August 13, 2008

tideline aquatics Newsletter

Tideline Aquatics Store Hours

Monday – Friday	11am-7pm
Saturday	10am-6pm
Sundays	1pm-5pm

THE ADVENTURES OF INSTALLING A 300 GALLON CUSTOM REEF AQUARIUM!

We'd like to thank the Kernen family for allowing us to document the installation of their new reef aquarium for this week's newsletter!

First it started with their new home being built with the future aquarium already incorporated into the plans. Where most often a new aquarium has to be installed into an existing home, here we had the advantage of talking with the builder and architect allowing the incorporation of water access, drain access, electrical requirements, cabinetry and structural support being built into the home especially for the aquarium. The Kernen's planned for a 4' x 4' cube aquarium that would be set up as a show reef tank.

The first aquarium (normally only one is required!) arrived at the store from the manufacturer several months ahead of the home being completed. It had been constructed by a new company we had not used before for our custom work yet they had a strong reputation for quality standard aquariums. Their pricing was substantially less than the other two companies that quoted the job and after discussing it with the Kernens', we chose them to construct the aquarium. It was a beautiful piece of work when it arrived. We covered the tank with a tarp behind the store to protect it from the elements until the home was ready. With the home finally complete, we subcontracted Aquatic Pros (the top aquarium service company in the Charleston area) to move the aquarium into place. Knowing the aquarium would be moved to location in two days, we removed the tarp from the tank to clean it up before transport. Well as the warm sun heated up the glass, the entire aquarium cracked through every panel right before our eyes!! It had a design flaw that did not allow the glass panels to expand and contract causing the aquarium to crumble as the glass warmed up. Thankfully this design flaw showed up at the store and not in the Kernens' incredible new home!

Needless to say, we chose another company to build a replacement tank. The Kernens' were so gracious and patient considering what had just happened to their custom aquarium. It would be nearly six weeks before the replacement aquarium would arrive. It was constructed by Deep Sea Aquatics which is owned by the former members of the original Oceanic Systems Company before it was bought out by Central Aquatics. We explained the circumstances to Deep Sea Aquatics and they were kind enough to put this aquarium on the fast track to get it constructed. Soon after arriving to Tideline we once again scheduled Aquatic Pros to move it into place. This is no easy task as this aquarium was extremely heavy! Not only that, it had to be carried up two steep flights of stairs to reach the entry into the Kernen's home. To make it even more strenuous, it was late July and steaming HOT outside!

AQUATIC PROS STAFF MOVING THE MONSTER TANK

Once at the home, the guys removed the aquarium from the truck and placed it on a dolly to roll it to the staircase leading to the entry of the Kernen home. They then carefully maneuvered it up the two flights of stairs, through the entryway and slid it on to the cabinet.

TAKING GREAT CARE WITH THE KERNEN TANK

They called the store to let us know it was ready for our custom installation work! It is always a relief to hear everything went as planned when moving a large custom aquarium into place.

READY FOR FILTRATION!!

Justin and I (Chris) began brainstorming exactly how we would plumb the aquarium. We always try to consider all of the options before we begin. We already had all of the components but installing them to be user friendly and "pretty" require some forethought. The aquarium filtration is an Ecosystem Pro Series Refugium powered by a hi-flow external water pump. The tank is drilled on the back panel with three drains and three water return lines.

DRAINS AND RETURNS ARE HIDDEN IN A ROOM BEHIND THE AQUARIUM OUT OF VIEW.

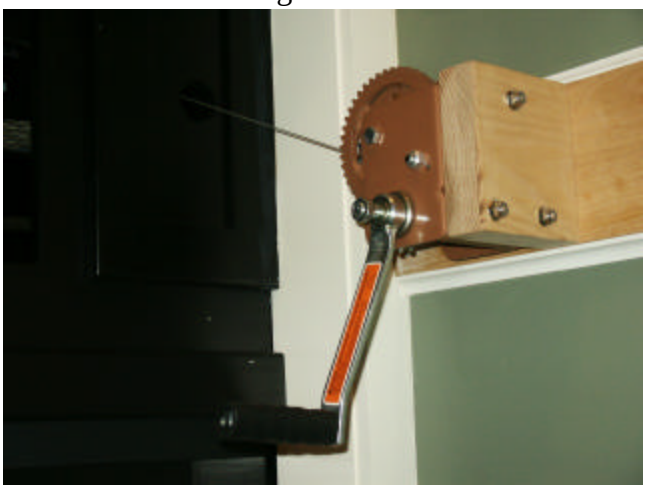
We decided to use 1" piping throughout the return system to allow the most water flow from our system pump. The return lines were installed running along the top of the lower cabinet to keep them out of sight and to allow more room inside the cabinet stand. Each return has its own adjustment valve that allows the Kernens' to adjust the flow from the front of the aquarium.

A custom calcium reactor, custom drain lines, custom filter socks, custom spray bars, custom auto top-off, a chemical reactor chamber and a large G-Series protein skimmer all needed to be incorporated into the design of the filtration system. Justin and I worked several days getting the components installed properly. All of the glued fittings were carefully put into place as we certainly did not want to endure having to deal with leaky fittings once the aquarium was filled with water.

Unions and valves were positioned in the event that the pump ever had to be removed and serviced. Access to the refugium was limited due to the supports down the center of the cabinetry. For that reason, we positioned all of the components on the right side of the refugium. It could then be serviced without the fear of spilling corrosive saltwater on the system pump or calcium reactor when harvesting the refugium algae colonies. The cabinet door openings are large on the front side of the tank with plenty of room for servicing these components. This allowed less clutter on the back side of the tank where access below is more limited. The skimmer, extra drains and sock filters were installed on the rear of the cabinet. These are messier to remove and the room behind the aquarium has a large sink and drain for cleaning these types of components that require more regular servicing. We also installed the reverse osmosis system, the 50 gallon polyethylene water holding tank and the auto top-off container in the service room behind the aquarium. This room also houses the crank mechanism for raising and lowering the lighting – and this aquarium is equipped with state of the art reef lighting!! But we will get to that soon enough….

COMPONENTS THAT REQUIRE MORE FREQUENT SERVICING ARE LOCATED IN THE REAR OF THE AQUARIUM CABINETRY.

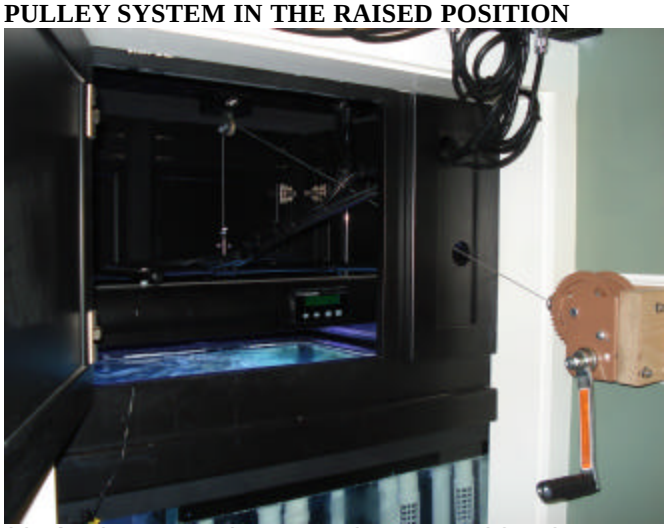
Did we mention the lighting?! The Kernen reef aquarium is lit with two 48” Solaris LED fixtures attached to a pulley system that allows the lights to be raised when working inside the aquarium. The crank is a modified wench that handles the weight of the two husky lighting systems suspended over the aquarium. Justin has to get all the credit in the design of the lighting crank. Without it, access into the aquarium for servicing would have been a nightmare scenario.



If you are unfamiliar with the Solaris LED system, each 48” fixture contains four 12”x12” LED modules each containing twenty-five 4w state of the art LEDs. Each 4’ fixture supplies 400 watts of LEDs that can be temperature

(color) adjusted from 6500K to 22000K and anywhere in between. These lamps have a life span of over 10 years before needing to be replaced. The Solaris systems use less energy to operate and run much cooler than metal halide systems. It can be programmed independently to simulate sunrise, daylight, cloud cover, sunset and lunar cycle or you can run their pre-programmed mode that performs all of these simulations automatically each day following the natural light cycle that would occur in nature.

THE SOLARIS LED LIGHTING SYSTEM SUSPENDED ABOVE THE AQUARIUM ON A PULLEY SYSTEM IN THE RAISED POSITION

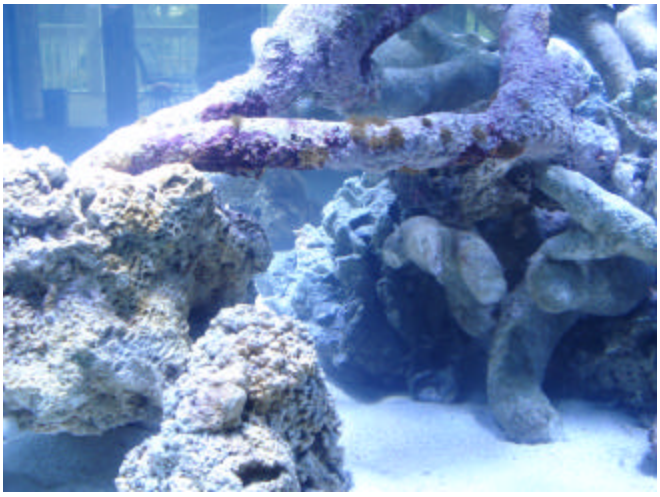


SOLARIS FIXTURES IN THE LOWERED POSITION JUST OVER THE WATER

The custom mount for the Solaris lighting systems contains a 'stop' in the event that the pulley was to malfunction. The 'stop' prevents the expensive fixtures from falling into the aquarium if a failure of the pulley were to occur.

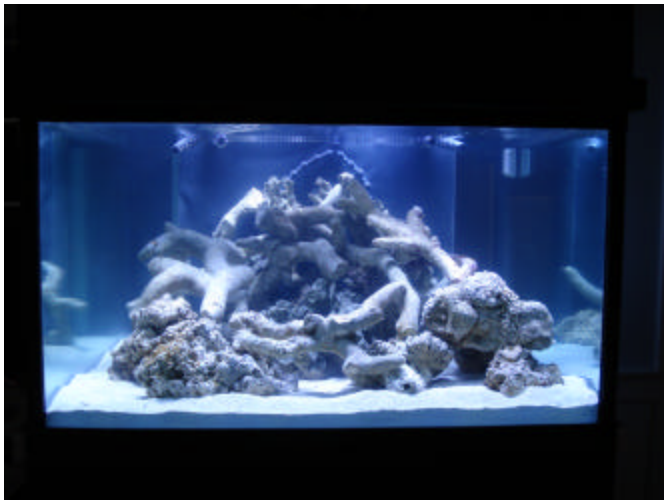
It took several days for the reverse osmosis unit to fill the aquarium. Once filled, we began mixing the salt and preparing the aquarium for live sand and live rock. The rock was fully cured as we had placed it in a holding vat about six weeks before the FIRST aquarium was supposed to be installed! But first, we had to test all of our components for proper operation and our plumbing installation for leaks. Due to our attention to detail, only one minor leak was present in one of the corrugated drain pipes. We finally just replaced the corrugated pipe due to a flaw in the material. Now for the live rock install!

If you have ever had a reef aquarium, one of the most important aspects of stacking the rock formation is to allow strong water flow throughout the rock formation. Too often hobbyists use what we call the "Pancake" method (pilling the rocks tight on top of one another). In the Kernen aquarium, they wanted to be able to keep a variety of corals from SPS species (acropora, montipora, etc) to LPS species (frogspawn, torch, hammer, etc). The live rock we chose was a mix of Tonga Branch, Fiji and Tonga Slab. The branch rock was used above the other rockwork so that light can reach both the upper levels of the rock formation and in the lower levels of the rock formation. We constructed three mounds; one large mound and two small mounds all connected with large branch rock arches. SPS corals love the intense light and strong water flow above while other coral species can be used below the branch formations.



Open cove-like areas run between the formations for low light coral placement and areas for the fish to move through the rockwork. The Kernens' are huge fans of gobies and blennies and plan to house a variety of these hardy disease resistant fish in their new reef aquarium. While waiting for the new aquarium, they have already

quarantined several nice fish that will be moved into the main reef once the water quality has stabilized. Reef hermits are already present in the aquarium busy cleaning up the newly stacked live rock formations.



The Kernens' will soon be bringing their new reef aquarium to life with the addition of brilliant live corals, reef invertebrates and stunning reef fish. Their home is finally complete with the installation of their long awaited 300 gallon custom reef aquarium.

CUSTOM REEF INSTALL PHOTOS PROVIDED TO US BY ADAM KERNEN – THANK YOU!!!

GROW-OUT FRESHWATER TRADE-INS ARE NOW AVAILABLE IN LIMITED NUMBERS AT THE STORE – GET 'EM BEFORE THEY'RE GONE!

For what ever reason, we have received some really incredible freshwater trade-ins over the last week. While so often we see the same jumbo Oscars, Jack Dempseys and Plecostomus, this week we just hit the jackpot with interesting trade-ins. Most of these fish are available only in singles or pairs so if you are interested, come to the store early before they are gone! We currently (as of this writing) have (1) Jumbo Redtail Black Shark (at least 5" long), (3) Jumbo Daddy Dojo Weather Loaches, Grow Out Leopard Ctenopomas, a Huge 4"+ Clown Loach, (2) 5" awesome Botia Lohachata Loaches, Monster Red Hook Silver Dollars, Beefy Irridescent Sharks (1 or 2), Full Size Blue, Gold and Pearl Gouramis, (1) Mega Clown Knife and more! Stop in and check out these locally raised beauties before they are off to someone else's aquarium in Charleston!

WHATS NEW AT TIDELINE?

FEEDERS:
Feeder items are extremely limited to only Feeder Crayfish, Feeder Fiddler Crabs and a small amount of Live Black Worms. All other feeder items will not be available until Tuesday of next week.

FRESHWATER FISH:
Livebearers – Half Black Fancy Guppies, Red Wag Platies, Mickey Mouse Platies, Gold Dust Mollies, Lg Marigold Lyretail Swordtails, Cobra Endler's Livebearers, Black Yucaton Mollies, Large Sunburst Platies, Tuxedo Platies, Large Dalmation Mollies.

Catfish/Loaches/Plecostomus – Tank Bred Otocinclus Dwarf Algae Eaters, Golden Dojo Weather Loaches, Corydoras Metae Catfish, Lg Banjo Catfish, Shovelnose Catfish, Schwartzi

Corydoras Catfish, 2" Clown Loaches, Rubber Plecostomus, Albino Corydoras Catfish, Arcuatus Skunk Corydoras Catfish, Clown Plecostomus, Common Plecostomus, Four-line Pictus Catfish, Yoyo Lohachata Loaches, Striata Loaches.

Brackish – Figure Eight Pufferfish, Tank Bred Archerfish, African Mbu Pufferfish (XL).

Tetras / Rasboras / Barbs / Danios – NEW Octozona Barbs, Galaxy Rasboras, Lg Congo Tetras, Red Phantom Tetras, Red Serpae Tetras, Lg Zebra Danios, Red Starfire Glofish Danios, Espei Rasboras, Blind Cave Tetras, Red Cherry Barbs, Tiger Barbs, Medium Silver Dollars, White Cloud Mountain Minnows, Marble Hatchetfish, Green Fire Tetras, Black Skirt Tetras, Pristella Maxillaris Tetras, Rummynose Tetras, Gold Barbs.

Gouramis / Bettas – True Chocolate Gouramis, Small and M/L Leopard Ctenopoma, Mixed Color Crowntail Female Bettas, Mixed Color Male Crowntail Bettas, Platinum Gouramis, Powder Blue Dwarf Gouramis, Red Flame Dwarf Gouramis, Neon Dwarf Gouramis, Mixed Color Female Bettas, Gold Gouramis, Pearl Leeri Gouramis.

Cichlids (Dwarf, South American, African) – Medium Striated Pike Cichlids, S/M Orange Pike Cichlids, Rare Metae Cichlids, Jaguar Cichlids, Assorted Medium Peacock Cichlids, Lg Male Electric Blue Ahli Cichlids, Fuscotaeniatus Cichlids, M/L Gold Severums (nice), Medium Firemouth Cichlids, Keyhole Dwarf Cichlids, Green Terror Cichlids, XL Wild Caught Altum Angelfish (Nice), Assorted Small Standard Angelfish, Zebra Lace Veil Angelfish, Gold Veil Angelfish, Medium Blue Blushing Veil Angelfish, Julidichromis Cichlids, Shell-Dwelling Cichlids, Frontosa African Cichlids, Assorted Premium Mbuna African Cichlids, Assorted Medium Oscars, Texas Cichlids, Red Salvini Cichlids.

Other – Saber Tusk Barracudas, Lg Silver Arowanas, Tank Bred Black Ghost Knives, Medium and XL Clown Knifefish, Yellowtail Spiny Eels, Roseline Denisonii Sharks, Vampire Shrimp (Africa), African Ropefish, Asian Needlefish, Large Marci Rainbowfish, Chinese Algae Eaters, Bala Sharks, Colombian Shark Catfish, Orange Japonica Shrimp, Olive Nerite Snails, Redtail Black Sharks, Medium Silver Dollars, South American Dragonfish Gobies, New Samurai Gobies, Dwarf African Frogs, Albino Clawed Frogs, Irridescent Sharks, Md Tiretrack Eels, Red Starfire & Orange Glo-fish, Red Cherry Shrimp, Common Japonica Shrimp.

Goldfish – Medium Assorted Orandas, XL Black Orandas, Medium Assorted Ryunkin Fantails.

Koi, Pond Fish and Pond Plants –
M/L Butterfly Koi, M/L Domestic Koi, S/M Red Pond Comets, Shubunkins, Small Domestic Koi, All remaining pond plants are now clearance priced with website coupon!!

The list above represents only the most recent livestock shipment. We have MANY other species available at the store!

SALTWATER FISH:

Angels / Butterflyfish – Fiji Coral Beauty Angelfish, Eiblii Angelfish, Adult Annularis Angelfish, Yellowfin Pygmy Angelfish, Melas Angelfish, Koran Angelfish, Auriga Butterflyfish, Raccoon Butterflyfish, Rare Golden Pygmy Angelfish, S/M Majestic Angelfish, Xanthurus Cream Angelfish, Rusty Angelfish, Red Flame Angelfish, Lg Lemon Peel Angelfish, Halfblack Angelfish, Black Nox Angelfish, Super Rare Blueline Angelfish, Kleini Butterflyfish, Yellow Longnose Butterflyfish.

Clownfish – Small Gold Bar Maroon Clownfish, XXL Black Saddle Clownfish, Medium Ocellaris Clownfish, Sebae Clownfish, Medium Gold Bar Maroon Clownfish, African Allardi Clownfish, Black Percula Clownfish, Baby Tomato Clownfish, Small Tomato Clownfish, Medium Tomato Clownfish.

Gobies / Blennies – Algae Blennies, Twospot Signal Gobies, Blue Spotted Jawfish (1 tagged for you Lori and Arthur!), Scooter Blennies, Rainfordi Gobies, Diamond Sifter Gobies, Dragon Sifter Gobies, Tailspot Blennies, Blue Gudgeon Torpedo Gobies, Green Gudgeon Torpedo Gobies, Eyelash Blennies, Yellow Priolepsis Gobies, Fiji Yellow Citron Clown Gobies, Assorted Color Clown Gobies, Bluefin Watchman Gobies, Candy Cane Gobies, Yellow Watchman Gobies, Orange Spotted Guttata Gobies.

Wrasses / Hogfish – Yellow Coris Wrasses, Large Changing Red Coris Wrasses, Green Melanurus Wrasses, Twospot Candy Hogfish, Dragon Wrasses, RARE Yellow Pedito Hogfish, Assorted Fancy Fairy Wrasses (nice selection), Harlequin Tuskfish, Twelve Line Wrasses , Sixline Wrasses, Green Bird Wrasses, Male Balteatus Fairy Wrasses, Temminck's Fairy Wrasses.

Tangs / Rabbitfish – Powder Brown Tangs, Powder Blue Tangs, Foxface Rabbitfish, Sri Lanka Clown Tangs, Male Lyretail Blonde Naso Tangs, Baby and Small Blue Regal Tangs, Mimic Yellow Tangs, Naso Tangs, Sailfin Tangs, Orangefin Tominensis Tangs, Hawaiian Yellow Tangs, Red Sea Sohal Tang.

Triggerfish / Eels / Puffers – Bursa Triggerfish, Valentini Pufferfish, Baby Clown Triggerfish, Small Snowflake Moray Eels, Brown Banded Moray Eel, Zebra Moray Eel, Green Wolf 'Eel', Niger Triggerfish, Clown Triggerfish, Black Indicus Triggerfish.

Lionfish – Fuzzy Dwarf Lionfish, Antennata Lionfish, Black Volitan Lionfish.

Other – Fridmani Pseudochromis, New Red Pseudochromis, Squareback Anthias, Longnose Hawkfish, Red Striped Squirrelfish, Pajama Cardinalfish, Bluespotted Jawfish, Royal Grammas, Shark Egg Capsules, Miniatus Grouper (baby), Panther Groupers, Tank Bred Seahorses, Bicolor Basslets, Green Chromis, Small Red Flame Hawkfish, Whiptail Snapper, Dark-Banded Fusillers, Assorted Damselfish.

INVERTEBRATES:

Snails / Cucumbers / Starfish / Urchins – Pyramid Reef Snails, Small Nassarius Snails, Red Fromia Reef Starfish, Banded Serpent Starfish, Black Longspine Urchins (Indian Ocean), Mexican Turbo Snails, Caribbean Turbin Snails, Kings Crown Snails, Cerith Snails, Spiral Trochus Snails, Green Brittle Starfish, Chocolate Chip Starfish.

Crustaceans – Red Fire Shrimp, Peppermint Shrimp, Blueleg Reef Hermits, Blue Spiney Lobsters, Red Pistol Shrimp, Sallylite Foot Crabs, Anemone Crabs, Strombus Conch Snails, Arrow Crabs, Red Tip Reef Hermits, Cleaner Shrimp, Electric Blue Reef Hermits, Coral Banded Shrimp.

Corals / Polyps / Mushrooms – Metallic Green Zoanthid Polyp Rocks, Tonga Orange Center Golden Zoanthid Rocks, Caribbean Blue/Green/Orange Ricordea Polyps, Green Star Polyp Rocks, Lg Green/Gold Toadstool Leather, Bright Green Duncanopsammia axifuga Coral, Super Cultured Acroporas, Orange Ricordea Yuma Polyps, Green Hydnophora Corals, Metallic Green Frogspawn Corals (Assorted Color Morphs), Assorted Indo Leather Corals, Assorted Tonga Leather Corals, Assorted Mushroom Rocks, Bright Orange Fungia Plate Corals, Metallic Hammer Corals, Red & Green Lobophylia Corals, Australian Super Symphyllia Coral, Red Chili Soft Coral, Assorted Color Zoanthid Rocks.

Other – Golden Derasa Clams (small size!), Blue/Purple Crocea Clams, Feather Dusters, Florida Condylactus Anemones, Red Hard Tube Coco Worm Dusters, Bubble Anemones, Long Tentacle Anemones.

NOTE: We still have plenty of incredible live rock this week that arrived from a 240 gallon aquarium that the owners traded in as they were moving. Many pieces of the rock have mushrooms and even zoanthids attached in small numbers. We also have show rocks of Green Stripe and Watermellon Mushrooms as well as some show size leather corals. We even have Tonga Branch Rock fully cured this week. The live rock is $6.50/LB

This list is based on our most recent shipments of saltwater livestock. There are many other species available in the store not included in this list.