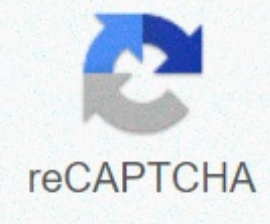




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## Stingl sr 500 manual en español

We have a VACUUM STINGL release system that turns off the pump by detecting a pressure change in the recirculation system, the SR-500 is a vacuum deactivation safety system (SVRS) that works by monitoring the vacuum at the inlet of the water pump or spa. When a blockage occurs in the sewer or main skimmers, the sudden vacuum lift will cause the SR-500 to turn off the pump operation. The pump will remain switched off until it is manually moved. In accordance with Law 1209 of 2.008, this product has an approval certificate provided by a third party laboratory. 1 safety in your pool is our highest priority guide to use model SR-500 Rev.1.10 Model SR-500PS Rev.2.10 (Vacuum Release Safety System) Version 3.5 Stingl Products PMB #325, Southbank Street Sterling, VA Tel (571) ; (888) Fax (571) U.S. Patent No 6.059,536/6.342,841 2 4 3 Content Page INTRODUCTION ... 2 IMPORTANT INFORMATION... 3 INSTALL... 4 OPERATING INSTRUCTIONS LOCATION CALIBRATION OBJECTS (SR500) CALIBRATION ISSUES (SR500PS) ERROR CODES CALIBRATION INSTRUCTIONS SR Select equipment LIST OF CONTACT INFORMATION DETAILS 4 Introduction Thank you for choosing the installation of the Singl-switch model SR-500 in your pool and/or similar structure. The information contained in this brochure is designed to provide you with years of safe operation of the Stingl device. Please review and carefully examine this important product information. The SR-500 model works by monitoring the vacuum on the influential side of the pool pump or a similar structure. Every time a lock appears on the main channel, skimer or suction port, the sudden vacuum lift will cause the stingl switch to immediately turn off the engine pump and trigger an audible alarm. The engine pump will remain switched off and the sound alarm will turn on until it is manually jammed. \* Similar structure: This is a work of engineering or architecture similar to swimming pools and whose object is for recreation or therapeutic use. Covers a number of facilities, the reference of which is: spa, jacuzzi, bath, bath or hot tub Model SR-500 offers maintenance/cleaning mode for 30 minutes, which allows suction of the pool. Typically, the high suction-generated vacuum will result in the detection of a state of capture and shutdown of the engine pump. However, in maintenance/cleaning mode, the Stingle switch is TURNED OFF, allowing the motor pump to operate in a high vacuum situation. WARNING: DURING MAINTENANCE/ THERE IS NO VACUUM MONITORING, NO BLOCKAGE WILL BE DETECTED DURING THE 30-MINUTE CYCLE, WHICH INCREASES THE RISK OF THRADITION. \* Bathing in the



pool or pool should not be allowed while maintenance/cleaning mode is used To prevent accidental maintenance/cleaning, the audible alarm will be activated every time the appliance is in this mode. The group or similar structure must not be used or left stationary while in operation or suction in maintenance mode. The SR-500 Singl-Switch model is designed to be easily installed on existing facilities and is very easily installed during the construction of swimming pools and similar structures. 2 5 NOTE FOR IMPORTANT INFORMATION: This device is designed to turn off the engine pump in case of potential stigma of the body or limbs. This unit does not prevent devisceration or prolaps. Stingl recommends using additional layers of protection. The Pool and Spa Professionals Association (APSP), the National Pool Foundation (NSPF), in collaboration with the US CPSU, has developed guidelines to help identify and address potential dangers of pool capture and similar structures. These guides shall include the design of specific standards and equipment to be included in each collective and private repository for the storage of these provisions. The pools must have two (2) main exhaust of an engine pump in order to minimise the possible suction presented in designs with unique drainage. Install an approved ANSI/ASME A trap cover to prevent all types of eclipse. Submerged drains with approved anti-capture covers prevent the accidental slamming of the limbs or hair into these channels. Regularly check the wear cover, in addition to proper provisioning. You have a professional service that ensures that hydraulic flow rates and motor pump are convenient for your installation. Install a vacuum release system that monitors the vacuum caused by blocking or blocking the drainage(s) and automatically shuts down the engine pump. Install an emergency stop button. Most importantly, educate those who use the safety facilities and the need to avoid situations in which bathers can be caught. Remove the coupling or retaining valve ALL joints or non-return valves (checks) must be removed from the influent and exhaust lines of the filtering system. These alliances, together with SSLV, can lead to permanent in a situation of capture. It is important that all joints or valves are removed from the system before installation of SR 6 Do not use it as Disconnect Device Stingl SR.500 cannot be used as a disconnect device. The installer must follow all national specifications for an electrical code and install a separate disconnection of the medium. HOSE PROTECTION UNDER CONGELATION CONDITIONS If the engine pump operates in an area where ambient air temperature may drop below 0oC (32oF), the hose must be protected by packaging in a thermal band. Using ANSI/ASME Approved drainage covers to prevent hair stigma, it is recommended to use ANSI/ASME A corresponding anti-covers These covers are effective only at a specific flow rate. In order not to exceed the flow rate of the stamped flow on the deck, please contact your supplier. Pressure, as used in this manual, the term pressure may refer to positive pressure (above atmospheric pressure) or negative pressure (empty below atmospheric pressure). Pressing the As used button in this guide means that pressing a button for a moment means pressing a button and then releasing it. In cases where a button is required, the instruction will indicate it directly. SR-500 MOUNTING Specifications Sr-500 Reaction time: Less than 3 seconds after the opening of the cabinet event: NEMA 3R (available for outdoor use. Provides a degree of protection against the formation of rain and ice. Meet design tests for closing sections, rain, external melting and rust resistance). Visual alarm: Additional sound alarm: 24 V AC operating environment: -40 to -60oC (-40 to 140oF) Size: H-23 cm (9); W-14 cm (51-2); D-10 cm (4) Weight: Approx. 4 7 Specs - Remote alarm Voltage: 24 V AC operating environment: Suitable for internal/external size: H-23 cm (9); D-8 cm (3) Weight: 454 grams. Note: Specifications shall be subject to change without warning to protect the hose in confection conditions if the engine pump is running in an area where the ambient air temperature may drop below 0oC (32oF), the hose must be protected by packaging in a thermal band. Checklist before installation or ALL suction points (drainage, skimmers, intake sockets, etc.) THEY MUST BE FREE FROM DEBRIS BEFORE INSTALLATION. Clogged ports change and interfere with the normal vacuum level. or Roll back, rinse or clean the filter as directed by your supplier. o Cleaning the trapper and skimmers. o Check the main drainage cover. (In addition, review the similar structure. If any) Drainage covers should not be without obstacles, well fastened with stainless steel screws and in good condition, without cracks or fractures. o Repairs the leakage of bleeding in the system before installation. Leaks cause air bubbles that interfere with the normal level of the vacuum. o Adjust all buttons to the normal operating position. The suction nut(s) must be/are covered/are a suction point. For installations with combinations of swimming pools and similar structures, with a common motor pump, it is recommended to consult the builder or his supplier on how to close a drainage line of a similar structure during regular filtration. o The motor pump must be activated before installation and left in a state of complete bait. o ALL JOINTS OR RETAINING VALVES MUST BE REMOVED FROM THE SYSTEM! These devices can cause a dangerous vacuum state, which remains even after the engine pump is shut down. 5 8 PANEL OF SWITCHES SR-500 DUCTO VACUUM MANGUERA TO MOTO PUMP DRAIN INJECTORS LINE Fig. 1: System circuit Mounting the fastening module 1. The SR-500 is installed in a suitable location about 2.4 m from the engine pump. 2. Before installation, remove the SR-500 from the plastic box by pressing the tab in the upper left corner and pulling the device up. Slide the SR-500 outwards. At this time, register the serial number of your SR-500 on the warranty card. 3. Assemble the plastic box using the supplied screws and chazzo. 4. Install the hose hardware on a 1/2 inner false part under the vacuum sensor. (See Fig. 2) 5. Reinsert the device into the plastic box. Slide the back of the SR-500 into the box; then press the top until the SR-500 is adjusted in place. 6. NOTE: The top of the hose must be mounted on the vacuum sensor before connecting the lower end to the trap. DO NOT connect the hose to the pump until the sensor is successfully reset in operation mode. The sensor must be opened to the atmosphere for proper reset. 7. Pass the hose through the seal and connect it to the vacuum sensor. Make sure the hose is tightly adjusted. Tighten the clutch. Hold the bracket (on) to relieve additional tension (see Fig. 3). The vacuum hose should come out under the box without twisting or bending. 6 9 8. When the hose is cut off, avoid high-traffic areas where you can step or disconnect. You can cut off the excess hose, but under none of the you can expand the existing one or use a longer one. Protect it when freezing by wrapping it with thermal tape. If the motor pump operates in an area where ambient air temperature may drop below 0oC (32oF), the hose must be protected from freezing by packaging in a thermal band. 9. Remove the drain plug from the lid cover. Install the installation in place using Teflon to ensure good sealing. 10. Attach the free end of the hose to the installation and tighten. 11. If there is no exhaust plug, install a collar or t with 1/4 FPT. SCREW CLAMP FOR HOSES FOR INTERNAL PRE-TIMELY PART Fig. 2 Part Pre-clock 1/2 VACUUM HOSE Fig. 3 Sr-500 /SR-500PS cable hose CLAMP NOTE: STINGL-STWICH CAN NOT BE USED/ DEPENDS ON IT AS AN ELECTRICAL DISCONNECTIVE MEDIUM. FOR THIS PURPOSE, THE DEVICE MUST BE ADJUSTED. THE WORK MUST BE CARRIED OUT BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. The voltage switch located on the right side of the metal box must be set to equal to the input voltage. Damage to the appliance due to improper power supply will not be covered by the warranty. The device is factory-tuned to 230V, which allows to adjust the 208V applications. For 110/115/129 engine voltage pumps, set the switch to 115V. Linear voltage Option 1 High voltage 120/240V Single-phase snowmobiles 3HP (20AMP) or less (see Figure 3 for terminal location) 1. Determine the input operating voltage of the engine pump, 120V or 240V. Set the red input switch (located on the right side of the appliance) to its value. 7 10 2. Input voltage conductors to line terminals (#10 & #12) 3. Cable the engine pump to the charging terminals (#9 & #11) 4. Connect the line and load-lifting ground to the green wire with a wire. 5. For this situation, see Diagrams 1 or 2 Voltage Line Option 2 High Voltage 240/480/600 Three-Phase Motor pumps of 3.5HP (20AMP) or more 1. Set the red input switch (located on the right side of the appliance) to 115V.2. For this situation, see diagram 3. (see Fig. 3 for the location of the terminal) 1. The heater delay switch (fire system) connects the heater delay circuit to the contacts (#3 & #4) of the terminal band. NOTE: The heater delay must be included in the settings menu, see operating instructions. 2. The alarm using the remote control can be connected to terminals (#5 and #6) or the appliance can power 24 V alarms by connecting the terminals (#6 & #7) and connect the alarm to the terminals (#5 & #8) 3. Remotely controlled interfaces such as jandi or controls, controls or solid state and external timer systems are connected to the terminals (#1 and #2). NOTE: Remote mode must be enabled in the on/START menu for remote control interfaces to work correctly. 4. Terminal scheme 8 11 9 12 10 13 11 14 12 15 13 16 14 17 15 18 16 19 17 20 18 21 OPERATING INSTRUCTIONS ON THE FRONT PANEL THE FRONT PANEL OF THE SR-500 APPEARS LIQUID CRYSTAL SCREEN WITH 10-CHARACTER DUAL LINE AND 6 BUTTON SWITCHES APPLIED IN MEMBRANE LABEL. Turns off/STOP immediately stops the motor pump from working and turns off all alarms. On/Run switches between time, continuous, and remote modes. MAINTENANCE/ASPIRATION MODE in which the pump operates continuously for 30 minutes. WARNING: THE VACUUM IS NOT MONITORED DURING POWER/CLEANING MODE. BLOCKING WILL NOT BE DETECTED DURING THE 30-MINUTE CYCLE, WHICH INCREASES THE RISK OF DEATH. USED TO START configuration modes for the time, date and schedule of operation of the motor pump. +YES and -NO Used to answer yes/no questions and increase or decrease the value of the displayed selection (i.e. date and time). 5. Membrane switch 19 22 IMPORTANT start! Before applying power to the SR-500, plumbing connections must be made appropriately. During installation, or when the plumbing has been reconfigured or modified in every aspect, the device will require vacuum level measurements. At such moments, the pool system should be as perfect as possible - unhindered drainages, clean skimmers, etc., since the system uses these vacuum measurements as the starting point for all subsequent operations. After completing the plumbing and all this OK, it's time to apply power. NOTE: Before applying the power supply, make sure that the voltage switch is set to the correct AC voltage on the line - 115V AC or 230 V AC. The device will check the reference pressure values that were configured during installation; if these values are not set, the device will display a Set UP REQUIRED error message. Pressing and holding the SET button will put the device in SERVICE mode, designed to be used only for service technicians. Pressing another button will have no effect. Once the clock is set and the engine pump has been edly, the appliance is ready for normal operation. NOTE: The device must be configured appropriately to work: it will prevent the appliance from working successfully. Until the HPM PUMP function is run, you will continue to see the REQUIRED SETUP message when you try to exit service mode. You cannot choose a different mode of operation. NOTE - SR500 CANNOT BE CONSIDERED A MEANS OF DISCONNECTING. A SEPARATE UPLOADED (SUCH AS A CIRCUIT BREAKER) MUST BE PROVIDED. ALL WORK ON THE ELECTRICAL PART MUST BE CARRIED OUT BY AN ELECTRICIAN CERTIFIED ACCORDING TO THE NATIONAL ELECTRICAL CODE (NEC). The power terminals are in the lower right corner of the device and are indicated by line 1, line 2 (input voltage) and load 1, load 2 (power for motor pump or contactor) 20 SETUP IS REQUIRED! SEE MANUAL 23 BEFORE TURNING ON THE DEVICE, CHECK THE OPERATING VOLTAGE (120 OR 240 VOLTS) OF YOUR MOTOR PUMP AND SET THE VOLTAGE SWITCH ON THE RIGHT SIDE OF THE SR500 ACCORDINGLY. DEVICES DAMAGED BY IMPROPER ENERGY CONSUMPTION WILL NOT BE COVERED BY WARRANTY! For single-phase engine pumps. 120 or 240 volts, up to 3 k.s. or 20 amps. 1. Input voltage voltage to line 1 and line 2. (#10 AND #12) INSTALLATIONS AT 120 VOLTS - THE NEUTRAL BUS MUST BE GROUNDED ON THE GROUND BUS OF THE POWER PANEL. 2. Control the pump terminals to charge 1 and Load 2. (#9 AND #11) 120 VOLTS INSTALLATIONS MUST USE BOTH LOAD CONNECTED TO BOTH ENGINE TERMINALS. 3. Connect the panel and motor ground to the green spiral rolled cable for grounding with a nut. Look at airplane one or two. For motor pumps larger than 3 p.s./20 amps or for three-phase pumps 1. The voltage of the motor pump must be carried by an external contactor classified for charging the engine pump. The coil voltage may be 120 or 240 volts, but the coil voltage must correspond to the output voltage of the SR500. FACILITIES AT 120 VOLTS - THE NEUTRAL BUS MUST BE GROUNDED ON THE GROUND BUS ON THE POWER PANEL. 2. Wire SR500 to specific circuit, 120 or 240 volts, power input in line 1 and line 2 (#10 and #12) and coil power to Load 1 and Load 2 (#9 and #11) installations at 120 volts shall use both charges related to both Bobina terminals. See plane 3 low voltage or without voltage terminals. 1. Remote SW input (#1 and #2) are potentially without contacts for remote control of the SR500 in remote control mode, such as when used with remote control system (Jandy or ComPool) Open - motor pump off, Closed - motor pump on 2. Heater switch - (#5 and #6) or firefighter. To turn off the heater 15 minutes before the pump. THE DELAY OF THE HEATER SHOULD BE SWITCHED ON IN SERVICE MODE DURING CALIBRATION. 3. Alarm - no potential contact that closes while the SR500 is in alarm or maintenance mode. Use together with a 24 volt output for remote alarms. 4. 24 volt alarm output (#7 and #8) provides a 24 volt output. Use to activate remote alarms at 24 volts. 21.24 START BEFORE ACTIVATING THE POWER SUPPLY OF THE DEVICE. CHECK THE OPERATING VOLTAGE (120 OR 240 VOLTS) OF YOUR MOTOR PUMP AND ADJUST THE VOLTAGE SWITCH ON THE RIGHT SIDE OF THE SR500 RESPECTIVELY. DEVICES DAMAGED BY IMPROPER ENERGY CONSUMPTION WILL NOT BE COVERED BY WARRANTY! 1. When using the power supply, the SR500 will perform self-control and check the stability of the AC input. If the input voltage is correct and the SR500 is charged for the first time and there are no reference values in your memory, you will see the following message: 1. When the power is applied, the SR500 will perform self-control and check the stability of the input AC. If the input voltage is correct and the SR500 is charging for the first time and there are no reference values in your memory, you will see the following message: SET-UP REQUIRED APPLIES TO MANUAL! By pressing and maintaining the SET button for 5 seconds, the service mode is performed and the SR500 can be calibrated. Wait until the screen changes from: SETUP MODE - RELAX FOR NEXT, and then release the SET button. The display will immediately switch to: Press SET AGAIN and the display will go to: Service mode - FIRMWARE ONLY VERSION 1.10 XX/XX/XX INITIALIZED UNIT? EE FORMAT? Y/N Pressing the YES button will automatically format EEPROM and the microprocessor, and the display will display: INIT SUCCESSFULL! SET TO CONTINUE Press the SET button to continue calibration. The display will show: Set sensor zero on ATM /Y/ N The sensor will automatically reset, please wait XX.XX Hg 22 25 The sensor will automatically reset to zero by pressing the YES button, based on local atmospheric pressure (the hose must be removed from the sensor during the reset procedure). The display will show: while the sensor is reset, the displayed level must be within +/- 1 to zero. If so, the display will display: Press the SET button to continue calibration. If it appears: ZERO SUCCESSFULL! SET TO CONTINUE CANNOT BE SET TO ZERO! SET TO CONTINUE TO MAIN POOL? Y/N PUMP WORKS 60 SEC. See the Calibration Issues Identification section. The display will show: FIRST, insert the hose into the housing through the and gently slide the hose into the sensor until it reaches the sensor connection. Tighten the provided bracket (without wanting too much) to prevent leakage. Then tighten the hose clutch for additional stress relief. You can then remove the plug from the output port of the trap and mount the adapter connector (1/4 NPT x 3/8 hood) using teflon tape to prevent leakage (please keep the plug where you can find it later if necessary). Then insert the hose when inserting the adapter. (If freezing conditions may occur for the system, the hose must be protected against freezing with a thermal film). Once the connection to the hose is complete, lure the motor pump by fill the lid with water, make sure that all valves are ready for normal operation, and roll over and rinse the filter and all baskets. When the system is ready to operate, press the YES button to start the engine pump, and the display will show: FULL PRIME? Y/N RUNNING XX.XX Hg and the current vacuum level in operation are displayed. At this point, it is important that the engine reaches the full edlind and operates normally to ensure accurate calibration. If it takes more than 60 seconds for the engine pump to get barley, press the YES button again to start the engine pump again for another 60 seconds. Once the motor pump is running at full dynamic head and vacuum level is stabilized on the screen (it is normal to fluctuate from 1/2 to 1) press the YES button again while MOTOBOMBA is STILL RUNNING to immediately stop the engine pump and keep the current memory vacuum values. 23 26 The residual vacuum level or braking state will be displayed. If you see this error: See the Identify calibration issues section After the SR500 has retained the vacuum parameters, the display will show: Please Wait XX.XX Hg DELTA-P TOO LOW! Set to retry delta-p xx.xx hg reference vacuum target this value for future reference. Press the SET button, the display will show: REFERENCE VACUUM STOPPED XX.XX Hg Point this value for future reference. Press the SET button, the screen will specify: Specify this value for future reference. Press the SET button, the display will show: REFERENCE VACUUM LEAK VACUUM CUT/OFF IN 03 ABOVE REF Y/N? This is the upper threshold of the vacuum or what is the size of the vacuum peak, which must be registered as an alarm. The factory value is 3 above the service numbers; this should not be changed without consulting the factory. Press the SET button to continue. The display will show: HEATING DELAY? Y/N NO In this heating delay mode by pressing the BUTTON Press the SET button to continue. The display will display: DEFAULT EXECUTION MODE: NONE This refers to how the SR500 will re-enter service after a power outage. This setting must match the mode you will use regularly. Set the default mode to Staniel or The Floor. remote mode. Setting the default mode to Remote mode disables the Time and Konta modes. After you set the operating mode to the appropriate settings by default, press the SET button again, the display will display: 24 27 FIRMWARE VERSION 1.10 XX/XX/XX Press the OFF button to exit service mode. CALIBRATION PROBLEM IDENTIFICATION This message indicates that it was not possible to calibrate the sensor in the range 1 to zero. The hose MUST be disconnected from the sensor so that it can be reset correctly. YOU CANT FIX ZERO! SET TO CONTINUE Reading from 20 to 30 psi when trying to reset the sensor usually indicates the presence of water in the sensor housing. Disconnect the hose from the sensor and let it dry for 24 to 36 hours. FIRST, connect the hose to the sensor, then to the engine pump to charge the air into the hose and prevent water from entering the sensor. DO NOT try to dry a sensor by inserting foreign objects into the tube; damage the sensitive internal diaphragm. If the sensor is not reset after 36 hours of opening the atmosphere, ask our technical department for help. This message appears if the SR500 has not recorded a difference of 1 or more between the stop-vacuum level and the vacuum level of operation. Different scenarios may cause this error: DELTA P too low! SET TO TRY 1 AGAIN. The pump is not fully charged when the Prime Pump function is complete, resulting in less than 1 Delta-P 2. The hose is connected to the pressure side of the engine pump. If the readings on the screen correspond approximately to the pressure of the filter tank, this means that you detect the pressure side of the engine pump. See Fig. 10. An undetected non-return valve (or pre-existing suction line obstacle) may result in residual vacuum line perseverance after stopping the motor pump. If your vacuum does not drop significantly until it appears after the Prime Pump function is completed, there may be a control valve on the underground line. 25 28 ON/OPERATION MODES FOR SR 500 REV Pressing the on/run button moves through three possible operating modes: 1 pressed - Time mode. The SR500 will work in the mode 2 pressed - Continuous mode. The SR500 will work with the pump 24 hours a day /7. 3 pressed - Remote mode. The SR500 will only work by closing the remote inbound circuit for interruption. Location of the emergency system Notes for error system 11 for new installations - 1 SR500 is equipped with 2 relays for transmission of power to the engine pump; these relays are interrupted every time the SR500 starts. Real error 11 means that one (or both) relays have been melted. Error 11 can be reproduced electrically or hydraulically. Electric playback: The motor pump will only operate three times, then gives an error for either motor pumps at 115 volts or contactors with 115 volts of coils, error 11 can mean two things: a) that the neutral bus is not grounded on the main panel, or b) that the charge is left open. To test the ground/neutral connection without having to enter the main panel, remove the neutral from line 2. Replace with spiral rolling cable from line 2 to engine ground and SR 500 ground. If this eliminates error 11, the neutral bus is not based on the ground bus (if the code in your jurisdiction does not allow you to ground the two buses together, there is nothing you can do but change the engine of your motor pump or contact coil to 230 volts). Directing the neutral directly to the engine pump without going through Load 2 (open) will also result in error 11. Load 1 and Load 2 must be connected to both engine terminals or hydraulically reproduced coil terminals: the engine pump will run once for 30 seconds, then take off Error 11 or run three times in 30 seconds and give error 11. This may be due to hydraulic status or inaccurate data in sr 500 memory. These cases are rare, but can happen, especially with high suction systems. In these cases, Stingl Products recommends that you contact our Technical Department for further assistance. 26 29 ERROR 17 If SR 500 tries to load 3 times and does not register a vacuum level corresponding to the stored values, it will go into an alarm state and displays Error 17. In a new installation, this may mean that the initial calibration is incorrect (the engine pump does not reach full bait or incorrect valve settings). Recalibrate the device, making sure that the valves are configured for normal operation and that the motor pump operates at full dynamic head during the decoy phase of the motor pump in service mode. An SR 500 that has been running for a week or more showing error 17 may indicate a change in boot vacuum level due to normal aspects of maintenance, such as in the baskets or a contaminated filter. If there are no visible lockings in any of the baskets and the filter is in good working condition and displays normal operating pressure, check the valve settings to make sure they are still in normal operating positions. If the error persists, you may have a lock on the suction line (the higher vacuum) or the dirt of the motor pump (lower vacuum). Similarly, persisting Error 17 for low vacuum levels can indicate problems with the filter environment (old sand, old cartridge, greasy grounders). If the problems cannot be related to a different vacuum level, reconfig up the appliance by working with the bait MotorBomb function in service mode. 27 30 28 31 32 CALIBRATION INSTRUCTIONS FOR SR500 POOL/SIMILAR STRUCTURE REV COMBINED ELEMENT BEFORE installation, remove the SR-500 from its plastic shell by sinking the tab into the upper left corner and pulling the top of the device forward. Slide the SR 500 outwards and towards the top. At this point, register your serial SR 500 serial number on the warranty card. 2. Assemble the plastic shell using the supplied screws and anchors in an appropriate position at a distance of 2.4 m (8 ft) from the engine pump. 3. Install the supplied hose in the opening for 1/2 pre-hour under the vacuum sensor. 4. Insert the SR 500 into the plastic shell, first slide the bottom and press the top until the SR 500 is adjusted in place. 5. Insert the vacuum hose through the joint, but do not attach the hose to the sensor at this time. The sensor must be open to the atmosphere in order to be properly reset. 6. Freezing conditions: If you are working with your motor pump in conditions where the ambient air temperature drops below 0oC (32 F), the hose must be wrapped with a thermal belt to prevent it from freezing! Figure 2 - Cabinet background wiring NOTE - SR 500 cannot be used/ IS CONSIDERED AS A MEANS OF SHUTTING DOWN THE SERVICE. A SEPARATE UPLOADED (SUCH AS A CIRCUIT BREAKER) MUST BE PROVIDED. ALL WORK ON THE ELECTRICAL PART MUST BE CARRIED OUT BY AN ELECTRICIAN CERTIFIED ACCORDING TO THE NATIONAL ELECTRICAL CODE (NEC). The power terminals are in the lower right corner of the device and are indicated line 1, line 2 (input voltage) and lifting capacity 1, Load 2 (power to pump or outlet) BEFORE switching on the appliance, CHECKING THE VOLTAGE IN SERVICE (120 or 240 VOLTS) OF YOUR MOTOR AND ADJUSTING THE SWITCH VOLTAGE SELECTOR ON THE RIGHT SIDE OF THE SR 500 DEVICES DAMAGED BY IMPROPER ENERGY CONSUMPTION WILL NOT BE COVERED BY WARRANTY! 30 33 For single-phase engine pumps. 120 or 240 volts, up to 3 k.s. or 20 amps. 1. Input voltage voltage to line 1 and line 2. (#10 and 12) 120 VOLTS 2. Charge the engine pump terminals 1 and Load 2. (#9 AND #11) 120 VOLTS INSTALLATIONS MUST USE BOTH LOAD CONNECTED TO BOTH ENGINE TERMINALS. 3. Connect the panel and motor ground to the green spiral rolled cable for grounding with a nut. See level 1 or 2 For engine pumps larger than 3 HP/20 amps or three-phase pumps 1. The voltage of the motor pump must be carried by an external contactor classified for charging the engine pump. The coil voltage may be 120 or 240 volts, but the coil voltage must correspond to the output voltage of the SR 500. FACILITIES AT 120 VOLTS - THE NEUTRAL BUS MUST BE GROUNDED ON THE GROUND BUS ON THE POWER PANEL. 2. Cores SR 500 to special circuit, 120 or 240 volts, power input in line 1 and line 2 (#10 and #12) and coil power to load 1 and load 2 (#9 and #11) installations at 120 volts shall use both charges related to the two COIL TERMINALS. See plane 3 low voltage or without voltage terminals. 1. The remote SW input device (#1 and #2) are contacts without the possibility of remote operation. Use to control the SR 500PS using a remote system (Jandy, etc.) or remote sync mechanism. Open - motor pump off/closed - motor pump on 2. Input/similar structures (#3 and #4) are dry (no potential) contact inputs to switch SR 500PS from pool mode to similar structure mode and vice versa. Wire auxiliary relay of the remote device arranged as a slave for spa mode. Open - pool/closed mode - similar structure mode 3. Heating path - (fire switch #5 and #6) conductor in the safety circuit of the heater to turn off the heater 15 minutes before the engine pump. The delay of the heater should be included in service mode. 4. The alarm output (#7 and #8) is not a potential contact circle that closes when sr 500PS enters an alarm state or operates in maintenance mode. Use a remote alarm step at the same time. START BEFORE ACTIVATING THE POWER SUPPLY OF THE DEVICE, CHECK THE OPERATING VOLTAGE (120 OR 240 VOLTS) OF YOUR MOTOR PUMP AND ADJUST THE VOLTAGE SWITCH ON THE RIGHT SIDE OF THE SR500, RESPECTIVELY. DEVICES DAMAGED BY IMPROPER ENERGY CONSUMPTION WILL NOT BE COVERED BY WARRANTY! 31 34 1. When the power is used, the SR 500 will perform and check the stability of the AC input. If the input voltage is correct and the SR 500 is charging for the first time and there are no reference values in your memory, you will see the following message: Set required applies to manual! By pressing and maintaining the SET button for 5 seconds, the service mode is performed and the SR500 can be calibrated. Wait until the screen changes from: SETUP MODE - RELAX FOR NEXT, and then release the SET button. The display will immediately switch to: service mode - ONLY WITH FIRMWARE TECHNICIAN VERSION 2.00 XX/XX/XX again and the display will pass again: Pressing the YES button will automatically format EEPROM and the Microprocessor and the display will display: Press the SET button to continue calibration. The display will show: The sensor will automatically reset by pressing the YES button based on local atmospheric pressure (the hose must be removed from the sensor during the reset procedure). The display will show: while the sensor is reset, the displayed level must be within +/- 1 to zero. If so, the display will display: Press the SET button to continue calibration. If it appears: INITIALIZE UNIT? EE FORMAT? AND YOU DIDN'T DESERVE IT! DO YOU SET SENSOR ZERO TO 1 ATM? Y/N please wait XX.XX HG zero Successful! SET TO CONTINUE CANNOT BE SET TO ZERO! SET TO CONTINUE refers to the Identify calibration issues section. The screen will show: SYSTEM CONFIG: POOL ONLY? 32 35 If you are setting up a set without a similar structure, press the SET button to continue. If you configure a combination of set and similar structure (sharing the same filter system) press the YES button to activate a similar mode structure. The screen will change to: and the second set of parameters for a similar structure will be enabled. After you have selected the appropriate system settings, press the SET button to continue. The display will display: SYSTEM CONFIG: P/S COMBO? SYSTEM CONFIGURATION: P/S COMBO? You are now ready to work with the engine pump and set a set of reference values. Before this is done, the hose must be connected from the SR 500 sensor to the drainage outlet of the engine pump cover. FIRST, insert the hose into the housing through the hose connector and gently slide the hose into the sensor until it reaches the sensor connection. Tighten the provided bracket (without wanting too much) to prevent leakage. Then tighten the hose clutch for additional stress relief. You can then remove from the lid cover and insert the connector on the adapter (1/4 NPT x 3/8 hood) using teflon tape to prevent water leakage (please insert the plug where you can (if necessary). Then add the end of the hose to the adapter connector. (If freezing conditions may occur for the system, the hose must be protected with a thermal film). Once the connection to the hose is complete, lure the motor pump by fill the trap with water, make sure that all valves are ready for normal operation and clean the filter and all baskets. When the system is ready to operate, press the YES button to start the engine pump, and the display will show: After checking that the valves are ready to operate in the pool, pressing the YES button will start the pump with a 60-second working block. The display will show: FULL PRIME? RUNNING XX.XX Hg and the current operational vacuum level are displayed. At this point, it is important that the pump reaches a full edligna and operates normally to ensure accurate calibration. If it takes more than 60 seconds for the engine pump to get barley, press the YES button again to start the engine pump again for another 60 seconds. Once the motor pump is running at full dynamic head and vacuum level is stabilized on the screen (it is normal to fluctuate from 1/2 to 1) press the YES button again while MOTOBOMBA is STILL RUNNING to immediately stop the engine pump and keep the current memory vacuum values. 33 36 The residual vacuum level or braking state will be displayed. If you see this error: See the Identify calibration issues section After the SR500 has retained the vacuum parameters, the screen will specify: Specify this value for future reference. Press the SET button, the screen will specify: Specify this value for future reference. Press the SET button, it will appear: If a similar structure mode is enabled in the services menu. If this is a group-only configuration, the device will jump on vacuum cutting. Press the YES button and the display will show: Press the YES button again to turn on the engine pump after making sure the valves are configured for a similar structure. The calibration of the set of similar structure parameters is identical to the setting of the pool parameters. Below screen shows: PLEASE WAIT XX.XX Hg HG DELTA-P TOO LOW! SET TO TRY AGAIN TO COMPARE VACUUM DELTA-P XX.XX THE REFERENCE VACUUM STOPPED XX.XX REFERENCE VACUUM SWIRL HG PRIME SPA? THE Y/N PUMP WORKS 60 SEC VALVES SET FOR SPA TREATMENTS? Y/N YES - PLEASE WAIT XX.XX Hg and SR 500 save parameters for a similar structure; also indicated by DELTA-P TOO LOW! as with pool mode. 1. SET TO TRY AGAIN a way to edit these values is to re-run barley pool or bait-like structure functions. After the parameters for a similar structure appear, press SET AGAIN to continue. The display will show: 34 37 If you see this error: see the Problem Identification section in DELTA-P TOO LOW calibration! Set to try again This is the upper threshold of the vacuum or what is the size of the vacuum peak that should be recorded as an alarm. The factory value is 3 above the service numbers; this should not be changed without consulting the factory. Press the SET button to continue. The display will show: at this point, the heating delay circuit is activated by pressing the YES button. Press the SET button to continue. The display will show: This applies to how the SR500 will reintroduce the service after a power outage. This setting must match the mode you will use regularly. Set the default mode to Staniel or The Floor. remote mode. Setting the default mode to Remote mode disables the Time and Konta modes. After setting the default operating mode to the appropriate settings, press the SET button again, the display will display: Press the OFF button to exit service mode. - NO, Default operating mode Y/N NO DEFAULT: NO FIRMWARE VERSION 2.10 XX/XX/XX 35 36 39 37 40 CALIBRATION PROBLEM IDENTIFICATION This message indicates that it was not possible to calibrate the sensor in the range 1 to zero. The hose MUST be disconnected from the sensor so that it can be reset correctly. YOU CANT FIX ZERO! SET TO CONTINUE Reading from 20 to 30 psi when trying to reset the sensor usually indicates the presence of water in the sensor housing. Disconnect the hose from the sensor and let it dry for 24 to 36 hours. FIRST, connect the hose to the sensor, then to the engine pump to charge the air into the hose and prevent water from entering the sensor. DO NOT try to dry a sensor by inserting foreign objects into the tube; damage the sensitive internal diaphragm. If the sensor is not reset after 36 hours of opening the atmosphere, ask our technical department for help. This message appears if the SR500 has not recorded a difference of 1 or more between the stop-vacuum level and the vacuum level of operation. DELTA P TOO LOW! SET SET TO try different scenarios again can cause this error: 1 The motor pump is not fully primed when the Prime Pump function is finished, resulting in less than 1 Delta-P 2. The hose is connected to the pressure side of the engine pump. If the on-screen reading corresponds approximately to the pressure of this means that it detects the pressure side of the engine pump. See Fig. 10. Installation of X-Hoses. An undetected non-return valve (or pre-existing suction line obstacle) may result in residual vacuum line perseverance after stopping the motor pump. If your vacuum does not drop significantly while please wait is displayed after completing the Prime Pump function, there may be an on/operation control valve for SR 500PS rev Normal operating modes that can be selected from sys off screen will depend on your default operating mode settings. If the default SR500 mode is set to Timed or Cont., only these modes will be able to be selected from the system shutdown screen. If remote control is selected as the default mode, only remote mode will be able to select from the Off screen of Sys off. 38 41 editing mode 1.10 and Revision 2.00 Combo P/S Enter setup mode by pressing the SET \*\*SET-UP \*\* button when the device is off. As soon as you press the SET button, you will see this message on the indicator. Release the SET button to continue. For each of the setup mode functions, pressing the SET button serves two purposes - saves each changed function value, and also causes the device to skip to the next function in setup mode. You can exit setup mode at any time by pressing the OFF/STOP button. When you exit by pressing OFF/STOP, no changes to the currently displayed function will be saved. NOTE: If the device is set-UP mode, it will automatically return to OFF mode after 60 seconds of button inactivity. No changes to the currently displayed function will be saved. MOTOBOMBA STOP TIME: The first choice in setup mode is pump start time. The default unit is 8:00 a.m. as the start time. To change the start time, press the (-) and (+) buttons. Holding down the buttons causes a faster change. Changing the start time of the motor pump causes the motor pump to stop 12 hours later than the start time selected for the motor pump. After you have selected the desired start of the engine pump, press the SET button to save it and go to the next function. MOTOBOMBA STOP TIME: The second choice in setup mode is set start stop time (+/-) TIME 08:00 AM SET STOP (-+) TIME 08:00 PM on the pump engine. The default unit is 8 p.m. as stop time. For (+) buttons (-) and (+). The time will change by 15 minutes. Holding down the buttons causes a faster change. After you have selected the desired time to stop the motor pump, press the SET button to save it and go to the next function. NOTE: The engine pump stop time may not be less than QUINCE (15) minutes from the start time of the engine pump. If the stop time value displayed stops changing when you press the (-/+ ) buttons, you are approaching the start time. 39 42 HOURS OF THE DAY: The next selection in SETUP mode is the clock time as the time of day. The default unit is 12:00 PM (lunch) to change the clock as time of day, press the (-) and (+) buttons. Holding down the buttons causes a faster change. After the desired time of day is selected, press the SET button to save it and go to the next function. DATE DATE - YEAR: The next selection in setup mode is the year. The default date is 05 to change the year, press the (-) and (+) buttons. Holding the buttons causes the value to change faster. After the desired year value is selected, press the SET button to save it, and go to the next function. ON-SITE DATE - MONTH: Next selection in set Clock Setup mode (+/-) TIME 12:00 PM DATE (+/-) YEAR (OO-99) 05 SET DATE (+/-) MONTH (01-12) 01 is the month. The default unit is 01 for January. To change the month, press the (-) and (+) buttons. Holding the buttons causes the value to change faster. After the desired month value has been selected, press the SET button to save it, and go to the next function. Setting a month will cause the value to be reset to 01 day. DATE DATE - DAY: The next selection in set up mode is the day of the selected month. The default unit is 01 for the day. To change the day, press the (-) and (+) buttons. Holding the buttons causes the value to change faster. After the desired value for the day is selected, press the SET button to save it and return to OFF mode. SET DATE (+/-) DAY (01-31) 01 UNIT SUCCESSFULLY! SET TO CONTINUE NOTE: The maximum number of days will change for different months, such as 31 days in January, 28 days in February, etc. off/STOP mode by pressing the OFF/STOP button. The motor pump and heater are turned off immediately, so they remain indefinitely. In OFF/STOP mode, the static pressure or vacuum level, as well as the date and time, is displayed constantly. 40 FROM 2.3 HF 01/04/04 12:00 12:00