

Hypertherm®

PAC121T-50A & PAC121TS

**Torch Main Body
Replacement**

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Replacing the PAC121TS Torch Main Body

P/N: 120556



WARNING



SHOCK HAZARD: Disconnect torch lead from power supply before replacing the torch main body.

1. Remove the 5 screws that secure the handle halves together and remove handles from the torch main body, torch switch and safety trigger.

The following drawings represent 4 variations of torches called PAC121T and PAC121TS, shown here with their distinguishing features. Torch #1 requires torch main body (w/switch) 120552 for replacement. The 3 remaining torches can all be replaced with torch main body (w/switch) 120556.

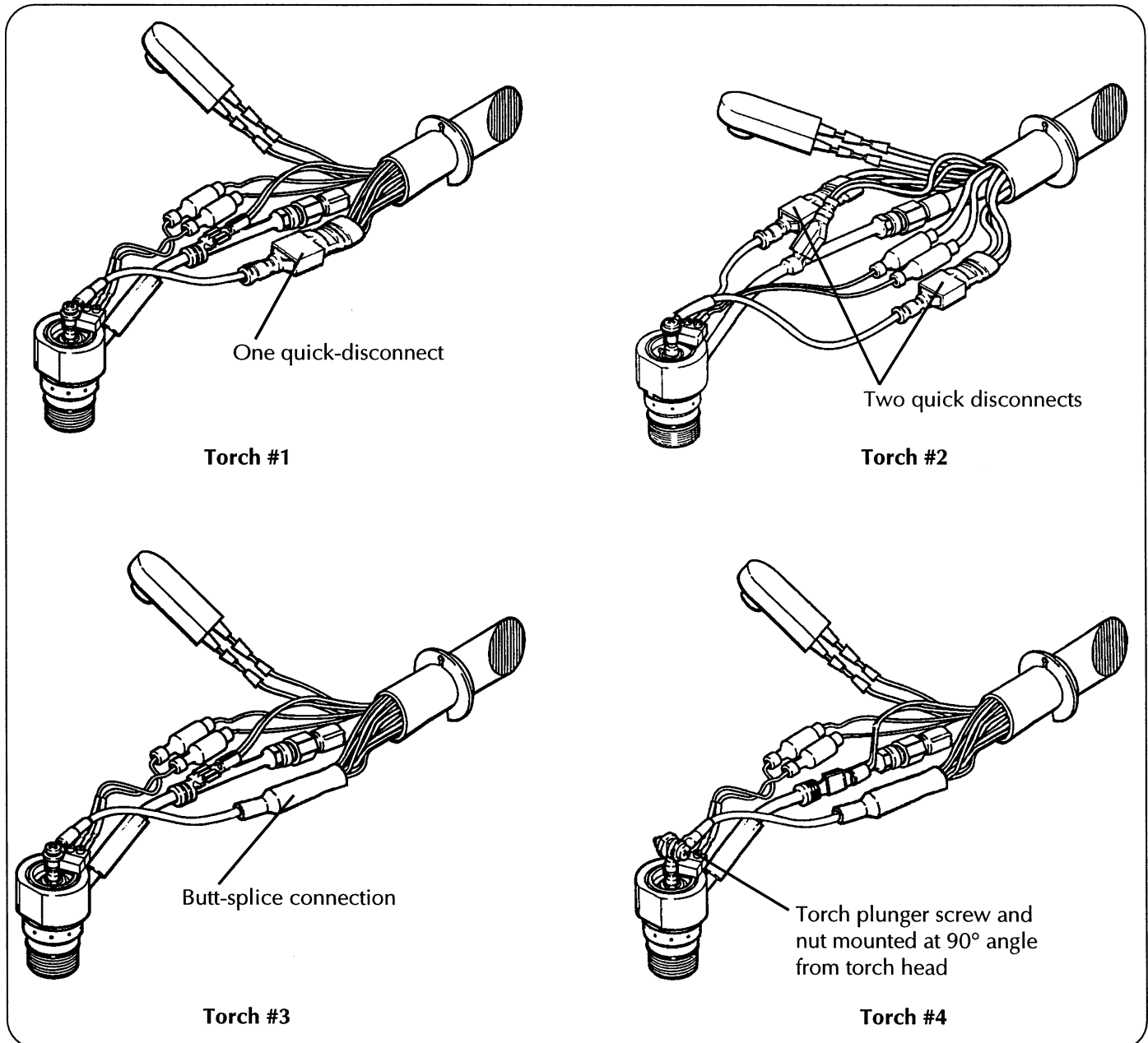


Figure 1 PAC121T and PAC121TS Torch Variations

TORCH #2

Removal and Replacement of Torch Main Body

Note: Disconnect wires by pulling on mating terminals. Do **not** pull on the wires.

1. Disconnect the red wires (2) attached to the pilot arc tab.
2. Disconnect the blue wires (2) from the cap sensor microswitch white wires (2).
3. Disconnect the white wires (2 terminals - with 4 white wires in each terminal) from the black plunger wire terminals (2) of the torch main body.
4. Disconnect the torch main body and torch lead gas fittings using 5/16" (8 mm) and 7/16" (11 mm) open-end wrenches.
5. Replace the new torch main body by reversing these instructions.
6. Install the torch main body and the torch switch back into the handle. Be certain that the torch switch slides into position above the safety trigger, and that trigger movement activates the switch pushbutton and then releases. While positioning the handle halves together, be careful not to pinch any wires.
7. Replace the 5 screws to secure the handle halves together.

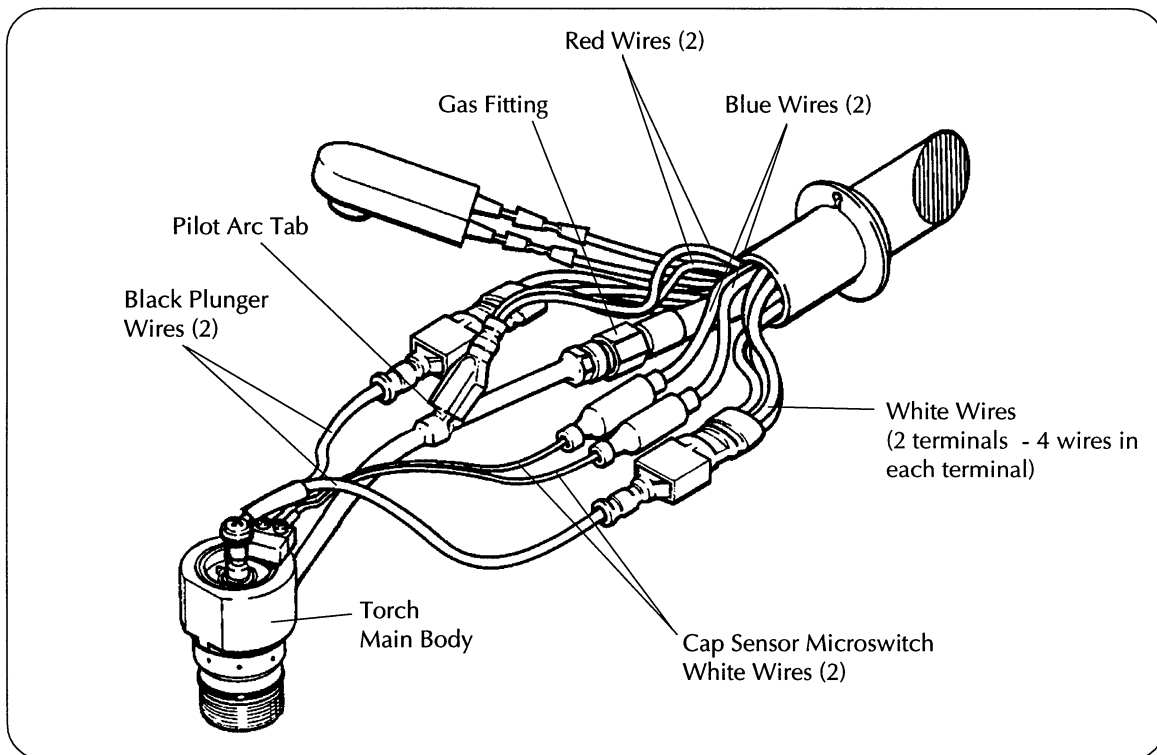


Figure 2 Torch #2 Torch Main Body Removal

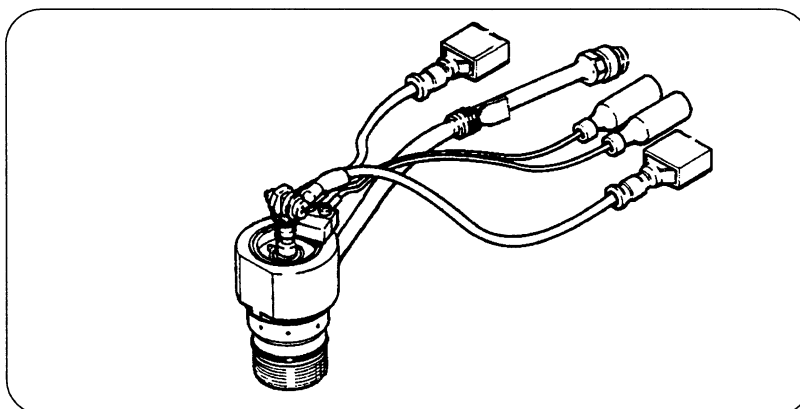


Figure 3 Replacement Torch Main Body - 120556

TORCH #3

Removal and Replacement of Torch Main Body

Note: Disconnect wires by pulling on mating terminals. Do **not** pull on the wires.

1. Disconnect the red wires attached to the pilot arc tab.
2. Disconnect the blue wires (2) from the cap sensor microswitch white wires (2).
3. Disconnect the plunger wire from the torch main body plunger by removing the plunger screw. Note: Hold the plunger wire terminal with your fingers to keep the terminal and plunger from spinning as you turn the plunger screw.
4. Disconnect the torch main body and torch lead gas fittings using 5/16" (8 mm) and 7/16" (11 mm) open-end wrenches.

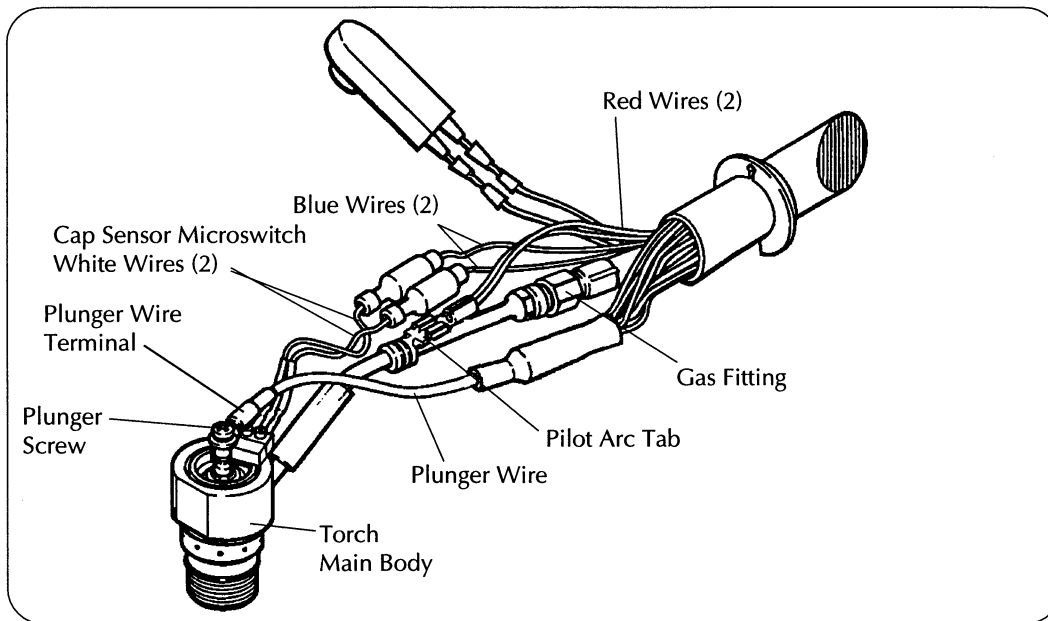


Figure 4 Torch #3 Torch Main Body Removal

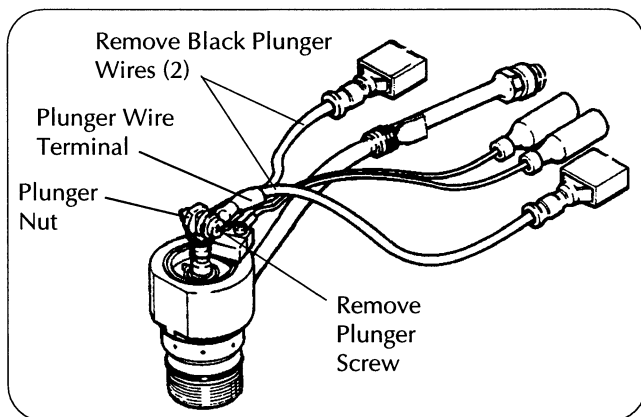


Figure 5 Replacement Torch Main Body - 120556

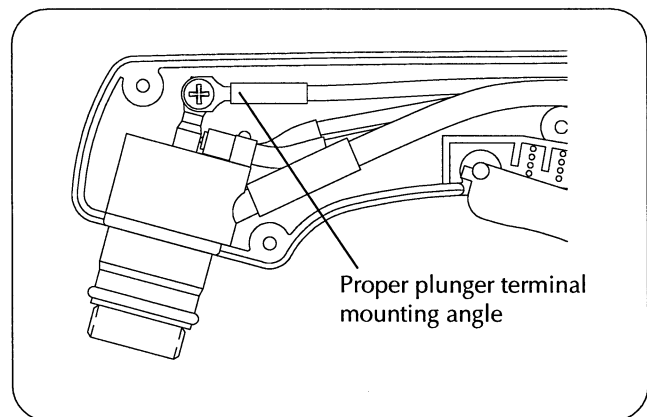


Figure 6 Plunger Terminal Angle

5. Remove the plunger screw and nut from the replacement torch main body 120556 and remove the black plunger wires (2) - Fig. 5. Note: Hold the plunger nut with a 1/4" nut driver or wrench when removing the plunger screw.
6. Attach the single plunger wire lead from the torch leads to the replacement torch main body using the plunger screw and nut supplied with the replacement torch body. Note: When connecting the plunger wire, be certain to keep the plunger wire terminal at the angle shown in Fig. 6. Tighten the plunger screw with 8 lb-in (9 kg-cm) of torque.
7. Reverse steps 4,2 and 1.
8. Install the torch main body and the torch switch back into the handle. Be certain that the torch switch slides into position above the safety trigger, and that trigger movement activates the switch pushbutton and then releases. While positioning the handle halves together, be careful not to pinch any wires.
9. Replace the 5 screws to secure the handle halves together.

TORCH #4

Removal and Replacement of Torch Main Body

Note: Disconnect wires by pulling on mating terminals. Do **not** pull on the wires.

1. Disconnect the red wires attached to the pilot arc tab.
2. Disconnect the blue wires (2) from the cap sensor microswitch white wires (2).
3. Disconnect the plunger wire from the torch main body plunger by removing the plunger screw and nut.
Note: Hold the plunger nut with a 1/4" nut driver or wrench when removing the plunger screw.
4. Disconnect the torch main body and torch lead gas fittings using 5/16" (8 mm) and 7/16" (11 mm) open-end wrenches.

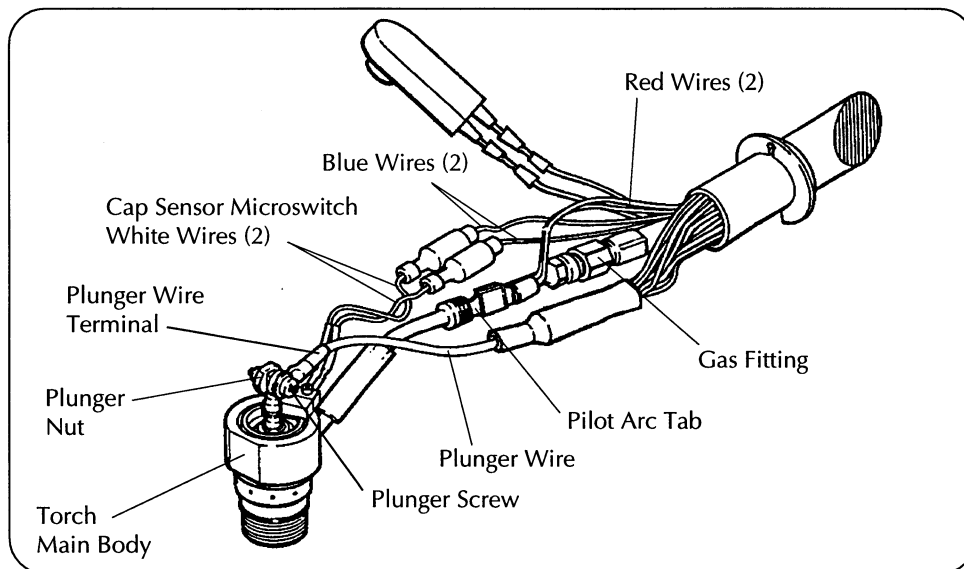


Figure 7 Torch #4 Torch Main Body Removal

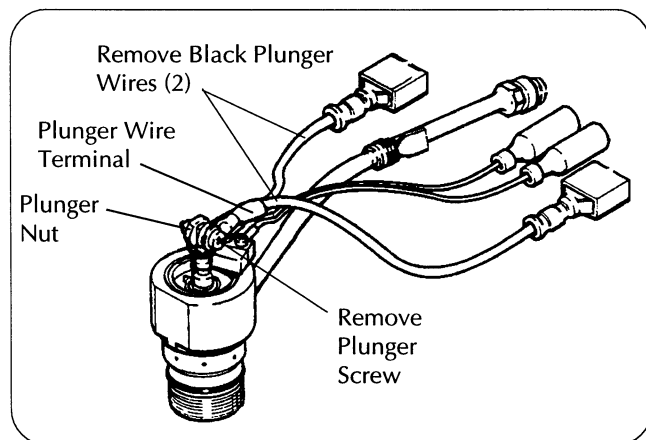


Figure 8 Replacement Torch Main Body - 120556

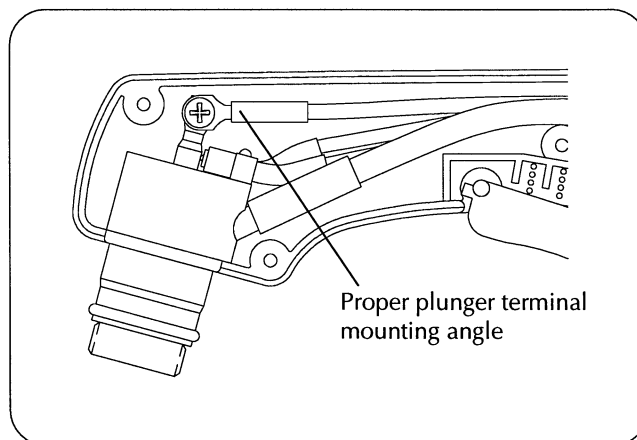


Figure 9

5. Remove the plunger screw and nut from the replacement torch main body 120556 and remove the black plunger wires (2) - Fig. 8. Note: Hold the plunger nut with a 1/4" nut driver or wrench when removing the plunger screw.
6. Replace the new torch main body by reversing instructions 1-4. Note: When connecting the plunger wire, be certain to keep the plunger wire terminal at the angle shown in Fig. 9. Tighten the plunger screw with 8 lb-in (9 kg-cm) of torque.
7. Install the torch main body and the torch switch back into the handle. Be certain that the torch switch slides into position above the safety trigger, and that trigger movement activates the switch pushbutton and then releases. While positioning the handle halves together, be careful not to pinch any wires.
8. Replace the 5 screws to secure the handle halves together.

