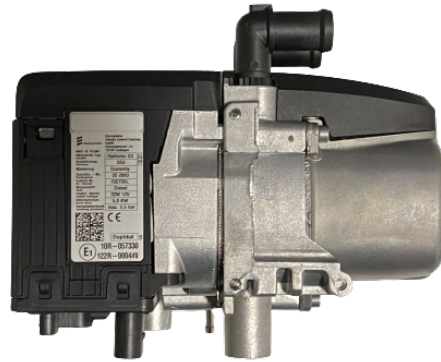


S3 D5E Hydronic Install Kit



Espar S3 D5E Hydronic

Kit Contents

Mounting

Wiring System

Thermostat

Fuel System

Exhaust System

Coolant System

Fan Heaters

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**S3 D5E Hydronic
Install Kit Diagrams**

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S3 D5E Hydronic – Kit Contents

Heater Mount Bracket	S3 Mounting Bracket	1
Coolant Pump Mount Bracket	S3 Coolant Pump Bracket	1
Mounting Bolts	M6 Fasteners	2
Combustion Air Intake Muffler	intake hose/muffler	1
Harness HS3 D5E	HYD Harness HS3CS 12/24v	1
Power Harness	2c-12 Terminated	1
Fuel Pump Harness	2c-16 Terminated	1
Thermostat Harness	3c-18 Terminated	1
Coolant Pump Harness	Harness Water Pump	1
Relay Module	Wired 12v 30a Relay	1
Thermostat	Digital Thermostat	1
Fuel Line Pump to Tank	Polyprop 2mm white	3 ft
Fuel Line Pump to Heater	Polyprop 2mm white	15 ft
Fuel Line Connector	Rubber 3.5mm 2"	2
Fuel Line Adapter	Rubber 3.5mm to 5mm 2"	2
Clamp for Fuel Line Heater Side	S/S 9mm	6
Clamp for Fuel Line Tank Side	S/S 10mm	2
Fuel Pump Mount	Rubber low noise	1
Exhaust Flexible Stainless Steel	30mm double wall	6.5 ft
Exhaust Sleeve	2" fiberglass sock	6.5 ft
Exhaust Elbow	S/S 24mm to 30mm	1
Exhaust Thru-Hull S/S	30mm angled S/S	1
Gasket for Thru-Hull Silicon	45 x 30 x 3 mm	1
Clamp Elbow to Heater	S/S 26mm	1
Clamp Elbow to Thru-Hull	S/S 30-33mm	2
Clamp for Intake Muffler	S/S #12	1
Clamp for Exhaust Sleeve	S/S #24	2
Main Breaker	15 amp	1
Bracket for Breaker	Small S/S	1
Breaker Disconnects	12-10ga Yellow Female	2
Power Ring Terminals	5/16" 12-10ga Yellow	2
Horizontal Header Tank	Steel Header Tank (with mounts)	1
Plastic Overflow Tank	Overflow Tank (with mount)	1

S3 D5E Marine Install Kit

This kit comes with everything required for mounting, electrical, fuel and exhaust installation of an S3 D5E.

The kit does not come with coolant hose or fittings.

The kit does not come with fan heaters. See Page 13 for a complete list of available fan heaters.

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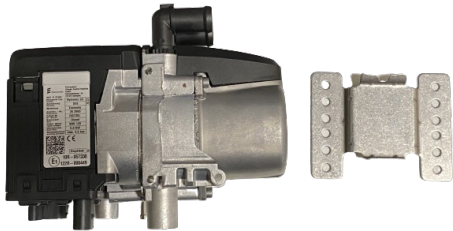
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**S3 D5E Hydronic
Install Kit Diagrams**

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S3 D5E Hydronic Install Kit – Mounting



Espar S3 D5E Hydronic

Kit Item
Heater Mounting Bracket

Kit Item
Header Tank (horizontal) with mounts



Provided with Heater
Coolant Pump

Kit Item
Coolant Pump Mounting Bracket

Kit Item
Overflow Tank (with mounts)




Provided with Heater
Fuel Pump

Kit Item
Fuel Pump Mounting Bracket



Kit Item
Main Breaker

Kit Item
Main Breaker Mounting Bracket

 Industries Ltd. www.roton.ca	S3 D5E Hydronic Install Kit Diagrams
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S3 D5E Hydronic Install Kit – Wiring Harnesses

Not all plugs on main harness are used. Some are for diagnostic/future use.

Kit Item
HS3 D5E Main Harness



Kit Item
Coolant Pump Harness (6')



Kit Item
Power Harness (15')



Kit Item
Fuel Pump Harness (15')



Kit Item
Thermostat Harness (15')



Kit Item
Relay Harness

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**S3 D5E Hydronic
Install Kit Diagrams**

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S3 D5E Hydronic Install Kit – Wiring (Main Unit)

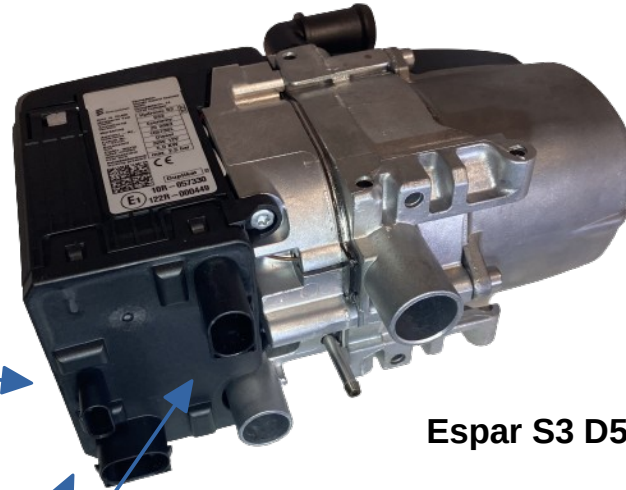
Detail



Kit Item
Coolant Pump Harness (6')



Provided with Heater
Coolant Pump




Espar S3 D5E Hydronic



Kit Item
HS3 D5E Main Harness

Main Harness and Coolant Pump Harness plug directly into bottom of Heater.

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S3 D5E Hydronic Install Kit – Wiring (Power)

Kit Item
HS3 D5E Main Harness



Detail



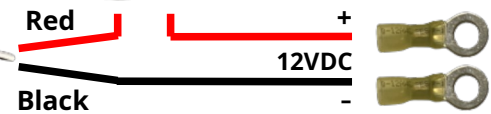
Kit Item
Power Harness (15')



Kit Item
Breaker
Disconnects



Kit Item
Main Breaker



Kit Item
Ring Terminals

To extend power harness,
use AWG #12 cable.

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**S3 D5E Hydronic
Install Kit Diagrams**

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S3 D5E Hydronic Install Kit – Wiring (Fuel Pump)

Kit Item

HS3 D5E Main Harness



Detail



Kit Item

Fuel Pump Harness (15')



Provided with Heater
Fuel Pump



S3 D5E Hydronic Install Kit – Wiring (TH135 Thermostat)

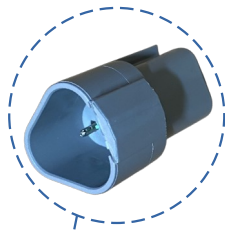
Kit Item
Thermostat



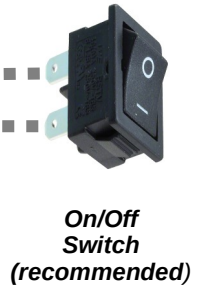
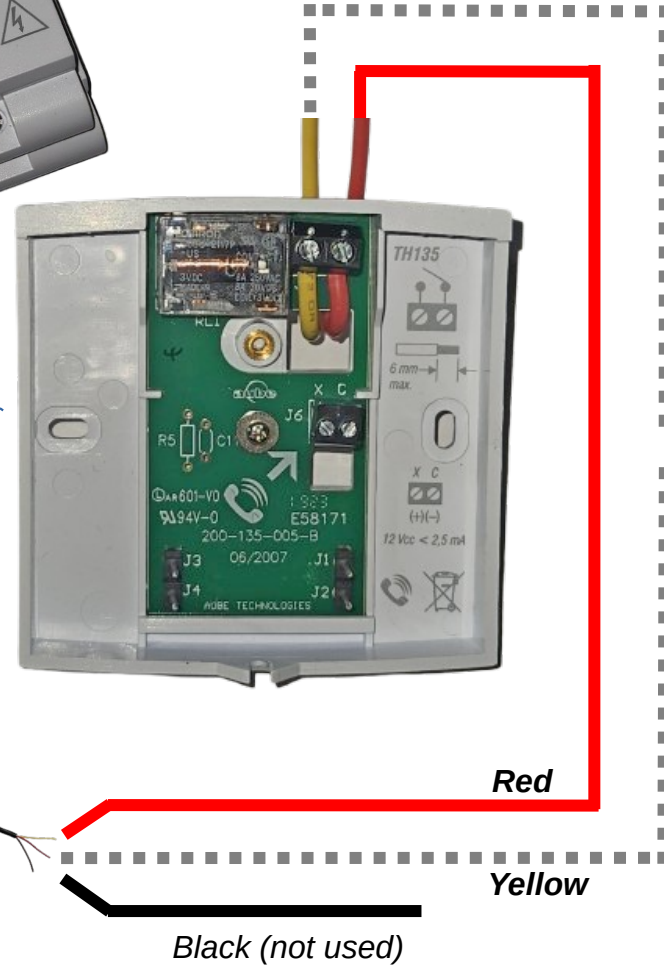
Kit Item
HS3 D5E Main Harness




Detail

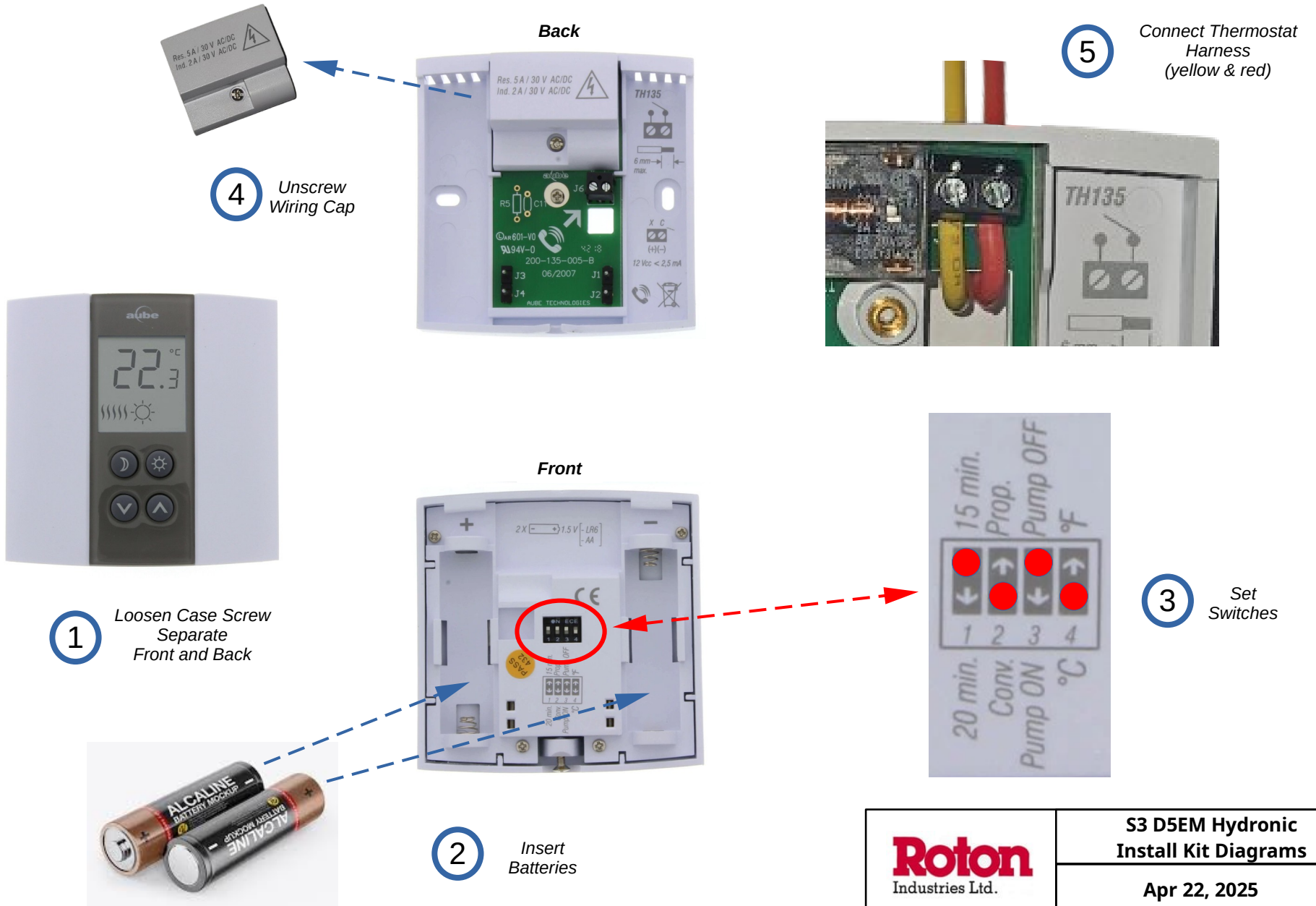



Kit Item
Thermostat Harness (15')



 Industries Ltd. www.rotan.ca	S3 D5EM Hydronic Install Kit Diagrams
	Apr 22, 2025
	TH135 Thermostat

TH135 Thermostat (for Espar D5E Hydronic) – Setup



 Industries Ltd. www.roton.ca	S3 D5EM Hydronic Install Kit Diagrams
	Apr 22, 2025
	TH135 Thermostat

TH135 Thermostat (for Espar D5E Hydronic) – Operation





The default display is the current **ambient temperature** (in C or F)

Use the arrow buttons   to adjust the **setpoint**.

The thermostat will call for heat when the **ambient temperature** is lower than the **setpoint**.

While calling for heat, the thermostat will display the  icon.


Push and hold the “moon” button  to save the current **setpoint** as memory setting “econo”

Push and hold the “sun” button  to save the current **setpoint** as memory setting “comfort”

Short press either the “moon” or “sun” button to use one of these memory settings as the active **setpoint**.

Notes:

- The thermostat has a built-in 120 second short-cycle delay. Whenever the thermostat stops calling for heat, it will not call for heat again until 120s elapses – regardless of setpoint.
- The thermostat does NOT have an on/off switch. Using a very low setpoint (eg. 5 degrees) will ensure the heater does not come on in most cases, but in cold weather it is recommended that an on/off switch be installed (see wiring diagram) to ensure heater does not come on when not needed.

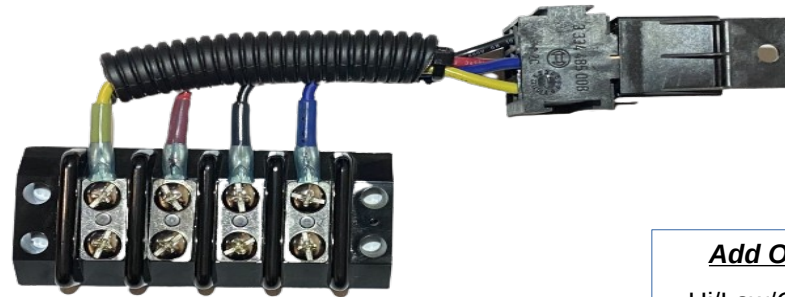
 www.rotton.ca	S3 D5EM Hydronic Install Kit Diagrams
	Apr 22, 2025
	TH135 Thermostat

S3 D5E Hydronic Install Kit – Wiring (Fan Heaters)

Kit Item #1:
HS3 D5E Main Harness



Kit Item #3:
Relay Harness



Detail

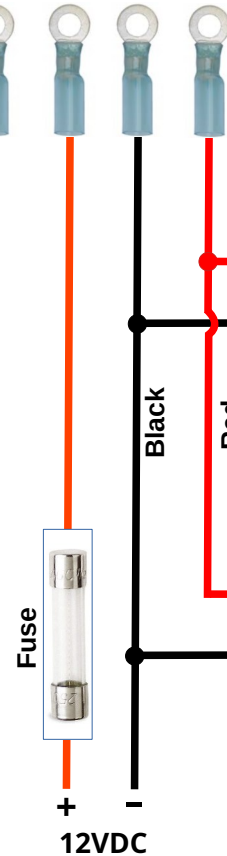


Wire from Main Harness connects to Relay Harness

Add Optional
Hi/Low/Off Switch
(not in kit)



Fan Heaters



Relay Harness ensures that Fan Heaters are energized only when:

- thermostat calls for heat, and
- coolant loop has risen to temperature

Fuse and wire (not in kit) **must be rated** for total current draw of all fans in circuit

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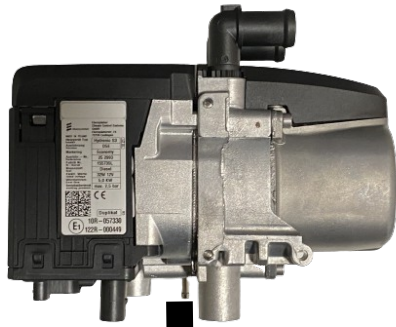
S3 D5E Hydronic
Install Kit Diagrams

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S3 D5E Hydronic Install Kit – Fuel System

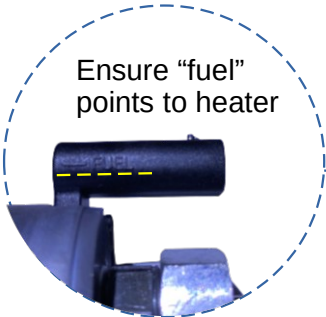
Espar S3 D5E Hydronic



Kit Item
Fuel Line Heater to Pump
3 ft (2mm white)



Ensure "fuel" points to heater

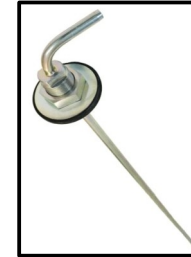


Provided with Heater
Fuel Pump

Kit Item
6 x Fuel Line Clamps 9mm



Kit Item
Fuel Line Heater to Pump
15 ft (2mm white)



Add Optional
Fuel Pickup Tube
20.2900.20.20.10



Add Optional
Portable fuel tank
03780

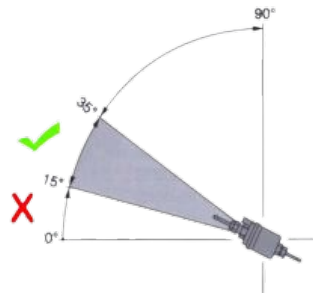


Kit Item
2 x Rubber 3.5-5mm Adapters
- one at heater
- one at tank

Kit Item
2 x Fuel Line Clamps 10mm

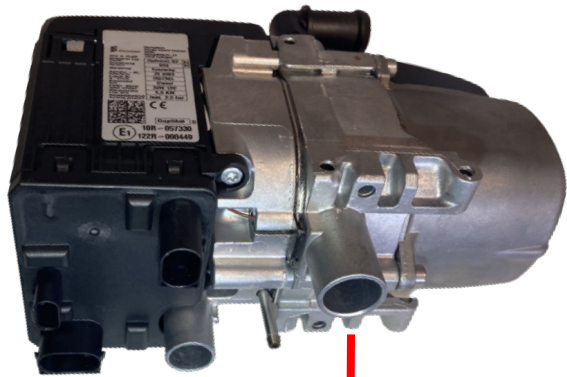
To existing diesel tank pickup

Pump must be installed with flow spigot upward, between 15 and 35 degrees, to ensure air doesn't get stuck inside.



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S3 D5E Hydronic Install Kit – Exhaust System



Espar S3 D5E Hydronic

Kit Item
1 x Hose Clamp
For Air Intake

Kit Item
Combustion Air
Intake Muffler

Kit Item
1 x Exhaust Clamp 26mm
Heater to Elbow

Kit Item
Exhaust Elbow
24mm to 30mm

Kit Item
2 x Exhaust Clamp 30mm
Elbow to Exhaust &
Exhaust to Thru-Hull

Kit Item
Inline exhaust muffler

Kit Item
Exhaust Thru-Hull
Stainless

Kit Item
2 x Hose Clamps
For exhaust sleeve

Kit Item
6.5' Exhaust Sleeve
2" Fiberglass

Kit Item
Silicone Gasket
For Thru-Hull

<p>Roton Industries Ltd. www.roton.ca</p>	<p>S3 D5E Hydronic Install Kit Diagrams</p>
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	<p>Page 13 of 16</p>

S3 D5E Hydronic Install Kit – Coolant Loop

Coolant hose, clamps, valves and fan heaters not included in install kit.

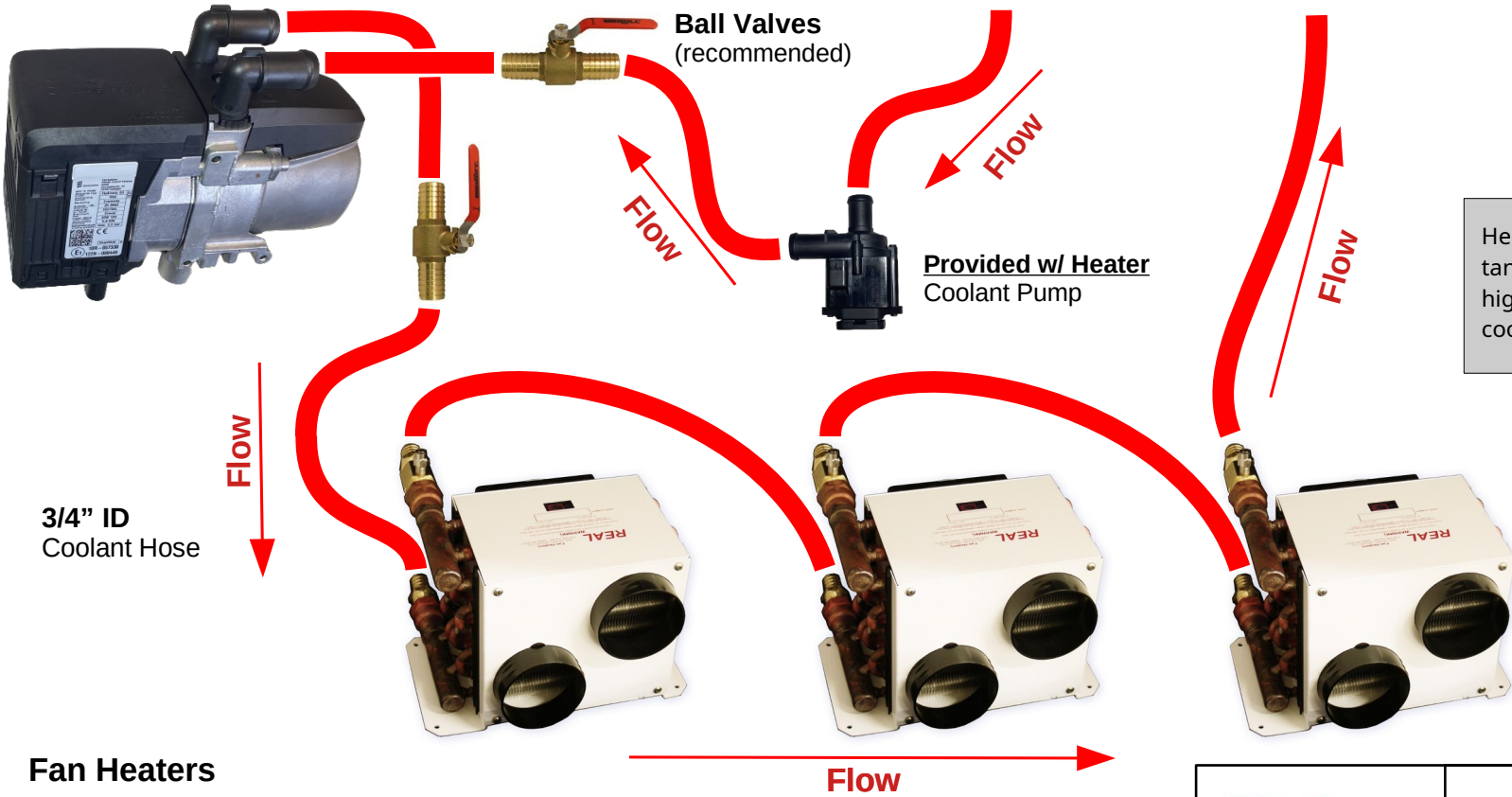
Espar S3 D5E Hydronic

Kit Item
Vertical Header Tank



Kit Item
Overflow Tank

Header and Overflow tanks must be the highest point in the coolant loop installation.



Fan Heaters

- See page 14 for available fan heaters.
- Coolant should flow in the bottom fitting and out the top. Bleed valve is located on top fitting
- Total BTU of all blowers should equal or exceed BTU capacity of the Hydronic Heater's output.

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**S3 D5E Hydronic
Install Kit Diagrams**

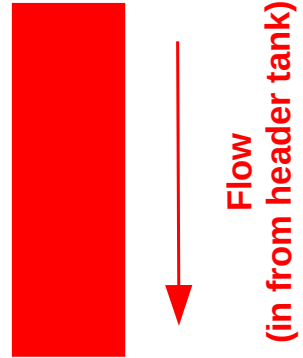
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S3 D5E Hydronic Install Kit – Coolant (Water Pump Detail)

Use 3/4" coolant hose.

Ensure coolant pump is connected with inflow at the top and outflow at the side.



Ensure coolant hose is rated for heater/glycol applications



Provided with Heater:
Coolant Pump

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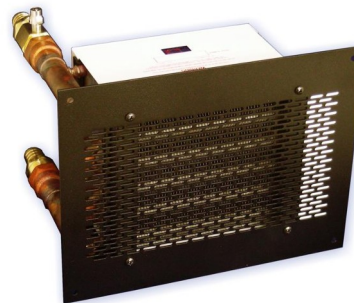
S3 D5E Hydronic
Install Kit Diagrams

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S3 D5E Hydronic Install Kit – Fan Heaters

Type	Model	Size (BTU)	Ducting	Voltage	Hose
Defroster	5423	26000	Dual 3"	12VDC	3/4"
Defroster	5432.5	26000	Triple 2.5"	12VDC	3/4"
Defroster	5433	26000	Triple 3"	12VDC	3/4"
Toe Space Heater	6300	8400	Flush	12VDC	3/4"
Fan Heater	6000B	5300	Flush	12VDC	3/4"
Fan Heater	6013	5300	Single 3"	12VDC	3/4"
Fan Heater	6022	5300	Dual 2"	12VDC	3/4"
Fan Heater	6200B	10250	Flush	12VDC	3/4"
Fan Heater	6213	10250	Single 3"	12VDC	3/4"
Fan Heater	6214	10250	Single 4"	12VDC	3/4"
Fan Heater	6223	10250	Dual 3"	12VDC	3/4"
Fan Heater	6400B	19250	Flush	12VDC	3/4"
Fan Heater	6423	19250	Dual 3"	12VDC	3/4"
Fan Heater	6424	19250	Dual 4"	12VDC	3/4"



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**S3 D5E Hydronic
Install Kit Diagrams**

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