Frequently Asked Questions

What Tru-Cool heat exchanger would be best suited for my vehicle?
Please refer to page 5 of this brochure to match your vehicle to the heat exchanger that best suits your cooling needs. Due to liability issues, we can't recommend a heat exchanger.

What is the thread on LPD-4739?
Thread is 5/8" - 18 UNF 2B thread (3/8" inverted flare).

At what temperature does the thermal bypass activate?
The thermal bypass starts to open at 180° F and is fully open at 205° F.

Do you have heat exchangers with ANS fittings?
No.

Do you have heat exchangers with 1/2" hose barb fittings?
No.

How can larger tube & fin coolers offer less cooling?
Bigger isn't always better. Tube & fin designs are inefficient and have a lot of dead space, while the Tru-Cool stacked plate design puts most of the fluid close to the surfaces that are in contact with passing air. In fact, when it comes to cooling, the Tru-Cool cooler is up to 30% more efficient than tube & fin designs.

Which cooler should I use for a diesel application?
In most diesel applications, the transmission line is large. The cooler's fitting should not be smaller than the lines. The smaller lines may cause restriction and affect transmission fluid flow.

Where should I install the cooler?
If possible, locate the cooler in an area where it will be exposed to ram air. This helps maximize cooling. Install the cooler in series and downstream of the radiator in-tank oil cooler. In colder weather, this maximizes heat transfer and increases transmission warm-up times. Most OEM installations are plumbed this way.

How should I mount the oil cooler fittings?
Fittings can be located up, down or sideways. This advantage, plus their compact design, makes installation of our coolers quick and easy.

Should I disconnect the radiator in-tank oil cooler when I install a Tru-Cool cooler?
We don't recommend disconnecting in-tank coolers. If you are going to disconnect, consult OEM. The in-tank cooler offers additional cooling and helps preheat the transmission. In cooler climates, the in-tank oil cooler should never be disconnected from the system.

Will putting an oil cooler in front of the radiator increase the engine operating temperature?
Not normally. Putting an auxiliary oil cooler in the system decreases the temperature in the radiator in-tank oil cooler, and this in turn puts less of a load on the radiator. From a total system standpoint, the engine operating temperatures should vary little from where they were before the oil cooler was installed.

Will installing an oil cooler affect my vehicle customer warranty?
It could, depending on which cooler you install. Vehicle manufacturers do not normally approve of the installation of tube & fin coolers, since they are very flow-restrictive. LPD oil coolers, though, are virtually the only cooler now being used for OEM factory installations. Contact your local dealer for approval.

The fittings supplied do not work with my application. What should I do?
We have supplied fittings for the four most common applications. Compression fittings can be purchased separately, from your local distributor. Part numbers are as follows:
• 735-9149 for 5/16 lines
• 735-9150 for 3/8 lines

Where should I install the cooler?
If possible, locate the cooler in an area where it will be exposed to ram air. This helps maximize cooling. Install the cooler in series and downstream of the radiator in-tank oil cooler. This maximizes heat transfer and decreases transmission warm-up times in colder weather. Most OEM installations are plumbed this way.

How should I mount the oil cooler fittings?
Fittings can be located up, down or sideways. This advantage, plus their compact design, makes installation of our coolers quick and easy.

Should I disconnect the radiator in-tank oil cooler when I install a Tru-Cool cooler?
We don’t recommend disconnecting in-tank coolers. If you are going to disconnect, consult OEM. The in-tank cooler offers additional cooling and helps preheat the transmission. In cooler climates, the in-tank oil cooler should never be disconnected from the system.

Will putting an oil cooler in front of the radiator increase the engine operating temperature?
Not normally. Putting an auxiliary oil cooler in the system decreases the temperature in the radiator in-tank oil cooler, and this in turn puts less of a load on the radiator. From a total system standpoint, the engine operating temperatures should vary little from where they were before the oil cooler was installed.

Will installing an oil cooler affect my vehicle customer warranty?
It could, depending on which cooler you install. Vehicle manufacturers do not normally approve of the installation of tube & fin coolers, since they are very flow-restrictive. LPD oil coolers, though, are virtually the only cooler now being used for OEM factory installations. Contact your local dealer for approval.
Drive Hard. Rest Easy.

Get longer life from your transmission and reduce the risk of costly repair bills. Tru-Cool transmission oil coolers help maintain lower operating temperatures, significantly extending the lives of both your lubricant and your transmission. Protect your work, your warranties and your reputation with Tru-Cool—and get the advantage that comes from Dana-backed quality.

Frequently Asked Questions

What Tru-Cool heat exchanger would be best suited for my vehicle?

Please refer to page 5 of this brochure to match your vehicle to the heat exchanger that best suits your cooling needs. Due to liability issues, we can't recommend a heat exchanger.

What is the thread on LPD-4739?

Thread is 5/8” - 18 UNF 2B thread (3/8” inverted flare).

At what temperature does the thermal bypass activate?

The thermal bypass starts to open at 180° F and is fully open at 205° F.

Do you have heat exchangers with ANS fittings?

No.

Do you have heat exchangers with 1/2" hose barb fittings?

No.

How can larger tube & fin coolers offer less cooling?

Bigger isn’t always better. Tube & fin designs are inefficient and have a lot of dead space, while the Tru-Cool stacked plate design puts most of the oil close to the surfaces that are in contact with passing air. In fact, when it comes to cooling, the Tru-Cool cooler is up to 30% more efficient than tube & fin designs.

Which cooler should I use for a diesel application?

In most diesel applications, the transmission line is large. The cooler’s fitting should not be smaller than the lines. The smaller lines will restrict the transmission fluid flow.

Where should I install the cooler?

If possible, locate the cooler in an area where it will be exposed to ram air. This helps maximize cooling. Install the cooler in series and downstream of the radiator in-tank oil cooler. This maximizes heat transfer and decreases transmission warm-up times in cooler weather. Most OEM installations are plumbed this way.

What is the thread on LPD-4739?

Thread is 5/8” - 18 UNF 2B thread (3/8” inverted flare).

At what temperature does the thermal bypass activate?

The thermal bypass starts to open at 180° F, and is fully open at 205° F.

Do you have heat exchangers with ANS fittings?

No.

Do you have heat exchangers with 1/2” hose barb fittings?

No.

How can larger tube & fin coolers offer less cooling?

Bigger isn’t always better. Tube & fin designs are inefficient and have a lot of dead space, while the Tru-Cool stacked plate design puts most of the oil close to the surfaces that are in contact with passing air. In fact, when it comes to cooling, the Tru-Cool cooler is up to 30% more efficient than tube & fin designs.

Which cooler should I use for a diesel application?

In most diesel applications, the transmission line is large. The cooler’s fitting should not be smaller than the lines. The smaller lines will restrict the transmission fluid flow.

Where should I install the cooler?

If possible, locate the cooler in an area where it will be exposed to ram air. This helps maximize cooling. Install the cooler in series and downstream of the radiator in-tank oil cooler. This maximizes heat transfer and decreases transmission warm-up times in cooler weather. Most OEM installations are plumbed this way.

How should I mount the oil cooler fittings?

Fittings can be located up, down or sideways. This advantage, plus their compact design, makes installation of our coolers quick and easy.

Should I disconnect the radiator in-tank oil cooler when I install a Tru-Cool cooler?

We don’t recommend disconnecting in-tank coolers. If you are going to disconnect, consult OEM. The in-tank cooler offers additional cooling and helps preheat the transmission. In cooler climates, the in-tank oil cooler should never be disconnected from the system.

Will putting an oil cooler in front of the radiator increase the engine operating temperature?

Not normally. Putting an auxiliary oil cooler system in the system decreases the temperature in the radiator in-tank oil cooler, and this in turn puts less of a load on the radiator.

From a total system standpoint, the engine operating temperatures should vary little from where they were before the oil cooler was installed.

Will installing an oil cooler affect my vehicle’s warranty?

If cool, depending on which cooler you install, vehicle manufacturers do not normally approve of the installation of tube & fin coolers, since they are very flow-restrictive. LPD oil coolers, though, are virtually the only cooler now being used for OEM factory installations. Contact your local dealer for approval.
Tru-Cool Engineered Backed by Dana

Tru-Cool technology combines optimal heat transfer with improved protection against Tate system failure. When automatic transmission fluid (ATF) is cold, it is more viscous. Unique Tru-Cool engineering enables ATF to flow more efficiently through the cooler at the top of the system. As operating temperatures increase, ATF becomes hotter and thinner. It is then directed through the core, where it is cooled. The result is a longer life for your transmission.

Better by Design

With their unique design, Tru-Cool transmission and engine coolers help keep the vehicles you rely on running cool, and that can save you major repair costs.

Here’s how it works:

• Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Line Pressure Drop (LPD) Transmission coolers have a unique cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
• As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system directs the ATF through the core, where it is cooled.
• You get optimal heat transfer and improved protection against Tate system failure.

Engine Oil Coolers

- Components sold as a Universal Kit (seen here) or separately
- Available in four sizes, with ½” NPT female fittings
- Universal Kits only work with spin-on filters with ½” male adapter
- Components sold as a Universal Kit (seen here) or separately

Mounting Hardware

- Components sold separately or as a complete kit

Tru-Cool LPD Transmission Oil Coolers

- Same durable brazed aluminum construction, oil cooler is your only option
- The perfect choice when an auxiliary transmission oil cooler has durable brazed aluminum construction and is designed for those applications that bypass the internal tank cooler for extra cooling or protection

Tru-Cool Max

- The perfect choice when an auxiliary transmission of cooler is a your only option
- Same durable brazed aluminum construction, double the cooling performance of the Tru-Cool LPD
- Precise fin spacing for efficient air flow and cooling
- Installation hardware included

Tru-Cool LPD Transmission Oil Coolers

- 30% more cooling and 10 times less flow restriction than traditional tube & fin design
- Self-regulating for maximum cooling and running protection
- Available in stacked plate or fin & plate configurations
- Available in 13 sizes

Tru-Cool Hardware

625-5120 Installation Kit
723-5101 Steel Mount Hardware Re-installation
735-5120 TOC Hose 1/4" 25 feet
735-5121 TOC Hose 1/4" 25 feet
735-5140 Compression Fitting 5/16 trans lines (2 per kit)
735-6209 TOC Hose 1/2" 25 feet
732-4515 Cold Weather Bypass 3/8 hose Barb

Drive hard. Rest easy. Check out our line of Tru-Cool products today!
Tru-Cool Engineering Backed by Dana

Tru-Cool technology combines optimal heat transfer with improved protection against lube system failure. When automatic transmission fluid (ATF) is cold, it is more viscous. Unique Tru-Cool engineering enables ATF to flow more efficiently through the cooler at the top of the system. As operating temperatures increase, ATF becomes hotter and thinner. It is then directed through the core, where it is cooled. The result is a longer life for your transmission.

Better by Design

With their unique design, Tru-Cool transmission and engine coolers help keep the vehicles you rely on running cool, and that can save you major repair costs.

Here’s how it works:

- Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Line Pressure Drop (LPD) Transmission coolers have a unique cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system then directs the cooler at the top of the system.
- When automatic transmission fluid (ATF) is cold, it is more viscous. Unique Tru-Cool engineering enables the thicker ATF to flow more efficiently through the coolers.
- Coolers have a unique cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- You get optimal heat transfer and improved protection against lube system failure.

Engine Oil Coolers

- Components sold as a Universal Kit (seen here) or separately
- Available in four sizes, with ½” NPT female fittings
- Universal kits only work with spin-on filters with these thread sizes:
  - ½” x 16
  - 13/16” x 16
  - 11” x 12
  - 22 x 1.5 mm

Mounting Hardware

- Components sold separately or as a complete kit
- Installation hardware included

Tru-Cool Max

- The perfect choice when an auxiliary transmission of cooler is your only option
- Same durable brazed aluminum construction, doubling the cooling performance of the Tru-Cool LPD
- Precise fin spacing for efficient air flow and cooling
- Installation hardware included

Tru-Cool LPD Transmission Oil Coolers

- 30% more cooling and 15 times less flow restriction than traditional tube & fin design
- Self-regulating for maximum cooling and running protection
- Available in stacked plate or fin & plate configurations
- Available in 13 sizes

Tru-Cool Product Line

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Plate Configuration</th>
<th>GVW Rating</th>
<th>BTU Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST4451</td>
<td>18 x 7 x 1/8</td>
<td>11,398</td>
<td>7,500</td>
</tr>
<tr>
<td>LST4452</td>
<td>27 x 7 x 1/8</td>
<td>14,308</td>
<td>8,800</td>
</tr>
<tr>
<td>LST4454</td>
<td>36 x 7 x 1/8</td>
<td>16,308</td>
<td>13,000</td>
</tr>
<tr>
<td>LST4458</td>
<td>45 x 7 x 1/8</td>
<td>20,308</td>
<td>20,308</td>
</tr>
<tr>
<td>LST4464</td>
<td>54 x 7 x 1/8</td>
<td>14,400</td>
<td>13,000</td>
</tr>
<tr>
<td>LST4468</td>
<td>63 x 7 x 1/8</td>
<td>24,808</td>
<td>21,800</td>
</tr>
<tr>
<td>LST4472</td>
<td>72 x 7 x 1/8</td>
<td>29,808</td>
<td>24,800</td>
</tr>
<tr>
<td>LST4477</td>
<td>81 x 7 x 1/8</td>
<td>36,808</td>
<td>31,800</td>
</tr>
<tr>
<td>LST4484</td>
<td>90 x 7 x 1/8</td>
<td>42,808</td>
<td>36,808</td>
</tr>
<tr>
<td>LST4492</td>
<td>100 x 7 x 1/8</td>
<td>50,808</td>
<td>42,808</td>
</tr>
</tbody>
</table>

Off-Roading

Towing

Climbing Steep Grades

Drive hard. Rest easy. Check out our line of Tru-Cool products today!
Bigger by Design

With their unique design, Tru-Cool transmission and engine coolers help keep the vehicles you rely on running cool, and that can save you major repair costs.

Here’s how it works:

- Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Low Pressure Drop (LPD) Transmission Oil Coolers reduce ATF viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system.
- As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system then directs the ATF through the core, where it is cooled.
- Unique Tru-Cool Engineering enables the cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- You get optimal heat transfer and improved protection against lube system failure.

Engine Oil Coolers

- Components sold as a Universal Kit (seen here) or separately
- Available in four sizes, with ½" NPT female fittings
- Universal Kits only work with spin-on filters with these thread sizes:
  - ¼" x 16
  - 13/16" x 16
  - 1" x 12
- Engine Oil Coolers reduce the overall temperature of the oil, improving engine performance.

Mounting Hardware

- Components sold separately or as a complete kit
- Available in 13 sizes
- Stacked plate or fin & plate configurations
- Available in stacked plate or fin & plate configurations

Tru-Cool Max

- The perfect choice when an auxiliary transmission oil cooler is your only option
- Same durable brazed aluminum construction, double the cooling performance of the Tru-Cool LPD
- Precise fin spacing for efficient air flow and cooling
- Installation hardware included

Tru-Cool LPD Transmission Oil Coolers

- 30% more cooling and 15 times less flow restriction than traditional tube & fin design
- Self-regulating for maximum cooling and running protection
- Available in stacked plate or fin & plate configurations
- Available in 13 sizes

Tru-Cool Lube System Coolers

- Designed for reduce viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system
- Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Low Pressure Drop (LPD) Transmission Oil Coolers reduce ATF viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system.
- As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system then directs the ATF through the core, where it is cooled.
- Unique Tru-Cool Engineering enables the cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- You get optimal heat transfer and improved protection against lube system failure.

Better by Design

With their unique design, Tru-Cool transmission and engine coolers help keep the vehicles you rely on running cool, and that can save you major repair costs.

Here’s how it works:

- Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Low Pressure Drop (LPD) Transmission Oil Coolers reduce ATF viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system.
- As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system then directs the ATF through the core, where it is cooled.
- Unique Tru-Cool Engineering enables the cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- You get optimal heat transfer and improved protection against lube system failure.

Engine Oil Coolers

- Components sold as a Universal Kit (seen here) or separately
- Available in four sizes, with ½" NPT female fittings
- Universal Kits only work with spin-on filters with these thread sizes:
  - ¼" x 16
  - 13/16" x 16
  - 1" x 12
- Engine Oil Coolers reduce the overall temperature of the oil, improving engine performance.

Mounting Hardware

- Components sold separately or as a complete kit
- Available in 13 sizes
- Stacked plate or fin & plate configurations
- Available in stacked plate or fin & plate configurations

Tru-Cool Max

- The perfect choice when an auxiliary transmission oil cooler is your only option
- Same durable brazed aluminum construction, double the cooling performance of the Tru-Cool LPD
- Precise fin spacing for efficient air flow and cooling
- Installation hardware included

Tru-Cool LPD Transmission Oil Coolers

- 30% more cooling and 15 times less flow restriction than traditional tube & fin design
- Self-regulating for maximum cooling and running protection
- Available in stacked plate or fin & plate configurations
- Available in 13 sizes

Tru-Cool Lube System Coolers

- Designed for reduce viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system
- Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Low Pressure Drop (LPD) Transmission Oil Coolers reduce ATF viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system.
- As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system then directs the ATF through the core, where it is cooled.
- Unique Tru-Cool Engineering enables the cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- You get optimal heat transfer and improved protection against lube system failure.

Better by Design

With their unique design, Tru-Cool transmission and engine coolers help keep the vehicles you rely on running cool, and that can save you major repair costs.

Here’s how it works:

- Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Low Pressure Drop (LPD) Transmission Oil Coolers reduce ATF viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system.
- As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system then directs the ATF through the core, where it is cooled.
- Unique Tru-Cool Engineering enables the cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- You get optimal heat transfer and improved protection against lube system failure.

Engine Oil Coolers

- Components sold as a Universal Kit (seen here) or separately
- Available in four sizes, with ½” NPT female fittings
- Universal Kits only work with spin-on filters with these thread sizes:
  - ¼” x 16
  - 13/16” x 16
  - 1" x 12
- Engine Oil Coolers reduce the overall temperature of the oil, improving engine performance.

Mounting Hardware

- Components sold separately or as a complete kit
- Available in 13 sizes
- Stacked plate or fin & plate configurations
- Available in stacked plate or fin & plate configurations

Tru-Cool Max

- The perfect choice when an auxiliary transmission oil cooler is your only option
- Same durable brazed aluminum construction, double the cooling performance of the Tru-Cool LPD
- Precise fin spacing for efficient air flow and cooling
- Installation hardware included

Tru-Cool LPD Transmission Oil Coolers

- 30% more cooling and 15 times less flow restriction than traditional tube & fin design
- Self-regulating for maximum cooling and running protection
- Available in stacked plate or fin & plate configurations
- Available in 13 sizes

Tru-Cool Lube System Coolers

- Designed for reduce viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system
- Automatic transmission fluid (ATF) is more viscous when it’s colder. Tru-Cool Low Pressure Drop (LPD) Transmission Oil Coolers reduce ATF viscosity, allowing the thicker ATF to flow more efficiently through the cooler at the top of the system.
- As operating temperatures increase, the ATF heats up and becomes thinner. The Tru-Cool system then directs the ATF through the core, where it is cooled.
- Unique Tru-Cool Engineering enables the cold weather passive bypass that allows the thicker ATF to flow more efficiently through the cooler at the top of the system.
- You get optimal heat transfer and improved protection against lube system failure.
What Tru-Cool heat exchanger would be best suited for my vehicle?
Please refer to page 5 of this brochure to match your vehicle to the heat exchanger that best suits your cooling needs. Due to liability issues, we can't recommend a heat exchanger.

What is the thread on LPD-4739?
Thread is 5/8" - 18 UNF 2B thread (3/8" inverted flare).

At what temperature does the thermal bypass activate?
The thermal bypass starts to open at 180° F and is fully open at 205° F.

Do you have heat exchangers with ANS fittings?
No.

Do you have heat exchangers with 1/2" hose barb fittings?
No.

How can larger tube & fin coolers offer less cooling?
Bigger isn't always better. Tube & Fin designs are inefficient and have a lot of dead space, while the Tru-Cool stacked plate design puts most of the oil close to the surfaces that are in contact with passing air. In fact, what comes to cooling, the Tru-Cool cooler is up to 30% more efficient than tube & Fin designs.

Which cooler should I use for a diesel application?
In most diesel applications, the transmission line is large. The cooler's fitting should not be smaller than the lines. The smaller lines will restrict the transmission fluid flow.

Where should I install the cooler?
If possible, locate the cooler in an area where it will be exposed to ram air. This helps maximize cooling. Install the cooler in series and downstream of the radiator in-tank oil cooler. This maximizes heat transfer and decreases transmission warm-up times in cooler weather. Most OEM installations are plumbed this way.

How should I mount the oil cooler fittings?
Fittings can be located up, down or sideways. This advantage, plus their compact design, makes installation of our coolers quick and easy.

Should I disconnect the radiator in-tank oil cooler when I install a Tru-Cool cooler?
We don't recommend disconnecting in-tank cooler. If you are going to disconnect, consult OEM. The in-tank cooler offers additional cooling and helps preheat the transmission. In cooler climates, the in-tank cooler should never be disconnected from the system.

Will putting an oil cooler in front of the radiator increase the engine operating temperature?
Not normally. Putting an auxiliary oil cooler system in the system decreases the temperature in the radiator in-tank oil cooler, and this in turn puts less of a load on the radiator. From a total system standpoint, the engine operating temperatures should vary little from where they were before the oil cooler was installed.

Will installing an oil cooler affect my vehicle customer warranty?
It could, depending on which cooler you install. Vehicle manufacturers do not normally approve of the installation of tube & Fin coolers, since they are very flow restrictive. LPD oil coolers, though, are virtually the only type now being used for OEM factory installations. Contact your local dealer for approval.

Drive Hard. Rest Easy.
Get longer life from your transmission and reduce the risk of costly repair bills. Tru-Cool transmission oil coolers help maintain lower operating temperatures, significantly extending the lives of both your lubricant and your transmission. Protect your work, your warranties and your reputation with Tru-Cool—and get the advantage that comes from Dana-backed quality.