE FITTING 4.25 BRS 1
8. 51709358 DRAIN ASM-AIR TANK UNDER DECK 1
9. 60130639 PANEL-FILLER-DA440HU GUARD 1
10. 72531550 NIPPLE-BARB STL 1.25MPT 1.25 1
11. 72531135 ELBOW-STREET STL 1.25 X 90 DEG 2
12. 72053729 ADPTR-MPT/HEX/MPT 1.25 1.25 2
13. 7305423 VALVE-BALL 1.25 1
14. 73052012 FILTER-HYD SUC-100 MESH W/GAGE 1
15. 52720782 MANIFOLD-WLDMT AIR FLTR 1
16. 70048215 FILTER-AIR ASSY 1
17. 70048216 BAND-AIR FILTER 4.8 1
18. 70048222 INDICATOR-AIR FILTER 1
19. 70048223 CAP-AIR FILTER 4.8 1
20. 76396153 INSERT-RUBBER AIR FILTER 2.5 X 1.75 1
21. 60111854 ADAPTER-RMT AIR FLTR 2
22. 60103870 BRACKET-OIL FILTER 1
23. 60132927 COVER-CAS440HU SIDE 1
24. 60129550 PLATE-MOUNTING 1
25. 72661657 CLAMP-HOSE .75 STEPLESS EAR 3
26. 72661642 CLAMP-HOSE 1.75 T-BOLT 3
27. 99904497 DRAWING-PRED W-DA440HU REF

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**VIEW OF LH LONG-SILL**

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**VIEW OF RH LONG-SILL**

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**DETAIL M**

0.53 R0.25 TYP MUST HAVE RADIUS FEATURE.
CAS440HU COMPRESSOR INSTALLATION (99903962-2)
CAS440HU COMPRESSOR INSTALLATION (99903962-3)
REFERENCE FRONT CROSSTOVER HARNESS 77045896.
*INDICATES IDENTIFICATION FROM 77045896.
ELECTRICAL COMPONENTS ARE INCLUDED IN KIT 51720775.
CAS440HU COMPRESSOR INSTALLATION (99903962-4)
PANEL ASSEMBLY, CAS440HU COMPRESSOR (99904497)

1. 60251226 PANEL-BULKHEAD 1
2. 70733696 TANK-AIR 20 GAL 1
3. 51719994 OIL COOLER KIT 1
4. 52720167 RESERVOIR-WELDMENT 31 GAL 1
5. 73540129 VALVE-HEAT/IAL 1
6. 72053192 NIPPLE-PIPE BLK 1.00X 6.00 1
7. 72532860 ADPTR-MPT/FPT STL 1.00 1.25 1
8. 72532346 NIPPLE-BARB 90 DEG 1.25 1.25 1
9. 72531134 ELBOW-STREET STL 1.00 X 90 DEG 1
10. 72053680 ADPTR-MPT/MJIC 1.00 16 3
11. 72534382 TEE-STREET STL 1.00 1
12. 72053556 ELBOW-STREET STL .75 X 90 DEG 3
13. 72532681 SIGHT GAUGE-.75 PLUG W/REFLECT 2
14. 72053559 REDUCER BUSHING-1ST .100-.75 2
15. 72062080 NUT .50-13 HEX NYLOCK 4
16. 72062103 NUT .38-16 HEX NYLOCK 12
17. 72063003 WASHER .38 FLAT 24
18. 72063005 WASHER .50 FLAT 4
19. 72060047 CAP SCREW .38-16X 1.25 HH GR5 Z 12
20. 60109307 ROD-THREAD .50-13 X 14.00 2
21. 72053458 NIPPLE-BARB BRS .75MPT 2
22. 7253514 ADPTR-BREATHER FILTER OIL TANK 1
23. 7305497 ADPTR-BREATHER OIL RESERVOIR 1
24. 72053517 ADPTR-MPT/HEX/MPT .25 .25 1
25. 72532552 HOSE FTG-TYPE O 4.25 BRS 1
26. 73054032 VALVE-PRESSURE RELIEF .25 200 PSI 1
27. 72531430 ELBOW-MPT90/MJ 1.00 16 1
28. 73052001 PLUG-PIPE MAGNETIC .75NPT SQHD 2
29. 77041655 RELAY MODULE 1
30. 72061099 SCR-TEK 10-16X .62 HWH 2
31. 72531835 REDUCER BUSH-1LO .50 1
32. 77041659 SWITCH-TEMP FAN NO 120 DEGREES 1
33. 72062301 NUT-TINNERMAN 1/4-20UNC 4
34. 60251239 COVER 1
35. 72063001 WASHER .25 FLAT 4
36. 72063049 WASHER .25 LOCK 4
37. 72060002 CAP SCR .25-20X .75 HH GR5 Z 4
38. 72053610 TEE-1ST 25
39. 72053249 PLUG-PIPE SQ HD BLK 1.25
40. 51937675 HOSE-FJ 1.00 X 10.50 (16-16) 100R4 1
41. 51397655 HOSE-FJ 1.00 X 15.50 (16-16) 100R4 1
42. 77044573 CONNECTOR 1
43. 70394069 CABLE SEAL 2
44. 77045887 TERMINAL 2
45. 301142 VALVE-CHECK .75 IN 1
46. 72053558 ADPTR-MPT/HEX/MPT .75 .75 1
47. 72053645 ADPTR-MPT/FPT SWVL .75 .75 1
SECTION 3. AIR SYSTEM COMPONENTS

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PANEL ASM (51717813) ..................................................................... 3-11
EAR CLAMP INSTALLATION (99904411) .............................................. 3-13
FLR ASM-1/2" (51715850-1)

1. 70048205  GAUGE-AIR PRESSURE 300PSI  2
2. 70073310  MOISTURE SEP/REG/LUBE  1
3. 72531812  REDUCER BUSHING 1/2-1/4NPT  1
4. 72532974  STREET ELBOW 1/4NPT 90° SHORT  1
5. 72533586  TEE 3/8NPT RUN  1
6. 72533587  TEE 1/2NPT RUN  1
7. 72533588  REDUCER BUSHING 3/8-1/4NPT  1
8. 72533592  BARB NIPPLE 1/2MPT 3/4HOSE 90°  2
9. 72533644  ELBOW 3/8MPT 1/2FPT  1
10. 72533645  BARB NIPPLE 1/2MPT 3/4HOSE  1
11. 72534399  NIPPLE, PIPE BRS 1/2 X 2  1
12. 72534400  ELBOW, BRS 1/2 FPT X 1/2 FPT X 90°  1
FLR ASM-1/2" (51715850-2)

Effective from 2/14/00 to present.

Parts list on previous page.
SHELF PACKAGE - PREDATOR WITH LH REELS, W/O CACL₂ SYSTEM (99905227)

1. 72060025 CAP SCREW .31-18X1 HHGR5Z 8REF
2. 72060047 CAP SCREW .38-16X1.25 HHGR5Z 21REF
3. 72060092 CAP SCREW .50-13X1.25 HHGR5Z 8REF
4. 60122500 MAT-RUBBER .38X21.5X21.5 1REF
5. 72062103 NUT .38-16 HEX NYLOCK ZINC 21REF
6. 72062080 NUT .50-13 HEX NYLOCK ZINC 10REF
7. 72062109 NUT .31-18 HEX NYLOCK ZINC 18REF
8. 72063002 WASHER .31 W FLAT ANSI B27.2Z 27REF
9. 72063003 WASHER .38 W FLAT ANSI B27.2Z 42REF
10. 72063005 WASHER .50 W FLAT ANSI B27.2Z 20REF
11. 72063050 WASHER .31 LOCK ZINC 1REF
12. 72066349 RIVET-POP SS .19X.50 GRIP 14REF
13. 60122502 MAT-RUBBER .38X21.5X35.5 1REF
14. 92091010 ICC KIT & FIRE EXT. 1
15. 60122499 MAT-RUBBER .08 X 16.5 X 20.5 REF
16. 60136465 MAT-RUBBER .38X19.75X22.5 REF
17. 60122503 MAT-RUBBER .08X18.25X24.5 REF
18. 72066580 CLAMP 4REF
19. 72060026 CAP SCREW .31-18X1.25HHGR5Z 6REF
20. 72083053 WASHER .50 LOCK ZINC 2REF
21. 72060094 CAP SCREW .50-13X1.75 HHGR5Z 4REF

NOTE: REPLACED 51715867 EFF. JUNE 2011

99905227 EFFECTIVE JUNE 2011

CONTINUED ON FOLLOWING PAGE
SHELF PACKAGE - PREDATOR WITH LH REELS, W/O CAACL\textsubscript{2} SYSTEM (99905227)

Parts not shown:
Item #21 - Inservice video
Bug deflector (installed on hood of cab)
Item #38 - ICC safety kit
Installation Kit (Used to fasten body to chassis)
Manual (Shipped loose with unit.)
SHELF PACKAGE - PREDATOR SHELVING WITH RH REELS, W/O CACl₂ SYSTEM (99905228)

1. SHELF
2. SHELF
3. PANEL ASSEMBLY WITH BULKHEAD 1
4. 51706132 SIDE RAIL 1
5. 51717633 DRAIN ASSEMBLY 1
6. REF BODY ASSEMBLY-PRED 1
7. REF HOSE REEL-PRED 2
8. 51715864 DRAWER ASSEMBLY, 3 X 26 X 16" 2
9. 51715850 FLR - 1/2" HOSE REEL W/O CALCIUM 1
10. 52715818 DIVIDER-WELDMENT, FRONT COMPT 1
11. 6003009 WEAR PAD-LOADGATE 2
12. 60121842 SHELF-ADJUSTABLE 17X21.38" 3
13. 60122138 CHANNEL-HOSEREEL 1
14. 60122216 ANGLE-REEL SHELF 2
15. 60122217 SHELF-ADJUSTABLE 2
16. 60122241 BRACKET-STOP TIRE CAGE 1
17. 60122242 BRACKET-TIRE CAGE BOTTOM 1
18. 60135998 PANEL-LOADGATE DECAL 1
19. 660247 INSERVICE VIDEO 1
20. 70734521 LOADGATE 1
21. 60122504 MAT-RUBBER .38X19X39.75 REF
22. 72060023 CAP SCREW .31-18X.75 HHGR5Z 4REF
23. 72060025 CAP SCREW .31-18X1 HHGR5Z 8REF
24. 72060047 CAP SCREW .38-16X1.25 HHGR5Z 21REF
25. 72060092 CAP SCREW .50-13X1.25 HHGR5Z 8REF
26. 60122500 MAT-RUBBER .38X21.5X21.5 REF
27. 72062103 NUT .38 HEX NYLOCK ZINC 21REF
28. 72062080 NUT .50-13 HEX NYLOCK ZINC 10REF
29. 72062109 NUT .31-18 HEX NYLOCK ZINC 18REF
30. 72063002 WASHER .31 W FLAT ANSI B27.2Z 27REF
31. 72063003 WASHER .38 W FLAT ANSI B27.2Z 42REF
32. 72063005 WASHER .50 W FLAT ANSI B27.2Z 20REF
33. 72063050 WASHER .31 LOCK ZINC 1REF
34. 72066349 RIVET-POP .19X.50 GRIP 14REF
35. 60122502 MAT-RUBBER .38X21.5X35.5 REF
36. 92091010 ICC/KIT & FIRE EXT. 1
37. 60122499 MAT-Rubber .08 X 16.5 X 20.5 REF
38. 60136465 MAT-Rubber .38X19.75X22.5 REF
39. 60122503 MAT-Rubber .08X18.25X24.5 REF
40. 72066580 CLAMP 4REF
41. 72060026 CAP SCREW .31-18X1.25HHGR5Z 6REF
42. 72066353 WASHER .50 LOCK ZINC 2REF
43. 72060094 CAP SCREW .50-13X1.75 HHGR5Z 4REF
44. NOTE: REPLACED 51717217 EFF. JUNE 2011

CONTINUED ON FOLLOWING PAGE
SHELF PACKAGE - PREDATOR WITH RH REELS, W/O CACL₂ SYSTEM (99905228)

Parts not shown:
Item #21 - Inservice video
Bug deflector (installed on hood of cab)
Item #38 - ICC safety kit
Installation Kit (Used to fasten body to chassis)
Manual (Shipped loose with unit.)
CAB CADDY ASSEMBLY BRACKETS
(99904243)
1. 60131663 BRACKET-CAB CADDY

BACK WALL OF CAB BEHIND DRIVER SEAT.
INSTALL BOLT INTO BRACKET, THEN THROUGH BACK WALL OF CAB. ONLY ONE BOLT AT THE TOP AND BOTTOM OF BRACKET REQUIRED. (TYP EACH BRACKET)

SELF-TAPPING BOLT WILL SECURE CAB CADDY TO THIS BRACKET. (TYP 2)
PARTS LIST - 8511 & 8513

1. 60116097 MTG BRACKET 1
2. 72053141 PIPE NIPPLE 3/4NPT X CLOSE 2
3. 72063066 WASHER 1 FLAT (AS REQD) 4
4. 72661657 CLAMP-HOSE .75 STEPLESS EAR (WAS 72066000) 4
5. 72053472 COUPLING 3/4NPT BLK 2
6. 72053556 STREET ELBOW 3/4NPT 90° 3
7. 72053458 NIPPLE, BARB BRS ¾ MPT 3
8. 72060025 CAP SCR 5/16-18X1 HHGRS 2
9. 72062109 NUT 5/16-18 LOCK 2
10. 72063002 WASHER 5/16 WRT 2
11. 8939234  HOSE 3/4X300# 15FT
12. 73054230 BALL VALVE 3/4NPT 1
13. 70391601 DECAL-AIR TANK DRAIN 1
14. 72066582 RUBBER COATED CLAMP 1
15. 70396133 MUFFLER-AIR 3/4" NPT 1

NOTE: ITEM 13, DECAL-AIR TANK DRAIN, NOT SHOWN. LOCATE DECAL AS CLOSE TO DRAIN VALVE AS POSSIBLE, IN CLEAR VIEW OF OPERATOR.

SERIAL NUMBERS PRED991001 TO PRESENT
NOTE:

HOSE REEL KIT 51706347 EFFECTIVE 5-1-03 THRU 5-28-03. 70733731 AND 70733732 ARE EFFECTIVE BEFORE 5-1-03 AND AFTER 5-28-03.

HOSE REEL KIT-1/2 X 50' HOSE (51706347)
(EFF. 5-1-03 THRU 5-28-03)
1. 70732095 HOSE REEL 1
2. 72531133 STREET ELBOW 1/2X90° 1
3. 72053810 PIPE CAP 1/2NPT 1
4. 72060046 CAP SCR 3/8-16X1 HHGR5 4
5. 72062103 NUT 3/8-15 LOCK 4
6. 72063003 WASHER 3/8 WRT 8
7. 72066000 HOSE CLAMP 2
8. 72051547 BARB NIPPLE 1/2MPT 3/4HOSE 2
9. 89392349 HOSE 3/4 300# 36'

SERIAL NUMBERS PRED021072, PRED021073, AND PRED021077 TO PRESENT
**PANEL ASM (51717813)**

1. 60124207 PANEL-COMPRESSOR MOUNT 1
2. 72060046 CAP SCR 3/8-16 X 1.00 HH GR5 7
3. 72062103 NUT 3/8-16 HEX NYLOC 7
4. 77045896 HARNESS-AIR SYSTEM 1
5. 72066581 CLAMP-UMP20 S464 G16 5
6. 72861312 CLAMP-1/2 LOOP CUSHIONED 2
7. 77044676 PLUG-PKRD WP/MP PLUG 21
8. 77040441 CONN-PKRD MP 2802 CAV FEMALE 3
9. 77044574 CONN-PKRD WP 2CAV FEM TOWER 3
10. 77044573 CONN-PKRD WP 2CAV MALE/SHROUD 1
11. 77045885 CONN-PKRD MP 280 7 CAV MALE 1

*PARTS 7 THROUGH 11 USED TO PLUG CONNECTORS ON HARNESS (#4).*
SERIAL NUMBERS PRED021074 TO PRESENT
## EAR CLAMP INSTALLATION (99904411)

<table>
<thead>
<tr>
<th><strong>INSTALLING A STEPLESS EAR CLAMP</strong></th>
<th><img src="image1.png" alt="Image" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>When there is sufficient room, use standard jaw pincers to position a properly-sized ear clamp on a hose fitted with a hose stem. Close ear clamp fully with uniform force until there is only a 1/16” gap remaining. The visible deformation of the clamp ear provides a visible, instant check that the closure is complete.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>INSTALLING A STEPLESS EAR CLAMP IN RESTRICTED SPACE</strong></th>
<th><img src="image2.png" alt="Image" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>When space is restricted, use side jaw pincers held parallel to the hose to position and clamp a properly-sized ear clamp on a hose fitted with a hose stem. Close ear clamp fully with uniform force until there is only a 1/16” gap remaining. The visible deformation of the clamp ear provides a visible, instant check that the closure is complete.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>REMOVING A STEPLESS EAR CLAMP</strong></th>
<th><img src="image3.png" alt="Image" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>To remove a stepless ear clamp, grasp the strip end with a pincer and pull it away.</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Stepless ear clamps can only be used once. When removed, they must be discarded and replaced with new clamps.
# SECTION 4. ELECTRICAL COMPONENTS

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<thead>
<tr>
<th>Topic</th>
<th>Page</th>
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</thead>
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<td>ELECTRICAL INSTALLATION (41724679-2)</td>
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<td>ELECTRICAL INSTALLATION (41724679-3)</td>
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<td>ELECTRICAL INSTALLATION (41715741-5)</td>
<td>4-11</td>
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<td>SWITCH PANEL ASSEMBLY (41717767)</td>
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<td>WIRING SCHEMATIC (99903446)</td>
<td>4-13</td>
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<tr>
<td>WIRELESS LIGHT CONTROL SYSTEM (70733410-1)</td>
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</tr>
<tr>
<td>WIRELESS LIGHT CONTROL SYSTEM (70733410-2)</td>
<td>4-15</td>
</tr>
<tr>
<td>FLOOD LIGHT SWITCHING OPTION</td>
<td>4-16</td>
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<td>INSTALLATION - PTO WIRING - ALLISON T1000/T2000 TCM 1 PTO (99903409-1)</td>
<td>4-17</td>
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<tr>
<td>INSTALLATION - PTO WIRING - ALLISON T1000/T2000 TCM 2 PTO (99903409-2)</td>
<td>4-18</td>
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<tr>
<td>INSTALLATION - PTO WIRING - ALLISON T3000/T4000 TCM 1 PTO (99903409-3)</td>
<td>4-19</td>
</tr>
<tr>
<td>INSTALLATION - PTO WIRING - ALLISON T3000/T4000 TCM 2 PTO (99903409-4)</td>
<td>4-19</td>
</tr>
<tr>
<td>INSTALLATION - PTO WIRING - ALLISON T3000/T4000 TCM 1 PTO - FREIGHTLINER (99903409-5)</td>
<td>4-19</td>
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</tbody>
</table>
**Electrical Installation (41724679-1) Effective 7-1-15**

**Diagram Description:**
- The diagram illustrates the electrical components and connections within the Predator 8511/8513/8516 system.
- Key elements include:
  - Battery connections
  - Relay and fuse placements
  - Wiring harnesses and connectors

**Complete Parts List (Effective 7-1-15):**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY</th>
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<tbody>
<tr>
<td>1</td>
<td>72060004</td>
<td>CAP SCRR .25-20 X 1.00 HH GR5 Z</td>
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<tr>
<td>2</td>
<td>77044550</td>
<td>TERMINAL-FEM 18-20 GA WEATRPK</td>
<td>REF</td>
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<td>3</td>
<td>77044623</td>
<td>CONN-PKRD F 4-WAY WEATRPK FLAT</td>
<td>REF</td>
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<td>4</td>
<td>70145522</td>
<td>RETAINER-SPRING CLIP WIRE HARNESS</td>
<td>19</td>
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<td>5</td>
<td>72661491</td>
<td>CLIP-CONDUIT CLAMP PACKARD</td>
<td>4</td>
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<td>6</td>
<td>77040020</td>
<td>ALARM-BACKUP HORN</td>
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<td>7</td>
<td>77040358</td>
<td>LIGHT-CLEAR AMBER 30200Y</td>
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<td>8</td>
<td>77040384</td>
<td>LIGHT-COMPARTMENT 12V 2.1AMP</td>
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<td>9</td>
<td>77044703</td>
<td>HARNESS-WIRING COMP LIGHT UBTB</td>
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<td>10</td>
<td>76394572</td>
<td>GROMMET-2 X 6 OVAL COMPT LIGHT</td>
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<td>11</td>
<td>77045912</td>
<td>HARNESS-COMPARTMENT FRONT PREDATOR</td>
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<td>12</td>
<td>77045909</td>
<td>HARNESS-REAR FLOOD STORBE PREDATOR</td>
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<td>13</td>
<td>77044911</td>
<td>HARNESS-POWER MAIN PREDATOR</td>
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<td>14</td>
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<td>GROMMET-RUBBER 2.00 30700</td>
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<td>15</td>
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<td>WASHER-FLAT .25 W ANSI B27.2 Z</td>
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<td>16</td>
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<td>RELAY-12V DC 75AMP</td>
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<td>17</td>
<td>77041616</td>
<td>FUSE-MAXI 40 AMP</td>
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<td>IDLE CONTROL 99 FORD</td>
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<td>19</td>
<td>77045884</td>
<td>HARNESS-CHASSIS POWER PREDATOR</td>
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<td>20</td>
<td>60128133</td>
<td>BRACKET-EFM DOMII SERIES II</td>
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</table>
### Complete Parts List Effective 7-1-15

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NO.</th>
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<th>QTY</th>
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<td>21</td>
<td>77040404</td>
<td>LIGHT-COMPOSITE WORK LAMP SIDE MOUNT</td>
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<td>22</td>
<td>41726584</td>
<td>ASSEMBLY RH SWITCH PANEL 2015</td>
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<td>23</td>
<td>51715985</td>
<td>KIT-LICENSE PLATE HARDWARE</td>
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<td>24</td>
<td>72062104</td>
<td>NUT .25-20 HEX GR5 Z NYLOCK</td>
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<td>25</td>
<td>72060835</td>
<td>SCR-SLFTPG 8-18X .75 HH ZINC</td>
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<td>SCR-TFK CEILING #10-16X62 HWH</td>
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<td>TERM-FSLPON I .25TAB 16-14 GA</td>
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<td>31</td>
<td>77040137</td>
<td>TERM-FEM SLIP ON #12-10/.25 TAB</td>
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<td>32</td>
<td>77040053</td>
<td>TERM-RING I .25 STUD 12-10 GA</td>
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<td>33</td>
<td>77040230</td>
<td>TERM-SPADE FLNGD INSUL 12-10GA</td>
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</table>

**REV. B 20160603**

### Diagrams

**View A**

**View B**

**View C**

**View D**

**View E**

**View F**

**View G**

**View H**
41724679-3 Effective 7-1-15

- **Selection of plug will determine flood or rotation left/right or front/rear.**
  - **Relay module connections**
  - **Ground connections** Frame ground only

- **Fan power high temperature shutdown and safety tie to this connector.**

- **Pressure switches**
  - For Ford Super Duty with automatic transmission use jumper assembly 51717819 on 5LB switch closest to the panel.

- **Temperature sender connection**

- **Fan temperature switch**
41724676-5 Effective 7-1-15

**NOTES:**

1. FORD SUPER DUTY WIRING COLOR FOR ENGINE KILL (EXT 16) CHANGED FROM RED W/ LT GREEN TO WHITE W/ YELLOW FOR 2002 MODEL YEAR.

2. FORD SUPER DUTY WIRING COLOR AND CIRCUIT NUMBER FOR 12V IGNITION POWER CHANGED FROM EXT 295 (LIGHT BLUE W/ PINK) TO EXT 284 (WHITE W/ LIGHT BLUE) FOR 2002 MODEL YEAR.

3. INSTALLATION OF PTO WIRING ON FORD SUPER DUTY FOR 2003 MODEL YEAR WITH AUTOMATIC TRANSMISSION CAN BE FOUND ON 99903599. THE FORD P57H IS USED ON CHASSIS WITH AUTOMATIC TRANSMISSIONS TO SIMULTANEOUSLY ENGAGE PTO AND ELEVATE ENGINE RPM.
SECTION 4 - ELECTRICAL COMPONENTS

CONTINUOUS ON FOLLOWING PAGE

ELECTRICAL INSTALLATION
(41724679 - 41715741 VIEW 1)

1. 72060004 CAP SCREW .25-20X1.00 HH GR5 Z 2
2. 77044550 TERMINAL-FEM 18-20GA REF
3. 77044623 CONNECTOR 4-WAY REF
4. 70145522 RETAINER-SPRING CLIP 19
5. 72661491 CLIP-CONDUIT CLAMP 4
6. 77040020 BACKUP ALARM 1
7. 77040358 LIGHT-CLEAR AMBER 2
8. 77040384 LIGHT-COMPARTMENT 12V 4
9. 77044703 WIREFORM 1
10. 76394572 GROMMET 4
11. 77045912 HARNESS-FRONT COMPARTMENT 2
12. 77045909 HARNESS-REAR FLOOD/STROBE 1
13. 77044911 HARNESS-POWER MAIN 1
14. 76393636 GROMMET 4
15. 72063001 WASHER-FLAT 4
16. 77040391 RELAY-12V DC 75 AMP REF
17. 77041616 FUSE-MAXI 40 AMP REF
18. 70733297 IDLE CONTROL REF
19. 77045884 HARNESS-CHASSIS POWER REF
20. 60128133 BBRACKET-EFM DOM II SERIES II REF
21. 77040404 LIGHT-COMPOSITE WORK 4
22. 41724623 CONTROL PANEL (WAS 41717767) 1
23. 51715985 KIT-LICENSE PLATE 1
24. 72062104 NUT 2
25. 72060835 SCR-SELF TAP 8-18X3.4 HHZ REF
26. 72061739 SCR-TEK 12-14X 1.00 REF
27. 72061099 SCR-TEK CILING #10 REF
28. 77040357 LIGHT-CLEAR RED 2
29. 77041251 RELAY REF
30. 77040186 TERM-FSLPON .25 16-14 GA REF
31. 77040137 TERM-FEM SLIP .25 12-10 GA REF
32. 77040053 TERM-RING .25 12-10 GA REF
33. 77040230 TERM-SPADE 12-10 GA REF

SERIAL NUMBERS PRED021074 TO PRESENT
SELECTION OF PLUG WILL DETERMINE FLOOD ORIENTATION LEFT/RIGHT OR FRONT/REAR.

RELAY MODULE CONNECTION

GROUND CONNECTIONS FRAME GROUND ONLY

PRESSURE SWITCHES FOR FORD SUPER DUTY WITH AUTOMATIC TRANSMISSION USE JUMPER ASSEMBLY 0178619 ON SLB SWITCH CLOSEST TO THE PANEL.

LEFT COMPARTMENT CONNECTIONS

FAN POWER
HIGH TEMPERATURE SHUTDOWN
ADD SAFETY TIE TO THIS CONNECTOR

FAN TEMPERATURE SWITCH

PRESSURE SWITCHES

TEMPERATURE SENSOR CONNECTION

NOTES:

USE SAFETY TIE (IMT PART #7003439) ON BOTH HIGH TEMPERATURE SHUT DOWN SWITCHES. ONE SWITCH IS LOCATED ON THE AIR PANEL ASSEMBLY (AS NOTED) THE OTHER IS ON THE AIR END.
Ford Super Duty wiring color for engine kill CKT 16 changed from red with light green, to white with yellow, for 2002 model year. Ford Super Duty wiring color and circuit number for 12V ignition power changed from CKT 295, light blue with pink, to CKT 284, white with light blue, for 2002 model year.

PTO wiring installation for Ford Super Duty for 2003 model year with automatic transmission can be found on 99903556. The Ford APCM is used on chassis with automatic transmissions to simultaneously engage PTO and elevate engine RPM.

PTO, engine kill and engine speed diagrams for 2003 model year can be found in the EFM Manual, 99903556. For automatic, and 99903454 for manual.
Electrical Installation (41724679-5) Effective 7-1-15

NOTES:

1. FORD SUPER DUTY WIRING COLOR FOR ENGINE KILL (Ckt 16) CHANGED FROM RED W/LT GREEN TO WHITE W/YELLOW FOR 2002 MODEL YEAR.

2. FORD SUPER DUTY WIRING COLOR AND CIRCUIT NUMBER FOR 12V IGNITION POWER CHANGED FROM Ckt 295 (LIGHT BLUE W/PIN) TO Ckt 294 (WHITE W/LIGHT BLUE) FOR 2002 MODEL YEAR.

3. INSTALLATION OF PTO WIRING ON FORD SUPER DUTY FOR 2003 MODEL YEAR WITH AUTOMATIC TRANSMISSION CAN BE FOUND ON 99903556. THE FORD APC/M IS USED ON CHASSIS WITH AUTOMATIC TRANSMISSIONS TO SIMULTANEOUSLY ENGAGE PTO AND ELEVATE ENGINE RPM.

PTO ENGAGE CIRCUIT FOR 2000 FORD SUPER DUTY P-SERIES CHASSIS
SWITCH PANEL ASSEMBLY (41717767)

1. 72062182 NUT #10-32 HEX W/STAR WASH 4
2. 72060628 SCR-MACH 10-32 X 1.50 RDH 4
3. 70733410 RADIO-WIRELESS LT CNTRL 1
4. 70733496 METER-DATCON PUSH LOCK 2
5. 72661535 RIVET-SCR PLASTIC ISOLATER 4
6. 70048225 TEMP GAUGE 1
7. 77045911 HARNESS-CONTROL PANEL 1
8. 77040438 STROBE LIGHT 1
9. 60124627 PANEL-ELEC CONTROL 1
10. 77041653 MODULE-BUSSMANN VEC 1
11. 72601704 SCR-MACH 6-32X3/4 RDH 4
12. 72601726 NUT #6-32 HEX NYLOC 4
13. 72601705 WASHER 6W FLAT 4

NOTE:
THREE CONNECTIONS ARE MADE TO THE TEMPERATURE GAGE AS FOLLOWS:
- WIRE LABELED TEMP SENDER ATTACHES TO THE “F” TERMINAL ON THE GAGE.
- WIRE LABELED PWR 3 ATTACHES TO THE “T” TERMINAL ON THE GAGE.
- WIRE LABELED GROUND ATTACHES TO THE “G” TERMINAL ON THE GAGE.

SERIAL NUMBERS PRED021074 TO PRESENT
WIRING SCHEMATIC (99903446)

SERIAL NUMBERS PRED021074 TO PRESENT
LED FLOOD LIGHT INSTALLATION (99906462)

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
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<tbody>
<tr>
<td>1.</td>
<td>52723076</td>
<td>BODY-WLDMT PRED 1 8513 440HU</td>
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<td>2.</td>
<td>60251865</td>
<td>PLATE-COVER PRED FLOOR LIGHT REAR</td>
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<td>3.</td>
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<td>FLOODLIGHT-12V LED UNIVERSAL MTG</td>
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<td>4.</td>
<td>60146247</td>
<td>COVER-FLOOD LIGHT PRED FRONT</td>
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<td>GROMMET-RUBBER .25IDX .44PHDX .19PTHK</td>
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REV. INITIAL RELEASE: CN971
WIRELESS LIGHT CONTROL SYSTEM (70733410-1)

ADDITIONAL TRANSMITTERS
The transmitter supplied with the Wireless Light control System is coded for security. The transmitter code is printed on a label located on the back of the receiver case. The first number is the serial number and the second is your 4-digit transmitter code. A transmitter code of ‘9000’ indicates that your system can 'learn' up to three different transmitter codes. If you order an additional transmitter, give Technical Support the code ‘9000’ and you will receive the transmitter along with instructions for teaching the new transmitter to your remote system. These instructions are also printed near the end of this section.

INSTALLATION
The receiver is already mounted on the interior of the vehicle so that it is not exposed to moisture. It is secured using a double sided adhesive tape, such as Velcro. The black wire coming out of the rear of the receiver is the antenna and is not connected to anything. Stretching this wire out away from other electrical wires will enhance the unit’s reception.

The harness is connected as listed below. The unit needs only the red and black wires connected in order to operate. The other wires will be hooked up according to IMT application. The Wireless Light Control System is connected to a 12-volt battery for power, however never solely to a battery charger.

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>12-volt battery source fused at 2 amps</td>
</tr>
<tr>
<td>BLACK</td>
<td>Chassis ground</td>
</tr>
<tr>
<td>ORANGE</td>
<td>Relay #1 toggle (Flood 1)</td>
</tr>
<tr>
<td>PINK</td>
<td>Relay #2 toggle (Flood 2)</td>
</tr>
<tr>
<td>WHITE</td>
<td>Relay #3 toggle (Strobe)</td>
</tr>
<tr>
<td>GRAY</td>
<td>Relay #4 toggle (Compartment)</td>
</tr>
</tbody>
</table>

The white, gray, orange, and pink are negative switched outputs designed to only turn on external relays.

REMME SYSTEM WIRING DIAGRAM

CAUTION
DO NOT BOLT RECEIVER TO PANEL. RECEIVER MUST BE ISOLATED FROM

RADIO FREQUENCY INTERFERENCE STATEMENT

NOTE
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15, Subpart B of the FCC Rules. This equipment generates, use, and can radiate radio frequency energy. It is installed in accordance with manufacturer instructions.

The limits are designed to provide reasonable protection against such interference in a residential situation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the affected radio or television.
- Increase the separation between the equipment and the affected receiver.
- Connect the equipment and the affected receiver to separate power circuits.
- Consult the dealer or an experienced radio/TV technician for help.

MODIFICATIONS
Changes or modifications not expressly approved by Iowa Mold Tooling Co., Inc. could void the user's authority to operate the equipment.
WIRELESS LIGHT CONTROL SYSTEM (70733410-2)
OPERATION
The key chain transmitter has four buttons labeled 'I', 'II', 'III', and 'IV' respectively. Button 'I' controls the relay connected to the orange wire. The first time it is pressed it will turn the relay on. The next time it is pressed it will turn the relay off. Button 'II' controls the relay connected to the pink wire, button 'III' controls the relay connected to the white wire, and button 'IV' controls the relay connected to the gray wire. Be sure to press and hold the buttons at least one second when turning on or off the function for proper operation.

TROUBLE SHOOTING GUIDE

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>POSSIBLE PROBLEM</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>System will not operate any functions</td>
<td>Receiver is not getting power</td>
<td>Check 12 volt connection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check ground connection</td>
</tr>
<tr>
<td>Lights flash or appear dim</td>
<td>Weak or poor 12 volt connection</td>
<td>Check 12 volt connection</td>
</tr>
<tr>
<td></td>
<td>Transmitter signal is being disrupted</td>
<td>Move antenna wire away from power wires</td>
</tr>
<tr>
<td></td>
<td>Overloaded 12 volt power circuit</td>
<td>Check receiver for heavy loads on each circuit</td>
</tr>
<tr>
<td></td>
<td>Weak car battery</td>
<td>Recharge or replace car battery</td>
</tr>
<tr>
<td>Transmitter has very short range</td>
<td>Transmitter signal is being disrupted</td>
<td>Move antenna away from power wires</td>
</tr>
<tr>
<td></td>
<td>Transmitter battery is weak</td>
<td>See Battery Replacement</td>
</tr>
<tr>
<td></td>
<td>Antenna wire needs repositioning</td>
<td>Stretch wire out away from wires carrying</td>
</tr>
<tr>
<td></td>
<td></td>
<td>large current</td>
</tr>
<tr>
<td>Emergency override button does not work</td>
<td>Switch not hooked up correctly</td>
<td>Check ground connection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check wiring harness connection</td>
</tr>
</tbody>
</table>

If none of these solutions solve the problem, or the problem occurring is not listed, please call Iowa Mold Tooling Co., Inc., Technical Support, (641)-923-3711, for further assistance.

BATTERY REPLACEMENT
Should the transmitter function become weak or erratic, the battery in the key chain transmitter may be weak. An indication of a weak battery is that the red indicator may have a dim glow to it when any button is pressed. The battery is replaced in the following manner:
A. Remove the small screw on the back of the transmitter case.
B. Carefully separate the case halves.
C. Remove the battery, noting the (+) and (-) positions.
D. Replace the battery with a new 12 volt type GP23A battery which is available at most electronic stores.
E. Carefully replace the top cover and refasten the screw.

FREQUENCY FINE TUNING
Should the transmitter have very short range or not operate at all, then fine tuning may be required. If the red indicator does not light or is dim, then replace the battery. To tune the receiver, perform the following:
A. Remove the 4 screws on top of the receiver case.
B. Carefully separate the case halves.
C. Locate the small white frequency fine-tune adjustment trimmer on the circuit board inside the receiver. It will be located near where the antenna wire exits the case.
D. Using a small non-metallic adjustment tool, turn the adjustment screw inside the blue trimmer 1/8 turn clockwise.
E. Depress button 'III' and check if the compartment light comes on. If not, turn the adjustment screw an additional turn clockwise and recheck. After turning the screw a total of 1/2 turn clockwise, return to its starting position and repeat the adjustment by turning it counter-clockwise in the same manner.
F. Once the system operates the lights, stop and re-close the case. If the adjustment fails to correct the problem, return the defective unit for servicing.

PROGRAM ADDITIONAL TRANSMITTERS
Placing receiver into programming mode:
1. Unplug the main harness connector from the receiver unit.
2. Remove the receiver cover by taking out the four screws on top.
3. Locate the programming jumper pins labeled J1. They will be on the edge of the circuit board about 1/2 inch from the red programming light.
4. Short the programming pins together using a shorting jumper or small piece of wire.
5. Plug in the main harness connector so that the unit has power.
The red programming light should come on.

Checking frequency adjustment:
1. Press button 'III'. If programming light flashes, step 2 may be skipped.
2. Using non-metallic screwdriver, turn the white tuning adjustment in receiver until the light flashes rapidly.

Programming transmitter:
1. Press button 'III'. This will place the system in 'check' mode.
2. Press buttons 'I' and 'III' at the same time. The red light should flash three times and then remain off. The system is now in 'store' mode.
3. Press button 'I' to store the transmitter code. The red light will flash twice to indicate the code has been stored. The system is now back in 'check' mode.
4. Press button 'I' again. The red light should flash indicating the code was stored successfully.

Returning unit to normal operation:
1. Unplug the main harness connector.
2. Remove the shorting jumper from the programming pins.
3. Replace the aluminum cover and reconnect the main harness.

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.
FLOOD LIGHT SWITCHING OPTION
On the wire harness, next to the right front connection, there are three Packard two-pin connectors. One of these connectors is a female, the other two are male connectors. Which male connector the female is inserted into will determine whether the flood lights are set in a front and back or a side to side configuration. The male connector which is not used has a dummy connector installed to protect against dirt and moisture. The end user has the option of configuring the flood light system to his requirements.

The hand held radio transmitter for the Predator wireless light control system has four buttons. Each button controls one light circuit. Depending on the end user’s configuration of the flood light option, the button labeled ‘I’ will control the right front flood and either the left front or right rear flood light. The button labeled ‘II’ will control the left rear flood and either the left front or the right rear flood light, again depending on the flood light option. The button labeled ‘III’ will control the four corner strobe light system. The button labeled ‘IV’ will control the compartment lights in all four compartments.

Any of the circuits may be activated by simply pushing the button on the hand held transmitter for a period of about 1 second. This circuit will be active until the same button is pushed again. All circuits will be shut off if the truck’s ignition switch is turned off. The light circuit will remain off until reactivated by the transmitter or by the manual override switch.

All circuits may be activated by the manual override switches on the electrical control panel located inside the right front compartment. If the light circuit has been activated by the manual override switch, the light will continue to operate while the chassis ignition switch is on. The hand held transmitter cannot be used to turn the light circuit off at this time. The light circuit will be locked in the on position, even with the ignition switch in the off position. This will energize the light circuit the next time the ignition switch is turned back to the on position. The light circuit will remain in the on position until the manual override switch has been changed back to the off position. The hand held transmitter then becomes operational at that time.

The ignition switch acts as the master switch, however, and shuts off all lighting circuits.

The dash mounted transmitter will control the lights, the same as the hand held transmitter, when it becomes available after FCC approval.
INSTALLATION - PTO WIRING - ALLISON T1000/T2000 TCM 1 PTO (99903409-1)

1. 77044764 FUSE HOLDER W/O FUSE 1
2. 77041527 FUSE-ATC7.5 AMP 1
3. 77041251 RELAY- P & B VF4-45F11 1
4. 77441047 TERMINAL-150 16-18 GA MALE 2
5. 77044556 DIODE, 2.2 AMP 1

NOTES:

1. Different chassis may have different codes for the TCM wire numbers.
2. TCM for Freightliner is behind dash on passenger side of cab. Splice into appropriate wires at that location.
3. TCM for Sterling Actera is under the cab. Use customer access metripack connector located on driver's side wheel well. Use cavity "F" for wire J1-06 and use cavity "G" for J1-19. Use item #4 in the part's list.
4. TCM for International 4300 and 4400 models is under the cab. Use customer access metripack connector located on the driver's side, upper wheel well. Use cavity "B" for wire J1-06 and cavity "C" for J1-19. Use item #4 in the part's list.
5. GM Transmission Connector (Located near upfitter connector in the engine compartment on the right side)
   Wire 106 = Pin B; Wire 119 = Pin J
INSTALLATION - PTO WIRING - ALLISON T1000/T2000 TCM 2 PTO (99903409-2)

1. 77044764 FUSE HOLDER W/O FUSE 1
2. 77041527 FUSE-ATC 7.5 AMP 1
3. 77044556 DIODE - 2.2 AMP/274V 2
4. 77041251 RELAY- P & B VF4-45F11 2
5. 77441047 TERM- 150 16-18GA MALE 2

NOTES:

1. Different chassis may have different codes for the TCM wire numbers.
2. TCM for Freightliner is behind dash on passenger side of cab. Splice into appropriate wires at that location.
3. TCM for Sterling Actera is under the cab. Use customer access metripack connector located on driver’s side wheel well. Use cavity “F” for wire J1-06 and use cavity “G” for J1-19. Use item #5 in the part’s list.
4. TCM for International 4300 and 4400 models is under the cab. Use customer access metripack connector located on driver’s side, upper wheel well. Use cavity “B” for wire J1-06 and cavity “C” for J1-19. Use item #5 in the part’s list.
5. GM Transmission Connector (Located near upfitter connector in the engine compartment on the right side) Wire 106 = Pin B; Wire 119 = Pin J

SERIAL NUMBERS PRED991001 TO PRESENT
INSTALLATION - PTO WIRING - ALLISON T3000/T4000 TCM 1 PTO (99903409-3)

1. 77044764 FUSE HOLDER W/O FUSE 1
2. 77041527 FUSE-ATC 7.5 AMP 1
3. 77041251 RELAY- P & B VF4-45F11 2
4. 77441047 TERM- 150 16-18GA MALE 3
5. 77044556 DIODE, 2.2 AMP 1

NOTES:
1. Different chassis may have different codes for the TCM wire numbers.
2. TCM for Freightliner is behind dash on passenger side of cab. Splice into appropriate wires at that location.
3. GM Transmission Connector:
   (Located near the GM upfitter connector in the engine compartment on the right side)
   Wire 114 = Pin A
   Wire 117 = Pin B
   Wire 161 = Pin J
INSTRUCTION - PTO WIRING - ALLISON T3000/T4000 TCM 2 PTO (99903409-4)

1. 77044764 FUSE HOLDER W/O FUSE  1
2. 77041527 FUSE-ATC 7.5 AMP  1
3. 77044556 DIODE-2.2 AMP, 274 VOLT  3
4. 77041251 RELAY- P & B VF4-45F11  4
5. 77441047 TERM- 150 16-18GA MALE REF

NOTES:
1. Different chassis may have different codes for the TCM wire numbers.
2. TCM for Freightliner is behind dash on passenger side of cab. Splice into appropriate wires at that location.
3. GM Transmission Connector: (Located near the GM upfitter connector in the engine compartment on the right side)
   Wire 114 = Pin A; Wire 117 = Pin B; Wire 161 = Pin J
4. Use item #5 to connect.
INSTALLATION - PTO WIRING - ALLISON T3000/T4000 TCM 1 PTO ON FREIGHTLINER (99903409-5)

1. 77041251 RELAY P & B VF4-45F11 2
2. 77044556 DIODE-2.2 AMP, 274 VOLT 2

NOTES:
1. Different chassis may have different codes for the TCM wire numbers.
2. TCM for Freightliner is behind dash on passenger side of cab. Splice into appropriate wires at that location.
3. GM Transmission Connector: (Located near the GM upfitter connector in the engine compartment on the right side)
   Wire 114 = Pin A; Wire 117 = Pin B; Wire 161 = Pin J
4. Use item #5 to connect.
Switch Panel, RH (41726584)

41726584 COMPLETE PARTS LIST     EFFECTIVE  6-11-15

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<tr>
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<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY</th>
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<td>2</td>
<td>70733496</td>
<td>METER-HOUR DATCON PUSH LOCK MOUNTING</td>
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<td>3</td>
<td>72060628</td>
<td>SCR-MACH 10-32X 1.50 RDH</td>
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<td>72062182</td>
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<td>NUT 6-32 HEX NYLOCK</td>
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20160606 (NEW 6/15)
Switch Assembly, LH (41726585)

![Diagram of Switch Assembly, LH (41726585)](image)

### 41726585 COMPLETE PARTS LIST EFFECTIVE 6-11-15

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<td>SCR-MACH 10-32X 1.50 RDH</td>
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<td>SCR-MACH # 6-32X .75 RDH</td>
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20160606 (NEW 6/15)
Electric Control Panel, RH (60251740)
Electric Control Panel, LH (60251741)
## Radio Remote Harness (77040655)

### LOCATOR CODE: CP-800

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<tr>
<td>W3</td>
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<td>STROBE</td>
</tr>
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<td>W5</td>
<td>N/C</td>
</tr>
<tr>
<td>W6</td>
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### LOCATOR CODE: W1

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### LOCATOR CODE: W2

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### LOCATOR CODE: W5

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### LOCATOR CODE: W6

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</tr>
</thead>
</table>

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WAYTEK: 30535 (H S FEMALE 90 1/4" PUSH ON)
Radio Lights, Wireless system (70734916)

INSTALLATION GUIDE
VCMS-SP57

Remote Controlled Load Management

1. Product Description

The VCMS-SP57 consists of the following components:

1. VCMS-RF1 module
2. RF Antenna with a 79” (2m) cable
3. Remote Control (Linx Technologies model OTX-433-HH-LR8-MS)

The VCMS-SP57 kit pairs a power module with a wireless remote control to offer remote control of flood lights, strobe and compartment lighting.

The RF1 power module provides one BAT input (the source should be between 8V and 30V), one GND output and four grounding control outputs, which are protected by automatic shutdown for short circuit, overload and over temperature. The module’s inputs and outputs are 0.25 inch faston blade terminals. The antenna cable attaches to the module via a 0.31” coaxial connector.

The remote control has eight buttons for turning each of the four loads on and off. Once synced, it can communicate with the module from up to 1,000 feet away.
2. **Installation Instructions**

2.1 **Getting Started**

Determine the best location for the RF1 module and the antenna. The RF module should be mounted on a flat surface in a dry compartment. Take into consideration the routing of wires to outputs and +12 volt power source.

The antenna must be mounted either on the exterior of the vehicle or inside behind glass or other radio transparent materials. The cable for connecting the two is 79” (2 meters) long.

For wiring, you will need a crimping tool for the 0.25 inch faston blade terminals. Be certain to follow the crimping tool instructions for proper wire size and terminals.

2.2 **Mount the Power Module**

Mount the power module on a flat surface in a dry compartment using four 6-32 screws and lock washers. Do not drill out the mounting holes to accept larger screw sizes. Do not over tighten the mounting screws.

The wiring terminals on the power module are male 0.25 inch faston blade terminals. You will need to attach female terminals to the wires. Use a good quality crimping tool and follow the manufacturer’s instructions for the correct terminal types for the wire size.

Wire the ground (GND) terminal to a good quality vehicle ground (battery negative).

The VCMS-RF module is intended to run control relays. The relays in turn can drive flood lights, strobe lights and compartment lights. Wire the four output terminals accordingly to relay controlling their respective auxiliary loads.

Locate and wire a power source between 8V and 30V to the BAT terminal.

2.3 **Mount the Antenna**

Locate where you wish to mount the antenna. Be sure the location is either on the exterior of the vehicle or in the interior behind glass or another radio transparent material. Do not mount it inside a metal compartment.

The antenna has a piece of adhesive on one side of the center of the dipole. Remove the backing and press onto a flat, clean, non-conductive surface such as a window or plastic covering.

Attach the antenna to the RF power module with the included coaxial cable.
2.4 Syncing the Remote Control

Apply power to the VCMS-RF module.

Locate the Sync button on the RF1 power module. Press it once. The LED will flash for 17 seconds before the sync function times out.

Hit any button on the remote control to send its unique address before the sync function times out.

Press the Sync button again to save the remote control address.

The remote control may now be used to control the outputs. Be sure to test each remote synced to ensure proper connectivity.

2.5 Resetting Remote Control Address, Erasing Stored Addresses and Replacing Battery

Each Remote Control has its own unique address, which can be stored in the RF1 power module. The RF1 module can store up to 40 unique Remote Control addresses. Once it reaches 40 addresses, the LED will flash five times to indicate the memory is full. If another address is learned after the memory is full, it will overwrite the first address in memory. The memory will retain all learned addresses even if the power is removed.

To un-sync a remote control and an RF module, you may either erase all stored addresses in the RF module or change the address of the remote control.

To Erase All Stored Addresses in the RF Module:

Press and hold the Sync button for ten seconds. When released, the LED will light solid for two seconds to indicate the memory has been cleared of any stored remote control addresses.

To Give the Remote Control a New Address:

Obtain a paperclip or similar thin, stiff wire. On the back of the remote control is a small hole with a button inside labeled CREATE. Using the paperclip, press and hold this button for a short duration.

The Remote Control will now have a new address. Please note that the remote will need to be synced anew to any RF modules you wish to use it to operate.

Battery Replacement for the Remote Control:

A standard CR2032 lithium button cell powers the remote control. With normal use, it should last one to two years. To replace, remove the access cover on the back. Replace battery with the same kind.
3. **Specifications**

Operating Voltage Range: +8V to +30V

Load Amperate Rating: 1 amp

Wiring Terminals: 0.25 inch male faston blade

Antenna Connection: 79 inch long xoaxial cable

Temperature: Remote Control will operate between -40°C and 85°C

Remote Control Range: up to 1000 ft

Transmitter Frequency: 433 MHz

4. **Mechanical Drawing**
### SECTION 5. LIFTGATE

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LIFTGATE INSTRUCTIONS (70734521 / 70734522)

INTRODUCTION

The liftgate is the finest on the market today but in order to provide maximum efficiency it is important that you operate and maintain the liftgate properly. This section contains information necessary for the proper operation and maintenance of the liftgate. Before operating the liftgate, study this section carefully and keep it available for future reference.

GENERAL PRECAUTIONS

1. Always stand clear of an operating liftgate. Feet and hands must be clear of space between liftgate and truck when raising, and clear of space between liftgate and ground when lowering. Keep away from lifting linkage (arms) while liftgate is in operation.

2. The liftgate is not a personnel lift - DO NOT RIDE

3. Improper operation can result in serious injury or death. Read and understand operating instructions before use.

4. Any alteration to the liftgate will void the warranty and may void compliance with the Federal Motor Vehicle Safety Standards (FMVSS)

5. Only authorized, properly trained adults may operate the liftgate.

6. When not in use, always store the platform in the closed position with storage lock latches secured.

7. Never leave the liftgate unattended with the key in the ignition of the vehicle.

8. All decals must be present and legible. Replace any damaged or missing decals immediately

9. Never exceed the rated load capacity. Always center the load on platform and as close to truck as possible.

10. Always disconnect the negative (-) battery cable terminal when welding on liftgate or truck.

FORWARD

This section provides installation and operating procedures to help you obtain efficient and dependable use from your hydraulic liftgate. This section contains specifications, parts lists, maintenance information, safety guidelines, and general information.

Read this section carefully and understand it before attempting to install, operate, maintain, or repair the liftgate. Keep this available for future reference. If at any time you have questions concerning the liftgate, contact your IMT dealer. The dealer has trained service technicians and IMT replacement parts to keep your liftgate in top operating condition.

Three means are used throughout this section to gain the attention of personnel. They are NOTE’s, CAUTION's and WARNING's and are defined as follows:

NOTE

A NOTE is used to either convey additional information or to provide further emphasis for a previous point.

CAUTION

A CAUTION is used when there is the very strong possibility of damage to the equipment or premature equipment failure.

WARNING

A WARNING is used when there is the potential for personal injury or death.

Treat this equipment with respect and service it regularly. These two things can add up to a safer working environment.

WARNING

All operators must be fully instructed in the use of liftgate and all applicable safety standards before using or operation. Read and understand this section and comply with the instructions. Failure to do so may result in serious injury or death.
**LIFTGATE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>CAPACITY</th>
<th>1600 LB</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRIVE SYSTEM</td>
<td>DUAL HYD CYLINDERS</td>
</tr>
<tr>
<td>PLATFORM AREA</td>
<td>87 X 33 (WITH 6-IN TARPER)</td>
</tr>
<tr>
<td>PLATFORM MAT’L</td>
<td>GRIPSTRUT W/ RHINO COATING</td>
</tr>
</tbody>
</table>

**LIFTGATE FUNCTIONS & COMPONENT IDENTIFICATION**

Your liftgate is powered via your vehicle battery. The vehicle battery powers a motor coupled to a hydraulic pump. Flow from the pump retracts two cylinders attached to the upper arm assembly that lifts the gate platform. A check valve blocks return flow from the cylinders to the pump and a pressure relief valve prevents the gate from being overloaded.

**WARNING!**

Do not use liftgate as a scale. The liftgate may lift more than its rated capacity. Be aware of how much is being lifted and never exceed the rated capacity of the liftgate. Be aware of how much is being hauled and never exceed the rated capacity of the vehicle.

The gate platform is lowered by gravity after an electric “release” valve is activated and opened at the pump.

The electric toggle switch control incorporates a low voltage warning feature. This low voltage feature keeps the raise solenoid from chattering and prevents welding of the solenoid contacts.

If a low voltage condition occurs, the amber “POWER ON” LED will blink and the gate controls will be inoperable. In order to operate the gate, you must correct the low voltage condition and reset the control. To reset the control, depress the “POWER ON” hidden switch twice, once to shut down power and once to turn power on.

The low voltage condition may be caused by a weak battery, loose or corroded connections, improper ground, or bad electrical cables. This condition may be corrected by just starting the vehicle or replacing the battery.
Locate and read all decals prior to operating liftgate. Replace decals if missing or illegible.

<table>
<thead>
<tr>
<th><strong>DO’S</strong></th>
<th><strong>DO NOT’S</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• DO CENTER YOUR LOAD ON PLATFORM.</td>
<td>• DO NOT RIDE OR PERMIT ANYONE TO RIDE ON LIFT. THE LIFT IS NOT A PERSONNEL OR WHEELCHAIR LIFT.</td>
</tr>
<tr>
<td>• DO CLOSE AND LOCK LIFT IN CLOSED POSITION WHEN NOT IN USE OR UNATTENDED.</td>
<td>• DO NOT MAKE ANY MODIFICATIONS TO THE LIFT OR ITS SAFETY FEATURES.</td>
</tr>
<tr>
<td>• DO STAND TO THE SIDE OF LIFTGATE WHILE IT IS IN OPERATION.</td>
<td>• DO NOT ALLOW USE OF LIFT BY A PERSON WHO HAS NOT HAD PROPER TRAINING IN ITS OPERATION.</td>
</tr>
<tr>
<td>• DO READ MAINTENANCE AND SERVICE INFORMATION.</td>
<td>• DO NOT TRY TO LIFT OR LOWER MORE THAN THE RATED CAPACITY OF THE LIFT.</td>
</tr>
<tr>
<td>• DO READ OPERATOR’S INSTRUCTIONS.</td>
<td>• DO NOT ADD TO OR REMOVE PARTS OF LIFT AS IT WILL VOID YOUR WARRANTY.</td>
</tr>
<tr>
<td>• DO FREQUENTLY CHECK CABLES, CHAINS, AND OTHER COMPONENTS FOR WEAR OR DAMAGE AND REPAIR AS NECESSARY WITH PARTS PROVIDED BY THE ORIGINAL EQUIPMENT MANUFACTURER.</td>
<td>• DO NOT MOVE VEHICLE UNLESS GATE IS IN LATCHED POSITION.</td>
</tr>
<tr>
<td>• DO CHECK ALL SAFETY DEVICES FOR PROPER OPERATION.</td>
<td>• DO NOT SHIP CHILDREN OR UNAUTHORIZED PERSONNEL HOW TO OPERATE LIFT.</td>
</tr>
</tbody>
</table>

ALL REPAIRS OR REINSTALLATIONS OF TOMMY GATE LIFTS SHOULD BE PERFORMED BY AN AUTHORIZED DISTRIBUTOR THAT IS FAMILIAR WITH ITS OPERATION AND SAFETY FEATURES. ALL REPLACEMENT PARTS MUST BE OF ORIGINAL QUALITY, AND ALL SAFETY AND OPERATIONAL DECALS MUST BE ATTACHED AND LEGIBLE.

Decal No. 1
Place in cab in a highly visible area.
**WARNING**

Keep one hand on the platform when opening and closing.
Platform opening and closing forces/weights will vary if your vehicle is on an incline.
Stand clear of all moving parts when opening, raising or lowering platform.
Never leave the platform down to be used as a step.
Do not add any extension to original platform.

Decal No. 2
Located on the outside right-hand corner of the platform.

**DANGER**

Keep away from moving parts

Decal No. 4
Located on the side of uprights

---

**WARNING**

Read operator's manual before operating equipment.
Do not modify lift or its safety features.
Use only Tommy Gate service parts installed by an authorized distributor.
If additional assistance is needed, call Tommy Gate at 800-543-8428.
Do not exceed the rated lift capacity-

Decal No. 3
Located on the front of the control shield (40 inch travel lift)
Located next to the control shield (50 inch travel lift).

**Rated Lift Capacity**

XXX lb or XXX kg

Decal No. 5
Located on the front of the control shield (40 inch travel lift).
Located next to the control shield (50 inch travel lift).
**WARNING**

Do not ride the platform.
This lift is not designed as a wheelchair or personnel lift.

Center Load
Center load on platform side to side and front to back.

Never allow children or any untrained person to operate the lift.
Do not show children or others how to operate the lift.
When the lift is not in use or unattended, the platform should be closed and latched with control secured.

Decal No. 6
Located on left-hand upright inside the frame.
(Or on right hand side of lift and dump models.)

**CAUTION**

Spring under high tension

Decal No. 8
Located on the upright next to the torsion spring and safety holder on models with torsion assist spring.

**WARNING**

Lift gate is not to be used as a scale.
Lift gate may lift more than its rated capacity.
Be aware of how much is being lifted and never exceed the rated capacity of the lift gate.
Be aware of how much is being hauled and never exceed the rated capacity of the vehicle.

Decal No. 10
Located next to the control shield.

**DANGER**

Before removing box cover, the platform must be closed and latched or lowered to the ground with the control disarmed.

Decal No. 9
Located on box cover of gate.
**LIFTGATE OPERATION**

1) To open the platform, go to the driver’s side of the liftgate, push the latch to the side, off the platform pin, and rotate the latch down. Move to the passenger’s side of the liftgate and remove the latch padlock. With one hand, push the passenger’s side latch to the side, off the platform pin, while holding the top of the platform with your other hand. Pull the platform open and step away from the platform as it opens.

2) If the gate is on an application with swing-out doors, open them at this time.

3) Stand clear of the platform and all moving parts when using the lift.

To turn the control power on, press the POWER ON hidden switch once, marked with black rings or circles (located between the liftgate ID and the toggle switch). You should see the amber LED POWER ON light when the control is armed. To disarm the control, press the POWER ON hidden switch again.

To activate the control, press the LIFTGATE ACTIVATED hidden switch twice within one second (located under the liftgate logo). You should see the red “LIFTGATE ACTIVATED” light when the control is activated.

To lower the platform, push the toggle switch down. To raise the platform, push the toggle switch up. When you remove pressure from the toggle switch, the operation will stop.

After you have activated the control by pressing the LIFTGATE ACTIVATED hidden switch twice within one second, you have approximately 90 seconds to use the gate. If the gate isn’t used before the 90 seconds is up, the LIFTGATE ACTIVATED time deactivates the control. If the gate is used within 90 seconds, the LIFTGATE ACTIVATED timer automatically resets for an additional 90 seconds. To reactivate the timer, press the LIFTGATE ACTIVATED hidden button twice within one second.

4) After the platform is raised to the level of the vehicle’s floor and the load is removed, close the platform and folding extension (if equipped). The latch on the passenger’s side will secure itself. Install the latch padlock on the passenger’s side latch. Go to the driver’s side and secure the latch.

5) NEVER LEAVE THE TRUCK WITH THE PLATFORM ON THE GROUND, PARTIALLY RAISED, OR OPEN. To prevent children or unauthorized personnel from operating the lift, keep the gate in the stored position when not in use, and secure both the driver’s and passenger’s side latches. Make sure the passenger’s side latch padlock is installed and the control is deactivated before leaving the truck unattended.

6) The liftgate is an industrial product for material handling only. It is not to be used as a personnel or wheelchair lift. Do not ride on the platform. Always stand clear of the platform when opening, raising, or lowering.

7) NEVER ALLOW UNAUTHORIZED PERSONNEL TO OPERATE THE LIFTGATE.

8) Deactivate the controls and make sure the passenger’s side latch padlock is installed when the liftgate is not in use.
LIFTGATE ADJUSTMENT

1) Make sure liftgate is in the fully raised position.

2) Disconnect the #4 power cable from the positive side of the battery or manually trip the circuit breaker. Remove the latch padlock from the passenger’s side of the platform.

3) Unlatch the driver’s side latch and then the passenger’s side latch. Unfold the liftgate platform.

4) Remove the Phillips head screw(s) that hold the upright caps in place, then remove both upright caps (Figures 1 & 2).

5) Check the spring tension on the driver’s side and passenger’s side latch springs as shown (Figures 4 & 5). The driver’s side swing away latch spring should measure 1” tall. Tighten or loosen if necessary. The passenger’s side fixed latch spring should measure 7/8” tall. Tighten or loosen if necessary.

6) Loosen the platform latch pin with a 9/16” wrench and a screwdriver. The hole in the platform is oversized to allow the platform latch pin to be adjusted. See Figure 3.

7) Close and latch the platform.

8) Center the platform latch pin vertically in the latch hole. Push the platform latch pin toward the front of the truck so there is a 1/8” gap (Figures 6 & 7). Tighten the platform latch pin with a 9/16” wrench and a screwdriver to 20 ft-lb.

9) Reinstall the upright caps on the uprights.

10) Reconnect the liftgate’s main power cable to the positive side of the battery.

11) Install the latch padlock on the passenger’s side of the platform.

---

**Figure 1.** Three screws per upright for the 40 inch travel lift.

**Figure 2.** One screw per upright for the 50 inch travel lift.

**Figure 3.** Hole is oversized for adjustability.
SECTION 5 - LIFTGATE

Figure 4. Latch spring

Figure 5. Latch spring

Figure 6. Latch pin adjustment 40 inch travel lift.

Figure 7. Latch pin adjustment 50 inch travel lift.

Figure 8. Latch padlock
PLATEFORM DROP-AWAY FEATURE

Install platform drop-away pin (Figure 1).
1) Insert the platform drop-away pin through the existing 3/8” hole in the upright back.

2) Fasten the pin to the upright using the supplied 3/8” nut.

Prepare chain for platform drop-away feature (Figure 2).
1) Unhook both platform chains from the subassembly pins.

CAUTION!
Platform may spring back with great force if released under pressure.

2) Push the platform down and pull the driver’s side chain toward the drop-away pin on the upright.

3) Mark the position of the cloth cover that is next to the drop-away pin.

4) Slowly release the platform allowing the spring tension to lessen.

5) Cut a 1” slit in the cloth cover

Use platform drop-away feature (Figure 3).
1) Unhook both platform chains from the sub-assembly pins.

2) Pull chain link through slit cut in driver’s side chain cover.

CAUTION!
Platform may spring back with great force if released under pressure.

3) Push the platform down and hook exposed link over drop away pin on the upright.

CAUTION!
If equipped, the platform flipper may fall open and contact the ground if the ball locks on the platform are not in good working order.

Disable platform drop-away feature
1) Reverse order of above instructions.
WIRING DIAGRAM

- WELDING NOTE: DISCONNECT ALL BATTERY CABLES. ALWAYS DISCONNECT THE GROUND CABLE FIRST. ATTACH THE WELDING GROUND TO THE TRUCK RATHER THAN THE LIFTGATE.

- PLEASE READ AND FOLLOW ALL DIRECTIONS BEFORE PROCEEDING.

- NOTE: IF GATES ARE NOT WIRED IN ACCORDANCE WITH THIS DIAGRAM YOUR WARRANTY WILL BE VOID.

Diagram showing connections for Predator 8511/8513/8516 liftgate wiring.
MAINTENANCE

A) Inspect platform chains for any wear. Replace immediately if either is found to be worn.

B) Check the oil level in the reservoir. With the liftgate platform at the bottom of its travel, the fluid should be two-thirds full. BE SURE THE CYLINDERS ARE COMPLETELY EXTENDED.

CAUTION!

Use ISO Grade 32 hydraulic oil only. Using any other oil will void cylinder warranty.

C) Check for leaks from the cylinder hoses, and all fittings. Replace or repair if leaky.

D) Grease all zerk fittings with an ample amount of grease (every 120 days). Do not grease composite bushings.

E) Replace any worn or missing parts before putting the liftgate back into service.

F) If needed, adjust platform latches which are designed to hold the liftgate in a properly stored position.

G) Check for cracks in all welds (repair if needed).

H) Check for wear at all pivot points.

I) Check all electrical connections. Clean or repair if needed.

J) Replace fuses if needed. Check electric cables for worn or damaged insulation.

K) Replace or clean safety decals, so they are legible.

L) Check control for proper operation.
# TROUBLESHOOTING

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lift will not operate-“POWER ON” amber LED light does not come on.</td>
<td>Control not armed properly.</td>
<td>Turn the power on at the control by pressing the &quot;POWER ON&quot; hidden switch, marked with black rings or circles.</td>
</tr>
<tr>
<td></td>
<td>Poor electrical connection.</td>
<td>Check and repair or replace all cables and connections.</td>
</tr>
<tr>
<td></td>
<td>3 Amp Mini ATO fuse is blown.</td>
<td>Correct short and then replace fuse.</td>
</tr>
<tr>
<td></td>
<td>Polarity is reversed.</td>
<td>Switch positive and negative cables.</td>
</tr>
<tr>
<td></td>
<td>Circuit breaker tripped or disengaged.</td>
<td>Check for short, then manually engage circuit breaker.</td>
</tr>
<tr>
<td></td>
<td>Faulty control.</td>
<td>Replace control.</td>
</tr>
<tr>
<td>2 Lift will not operate-“LIFTGATE ACTIVATED” red LED light does not come on.</td>
<td>POWER ON amber LED light is blinking</td>
<td>Low voltage condition. Check and repair or replace all cables and connections.</td>
</tr>
<tr>
<td></td>
<td>Control not activated properly.</td>
<td>Press the &quot;LIFTGATE ACTIVATED&quot; hidden switch twice within one second. The red LED should come on.</td>
</tr>
<tr>
<td></td>
<td>Faulty control.</td>
<td>Replace control.</td>
</tr>
<tr>
<td>3 Blinking amber &quot;POWER ON” LED.</td>
<td>Low voltage condition.</td>
<td>Check and clean or repair all electrical connections. Load test battery, then recharge or replace battery.</td>
</tr>
<tr>
<td></td>
<td>Poor grounds or connections.</td>
<td>Repair, replace, clean as necessary.</td>
</tr>
<tr>
<td></td>
<td>Power connected or reconnected since last use.</td>
<td>Normal, press bulls eye once to activate solid “POWER ON” red LED.</td>
</tr>
<tr>
<td>4 Lift will not raise or raises slowly - control working properly.</td>
<td>Poor electrical connection.</td>
<td>Check power and ground cables and all connections.</td>
</tr>
<tr>
<td></td>
<td>Battery charge is low.</td>
<td>Recharge or replace battery.</td>
</tr>
<tr>
<td></td>
<td>Release valve stuck, partially open or dirty.</td>
<td>Raise platform completely and continue to run pump for 5 seconds.</td>
</tr>
<tr>
<td></td>
<td>Release valve needs replacement.</td>
<td>Contact IMT.</td>
</tr>
<tr>
<td></td>
<td>Raise solenoid not working.</td>
<td>Contact IMT.</td>
</tr>
<tr>
<td></td>
<td>Oil level low.</td>
<td>Check oil and add ISO grade 32 hydraulic oil ONLY.</td>
</tr>
<tr>
<td></td>
<td>Vent plug not installed or dirty.</td>
<td>Check vent plug on pump tank. A red shipping plug is installed at the factory. It must be replaced by the metal vented plug.</td>
</tr>
<tr>
<td></td>
<td>Overloaded liftgate.</td>
<td>Remove some material or weight.</td>
</tr>
<tr>
<td>5 Lift settles down slowly with load or no load.</td>
<td>Hoses or fittings leaking.</td>
<td>Tighten or replace.</td>
</tr>
<tr>
<td></td>
<td>Check valve stuck or dirty.</td>
<td>Lift and lower lift several times to flush out valve.</td>
</tr>
<tr>
<td></td>
<td>Check valve damaged.</td>
<td>Contact IMT</td>
</tr>
<tr>
<td></td>
<td>Cylinder seals worn or damaged.</td>
<td>Contact IMT</td>
</tr>
<tr>
<td></td>
<td>Down solenoid sticking partially open.</td>
<td>Contact IMT</td>
</tr>
<tr>
<td>6 Pump or motor noisy.</td>
<td>Worn pump, motor or coupling.</td>
<td>Contact IMT</td>
</tr>
<tr>
<td></td>
<td>Oil level low.</td>
<td>Check oil and add ISO grade 32 hydraulic oil ONLY.</td>
</tr>
<tr>
<td>7 Lift lowers very slowly, especially in cold weather.</td>
<td>Hinge arm pins seized to the bushings.</td>
<td>Clean and/or replace arm pins and bushings.</td>
</tr>
<tr>
<td></td>
<td>Lack of lubrication at cylinder pins and/or upper arm assembly.</td>
<td>Lubricate all zerk's.</td>
</tr>
<tr>
<td></td>
<td>Cylinder pins seized due to lack of lubricant.</td>
<td>Clean and/or replace cylinder pins.</td>
</tr>
</tbody>
</table>
# Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift will not lower.</td>
<td>Control not armed and activated-No amber &quot;POWER ON&quot; LED or red LIFTGATE ACTIVATED LED light on.</td>
<td>Press the &quot;POWER ON&quot; hidden switch, marked with black rings or circles (located between the Tommy Gate logo and the toggle switch). The amber &quot;POWER ON&quot; LED light should come on. Now press the hidden &quot;LIFTGATE ACTIVATED&quot; switch twice within one second (located under the Tommy Gate logo). The red &quot;LIFTGATE ACTIVATED&quot; LED light should come on.</td>
</tr>
<tr>
<td></td>
<td>Poor electrical connections.</td>
<td>Check and clean or repair all electrical connections.</td>
</tr>
<tr>
<td></td>
<td>3 Amp Mini - ATO fuse is blown.</td>
<td>Correct short and then replace fuse.</td>
</tr>
<tr>
<td></td>
<td>Lift stuck or sprung, if control is working properly.</td>
<td>Apply downward load on platform, pry away upright sides.</td>
</tr>
<tr>
<td></td>
<td>if control is working properly, damaged or non-working release solenoid.</td>
<td>Contact IMT</td>
</tr>
<tr>
<td></td>
<td>Hinge arm or cylinder pins seized.</td>
<td>Lubricate, clean and/or replace pins.</td>
</tr>
</tbody>
</table>
LIFTGATE REPLACEMENT PARTS (70734521 / 70734522)

<table>
<thead>
<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PLATFORM</td>
<td>1</td>
</tr>
<tr>
<td>2. 73050196</td>
<td>PLATFORM CHAIN</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>SUB ASSEMBLY</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>LICENSE PLATE MOUNT KIT</td>
<td>1</td>
</tr>
<tr>
<td>5. 71414334</td>
<td>LOWER ARM W/PINS &amp; BUSHINGS</td>
<td>2</td>
</tr>
<tr>
<td>6. 51723701</td>
<td>CLEVIS CYLINDER ASSEMBLY</td>
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<td>11. 70734737</td>
<td>LIGHT PANEL W/LIGHTS</td>
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<td>12.</td>
<td>TORSION SPRING KIT</td>
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<td>13. 71414336</td>
<td>3/4&quot; UPRIGHT BACK ARM</td>
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<td>14.</td>
<td>PIN &amp; BUSHING</td>
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<td>15. 77441219</td>
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<td>(FUSE HOLDER 77441116)</td>
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<td>17. 77041880</td>
<td>RAISE SOLENOID-3 POST</td>
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<td>18. 77041881</td>
<td>PUMP &amp; MOTOR UNIT (2500PSI)</td>
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<tr>
<td>19. 51723702</td>
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<tr>
<td>20. 72534782</td>
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<td>21. 73050197</td>
<td>CYLINDER REPAIR KIT</td>
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<td>22.</td>
<td>SPLIT PLASTIC GROMMET KIT</td>
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<td>23.</td>
<td>SUB ASSEMBLY BELTING</td>
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<td>CYLINDER SHAFT COMPLETE</td>
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<td>25. 73540438</td>
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<td>26. 77041883</td>
<td>T FITTING (PUMP &amp; MOTOR)</td>
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<td>27. 77041884</td>
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<tr>
<td>28. 77041886</td>
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<td>1/4&quot;X1/4&quot;X90DEG STL CYL ELBOW</td>
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<td>30. 77041888</td>
<td>4 GA. 2 WIRE ELEC CABLE W/LUGS</td>
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<td>(33 FT)</td>
<td>31. 70734573</td>
<td>30T MONARCH PLASTIC TANK</td>
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<td>32. 77041889</td>
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<td>33. 72534783</td>
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<td>34. 77041882</td>
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<td>35. 77041883</td>
<td>12 VOLT MOTOR-ONLY</td>
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<td>36. 71414337</td>
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<td>37. 77041884</td>
<td>RELEASE SOLENOID</td>
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<td>38. 77041885</td>
<td>EXTERNAL ASSEMBLY W/CONN</td>
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<td>39. 73540439</td>
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<td>40. 51723703</td>
<td>PUMP (ONLY) W/3QT. TANK (2500PSI)</td>
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<td>41. 51723704</td>
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<td>42. 51723705</td>
<td>LATCH KIT-RIGHT</td>
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<td>43. 51723706</td>
<td>PLATFORM LATCH PIN ASSEMBLY</td>
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<td>44. 51723707</td>
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<td>45. 71414338</td>
<td>PLATFORM CHAIN PIN (1.079&quot;)</td>
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<td>47.</td>
<td>PADLOCK W/KEYS</td>
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<td>50L 51723704</td>
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<td>61.</td>
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RELEASED FALL 2010
SECTION 6: CALCIUM CHLORIDE SYSTEM

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<td>2.</td>
<td>70396040 HOSE 3/4&quot; FRESH WATER</td>
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<td>3.</td>
<td>60250816 SHELF</td>
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<td>4.</td>
<td>51701520 HOSE ASM 18&quot; W/FTGS</td>
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<td>5.</td>
<td>51701525 MIXER ASM</td>
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<td>6.</td>
<td>51714060 TIRE PUMPER</td>
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<td>7.</td>
<td>51715949 DECAL KIT</td>
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<td>8.</td>
<td>51715951 KIT-HDWR (INCL.60-84-1)</td>
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<td>9.</td>
<td>51716140 KIT-FTGS (INCL.26-56)</td>
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<td>70034461 WATER TANK 45 GAL</td>
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<td>72053558 ADPT 3/4 MPT 3/4 MPT HEX</td>
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<td>60250743 BRACKET-GAUGE</td>
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<td>13.</td>
<td>60250744 BACK-CALC TANK</td>
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<td>14.</td>
<td>70034457 TANK-400GAL CALC</td>
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<td>70034458 SCREW-STRAINER</td>
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<td>72533121 SILCOCK 1/2 THRD</td>
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<td>79085286 EJECTOR</td>
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<td>18.</td>
<td>89039176 HOSE-AIR 1/2X250#</td>
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<td>89039188 HOSE-AIR 1X2 300#</td>
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<td>89392146 HOSE 1X4X250#</td>
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<td>89392349 HOSE 3/4X250# WP</td>
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<td>22.</td>
<td>70146348 STRAINER 3/4 BARB</td>
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<td>23.</td>
<td>72531821 BUSHING - REDUCER BRASS 1-3/4</td>
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<td>24.</td>
<td>72533725 NOZZLE FRESH WATER</td>
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<td>25.</td>
<td>73051990 PUMP</td>
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<td>26.</td>
<td>70395940 LID ASM - 8&quot; ACCESS COVER</td>
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<td>27.</td>
<td>70395714 LID-ASM - CHLORIDE 22&quot; ROUND</td>
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<td>28.</td>
<td>72533722 TEE NYLON 3/4</td>
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<td>29.</td>
<td>70034462 ELL PIPE 90° 1.0&quot; NPT BARB NYLON</td>
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<td>30.</td>
<td>72053457 BARB NIPPLE 1/2NPT 1/2HOSE</td>
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<td>31.</td>
<td>72053523 STREET ELBOW 1/4NPT 90°</td>
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<td>72053555 TEE 3/4NPT</td>
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<td>33.</td>
<td>72053556 STREET ELBOW 3/4NPT 90°</td>
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<td>72053726 ADAPTER 3/3MPT 1/2MPT HEX</td>
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<td>72661657 CLAMP-HOSE .75 STEPLESS EAR (WAS 72066000)</td>
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<td>36.</td>
<td>72531132 STREET ELBOW 3/8NPT 90°</td>
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<td>72531133 STREET ELBOW 1/2NPT 90°</td>
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<td>72532470 BARB NIPPLE 1MPT 1HOSE</td>
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<td>39.</td>
<td>72532552 HOSE FTG-TYPE O 1/4 1/4 BRS</td>
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<td>72532718 NUT 1 LOCK BRS</td>
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- PIPE NIPPLE 1NPT X 2-1/2 BRS
- BULKHD COUPLING 1/4 X 1-1/2
- PIPE NIPPLE 1/2NPT X CLOSE
- NIPPLE BARB NYL 3/4 MPT 3/4
- NIPPLE PIPE BRS 3/4 X 2.00
- HOSE FTG-TYPE O 1/4 3/8 BRS
- STREET ELBOW 1NPT 90°
- COUPLING 1NPT BRS
- BALL VALVE 1NPT BRS
- BALL VALVE 1/2NPT
- CHECK VALVE 1/2FPT INLINE
- HOSE CLAMP 3/8-7/8 SAE 6
- HOSE CLAMP 3/4-1.75 SAE20
- PLUG-PIPE SQ HD PVC 3.00
- FITTING-INSERT BRASS AREATOR
- WEATHERSTRIP .06X.56 TRIM
- CAP SCR 5/16-18X1 HHGR5
- CAP SCR 5/16-18X1-1/2 HHGR5
- CAP SCR 3/8-16X1 HHGR5
- MACH SCR #10-24X1.00
- NUT SS 10-24 HYLOC
- SCR 5/16-18X3/4 THRDCGTG HWH
- CARR BOLT 5/16-18X1 RBNK GR2
- NUT 5/16-18 HEX NYLOC
- NUT 3/8-16 LOCK
- NUT 1/4-20 LOCK
- NUT 1/4-20 LOCK SS
- WASHER 1/4 WRT
- WASHER 5/16 WRT
- WASHER 3/8 WRT
- WASHER 1/4 SS
- POP RIVET .19 X 1/2GRIFF
- HOSE CLAMP 3/4 VINYL CVR
- CARR BOLT 1/4-20X1-1/4 SONK
- CAP SCR 1/4-20X1-1/2 FLT HD SS
- CAP SCR 1/4-20X1/2 HH SS
- WASHER 3/16 FLAT
- CLAMP
- NUT 3/16 HEX NYLOC
- CAP SCR 3/16-18X3/4 BTNH
- WASHER 1.00 HI-STR ZN YELLO
- SCR - SHT MET 6 X 3/4 PH TYPEAZ
- SCR - SHT MET 6 X 3/4 PH TYPEAZ

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The diagram illustrates the predator system with various component placements and connections. The integration of text with diagrams provides a comprehensive view of the assembly and functionality.
USED FROM 6/2000 TO PRESENT
CaCl₂ SYSTEM-400 GAL (41715803-2)

USED FROM 6/2000 TO PRESENT
DECAL KIT-CaCl₂ SYSTEM (51715949)

1. 70395651 DECAL-PM KIT VP6160C 1
2. 71393886 DECAL-DANGER EXPLODING TANK 1
3. 70391601 DECAL-AIR TANK DRAIN 1
4. 70039057 REFLECTOR-RED 4
5. 70039058 REFLECTOR-AMBER 2
6. 70392213 DECAL-CAUTION WASH/WAX 1
7. 70392309 DECAL-DIESEL FUEL ONLY 1
8. 7039265 DECAL-THINK SAFETY 1
9. 70392982 DECAL-SERV & REPAIR 1
10. 70394092 DECAL-CAUTION BRK/COMP 1
11. 7039134 DECAL-CAUTION OIL LEVEL 1
12. 70392387 DECAL-FINAL STG VEH CERT 1
13. 70393309 LICENSE PLATE-IMT DIAMOND *1
14. 70395654 DECAL-PREDATOR ID 3
15. 70395656 DECAL-PREDATOR LIGHTS 1
16. 70395657 DECAL-PREDATOR TRK/COMP 1
17. 70396160 DECAL-CMPRSR START UP 1REF
18. 70396161 DECAL-CMPRSR FLUID 1REF
19. 70396162 DECAL-WARNING READ MANUAL 1REF
20. 70396163 DECAL-DANGER DRIVELINE OP **1REF
21. 70396164 DECAL-DANGER BREATHING **1REF
22. 70396165 DECAL-DANGER HOT OIL 1REF
23. 7039433 DECAL-CHLORIDE MIXER HOSE 1

*  LOCATE ITEM 13 ON FRONT LICENSE PLATE HOLDER.
** LOCATE ITEM 21 NEAR FLR.
*** LOCATE ITEM 20 ON COMPRESSOR MTG BRACKET.

SERIAL NUMBERS PRED021074 TO PRESENT
NOTE:
1) WHEN INSULATING FITTINGS, THREADS SHOULD BE SEALED WITH PRO LOCK PIPE SEALANT W/TEFLON (#51464) OR EQUIV. THIS SEALANT IS A LOW STRENGTH ANAEROBIC PASTE. THREAD TAPE IS NOT ACCEPTABLE!
2) SEE 70733454 FOR A LIST OF REPLACEMENT COMPONENTS FOR THE FRL (ITEM #2).