

YOUR FREE READER'S COMPANION

# The Plumbing Field Pack

*A companion to The DIY Home Plumbing Repair Bible · by Roy Halloran*

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Thanks for picking up the book. This is the companion you keep under the sink: where every shut-off in your house is, what pipe and fitting you're actually looking at, the parts inside the fixtures that fail, and exactly what to do in the first sixty seconds when a pipe lets go. Print it, fold it, tape it inside the cabinet door.

*Ninety percent of plumbing calls aren't hard plumbing. They were easy plumbing that got away from somebody who didn't know where the valve was. Know your shut-offs and you've already won most of the fight. — Roy*

## Shut-Off Valve Locator

When water is going where it shouldn't, you don't have time to go looking. Walk your house once, today, find each valve, and write it on this sheet. Turning a valve that hasn't moved in years can make it weep — that's normal; note any that won't fully close so you can replace them before you need them.

| Valve                  | Where to look                                                                                                 | Mine is: |
|------------------------|---------------------------------------------------------------------------------------------------------------|----------|
| Main shut-off          | Where the line enters — basement wall facing the street, crawlspace, garage, or an outdoor box near the meter | _____    |
| Water heater           | Cold inlet on top of the tank (the right-hand pipe)                                                           | _____    |
| Each toilet            | Low on the wall, left side under the tank                                                                     | _____    |
| Each sink (hot + cold) | Under the basin, against the back wall                                                                        | _____    |
| Washing machine        | Behind the machine, hot + cold (or a single lever box)                                                        | _____    |
| Fridge / ice maker     | Small saddle or stop valve under the sink or behind the fridge                                                | _____    |
| Outdoor hose bibs      | Often an interior shut-off on the supply line feeding them                                                    | _____    |

*Two kinds of stops: a gate/round handle turns clockwise to close (righty-tighty), a quarter-turn lever is open when the handle is in line with the pipe, closed when it's across it. If a stop won't seal, the main still will — that's why the main comes first on this list.*

## Pipe & Fitting Quick Chart

Match what you've got before you buy a thing. Look at the pipe a few inches from the fixture.

| Pipe       | Looks like                           | Join it with                             | Notes                                          |
|------------|--------------------------------------|------------------------------------------|------------------------------------------------|
| Copper     | Dull orange-brown metal, rigid       | Solder (sweat), push-fit, or compression | Must be dry to solder; push-fit needs no torch |
| PEX        | Flexible plastic, red / blue / white | Crimp ring, cinch clamp, or expansion    | Cheapest DIY repair; needs the matching tool   |
| CPVC       | Cream / tan rigid plastic            | Solvent cement (CPVC only)               | Not the same glue as white PVC                 |
| PVC        | White rigid plastic (drains)         | Solvent cement (primer + glue)           | Drain/waste only, never hot supply             |
| Galvanized | Gray threaded steel, old homes       | Threaded fittings / transition to PEX    | Corrodes inside; plan to replace runs          |

|                         |                           |                 |                                                     |
|-------------------------|---------------------------|-----------------|-----------------------------------------------------|
| Push-fit<br>(SharkBite) | The fitting, not the pipe | Push on by hand | Works on copper, PEX, CPVC — the<br>great equalizer |
|-------------------------|---------------------------|-----------------|-----------------------------------------------------|

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*The repair shortcut: a push-fit coupling or stop joins almost anything to anything with no torch, no glue, no special tool. Cut clean, deburr, mark the insertion depth, push to the line. Worth keeping two in the parts box.*

## Fixture-Part Diagrams — Know the Names

You can't buy the right part if you can't name it. Open the fixture, find the part, match it here.

Toilet tank (top three failures):

- Flapper — rubber seal at the bottom; warps and lets water run. \$5, two minutes.
- Fill valve — tall tower on the left; hisses or won't shut off. Replaceable as a unit.
- Flush handle / lift chain — too much slack or too little keeps it running.
- Wax ring — under the whole toilet; leaks at the floor = pull the toilet, replace it.

Faucet (the four types — yours is one of these):

- Compression — separate hot/cold handles, drips? Replace the washer/seat.
- Cartridge — single or double, pull the cartridge cylinder and match it.
- Ball — single handle with a rounded cap, kits sold by faucet brand.
- Ceramic disc — single handle, smooth tilt; replace the disc cartridge.

Under the sink:

- P-trap — the U-bend; unscrew the slip nuts by hand to clear a clog or stop a leak.
- Supply lines — braided steel hoses; the #1 catastrophic failure. Replace any that's 10+ years old.
- Shut-off stops — see the locator above; the part you'll bless when something fails.

## Emergency Water-Off Checklist

Tape this where you'll find it in the dark. A burst supply line throws gallons a minute.

1. Shut the closest valve first. Fixture stop if you can reach it — otherwise go straight to the main.
2. If the fixture stop won't hold or there isn't one — close the MAIN. Quarter-turn: handle across the pipe. Round handle: clockwise until it stops.
3. Open the lowest faucet in the house (basement / outside) and a high one too — this drains the lines and kills the pressure that's feeding the leak.
4. Kill power to the water heater if it could run dry — gas to "pilot," or the breaker for electric. A heater firing on an empty tank is a wrecked heater.
5. For a frozen pipe: open the faucet it feeds before you thaw it, warm it gently (hair dryer, towels — never an open flame), and start near the faucet, working back.
6. Mop and move air. Standing water and a fan now saves the floor and the drywall later.
7. Only then decide: push-fit coupling for a clean break you can reach, or call a pro. The water is already off — you've got time now.

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That's the pack. Walk your shut-offs this week, before anything's wrong — that one habit is worth more than every tool in the box. When you've stopped your first drip or saved yourself a midnight flood, I'd love

to hear about it, and in a couple of emails I'll tell you how a quick word from you helps this book reach the next homeowner standing in a puddle wondering where the valve is.

Shut it off first,

Roy Halloran