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GENERAL PROCEDURES

Precautions

Observe the safety precautions described in the service manual for the electrical systems that are being repaired.

Procedures

NOTE: The wire crimped in the terminals included in this kit is the maximum gauge approved for use with the terminal. This wire may be larger than the existing wire in the vehicle.

Number of Terminals (2)

Family (HS)

Gender (Female)

Color (Gray)

Service Manual Symbol

Connector No.	F21
Connector Name	FUEL INJECTOR No.1
Connector Type	HS02FGY

Terminal No.	Color of Wire	Signal Name
1	P	-
2	GR	-

PDF Format CONSULT

Connector Inspection: Repair vs. Replace

To determine if terminal replacement or connector replacement is best, inspect the connector as listed below. Individual terminal replacement is better when possible.

Inspection Result	Repair
No damage to connector housing	Replace terminal
Terminal failed STG test	Replace terminal
Connector is damaged, crushed, or distorted	Replace connector

GENERAL PROCEDURES

How to Use Connector Disassembly Procedures

The following illustration shows how to use the connector disassembly procedures contained in this guide. The procedures are divided by connector family and each one contains the following information:

- Tool(s) required for procedure
- Terminal locking tab location
- Connectors in the family
- Removal of the retainer
- Removal of the terminal
- Animation of removal procedure

The following acronyms appear in this guide:

- RRT – Retainer Removal Tool (retainer/terminal removal tool blade used for removing terminal retainer)
- TRT – Terminal Removal Tool (retainer/terminal removal tool blade used to release terminal locking tab)
- STG – Spread Terminal Gauge (used to inspect female terminals for loose fit)


Family name of the connector group

Instructions for retainer removal

Link to animation of this procedure

Tools required to perform this procedure

Connectors included in this family (these views are links to Application Guide information)



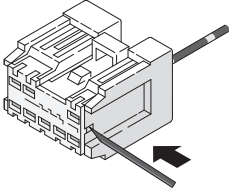
NS FAMILY


[CLICK HERE TO ANIMATE THIS PROCEDURE](#)

RETAINER REMOVAL METHOD


- Connectors 132, 133, 134: Place the RRT (09A) in the small hole behind the retainer.

Connectors 114, 135: Place the RRT (09A) in the slot on the side of the connector.






RRT 09A




TRT 09A


NS FAMILY CONNECTORS




J-48817-114




J-48817-132



J-48817-133



J-48817-134

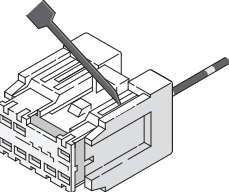


J-48817-135

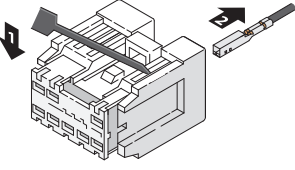
TERMINAL REMOVAL METHOD

- Insert the TRT (09A) as shown. Ensure that the TRT contacts the locking tab.

NOTE: Locking tab is part of connector.



- Move the tool downward slightly to release the locking tab and then pull the wire out slowly.

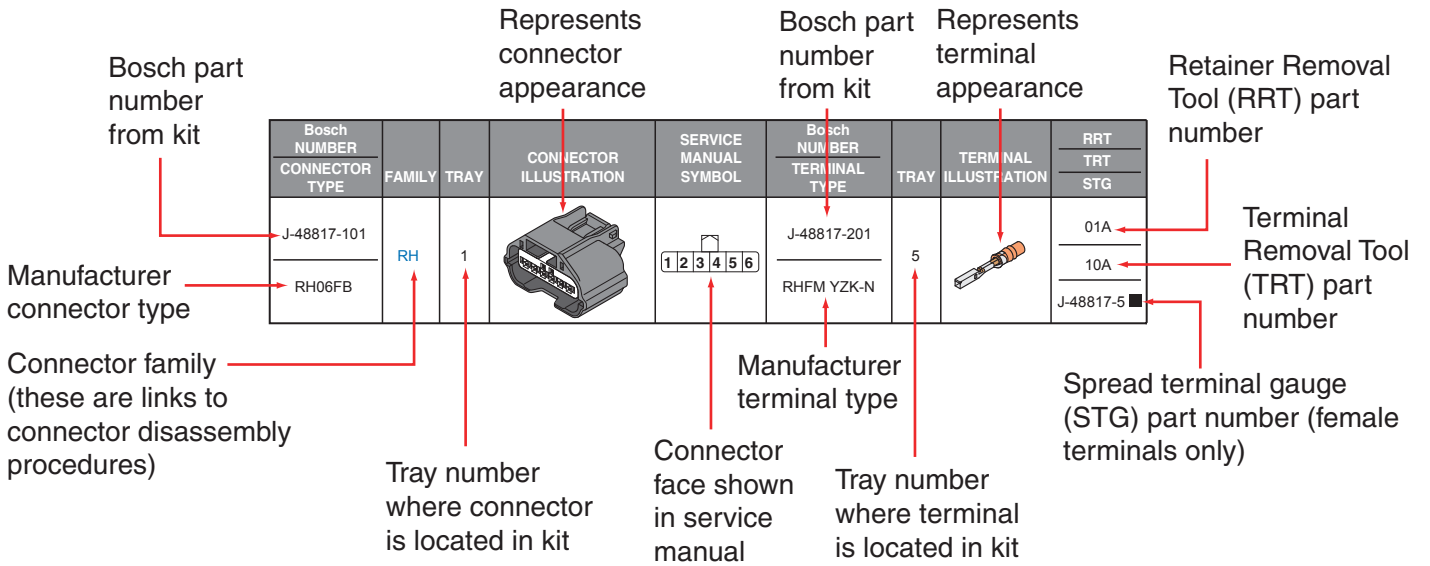


Description of Connector Disassembly Procedure Information

GENERAL PROCEDURES

How to Use Application Guide

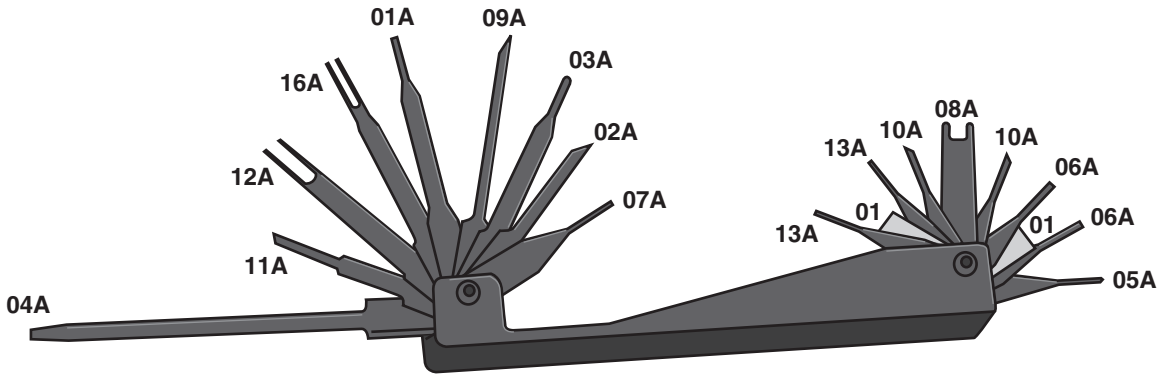
The following illustration shows how to use the application guide.



Description of Application Guide Information

GENERAL PROCEDURES

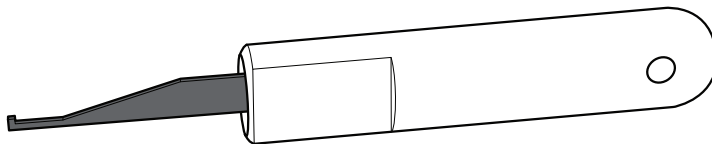
Retainer/Terminal Removal Tools



J-48817-1 Retainer/Terminal Removal Tool

Blade number	Application
01A	Universal
02A	M-HS
03A	RT-RS
04A	Screwdriver
05A	TH-HS
06A*	ABS-M
07A	A-HS
08A	P-HS
09A	NS-HS
10A*	RH-HS
11A	TK-HS
12A	FG-HS
13A*	ABS-SM
16A	Molex
01*	Separators

* The tool contains two of these.

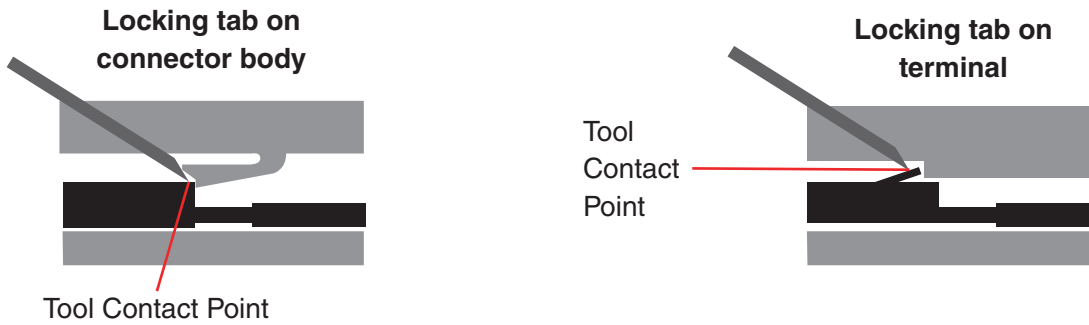


J-47003-11 Retainer Removal Tool

GENERAL PROCEDURES

NOTE:

- Performing terminal removal and installation should be easy. Read each step before beginning the procedure. Not reading each step may lower technician efficiency.
- Determine whether the terminal locking tab is integral to the connector or the terminal - this will affect the direction of the motion required to release the terminal.
- Perform tool selection carefully – though a tool may appear to be the right shape, it may not be the correct tool for the connector.
- Use of two blades (with spacer between them) will be required to release some terminals.
- Unless otherwise directed, position the blade so the long side is against the connector.
- In some cases, the wire must be pushed into the connector slightly to relieve pressure applied to the locking tab by the terminal. Not relieving this pressure may prevent the terminal from becoming unlocked.



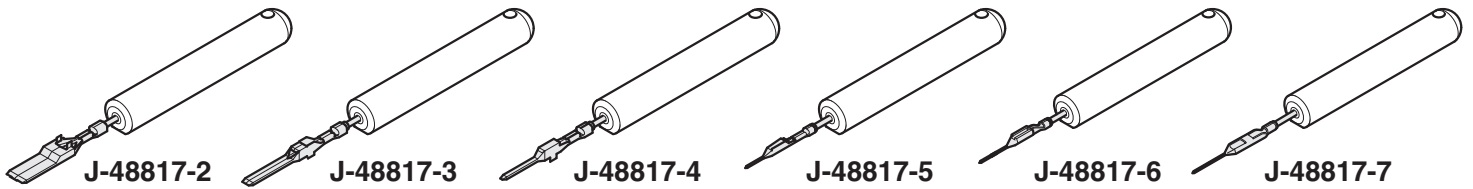
Tool contact point on locking tab

Use

Retainer/terminal removal tool use varies depending on which connector type is being serviced. Read all of the notes provided above prior to beginning a repair.

Spread Terminal Gauges (STG)

Terminal passes test if spread terminal gauge compresses.



Spread Terminal Gauges

NOTE:

- Use the Spread Terminal Gauge (STG) to inspect female terminals for loose fit.
- Visually inspecting terminals is insufficient – using the STG test is the best method.
- Use of the wrong STG may give inaccurate test results or damage the terminal, causing problems.
- Refer to the [Application Guide](#) within this document to determine which STG should be used for each terminal.

Use

1. Select the correct STG for the terminal to be tested.
2. Align the tip of the STG with the terminal.
3. While moving the connector slightly, gently apply pressure to the STG.
4. If the STG enters the terminal without compressing, replace the terminal.

[Animation of terminal that passes STG test](#)

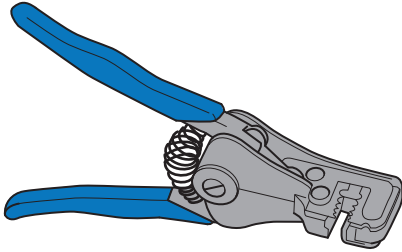
[Animation of terminal that fails STG test](#)

GENERAL PROCEDURES

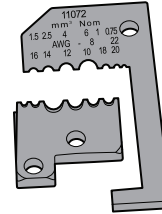
Automatic Wire Stripper

WARNING:

- Always wear approved eye protection
- NOT insulated. Plastic-dipped or slip-on plastic handles are NOT intended for protection against electrical shock.
- Never use on or near live electrical circuits.



**J-35615 (11062 or 11063)
Automatic Wire Stripper**



**J-47003-10 (11075, use with 11062) or
J-47003-12 (11074, use with 11063) Die**

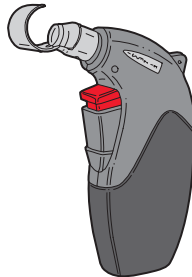
Use

The following procedure describes how to use the automatic wire stripper to remove insulation from 8-22 or 16-26 AWG wire without nicking or fraying.

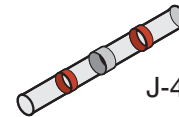
1. Choose and install the correct stripper die for the wire gauge you are repairing.
2. Adjust the wire stop to the desired stripping length. The recommended length for J-47003 Solder Sleeves is approximately 10mm (0.4 inch).
3. With the open side of the jaws toward you (wire stop to the right), place the wire in the appropriate size stripping hole with the end touching the wire stop. Refer to the blade for AWG and mm size markings.
4. Squeeze the handles together to strip the wire. Release pressure from the handles and remove the wire.

Flameless Heat Gun, Refill Cartridge, and Solder Sleeve Connectors

J-46538



CF-30C



J-47003-2,3,4,5

J-46538 Flameless Heat Gun, CF-30C Refill Cartridge, and J-47003 Solder Sleeve Connectors

Use

Refer to NTB03-078 for proper usage of Essential Tool J-46538 Flameless Heat Gun and Essential Tool J-47003 Solder Sleeve Connectors. Refill cartridges part number CF-30C are available at <http://www.solderit.com/shop/item.aspx?itemid=101>. Using generic refill cartridges is not recommended, as they do not fit or function as intended. Soldering will take longer and the tool may have ignition problems. Only use refill cartridges from Solder-It.

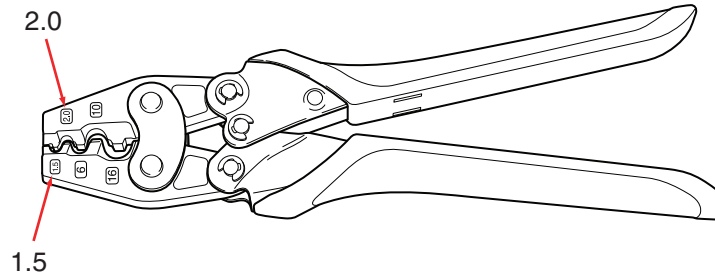
GENERAL PROCEDURES

Aluminum Wiring

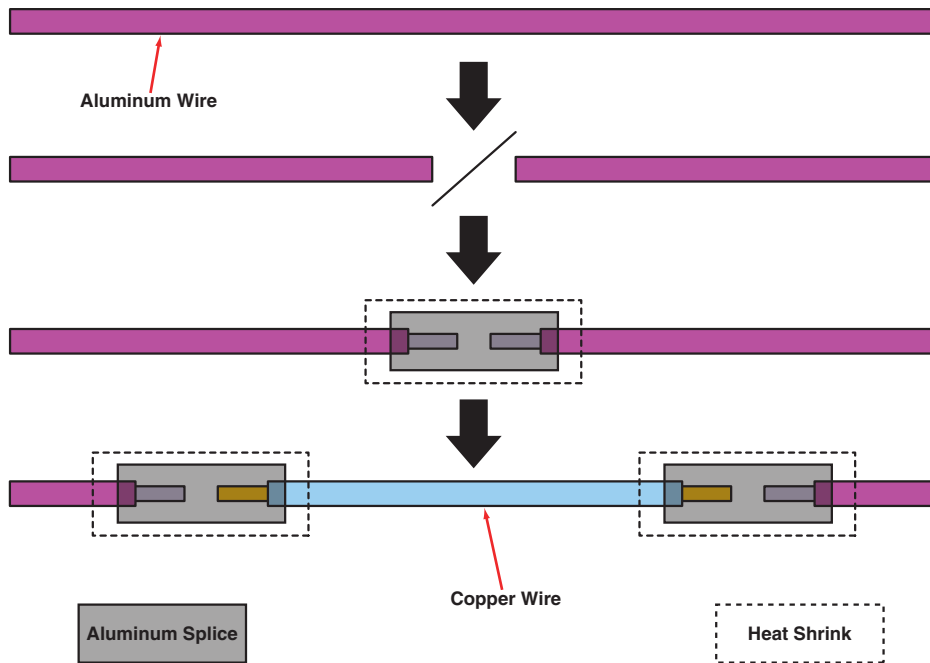
⚠ CAUTION: Crimp Repair Only! Do not use solder. Use J-48817-8 crimping tool only

CAUTION: Aluminum is susceptible to cross contamination. Do not use the crimping pliers on copper components.

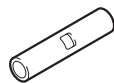
Copper vs Aluminum Wire Reference Chart				J-48817-8 Crimping Plier Usage		
Copper Wire		Aluminum Splice	Shrink Tube	Aluminum Wire		Crimping Pliers For Aluminum Wire Repair Only
Size mm ²	Outer Diameter STD mm			Size mm ²	Outer Diameter STD mm	
0.5	1.6	J-48817-801	J-48817-803	0.75	1.4	Tool Gap Use: 1.5
0.85	1.8	J-48817-801	J-48817-803	1.25	1.8	Tool Gap Use: 1.5
1.25	2.1	J-48817-801	J-48817-803	1.5	1.85	Tool Gap Use: 1.5
2	2.6	J-48817-802	J-48817-804	2.5	2.8	Tool Gap Use: 2.0



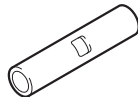
Joints for Aluminum wire



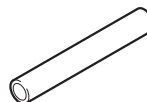
J-48817 Aluminum Splices (Aluminum Use Only)



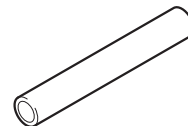
J-48817-801



J-48817-802



J-48817-803



J-48817-804

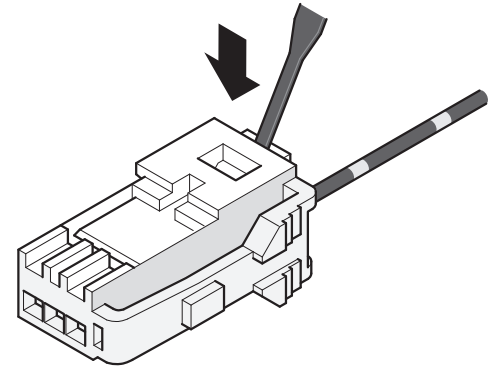
GENERAL PROCEDURES

Harness Repair Kit Suggestion Form

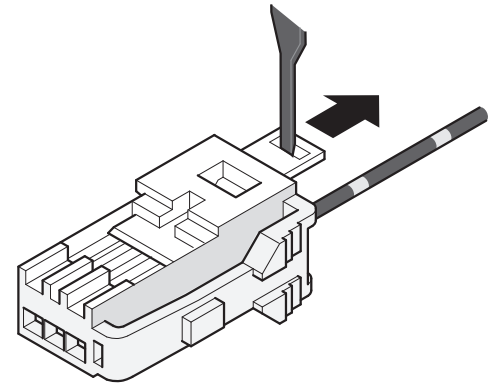
- Use the [Tools and Equipment Suggestion Form](#) to make suggestions about how to improve the content of this kit.
- Replacement parts for this kit are available through Tech-Mate. To place an order, please call 1-800-662-2001 or visit www.nissantechmate.com.
- Many of the connectors required for Nissan and Infiniti vehicle repairs are in this kit. Additional parts may be available even though they are not included in this kit.

RETAINER REMOVAL METHOD

1. Place the RRT (01A) in the small hole between the retainer and the connector with the long side toward the retainer.



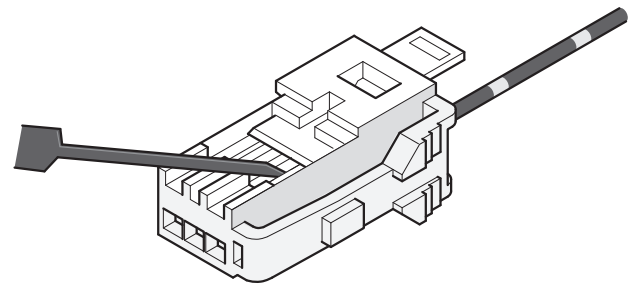
2. Use the RRT as a lever to gently lift the end of the retainer out of the connector. Pull the retainer outward until it stops and fold it away from the wires.



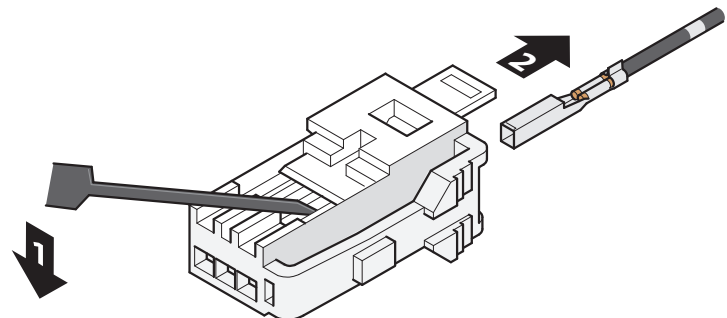
TERMINAL REMOVAL METHOD

1. Insert the TRT (09A) into the slot on the side of the connector. Be sure that the TRT contacts the locking tab.

NOTE: Locking tab is part of connector.



2. Move the TRT downward slightly to release the locking tab and then pull the wire out slowly.

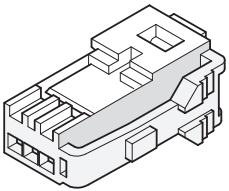


RRT 01A

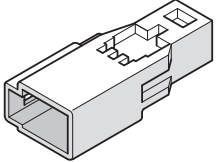


TRT 09A

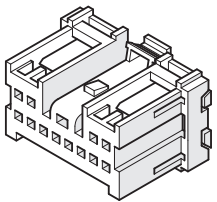
A FAMILY CONNECTORS



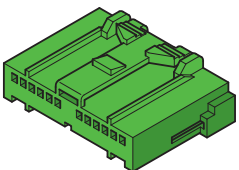
J-48817-144



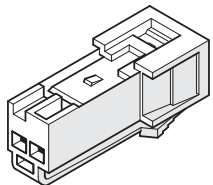
J-48817-145



J-48817-155



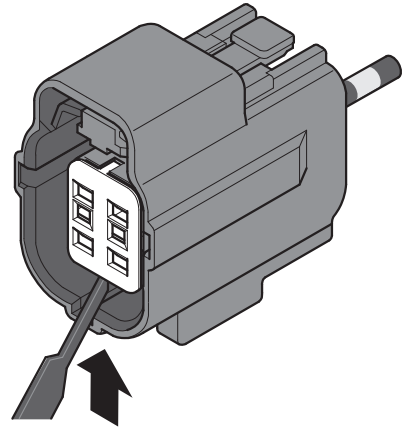
J-48817-156



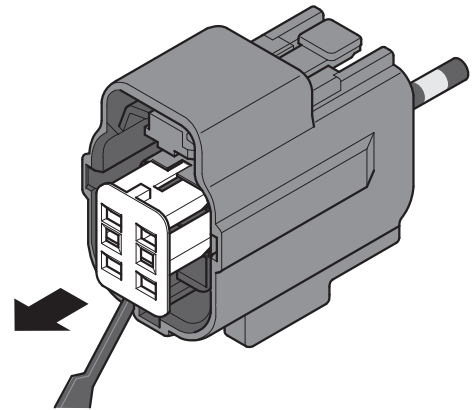
J-48817-159

RETAINER REMOVAL METHOD

1. Place the RRT (11A) at the bottom edge of the retainer.



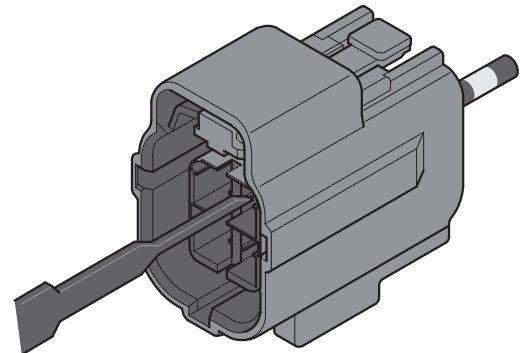
2. Use the RRT as a lever to gently lift the retainer. Remove the retainer from the connector.



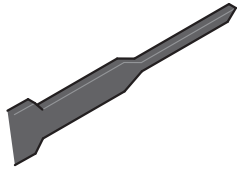
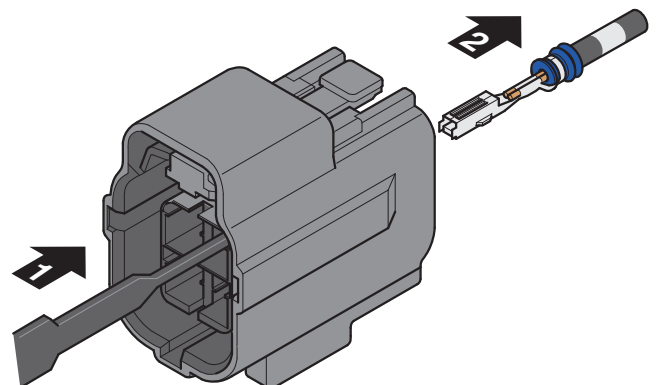
TERMINAL REMOVAL METHOD

1. Insert the TRT (11A) straight into the slot on the face of the connector near the terminal with the long side of the TRT touching the terminal.

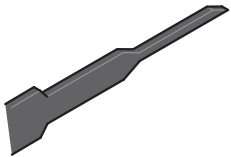
NOTE: Locking tab is part of connector.



2. Release the locking tab and then pull the wire out slowly.

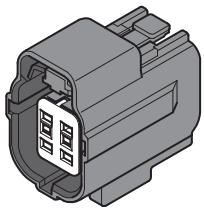


RRT 11A



TRT 11A

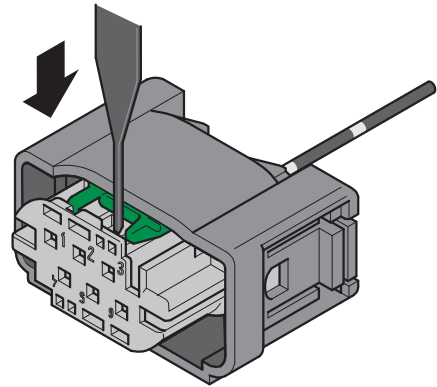
AFZ FAMILY CONNECTORS



J-48817-160

RETAINER REMOVAL METHOD

1. Slide the RRT (07A) between the retainer and the connector face.

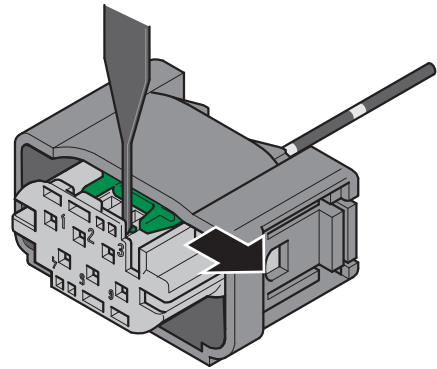


RRT 07A

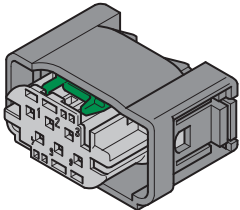


TRT 09A

2. Use the RRT to gently slide the retainer sideways.



AMP FAMILY CONNECTORS

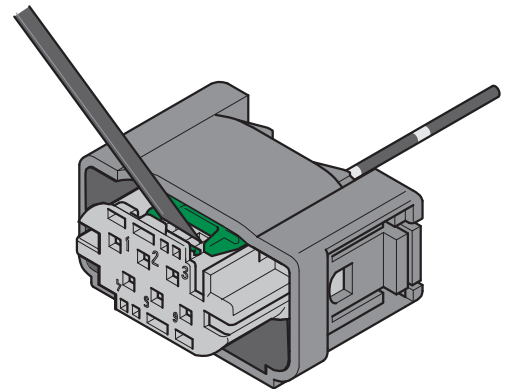


J-48817-115

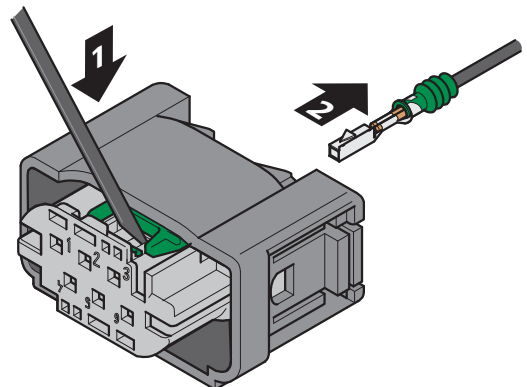
TERMINAL REMOVAL METHOD

1. Insert the TRT (09A) into the slot on the side of the connector. Be sure that the TRT contacts the locking tab.

NOTE: Locking tab is part of terminal.

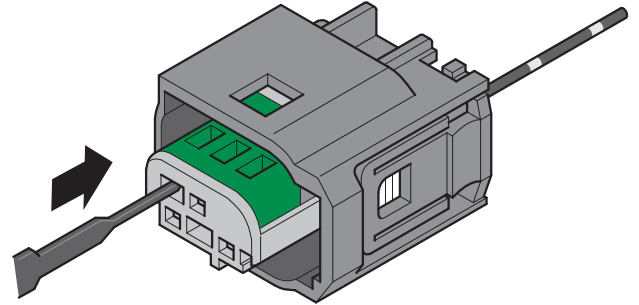


2. Move the TRT downward slightly to release the locking tab and then pull the wire out slowly.

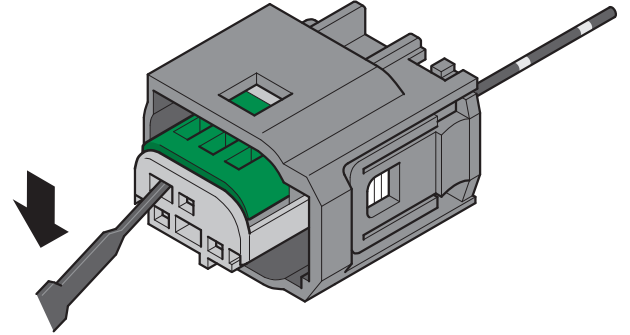


RETAINER REMOVAL METHOD

1. Slide the RRT (11A) into the hole above the left terminal.



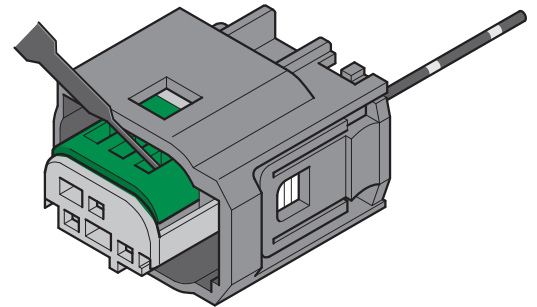
2. Use the RRT as a lever to gently lift the retainer until it releases from the connector.



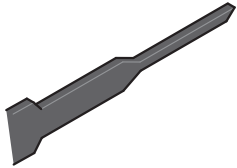
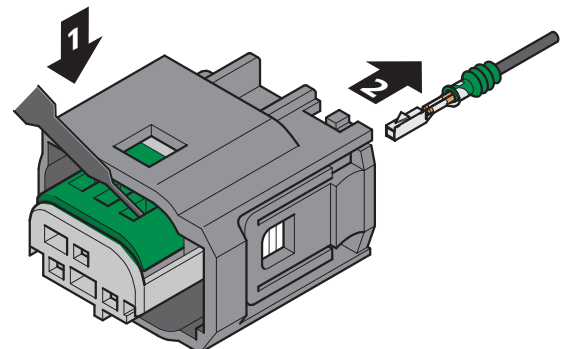
TERMINAL REMOVAL METHOD

1. Insert the TRT (11A) into the slot in the retainer. Be sure that the TRT contacts the locking tab.

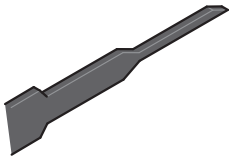
NOTE: Locking tab is part of terminal.



2. Move the TRT downward slightly to release the locking tab and then pull the wire out slowly.

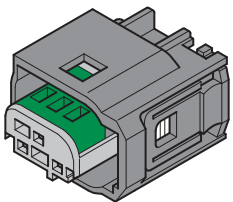


RRT 11A



TRT 11A

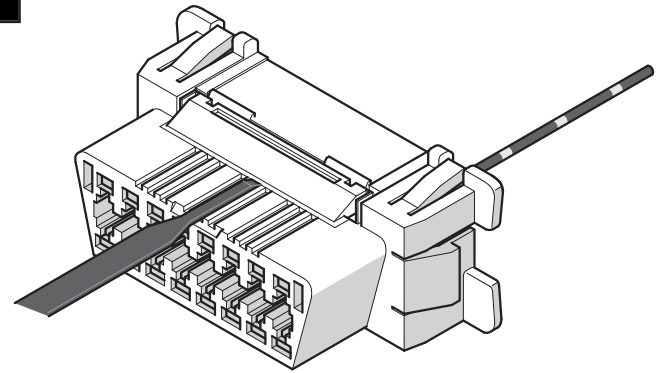
AMP FAMILY CONNECTORS



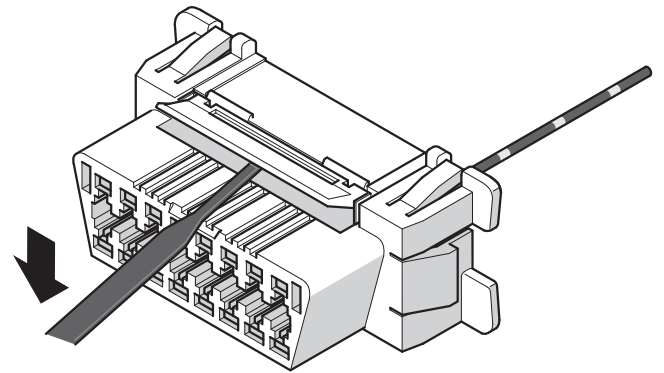
J-48817-123

RETAINER REMOVAL METHOD

1. Place the RRT (01A) in the slot near the center of the retainer.



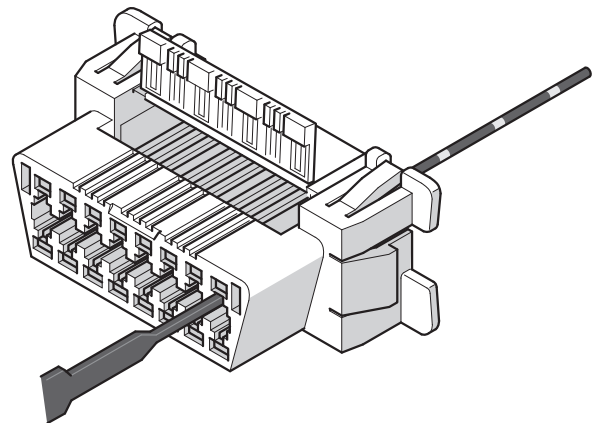
2. Use the RRT as a lever to gently lift the retainer.



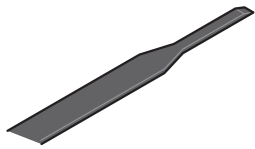
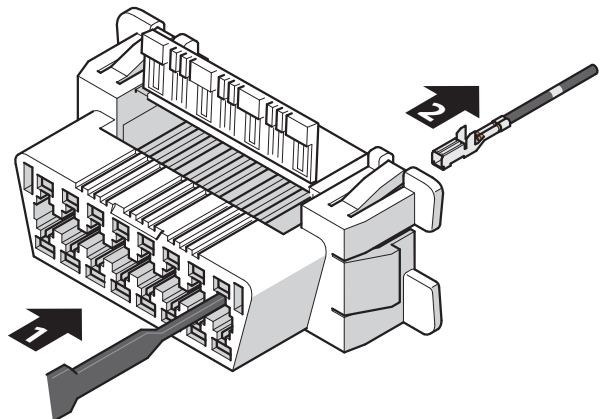
TERMINAL REMOVAL METHOD

1. Insert the TRT (11A) straight into the slot on the face of the connector near the terminal.

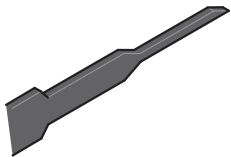
NOTE: Locking tab is part of connector.



2. Press the TRT into the slot to release the locking tab and then pull the wire out slowly.

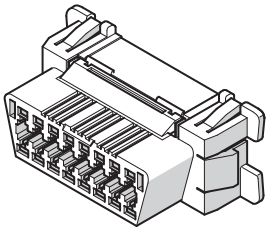


RRT 01A



TRT 11A

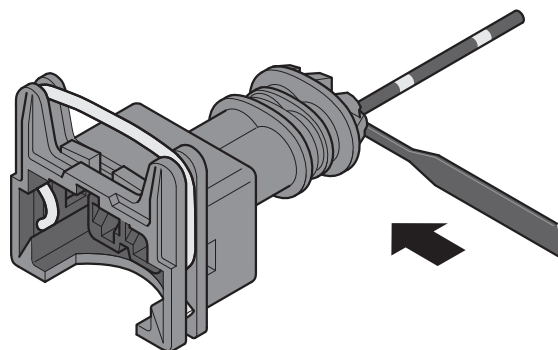
BD FAMILY CONNECTORS



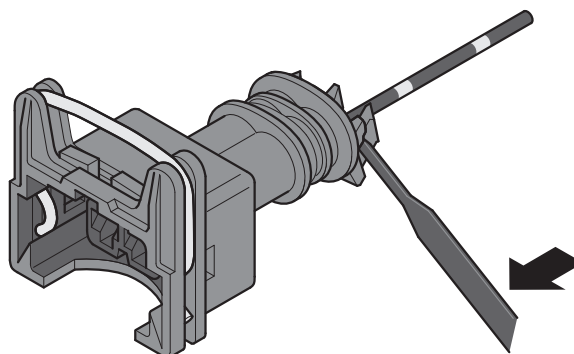
J-48817-139

RETAINER REMOVAL METHOD

1. Connector 103 (shown): Place the RRT (01A) under the retainer.
 Connector 105: Place the RRT (01A) under the locking tab on one side of the connector.



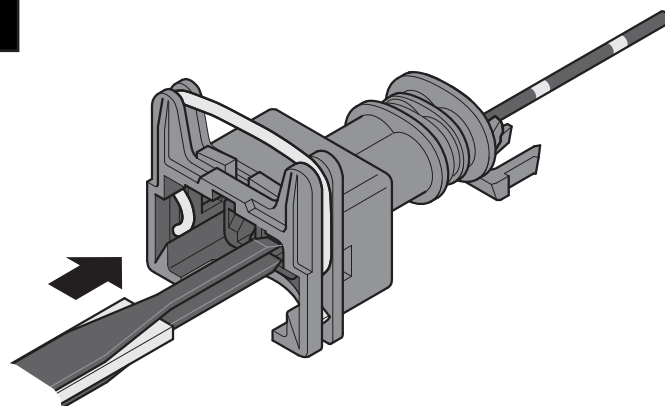
2. Connector 103 (shown): Use the RRT as a lever to gently lift the retainer. Fold the retainer away from the wires.
 Connector 105: Use the RRT as a lever to gently lift the retainer locking tab. Repeat the process on the other side of the connector. Remove the retainer.



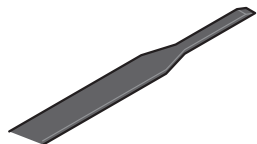
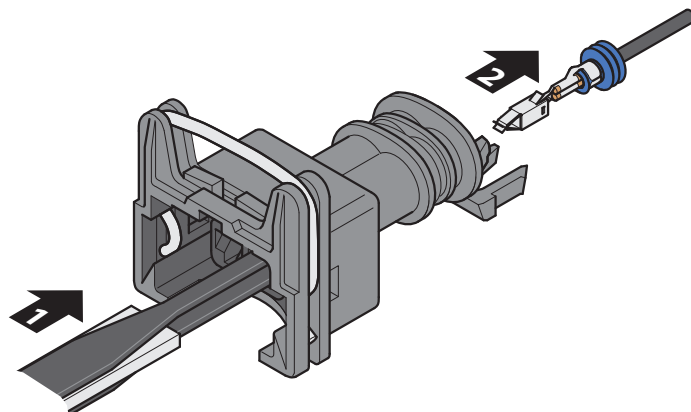
TERMINAL REMOVAL METHOD

1. Insert the two TRTs (06A) straight into the slots on the face of the connector above and below the terminal. Be sure that the two TRTs contact the locking tabs.

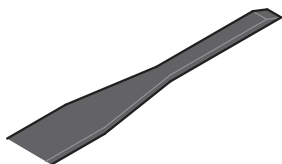
NOTE: Locking tabs are part of terminal.



2. Press the two TRTs into the slots to release the locking tabs and then pull the wire out slowly.

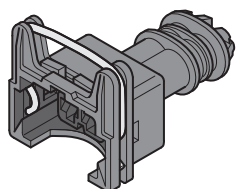


RRT 01A

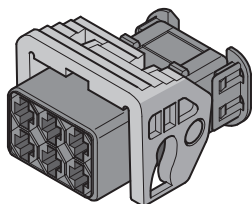


TRT 06A

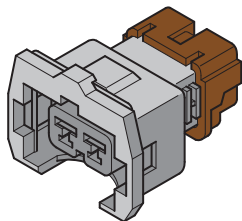
BS FAMILY CONNECTORS



J-48817-103



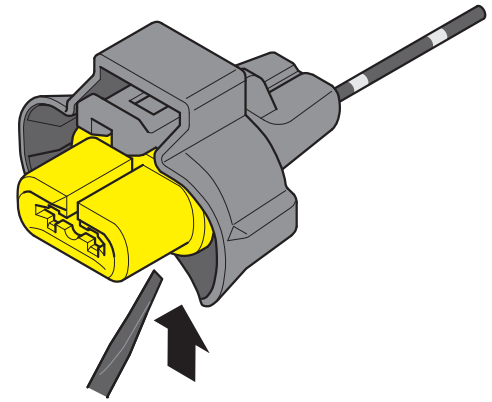
J-48817-105



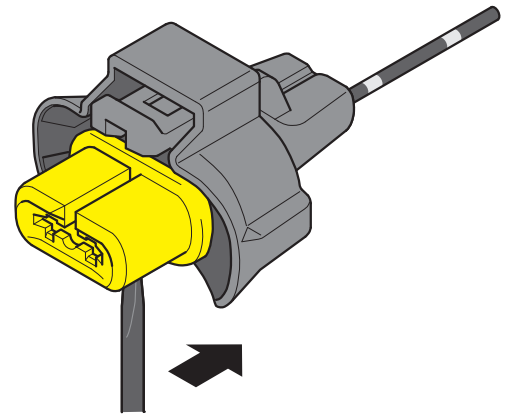
J-48817-147

RETAINER REMOVAL METHOD

1. Place the RRT (04A) under the edge of the retainer.



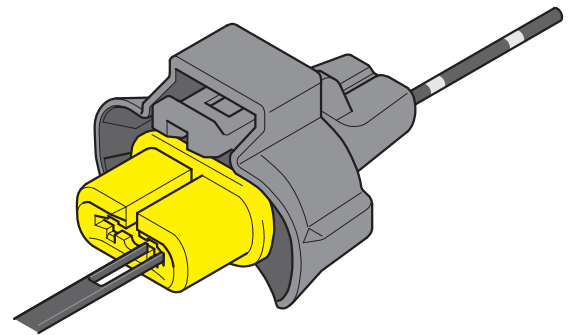
2. Use the RRT as a lever to gently lift the retainer. Do not remove the retainer from the connector.



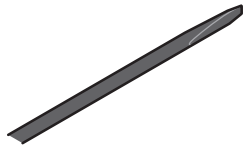
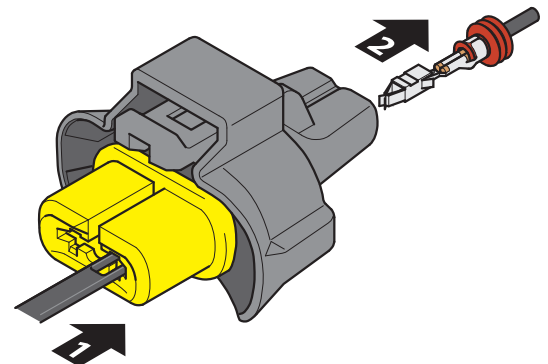
TERMINAL REMOVAL METHOD

1. Insert the TRT (12A) straight into the slots on the face of the terminal on both sides of the terminal.

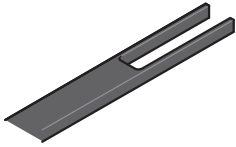
NOTE: Locking tabs are part of terminal.



2. Press the TRT into the slots to release the locking tabs and then pull the wire out slowly.

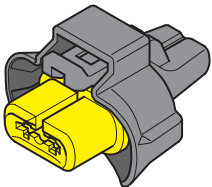


RRT 04A



TRT 12A

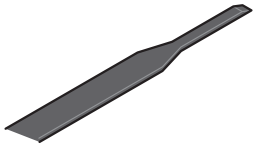
BS FAMILY CONNECTORS



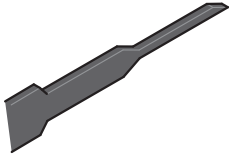
J-48817-173

RETAINER REMOVAL METHOD

1. Insert RRT (01A) in the latch as shown.

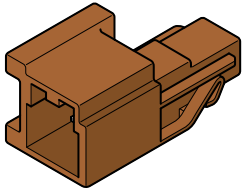


RRT 01A

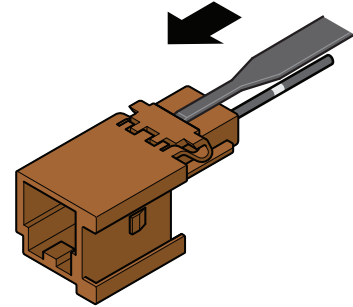


TRT 11A

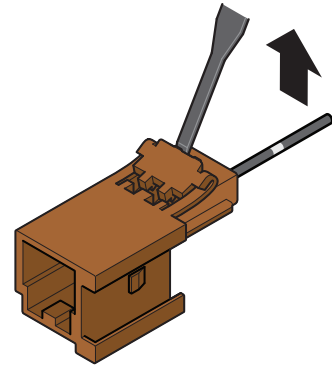
C FAMILY
CONNECTORS



J-48817-177

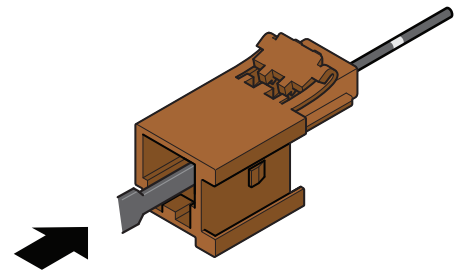


2. Pull the tool up.

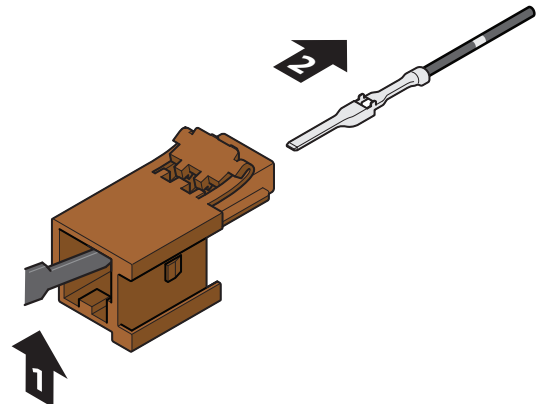


TERMINAL REMOVAL METHOD

1. Insert TRT (11A) as shown, the connector lock will move up releasing the terminal.

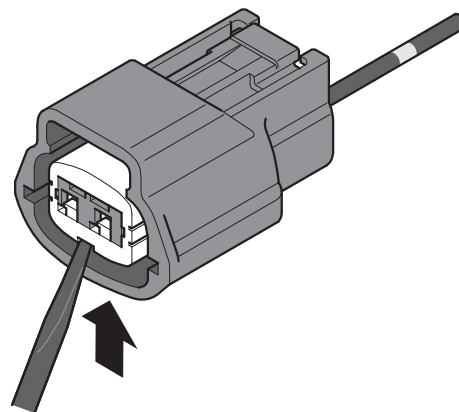


2. Pull on the terminal to remove.

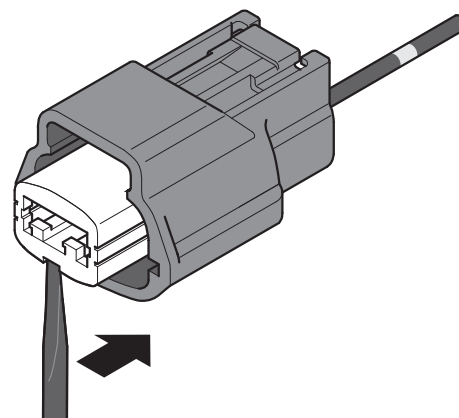


RETAINER REMOVAL METHOD

1. Place the RRT (04A) in the slot at the edge of the retainer.



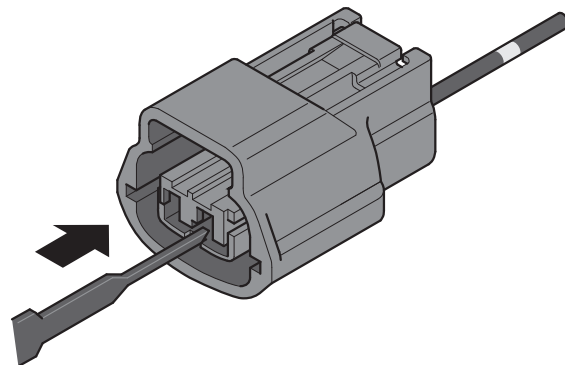
2. Use the RRT as a lever to gently lift the retainer. Remove the retainer from the connector.



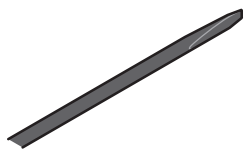
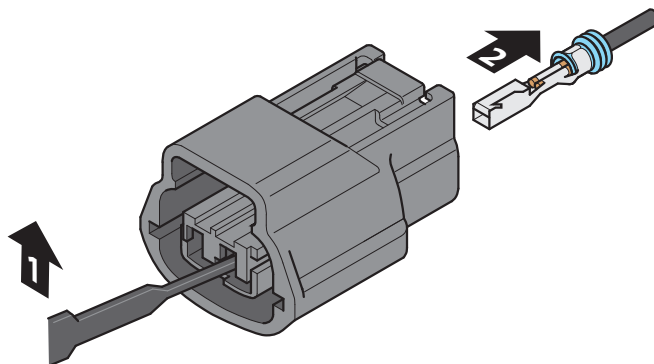
TERMINAL REMOVAL METHOD

1. Insert the TRT (11A) straight into the slot on the face of the connector near the terminal with the long side of the TRT touching the terminal.

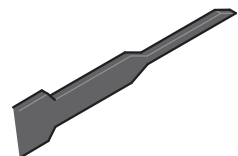
NOTE: Locking tab is part of connector.



2. Move the TRT upward slightly to release the locking tab and then pull the wire out slowly.

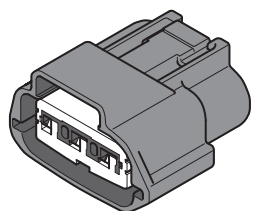


RRT 04A

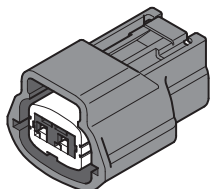


TRT 11A

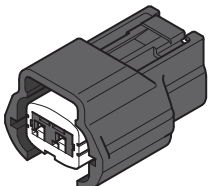
E FAMILY CONNECTORS



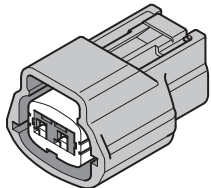
J-48817-102



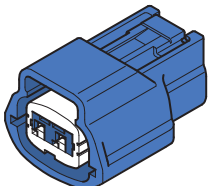
J-48817-122



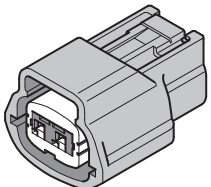
J-48817-181



J-48817-182



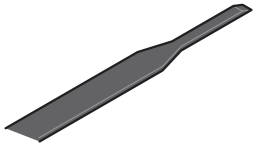
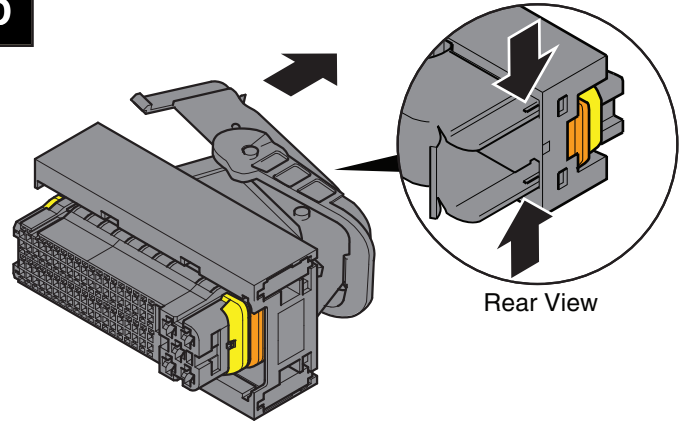
J-48817-183



J-48817-184

RETAINER REMOVAL METHOD

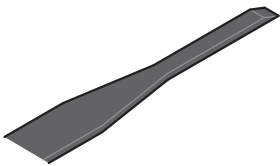
1. Release the cover by pressing the locks.



RRT 01A

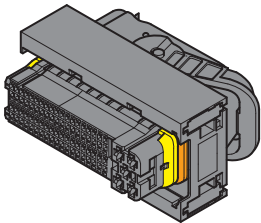


TRT 13A



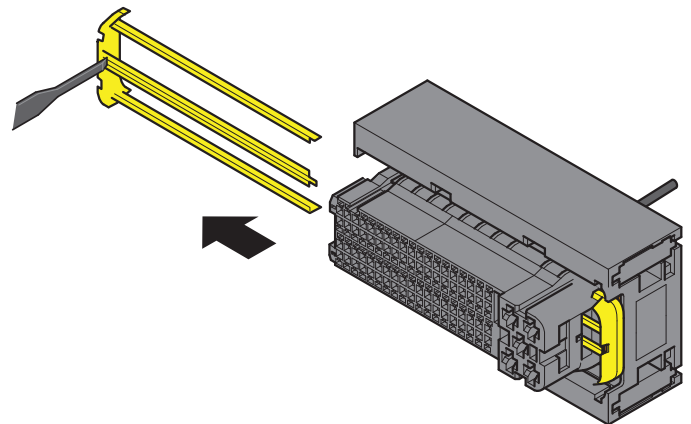
TRT 06A

ECM FAMILY CONNECTORS



2. Use the RRT (01A) as a lever to gently release the top of the yellow retainer. Repeat operation on the opposite side of the retainer. Do not remove the retainer from the connector.

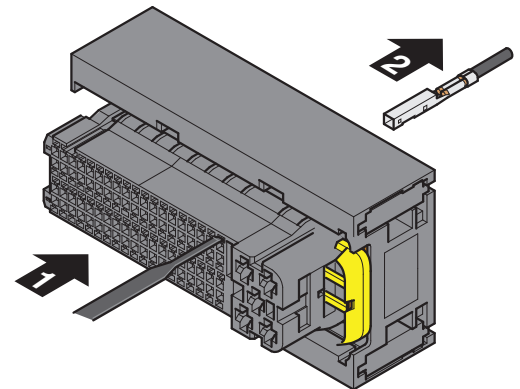
On the opposite side of the connector, place the RRT (01A) in between the connector and yellow retainer. Use the RRT as a lever to gently release the retainer. Remove the retainer from the connector.



TERMINAL REMOVAL METHOD

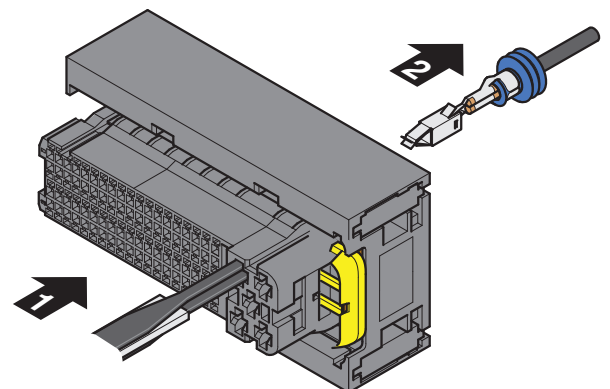
1. For smaller terminals, position the TRT (13A) into the lock cavity. Move the TRT downward slightly to release the locking tab. Pull the wire back to remove the terminal while the TRT is inserted.

NOTE: Locking tab is part of connector.



2. For the larger terminals, insert the two TRTs (06A) straight into the slots on the face of the connector above and below the terminal. Be sure that the two TRTs contact the locking tabs.

NOTE: Locking tab is part of terminal.



RETAINER REMOVAL METHOD

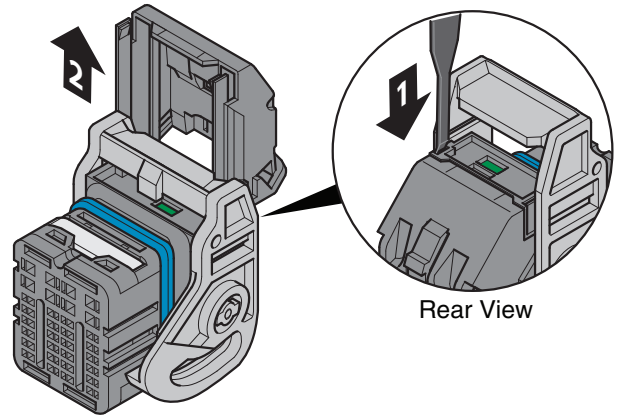
1. Cut and remove the tie strap from rear of connector. Unlock both side locks using RRT (01A). While releasing the locks push and remove the cover.



RRT 01A

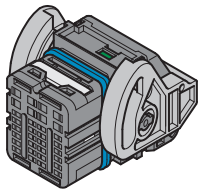


TRT 07A

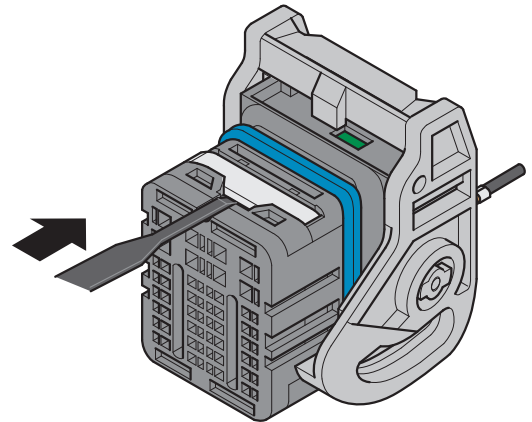


Rear View

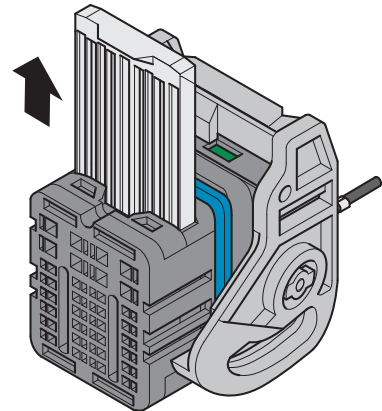
ECM FAMILY CONNECTORS



2. Release secondary retainer using RRT (01A).



3. Pull the retainer up to the position shown.

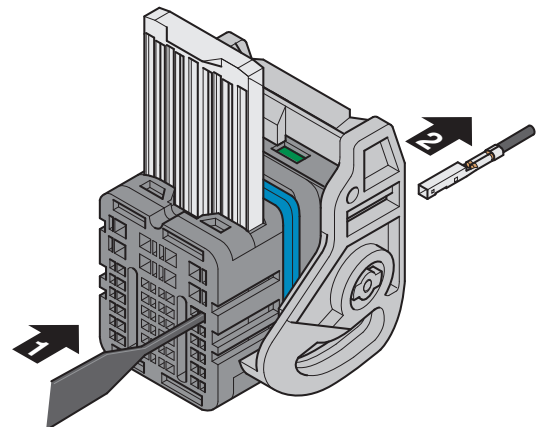


TERMINAL REMOVAL METHOD

1. Position the TRT (07A) in the lock cavity. Insert the TRT to release the lock terminal. Pull the wire back to remove the terminal while the TRT is inserted.

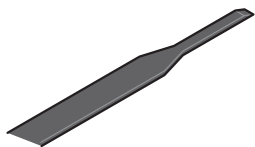
NOTE: Do not lift the pick tool to avoid lock damage.

NOTE: Locking tab is part of terminal.



RETAINER REMOVAL METHOD

1. Cut and remove the tie strap from rear of connector. Unlock each side of the rear cover using RRT (01A). Apply pressure while releasing the locks push and remove the cover.

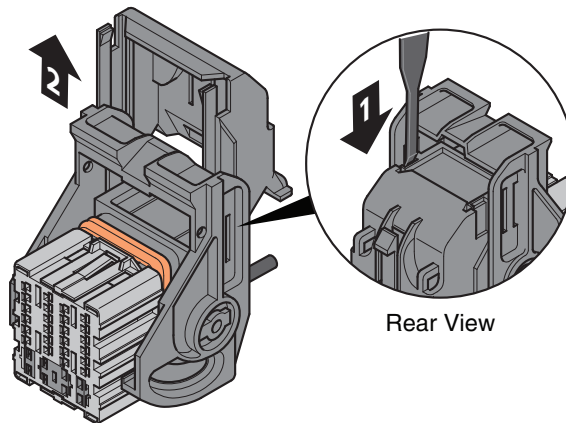
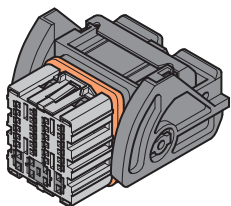


RRT 01A

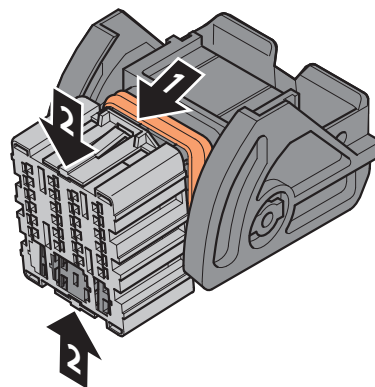


TRT 07A

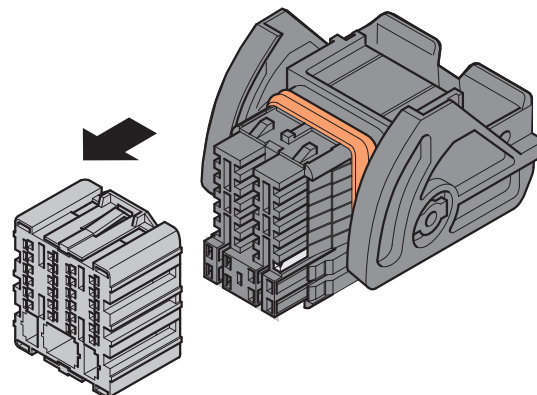
ECM FAMILY CONNECTORS



2. To release secondary retainer, lift the lower lock while pinching the secondary retainer to release.



3. Pull retainer out firmly.

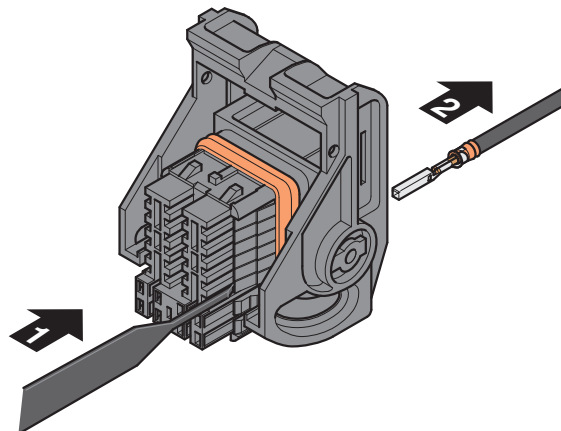


TERMINAL REMOVAL METHOD

1. Insert the TRT (07A) 1mm between terminal and lock. Pull the wire back to remove the terminal.

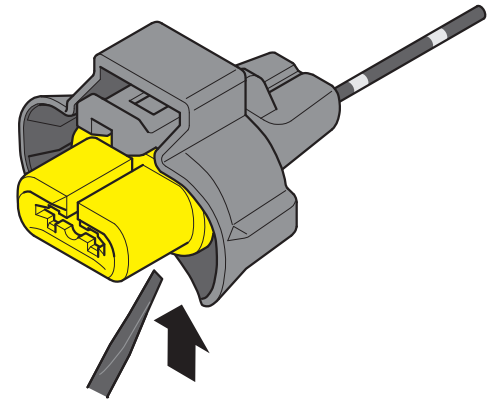
NOTE: Do not lift the pick tool to avoid lock damage.

NOTE: Locking tab is part of connector. After repair, align secondary retainer according to terminal sizes, press lock on both sides and push in firmly until reaching bottom of connector and release.

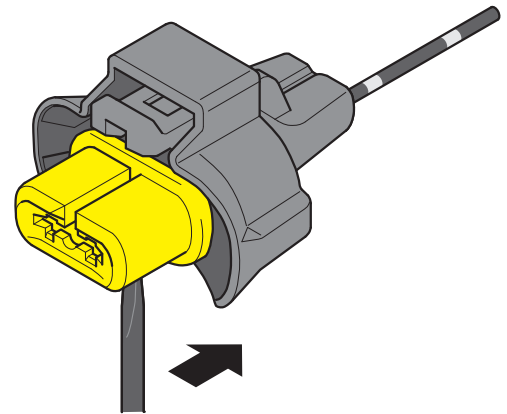


RETAINER REMOVAL METHOD

1. Place the RRT (04A) under the edge of the retainer.



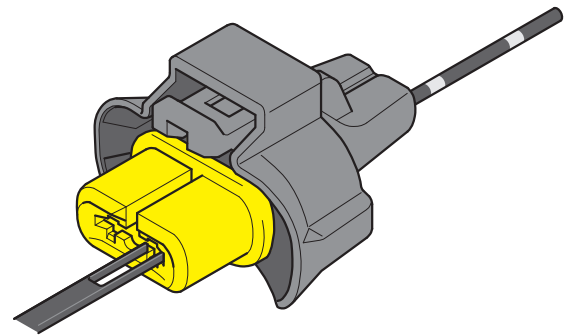
2. Use the RRT as a lever to gently lift the retainer. Do not remove the retainer from the connector.



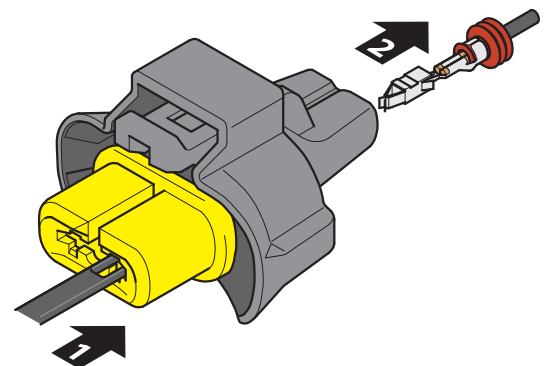
TERMINAL REMOVAL METHOD

1. Insert the TRT (12A) straight into the slots on the face of the terminal.

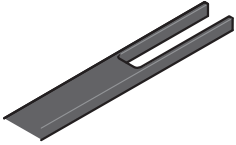
NOTE: Locking tabs are part of terminal.



2. Press the TRT into the slots to release the locking tabs and then pull the wire out slowly.

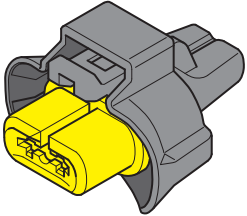


RRT 04A



TRT 12A

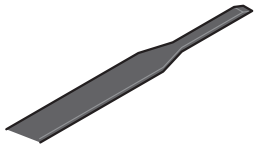
FC FAMILY CONNECTORS



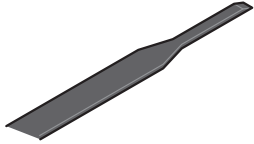
J-48817-118

RETAINER REMOVAL METHOD

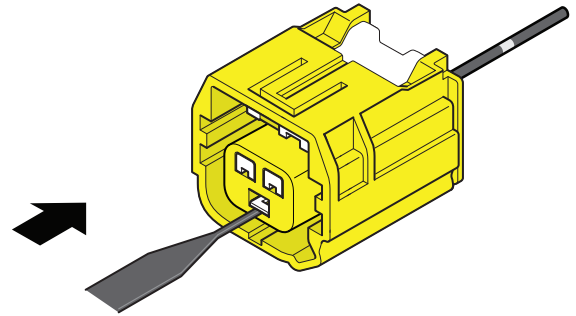
1. Insert RRT (01A) as shown.



RRT 01A

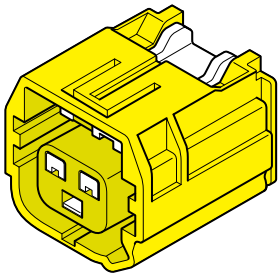


TRT 01A

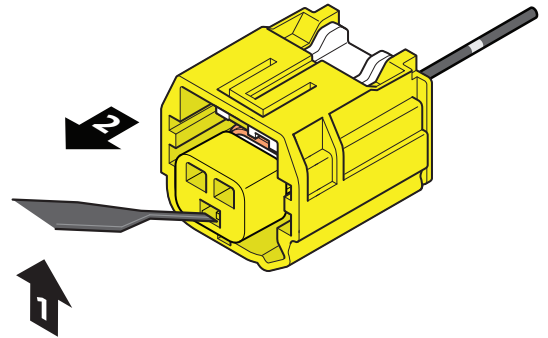


2. Pull out the yellow center retainer.

HK FAMILY CONNECTORS

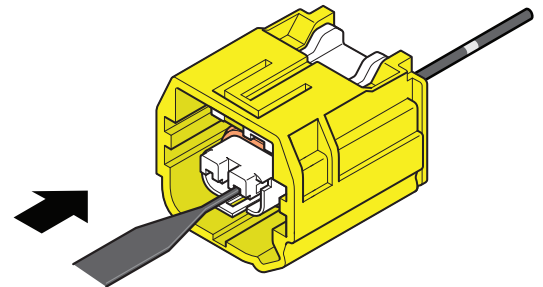


J-48817-169

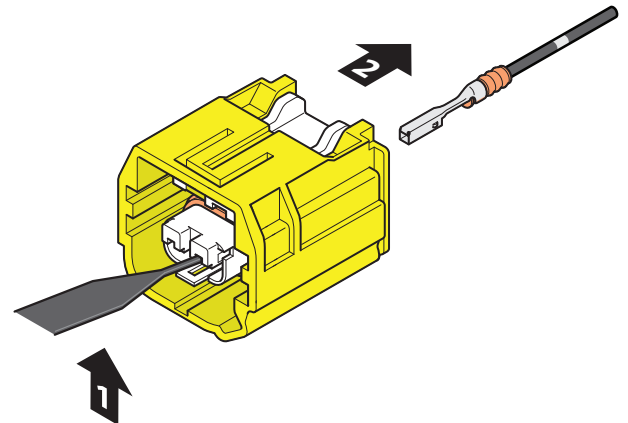


TERMINAL REMOVAL METHOD

1. Insert TRT (01A) as shown.

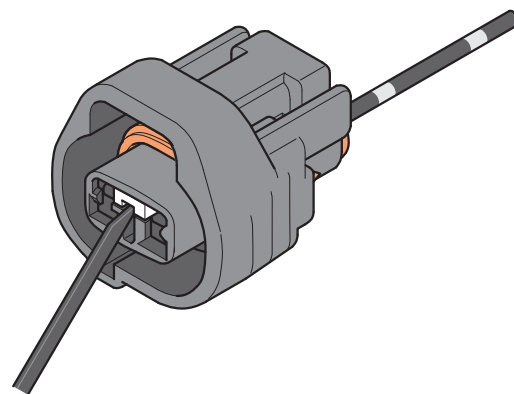


2. Push to release the cavity lock and pull the terminal out.

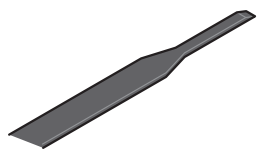
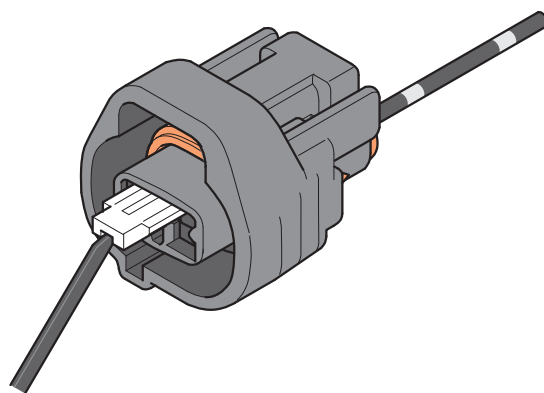


RETAINER REMOVAL METHOD

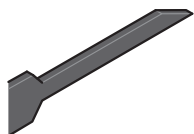
1. All except connector 165: Place the RRT (02A) in the small hole in the retainer.
 Connector 165: Place RRT (04A) in the retainer slot.



2. Use the RRT as a lever to gently lift the retainer. Remove the retainer from connectors 110 and 125 only.



TRT 01A



RRT 02A

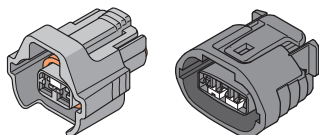


RRT 04A

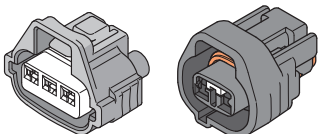


TRT 07A

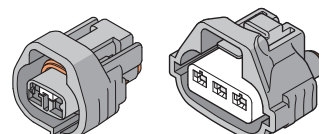
HS FAMILY CONNECTORS



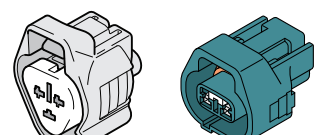
J-48817-107 J-48817-109



J-48817-110 J-48817-111



J-48817-112 J-48817-125

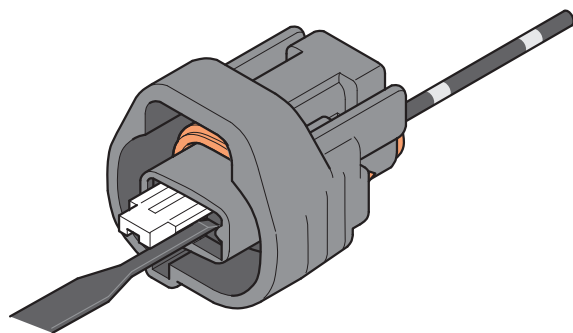


J-48817-165 J-48817-188

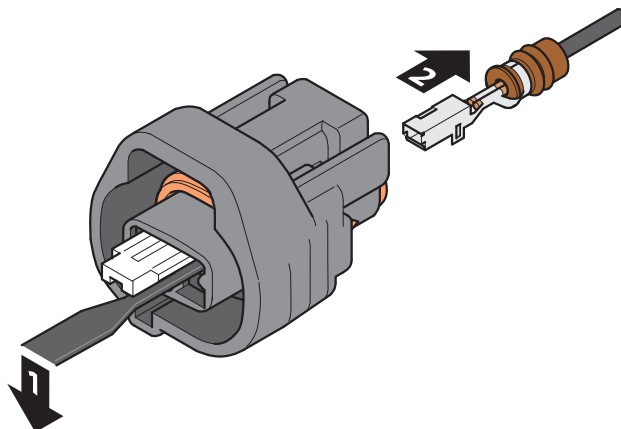
TERMINAL REMOVAL METHOD

1. All except connector 165: Insert the TRT (01A) straight into the slot on the face of the connector near the terminal with the long side of the TRT touching the terminal.
 Connector 165: Insert TRT (07A) straight into the slot on the face of the connector near the terminal.

NOTE: Locking tab is part of connector.

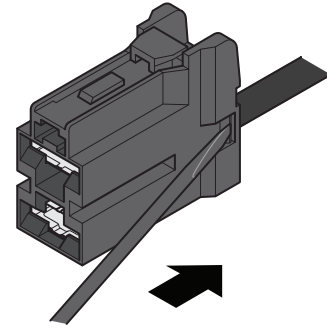


2. Move the TRT slightly (upward for connectors 109, 110 and 125; downward for connectors 107, 111, 112 and 165) to release the locking tab and then pull the wire out slowly.

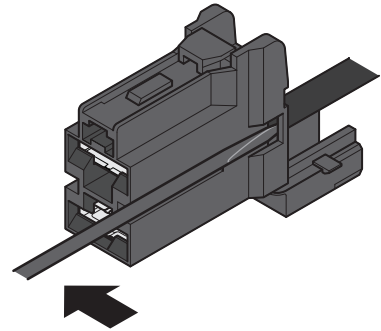


RETAINER REMOVAL METHOD

1. Insert RRT (04A) as shown.

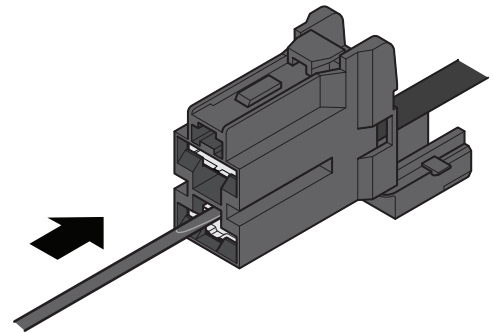


2. Pull the retainer up.

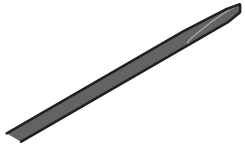
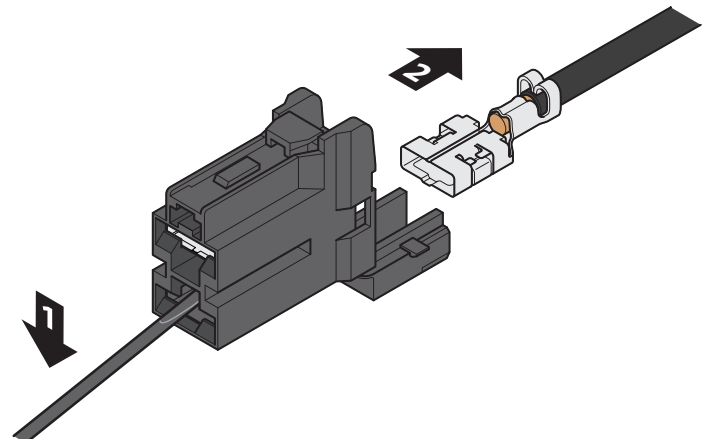


TERMINAL REMOVAL METHOD

1. Insert TRT (04A) in the front of the connector as shown.



2. Open the cavity lock and pullout the terminal.



RRT 04A



TRT 04A

L FAMILY CONNECTORS

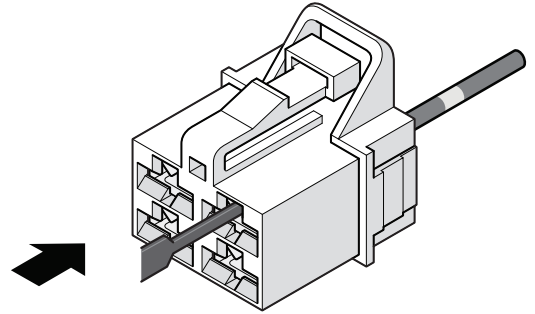
TERMINAL REMOVAL METHOD



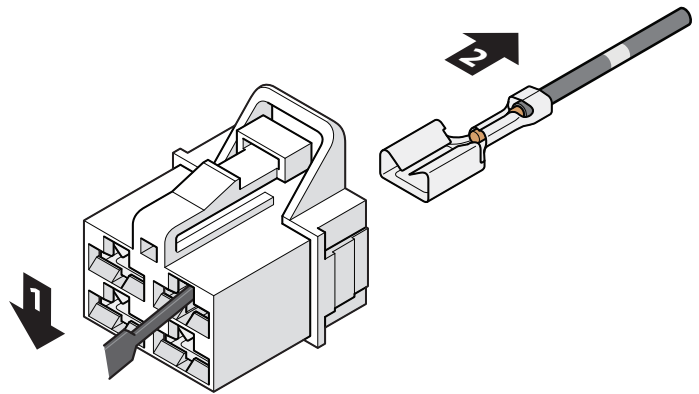
TRT 02A

MF FAMILY CONNECTORS

1. Insert TRT (02A) as shown.

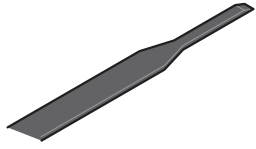


2. Open the cavity lock and pullout the terminal.



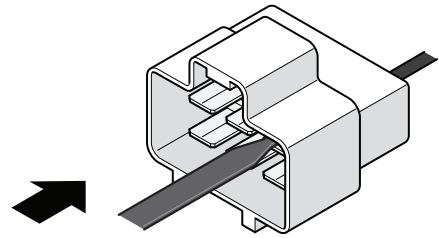
TERMINAL REMOVAL METHOD

1. Insert TRT (01A) as shown.

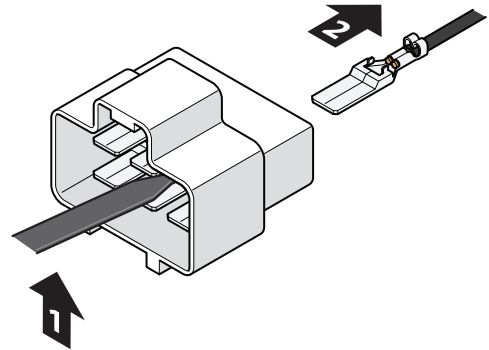


TRT 01A

**MM FAMILY
CONNECTORS**

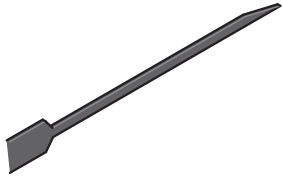
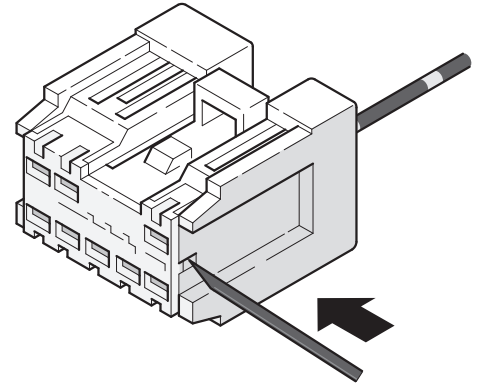


2. Open the cavity lock and pullout the terminal.



RETAINER REMOVAL METHOD

1. All except connectors 114 and 135:
 Place the RRT (09A) in the small hole behind the retainer.
 Connectors 114, 135: Place the RRT (09A) in the slot on the side of the connector.

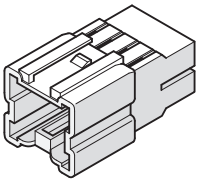


RRT 09A

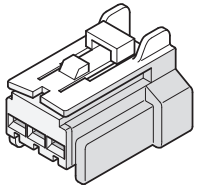


TRT 09A

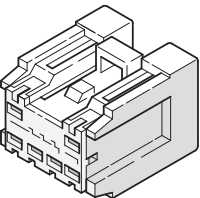
NS FAMILY CONNECTORS



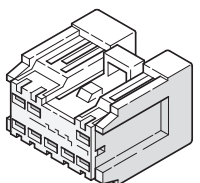
J-48817-114



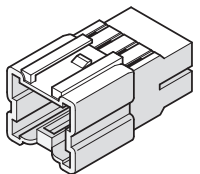
J-48817-132



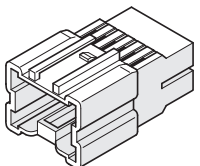
J-48817-133



J-48817-134

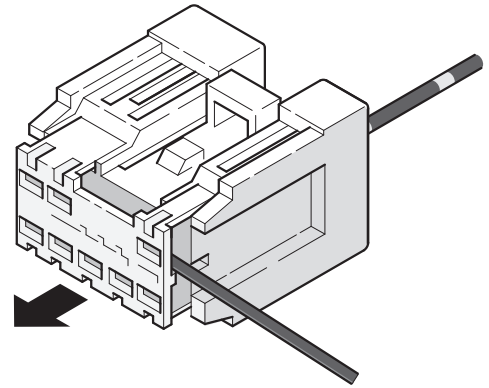


J-48817-135



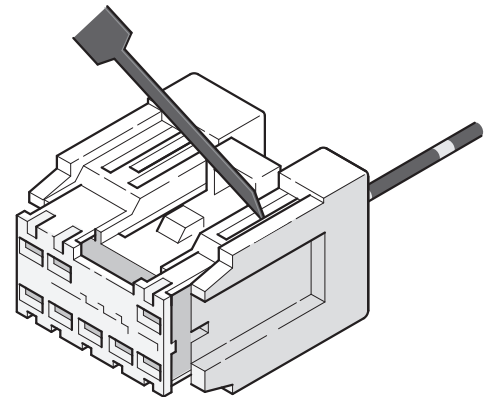
J-48817-158

2. Press the RRT gently until the retainer releases from the connector. Do not remove the retainer from the connector.

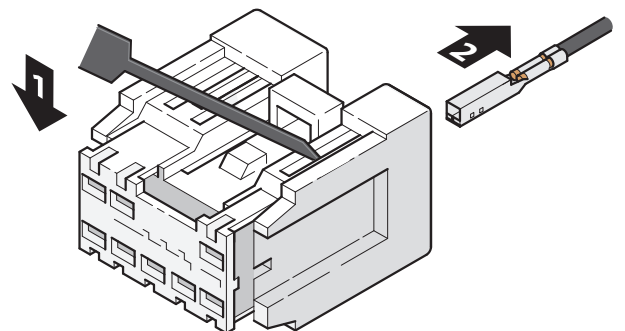


TERMINAL REMOVAL METHOD

1. Insert the TRT (09A) as shown. Ensure that the TRT contacts the locking tab.
NOTE: Locking tab is part of connector.



2. Move the tool downward slightly to release the locking tab and then pull the wire out slowly.

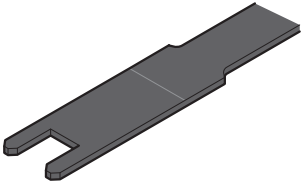
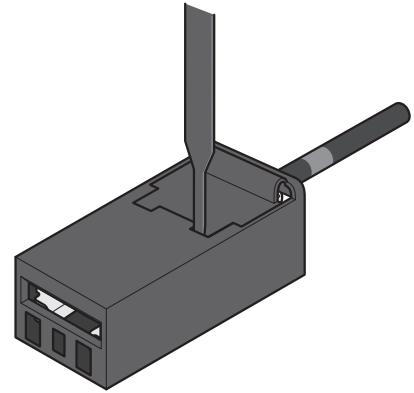


RETAINER REMOVAL METHOD

1. Place the RRT (04A) into the connector lock area and insert it into the retainer slot.

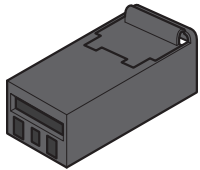


RRT 01A



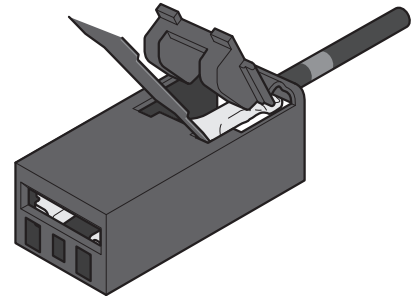
TRT 08A

P FAMILY CONNECTORS



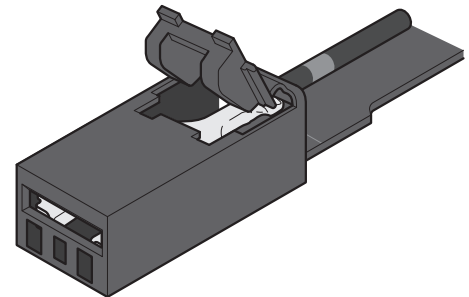
J-48817-164

2. Push the RRT towards the rear of the connector to release the lock. The retainer is unlocked when it moves out. Do not remove the retainer from the connector.

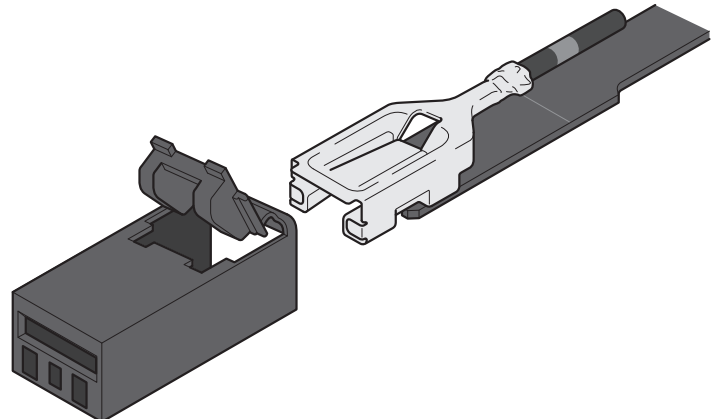


TERMINAL REMOVAL METHOD

1. Insert the TRT (04A) straight into the slot on the face of the connector above the terminal.

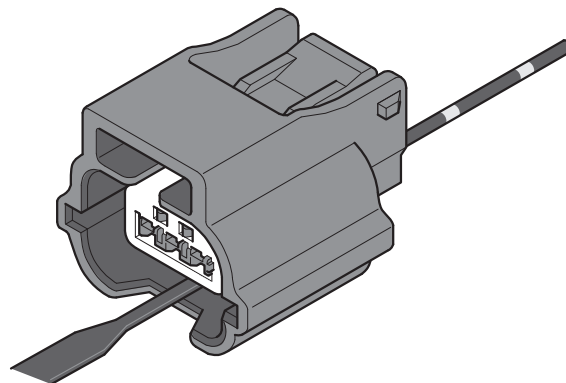


2. Move the TRT downward slightly to release the locking tab and then pull the wire out slowly.

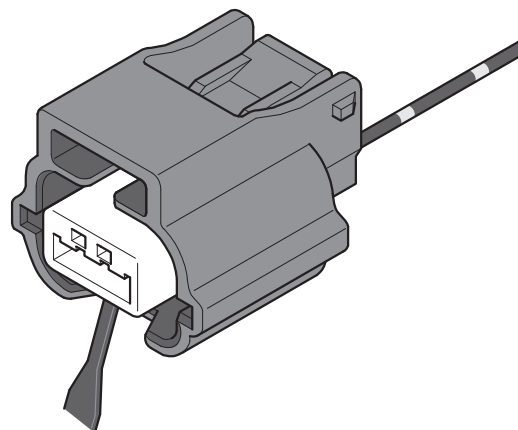


RETAINER REMOVAL METHOD

1. All except connector 186: Place the RRT (01A) against the side of the retainer.
 Connector 186: Using RRT J-47003-11, remove the retainer.



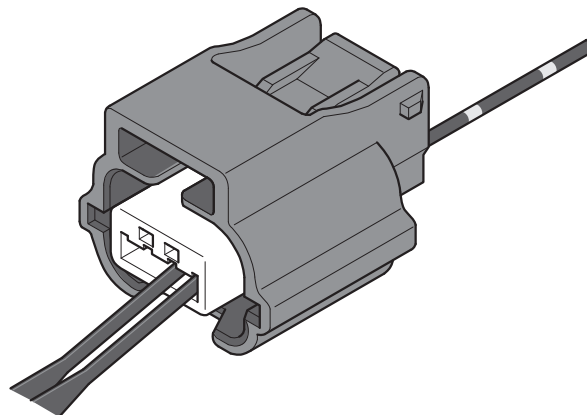
2. Use the RRT as a lever to gently lift the retainer. Do not remove the retainer from the connector.



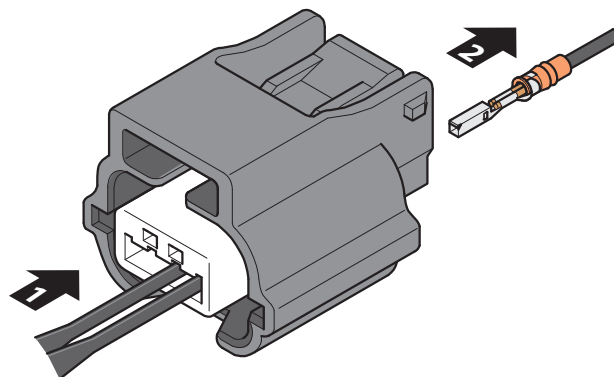
TERMINAL REMOVAL METHOD

1. Position the two TRTs (10A) long side down and align with the slots on both sides of the terminal opening in the connector face.

NOTE: Locking tabs are part of connector.



2. Slide the TRTs into the slots in the connector and be sure that they contact the locking tabs. Press the two TRTs into the slots to release the locking tabs and then pull the wire out slowly.

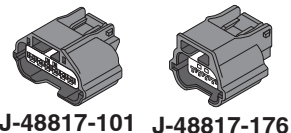


RRT J-47003-11

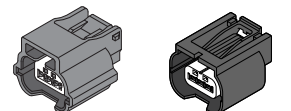
RRT 01A

TRT 10A

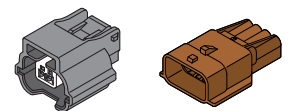
RH FAMILY CONNECTORS



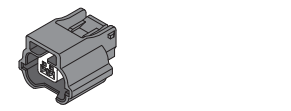
J-48817-101 J-48817-176



J-48817-116 J-48817-185



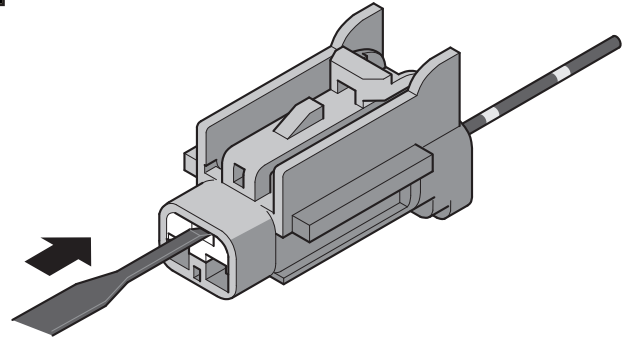
J-48817-150 J-48817-186



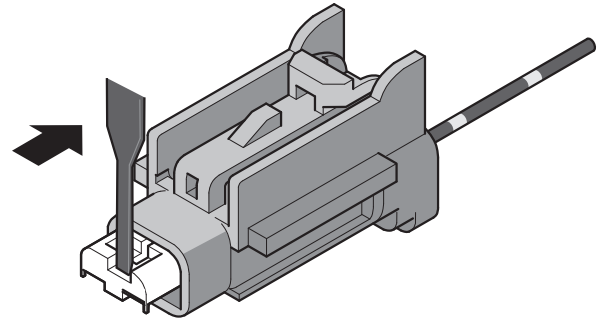
J-48817-162

RETAINER REMOVAL METHOD

1. Place the RRT (01A) in the slot between the retainer and the connector.



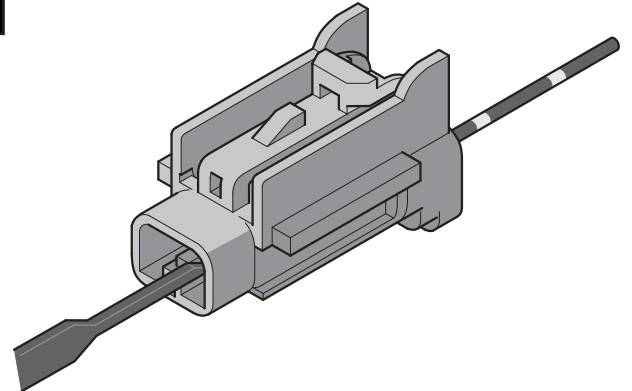
2. Use the RRT as a lever to gently lift the retainer. Remove the retainer from the connector.



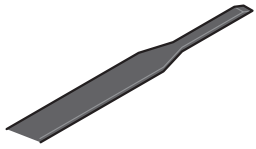
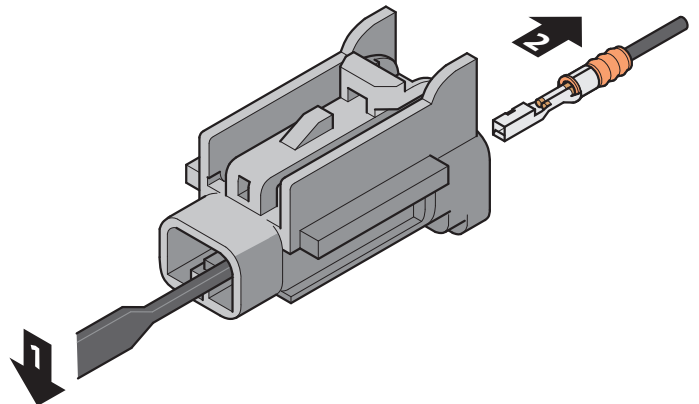
TERMINAL REMOVAL METHOD

1. Insert the TRT (01A for 104 and 121, 11A for 120) directly above the terminal with the long side of the TRT touching the terminal.

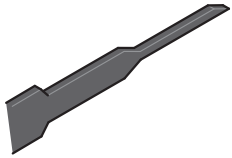
NOTE: Locking tab is part of connector.



2. Move the TRT downward slightly to release the locking tab and then pull the wire out slowly.

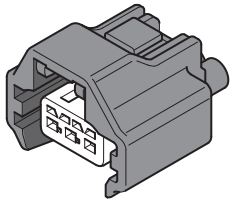


RRT 01A

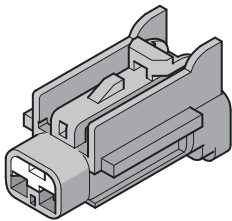


TRT 11A

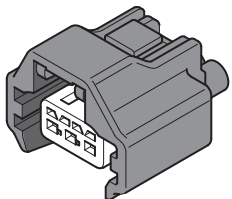
RK FAMILY CONNECTORS



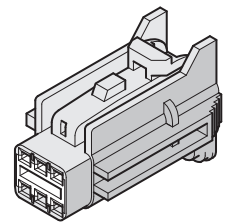
J-48817-104



J-48817-120



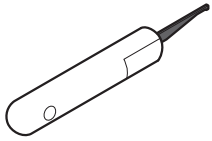
J-48817-121



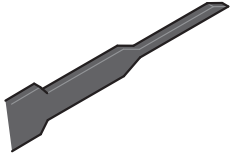
J-48817-146

RETAINER REMOVAL METHOD

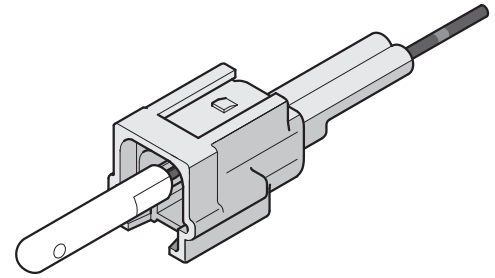
1. Insert (RRT J-47003-11) into the retain-er middle cavity.



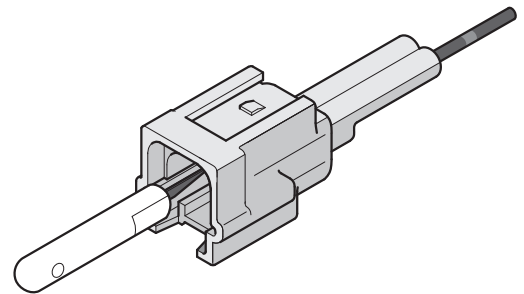
RRT J-47003-11



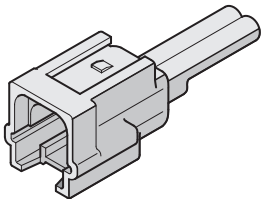
TRT 11A



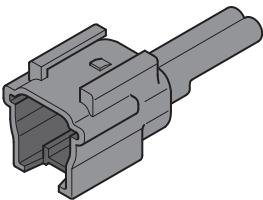
2. Pull the RRT outward to remove the retainer.



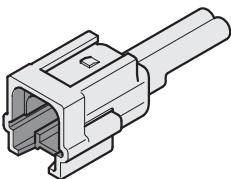
RK FAMILY CONNECTORS



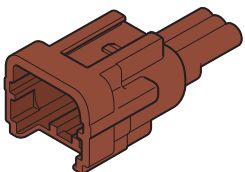
J-48817-151



J-48817-152



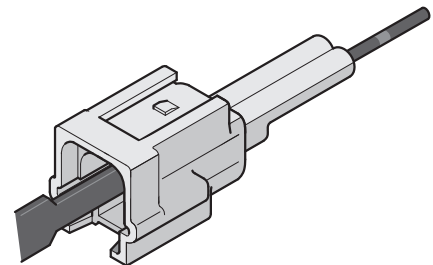
J-48817-161



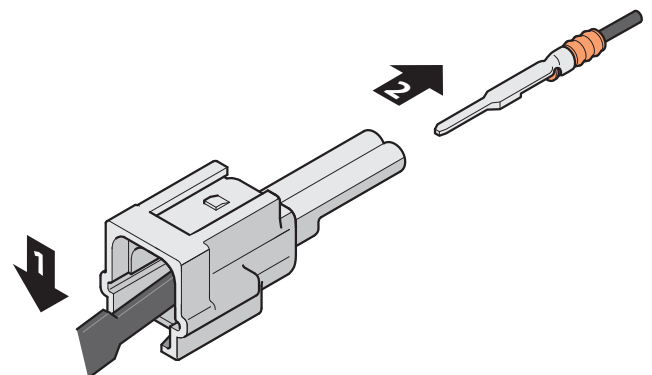
J-48817-175

TERMINAL REMOVAL METHOD

1. Insert the TRT (11A) into slot just above terminal.

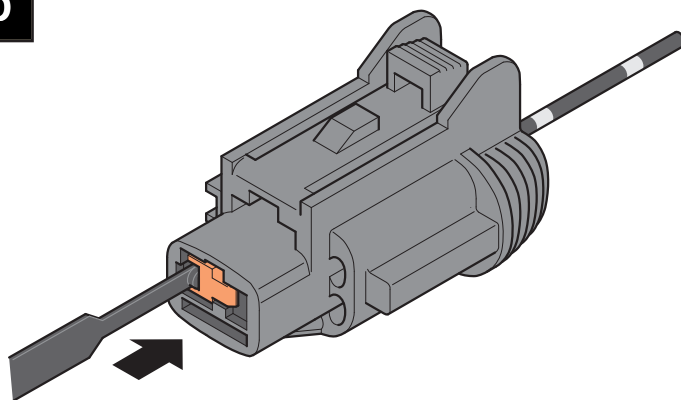


2. Move the TRT downward to release the lock and then pull the wire out slowly.

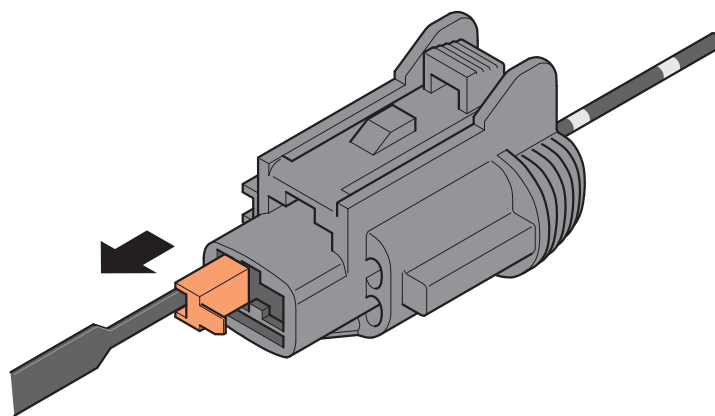


RETAINER REMOVAL METHOD

1. All except connector 106: Place the RRT (03A) in the slot between the retainer and the connector with the barb toward the retainer. When fully inserted, the barb will engage a hole in the retainer.
 Connector 106: Place the RRT (03A) in the slot on the side of the retainer.



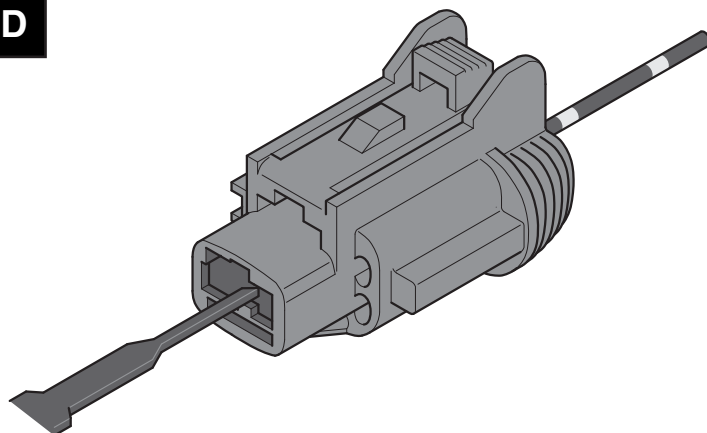
2. All except connector 106: Pull the RRT straight away from the connector. Remove the retainer from the connector.
 Connector 106: Use the RRT as a lever to gently lift the retainer. Remove the retainer from the connector.



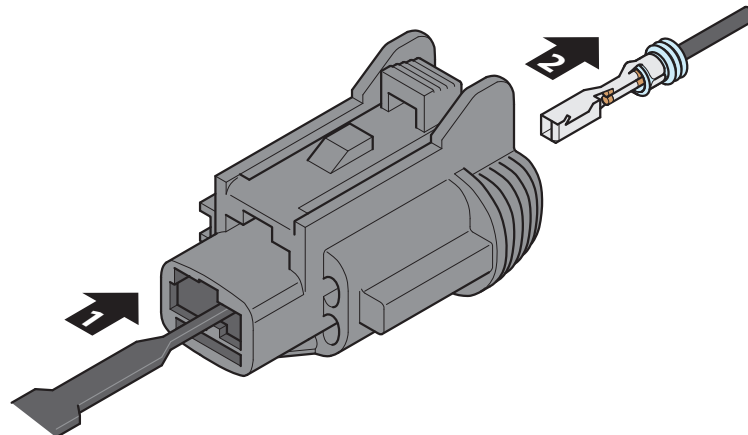
TERMINAL REMOVAL METHOD

1. Connectors 106, 113, 117, 119: Insert the TRT (11A) straight into the connector along the visible side of the terminal with the long side of the TRT touching the terminal.

NOTE: Locking tab is part of connector.



2. Press the TRT into the slot to release the locking tab and then pull the wire out slowly.

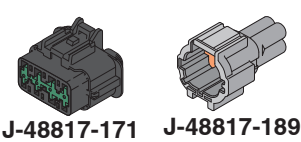
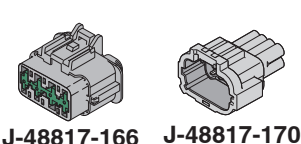
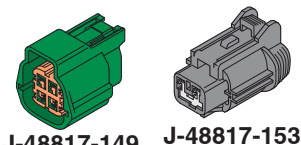
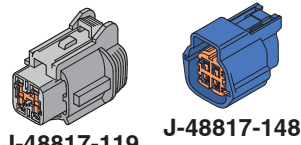
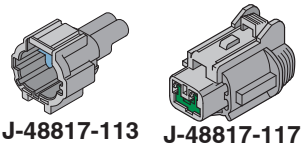
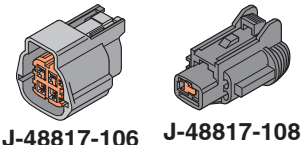


RRT 03A

RRT 02A

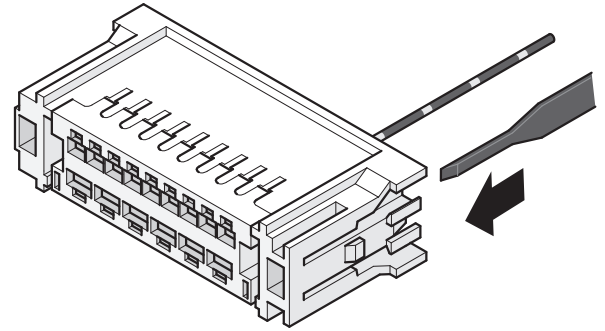
TRT 11A

RS FAMILY CONNECTORS

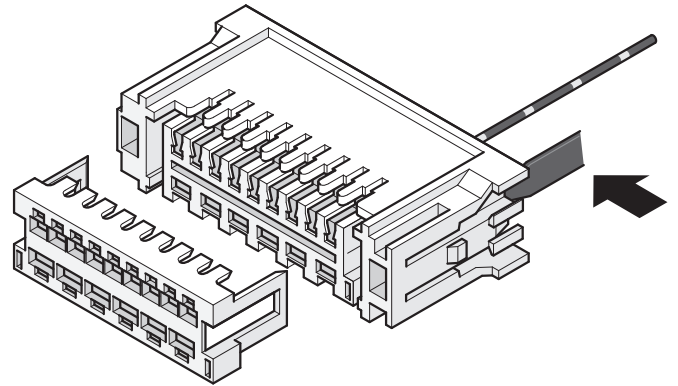


RETAINER REMOVAL METHOD

1. Place the RRT (01A) in the slot next to the terminal cavities on the wire side of the connector. Slide the RRT along the inboard surface of the slot until it contacts the locking tab of the retainer.



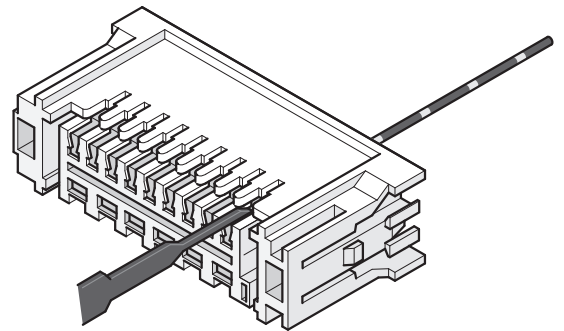
2. Use the RRT as a lever to gently lift the retainer locking tab. Repeat the process on the other end of the connector and remove the retainer from the terminal side of the connector.



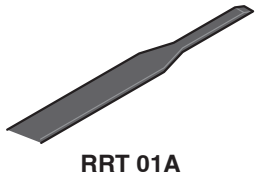
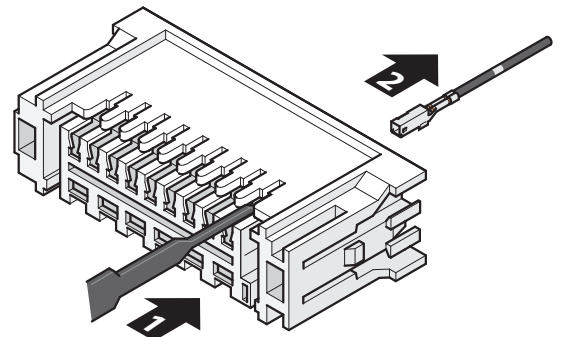
TERMINAL REMOVAL METHOD

1. Place the TRT (11A) against the visible side of the terminal with the long side of the TRT touching the terminal.

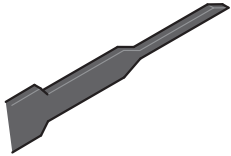
NOTE: Locking tab is part of connector.



2. Press the TRT against the locking tab to release it and then pull the wire out slowly.

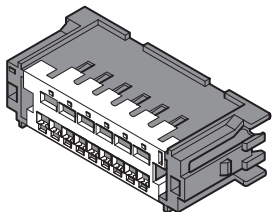


RRT 01A

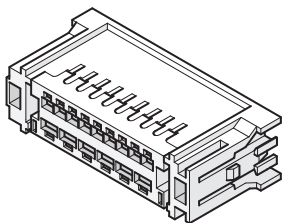


TRT 11A

SEA FAMILY CONNECTORS



J-48817-140



J-48817-141

RETAINER REMOVAL METHOD

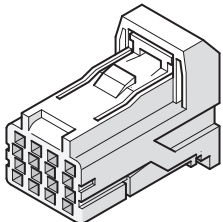


RRT 07A

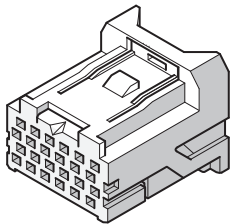


TRT 07A

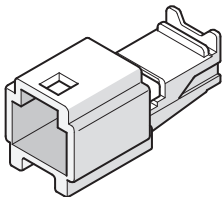
TH FAMILY CONNECTORS



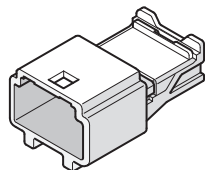
J-48817-127



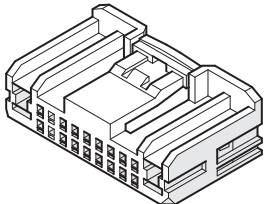
J-48817-128



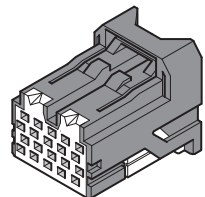
J-48817-130



J-48817-131



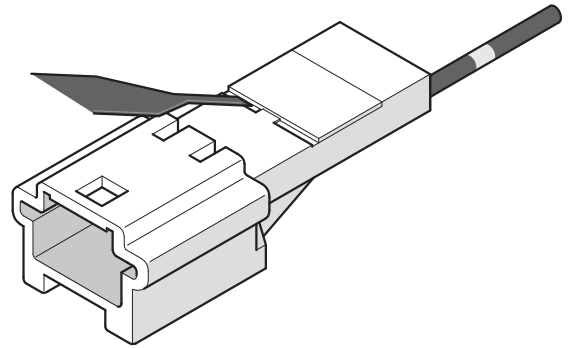
J-48817-154



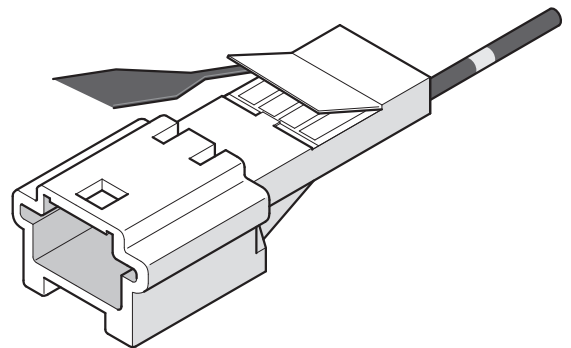
J-48817-157

1. Place the RRT (07A) between the connector and the rear edge of the retainer. Use the RRT as a lever to gently lift the rear edge of the retainer.

CAUTION: Terminals are NOT interchangeable between old and new style TH connectors. The old style connector face has one large hole and the new style has many small holes. The terminal repair kit contains only the new style connectors and terminals. If an old style connector or terminal requires service, the connector and terminals must be replaced with the new style.



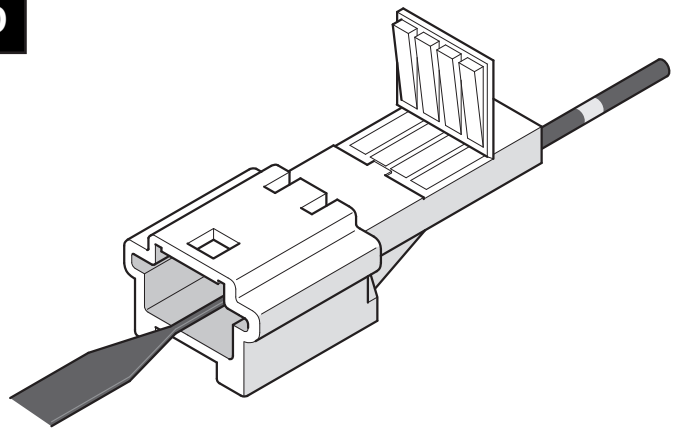
2. Slide the retainer toward the wire side of the connector. Do not remove the retainer from the connector.



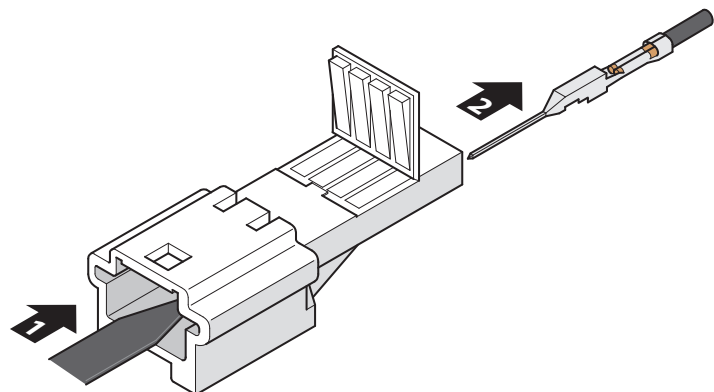
TERMINAL REMOVAL METHOD

1. Insert the TRT (07A) straight into the hole on the face of the connector near the terminal with the long side of the TRT toward the terminal.

Note: Locking tab is part of connector.



2. Press the TRT into the hole to release the locking tab and then pull the wire out slowly.



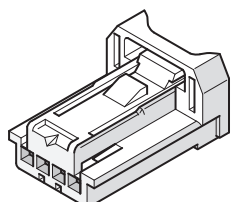


RRT 07A

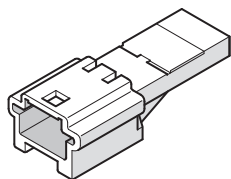


TRT 07A

TH FAMILY CONNECTORS



J-48817-126

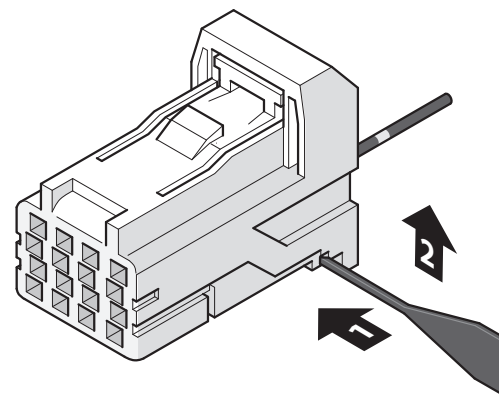


J-48817-129

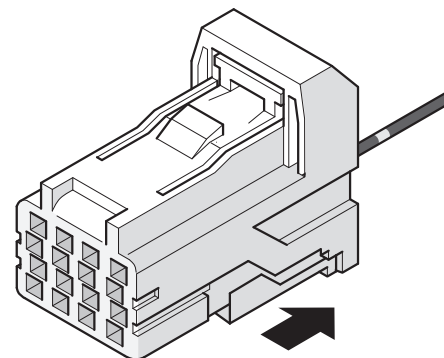
RETAINER REMOVAL METHOD

1. Place the RRT (07A) under the edge of the retainer.

CAUTION: Terminals are NOT interchangeable between old and new style TH connectors. The old style connector face has one large hole and the new style has many small holes. The terminal repair kit contains only the new style connectors and terminals. If an old style connector or terminal requires service, the connector and terminals must be replaced with the new style.



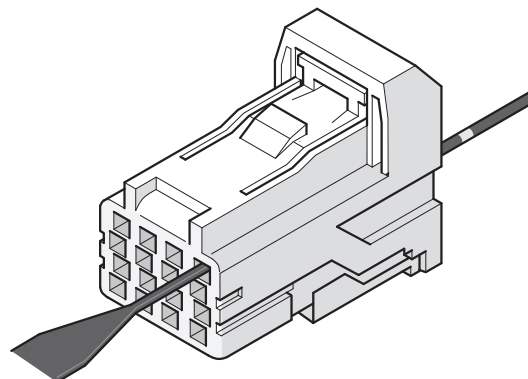
2. Use the RRT as a lever to gently unlock the edge of the retainer from the connector. Repeat the process to completely release the retainer.



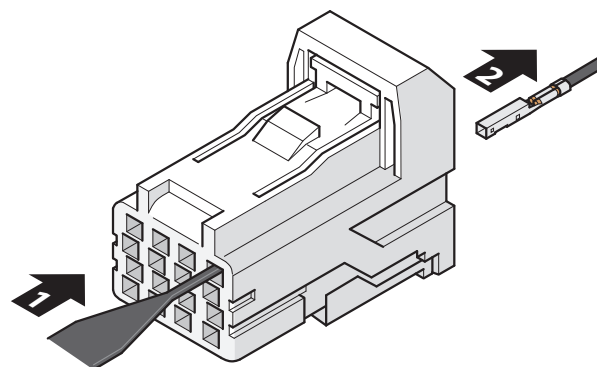
TERMINAL REMOVAL METHOD

1. Insert the TRT (07A) straight into the hole on the face of the connector near the terminal with the long side of the TRT toward the terminal.

NOTE: Locking tab is part of connector.

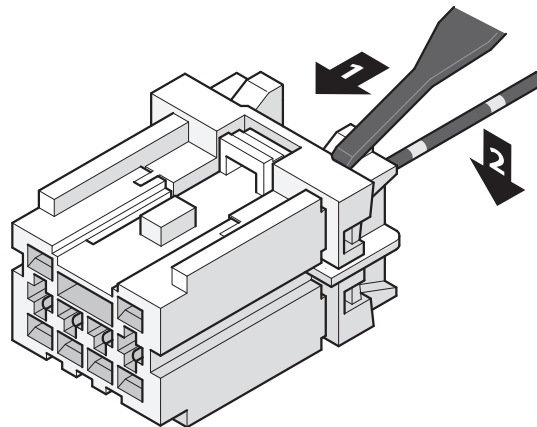


2. Press the TRT into the hole to release the locking tab and then pull the wire out slowly.

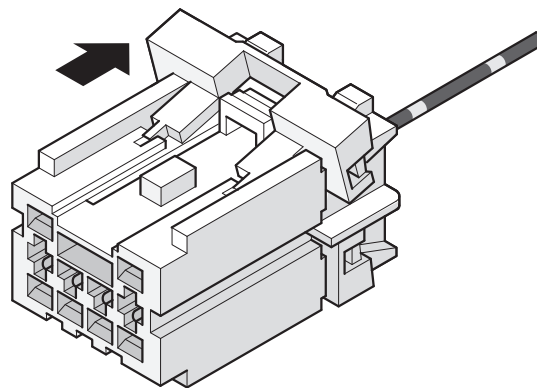


RETAINER REMOVAL METHOD

1. Place the RRT (01A) between the connector and the rear edge of the retainer. Use the RRT as a lever to gently lift the rear edge of the retainer.



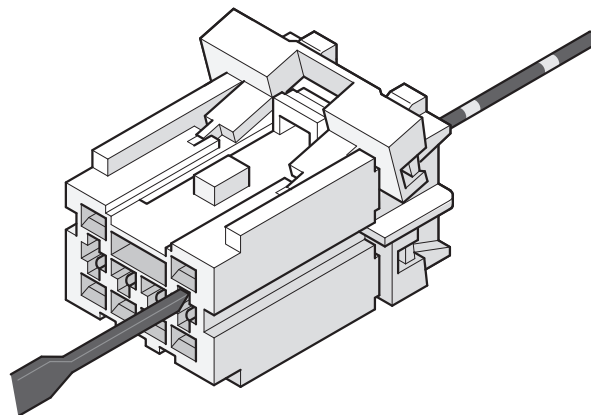
2. Slide the retainer toward the wire side of the connector. Do not remove the retainer from the connector.



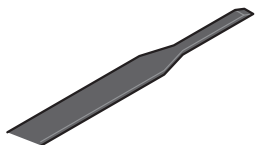
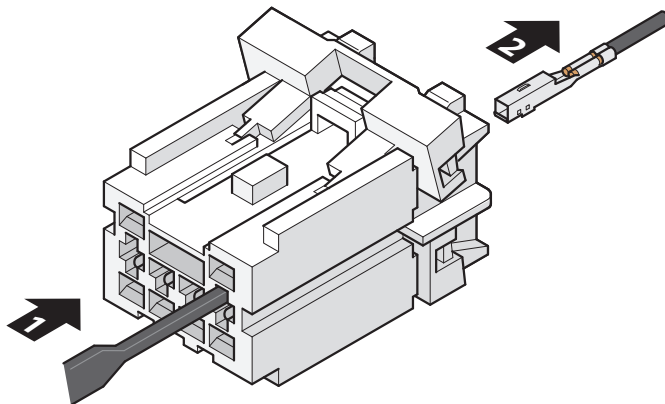
TERMINAL REMOVAL METHOD

1. Insert the TRT (11A) straight into the hole on the face of the connector near the terminal with the long side of the TRT toward the terminal. Be sure that the TRT contacts the locking tab.

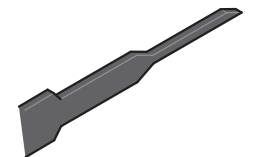
NOTE: Locking tab is part of connector.



2. Press the TRT into the slot to release the locking tab and then pull the wire out slowly.

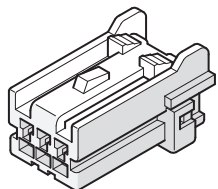


RRT 01A

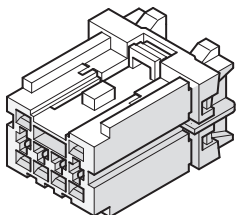


TRT 11A

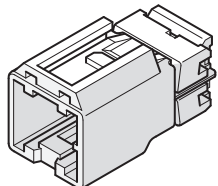
TK FAMILY CONNECTORS



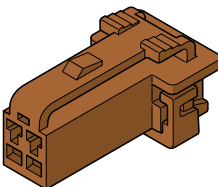
J-48817-136



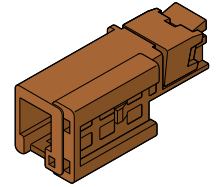
J-48817-137



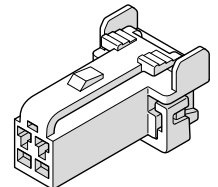
J-48817-138



J-48817-178



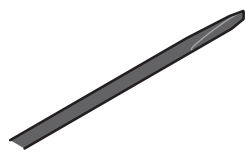
J-48817-179



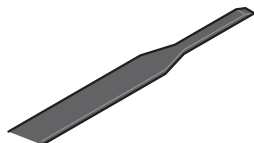
J-48817-180

RETAINER REMOVAL METHOD

1. Place the RRT (04A) on the retainer locking tab on the wire side of the connector.

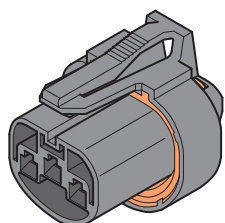


RRT 04A

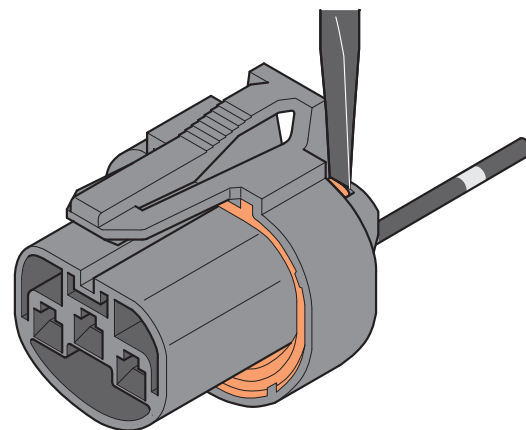


TRT 01A

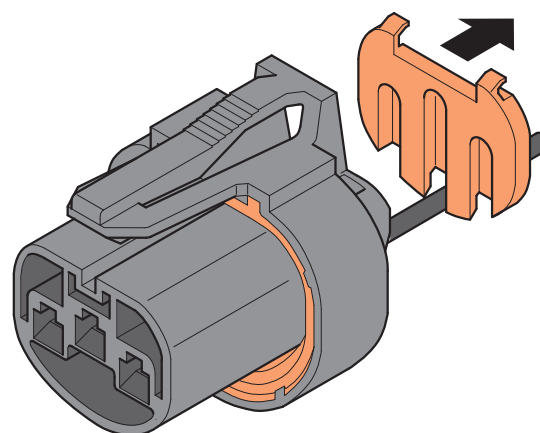
U FAMILY CONNECTORS



J-48817-124



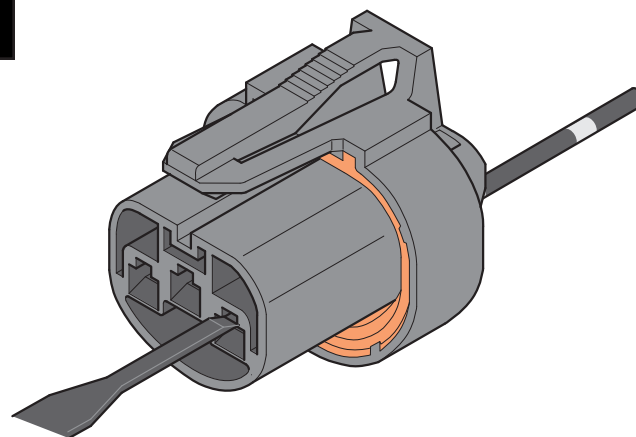
2. Use the RRT to gently depress the locking tab far enough to remove it from the slot in the connector. Repeat the process on the other locking tab and remove the retainer.



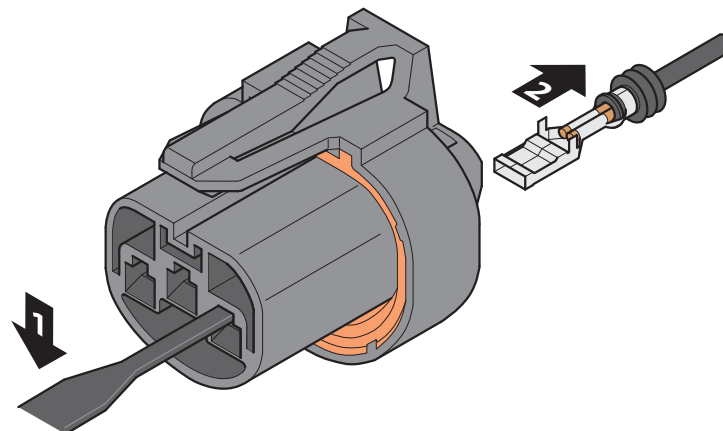
TERMINAL REMOVAL METHOD

1. Insert the TRT (01A) into the slot above the terminal with the long side of the TRT touching the terminal. Be sure that the TRT contacts the locking tab.

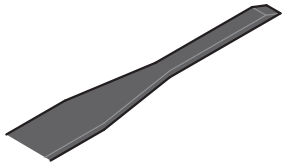
NOTE: Locking tab is part of connector.



2. Move the TRT downward slightly to release the locking tab and then pull the wire out slowly.

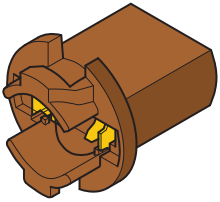


TERMINAL REMOVAL METHOD

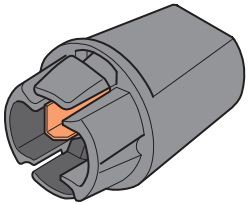


TRT 06A

WBS FAMILY CONNECTORS



J-48817-142

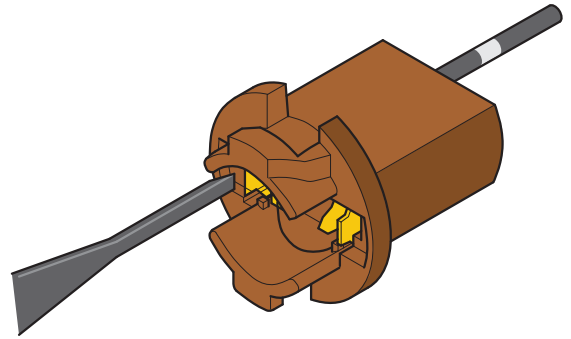


J-48817-143

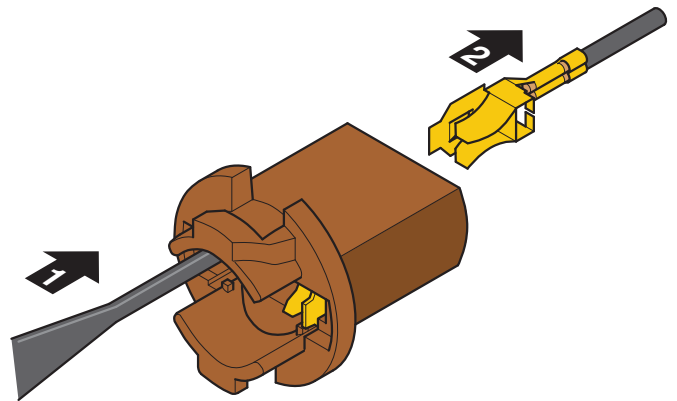
1. Insert the TRT (06A) straight into face of the connector on the outboard side of the terminal with the long side of the TRT toward the terminal.

NOTE: WBS connectors are not equipped with retainers.

NOTE: Locking tab is part of terminal.

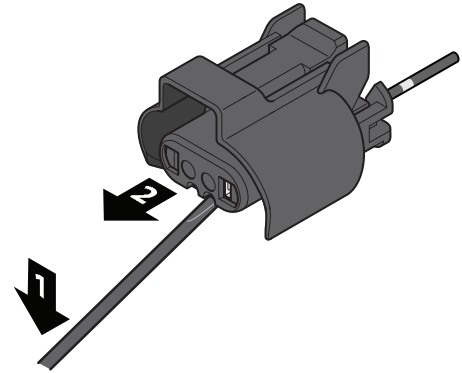


2. Press the TRT into the connector to release the locking tab and then pull the wire out slowly.

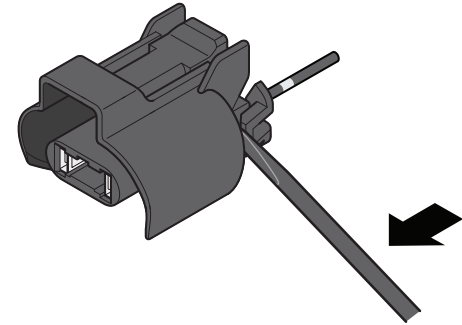


RETAINER REMOVAL METHOD

1. Using the RRT (04A) pry up on the secondary lock (cover) and remove.

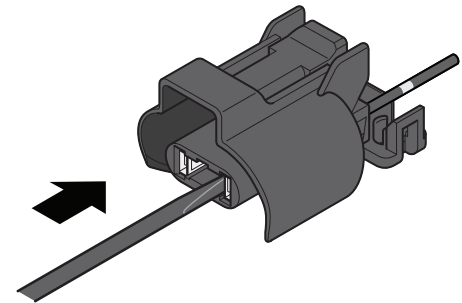


2. Using the RRT (04A) release both sides of the back lock and remove.

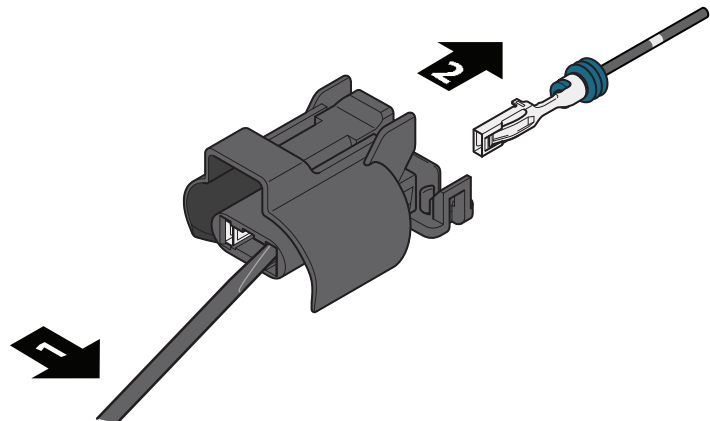


TERMINAL REMOVAL METHOD

1. Insert the TRT (04A).



2. Move the TRT (04A) downward slightly to release the locking tab and then pull the wire out.

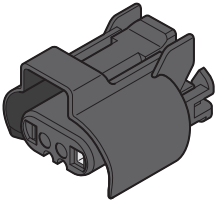


RRT 04A



TRT 04A

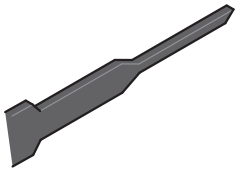
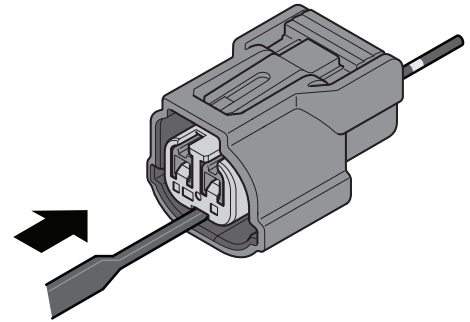
WF FAMILY CONNECTORS



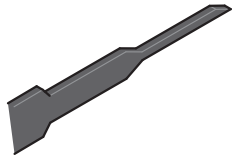
J-48817-174

RETAINER REMOVAL METHOD

1. Place the RRT (11A) into the retainer slot.

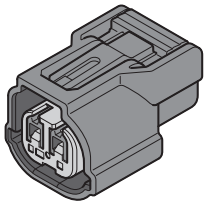


RRT 11A



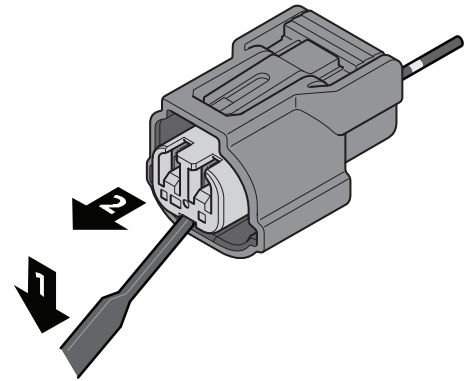
TRT 11A

WHX FAMILY CONNECTORS



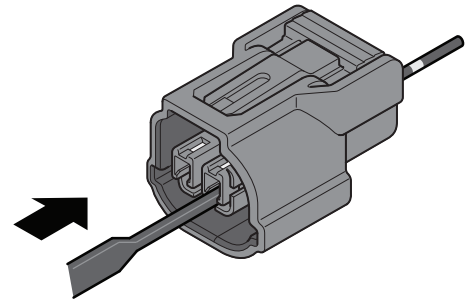
J-48817-172

2. Using the RRT (11A) pry the lock up and remove.

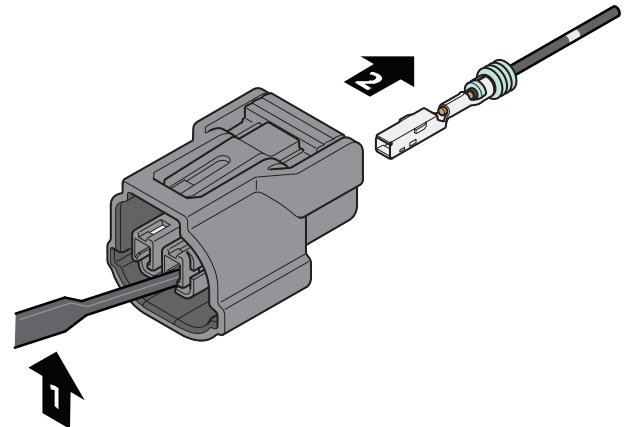


TERMINAL REMOVAL METHOD

1. Insert the TRT (11A) into the slot on the face of the connector below the terminal.

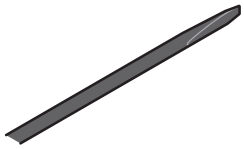


2. Push TRT (11A) down to release the terminal and then pull out the wire.



RETAINER REMOVAL METHOD

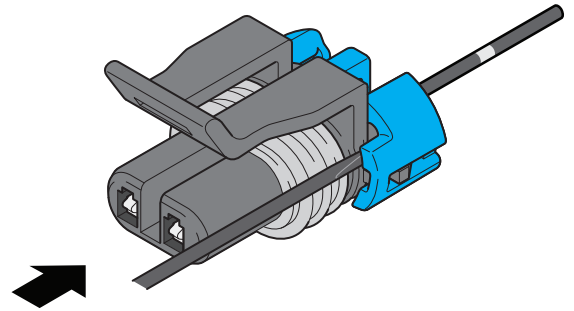
1. Place the RRT (04A) into the connector lock area.



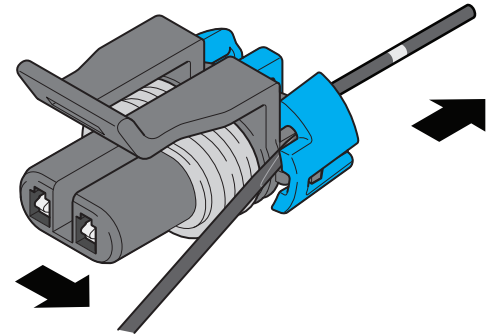
RRT 04A



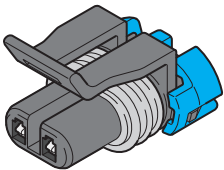
TRT 13A



2. Push the RRT (04A) towards the rear of the connector to release the lock, repeat for the other side. The retainer is unlocked when it moves out.



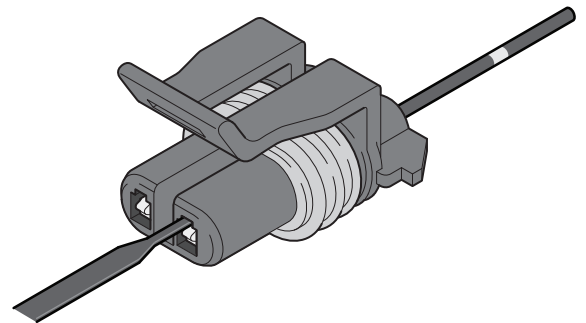
WP FAMILY CONNECTORS



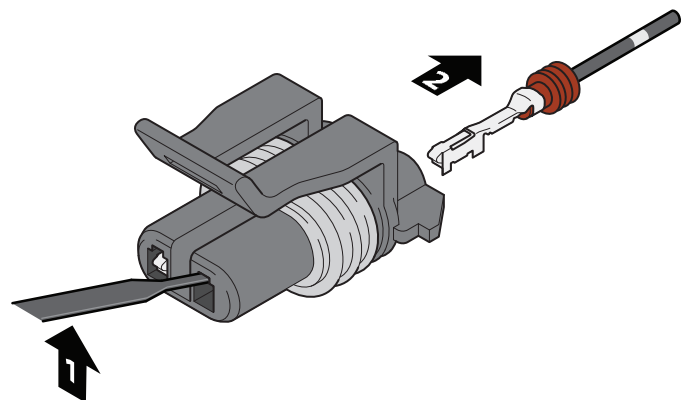
J-48817-167

TERMINAL REMOVAL METHOD

1. Insert the TRT (13A) straight into the slot on the face of the connector above the terminal.

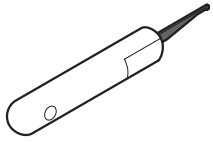


2. Move the TRT (13A) up slightly to release the locking tab and then pull the wire out.

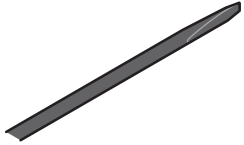
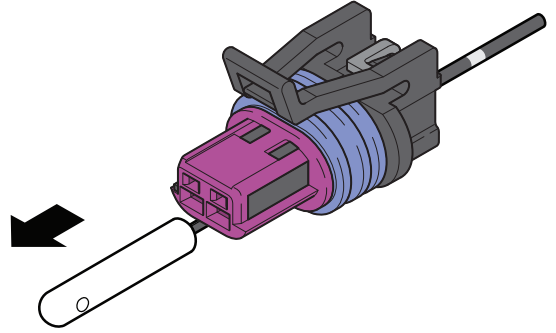


RETAINER REMOVAL METHOD

1. Place the RRT (J-47003-11) into the retainer slot and pull the retainer out.

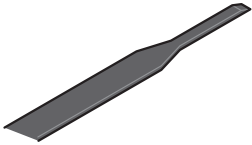


RRT J-47003-11

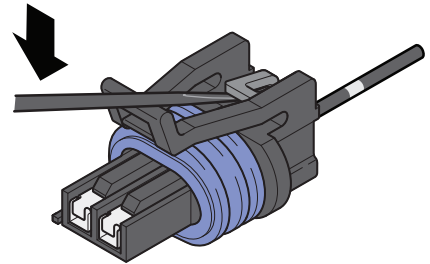


RRT 04A

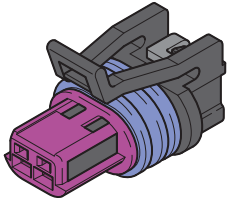
2. Place the RRT (04A) towards the rear of the connector to release the lock, repeat for the other side.



TRT 01A



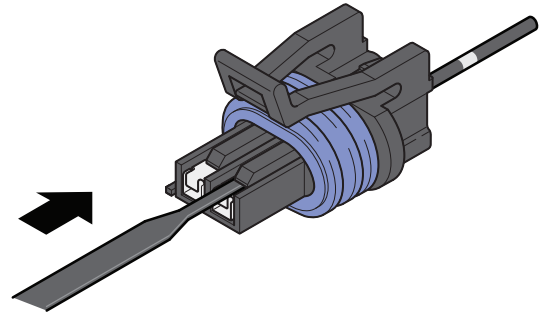
WP FAMILY CONNECTORS



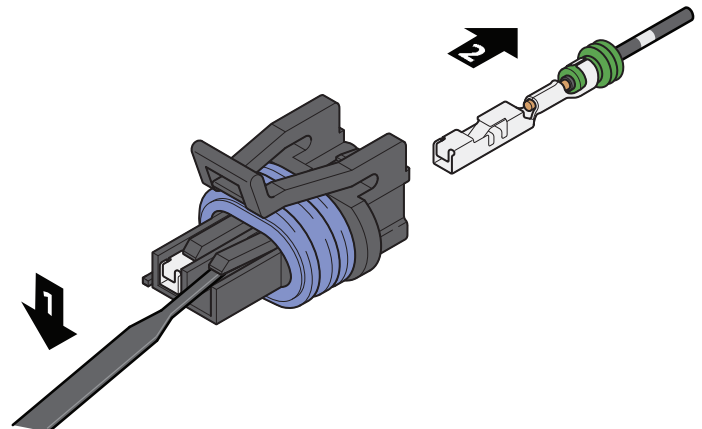
J-48817-168

TERMINAL REMOVAL METHOD

1. Insert the TRT (01A).

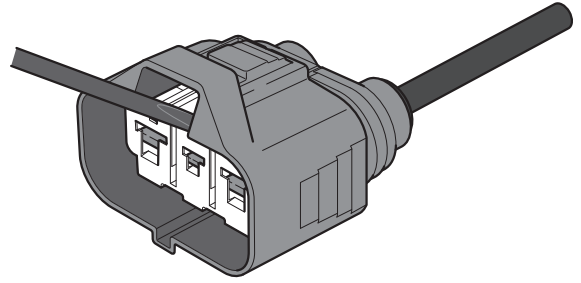


2. Move the TRT (01A) downward slightly to release the locking tab and then pull the wire out.

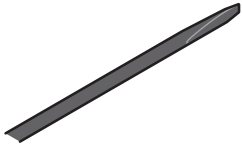


RETAINER REMOVAL METHOD

1. Place the RRT (04A) into the connector lock area and insert it into the retainer slot.

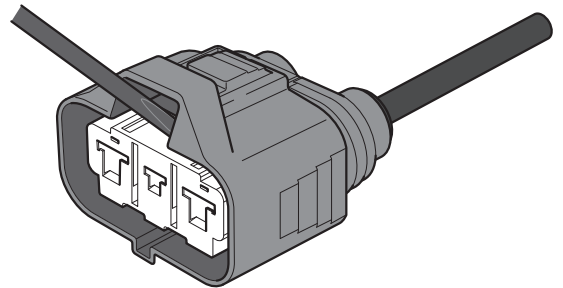


RRT 04A

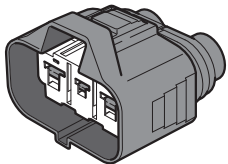


TRT 04A

2. Push the RRT towards the rear of the connector to release the lock. The retainer is unlocked when it moves out. Do not remove the retainer from the connector.



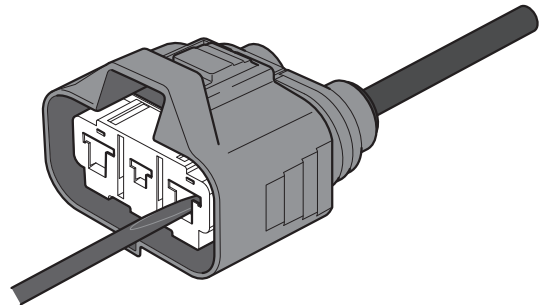
WP8 FAMILY CONNECTORS



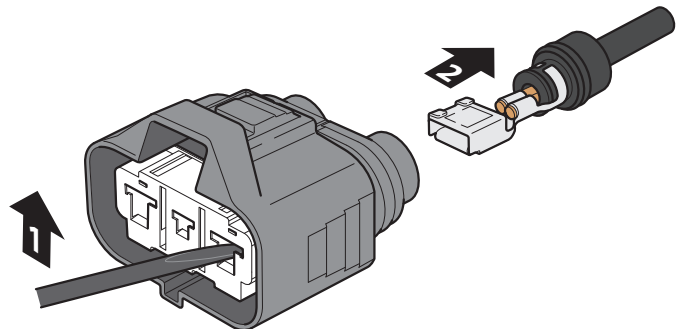
J-48817-163

TERMINAL REMOVAL METHOD

1. Insert the TRT (04A) straight into the slot on the face of the connector above the terminal.



2. Move the TRT downward slightly to release the locking tab and then pull the wire out slowly.



RETAINER REMOVAL METHOD

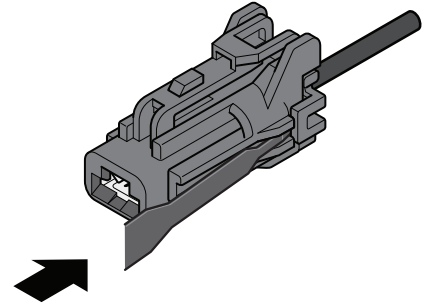
1. Insert RRT (01A) into both sides as shown.



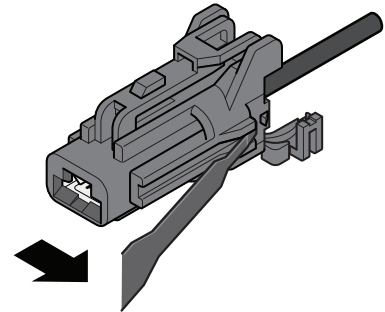
RRT 01A



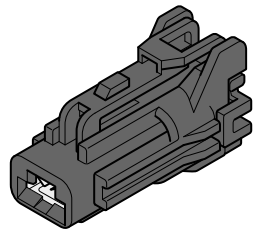
TRT 01A



2. Pull up and release lock.



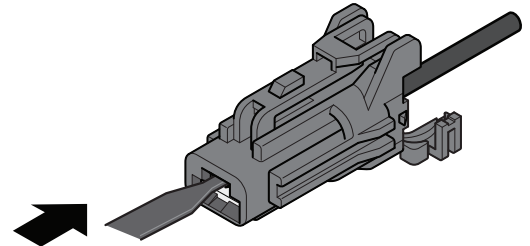
X FAMILY CONNECTORS



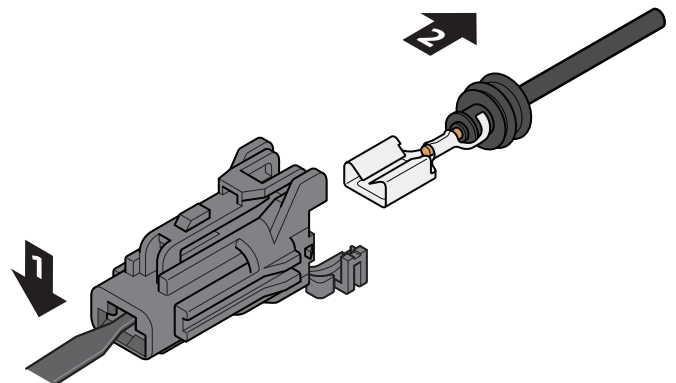
J-48817-187

TERMINAL REMOVAL METHOD

1. Insert TRT (01A) in the front of the connector as shown.

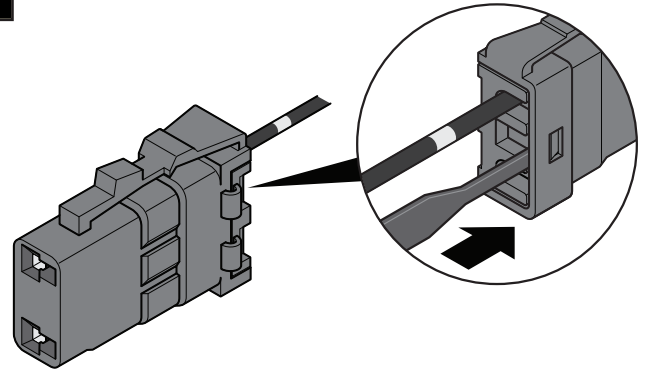


2. Open the cavity lock and pullout the terminal.

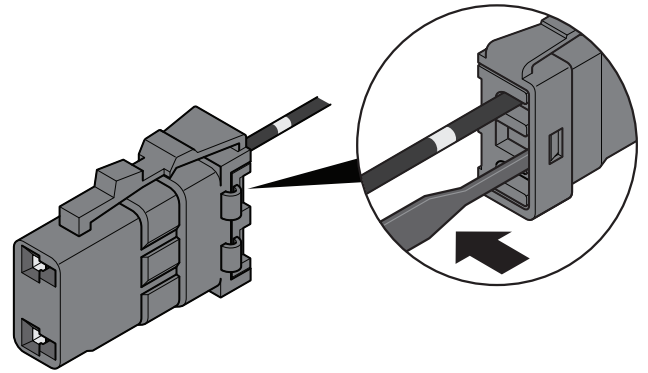


RETAINER REMOVAL METHOD

1. Insert RRT (01A) as shown.

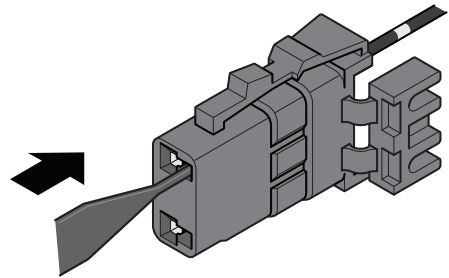


2. Pull up retainer.

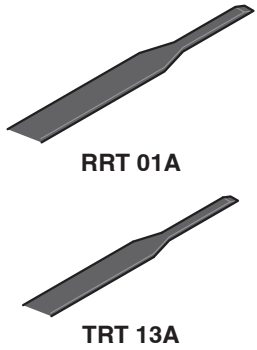
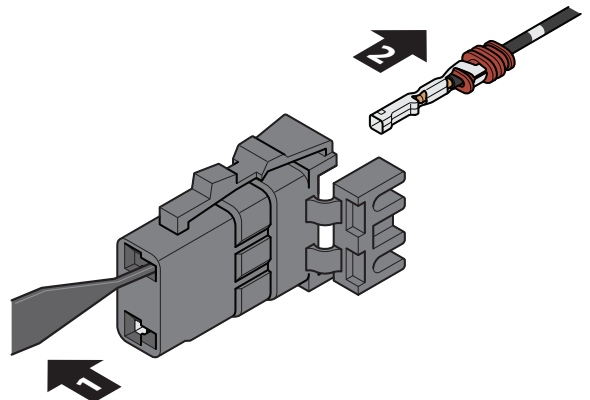


TERMINAL REMOVAL METHOD

1. Insert TRT (13A) in the front of the connector as shown.



2. Open the cavity lock and pullout the terminal.



YV FAMILY
CONNECTORS

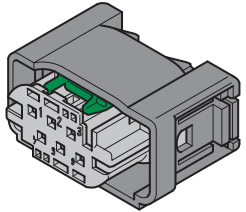
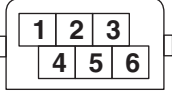

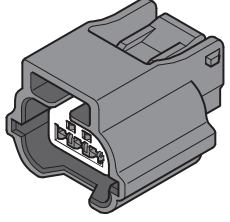
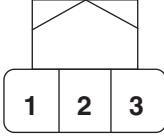
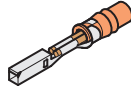
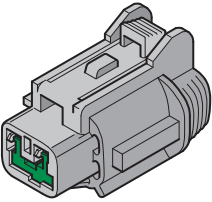
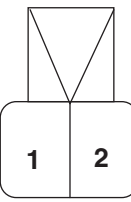

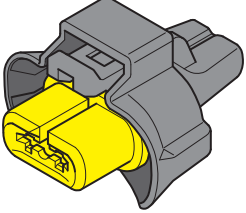
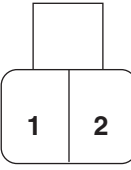

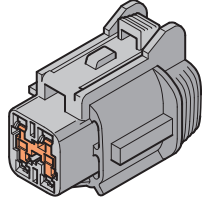
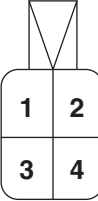

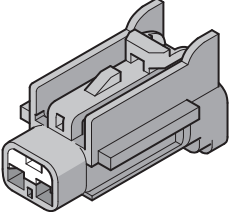
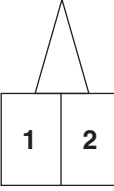
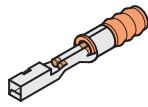
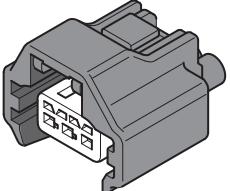
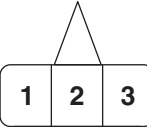
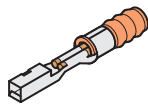
APPLICATION GUIDE

BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-101 RH06FB	RH	1			J-48817-201 RHFY YZK-N	5		01A 10A J-48817-5
J-48817-102 E03FGY-RS	E	1			J-48817-202 RSF-M-SWSN	5		04A 11A J-48817-3
J-48817-103 BS02FB	BS	1			J-48817-203 185026-1	5		01A 06A J-48817-3
J-48817-104 RK03FB	RK	1			J-48817-204 RKF-M SN			01A 01A or 11A J-48817-5
J-48817-105 106265	BS	1			J-48817-205 964286-1AU	5		04A or 01A 06A J-48817-3
J-48817-106 RS04FG-GY	RS	1			J-48817-206 RSF-S-SWSN			04A or 03A 11A J-48817-3
J-48817-107 HS02FGY	HS	1			J-48817-207 WTS090F-M			02A 01A J-48817-3

APPLICATION GUIDE

BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-108 RS01FB	RS	1			J-48817-206 RSF-S-SWSN	5		03A 11A J-48817-3
J-48817-109 11349W9A03	HS	1			J-48817-208 WTS090F-M	5		02A 01A J-48817-3
J-48817-110 11020W9A03-GR	HS	1			J-48817-207 WTS090F-M	5		02A 01A J-48817-3
J-48817-111 11156W9A02FGR2	HS	1			J-48817-208 WTS090F-M	5		02A 01A J-48817-3
J-48817-112 11149W9A02FGR	HS	1			J-48817-207 WTS090F-M	5		02A 01A J-48817-3
J-48817-113 RS02MGY	RS	2			J-48817-209 RSM-S-SWSN	5		03A 11A N/A
J-48817-114 NS06MW-CS	NS	2			J-48817-210 CSM-S	5		09A 09A N/A

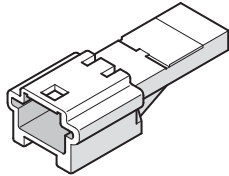


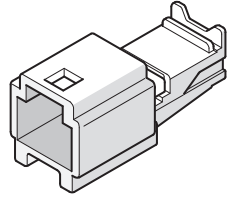


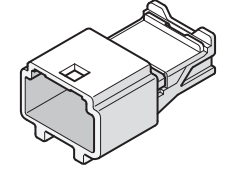


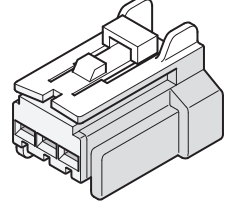
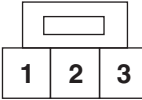


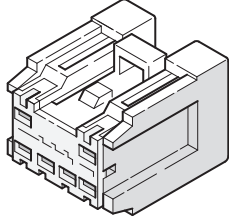
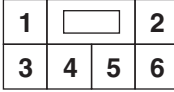


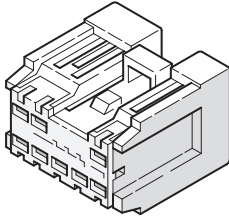
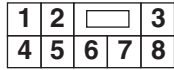


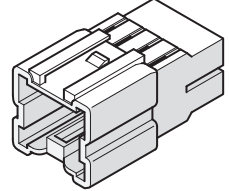

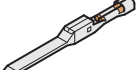
APPLICATION GUIDE

BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-115 98238N6F AMP B	AMP	2			J-48817-211 98198W6TSN-F-M	5		07A 09A J-48817-5 ■
J-48817-116 RH03FB	RH	2			J-48817-201 RHFM YZK-N	5		01A 10A J-48817-5 ■
J-48817-117 RS02FGY	RS	2			J-48817-206 RSF-S-SWSN	5		03A 11A J-48817-3 ■
J-48817-118 FC1240PC	FC	2			J-48817-212 60012941	5		04A 12A J-48817-3 ■
J-48817-119 RS04FGY-PR	RS	2			J-48817-213 RSF-L-SWSN	6		03A 11A J-48817-3 ■
J-48817-120 RK02FGY	RK	2			J-48817-214 RKF-S SN	6		01A 11A J-48817-4 ■
J-48817-121 RK03FB	RK	2			J-48817-214 RKF-S SN	6		01A 01A or 11A J-48817-4 ■

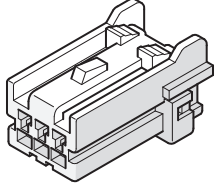
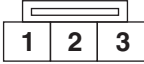
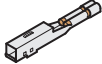

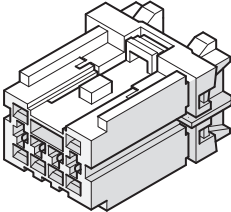
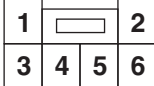
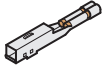

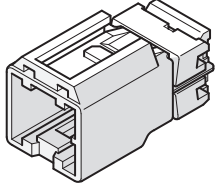
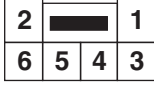
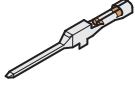
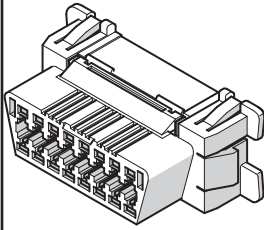
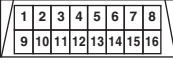
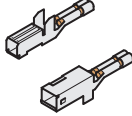

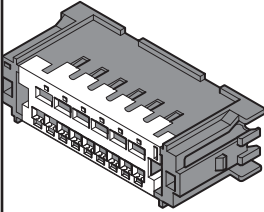
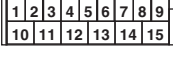
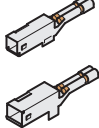


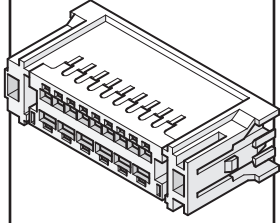
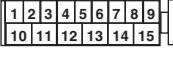



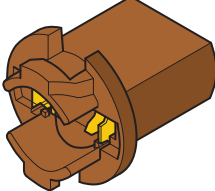


APPLICATION GUIDE

BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-122 E02FGY-RS	E	2			J-48817-206 RSF-S-SWSN	5		04A 11A J-48817-3
J-48817-123 98200WQA03FBA	AMP	2			J-48817-211 98198W6TSN-F-M	5		11A 11A J-48817-5
J-48817-124 U03FB	U	2			J-48817-215 WF-Z-S	6		04A 01A J-48817-3
J-48817-125 11020W9A03-GR	HS	3			J-48817-207 WTS090F-M	5		02A 01A J-48817-3
J-48817-126 TH04FW-NH	TH	3			J-48817-216 NHF-S-SN	6		07A 07A J-48817-5
J-48817-127 TH08FW-NH	TH	3			J-48817-216 NHF-S-SN	6		07A 07A J-48817-5
J-48817-128 TH12FW-NH	TH	3			J-48817-216 NHF-S-SN	6		07A 07A J-48817-5

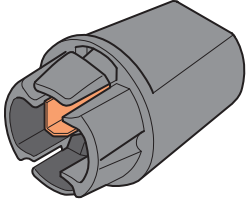


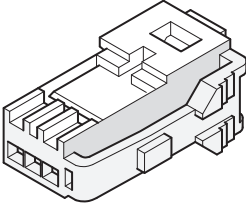



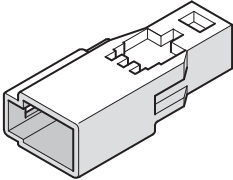


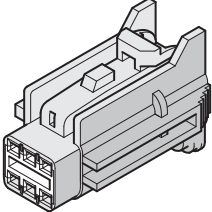
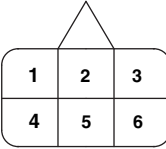


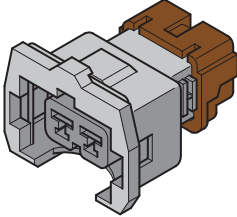
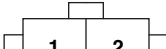
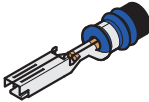

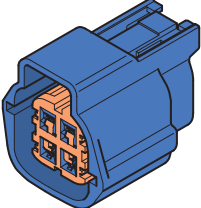
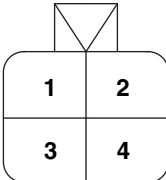
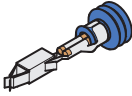

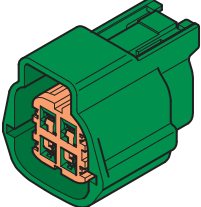
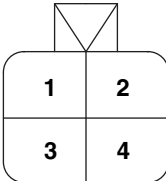
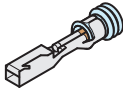

APPLICATION GUIDE

BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-129 TH04MW-NH	TH	3			J-48817-217 NHM-S-SN	6		07A 07A N/A
J-48817-130 TH08MW-NH	TH	3			J-48817-217 NHM-S-SN	6		07A 07A N/A
J-48817-131 TH12MW-NH	TH	3			J-48817-217 NHM-S-SN	6		07A 07A N/A
J-48817-132 NS03FW-CS	NS	3			J-48817-218 CSF-S	6		09A 09A J-48817-3 
J-48817-133 NS06FW-CS	NS	3			J-48817-218 CSF-S	6		09A 09A J-48817-3 
J-48817-134 NS08FW-CS	NS	3			J-48817-218 CSF-S	6		09A 09A J-48817-3 
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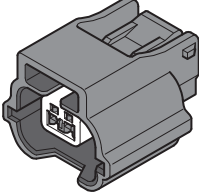
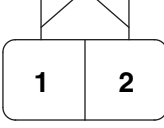
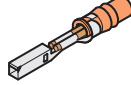

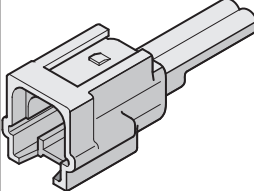
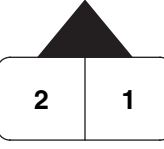

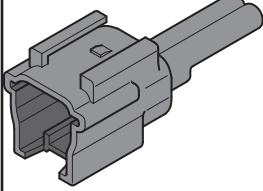
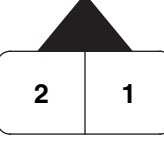

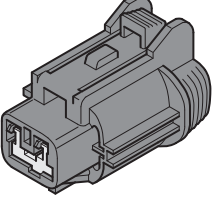
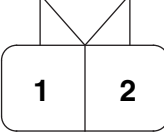


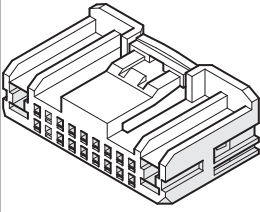



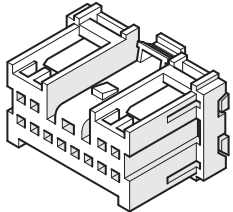

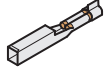

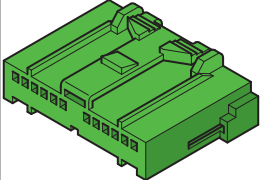
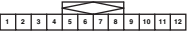
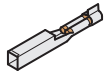

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BOSCH NUMBER	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER	TRAY	TERMINAL ILLUSTRATION	RRT
CONNECTOR TYPE					TERMINAL TYPE			TRT
								STG
J-48817-136 TK03FW	TK	3			J-48817-220 TK3FS-SNNIS	6		01A 11A J-48817-4 
J-48817-137 TK06FW-1V	TK	4			J-48817-220 TK3FS-SNNIS	6		01A 11A J-48817-4 
J-48817-138 TK06MW-1V	TK	4			J-48817-221 1376039-1SN	6		01A 11A N/A
J-48817-139 BD16FW	BD	4			J-48817-222 BDF-AMP	6		01A 11A J-48817-5 
J-48817-140 SEA9FBSHA6	SEA	4			J-48817-223 J-48817-224 SL060 F-S SL110 F-S	6		01A 11A J-48817-5  J-48817-3 
J-48817-141 SEA9FWSHA6	SEA	4			J-48817-223 J-48817-224 SL060 F-S SL110 F-S	6		01A 11A J-48817-5  J-48817-3 
J-48817-142 WBS1006N	WBS	4			J-48817-225 WBS1006N-TY	7		N/A 06A N/A

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BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-143 WBS-3013	WBS	4			J-48817-226 WBS-3013	7		N/A 06A N/A
J-48817-144 A03FW	A	4			J-48817-227 AF	7		01A 09A J-48817-4 
J-48817-145 A03MW	A	4			J-48817-228 AM	7		01A 09A N/A
J-48817-146 RK06FGY	RK	4			J-48817-204 RKF-N SN	5		01A 01A or 11A J-48817-4 
J-48817-147 BS02FGY-BH	BS	4			J-48817-229 50030-S-RD	0		01A 06A J-48817-3 
J-48817-148 RS04FL	RS	4			J-48817-205 RSF-S-SWSN	5		03A 03A or 11A J-48817-3 
J-48817-149 RS04FG	RS	9			J-48817-206 RSF-S-SWSN	5		03A 03A or 11A J-48817-3 

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BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-150 RH02FB	RH	9			J-48817-201 RHFY YZK-N	5		01A 10A J-48817-5 
J-48817-151 RK02MGY	RK	9			J-48817-240 RKM-M SN	8		J-47003-11 11A N/A
J-48817-152 RK02ML-B	RK	9			N/A RKM-M SN	8		01A 11A N/A
J-48817-153 RS02FB	RS	9			J-48817-206 RSF-S-SWSN	5		03A 03A J-48817-3 
J-48817-154 TH18FW-CS2	TH	9			J-48817-218 CSF-S	6		09A 09A J-48817-3 
J-48817-155 A12FW	A	9			J-48817-227 AF	7		01A 09A J-48817-4 
J-48817-156 A12FG	A	9			J-48817-227 AF	7		01A 09A J-48817-4 

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BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-157 TH10F8-NH	TH	9			J-48817-216 NHF-S-SN	6		07A 07A J-48817-5 ■
J-48817-158 NS10MW-CS	NS	9			J-48817-219 CSM-M	6		09A 09A N/A
J-48817-159 A02FW	A	9			J-48817-227 AF	7		01A 09A J-48817-4 ■
J-48817-160 AFZ04FB	AFZ	9			J-48817-236 AFZ	10		11A 11A J-48817-3 ■
J-48817-161 RK02MGY	RK	8			J-48817-240 RKM	8		J-47003-11 09A N/A
J-48817-162 R02FGY	RH	8			J-48817-201 RHFM YZK-N	5		01A 10A J-48817-5 ■
J-48817-163 WP8+A03F-A GR2	WP8				J-48817-238 J-48817-239 WTS187F-M 09293WAT F-L	10		04A 04A 04A 04A

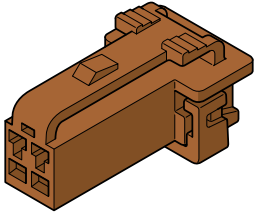
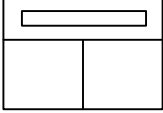


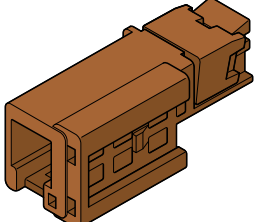
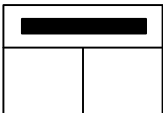
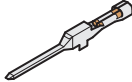
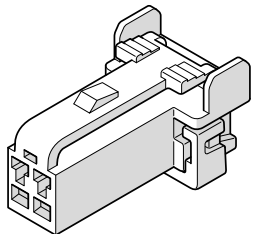



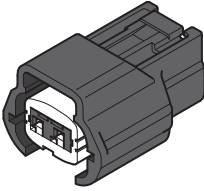
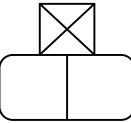
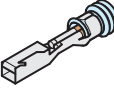

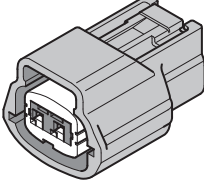
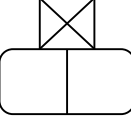
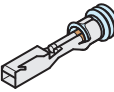

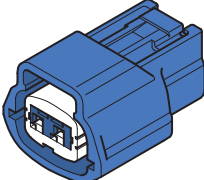
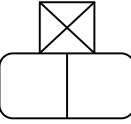
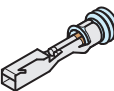

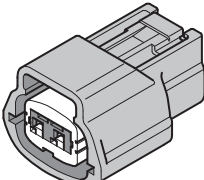
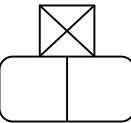
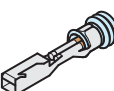

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BOSCH NUMBER	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER	TRAY	TERMINAL ILLUSTRATION	RRT
CONNECTOR TYPE					TERMINAL TYPE			TRT
								STG
J-48817-164 P01FB-A	P	8			J-48817-241 170452-2	10		01A 08A J-48817-2
J-48817-165 11016W9A03-GR2	HS	8			J-48817-207 WTS090F-M	5		04A 07A J-48817-3
J-48817-166 RS08FGY-PR	RS	11			J-48817-206 RSF-S-RN	5		01A 11A J-48817-3
J-48817-167 PEY02FB (WPB12052641-2FB)	WP	11			J-48817-242 WP12048086 BR	11		04A 13A J-48817-4
J-48817-168 PEX02FB (WP15449028-2F)	WP	11			J-48817-243 15326266-DEL	11		J-47003-11 01A J-48817-4
J-48817-169 HK02FY-1VEXLCHSG	HK	11			J-48817-245 AVSS	14		01A 01A J-48817-4
J-48817-170 RS08MGY-PR	RS	11			J-48817-209 RSM-S-SWSN	5		03A 11A N/A

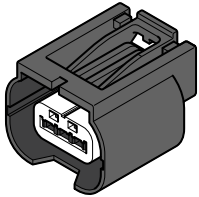
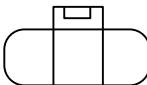


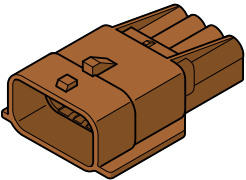
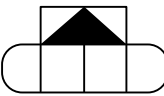
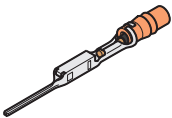
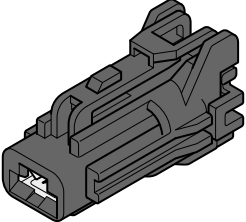
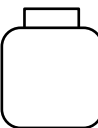


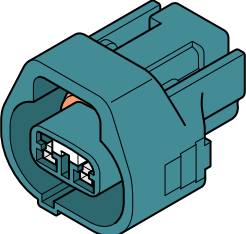
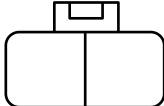
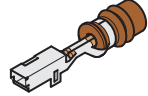

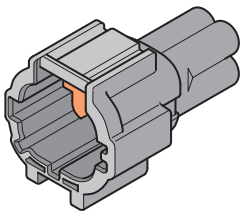
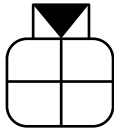
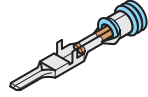
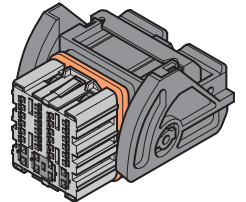
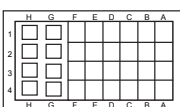
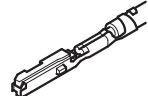
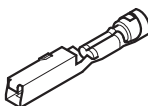


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BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT
								TRT
								STG
J-48817-171 RS08FB-PR-H-SWN	RS	11			J-48817-206 RSF-S-RN	5		03A 11A J-48817-3
J-48817-172 SCZ02FGY	WHX	11			J-48817-244 WHX4-F2-S	11		11A 11A J-48817-5
J-48817-173 FHZ02FB	BS	11			N/A RS			04A 12A J-48817-3
J-48817-174 U02FB	WF	11			N/A WF			04A 04A J-48817-3
J-48817-175 RK03MBR HSG	RK	11			J-48817-240 RK	10		J-47003-11 11A N/A
J-48817-176 RH04FB ASSY	RH	11			J-48817-201 RH	5		01A 10A J-48817-5
J-48817-177 C02MBR-P	C	13			J-48817-246 CM-SWS	14		01A 11A N/A

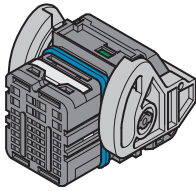
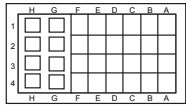
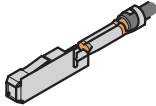
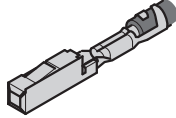


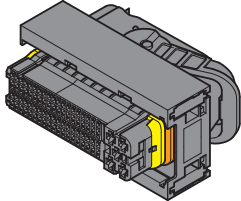
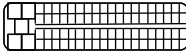
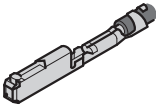
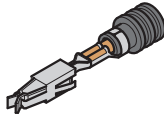


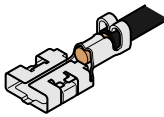



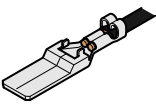





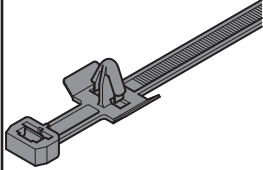
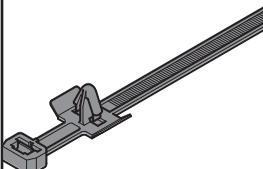
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BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT
								TRT
								STG
J-48817-178 TK02FBR	TK	13			J-48817-220 TK3FS-SNNIS	6		01A 11A J-48817-4 
J-48817-179 TK02MBR-P	TK	13			J-48817-221 TER1376039-1SN	6		01A 11A N/A
J-48817-180 TK02FW	TK	13			J-48817-220 TK3FS-SNNIS	6		01A 11A J-48817-4 
J-48817-181 E02FB-RS	E	13			J-48817-206 RSF-S-RN	5		04A 11A J-48817-3 
J-48817-182 E02FG-RS-LGY	E	13			J-48817-206 RSF-S-RN	5		04A 11A J-48817-3 
J-48817-183 E02FL-RS	E	13			J-48817-206 RSF-S-RN	5		04A 11A J-48817-3 
J-48817-184 E02FL-RS-LGY	E	13			J-48817-206 RSF-S-RN	5		04A 11A J-48817-3 

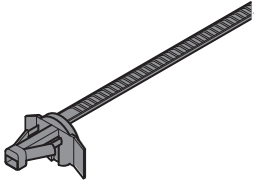
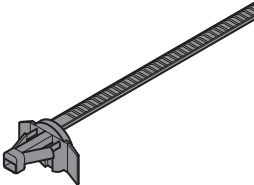
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BOSCH NUMBER CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT TRT STG
J-48817-185 HS03FB	RH	13			J-48817-201 RHF-M YZK-N	5		01A 10A J-48817-6 
J-48817-186 RH04MDGY-BR	RH	13			J-48817-248 RHM-S-YZK	14		J-47003-11 10A N/A
J-48817-187 X01FGY	X	13			J-48817-249 XF M SN	14		01A 01A J-48817-2 
J-48817-188 HS02FL	HS	13			J-48817-207 WTS090F-M	5		02A 01A J-48817-3 
J-48817-189 RS04MGY	RS	14			J-48817-209 RSM-S-SWSN	5		03A 11A N/A
Requires harness replacement. Yazaki	ECM				J-48817-230 J-48817-231 RHF-M NW RZF-L	7 10	 	01A 07A J-48817-6  J-48817-7 

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BOSCH NUMBER <hr/> CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER <hr/> TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT
								TRT
								STG
Requires harness replacement. <hr/> Molex	ECM				J-48817-232 J-48817-233 <hr/> MEAF MEAF	10	 	01A <hr/> 07A J-48817-5  J-48817-4 
Requires harness replacement. <hr/> PBT-GF30 AMP B	ECM				J-48817-234 J-48817-235 <hr/> AAA AAA	10	 	01A <hr/> 13A 06A J-48817-3  J-48817-5 
Requires harness replacement. <hr/> LF-L	L02FB-MC	N/A			J-48817-250 <hr/> LF-L	14		01A <hr/> 04A J-48817-3 
Requires harness replacement. <hr/> M02FBR-LC	MF	N/A			J-48817-251 <hr/> MF S-SN-N	14		N/A <hr/> 02 J-48817-2 
Requires harness replacement. <hr/> M06MW-LC	MM	N/A			J-48817-252 <hr/> MM-L SN	14		N/A <hr/> 01A N/A
Requires harness replacement. <hr/> YV02FGY	YV	N/A			J-48817-253 <hr/> YV-BR	14	 	01A <hr/> 13A J-48807-4 
Requires harness S connector	S				J-48817-247	14	insert wire 247 01A replacement.	SF S 01A  J-48817-3 
J-48817-301 <hr/> 24225 89960								
J-48817-302 <hr/> 24225 79960								

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BOSCH NUMBER <hr/> CONNECTOR TYPE	FAMILY	TRAY	CONNECTOR ILLUSTRATION	SERVICE MANUAL SYMBOL	BOSCH NUMBER <hr/> TERMINAL TYPE	TRAY	TERMINAL ILLUSTRATION	RRT
								TRT
								STG
J-48817-303 <hr/> 24225 79900								
J-48817-304 <hr/> 24225 79902								
J-48817-305			