

I'm not robot!

MODEL: IR8500/8500P No. : F-04-EF1009-J01008
17200/7200P DATE : OCT. 2001
I Sakai

LOCATION

SUBJECT : Revised Parts Catalog

We are issuing revised Parts Catalog. Please go over the descriptions that follow for the catalog.
The Parts Catalog being issued covers the modifications to the machine that have been made
after the previous catalog was issued and corrections made since then.

Particulars
Name of Parts Catalog: IR8500/8500P/7200/7200P
Type of Revision : Full revision
Kindly replace the previous with the one being issued.

FY8-31F7-01Y

Printed in Japan
Imprimé au Japon



Product- Downlighter

Model- LV420BRX

Description- 12V 50W Adjustable
Flameguard Downlighter, Integrated Fire
and Acoustic Barrier
Quantity- 2,821

Operating Instructions

Diesel engine
8, 10, 12 V 1600 G10F, G20F
8, 10, 12 V 1600 G40F, G50F
8, 10, 12 V 1600 G70F, G80F
8, 12 V 1600 B30S
8, 10 V 1600, B40S, B50F
12 V 1600, B40S
8, 10, 12 V 1600 G10S, G20S
8, 10, 12 V 1600 G70S, G80S

MS150076/04E



Power. Passion. Partnership.

Your VorTech Propeller Pump



VorTech MP10 EcoSmart & MP10w EcoSmart Propeller Pump

Designed especially for nano-reef aquariums, the MP10 and MP10w from EcoTech Marine are small yet powerful pumps. The MP10 and MP10w—ideal for tanks from 2.5 to 50 gallons—create gentle flows of 200 to 1,575 gallons per hour, helping the tanks feel more like the ocean. The MP10 and MP10w share the same award-winning technology as the MP40w and lets you take full control of the flow. Similarly to the MP40w, the MP10w comes with the EcoSmart Wireless Driver that enables wireless coordination and enhanced functionality between multiple. With all the electrical components outside the aquarium and a variety of easy-to-program modes, the VorTech is the safest, most versatile pump on the market.

Specifications and Operating Parameters

Flow: 200 - 1,575 gallons per hour (750 - 5962L per hour)

Power Consumption: 8-18 watts

Maximum Tank Thickness: 3/8" (9.5mm)

Appropriate Tank Size Range: 2.5 - 50 gallons (9.5-190L)

Dimensions: Wet-Side - 2.5" diameter by 1.5" long (63.5mm x 38.1mm)
Dry-Side - 2.5" diameter by 2" long (63.5mm x 50.8mm)

Clearance Needed Behind Aquarium: 2.25" (57mm)

Power Supply Specifications:

Input: 100-240V ac 1.2A 50/60 Hz

Output: 24v - 1.5A



Getting to know Your Pump

Open up the box to your new VorTech Pump. You should see the following pieces:

- 1.) VorTech Wet-Side
- 2.) Vortech Dry-Side Motor
- 3.) EcoSmart Driver
- 4.) Power Cables
- 5.) Quick Start Manual

When disassembled, the wet-side of your pump looks like the below image. Having the ability to disassemble the wet-side allows for easy cleaning and maintenance of your pump. For more information on how to disassemble and clean your pump, see Chapter 5: Maintenance of Your Pump.



Section 2.1

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Setup Guide

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LORINOC ETETMOC EB ot uoy Gniwoil yb pmtrov ruoy fo foy fo lili eht skoolnu revid tramsoce rov ruosp rov ruosped pus .Thgir i'fel yilhgils yrev of gnivom yb gnunoh rellepiep eht tsujda ylluferac .detected sitam ro noitarbiv fi .revid eht otni ylppus rewoep eht sub Deeps eht nru ašAcAš PMPU hceTrov GNINGILA pmpp hceTrov ruoy puras .yirepop Noitcnuf dna dehcatta yirepop pmup ruoy -ne -ne of otrutni Esethtcurtsni Eseth nigeb of ydaer era uoy tmemcalp rof aera eht deraperp evay dna dna pmu ecalp of of erehw nesocv evay enno pmup hceTrov gnihcatta hceTrov ruoncaht sevlah htoB newteb Pimatsoc a hliw tarepo of tirrepo tppup hceTrov eht ašAcAšTREE to sewmpmt recaps nip eht gppupum hceTrov gmup hceTrov t .egamad fo dnk silT .tmemcalperp erituer of hguone meht egamad nac stnenopmoc esseht otni dewolla ret -aw ynA .FOORPRETAW TON era revirD tramSocE dna gniblessa rotom edis-yrd hceTroV eht retaw morF pmuP eht tceotP .gnoitisoP pmuP lactreV & latnoziroH :2.5 .tekrum eht No pmup eltasrev tsom .Ise -fas eht hceTrov eht .sedome margop-ot-ysae fo yteirav that dna mairauqa eht edutustuo stuoc lacticele eht hliw eplilium neewtoc supply of your driver. When switched on, the option button can be used simultaneously with the set buttons or mode to perform certain settings. LED will change color to reflect in what way the pump is inside. For more information about the assignment of masters and slaves, see section 3.5: Assign Master/Slave Relationship. For more information about the wireless configuration of multiple pumps and pump positioning, see Chapter 5: EcoSmart mode pump configuration. Section 3.7... Masters and slaves must be defined as groups and each group must be programmed separately. You must run the following steps in the listed order to properly program your EcoSMART driver. You can configure a maximum of seven separate groups, each with a single master pump. Slave pumps can only be set to synchronize or anti-synchronize modes, or the three options in EcoSmart modes. For more information about the operation of slave bombs and configuration, see Chapter 5: Pump configuration for EcoSmart modes. • Subsequent Programme Groups - Now that the first group is programmed, repeat these steps in the next group of bombs if you wish. Although normally you cannot change the speed of a slave bomb, because the speed is determined entirely by the master pump, with the EcoSmart driver you now have the ability to control the maximum speed of individual slave pumps regardless of the master. This will be helpful if... LED is on the LED track. The following will guide you through the navigation between each mode. For more information about each specific mode, see the complete description of each mode in the next section of the manual. EcoSMART Driver general operating modes Long Pulse Constant... Operating modes EcoSmart EcoSmart TSM Operating Modes (Bedding Wells Mode) This is the oneEcoSmart is used to create a harmonic balance in your aquarium, which recalls the changing flow conditions that would be found in nature. In this way, your... Page 20 EcoSmart Masterwill be purple and your slave driver will flash white/orange/heal and will indicate your speed by the LED track. The third and fourth LED will indicate in what EcoSmart mode you are in. This mode is represented in the picture below... The speed will be indicated by the blue LED light track. Right illustration shows an EcoSmart driver in speed mode Con- stand with the speed set to just over 50% of the maximum speed. Page 22 Right illustration shows an EcoSmart Driver in random mode (yellow cart reader). The brightly lit third and room LEDs show that this driver is set for Lagoon Random, along with the dim LEDs showing the speed setting. Page 23 Short pulse The mode can then be used if you would like a wave running all the time, or you can use an EcoSmart mode that will automatically load your saved wave frequency and use it during the points in the EcoSmart program. In this mode, your slave driver will ramp is LED strip. Page 24 The graph below represents the long pulse sequence Illustration above shows an EcoSmart Driver in which the VorTech pump will do when set to Long Pulse Long Pulse Long Pulse Mode (Pink Control Dial). The dim LEDs showing the speed setting. Page 25 Operating modes Auto-Tune With the new EcoSmart driver, making a waveform in your tank is easy with Auto-Tune functionality. Follow the sequence described in the diagram below to use the Auto-Tune function in simulating a wave in your reef tank environment. This can result in the death of your fish and coral inhabitants. In some cases, an entire aquarium can be destroyed. The EcoTech Marine Battery Backup (sold separately) combined with your VorTech pump is a unique accessory that greatly improves your probability of arising from an energy break condition without any cattle loss. Page 27 Battery backup and reportsFor you using the LED indicator bar on the face of the ecosmart driver. As the power of battery backup is consumed, the LED on the LED indicator bar will move from right to left. Once they are all out, your battery backup is out of power and your pumps will no longer work until the energy is restored from the wall. Configuration of the configuration mode of the operating modes The mode is used to set settings for the following: Battery backup speed, night mode speed and time, power mode speed and time and Auto-Dim time. These modes operate the automati- cally depending on the settings you set. The configuration menu is inserted by pressing and holding all three buttons during any normal operating mode. Page 29 Operating modes At this point, you can press the button set to cycle through the different values that the current set can be saved. Use the following table to help determine the configuration values indicated by brightly lit LEDs one night. The settings are: Battery backup Speed: Example: Configuration 1: Lower pump speed... Page 30 Operating modes Night Mode Time: Example: Configuration 1: 6 hour night Configuration 2: 8 hour night Configuration 3: 10 hour night **Default Setting 4: 12 hour night Setting 5: 14 hours night Driver shown here in Night mode Setting time mode, showing that it is set for a 6-hour night and standard being a 10 hours night. Page 31 Operating modes Power mode Time: Example: Configuration 1: 5 minutes Configuration 2: 10 minutes **Default Setting 3: 15 minutes Setting 4: 20 minutes Setting 5: 30 minutes Setting 6: 60 minutes Driver shown here in Setting time setting mode of feeding mode, showing that it is set to the 5 minutes and standard being 10 minutes. Unlike conventional modes (constant speed, random, pulseand long pulse), when a mas-ter pump is set to an EcoSmart mode the slave pumps will not have op-tions of synchronization or anti-sync. Instead, they have settings that match the pump position in the aquarium. There... Horizontal and vertical positioning of your pump on the 3 .knilB neerG enO (3.1 noisiveR erawmriF arap ofAŠAzilacini ed aicnAŠuqes a aires olpmexe etsE :me revirD tramSocE us o rariq oa adalenot -sam aicnAšop / ofAŠApo odnaruges e odnatoisserp adanimreted res edop revirD us on erawmriF of ofAšiver A .aicnAšisssa siam arap troppus eniraM hceTocE o etacnroc .etnemavon rahlaf eS .erawmriF ed ofAŠAzilautA ed ossocovP o ariteR .ofAŠAcinumoc ed orrE .odahhF razilautA .erawmriF omsem o mAšAroga srevirD so sobmA .ossocov moc adAulenc ofAŠAzilautA 73 anigiAP .ortuo od mu ©Ap 3 ed ortmed arap odnahiharit .Aratse %Acov siam so moc satsitrom sid so avom .ossid m©AIA .moc ofAŠAzilautA ed ossocovP o odnezaf .Aratse %Acov euq siad sod s©Ap 001 ed ortmed sre -virD tramSocE e evaW sseleriW srevirD so sodot eugilsed .erawmriF ed ofAŠAzilautA ed ossocovP o etnarud .aton .srevirD sudes sod erawmriF o razilautA arap oxiaba amargaid e sejiAŠAurtisi sa agiS .oicliAc ed olumAca ed amertxe edaditnauq amu revuoh es oiriAšsecon res edop eragmri o omoc .evaus odicA ed ofAŠAulos amu me sasAep satsa rahlugreM .eterroc augiA bos aicam avocse amu moc setnenopmoc so etnemevas odnavocse e abmob ad adahom edatem a odnatnosed odazilar res edop ossl .itpo yllam odnatoicnuif ol-Atnam arap etnemacidoirep setnenopmoc sod atelpmoc azeplim amu ed rasicerp edop hceTroV O hceTroV a rapmil .lareG aicnAšAentetinaM ofAŠAentunaM .ofAŠAarugifnoc atse moc oiriAuaq mu arap asegrut odom on sadatucexe res meved ofAn sovarcse ed sabmob sa .sianocida sabmob racoloc arap ordiv ed salenap sartuo .iAh ofAn omoc .odreuşe odal on ovarcse ed abmob amu e .ordiv od oriesart leniap od aterid edadimertxe an tramSocE odom mu odnatucexe ertsem abmob a euqoloc %Acov euq somadnemocer euqnat etse arap 43 .ralucitrap oiriAuaq us o arap odazimto res eved euq ogla ©A adnia ordiv ed leniap mu me abmob reuqlauq ed aiscerp ofAŠAisop a .otnatne oN .sodom sosson ed siam osu o rezaf omoc e sabmob saus racoloc edno ed ofAŠAahnivida ed ohiabot o somezaf s'An .tramSocE a moc Maintenance Pump Disconnect Error Protection The VorTech pump can be shut down automatically in case of a motor and and de-couple from one-another. To set up this mode, you must calibrate your motor using the following sequence of operations: Go into Feed Mode by holding the Mode button for three seconds. Maintenance Full Driver Memory Clear In order to clear out a saved wave you must perform a full memory clear on the master driver. Dif-ferent from the normal memory clear, a full driver memory clear will any and all configured settings (i.e. eAAeA Resolution: Re-attempt the upgrade process until it completes successfully. Alternatively, you can use a normally functioning pump to re-flash the pump with the red/white error code. If none of this works, contact EcoTech Marine to speak with a service representative. WVD driver to your new EcoSmart driver. eAAeA How do I position my pumps to get the most out of the EcoSmart modes? For advanced EcoSmart pump positioning, see section 5.4: Advanced EcoSmart Pump Posi- tioning. The parts store offers the most commonly ordered service parts 24 hours a day, seven days a week. If you still are experiencing issues, EcoTech Marine's support staff is ready to help you. Please feel free to call or email us. If you notice a problem with your VorTech propeller pump, do not attempt to repair it yourself. Any attempts at self repair shall void this limited warranty. EcoTech Marine shall not be held liable for damage to any aquarium, aquarium life forms, or other personal objects due to improper use of the device. EcoTech Marine products as well as certain other manufacturer's products that were designed in compliance with the specifications for our RF Module. Use of this module in products not consented by EcoTech Marine is prohibited. prohibited.

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