

Dyes, Dyed Oils, Oils and Hardware for AC&R Systems

Dye and Hardware Comparison/Selection Guide

Select the dye(s) and injection method you need based on the description, refrigerant, system size and other factors in this guide. **All dyes, dye packs and leak detection kits include underhood labels.**

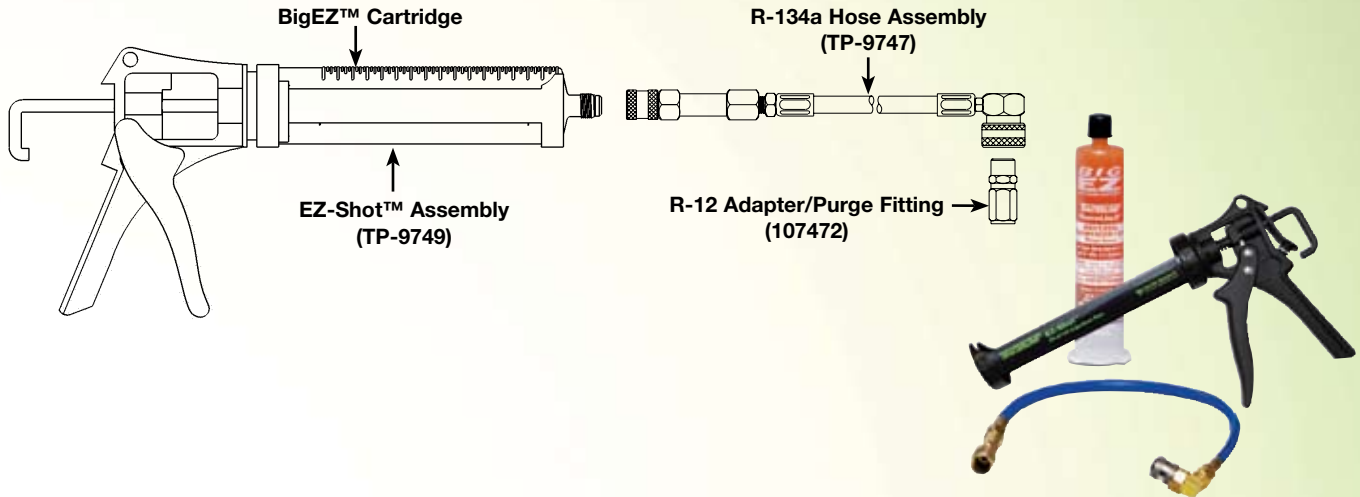
Important Note: All Tracerline® universal/POE AC&R dyes have been laboratory tested and are proven safe for use in **hybrid** vehicles.



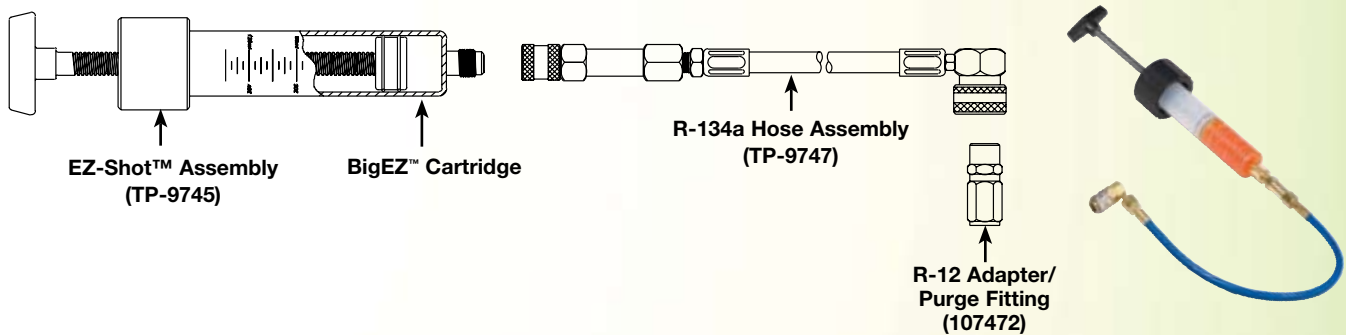
Method	BigEZ™ Cartridges and BigEZ™ and EZ-Shot™ Injectors	EZ-Ject™ and Mini-EZ™ Cartridges and Injectors	Tracer-Stick® Capsules and R-134a Connect Set™ or Standard Hardware	Bottled Dyes and Injectors	Dyed Refrigerant Oils
Description	Fast, easy, economical Large size, multi-dose, prefilled, disposable BigEZ™ dye cartridges	Budget friendly Prefilled, disposable multi-dose EZ-Ject™ and single-dose Mini-EZ™ dye cartridges	Easy Single-dose, prefilled, disposable dye capsules	Economical Bottled dyes used with refillable injectors	Fast and convenient Easy way to add both oil and fluorescent dye into system
For these refrigerants	Compatible with <u>all</u> refrigerants				
For this system size	4 oz (118 ml) cartridge services up to <u>32 vehicles</u> 8 oz (237 ml) cartridge services up to <u>64 vehicles</u>	½ oz (14.8 ml) EZ-Ject™ cartridge services up to <u>14 vehicles</u> ¼ oz (7.4 ml) Mini-EZ™ cartridge services <u>1 vehicle</u>	Vehicle A/C systems with 2-25 lbs (0.9 – 11.3 kg) of refrigerant or 5 oz – 2 gal (150 ml – 7.6 L) of lubricant	¼ oz (7.4 ml) of dye services 1 standard-size vehicle with up to 3 lbs (1.4 kg) of refrigerant or 10 fl oz (300 ml) of lubricant	All
Use this dose	⅛ oz (3.7 ml) per standard-size vehicle	EZ-Ject™ 0.035 oz (1 ml) per standard-size car. Mini-EZ™ ¼ oz (7.4 ml) per standard-size vehicle	See Tracer-Stick Capsules Section	¼ oz (7.4 ml) per standard size vehicle	Check with system manufacturer
Dye types available	Universal/POE for <u>all</u> refrigerants, as well as lubricant-specific for R-134a/PAG and R-12/mineral oil	Universal/POE for <u>all</u> refrigerants, as well as lubricant-specific for R-134a/PAG			Universal/POE for R-134a and R-12 refrigerants. PAG in 46 cSt, 100 cSt, 150 cSt viscosities for R-134a
Dye available in	Individual 4 oz (118 ml) and 8 oz (237 ml) cartridges	Individual ½ oz (14.8 ml) EZ-Ject™ cartridges and ¼ oz (7.4 ml) Mini-EZ™ cartridges	Small and large capsules with four dye concentrations	12-pack – ¼ oz (7.4 ml), 6-pack – 1 oz (30 ml) Single 8 oz (237 ml), 16 oz (473 ml) and 32 oz (946 ml) bottles	8 oz (237 ml), 32 oz (946 ml) and 1 gallon (3.8 L)
Injectors required	TP-9741 BigEZ™ PAG-low side, TP-9742 BigEZ™ universal, TP-9790 EZ-Shot™ universal	TP-9841CS EZ-Ject™ universal, TP-9848 EZ-Ject™ R-134a/PAG, TP-9890 Mini-EZ™ R-134a/PAG, TP-9891 Mini-EZ™ universal	R-134a Connect Set Small Capsules: TP-3887 (low side) TP-9887 (high side) Large Capsules: TP-3837 (low side) TP-9837 (high side)	Hose & coupler included TP-9880 universal dye injector for R-12 & R-134a systems TP-3886A injector for R-134a systems TP-9881 syringe dye injector for R-12 and R-134a systems	None

Dyes, Dyed Oils, Oils and Hardware for AC&R Systems

EZ-Shot™ Multi-Dose A/C Dye Injection Gun – Super Fast!



BigEZ™ Multi-Dose A/C Dye Injector – Most Accurate!



EZ-Shot™ and BigEZ™ hose assemblies and couplers are interchangeable and can be used for either system!

BigEZ™ Cartridge Hookup Chart



For These 4 oz (118 ml) and 8 oz (237 ml) BigEZ™ Cartridges	With These Systems	Use This Hose (Coupler Included)	
		LOW SIDE	HIGH SIDE
TP-9750 Series (R-12/mineral oil)	R-12/mineral oil	TP-9747	TP-9746*
TP-9760 Series (R-134a/PAG)	R-134a/PAG		TP-9748
TP-9770 Series (Universal/POE)	R-12/mineral oil		TP-9746*
	R-134a/PAG and R-134a/ester		TP-9748

*Use any standard R-12 HIGH-SIDE adapter for high-side injection.

Dyes, Dyed Oils, Oils and Hardware for AC&R Systems

(U.S. Patent No. 6,056,162)

BigEZ™ Multi-Dose A/C Dye Injection Kits

The BigEZ™ dye injector is the easiest and most accurate method of adding dye to a vehicle's A/C system. Disposable BigEZ cartridges are prefilled with *co-solvent free* A/C dye, certified to meet SAE standard J2297 and calibrated for exact dosing. The 4 oz (118 ml) dye cartridge services up to 32 vehicles.

Low-side and high-side kits are available for R-134a/PAG systems and a low-side kit is available with universal/POE dye for all refrigerants. Low-side kits are available in full-color, plastic, hanging clamshell display packages ("CS" suffix in product number).

TP-9741CS
BigEZ™ R-134a/PAG
A/C Dye Injection Kit

TP-9742CS
BigEZ™ Universal
A/C Dye Injection Kit



8 oz (237 ml) BigEZ™ cartridges
also fit most popular caulking gun
dye injectors.

4 oz (118 ml) BigEZ™ cartridges
also fit all popular caulking gun
and pump-type dye injectors.

BigEZ™ Multi-Dose A/C Dye Injection Kits – What to Order

Product Number	Description <i>(All kits include underhood labels)</i>
TP-9741 or TP-9741CS	For <u>LOW-SIDE</u> injection of R-134a systems <u>only</u> 1 – TP-9745 BigEZ™ assembly 1 – TP-9760-0004 4 oz (118 ml) BigEZ™ multi-dose cartridge for R-134a/PAG systems 1 – TP-9747 injection hose with LOW-SIDE quick coupler for connection to R-134a/PAG systems 1 – 107472 R-12 purge/adaptor fitting
TP-9742 or TP-9742CS	For <u>LOW-SIDE</u> injection of R-12 and R-134a systems 1 – TP-9745 BigEZ™ assembly 1 – TP-9770-0004 4 oz (118 ml) BigEZ™ multi-dose cartridge with universal/POE dye for <u>all</u> refrigerant systems 1 – TP-9747 injection hose with LOW-SIDE quick coupler for connection to R-134a/PAG systems 1 – 107472 R-12 purge/adaptor fitting
TP-9743	For <u>HIGH-SIDE</u> injection of R-134a systems <u>only</u> 1 – TP-9745 BigEZ™ assembly 1 – TP-9760-0004 4 oz (118 ml) BigEZ™ multi-dose cartridge for R-134a/PAG systems 1 – TP-9748 injection hose with HIGH-SIDE quick coupler for R-134a/PAG systems

BigEZ™ Multi-Dose Dye and Oil Cartridges for BigEZ™ and EZ-Shot™ Injectors – What to Order



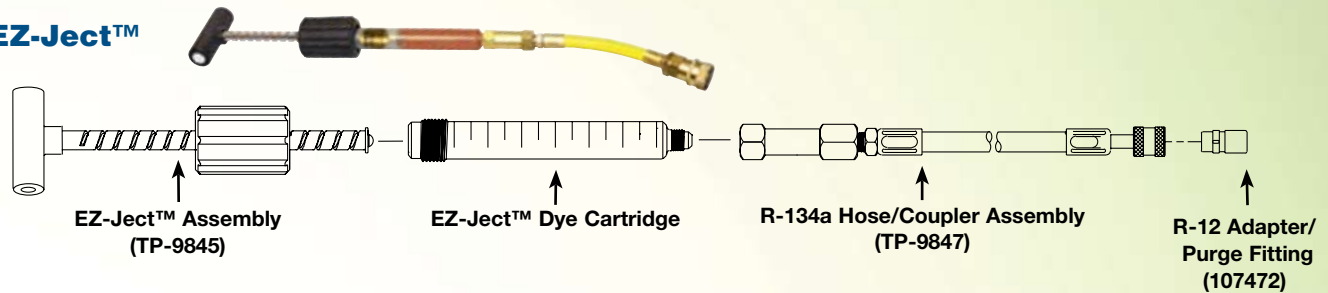
		Product Number	Description
DYE CARTRIDGES 4 oz (118 ml) and 8 oz (237 ml)	Dye for R-12/Mineral Oil Systems	TP-9750-0004CS	1 - 4 oz dye cartridge
		TP-9750-0108	1 - 8 oz dye cartridge
	Dye for R-134a/PAG Systems	TP-9760-0004CS	1 - 4 oz dye cartridge
		TP-9760-0108	1 - 8 oz dye cartridge
	Universal/POE Dye (Compatible with All Lubricants and Refrigerants)	TP-9770-0004CS	1 - 4 oz dye cartridge
		TP-9770-0108	1 - 8 oz dye cartridge
OIL CARTRIDGES 8 oz (237 ml) only	PAG Oil	TP-9761-0108	1 - 8 oz oil cartridge - 46 cSt viscosity
		TP-9762-0108	1 - 8 oz oil cartridge - 100 cSt viscosity
		TP-9763-0108	1 - 8 oz oil cartridge - 125 cSt viscosity*
	Ester Oil	TP-9764-0108	1 - 8 oz oil cartridge - 150 cSt viscosity
		TP-9771-0108	1 - 8 oz oil cartridge - 100 cSt viscosity

*GM-approved viscosity

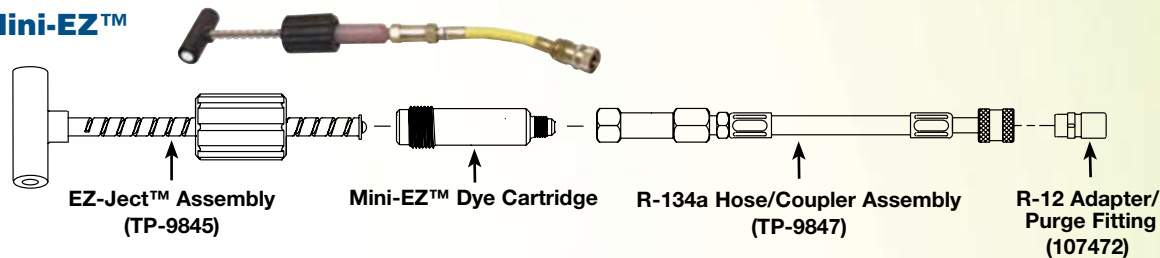
Dyes, Dyed Oils, Oils and Hardware for AC&R Systems

EZ-Ject™ Multi-Dose and Mini-EZ™ Single-Dose Dye Injection Systems – Simplest!

EZ-Ject™



Mini-EZ™



EZ-Ject™ and Mini-EZ™ Dye Injection Systems are Available as Complete Kits – *What to Order*

Product Number	Description (All kits include underhood labels)
TP-9841 or TP-9841CS	EZ-Ject™ Universal Low-Side Kit 1 – EZ-Ject™ assembly – plunger handle and fitting (TP-9845) 1 – 8" hose assembly, ¼" flare check valve & R-134a coupler, low-side (TP-9847) 1 – R-12 adapter/purge fitting (107472) 1 – universal/POE A/C dye cartridge (TP-9870)
TP-9848	EZ-Ject™ R-134a/PAG Kit 1 – EZ-Ject™ assembly – plunger handle and fitting (TP-9845) 1 – 8" hose assembly, ¼" flare check valve & R-134a coupler, low-side (TP-9847) 1 – R-12 adapter/purge fitting (107472) 1 – R-134a/PAG dye cartridge (TP-9860)
TP-9890	Mini-EZ™ R-134a/PAG Kit 1 – EZ-Ject™ assembly – plunger handle and fitting (TP-9845) 1 – 8" hose assembly, ¼" flare check valve & R-134a coupler, low-side (TP-9847) 1 – R-12 adapter/purge fitting (107472) 6 – Mini-EZ™ ¼ oz (7.4 ml) cartridges for R-134a/PAG systems (TP-9865-0601)
TP-9891	Mini-EZ™ Universal Kit 1 – EZ-Ject™ assembly – plunger handle and fitting (TP-9845) 1 – 8" hose assembly, ¼" flare check valve & R-134a coupler, low-side (TP-9847) 1 – R-12 adapter/purge fitting (107472) 6 – Mini-EZ™ ¼ oz (7.4 ml) cartridges that are compatible with all lubricant systems (TP-9875-0601)

EZ-Ject™ and Mini-EZ™ Dye Capsule Replacements – *What to Order*

Product Number	Description
TP-9860-0601	6 – EZ-Ject™ ½ oz (14.8 ml) cartridges for R-134a/PAG systems
TP-9870CS	1 – EZ-Ject™ ½ oz (14.8 ml) universal/POE cartridge compatible with all A/C systems
TP-9870-0601	6 – EZ-Ject™ ½ oz (14.8 ml) universal/POE cartridges compatible with all A/C systems
TP-9865-0601	6 – Mini-EZ™ ¼ oz (7.4 ml) cartridges for R-134a/PAG systems
TP-9875-0601	6 – Mini-EZ™ ¼ oz (7.4 ml) universal/POE cartridges compatible with all A/C systems

Dyes, Dyed Oils, Oils and Hardware for AC&R Systems

Tracer-Stick® Single-Dose Dye Capsules, R-134a Connect Set™ and Standard Hardware

Tracer-Stick® Capsules 2-Step Selection Guide

1. Read across and choose the column with the amount of refrigerant/lubricant in the system being leak-checked. Use multiple Tracer-Stick® capsules for larger systems.

	Up to 2.9 lb (1.3 kg)	3 to 4.9 lb (1.4 to 2.2 kg)	5 to 9.9 lb (2.3 to 4.5 kg)	10 to 25 lb (4.6 to 11.3 kg)
Amount of Refrigerant	Up to 2.9 lb (1.3 kg)	3 to 4.9 lb (1.4 to 2.2 kg)	5 to 9.9 lb (2.3 to 4.5 kg)	10 to 25 lb (4.6 to 11.3 kg)
Amount of Lubricant	Up to 15 fl. oz (450 ml)	1 pt to 1.6 qt (0.5 to 1.5 L)	1.7 to 3.2 qt (1.6 to 3.0 L)	3.3 qt to 2 gal (3.1 to 7.6 L)
Typical Vehicle Type	Passenger Cars	Vans and Small Trucks	Large Trucks and Small Buses	Full-Size Buses and Refrigerated Freight

2. Then read down that column and choose the Tracer-Stick® capsule part number below that is across from the lubricant type in the system. (If lubricant type is not known, Tracer-Stick® universal/POE capsules are compatible with all lubricants.)

Lubricant Type	Small Capsules	Large Capsules		
Mineral Oil	TP-3850	TP-3855	TP-3856	TP-3857
PAG	TP-3860	TP-3865	TP-3866	TP-3867
Universal/POE	TP-3870	TP-3875	TP-3876	TP-3877

What to Order

	Product Number	Description
R-12/Mineral Oil Systems	TP-3850-0601	6 - 0.03 oz (1 ml) capsules
	TP-3855-0601	6 - 0.5 oz (14.8 ml) capsules
	TP-3856-0601	6 - 0.5 oz (14.8 ml) capsules
	TP-3857-0601	6 - 0.5 oz (14.8 ml) capsules
R-134a/PAG Systems	TP-3860-0601	6 - 0.06 oz (1.9 ml) capsule
	TP-3865-0601	6 - 0.5 oz (14.8 ml) capsules
	TP-3866-0601	6 - 0.5 oz (14.8 ml) capsules
	TP-3867-0601	6 - 0.5 oz (14.8 ml) capsules
Universal/POE — for All A/C Systems	TP-3870-0601	6 - 0.06 oz (1.9 ml) capsules
	TP-3875-0601	6 - 0.5 oz (14.8 ml) capsules
	TP-3876-0601	6 - 0.5 oz (14.8 ml) capsules
	TP-3877-0601	6 - 0.5 oz (14.8 ml) capsules

How It Works

Choose the hardware you need according to whether SMALL CAPSULES (0.03 or 0.06 oz) or LARGE CAPSULES (0.5 oz) are used.

For R-134a systems only: There are two ways to hook up Tracer-Stick® Capsules to add Fluoro-Lite® dye

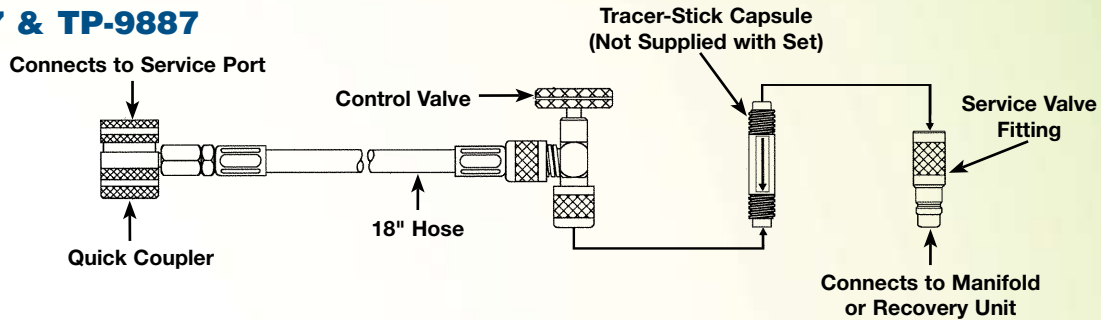
1. An R-134a Connect Set™ provides the easiest hookup method. Choose either LOW-SIDE or HIGH-SIDE connect set, **or**
2. Control valve and hose with quick coupler.



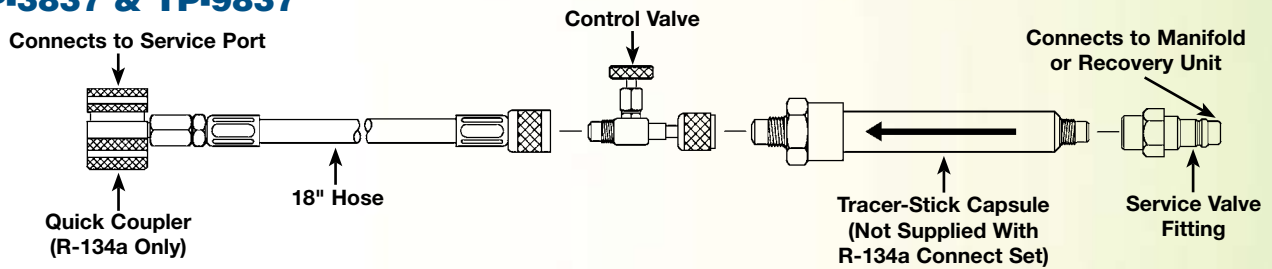
Dyes, Dyed Oils, Oils and Hardware for AC&R Systems

For these Tracer-Stick® Capsules	Use this R-134a Connect Set™ for	
	LOW SIDE	HIGH SIDE
TP-3860 (small capsules)	TP-3887 <i>Includes:</i> TP-9947 hose, TP-3888 coupler, TP-3889 fitting, TP-3861 valve	TP-9887 <i>Includes:</i> TP-9947 hose, TP-9888 coupler, TP-9889 fitting, TP-3861 valve
TP-3870 (small capsules)		
TP-3865, TP-3866 and TP-3867 (large capsules)	TP-3837 <i>Includes:</i> TP-9946 hose, TP-3888 coupler, TP-3838 fitting, TP-3851 valve	TP-9837 <i>Includes:</i> TP-9946 hose, TP-9888 coupler, TP-9838 fitting, TP-3851 valve
TP-3875, TP-3876 and TP-3877 (large capsules)		

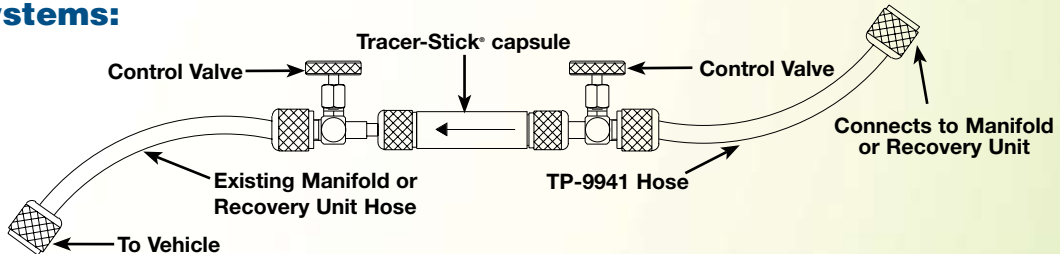
TP-3887 & TP-9887



TP-3837 & TP-9837



For R-12 Systems:

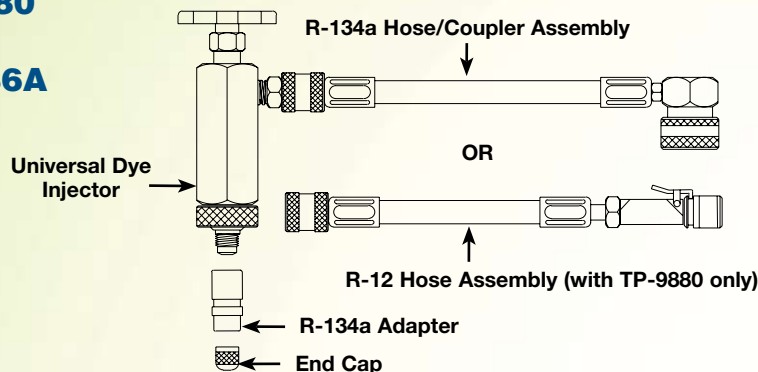


What to Order

Tracer-Stick® Capsule	Refrigerant System	Use This Hose	Use This Valve (2 required)	Hose Connections
TP-3850 (small capsules), TP-3855, TP-3856, TP-3857 (large capsules)	R-12	TP-9941	TP-3851	1/4" flare
TP-3860 (small capsules)	R-134a/PAG	Use R-134a Connect Set TP-3887 (low-side) or TP-9887 (high-side)		
TP-3870 (small capsules)	R-134a/PAG and Ester			
TP-3870 (small capsules)	R-12	TP-9941	TP-3872	1/4" flare
TP-3875, TP-3876, TP-3877 (large capsules)	R-134a/PAG and Ester	Use R-134a Connect Set TP-3837 (low-side) or TP-9837 (high-side)		
TP-3875, TP-3876, TP-3877 (large capsules)	R-12	TP-9941	TP-3851	1/4" flare

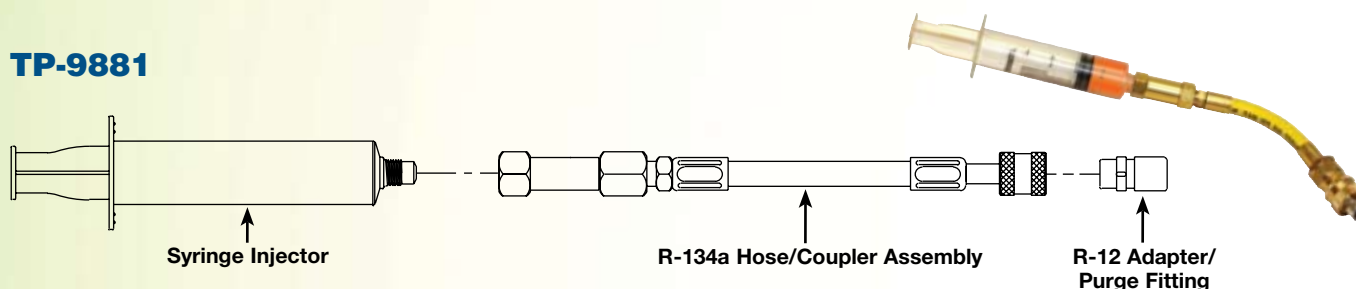
Bottled Dyes and Dye Injectors Hookup, Hardware and Bottled Dyes

**TP-9880
&
TP-3886A**



TP-3885 Extension Set

TP-9881



Dye Injectors

A Tracerline® dye injector is required to add Fluoro-Lite® bottled dye to an air conditioning or refrigeration system. To increase the capacity of a dye injector from ¼ oz (7.4 ml) (recommended for passenger cars) up to a maximum of 2 oz (59 ml) for larger AC&R systems, use the TP-3885 extension kit.

The TP-9880 universal A/C dye injector or TP-9881 syringe A/C dye injector can be used for ALL A/C dyes and systems. Includes ½" Acme and ¼" flare connection, with R-134a low-side quick coupler and R-12 adapter. Use any standard R-12 high-side adapter for high-side injection.

What to Order

Product Number	Description
TP-3849CS	Syringe A/C Dye Injection Kit 1 - TP-9881 syringe assembly with pressure check valve, hose, and R-134a coupler with R-12 adapter/purge fitting 1 - TP-3840-0001 1 oz (30 ml) bottle of Fluoro-Lite/E® universal/POE A/C dye for <u>all</u> mobile A/C systems
TP-3885	Extension Set increases the capacity of TP-9880 dye injectors from ¼ oz (7.4 ml) to 2 oz (59 ml) in ¼ oz (7.4 ml) increments
TP-3888	Quick coupler (LOW SIDE, R-134a only) for TP-9880 dye injectors and TP-9947 hose
TP-9880	Universal A/C Dye Injector (¼ oz (7.4 ml) capacity) with hoses and quick couplers for <u>all</u> systems
TP-9881	Syringe A/C Dye Injector with pressure check valve & hose for R-12 and R-134a
TP-9888	Quick Coupler (HIGH SIDE, R-134a only) for TP-9880 dye injector and TP-9947 hose
TP-9947	Hose with ½" Acme fittings — for TP-9880 dye injector

Dyes, Dyed Oils, Oils and Hardware for AC&R Systems

Fluoro-Lite® Bottled Dyes

Reminder:

Adding bottled dye to AC&R systems requires dye injection hardware and accessories.



SUGGESTED DILUTION RATIOS

Refrigerant/Lubricant	Product Number	Standard Vehicle	Larger AC&R Systems
R-134a/PAG	TP-3820	¼ oz (7.4 ml)	¼ oz (7.4 ml) for every 3 lbs (1 kg) of refrigerant OR ¼ oz (7.4 ml) for every 10 oz (300 ml) of lubricant
R-12/Mineral Oil	TP-3830		
Universal/POE — for <u>All</u> A/C Systems	TP-3840		

Fluoro-Lite® Bottled Dyes

What to Order

Refrigerant/Lubricant	Product Number	Description
R-134a/PAG Systems	TP-3820-12025	12 - ¼ oz (7.4 ml) bottles
	TP-3820-0601	6 - 1 oz (30 ml) bottles
	TP-3820-0008	1 - 8 oz (237 ml) bottle
	TP-3820-0016	1 - 16 oz (473 ml) bottle
	TP-3820-0032	1 - 32 oz (946 ml) bottle
R-12/Mineral Oil Systems	TP-3830-0601	6 - 1 oz (30 ml) bottles
	TP-3830-0016	1 - 16 oz (473 ml) bottle
	TP-3830-0032	1 - 32 oz (946 ml) bottle
Universal/POE — for <u>All</u> A/C Systems	TP-3840-12025	12 - ¼ oz (7.4 ml) bottles
	TP-3840-0601	6 - 1 oz (30 ml) bottles
	TP-3840-0008	1 - 8 oz (237 ml) bottle
	TP-3840-0016	1 - 16 oz (473 ml) bottle
	TP-3840-0032	1 - 32 oz (946 ml) bottle

Super Premium Universal/POE and PAG A/C Oils Premixed with UV Dye

Detect even the smallest leaks when used with any standard fluorescent leak detection lamp. Specially formulated for mobile air conditioning systems. These non-toxic, non-hazardous A/C oils contain super-bright, OEM-approved Fluoro-Lite® fluorescent dye and are *safe to use with all types of refrigerants and compressors*. In addition to exceptional R-134a miscibility, they also offer enhanced lubricity and stability with a proprietary additive package. Formulated with excellent anti-wear properties, these oils are perfect for preventive maintenance.

Universal/POE Oil with UV Dye

Compatible with R-134a and R-12 refrigerants. Designed for PAG and mineral oil air conditioning and refrigeration systems.

Product Number	Description
TD100E8	POE with UV dye, 8 oz (237 ml)
TD100EQ	POE with UV dye, 32 oz (946 ml)
TD100EG	POE with UV dye, 1 gallon (3.8 L)



PAG Oil with UV Dye

Specifically developed for OE and aftermarket R-134a A/C systems. Available in several viscosities

Product Number	Description
TD46P8	PAG 46 with UV dye, 8 oz (237 ml)
TD46PQ	PAG 46 with UV dye, 32 oz (946 ml)
TD46PG	PAG 46 with UV dye, 1 gallon (3.8 L)
TD100P8	PAG 100 with UV dye, 8 oz (237 ml)
TD100PQ	PAG 100 with UV dye, 32 oz (946 ml)
TD100PG	PAG 100 with UV dye, 1 gallon (3.8 L)
TD150P8	PAG 150 with UV dye, 8 oz (237 ml)
TD150PQ	PAG 150 with UV dye, 32 oz (946 ml)
TD150PG	PAG 150 with UV dye, 1 gallon (3.8 L)

