

HVAC Business Management — Workbook

This workbook turns the course into the numbers and systems that actually run your shop. You will calculate your real loaded labor rate, build flat-rate prices, design a maintenance-agreement program, forecast the seasonal curve, and stand up technician scorecards and a P&L. Work through each section with your own data, then use the templates to keep these systems alive month after month.

Pricing and Profit Fundamentals

Calculate what an hour really costs you and turn it into flat-rate prices that hit a target margin.

Worksheet: Loaded Labor Rate Calculator

Fill in the figures for one representative service technician. Work down to a cost per billable hour, not per paid hour. This number is the floor under every price you set.

Technician hourly wage

Paid hours per year (usually 2080)

Annual base wages (wage x paid hours)

Labor burden percent (taxes, workers comp, benefits, PTO)

Labor burden dollars

Annual vehicle and tooling cost (truck, fuel, insurance, phone, tablet, uniforms)

Total annual loaded cost

Billable efficiency percent (billable hours / paid hours)

Billable hours per year

Loaded cost per billable hour (total cost / billable hours)

Exercise: From Cost to Billed Labor Rate

Using your loaded cost per billable hour from the worksheet, decide the billed labor rate you will use inside flat-rate tasks. Choose a target gross margin on labor and back into the rate.

- What target gross margin on labor will you set (for example, 55 to 65 percent)?

- What billed labor rate does that target imply from your loaded cost?

- How does your implied rate compare to what you charge today, and what is the dollar gap per billable hour?

- What objection do you expect from customers or techs, and how will you answer it?

Worksheet: Material Markup Table

Set your markup tiers by part cost so small parts carry a price floor and large equipment stays competitive. Remember: a 40 percent margin requires a 1.67 multiplier; a 50 percent margin requires doubling cost. Tier 1 part cost range (e.g. under \$10) and price rule (minimum floor in dollars)

Tier 2 part cost range (e.g. \$10 to \$100) and markup multiplier

Tier 3 part cost range (e.g. \$100 to \$500) and markup multiplier

Tier 4 equipment over \$1000 and markup multiplier

Diagnostic / service-call fee amount

Policy: is the diagnostic fee credited toward an approved repair? (yes/no)

Checklist: Flat-Rate Pricing Readiness

- Calculated loaded cost per billable hour to the dollar
- Chosen a billed labor rate and target gross margin on labor
- Listed the 40 to 60 most common tasks
- Assigned realistic labor hours to each task (including setup and cleanup)
- Built tiered material markup with a minimum price floor on small parts
- Set a diagnostic fee and a clear credit policy
- Loaded flat-rate prices into dispatch software so every tech quotes the same price
- Created good-better-best options for major repairs and replacements

Service Agreements and Recurring Revenue

Design, price, and sell maintenance-agreement tiers that smooth seasonality and feed your replacement pipeline.

Worksheet: Agreement Tier Designer

Cost one tune-up first, then design three tiers. Price each comfortably above delivery cost; the real profit comes from the repairs and replacements the agreement unlocks.

Tune-up labor hours and loaded labor cost per tune-up

Tune-ups included per year

Total annual cost to deliver the tune-ups

Basic tier: monthly price, repair discount, included benefits

Plus tier: monthly price, repair discount, included benefits

Premium tier: monthly price, repair discount, replacement credit, included benefits

Billing method (monthly card/ACH vs annual lump sum)

Auto-renew policy

Exercise: Member Lifetime Value Model

Estimate what one agreement member is worth over their tenure so you can justify spiffs and acquisition effort. Use your own averages.

- Average monthly agreement price and expected member tenure in years?

- Total agreement fees over that tenure (price x 12 x years)?

- Average repair revenue per member per year through the agreement?

- Probability and value of an eventual system replacement sold to that member?

- What spiff per agreement can you afford to pay technicians given this lifetime value?

Exercise: The In-Field Agreement Pitch

Write the exact words your technicians will use to offer an agreement after completing a repair. Keep it honest and benefit-led; the member discount on the repair often pays for year one.

- Draft a two-sentence pitch a tech delivers after fixing the problem.

- How will you frame the repair discount so it covers most of the first-year cost?

- What is the next scheduled touchpoint you promise the customer (e.g. fall tune-up)?

- How will you handle a no without pressure while leaving the door open?

Checklist: Agreement Program Launch

- Costed a single tune-up against the loaded labor rate
- Built three clearly differentiated tiers (Basic, Plus, Premium)
- Moved to monthly auto-renew billing by card or ACH
- Set a per-agreement technician spiff and a weekly leaderboard
- Created the in-field pitch script and trained every tech on it
- Set up failed-payment dunning and a pre-cancellation call
- Scheduled a call to any member who has not used their seasonal tune-up
- Reporting active member count, renewal rate, and net member growth monthly

Seasonal Demand, Scheduling, and Cash Flow

Forecast the seasonal curve, staff the peaks and valleys, and protect cash so summer profit survives the slow months.

Worksheet: Seasonal Demand Map

Pull at least 24 months of invoices and chart revenue and call count by month. Overlay NOAA cooling and heating degree days for your city to anticipate weather-driven swings.

Month

Revenue this month

Share of annual revenue (percent)

Service call count

Cooling degree days (from NOAA)

Heating degree days (from NOAA)

Notes on weather anomalies and how volume responded

Exercise: Layered Staffing Plan

Design a labor strategy that flexes with the curve instead of staffing to the average or the peak. Decide how each layer scales up and down.

- How many core full-time techs can you keep busy in your slowest month?
- How will you cover the cooling peak: overtime, paid on-call rotation, seasonal helpers, subs?
- What shoulder-season work (agreement tune-ups, deferred replacements, IAQ, training) will keep core techs billable?
- What are your on-call stipend, overtime rate, and after-hours customer premium?

Worksheet: 13-Week Cash Flow Forecast Inputs

Lay out the inputs for a rolling 13-week cash forecast so you can see a cash gap two months before it arrives. Update weekly.

Week starting date

Cash in: collections, agreement billings, deposits

Cash out: payroll and burden

Cash out: suppliers and equipment

Cash out: rent, loan payments, insurance, taxes

Net weekly cash movement

Running cash balance

Target reserve (2 to 3 months of fixed expenses)

Checklist: Seasonal Cash Discipline

- Charted 24+ months of revenue and call volume by month
- Overlaid NOAA cooling and heating degree days on the curve
- Built a layered staffing plan (core, overtime/on-call, seasonal, subs)
- Scheduled agreement tune-ups into the shoulder seasons on purpose
- Set a target cash reserve of two to three months of fixed expenses
- Sweeping a fixed percent of peak revenue into a separate reserve account weekly
- Collecting service in full at the truck and taking 30 to 50 percent deposits on replacements
- Arranged an unused line of credit before it is needed

Inventory, Technicians, and the Numbers That Run the Shop

Stand up parts inventory control, technician scorecards and pay, and a monthly P&L you actually use.

Worksheet: Truck-Stock and Min/Max Sheet

Pull 12 months of part usage from invoices, rank by frequency, and define the standard list every van carries with min/max levels. Aim for first-trip completion above 80 percent.

Part name and number

12-month usage count (frequency)

ABC class (A = high usage, never stock out)

Van minimum (reorder trigger)

Van maximum (replenish to)

Warehouse minimum

Warehouse maximum

On every van? (yes/no)

Worksheet: Technician Scorecard

Track productivity, quality, and customer experience together so no single metric can be gamed. Review monthly with each tech for coaching, not just judgment.

Technician name and month

Average ticket (revenue per service call)

Billable efficiency (billed hours / paid hours)

Callback rate (target under 3 to 5 percent)

Agreement conversion rate

Customer rating and review count

Closing rate on presented options

Coaching notes and next-month goal

Exercise: Pay Plan and Quality Gate

Design a compensation plan that rewards productivity without encouraging overselling. Tie any bonus to a quality gate and an ethics audit.

- What base pay keeps techs from being desperate enough to oversell?
 - What spiffs will you pay for agreements and indoor-air-quality add-ons?
 - What callback rate or review threshold reduces or voids the performance bonus?
 - How will you audit a sample of sold jobs for genuine necessity?
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Checklist: Run the Business by the Numbers

- Defined the standard truck-stock list from A and B usage items
- Set van and warehouse min/max levels for every stocked part
- Turned on automatic stock decrement and reorder alerts in software
- Cycle counting inventory weekly instead of one annual count
- Built a balanced technician scorecard (productivity, quality, experience)
- Tied performance pay to a callback and review quality gate
- Restructured the P&L by department (service, maintenance, replacement, IAQ)
- Closing the books monthly and reviewing gross margin (45 to 55 percent) and net profit (10 to 20+ percent) against the same month last year

Your Action Plan

1. Calculate your true loaded cost per billable hour using your own wages, burden, and billable efficiency.
2. Choose a billed labor rate and target gross margin, then build or license a flat-rate price book of your top 40 to 60 tasks.
3. Set a tiered material markup with a minimum price floor on small parts and a firm diagnostic fee.
4. Design three maintenance-agreement tiers, move to monthly auto-renew billing, and train every tech on the in-field pitch.
5. Chart 24+ months of demand against NOAA degree days and build next year's monthly forecast.
6. Create a layered staffing plan and a fair, well-paid on-call rotation; fill shoulder seasons with agreement tune-ups.
7. Stand up a rolling 13-week cash forecast and start sweeping peak-season profit into a reserve account.
8. Build the standard truck-stock list with min/max levels and turn on automatic decrement and reorder in your software.
9. Launch a balanced technician scorecard and a pay plan with a quality gate, reviewed monthly.
10. Restructure your P&L by department, close monthly, and steer pricing, staffing, and inventory off the numbers.

