



INVERTER SETTINGS CHEAT SHEET

Setting	Description	Recommended Value
Maximum Power Point Tracking (MPPT)	Adjusts power tracking for maximum efficiency	30-50%
Inverter Efficiency	Reduces energy losses due to inefficiencies in the inverter	98-99.5%
Overheating Protection	Prevents damage from overheating	Temperature: 80°C - 90°C (176°F - 194°F)
Maximum Voltage	Sets the maximum voltage for charging batteries	60-70 VDC
Minimum Voltage	Sets the minimum voltage for charging batteries	50-60 VDC
Charge Control Algorithm	Selects the algorithm for controlling battery charging	MPPT, Pulse Width Modulation (PWM), or Hybrid
Discharge Settings	Adjusts discharge rate for optimized energy storage	10-20 A



APPLIANCE SCHEDULING TEMPLATE

Appliance	Scheduled On	Scheduled Off	Cycle Duration
Water Heater	[Insert Time]	[Insert Time]	[Insert Duration]
Electric Oven	[Insert Time]	[Insert Time]	[Insert Duration]
Air Conditioner	[Insert Time]	[Insert Time]	[Insert Duration]
Refrigerator	[Insert Time]	[Insert Time]	[Insert Duration]

Example Schedule

Appliance	Scheduled On	Scheduled Off	Cycle Duration
Water Heater	6:00 AM	10:00 AM	4 hours
Electric Oven	5:00 PM	8:00 PM	3 hours
Air Conditioner	9:00 AM	11:30 AM	2.5 hours
Refrigerator	12:00 PM	6:00 PM	6 hours





The "Solar Window" Scheduler

Your energy is essentially free when the sun is shining (typically 10:00 AM – 3:00 PM). Use this template to program your smart plugs and appliances.

The Golden Window (10 AM - 2 PM)

Goal: Move 80% of your heavy usage here.

Appliance	Recommended Action
Dishwasher	Set delay timer to start at 11:00 AM.
Pool Pump	Run continuously from 10:00 AM to 3:00 PM (High speed).
Laundry (Wash)	Load in the morning, set delay to start at 12:00 PM.
Laundry (Dry)	If electric, run immediately after wash (approx 1:00 PM).
HVAC (Pre-Cooling)	Drop thermostat by 3°F (2°C) at 1:00 PM to super-cool while power is free.

The "expensive power" Zone (4 PM - 9 PM)

Goal: Zero heavy loads. This is when Peak Rates kill your savings.

- Thermostat: Raise by 2°F (1°C). Rely on stored cool air.
- Appliances: DO NOT RUN Dishwasher or Laundry.
- Lighting: Dim to 50% or ensure LEDs are used.



NAVIGATING SOLAR

Inverter Settings Cheat-Sheet

Your inverter is the brain. Most come with default settings that aren't optimized for your wallet.

1. Operation Modes

Mode A: Self-Consumption (Default/Best for Most)

What it does: Powers your home first. Excess charges battery. Exports only when full.

When to use: You have 1:1 Net Metering or want to use your own power.

Mode B: Time-Based Control (TOU / Arbitrage)

What it does: Charges from grid when cheap (off-peak). Dumps battery to home when expensive (peak).

When to use: You have "Time-of-Use" rates. Saves the most money.

Mode C: Backup / Full Reserve

What it does: Keeps battery at 100% always.

When to use: ONLY when a storm is coming. Do not leave on daily.

2. Battery Reserve Limit

Recommended Setting: 20% - 30%

Don't drain to 0%. Keep 20% in the tank for surprise outages at 3 AM.

TIPS AND VARIATIONS

- Adjust the cycle duration based on your appliances' energy consumption patterns.
- Consider implementing a "load shifting" during the solar window: it's a wise strategy to optimize energy storage during peak demand periods.
- Use this template as a starting point and adjust the settings according to your specific appliance schedule and energy needs.

Feel free to modify this cheat sheet and appliance scheduling template to suit your specific solar panel system's requirements. Remember to always follow local building codes and safety regulations when installing and operating your solar panel system.

Please note that the specific settings may vary depending on the type of inverter, solar panel array, and local climate conditions.

This is just a general guide to get you started.



Thank you

for joining us on this journey!

We hope that this guide has proved helpful in finding your place in the sun and making the most of it.

But this is not the end, my friend!

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