

Reef Aquarium Maintenance Checklist

By Keith MacNeil, [MarineDepot.com Reef Squad](http://MarineDepot.com)

Every reef aquarist knows the importance of regular tank maintenance. This is especially true for those of us who have, for one reason or another, neglected our aquarium for a few months—sometimes even less time—and have seen firsthand how quickly things get unbalanced.

Most of you know what I'm talking about: out of control algae growth on the glass to the point where you can't even see inside your aquarium. Hair algae or red slime algae growing on the rocks. Water parameters out of whack. The list goes on.

This article contains aquarium maintenance checklists to use daily, weekly, monthly and beyond and will help you establish a schedule to make your life as a reefkeeper a little easier. Along the way, we'll introduce some products that we ourselves have used and recommend for aquarium upkeep.

Aquarium Maintenance Checklist: Daily

Visual Inspection of Aquarium Equipment

Spend a few minutes each day verifying that your pumps are working properly, that your heater and chiller are fully functional and that your other equipment—calcium reactor, ozonizer—are operating as intended. Perhaps you're already checking on your lights but it's a good idea to check on all your hardware, like an auto top-off, once each day. I find the best time to perform the visual inspection of equipment is while I'm feeding my fish and corals.



Visual Inspection of Aquarium Livestock

Look closely at each of your fish for signs of disease (like [ich](#)) and aggressive wounds (from another inhabitant that may need to be removed). Scan each coral to see if it is healthy and that there are no "pests" present (red [flatworms](#), red bugs, acro-eating flatworms and harmful nudibranches, for example). During feeding while your livestock is out/open is the best time to perform the visual inspection.

Monitor Aquarium Temperature

Check tank temperature daily to make sure it is within acceptable parameters.

Monitor Aquarium pH

Using a PH controller or monitor really simplifies this chore since all you'll need to do is check your pH reading vs. doing a traditional water test. [American Marine](#) manufactures a great line of affordable pH monitors that we've tested and recommend, but there are [plenty of](#)



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[others available](#) that are just as high quality, easy to setup and use.

Top Off Evaporated Water

If you do not use an [auto top-off system](#) for your aquarium, you should top off on a daily basis to replace evaporated water. This helps keep your aquarium salinity at a stable level.

Dose Additives/Supplements

Some [additives](#) and supplements are intended for daily use. Make sure you maintain a steady dosing regimen to avoid swings in key parameters within your aquarium.

Aquarium Maintenance Checklist: Weekly

Water Tests

Test important water parameters at least once each week. This includes but is not limited to salinity, calcium, alkalinity, nitrates, phosphates and magnesium. [Master or multi-test kits](#) are inexpensive and generally include tests for the parameters most important to keep an eye on.

Water Change

Not everyone is on the weekly water change schedule, but it's a good rule of thumb to change your water each week or every other week ([click here](#) to learn more about water changes). [Python](#) produces high-quality siphons that many of our staff members use while performing water changes. For more effective cleaning, use a turkey baster or [squirt tube](#) to blow out any trapped detritus that has accumulated in your rockwork. Then use your siphon to remove it from the tank during your water change. If you've been using store-bought saltwater but are interested in mixing your own, we've embedded a how-to video to teach you how it's done.

Clean Protein Skimmer Collection Cup

To ensure your protein skimmer is running its best, be sure to drain the collection cup once per week. Of course, every system is different. You may need to clean your cup a little more or less often depending on your aquarium and skimmer.

Clean/Scrub Algae from Tank Interior

Algae grows quickly in a reef aquarium. Using a [magnetic algae scraper](#) once per week will keep your tank walls algae-free. Most magnetic algae scrapers can be kept inside your aquarium which is not only convenient but also means you never have to get your hands wet while cleaning. If you have a glass aquarium and are dealing with some really stubborn algae growth, try Algae Free's [Easy Blade](#) attachment. The



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Easy Blade fits many popular magnetic scrapers and cuts through even the toughest algae (like coralline).

If you prefer getting your hands wet, there are certainly alternatives to magnetic algae scrapers. [Hand-held algae pads](#) are easy to work with. One of my personal favorites is the [Python Algae Mitt](#). Kent Marine has a popular line of blade-style algae scrapers called [Proscrapers](#) that effectively cut through all different types of algae and are available in various sizes and styles.

TIP: I use Marineland's [Hang-On Tank Magnum 250 Canister Filter](#) to catch algae that has been scraped loose. The included [micron cartridge](#) catches algae so you can easily remove it from the tank. The cartridges are reusable and include instructions for cleaning. They are also great for catching the detritus blown off live rock. They can be used on tanks of all sizes to help maintain pristine water quality.

Wipe Down Tank Exterior

Using [glass or acrylic polishes and/or wipes](#) makes wiping down your tank exterior a simple chore that will only take a minute or two to complete. Polishes also help prevent fingerprints and water spots from forming on the exterior of your aquarium.

Clean Filter Socks/Filter Pads

[Filter socks and pads](#) can become clogged rather quickly. Detritus and leftover food trapped in a filter sock or pad will eventually lower water quality. Most filter socks are reusable and can be cleaned using a mild bleach solution. Rinse thoroughly using a powerful stream of water to loosen trapped detritus. Allow the sock/pad to dry before reuse. Stock several filter socks/pads so you can rotate them out without having any downtime.

TIP: Don't forget to rinse new filter socks before use. There is a residual chemical left on the socks from the manufacturing process that, while harmless to the tank, can cause excessive foaming/bubbling within the aquarium.

Check Auto Top-Off Reservoir

Verify the water level in your auto top-off reservoir is adequate. You do not want to allow the auto top-off pump to run dry. You may adjust the frequency of this duty depending on the size of your reservoir and time of year (evaporation rates vary throughout the year). Checking the reservoir weekly is a good place to start.

Aquarium Maintenance Checklist: 1-2 Months

Clean Pumps and Powerheads

I have several pumps performing various jobs for my aquarium system. To keep

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things simple, I'll clean a few pumps one month and then clean the remainder the following month. To remove coralline algae from aquarium pumps/powerheads I soak them in [D-D EzeClean Equipment Cleaner](#) and use a [brush kit](#) to clean the impeller and housing. Don't forget to clean the pumps being used with skimmers, chillers and reactors. Keeping your pumps and powerheads clean will make them last and perform like new.



- Change Carbon and/or Phosphate Media**
Carbon and phosphate media should be changed about once per month. Using a media reactor (like [Two Little Fishies Phosban Reactor](#), [ViaAqua Poly Reactor](#) or [NexTReef MR1 Reactor](#)) for carbon or phosphate media not only makes changing out the media easier, it maximizes the potential of the media itself by preventing the water from bypassing it.
- Water Change**
Perhaps we're not all weekly water changers. But the longest a reef aquarium should go without a [water change](#) is one month.
- Clean and Calibrate Probes** (*pH in particular*)
Use a soft-bristle toothbrush to clean probes. Gently brush the tip of the probe to get rid of anything that has built-up or accumulated on it. Recalibrate the probe afterward to ensure it is still providing accurate readings.

Aquarium Maintenance Checklist: 6-12 Months

- Clean Return Pump**
The impeller on your return pump will undoubtedly accumulate some slime or calcium build-up during a 6-12 month stretch that will reduce its efficiency. Get that pump in like-new condition by taking it apart every 6-12 months and cleaning the gunk out. This will extend the life of the pump and enable it to push the maximum amount of water it was intended to.
- Replace Aquarium Light Bulbs**
Depending on the type of bulbs you are running over your reef, it might be time to replace your bulbs. If you are not sure how frequently to change your aquarium light bulbs, [this article](#) will help you determine if 6-12 months is appropriate or if you should wait a little longer.
- Calcium Reactor Maintenance**
It may be time to top off or replace your calcium reactor media. You should also check the level of CO2 in your



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CO2 tank. Better yet, keep an extra [CO2 tank](#) full to prevent downtime and rush trips out to get the tank refilled.

Replace RO or RO/DI Filter Media

Most reverse osmosis equipment manufacturers recommend replacing the sediment, carbon and DI cartridges every 6-12 months depending on individual use. Keep a [journal](#) to log your replacement schedule and/or use a [TDS meter](#) to determine when it's time to make a change. Your RO membrane will last about two years; with the addition of a [flush valve](#) it may last three or four.



Replace Monitor/Controller Probes

[Probes](#) to monitor pH and ORP generally last 12-18 months. If your probes become difficult to calibrate or go out of calibration quickly, it's time to replace them.

Aquarium Maintenance Checklist: 12 Months and Beyond

Replace Your Heater

The equipment we use in our aquariums will not last forever. Although most equipment should, with regular maintenance, last well over five years, some equipment should be replaced *before* it fails. If your powerhead fails while you're at work, chances are your tank will be just fine. If your heater fails, well, that's another story. We therefore recommend you consider replacing your aquarium heater every 2-3 years to be safe.

Although regular maintenance does not guarantee success, it is one of the best things you can do to keep your aquarium running its best. When you combine good maintenance habits with patience, wise (and healthy) livestock purchases and the right equipment, the result is a reef aquarium that is the envy of your reefing buds.