

STEALTH I DC MANUAL

TECH SUPPORT 1-888-588-4506

BLACK UNIT IS 24/36 ONLY

PLEASE READ AND UNDERSTAND YOUR NEW PRODUCT

IMPORTANT MESSAGE: Before installing your newly purchased STEALTH I DC charging system be sure to read the following instructions completely, regardless of your familiarity with electricity or electrical systems. You must follow the instructions contained in this manual. This unit is an electrical component and can be damaged if it is installed wrong. If after reading, you have any questions please call our toll free number (1-888-588-4506).

ALWAYS WEAR SAFETY GLASSES WHEN WORKING WITH BATTERIES!

THE STEALTH I CONCEPT: The Stealth I DC accepts power from any source. Whether you are using your engines alternator or AC power the Stealth I DC operates the same. The Stealth I DC and AC connects to your cranking battery and when your cranking battery reaches full charge, the Stealth I DC turns on and steps up the voltage to your trolling motor or aux. batteries. With the Stealth I volt meter in place and properly used the full battery maintenance program will keep you from going dead on the water as designed. The **Stealth I DC** charging system gets it's power directly from your engine's cranking battery. When in operation, the state-of-the-art technology applies on-demand charging voltage to your marine trolling or aux. batteries so they receive only the charging current required to replace energy that has been consumed. The Stealth I **Smart Charging Circuit Design** works to ensure your cranking battery voltage will not fall below 13.0VDC, thus, providing plenty of stand-by power to start your engine. The Stealth I DC also works to prevent "over-charging" of your trolling or aux. batteries by monitoring output voltage and then automatically switching to a float mode at 13.2 volts to maintain optimum charging. The life of the batteries will be longer due to the charging method. (See Question & Answers at the end of the manual.)

STEALTH I DC (YELLOW UNIT) is 12 volt system only

FIGURE 1



WARNING

THIS UNIT HAS ONE GROUND ON IT. THE OTHER CONNECTORS ARE POSITIVE LEADS

NOTE: If you are unsure what your system requirements are, check with Stealth tech support (1-888-588-4506). 24, 36, and 48-volt systems are available.

The Stealth I DC Pictured already comes equipped for two isolated 12VDC systems.

Tech Support !-888-588-4506

STEP 2: COMPONENTS

- (4) Black Plastic Acorn Nuts: Be sure to put the acorn nuts over the four screws along the right side of the charger to prevent arcing.
- (4) ¼" Nylon Spacers
- (4) ¾" Mounting Screw
- (1) Wiring Harness ******NOTE **** WHEN LOOKING AT THE OPTIONS NOTICE ALL BATTERIES ARE COMMON GROUNDED ... THE MOST COMMON MISTAKE IS LEAVING THE GROUNDS OFF.**

NOTE: For Stealth I Pro 12 or Stealth I Max Pack Pro 12

- (4) 3 ½" Mounting Screws

TOOLS REQUIRED FOR INSTALLATION

- Drill
- Phillips Screw Driver
- 3/8 and 5/16 Nut Drivers
- Volt Meter (May Be Required)

STEP 3: INSTALLATION

(FOR 24 TO 48 VOLT INSTALLATIONS PLEASE CALL 1-888-588-4506)

1. Mount the Stealth I DC in an area that is least likely to be flooded or submerged. BE SURE and insert the one-quarter inch (1/4") nylon spacers between the bottom of the Stealth I DC and the mounting surface as seen in (Figure 2), unless mounted with the Stealth I AC as seen in (Figure 3) with (3 1/2") mounting screws. A vertical mounting position is preferred for both installs (Figure 2).

NOTE: The AC unit is generally mounted behind the DC unit and spacers are not needed. The AC is molded with them in place, but it can be separated if space is limited or the DC was the only unit purchased as in figure 1.

Figure 2 DC UNIT ONLY.

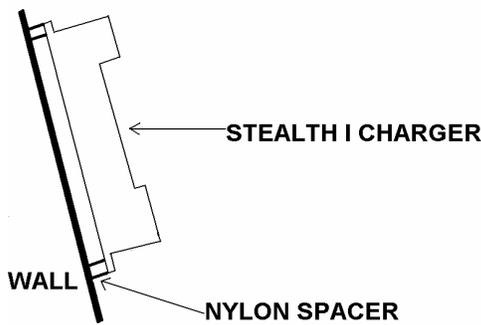
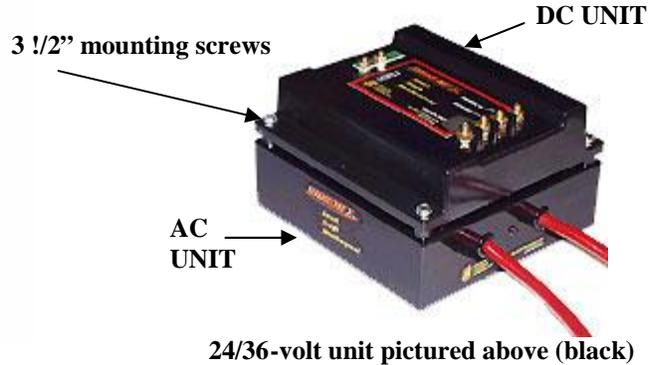


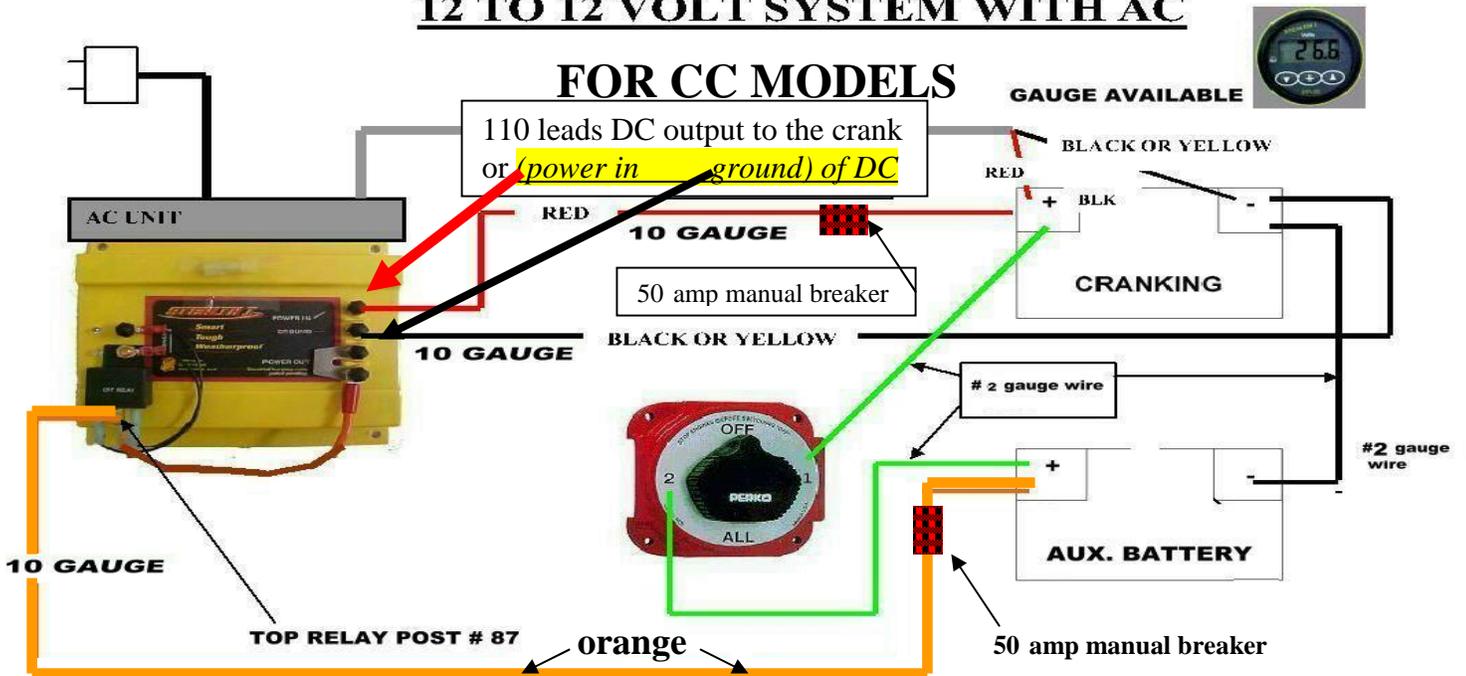
Figure 3 AC and DC piggyback



OPTION #1

12 TO 12 VOLT SYSTEM WITH AC

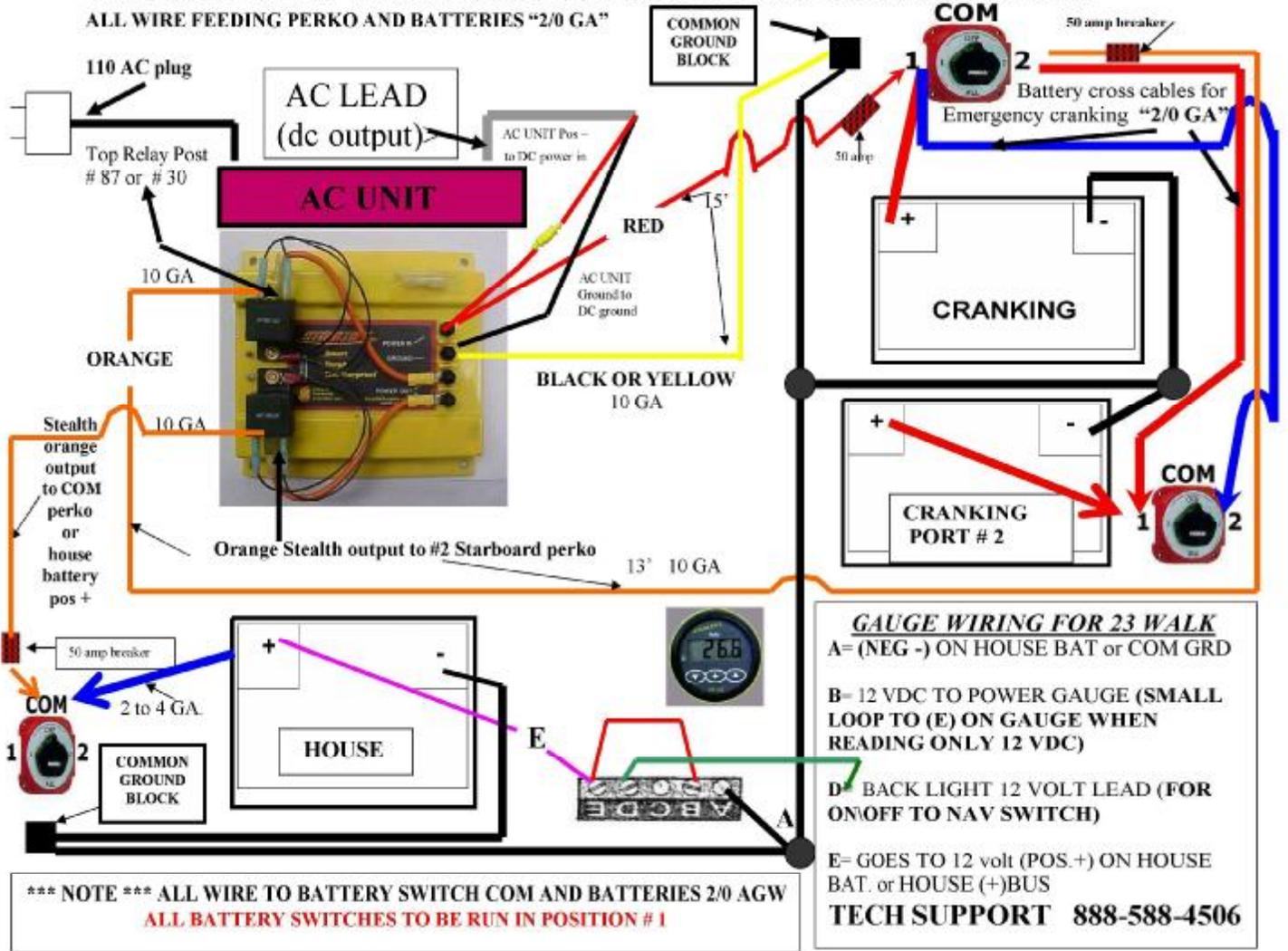
FOR CC MODELS



Note *** All WIRE FEEDING THE BATTERY SWITCH AND BATTERIES ARE SIZED AT 2 GAUGE OR BIGGER. The Stealth 1 harness is 10 or 8 gauge for charging only. This system totally isolates battery #1 from all others yet charging all on the water and with shore power. Run switch in #1 position at all times except for emergency starting turn to all then back to #1.

12 TO 12 UNIT ONLY AS PICTURED FOR THE 23 WALK

ALL WIRE FEEDING PERKO AND BATTERIES "2/0 GA"



OPTION #2

OPERATIONAL INSTRUCTIONS FOR THE BATTERIES!

1...UPON ENTRY BATTERY SWITCH SHOULD BE PUT IN THE #1 POSITION AND RUN IN THAT POSITION WHEN THE BOAT IS IN OPERATION. ONLY IF THERE IS NOT ENOUGH CRANKING POWER SHOULD THE SWITCH BE MOVED TO ALL. CRANK THEN BACK TO #1 (ONE). STEALTH WILL THEN MONITOR THE BATTERIES AND WILL SEE THE CHARGING TO THE NEEDED BATTERIES WHILE THE MOTOR IS RUNNING.

2...IF SHORE POWER IS AVAILABLE PLUG IN AND CHARGE. STEALTH WILL SEE THAT THE NEEDED BATTERIES ARE CHARGED.

3...UPON EXIT OF THE BOAT TURN OFF THE BATTERY SWITCH. IF SHORE POWER IS AVAILABLE THE STEALTH WILL CONTINUE TO CHARGE WITH NO DAMAGE TO THE BATTERIES.

4...IF YOUR BOAT HAS THE HOUSE POWER OPTION THE PERKO SWITCH TO KILL HOUSE POWER IS IN THE HOUSE BATTERY BOX.

Other Diagrams available 888-588-4506

IMPORTANT REMINDERS:

GROUNDS CONNECTED PROPERLY: Be sure the ground is to the charger ground and to the crank battery negative post as the power input is to the positive post of the crank battery. And the other batteries must be common grounded. (See the grounds in the options)

BLACK PLASTIC ACORN NUTS: Be sure to put the acorn nuts over the four screws along the right side of the charger to prevent arcing.

LED LIGHTS: The green LED light shows power to the unit and the red indicates that the Stealth I DC is charging properly.

MAINTENANCE: The terminals and connections should be covered with white/clear grease or corrosion x (or a similar product), which protects against oxidation and corrosion.

BATTERY MAINTENANCE: Periodically checking your trolling batteries is essential for achieving maximum performance from your batteries. At least once a month you should check your battery acid levels and follow your manufacturer's instructions for replenishing the same (For example, if electrolytes are low, you may add distilled water to some batteries if approved by the manufacturer). You should also periodically check your batteries for voltage and look for differences in voltage between your batteries. If there is more than a 2VDC difference between batteries, the affected battery should be professionally tested and/or replaced.

THE STEALTH I DIGITAL GAUGE COMPLETES THE FULL BATTERY MAINTENANCE PROGRAM STEALTH WAS DESIGNED TO BE. FOR INFO ON THE GAUGE CALL 888-588-4506.



TROUBLESHOOTING GUIDE

DC UNIT

- 1. MY GREEN AND RED LIGHT DO NOT COME ON**
Make sure the switch is on. Check the breakers. Check the wiring diagram. (Power In to positive cranking, negative cranking to ground) If only one light is lit, your Stealth I DC is still working properly.
- 2. MY CRANKING BATTERY IS NOT CHARGING**
Check for power at the AC 110 plug. Check the fuse on the Stealth I AC. Check the water level in your battery, put a load test on it to make sure it does not have a bad cell.
- 3. MY TROLLING/AUX BATTERIES ARE NOT CHARGING**
Make sure the switch is on if it was in your setup (toggle switch is in the red input from cranking battery pos. to input of DC). Make sure you have a red and green light on the Stealth I DC when charging. Check the breakers (red input cable and orange out put cables). Make sure your batteries are connected pos. & neg. Check the wiring diagram. Do a load test on the batteries.
- 4. HOW CAN I CHECK THE OUTPUT ON THE UNIT**
Disconnect the **power out** from the batteries then **plug up the AC unit**. Put a voltmeter on the ground and power out on the Stealth I DC and you should get a reading between 13.6 – 14 Volts (12 Volt System).

Tech support. 888-588-4506

AC UNIT

1. I DO NOT GET A GREEN LIGHT SHOWING FULL CHARGE

Check 110-power plug for current. Check the fuse. Check the water level in the batteries. Load test the batteries.

2. I DO NOT HAVE ANY LIGHTS ON

Make sure the Stealth I AC is plugged into AC power. Call tech support. 888-588-4506

DIGITAL GAUGE

IF YOU DO NOT HAVE A STEALTH I DIGITAL GAUGE, CALL 1-888-588-4506 FOR A LOCATION NEAR YOU.

1. I AM NOT GETTING A READING ON MY GAUGE

Check your wiring diagram and make sure there are no loose connections.

IF THESE SOLUTIONS DO NOT WORK, PLEASE CALL OUR TECH SUPPORT NUMBER 1-888-588-4506.



WARRANTY: The Stealth I DC and Stealth I AC have a three year unlimited warranty. (Warranty registration card included)

For more information about the Stealth I Charging System, or if you have any questions or comments, contact us at:

Stealth 1 Charging

ChargTech Industries

7428 Hixson Pike

Hixson, TN 37343

Toll Free 1-888-588-4506

Phone (423) 842-2772

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Manual for the Stealth I Digital Volt Gauge

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Specifications

Power supply: 9.5 to 16.0 VDC on screw terminal B

Measurement Range: 9.5 to 44.0 VDC on screw terminal E

Operating temperature: 32 to 122 F (0 to 50 C)

Size: 2.5" dia X 4.1" deep (61mm x 104 mm).

Accuracy: Better than 1% +/- 0.1 VDC front panel adjustable

Alarms: Independent High and Low Voltage Alarms - User settable 8.0 to 44.0 VDC

Display: 4 digit LCD, 5 levels of backlighting.

Output: 4800 Baud Serial Data; IIXDR output once per second OR external alarm output (user selectable) on screw terminal C

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Introduction

The VF25 High Voltage Battery Monitor is powered from a 12V battery and accurately measures another battery for voltages between 9.5 and 44.0 VDC. You can set independent Low and High voltage alarms and continuously monitor the voltage at all times. When activated, the built-in 85 dB alarm will sound and the display will flash. Five levels of backlighting can be selected and all set-up, calibration constants and alarm values are saved to non-volatile memory. You can select to have either an external alarm output or standard NMEA 0183 compatible data output. If you select NMEA 0183, the voltage is output once per second as a 4800 BAUD serial data stream. This information can be sent to a computer for data logging or repeater at a remote location.

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Installation

Before starting the installation, please read this entire section first. Be sure to install the bulkhead gasket before you install the instrument. Finger tighten the screws that mount the instrument bracket - do not use tools.

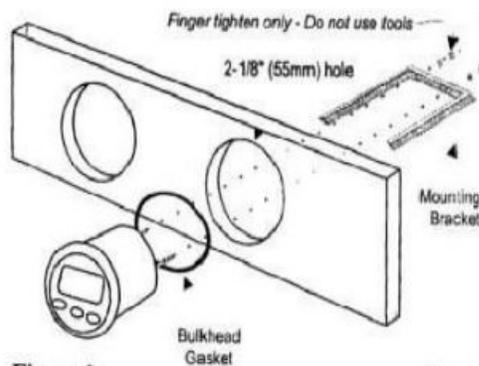


Figure 1

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Stealth recommends the D connection on the gauge be connected to the navigation switch.

Figure

- Drill a 2-1/8" (55mm) mounting hole where you desire to mount the instrument (Figure 1).
- Bring the wires out the mounting hole and make the connections to the screw terminal on the instrument case back as shown in Figure 2 and Figure 3.

WIRE TO THE CHARGER

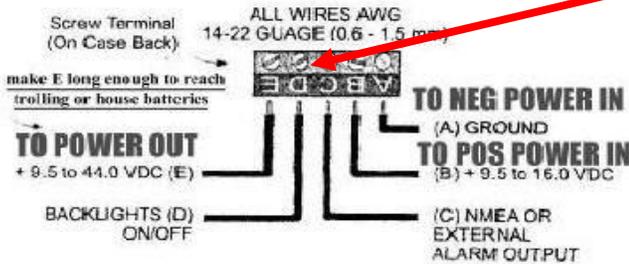


Figure 2

WIRE TO BATTERIES

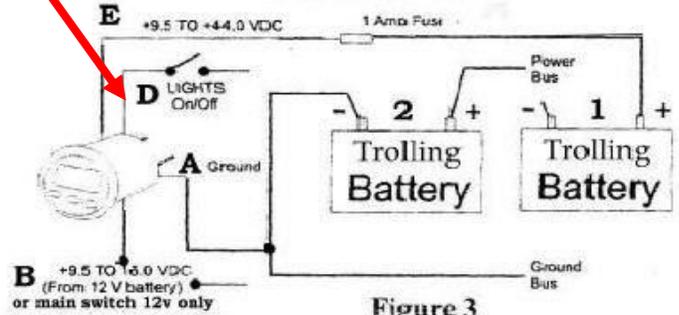


Figure 3

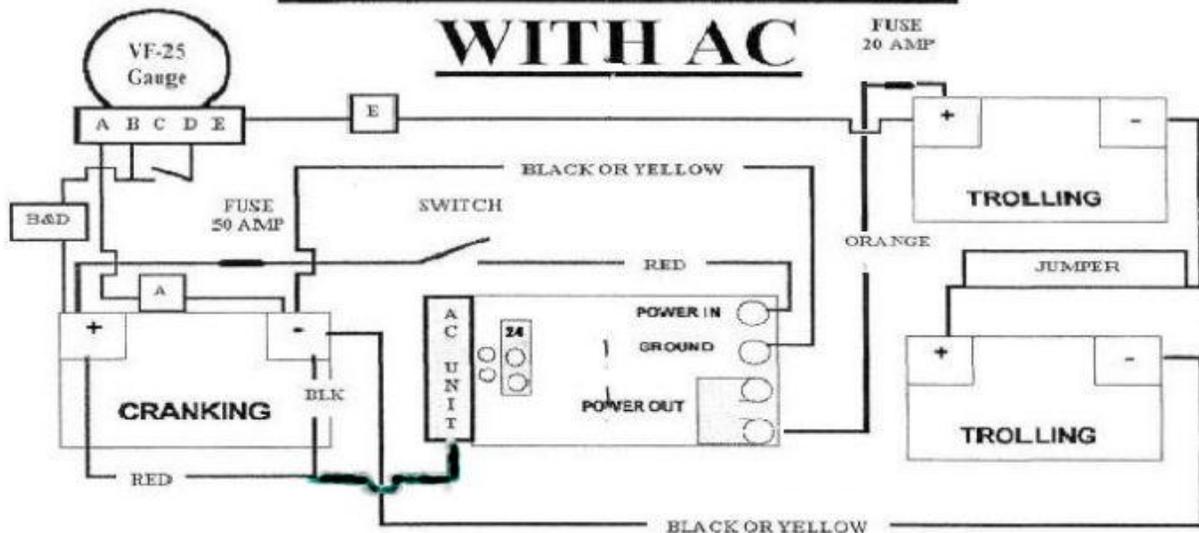
- Carefully check all your wiring against those shown in Figures 2 and 3. If everything is wired correctly you can mount the VF25 in the instrument hole. Be sure the bulkhead gasket is in place and use only finger tension to tighten the bracket hold-down nuts. Do not overtighten the bracket or you may damage the case - do not use tools to tighten the nuts.

This gauge can be wired to read both cranking and trolling for instructions call tech support

FULL SYSTEM EXAMPLE

24 VOLT SYSTEM

WITH AC



Operation

Key Functions

The    keys are used to select what to display, backlights, calibrate volts, turn alarms on/off and set alarm values. New information is automatically saved to memory.

Turning Alarms ON/OFF

Press the  key 1/2 second to turn alarms ON. The alarm icon pointer will blink. Press the  key 1/2 second to turn the alarms OFF.

Backlight Intensity

Press the  key 1/2 second to adjust the backlight level for night-time viewing. Each time you press the  key 1/2 second, the level will get brighter 1,

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Setting Low Volts Alarm

Press and hold the  key for ten (10) seconds. You will hear a beep and the Low Volts alarm value will be displayed. Use the  and  keys to set the desired alarm value. Press the  key for 1/2 second to save the Low Volts Alarm value to memory.

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Selecting NMEA 0183 or External Alarm Output

The monitor comes factory pre-set to output NMEA 0183 compatible serial data. If you do not need this feature or would rather have an external alarm output on screw terminal (C), do the following:

While viewing battery voltage, press and hold down both the  and  keys for 10 seconds (until you hear a long beep). This operation switches the output mode between NMEA 0183 and External Alarm. The new output mode is automatically saved to memory.

When the external alarm output is activated, a 5V signal (10 mA Max.) is output on screw terminal (C).

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2, 3, 4, OFF, 1, 2, ... etc. Screw terminal pin (D) must be switched ON for the backlights to work.

Display Volts

Quick press the  key to display volts  

Setting High Volts Alarm

Press and hold the  key for ten (10) seconds. You will hear a beep and the High Volts alarm value will be displayed. Use the  and  keys to set the desired alarm value. Press the  key for 1/2 second to save the High Volts Alarm value to memory.

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Calibrating the Instrument

The voltmeter can be calibrated at any time by using the front panel keys. To calibrate the voltmeter, press and hold down the  key for three seconds while applying power to the instrument. Use the  and  keys to make the displayed value read correctly. Press the  key to save the calibration data to memory.

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Warnings and Notes

1. Screw terminal (D) must be connected to 9.5 VDC minimum in order for the backlights to turn ON. If screw terminal (D) is not connected to at least 9.5 VDC the backlights will turn OFF. This provides remote control of the backlights.

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FREQUENTLY ASKED QUESTIONS ABOUT THE STEALTH CONTINUOUS CHARGING SYSTEM

Q. WHAT IS THE STEALTH SYSTEM?

A. THE STEALTH SYSTEM IS THE MOST ADVANCED, PATENTED, SOLID STATE BATTERY MAINTENANCE SYSTEM AVAILABLE ON TODAY'S MARKET.

Q. WHAT IS THE SYSTEMS FUNCTION?

A. THE STEALTH SYSTEM TAKES VARYING INPUTS OF VOLTAGE, WHETHER FROM A GENERATOR / ALTERNATOR, OR AN A/C POWER SOURCE, AND DELIVERS PURE OUTPUT POWER TO CHARGE AUXILIARY BATTERY BANKS SIMULTANEOUSLY, TO KEEP THEM AT MAXIMUM READINESS LEVELS.

Q. WHAT ARE OTHER ADVANTAGES OF THE SYSTEM?

A. FOR VARYING REASONS, THIS PATENTED CHARGING METHOD LETS THE BATTERIES ABSORB THE CHARGE LIKE A 'SPONGE' INSTEAD OF HAVING THE CHARGE 'RAMMED' INTO THE BATTERIES. THE INTERACTION BETWEEN THE STEALTH CHARGING SYSTEM AND THE BATTERIES KEEPS THE BATTERIES 'HEALTHIER', AND MORE CONSISTENTLY CHARGED. THIS LENDS ITSELF TO EXTENDING THE BATTERY'S LIFE SIGNIFICANTLY.

Q. WHY WAS THE STEALTH SYSTEM CREATED?

A. THERE WAS A DEMAND IN THE BASS FISHING INDUSTRY TO BE ABLE TO KEEP AUXILIARY (TROLLING MOTOR) BATTERIES CHARGED IN EXTREME DEMAND CONDITIONS, TO EXTEND FISHING TIME. THE AUXILIARY BATTERIES ARE CONTINUOUSLY CHARGED USING THE 'HOST' VEHICLES ELECTRICAL GENERATION SYSTEM. THE SYSTEM CAN EVEN CHARGE WHILE THE BOAT IS IN TOW USING THE VEHICLES POWER OUTPUT

QUESTIONS AND ANSWERS CONTINUED

Q. HAS THIS SYSTEM PROVEN TO BE EFFECTIVE?

A. YES. ASK THE PROS WHO CURRENTLY HAVE THE STEALTH SYSTEM ON THEIR BOATS. OFTEN TIMES THE ADVANTAGES THE STEALTH SYSTEM PROVIDES WILL BE THE 'WINNING EDGE' NEEDED BY EXTENDING PRODUCTIVE FISHING TIME. MAGAZINES SUCH AS (POWER BOATS, BASS & WALLEYE, BASS, BOAT & TRAILER) AND MANY MORE HAVE WRITTEN ABOUT THE TECHNOLOGY. AWARDS, INTERVIEWS, SHOWS, AND RETAILERS SUCH AS BASS PRO, CABELAS, AND MANY DEALERS STOCK THE PRODUCT. OEMS ALSO ARE INSTALLING THEM AT THE FACTORY NOW SO ASK YOUR REP.

Q. WHAT IS THE STEALTH A/C?

A. FISHERMAN KNEW THAT ALTHOUGH THEY MIGHT NOT NEED TO CHARGE THEIR BATTERIES, WITH AN A/C UNIT NEARLY AS FREQUENTLY AS IN THE PAST, THEY WANTED THE OPTION TO DO SO READILY AVAILABLE. SO WE CREATED THE STEALTH A/C.

Q. HOW DOES THE STEALTH A/C ATTACH?

A. THE STEALTH A/C UNIT WILL MOUNT ON ANY STEALTH I D/C UNIT, WITH THE PROPER BOLTS AND SPACERS. THE STEALTH A/C UNIT MOUNTS IN A 'PIGGY BACK' MANNER, TO FORM THE STEALTH MAX-PAK. THE MAX-PAK NOW PROVIDES ALL YOU WILL EVER NEED IN AN 'ON BOARD' CHARGING SYSTEM, SINCE IT PROVIDES A/C PLUG IN CAPABILITY TO COMPLIMENT THE STEALTH D/C UNIT AND VOLTAGE GAUGE.

Q. ARE THEIR OTHER ADVANTAGES TO USING THE STEALTH SYSTEM?

A. YES. SINCE THE STEALTH SYSTEM CAN TAKE VARYING INPUTS OF D/C CURRENT, AND GIVE A CONSTANT D/C OUTPUT VOLTAGE AT CONSISTENT EFFICIENCY LEVELS NEVER BEFORE OBTAINED, THIS ALLOWS A BOAT OWNER TO CONSIDER THE USE OF OTHER SOURCES OF INCONSISTENT D/C POWER INPUT. SUCH AS SOLAR, WIND, OR WATER POWER GENERATORS AND THE TOW PACKAGE

QUESTIONS AND ANSWERS CONTINUED

A. (CONTD)

THIS COULD INCLUDE SUCH THINGS AS SOLAR PANELS FOR EXAMPLE. THE ABILITY TO BE PAIRED WITH THE STEALTH A/C UNIT ASSURES THE BOAT OWNER THAT HE IS ALWAYS "GOOD TO GO".

Q. IT APPEARS THAT THE SYSTEM WOULD ALLOW FOR MANY OTHER POTENTIAL APPLICATIONS. IS THIS TRUE?

A. YES. IN FACT THE DEVELOPEMENT OF THE STEALTH MAX-PAK OPENS DOORS FOR APPLICATIONS TO LARGER BOATS, BOTH PLEASURE AND COMMERCIAL, WHERE A 'BANK' OF AUXILIARY BATTERIES, 'OR HOUSE BATTERIES', CAN REMAIN CONSISTENTLY CHARGED FOR SUCH USES AS RUNNING LIGHTS, RADIOS, G. P. S. SYSTEMS, SONAR, AND OTHER SOPHISTICATED ELECTRONIC EQUIPMENT. THE STARTING BATTERY

REMAINS ISOLATED WITH THE STEALTH SYSTEM AND THEREFORE DOES NOT RUN DOWN. AN ADDITIONAL ADVANTAGE WITH THE STEALTH SYSTEM IS THAT IT ALLOWS FOR THE USE OF AN AUXILIARY BATTERY TO BE USED AS A STARTING BATTERY, IN THE EVENT OF A STARTING BATTERY FAILURE.

Q. WHAT ARE SOME OTHER POTENTIAL APPLICATIONS FOR THE STEALTH SYSTEM?

A. THE STEALTH MAX -PAK, FOR EXAMPLE, WOULD ALLOW GOLF CART OWNERS TO BE INDEPENDENT. THE LIGHT WEIGHT STEALTH SYSTEM WOULD ALLOW A GOLF CART TO PULL UP TO ANY 110V A/C OUTLET, WHERE EVER IT IS, AND CHARGE UP. OR THE SOLAR PANEL PACK WHICH WOULD HANDLE 90% TO 100% OF THE CHARGE BACK. R&D HAS PROVEN THIS KIND OF EFFICIENCIES IN THE STEALTH TECHNOLOGY. SO YOU CAN SEE ANY PLACE THERE IS MORE THAN ONE BATTERY STEALTH APPLIES BECAUSE THE POWER INPUT CAN COME FROM ANY WHERE

Also the new Tow Package is available

40 amps while towing.

Easy install Harness

Make AC take a backseat

No hassle battery charging (just go fish)

Who cares whether I can get to an outlet

And again on the run charging (just drive)

Call and ask about your system..

888-588-4506