Big 3 target cheat sheet

Choose a stable setpoint. A range is not an instruction to chase its upper end.

1 / Choose your own targets

Common Coral Compass hobby targets [1] (not universal requirements):
Alkalinity: **7–9 dKH** — my target: _____ dKH
Calcium: **400–450 ppm** — my target: _____ ppm
Magnesium: **1,250–1,400 ppm** — my target: _____ ppm

These narrower working ranges match our chemistry guide. Other stable setpoints can work; salt mix, livestock, nutrients, and the chosen dosing method matter. See [2] for the broader chemistry context.

2 / Validate before correcting

☐ Check calibrated salinity first; a salinity error changes major-element readings. Repeat an unexpected result, check reagent condition, and follow the kit's endpoint instructions.

☐ Use actual water volume, not tank box capacity. Enter the exact product and strength into the dose calculator. Do not substitute a dose from another brand.

☐ Separate a one-time correction from the daily maintenance dose. Make gradual changes, follow the product limits, and retest before adding more. No correction rate is safe in every tank.

3 / Read the relationship

Alkalinity and calcium are consumed together during calcification. Magnesium helps inhibit unwanted calcium carbonate precipitation [2]. If readings behave oddly, check testing, salinity, dosing strength, and precipitation before escalating doses.

Do not infer magnesium deficiency from falling alkalinity alone. Do not use calcium or alkalinity supplements solely to chase a pH number.

4 / Keep a small decision log

Tank / true water volume: _____
Date / time: _____ Alk: _____ Ca: _____ Mg: _____ Salinity: _____
Product and dose: _____
Reason for changing it: _____
Retest date / readings: _____

Use the public reef test log for ongoing records; it remains free without email.

Sources & next steps

[1] Coral Compass: alkalinity, calcium and magnesium targets
https://coralcompass.app/learn/alkalinity-calcium-magnesium/

[2] Holmes-Farley: calcium, alkalinity, magnesium and pH
https://www.reefkeeping.com/issues/2006-06/rhf/index.php