



THE APU WITH POWER, PERFORMANCE, AND RELIABILITY

**GO GREEN APU LLC AUXILIARY POWER UNIT**

**OWNER'S MANUAL**

**VERSION 1**

**REV 0**

**IMPORTANT OWNER INFORMATION**

**WARRANTY REGISTRATION CARD MUST BE FILLED OUT AND RETURNED TO GO GREEN APU BY INSTALLATION CENTER BEFORE WARRANTY IS VALID. BE SURE CARD IS COMPLETED BEFORE LEAVING CENTER.**

**YOUR GO GREEN APU SERIAL NUMBER IS:**

**AY240**

We attempt to make all of our manuals as clear, complete and accurate as possible. If you have any suggestions or corrections, we would welcome them.

Please contact us either by phone at (814) 942-9407 or by e-mail to:  
[apusupport@gogreenapu.com](mailto:apusupport@gogreenapu.com)

Thank you – the Go Green APU Team!



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## **GO GREEN APU LLC**

### **COPYRIGHT AND DISCLAIMER**

This manual is intended to assist the owner of a Go Green APU.  
It is not intended to be a service or installation manual.

Service and installation should only be performed by an Authorized  
GO GREEN APU Dealer or Service Center.

Go Green APU LLC



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## GO GREEN APU USER MANUAL

### TABLE OF CONTENTS

<b>1.</b>	<b>OVERVIEW OF THE GO GREEN APU</b>	<b>6</b>
<b>2.</b>	<b>GO GREEN APU SPECIFICATIONS</b>	<b>7</b>
<b>3.</b>	<b>GO GREEN SYSTEMS CONTACT INFORMATION</b>	<b>9</b>
<b>4.</b>	<b>SAFETY INFORMATION</b>	<b>10</b>
<b>5.</b>	<b>WARNING LABELS</b>	<b>11</b>
<b>6.</b>	<b>FLUIDS</b>	<b>11</b>
<b>7.</b>	<b>ENGINE COOLANT</b>	<b>11</b>
<b>8.</b>	<b>IMPORTANT INFORMATION FOR OWNERS</b>	<b>12</b>
	<b>FIRST OIL CHANGE</b>	<b>12</b>
	<b>FIRST OIL FILTER CHANGE</b>	<b>12</b>
	<b>TECH TIP 1 – NEVER USE QUICK FILL</b>	<b>12</b>
	<b>OIL/FILTER CHANGE INTERVAL</b>	<b>12</b>
	<b>TECH TIP 2 – CHECKING OIL LEVEL</b>	<b>12</b>
	<b>ADDING OIL TO APU</b>	<b>12</b>
	<b>CHANGING THE APU’S OIL</b>	<b>14</b>
	<b>PREVENTIVE MAINTENANCE KIT</b>	<b>14</b>
	<b>TECH TIP 3 – APU BOTTOM PANEL</b>	<b>14</b>
	<b>SERVICE AND MAINTENANCE RECORDS</b>	<b>15</b>
<b>9.</b>	<b>GO GREEN APU SYSTEMS WARRANTY PROGRAM</b>	<b>16</b>
<b>10.</b>	<b>SERVICE INTERVALS FOR YANMAR ENGINES</b>	<b>21</b>



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## GO GREEN APU USER MANUAL

### TABLE OF CONTENTS

<b>11.</b>	<b>APU OIL FILTER AND OIL CHANGE (15W-40 OIL)</b>	<b>22</b>
	<b>REMOVING OIL FILTER</b>	<b>22</b>
	<b>DRAIN OIL FROM PAN</b>	<b>22</b>
	<b>REMOVE AND REPLACE OIL FILTER</b>	<b>23</b>
	<b>FILLING APU WITH OIL</b>	<b>23</b>
	<b>TECH TIP 4 – CHECKING OIL LEVEL</b>	<b>23</b>
<b>12.</b>	<b>APU AIR FILTER CHANGE</b>	<b>26</b>
<b>13.</b>	<b>APU FUEL FILTER ELEMENT CHANGE</b>	<b>27</b>
<b>14.</b>	<b>WATER SEPARATOR SCREEN CHECK</b>	<b>28</b>
<b>15.</b>	<b>CHANGING THE APU DRIVE BELT</b>	<b>29</b>
<b>16.</b>	<b>ADJUSTING APU ALTERNATOR BELT</b>	<b>31</b>
<b>17.</b>	<b>ADDING COOLANT TO APU DEGAS BOTTLE</b>	<b>32</b>
<b>18.</b>	<b>ELECTRICAL CONTROL UNIT (ECU)</b>	<b>34</b>
<b>19.</b>	<b>SMART POWER MANAGEMENT SYSTEM</b>	<b>35</b>
<b>20.</b>	<b>ENGINE BLOCK HEATER</b>	<b>35</b>
<b>21.</b>	<b>BATTERY MONITOR</b>	<b>36</b>
<b>22.</b>	<b>GO GREEN APU OPTIONS</b>	<b>38</b>
	<b>GO GREEN QUIET COMFORT™</b>	<b>38</b>
	<b>REMOTE KEY STARTER</b>	<b>38</b>
	<b>ALUMINUM STEPS</b>	<b>38</b>



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## **GO GREEN APU USER MANUAL**

### **TABLE OF CONTENTS**

<b>23.</b>	<b>ELECTRONIC CONTROL UNIT START GUIDE</b>	<b>40</b>
	<b>APU ENGINE CONTROL SWITCH</b>	<b>40</b>
	<b>HVAC BLOWER FAN CONTROL SWITCH</b>	<b>44</b>
	<b>TEMPERATURE DISPLAY</b>	<b>45</b>
	<b>HVAC FAN SPEED CONTROL SWITCH</b>	<b>46</b>
	<b>HVAC CONTROL SWITCH</b>	<b>47</b>
	<b>TEMPERATUE SET SWITCHES</b>	<b>48</b>
<b>24.</b>	<b>POWER DISTRIBUTION MODULE (PDM)</b>	<b>51</b>
	<b>L.E.D. FAULT INDICATORS</b>	<b>52</b>



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 1. OVERVIEW OF THE GO GREEN APU

- 1.1 The Go Green APU is the highest performing, most reliable APU on the market today with one of the best warranties available. To keep the warranty in force, follow the recommended maintenance procedures and schedules.
- 1.2 Go Green APU Systems tries to create manuals for its customers and dealers that are easy to read, complete, and accurate. If you have any changes or corrections to suggest, we want to hear from you. Please contact us by phone at 814-942-9407 or by e-mail at: [kwyandt@gogreenapu.com](mailto:kwyandt@gogreenapu.com)

You have just purchased the best APU on the market with the following superior features:

- Best A/C and heating output in the industry
- 1,000 hour oil change interval
- Stand-alone design with no interface to main engine, eliminating truck OEM warranty concerns
- Truck engine failure won't disable APU
- APU failure won't disable the truck
- Smart Power Management
  - APU load balancing between HVAC and electricity generation that directs the power where you need it most
- HVAC temperature control and blower speeds
- Full Instrumentation guards against damage due to:
  - High coolant temperature
  - Low Coolant levels
  - Engine over/under speed
  - Overload
  - Alternator fail to charge
  - Generator and belt failure detection



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 2. GO GREEN SPECIFICATIONS



**GO GREEN APU**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

YANMAR 2 Tier II Water Cooled Diesel Engine

Dimensions:	W x H x D 29.5 in (75 cm) 28.5 in (72 cm) 30 in (76 cm)
Engine:	Customer Option: 2-cylinder
Weight:	425 lbs (193 kg) 2 cylinder
Fuel Consumption:	2 Cylinder: 0.2 gal/hr (0.76 l/hr)
AC Power Output:	Customer Option: 3.7 to 5.2 kW generator
Electrical Receptacles	2 – 2 cylinder
Operating Temperature Range:	0° F/-32° C to 120° F/50° C
Sound Level:	59.5 dBA with GO GREEN Quiet Comfort™ Option
DC Power:	55 amps
Heating Main Engine:	120 volt AC to power a Block Heater
Oil Change Interval:	1,000 hours
Environmental:	EPA Tier II and EU compliant
Available Options:	GO GREEN Quiet Comfort™
	Ultra Cold Weather Package
	Aluminum Steps
<b>GO GREEN'S Heating, Ventilation and Air Conditioning (HVAC)Unit</b>	
Dimensions:	W x H x D 17 in (43 cm) 10 in (25.4 cm) 18 in (40.6 cm)
Weight:	30 lbs (13.6kg)
Air Conditioning:	26,000 BTU/hr
Heating:	26,000 BTU/hr
Air Flow:	405 cfm (11.5cmm)
Refrigerant:	R-134A
Warranty:	1 year complete materials and workmanship
	2 years or 2,000 hours – YANMAR engine





THE APU WITH POWER, PERFORMANCE AND RELIABILITY

### **3. GO GREEN APU SYSTEMS CONTACT INFORMATION**

#### **CUSTOMER SERVICE/WARRANTY**

Phone (814) 942-9407  
FAX: (814) 942-3354  
E-mail: [apusupport@gogreenapu.com](mailto:apusupport@gogreenapu.com)  
[www.gogreenapu.com](http://www.gogreenapu.com)

Hours of Operation: Monday – Friday 7:00 – 4:00  
Emergency Hotline: (814) 942-9407 for Technical Support 24/7  
Closed Holidays

#### **SALES**

PHONE: (814) 942-9407  
FAX: (814) 942-3354  
E-mail: [sales@gogreenapu.com](mailto:sales@gogreenapu.com)  
[www.gogreenapu.com](http://www.gogreenapu.com)

Hours of Operation: Monday-Friday 7:00 – 3:00  
Closed Holidays

#### **CORPORATE HEADQUARTERS**

Go Green APU LLC  
1052 Mill Run Road  
Altoona, PA 16601  
Phone: (814) 942-9407  
FAX: (814) 942-3354

[www.gogreenapu.com](http://www.gogreenapu.com)



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

#### 4. SAFETY INFORMATION

California **Proposition 65** Warning: Diesel engine exhaust and some of its constituents are known to cause cancer, birth defects and other reproductive harm. Go Green APU LLC encourages all individuals who work with the Go Green APU Auxiliary Power Unit (APU) to:

- 4.1 Read the Go Green APU User Manual carefully and completely before using the APU. If you have questions on any of the items explained in the manual, please contact us at 814-942-9407 before attempting to use the APU.
- 4.2 Follow the stated procedures set forth in this Manual.
- 4.3 Wear protective safety equipment and clothing when working with the APU.
- 4.4 Do not operate the APU with its cover off, or with any obstructions.
- 4.5 Always disconnect the main battery cables on the truck before connecting the APU to the truck's interface.
- 4.6 Allow only qualified and trained personnel to work on the GO GREEN® APU.
- 4.7 Take appropriate precautions when handling fuel, coolant and oil.
- 4.8 Do not ingest any such fluids, and avoid contact with skin and eyes.
- 4.9 Dispose of materials in accordance with all applicable laws.
- 4.10 Inspect hoses and connections frequently for signs of leakage or damage, since the Go Green APU contains hot oil and coolant under pressure.
- 4.11 Do not leave children and animals unattended in a truck even with the APU running.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## **5. WARNING LABELS**

5.1 Observe all labeled warnings. Do not remove warning labels.

## **6. FLUIDS**

6.1 Follow the EPA's instructions for handling and disposing of the engine's coolant and oil.

6.2 Follow the instructions provided by the truck manufacturer regarding handling and disposing of air conditioning refrigerant.

## **7. ENGINE COOLANT**

7.1 The APU uses the same coolant type as the truck. Normally this is low-silicate permanent antifreeze 50% by volume for temperatures down to -32° F/-35.6C.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 8. IMPORTANT INFORMATION FOR OWNERS

### 8.1 First Oil Change

8.1.1 After 50 hours. **No synthetic oil may be used during the first 50 hours of operation.** CF, CF-4 and CG-4 class oils may be used.

### 8.2 First Oil Filter Change

8.2.1 After first 50 hours of operation.

### 8.3 Oil/Filter Change Interval

8.3.1 Change the engine's oil every 1,000 hours, after first 50 hours of operation.

#### **TECH TIP - IMPORTANT - NEVER USE QUICK FILL!**

**(PNEUMATIC PUMP) Use of quick fill could cause oil to enter combustion chamber and hydraulic lock resulting in damaged engine parts. DAMAGE CAUSED BY QUICK FILL IS NOT COVERED BY WARRANTY!**

### 8.4 Adding Oil to APU

8.4.1 Unscrew the oil cap, check to see level of oil with dip stick, add as oil as needed.

#### **TECH TIP - CHECKING OIL LEVEL**

- Always check oil when "hot" not "cold."
- **IMPORTANT: REMOVE THE DIP STICK BEFORE ADDING OIL.** Removing the dipstick allows the crankcase to breath, allowing the oil to drain down to the crankcase from the valve cover.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

**OIL CAP**



**OIL CAP**

**CAUTION!**

**DO NOT OVERFILL THE ENGINE.**

**IF ENGINE IS OVERFILLED IT WILL SMOKE!**

<b>ENGINE OIL PAN CAPACITY</b>		
<b>ENGINE TYPE</b>	<b>CYLINDER</b>	<b>GALLONS</b>
YANMAR 2TNV70-KBR	2	0.42
YANMAR 3TNV-70-KBR	3	0.74



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 8.5 Changing the APU's Oil

8.5.1 The APU's oil can be changed by removing the APU's bottom panel.

8.5.2 Be sure to inspect all components every 1,000 hours.

8.5.3 **IMPORTANT:** The APU should never be operated without its bottom panel.

## 8.6 Preventive Maintenance Kit

Go Green APU Systems has a Preventive Maintenance Kit available for purchase. The Kit can be ordered by calling Customer Service at: (814) 942-9407.

### **PREVENTIVE MAINTENANCE KIT**

- **2 - YANMAR Oil Filters**
- **1 - Alternator Belt #3360 (Part of Engine)**
- **1 - Air Filter (Main Element)**
- **1 - YANMAR Fuel Filter Element**
- **1 - Belt, Driver, Poly V, 8 Groove**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

#### 8.7 Service and Maintenance Records

It is important to keep all service and maintenance records and receipts for use in warranty-related claims. Failure to produce service records when asked in a warranty claim situation could result in the claim being denied.

#### **TECH TIP – APU BOTTOM PANEL**

- The Go Green APU must always be operated with its bottom panel on.
- Operating the APU without its bottom can void the APU's warranty.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 9. GO GREEN APU SYSTEMS WARRANTY PROGRAM

Subject to all terms and conditions contained herein, Go Green APU LLC (Go Green APU) warrants to the original buyer that under normal service and use the Go Green APU will be free from defects in material and workmanship for **one (1) year of operation**, from the date of original installation on a truck by a Go Green APU authorized INSTALLATION/SERVICE CENTER (CENTER).

The Yanmar standard engine limited warranty period runs for a period of **twenty-four (24) months or two-thousand (2000) engine operation hours**, whichever occurs first. A Yanmar Engine extended limited warranty of **thirty-six (36) months or three thousand (3000) engine operating hours**, whichever occurs first, is provided for these specific parts only:

### MAJOR COMPONENTS COVERED UNDER WARRANTY

- Cylinder Block
- Cylinder Head
- Crankshaft Forging
- Connecting Rods
- Flywheel
- Flywheel Housing
- Camshaft
- Timing Gears and Gear Case

The Warranty Period for both the Yanmar standard engine limited warranty and the Yanmar engine extended limited warranty (by duration or operation hours) begins on the date of delivery to the original retail purchaser and is valid only until the applicable warranted duration has passed or the operation hours are exceeded, whichever comes first.

**For complete details of the Yanmar engine limited warranty, please refer to the *Yanmar Engine Operations* manual.**

***Go Green APU will repair or replace, at its sole discretion, any part covered by this warranty that becomes defective, malfunctions or otherwise fails to conform to this warranty under normal use and during the term of this warranty, at no charge for parts or labor. Repair or replacement will be performed at any INSTALLATION/SERVICE CENTER, upon presentation of proof of purchase and determination by Go Green APU and its INSTALLATION/SERVICE CENTER that a component is defective or has failed under normal service and use. Repair and replacement of components under this warranty shall not extend the warranty period for the APU or for a component of the APU.***





THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## DISCLAIMER OF OTHER WARRANTIES

**Go Green APU, INCLUDING ITS AGENTS AND AUTHORIZED INSTALLATION/SERVICE CENTERS, MAKES NO OTHER WARRANTIES, AND EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.** No person, firm or representative is authorized to assume any obligation or make any warranty on behalf of Go Green APU other than the limited warranty as stated here.

## MAINTENANCE

The GO GREEN APU Owner's Manual lists all maintenance functions required to validate this limited warranty. **PLEASE NOTE THAT COMPONENTS, WHICH FAIL DUE TO POOR OR IMPROPER MAINTENANCE, WILL NOT BE COVERED BY THIS LIMITED WARRANTY.** As a condition of this warranty, Go Green APU reserves the right to request proofs; in the form of receipts for maintenance and any other records, that service on the APU has been carried out as per the maintenance list in the User's Manual.

## INSTALLATION

In order to validate the APU warranty, an Authorized GO GREEN Installation/Service Center must install the unit. Go Green APU does not warrant the installation and is not responsible for components that fail or any other damage that occurs as a result of improper installation.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## WARRANTY EXCEPTIONS

### **This limited warranty does not apply to:**

1. Defects, malfunctions or failures resulting from installation, accidents, abuse, improper servicing, contamination, road hazards, or failure to perform required service.
2. Normal maintenance services or parts associated with such services, including but not limited to filters, filter elements, oils, lubricants, coolant, refrigerant, belts, fuses, and glow plugs.
3. Non-approved parts, this includes aftermarket parts.
4. Used parts.
5. Any damage caused by overheating the APU that is not a direct result of a defect in APU materials or workmanship.
6. Damage caused to the host truck, whether or not such damage is related in any way to the presence of the APU on the truck.
7. Time spent on the removal of things such as fairings, skirting and bunks for any repair.
8. Defects, malfunctions or failures resulting from any modification or alteration that is performed without authorization from Go Green APU will void all GO GREEN Warranties and possibly all Yanmar Warranties. This includes any and all engine speed or timing adjustments.
9. Shop, Miscellaneous supplies and/or Environmental Fees are not covered under this limited warranty.
10. Defects, malfunctions or failures as a result of the Bottom Panel not being installed on the APU will not be covered under this limited warranty.

**Please note that only parts and labor listed on the Go Green APU Authorized Warranty Claim will be paid.**

## WARRANTY CLAIMS

In order to obtain authorization for warranty repairs, the owner will need to provide verification of proof of purchase with the APU serial number to an Authorized Installation/Service Center. The names and addresses of Authorized Go Green APU Installation Centers and Service Centers are listed at [www.gogreenapu.com](http://www.gogreenapu.com) or owner may contact Go Green APU direct to obtain the information.

Center will provide warranty repairs on any APU regardless of where it was installed. The Center handling the warranty repair must call Go Green APU for authorization prior to the start of any and all warranty work. The Center must provide Go Green APU with the serial number and the hours on the APU in order to receive authorization for any repair work. Go Green APU will provide the Center with an Authorized Warranty Claim Form which will include the authorized number of labor hours, any parts authorized for the warranty repair and a Warranty Claim Number that is only active for thirty (30) days after issuance. The Authorized Warranty Claim



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

Form does not guarantee payment of the Warranty Claim. All payment is contingent upon the test results of the defective part. If the defective part is found to be functional the claim will be denied in its entirety.

### **CLAIM REIMBURSEMENT**

Labor rate recovery is based on the Installation/Service Center's standard service rate, which must be published and verifiable, multiplied by the Go Green APU authorized number of labor hours. Labor hour recovery is based on Go Green APU's published standards only.

Installation/Service Center will invoice Go Green APU for the Go Green APU Dealer Pricing List cost of replacement part(s) plus 20% for part(s) taken from the Required Service Kit stock for warranty only repairs. Installation/Service Center will restock Required Service Kit Inventory for used part(s) using the standard Go Green APU ordering procedure.

All warranty invoices must be submitted within 30 days of the performance of any warranty repair. If a warranty invoice is submitted after 30 days it will be denied.

Parts replaced under warranty must be retained for ninety (90) days for inspection, and be sent to Go Green APU if so requested. Defective parts that are returned at the request of GO GREEN APU must be marked or tagged with the Warranty Claim Number. If the requested parts are not returned within thirty (30) days, Go Green APU will deny the warranty claim, this includes parts, labor and any other associated costs and invoice the Center for the cost of the replacement part, including any and all freight costs.

Go Green APU will deal with all component vendors so the Installation/Service Center does not have to, as a result Go Green APU may request that the defective part(s) under warranty be drop shipped from the Center to the original manufacturer on behalf of Go Green APU.

Go Green reserves the right to recall a unit for factory service if the failure under warranty is significant and the cost of repair is excessive.

All replacement parts are covered for three (3) months or the remainder of the original warranty period, whichever is longer.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

All other expressed or implied warranties, including, without limitation, those arising under the law of equity and the implied warranties of merchantability and fitness for a particular purpose, are hereby expressly excluded from the sale and purchase of the APU and related apparatus sold hereunder, regardless of whether a claim arises under contract or tort principles, or on any other basis. The buyer's sole remedy hereunder shall be limited to the repair or replacement of any nonconforming equipment or parts, but only if returned to an Installation/Service Center within the warranty period defined above, or with the express written approval of Go Green APU management. Go Green APU liability on any and all claims for damage or loss related to the delivery, installation and use of the APU shall not exceed the original installed price of the APU. IN NO EVENT WILL GO GREEN APU BE LIABLE FOR: LOSS OF USE; LOSS OF PROFITS; LOSS OF, OR DAMAGE TO, SHIPPED GOODS; INCONVENIENCE; COMMERCIAL LOSS; OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.

#### **TRANSFER OF WARRANTY**

This warranty shall be for the benefit of the initial purchaser. If a truck upon which the APU is installed is sold and the unit is not removed, the new owner may request in writing, that Go Green APU transfer the remainder of the original warranty. Such a request shall note the hours accumulated by the APU at the time of ownership transfer, as well as the initial date of installation.

If the APU is being removed and installed onto a different truck, then an INSTALLATION/SERVICE CENTER must perform the installation, and the warranty transfer requested in writing as described above.

Upon approval by Go Green APU, the new owner will be covered for the remaining warranty left on the APU. Go Green APU reserves the right to deny transfer of warranty if these conditions are not met.

**This warranty is extended under the laws of the Commonwealth of Pennsylvania. Enforcement of this warranty shall be conducted according to the laws of the Commonwealth of Pennsylvania. By acceptance of this warranty, this owner of the APU agrees that any litigation and the resolution of any dispute between Go Green APU and the owner of the APU shall be conducted exclusively in courts of the Commonwealth of Pennsylvania.**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 10. SERVICE INTERVALS FOR YANMAR ENGINE

- 1) Oil Change: First oil change after 50 hours. **No synthetic oil may be used during the first 50 hours of operation.** CF, CF-4 and CG-4 class oils may be used.
- 2) Oil Filter Change: First filter change after 50 hours, change oil and filter every 1,000 hours thereafter.

System	Check Item	Daily	Every 50 Hours	Every 250 Hours	Every 500 Hours	Every 1000 Hours	Every 2000 Hours
Fuel	Drain Water Separator		X				
	Clean Water Separator				X		
	Replace Fuel Filter				X		
Engine Oil	Check Engine Oil Level	X					
	Engine Oil Replacement		1 <sup>st</sup> time			2 <sup>nd</sup> and after	
	Engine Oil Filter Replacement						
Radiator fins/fans	Check for functionality	X					
Coolant	Check & Addition of Coolant	X					
	Coolant Replacement					X or 1 year	
	Coolant Water Path Flushing and Maintenance						Contact Dealer
Rubber Hoses	Fuel and Water Hose Replacement						X or 2 years
Intake & Exhaust	Air Cleaner Element Cleaning			X			
	Air Cleaner Element Replacement				X		
Cylinder Head	Adjust Intake/Exhaust Valve Clearance					Contact Dealer	
	Lapping Intake/Exhaust Valve Seats						Contact Dealer
Fuel, Valve, Pump*	Check Fuel Injection Valve Pressure and Adjust					Contact Dealer	
	Check & Adjust Fuel Injection Pump						Contact Dealer
*The specific emissions related parts for EPA/ARB regulations.							



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 11. APU OIL FILTER AND OIL CHANGE (15W-40 OIL)

### **TOOLS REQUIRED:**

- Ratchet Handle
- Ratchet Extension
- Strap Wrench for Ratchet
- 17mm Wrench
- Alternative - (2) 13mm wrenches and Strap Wrench

### **PARTS REQUIRED:**

- Oil Filter, GO GREEN APU P/N 109-0002  
(YANMAR P/N 119305-35150)

### **CAUTION!**

**TURN OFF THE GO GREEN APU BEFORE WORKING ON THE UNIT.**

**IF DRAINING HOT OIL, USE APPROPRIATE PROTECTION FOR HANDS AND FACE.**

### 11.1 Removing Oil Filter:

11.1.1 When removing the Oil Filter, we recommend using a strap wrench that is attached to a ratchet handle with an extension when removing the oil filter.

11.1.2 If a strap wrench is unavailable, use (2) 13mm wrenches as an alternative.

### 11.2 Draining Oil from Pan:

11.2.1 Remove the lower APU Splash Shield (bottom cover) from the APU to access the drain plug.

11.2.2 Remove the Drain Plug on the bottom of the APU Oil Pan using a 17mm wrench to unscrew it.

11.2.3 Drain all of the oil from the APU Oil Pan into an appropriate container and recycle appropriately.

11.2.4 Replace the Oil Drain Plug in the bottom of the Oil Pan after all the oil has been drained from the Pan.



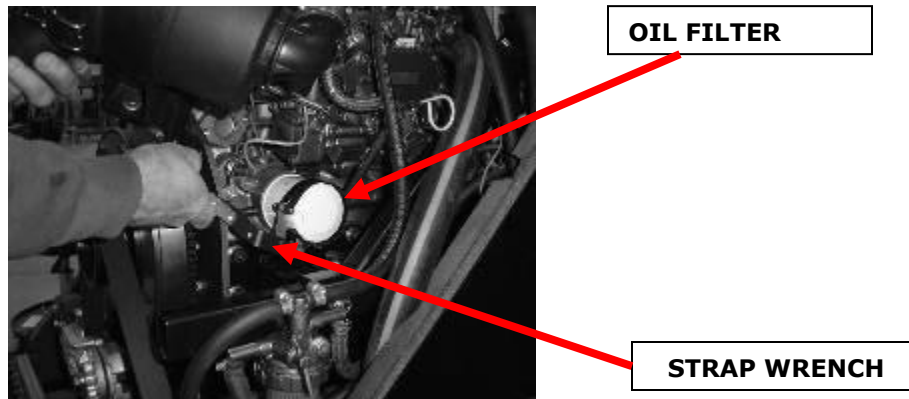
THE APU WITH POWER, PERFORMANCE AND RELIABILITY

(Torque to 40 ft/lbs)

### 11.3 Remove and Replace Oil Filter

11.3.1 Wait for the engine to cool before removing the Oil Filter.

11.3.2 Remove the old Oil Filter using a strap wrench that can be used with a ratchet and an extension.



#### **REMOVING OIL FILTER**

11.3.3 Replace with new Oil Filter.

### 11.4 Filling APU with Oil

#### **TECH TIP 4 – CHECKING OIL LEVEL**

- Always check oil when “hot” not “cold.”
- **IMPORTANT: REMOVE THE DIP STICK BEFORE ADDING OIL.** Removing the dipstick allows the crankcase to breathe, allowing the oil to drain down to the crankcase from the valve cover.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

**OIL CAP**



**OIL CAP**

**CAUTION!**

**DO NOT OVERFILL THE ENGINE.**

**IF ENGINE IS OVERFILLED IT WILL SMOKE!**

11.4.1 Oil can be added to the APU engine by removing the orange oil cap.

<b>ENGINE OIL PAN CAPACITY</b>		
<b>ENGINE TYPE</b>	<b>CYLINDER</b>	<b>GALLONS</b>
YANMAR 2TNV70-KBR	2	0.42
YANMAR 3TNV70-KBR	3	0.74





## THE APU WITH POWER, PERFORMANCE AND RELIABILITY

- 11.4.2 The APU's oil can be replaced by removing the APU's bottom panel.
- 11.4.3 Slowly fill the APU engine with 15W-40 oil. Check the oil level on the dipstick to avoid overfilling.
- 11.4.4 Be sure to inspect all components every 1,000 hours.
- 11.4.5 **IMPORTANT:** The APU should never be operated without its bottom panel.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 12. APU AIR FILTER CHANGE

### **PARTS REQUIRED:**

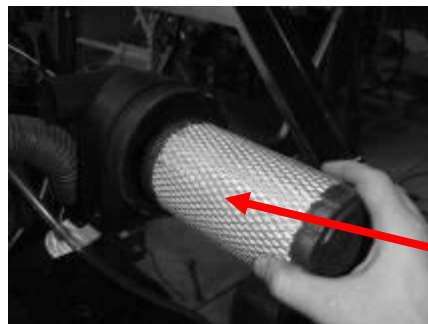
- Air Filter, Go Green P/N 109-0006  
(Manufacturer's P/N: Enginaire P/N 2S-E1)

12.1 Unlatch the APU Air Filter and remove the Cover.



**APU AIR FILTER COVER WITH LATCH**

12.2 Remove and replace the Air Filter.



**AIR FILTER**

**REMOVING AIR FILTER**

12.3 Replace APU's Cover and re-latch in place.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

### 13. APU FUEL FILTER ELEMENT CHANGE

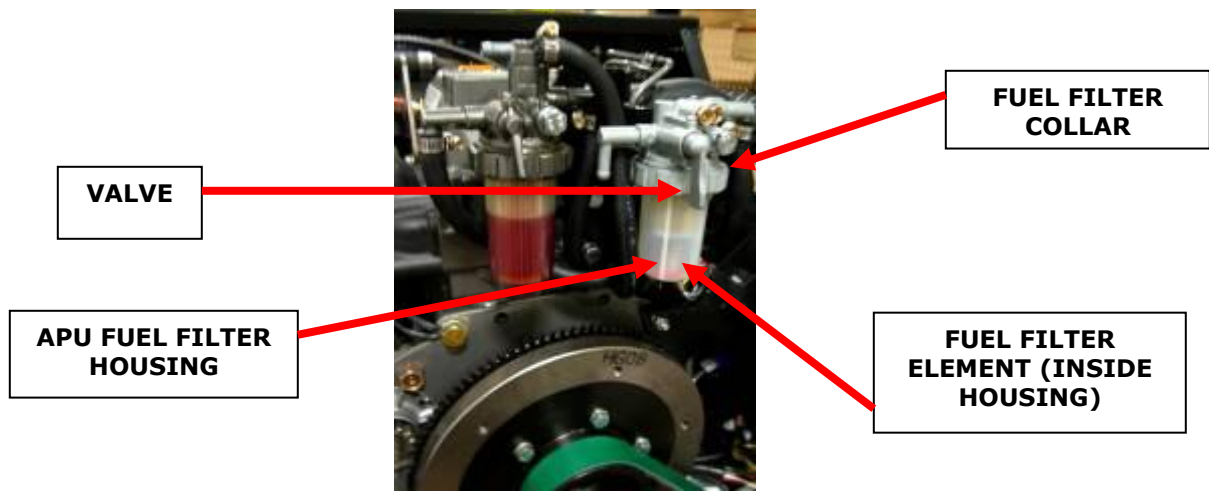
**PARTS REQUIRED:**

- Fuel Filter Element, Go Green P/N 109-0007 (YANMAR P/N 119810-55650)

**TOOLS REQUIRED:**

- Channel Lock Pliers

- 13.1 Close the valve on the APU Fuel Filter.
- 13.2 Unscrew the Fuel Filter Collar.
- 13.3 Remove the Fuel Filter Element from inside Fuel Filter Housing and replace with a new Element.



**FUEL FILTER**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 14. WATER SEPARATOR SCREEN CHECK

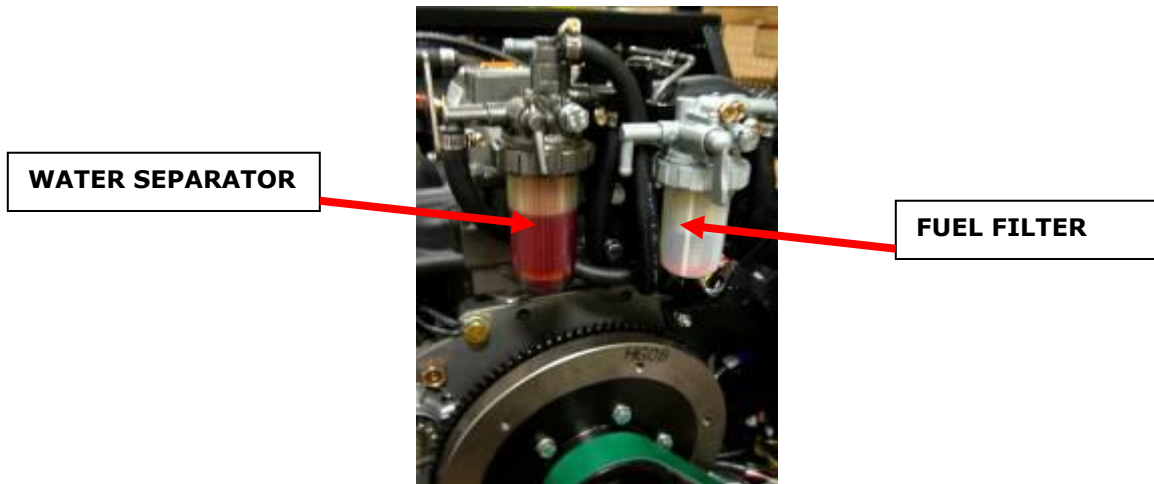
### **PARTS REQUIRED IF NECESSARY:**

- Water Separator Screen, Go Green P/N 109-0009 (YANMAR P/N 17108-55910)

### **TOOLS REQUIRED:**

- Channel Lock Pliers

- 14.1 Close the valve on the APU Water Separator.
- 14.2 Unscrew the Water Separator Collar.
- 14.3 Remove the Water Separator Screen.
- 14.4 Wash the Water Separator Screen under running water and check if still good. If screen is still good reinstall. If the screen is bad replace.



**FUEL/WATER SEPARATOR**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

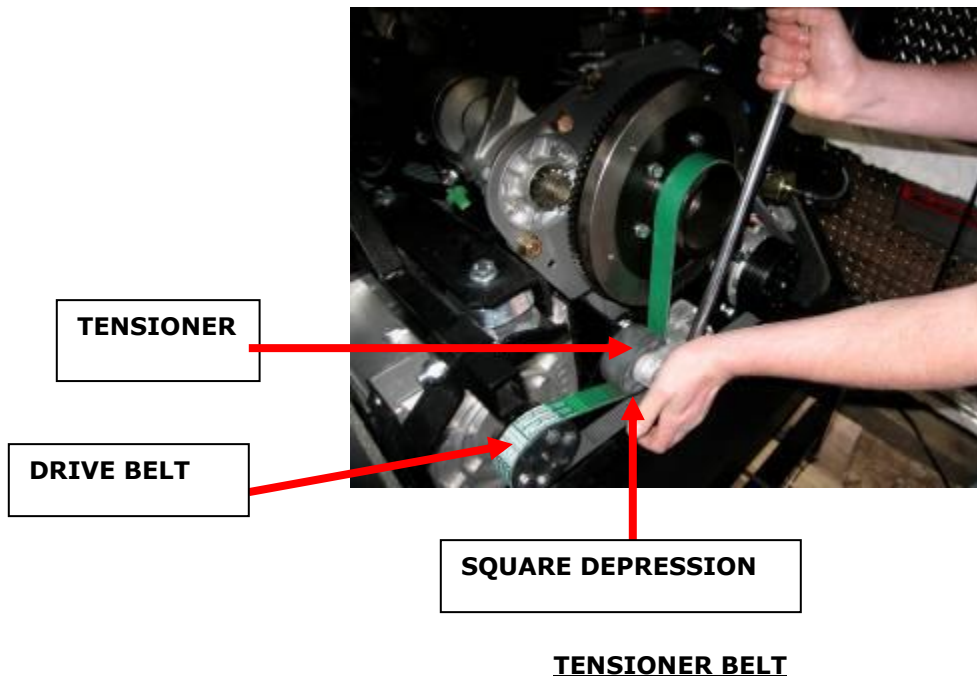
## 15. CHANGING THE APU DRIVE BELT

### **PARTS REQUIRED:**

- Drive Belt, Go Green P/N 104-0016  
(Napa Belt P/N 25-080570)

### **TOOLS REQUIRED:**

- 1/2" Ratchet

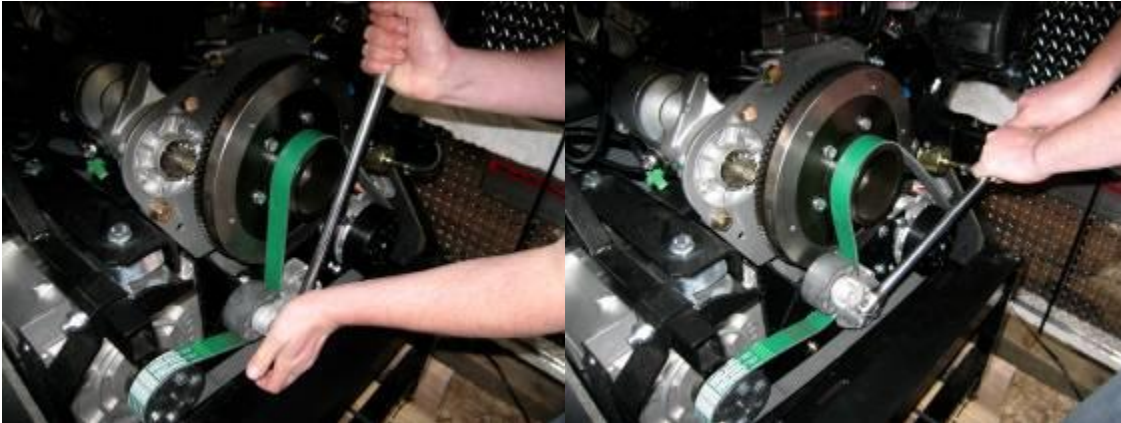


- 15.1 Turn the APU "OFF" by pressing the green START/STOP button at the ECU.
- 15.2 Inspect the Drive Belt to see if:
  - 15.2.1 Excessive cracking (1 per 1/2") is evident.
  - 15.2.2 Wear is evident.
  - 15.2.3 Belt Tensioner is less than 1/2" inch from the full travel position.
- 15.3 If any of the above are present, the belt needs to be replaced.



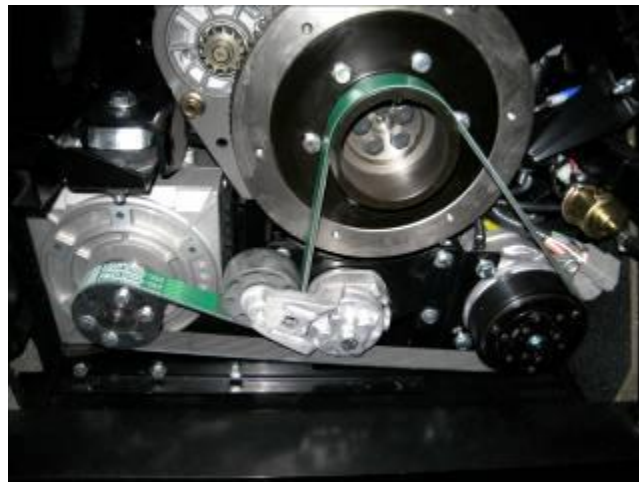
THE APU WITH POWER, PERFORMANCE AND RELIABILITY

- 15.4 Insert a 1/2" ratchet into the square depression in the Belt Tensioner.
- 15.5 Push down on the ratchet handle to loosen the belt.
- 15.6 When belt is loose, remove off the Pulleys.



#### **REMOVING DRIVE BELT**

- 15.7 Replace the new Drive Belt by wrapping it around the pulleys following the path in Photo 10. Use the ratchet to pull the Belt Tensioner so the Drive Belt is installed around it.



#### **BELT PATH**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 16. ADJUSTING APU ALTERNATOR BELT

### **PARTS REQUIRED:**

- Alternator Belt, Go Green P/N 109-0010  
YANMAR P/N 25152-00360

### **TOOLS REQUIRED:**

- 12mm Wrench
- 13mm Wrench

- 16.1 Turn the APU "OFF" by pressing the green START/STOP at the ECU.
- 16.2 Inspect the APU Alternator Belt, which is located at the rear of the APU, to see if it is damaged or needs adjustment.
- 16.3 If the belt is damaged, remove and replace with new Belt.
- 16.4 To check if Belt needs adjustment, apply moderate pressure at its midpoint below the Alternator. The Belt should deflect approximately no more than 5/16" (7mm to 9mm).
- 16.5 If Belt deflects more than 5/16", the belt needs to be tightened.
- 16.6 With the APU "OFF," loosen the Alternator Mounting Bolts.
- 16.7 Place a lever-type tool between the Alternator and the Engine Block.
- 16.8 Push the Alternator Belt out until Belt deflection is within acceptable 5/16" limit.
- 16.9 Tighten all alternator mounting bolts.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 17. ADDING COOLANT TO APU

**PARTS REQUIRED:**

- 50% Dex-Cool or equivalent, 50% water

**CAUTION!**

**REMOVING COOLANT PRESSURE CAP WHILE ENGINE IS HOT  
CAN RESULT IN PERSONAL INJURY.**

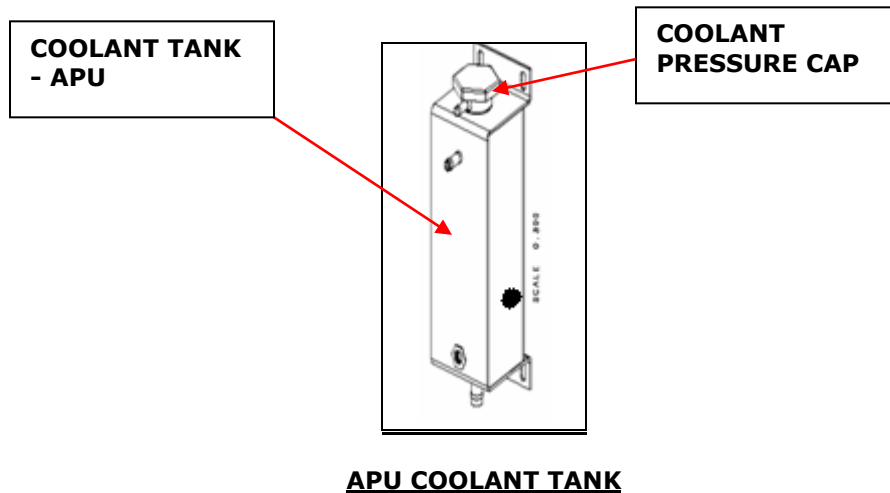
- 17.1 Before checking the Degas Bottle/Coolant Tank, press the START/STOP button at the ECU to turn the APU "ON."
- 17.2 Turn the Temperature Control Knob on the ECU clockwise until the Window Display reads: MAX COOL.
- 17.3 Let the APU cool.
- 17.4 Turn the APU "OFF" by pressing the START/STOP button at the ECU.
- 17.5 Locate the Degas Bottle/Coolant Tank on the outside sleeper cab wall.
- 17.6 Be sure it is cool to touch.
- 17.7 Carefully remove Coolant Pressure Cap from the Bottle/Tank.





THE APU WITH POWER, PERFORMANCE AND RELIABILITY

- 17.8 Fill Bottle until is "topped off" with a 50% anti-freeze and 50% water mix.
- 17.9 Replace Pressure Cap.





THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 18. ELECTRICAL CONTROL UNIT (ECU)



### ELECTRONIC CONTROL UNIT (ECU)

- 18.1 The GO GREEN® APU is configured with either 3.7 kW/30 amp, 5.2 kW/40 OR 6.0/50 amp generator and 120 volt AC power to run everyday household appliances.
- 18.2 Two (2) electrical receptacles are a standard feature for 2 cylinder models/ (4) for 3 cylinder. Use the receptacles like you would any common household outlet.
- 18.3 **Tripped Circuit Breaker**
  - 18.3.1 If too much power is demanded from an outlet, a circuit breaker will trip at the panel located on the upper right side of the APU frame.
  - 18.3.2 If you think a breaker has been tripped, locate the circuit breaker panel.
  - 18.3.3 A tripped circuit breaker will be a white button extending out from the breaker panel.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

- 18.3.4 If the circuit breaker has been tripped, turn the APU "OFF" by pushing the APU ENGINE CONTROL switch to "OFF" position.
  
- 18.3.5 To reset the circuit breaker, push the white button in.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## **19. SMART POWER MANAGEMENT**

- 19.1 All GO GREEN APU® family products come standard with our Smart Power Management System.
- 19.2 If the electrical demand places a strain on the APU engine without tripping a circuit breaker, it is possible that the GO GREEN APU® Smart Power Management System will engage.
- 19.3 The APU Smart Power Management system will monitor the load and return the APU to normal once the load is reduced.
- 19.4 It is important to note that during this time the air conditioning output will be reduced in order to supply the required electrical output.

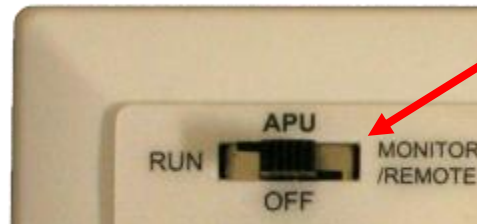
## **20. ENGINE BLOCK HEATER**

- 20.1 To utilize the block heater, plug the correct end of the block heater extension cord into the main engine's block heater receptacle and the other end into one of the APU electrical outlets to turn the block heater on.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 21. BATTERY MONITOR



MOVE THE SWITCH TO  
MONITOR/REMOTE

### APU ENGINE CONTROL SWITCH

- 21.1 A Battery Monitor comes standard on the Go Green APU.
- 21.2 The Battery Monitor is designed to keep your batteries charged and ready to go all the day, all the night, in all kinds of weather.
- 21.3 The Go Green APU Battery Monitor will auto start the APU and recharge the main engine's batteries whenever it senses they are low.
  - 21.3.3 Every time it senses a battery drain, it activates the APU for recharge.
  - 21.3.4 To start the Battery Monitor, switch the APU switch on the Electronic Control Unit to MONITOR/REMOTE.
  - 21.3.5 When the ECU is in Battery Monitor mode, it will monitor the main truck batteries. If the main truck battery voltage falls below a pre-selected threshold, the APU will start and run for pre-selected runtime.

#### **IMPORTANT!**

The HVAC unit will run during a Battery Monitor APU start, provided the **HVAC CONTROL SWITCH** is on either **HEAT** or **COOL** *and* the thermostat calls for either heating or cooling.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## **22. GO GREEN APU OPTIONS**

### **22.1 GO GREEN QUIET COMFORT™**

The GO GREEN Quiet Comfort™ enhancement was designed to provide drivers with additional ambient comfort while in their cab.

GO GREEN Quiet Comfort™ reduces the APU's already quiet sound to a mere whisper with this innovative sound reducing enhancement.

Neighbors parked on either side of a truck equipped with a GO GREEN® APU product will barely know its there when it's running. This enhancement makes the sound so quiet, talking on a cell phone and being heard is never a problem.

### **22.2 REMOTE KEY START**

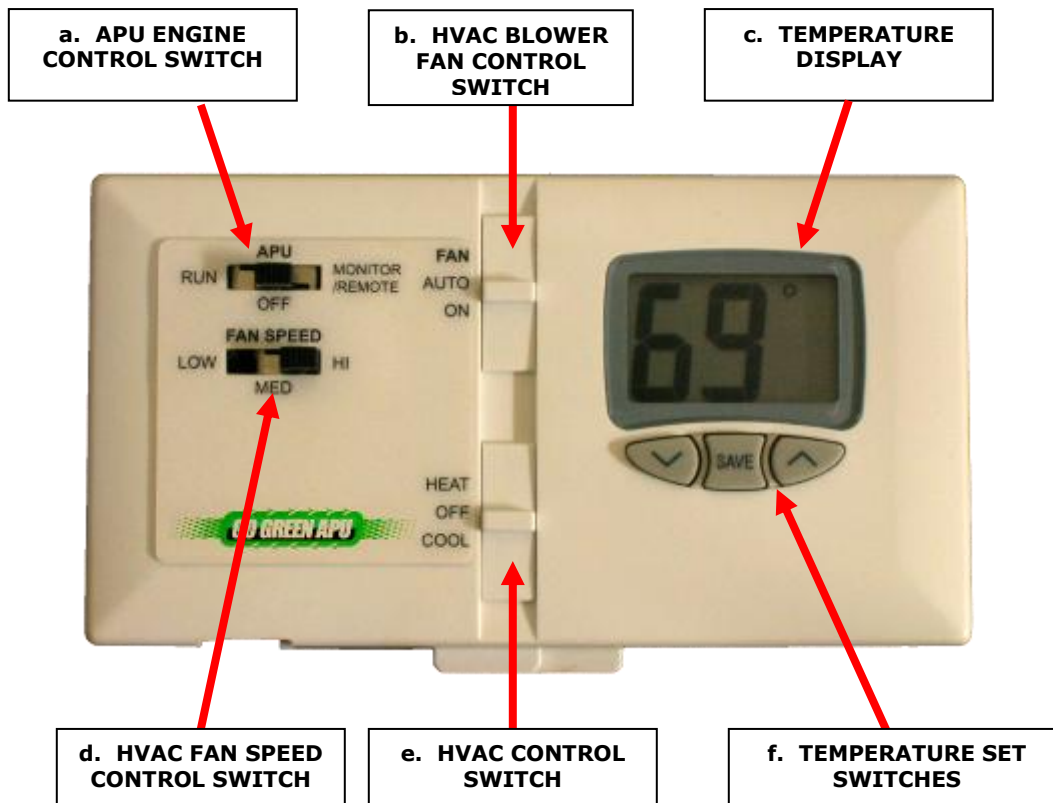
### **22.3 ALUMINUM STEPS**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

### 23. ELECTRONIC CONTROL UNIT START GUIDE

The GO Green APU Electronic Control Unit (ECU) is mounted inside the sleeper cab. It is used to operate the APU. The ECU can be used to perform a variety of functions to provide cab comfort, battery monitoring, and a host of other essential over-the-road needs.





THE APU WITH POWER, PERFORMANCE AND RELIABILITY

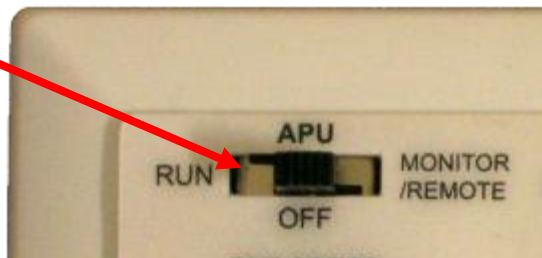
### CONTROL PANEL CONTROLS:

There are 6 controls:

- (a) APU ENGINE CONTROL SWITCH
- (b) HVAC BLOWER FAN CONTROL SWITCH
- (c) TEMPERATURE DISPLAY
- (d) HVAC FAN SPEED CONTROL SWITCH
- (e) HVAC CLIMATE CONTROL SWITCH
- (f) TEMPERATURE SET SWITCHES.

### (a) APU ENGINE CONTROL SWITCH

MOVE THE APU  
ENGINE CONTROL  
SWITCH TO RUN



### STARTING THE APU

The **APU Engine Control Switch** is used to start the APU. Place the switch in the **RUN** position and the unit will start automatically, after approximately 30 seconds. The Engine will run indefinitely until the switch is returned to the **OFF** position.

### APU FAILS TO START ON THE FIRST TRY





THE APU WITH POWER, PERFORMANCE AND RELIABILITY

**TECH TIP - In very cold weather, it may take a second or a third attempt to start the APU. If the APU fails to start after the third attempt, call Go Green APU LLC at: (814) 942-9407.**

If the APU fails to start on the first try, a second and third attempt will occur automatically.

The ECU will rest approximately 30 seconds after each attempt before beginning the countdown to restart.

The unit will attempt to turnover for 10 seconds, before shutting down and cycling through for the next attempt.

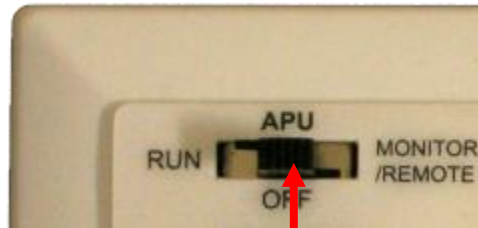
IF the APU fails on all three attempts, the **APU Engine Control Switch** must be moved to the **OFF** position and the operator must wait **at least 60 seconds** before returning the switch to the **RUN** position. At this point the unit will begin and automatic startup sequence for three attempts as described above.

**TECH TIP - Anytime the APU is manually switched off by moving the APU Engine Control Switch to the OFF position, the operator must wait at least 10 seconds before moving the switch to the RUN position for startup.**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

### TURNING THE APU OFF



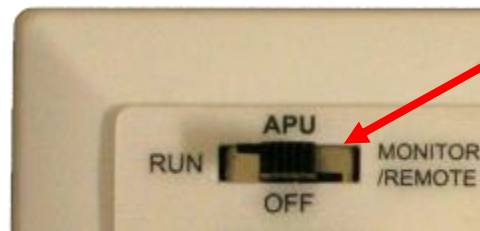
**MOVE THE APU  
ENGINE CONTROL  
SWITCH  
TO OFF**

The **APU Engine Control Switch** is used to shut the APU off. If the unit is running, place the switch in the **OFF** position and the APU engine will stop running.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## THE MONITOR / REMOTE SETTING



MOVE THE APU  
ENGINE CONTROL  
SWITCH TO  
MONITOR/REMOTE

The **MONITOR / REMOTE** setting on the **APU Engine Control Switch** is used for two features on the ECU:

First, by placing the **APU Engine Control Switch** in the **MONITOR / REMOTE** position, the **POWER DISTRIBUTION MODULE (PDM)** will engage the battery monitor feature of the unit. The Battery Monitor has been designed to monitor the truck's batteries charge level. When the Battery Monitor detects that the truck's batteries have dropped below a preset level of voltage, it alerts the APU to start and automatically charge the batteries for a predetermined time of **60 minutes**.

Second, by placing the **APU Engine Control Switch** in the **MONITOR / REMOTE** position, the unit can be started by a remote connection to the **PDM** by using a remote key starter. (This is an optional feature that can be purchased as part of the unit).



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## (b) HVAC BLOWER FAN CONTROL SWITCH



### **AUTO**

By placing the **HVAC BLOWER FAN CONTROL SWITCH** in the **AUTO** position, the unit will start the HVAC blower fans only when the **HVAC CONTROL SWITCH** is set to **HEAT** or **COOL** *and* the thermostat calls for either heating or cooling.

### **ON**

By placing the **HVAC BLOWER FAN CONTROL SWITCH** in the **ON** position, the unit will enable the HVAC blower fans, *regardless* of the **HVAC Control Switch** setting.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

### (c) TEMPERATURE DISPLAY



The LCD display shows the current ambient temperature in the cab. It is also used to display the Heat / Cool set temperatures which alert the unit when to engage either the Air conditioning or heat, similar to how a home thermostat might work.

#### DISPLAY ILLUMINATION

Pressing any button on the temperature display will illuminate the display for easier viewing in dim light conditions. The light will remain on for approximately 10 seconds. Once the light is illuminated, pressing any of the three display buttons will continue the lighting and will remain so for approximately 10 seconds.

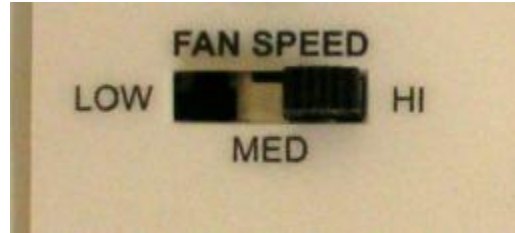
#### CALIBRATING THE TEMPERATURE DISPLAY

If the ambient temperature displayed on the LCD screen does not exactly match a nearby thermometer, or perhaps another thermostat, the user has the ability to adjust or shift the displayed temperature. The displayed temperature can be altered by up to 5°F (or 3°C) in either direction. This adjustment is performed by first placing the System Mode switch to the **OFF** position, then by pressing and holding both the **UP** and **DOWN** buttons together for at least two (2) seconds, the screen will display the word **SET**, and the default selection of zero (0). Press either the **UP** or **DOWN** buttons for the associated direction of change. Note: If no buttons are pressed within four (4) seconds, the thermostat will return back to normal run mode



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

#### **(d) HVAC FAN SPEED CONTROL SWITCH**

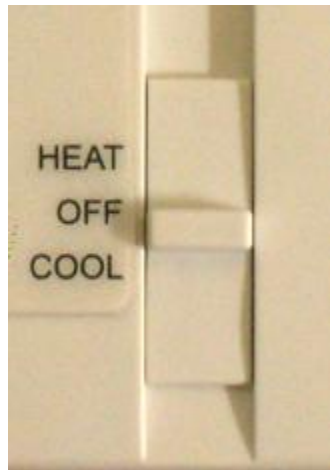


The **HVAC FAN SPEED CONTROL SWITCH** controls the speed of the HVAC blower fans when they are enabled. (For enabling the fans, see the **HVAC BLOWER FAN CONTROL SWITCH** section). The fan can be set to **Low, Medium, or High.**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

### (e) HVAC CONTROL SWITCH



The **HVAC CONTROL SWITCH** controls the heating and cooling of the cab. By placing **HVAC CONTROL SWITCH** in the **HEAT** position, the **POWER DISTRIBUTION MODULE (PDM)** will engage the truck's heating unit, *if the thermostat set temperature* is reached within the cab.

By placing **HVAC CONTROL SWITCH** in the **COOL** position, the **POWER DISTRIBUTION MODULE (PDM)** will engage the truck's air conditioning unit, *if the thermostat set temperature* is reached within the cab.

By placing **HVAC CONTROL SWITCH** in the **OFF** position, the **POWER DISTRIBUTION MODULE (PDM)** will not engage either the truck's heating or cooling unit, regardless of the temperature within the cab.

When the **MONITOR/REMOTE SETTING SWITCH** is turned to the off position the **HVAC SWITCH** must also be turned off.

**TECH TIP - When the HVAC CONTROL SWITCH is moved from the HEAT position to the COOL position, allow approximately one (1) minute for the air coming from the blower to change temperature. This is also true when the switch is moved in the opposite direction.**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## (f) TEMPERATURE SET SWITCHES



There are three push buttons below the unit's display screen. These are used to:

- Adjust the set point temperature for automatic heating or cooling.
- Modify the values for user changeable options.
- Select the **SAVE** feature.

### To adjust the set point temperature for heating:

1. Make sure the **HVAC CONTROL SWITCH** is set to **HEAT**.
2. While in **HEAT** mode, press either the **UP** or **DOWN** button until the word "**SET**" appears on the screen.
3. Once "**SET**" is displayed, the set point can be altered by pressing either the **UP** or **DOWN** button. Pressing the button once will alter the set temperature by one (1) degree. Holding either button down for at least two seconds will automatically increment the set point quickly in the associated direction.

### To adjust the set point temperature for cooling:

1. Make sure the **HVAC CONTROL SWITCH** is set to **COOL**.
2. While in **COOL** mode, press either the **UP** or **DOWN** button until the word "**SET**" appears on the screen.
3. Once "**SET**" is displayed, the set point can be altered by pressing either the **UP** or **DOWN** button. Pressing the button once will alter the set temperature by one (1) degree. Holding either button down for at least two seconds will automatically increment the set point quickly in the associated direction.





THE APU WITH POWER, PERFORMANCE AND RELIABILITY

### TEMPERATURE SETTING SAVE FEATURE:

#### To save a temperature setting for heating:

1. The **HVAC CONTROL SWITCH** must be set to **HEAT**.
2. Enter Save Mode:
  - Press the **SAVE** button.
  - The word "**SAVE**" will be visible in the display.
3. The save temperature will be flashing in the display.
4. In **HEAT** mode, the save temperature will be 5°F lower than the comfort temperature.
5. While flashing, the **SAVE** temperature may be changed with the **UP** or **DOWN** buttons.
6. After 5 seconds, and no button pressed, the displayed **SAVE** temperature will be used as the set temperature, and ambient temperature will be returned to the display.
7. The word "SAVE" will remain visible until the **SAVE** mode is cancelled.

#### To save a temperature setting for cooling.

1. The **HVAC CONTROL SWITCH** must be set to **COOL**:
2. Enter Save Mode:
  - Press the **SAVE** button.
  - The word "**SAVE**" will be visible in the display.
3. The save temperature will be flashing in the display.
4. In **COOL** mode, the save temperature will be 5°F higher than the comfort temperature.
5. While flashing, the **SAVE** temperature may be changed with the **UP** or **DOWN** buttons.
6. After 5 seconds, and no button pressed, the displayed **SAVE** temperature will be used as the set temperature, and ambient temperature will be returned to the display.
7. The word "SAVE" will remain visible until the **SAVE** mode is cancelled.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

**To adjust a temperature that has already been saved as a setting for heating:**

1. The **HVAC CONTROL SWITCH** must be set to **HEAT**.
2. Enter Save Mode:
  - Press the **SAVE** button.
  - The word "**SAVE**" will be visible in the display.
3. Press **UP** or **DOWN** button
4. The save temperature will be flashing in the display.
5. While flashing, the **SAVE** temperature may be changed with the **UP** or **DOWN** buttons.
6. After 5 seconds, and no button pressed, the displayed **SAVE** temperature will be used as the set temperature, and ambient temperature will be returned to the display.
7. The word "SAVE" will remain visible until the **SAVE** mode is cancelled.

**To adjust a temperature that has already been saved as a setting for cooling:**

1. The **HVAC CONTROL SWITCH** must be set to **COOL**.
2. Enter Save Mode:
  - Press the **SAVE** button.
  - The word "**SAVE**" will be visible in the display.
3. Press **UP** or **DOWN** button
4. The save temperature will be flashing in the display.
5. While flashing, the **SAVE** temperature may be changed with the **UP** or **DOWN** buttons.
6. After 5 seconds, and no button pressed, the displayed **SAVE** temperature will be used as the set temperature, and ambient temperature will be returned to the display.
7. The word "SAVE" will remain visible until the **SAVE** mode is cancelled.

**To Cancel SAVE Mode.**

1. In SAVE mode, Press the **SAVE** button.
2. The "SAVE" indicator will be extinguished and the comfort temperature will be displayed flashing.
3. After 5 seconds, the displayed **SAVE** temperature will be used as the set temperature, and ambient temperature will be returned to the display.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

## 24. POWER DISTRIBUTION MONITOR (PDM)



This unit is usually located under the cab bed and it is encased in a tough, shock and vibration resistant enclosure.

### ENGINE CONTROLLER KEY

The **ENGINE CONTROL KEY** is unique for each unit. Each PDM comes with a primary key and a spare. There are three positions for the key:

**OFF** – Shuts the unit off.

**TECH TIP - This is an important feature for APU maintenance to prevent the accidental startup of the engine while it is being serviced.**



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

**ON** – Powers the unit up. This position enables the ELECTRONIC CONTROLL UNIT (ECU), which is used to provide several functions, including cab climate control. This is also the key position needed for remote key start, if that option has been purchased.

**ACC** - This key position has the same functionality as the **ON** position.

### MANUAL GLOW PLUG SWITCH

This feature is disabled for the Go Green APU model.

### HOURS OF OPERATION COUNTER

The counter displays the APU's hours of operation. It is located on the right side of the PDM, adjacent to the two main engine harness terminals.

### L.E.D. FAULT INDICATORS

The **L.E.D. FAULT** indicators are individual lights used to provide alerts for various error conditions or problems with the APU. There are nine (9) separate conditions:

1. **Spare** - not currently in use.
2. **Oil Pressure Failure** – The oil pressure is too low. Results in the engine being stopped, if it is running. If it is not running, the engine will not start until the **PDM** is reset.
3. **Coolant Temp Failure** – The coolant temperature is too high. Results in the engine being stopped, if it is running. If it is not running, the engine will not start until the **PDM** is reset.
4. **120VAC Failure** – The generator is experiencing an under/over voltage condition. Results in the engine being stopped, if it is running. If it is not running, the engine will not start until the **PDM** is reset. (This sensor is currently not in use).
5. **Alternator Failure** – The alternator failure has been detected because there is no DC output. Results in the engine being stopped, if it is running. If it is not running, the engine will not start until the **PDM** is reset.



THE APU WITH POWER, PERFORMANCE AND RELIABILITY

6. **Coolant Level Failure** – The coolant level is too low. Results in the engine being stopped, if it is running. If it is not running, the engine will not start until the **PDM** is reset.
7. **Fire Failure** – A potential fire hazard has been detected. Some part of the engine has excess heat output. Results in the engine being stopped, if it is running. If it is not running, the engine will not start until the **PDM** is reset.
8. **Activity** - Indicates that the **ECU** has either started an engine run sequence (glow plug, pull/hold, starter) or the engine is actually running. A blinking **Activity L.E.D.** indicates that three (3) attempts were made to start the engine and all three (3) failed. The **PDM** must be reset.
9. **Power** - Indicates that the PDM has power.

#### **How to reset the POWER DISTRIBUTION MONITOR (PDM)**

The **PDM** can be reset in two ways. In both cases the PDM will be reset after five (5) seconds.

- By turning the key on the unit to **OFF** position.
- By moving the **ENGINE CONTROL SWITCH** on the **ECU** to the **OFF** position.