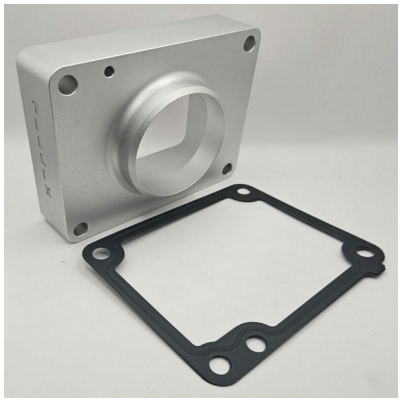
Heater Grid Delete Kit

1HD-FT & 1HD-FTE Installation Guide







Spigot version · Open flange version · Product photo

1. Overview

The factory intake heater grid sits directly in the airflow path between the shutdown valve and intake manifold. While it can assist cold starts in extreme sub-zero conditions, it creates a permanent restriction, adds high electrical load (often 40–100+ amps), and is a known source of relay and wiring issues.

In Australian and most temperate climates additional intake heating is not required. Removing the heater grid restores full unrestricted intake flow, reduces electrical demand on the battery and alternator, and eliminates a potential failure point. The result is improved throttle response and better efficiency — especially noticeable on modified or higher-boost engines.

These Tillix Heater Grid Deletes are CNC-machined from billet alloy, media blasted, and clear anodised for a clean, factory-looking OEM finish.

2. Available Designs

- **Spigot** — Aligns perfectly with the inside diameter of the shutdown valve for optimal flow and a seamless transition.
- **Open** — Open design for custom intake piping in any size or configuration.

Kit includes: 1 × CNC billet delete plate (Spigot or Open as selected) + all new genuine Toyota gaskets.

3. Tools & Safety

- Metric sockets and spanners (typically 10–12 mm)
- Torque wrench
- Clean rags and intake cleaner
- Electrical tape / heat shrink for wiring
- Safety glasses and gloves

Disconnect the negative battery terminal(s) before starting. The heater circuit is high current. Work on a cool engine.

4. Electrical Isolation

The intake heater is controlled by a dedicated relay. From Toyota service information (RM617E), the ECU energises the relay when coolant temperature is below approximately 40°C (maximum run time ~90 seconds).

1. Locate the intake heater relay in the engine bay (commonly near the battery tray or inner wing).
2. Unplug the small control connector (typically grey 2-pin) from the relay so the ECU can no longer command the heater.
3. Isolate the high-current power feed. Cover any exposed terminals or disconnect and insulate both ends. Do not leave a bare live wire in the engine bay.

On many post-2002 HDJ100 vehicles the right-hand battery primarily feeds the intake heater. After deletion this circuit can often be isolated if desired.

5. Mechanical Installation

1. Remove air intake / intercooler piping or crossover components as required for access. The heater is typically accessible once the throttle body or crossover is unbolted.
2. Disconnect any remaining electrical connection at the heater.
3. Remove the bolts securing the intake heater assembly and carefully extract it. Clean the mating faces thoroughly.
4. Fit the Tillix delete plate with the supplied genuine Toyota gaskets (part 19829-17010 or equivalent). Two gaskets are commonly used — one on each side of the original heater location.
5. Install fasteners and torque evenly in a cross pattern. Do not overtighten aluminium components.
6. Reassemble all intake components, clamps, vacuum lines and sensors.

6. Final Checks

- Reconnect the battery and start the engine.
- Check for intake leaks.
- Confirm no check-engine light related to the heater circuit.
- In mild climates cold starts remain reliable. In very cold conditions allow longer cranking if needed.
- Monitor the first few drives for any abnormal behaviour.

7. Additional Notes

- Pair with the Tillix 1HD-FTE EGR Delete Kit for a complete intake clean-up.
- Genuine Toyota gasket: 19829-17010 (confirm quantity for your model).
- On late HDJ100 models with electronic throttle, leave unrelated sensors connected.
- This product is intended for off-road or race use only. Always comply with local regulations.
- Professional installation is recommended if you are not experienced with the 1HD-FTE intake system.

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Australian designed for real-world Australian conditions.

This guide is based on Toyota RM617E information and Tillix product specifications. Vehicle-specific variations exist — verify fitment for your model and year.