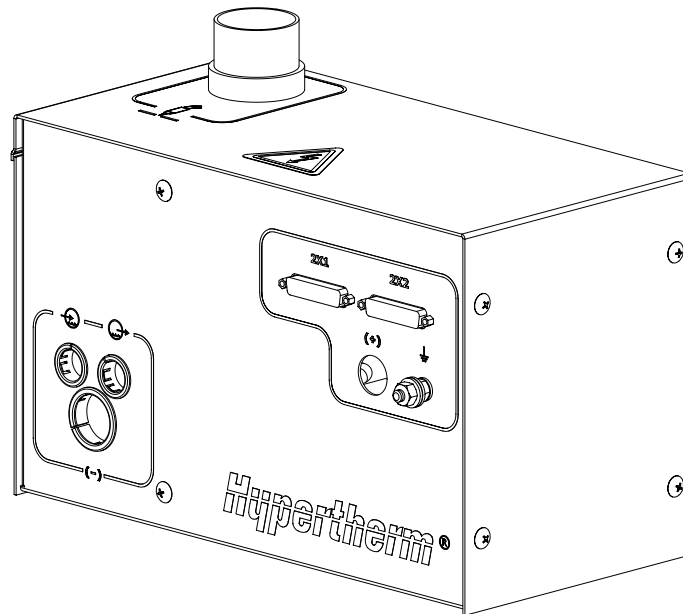


HT4400/HD4070[®]

Plasma Arc Cutting Systems, Ignition Console

Instruction Manual
804030 - Revision 0

Integrated Plasma System
For use with the **TITAN**[™]



Hypertherm
*The world leader in
plasma cutting technology*

MESSER 
MG Systems &
Welding, Inc.

NOTICE

Use the HT4400 instruction manual, 803580, or the HD4070 instruction manual, 803760, as well as this manual, 804030, to install, operate and maintain the Titan systems.

- This manual contains information to install the HT4400/HD4070 with Titan, Ignition console. A parts list is also included.
- See manuals 803580 or 803760 for safety information, general maintenance and detailed system information.

HT4400/HD4070
Ignition Console
for *TITAN*[™]

Instruction Manual
(P/N 804030)

Revision 0 May, 2001

Hypertherm, Inc.
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Electromagnetic Compatibility (EMC) and Warranty - refer to manuals 803580 or 803760

Safety and Grounding Requirements - Refer to manual 803580 (HT4400) or 803760 (HD4070)

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SPECIFICATIONS

System Components

See Main instruction manual (803580 HT4400) (803760 HD4070) for details on the system components and interconnections.

Gas Panel/Console

See manual 804210 for HT4400 information and manual 803760 for HD4070 information.

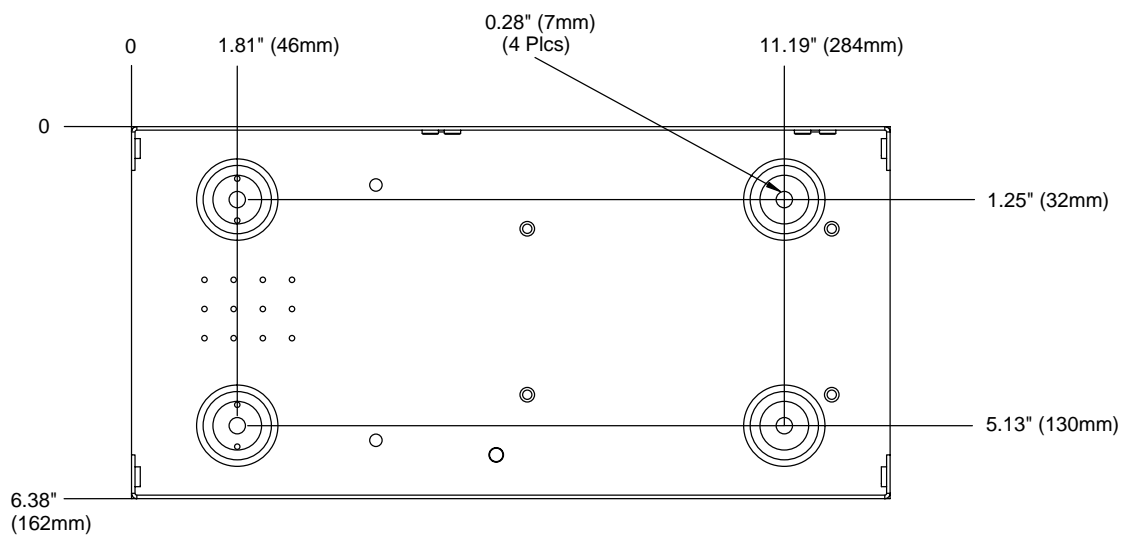
Ignition Console

The ignition console generates a high voltage, high frequency signal and couples it to the cathode lead and pilot arc lead. This ignition console must be located within 15 feet (4.6 m) of the torch.

SPECIFICATIONS

Ignition Console – 077045

Dimensions and Weight	
Width	13" (330 mm)
Height	8" (203 mm)
Depth	6.38" (162 mm)
Weight	20.5 lbs (9.3 kg)



Ignition Console Mounting Dimensions (bottom view)

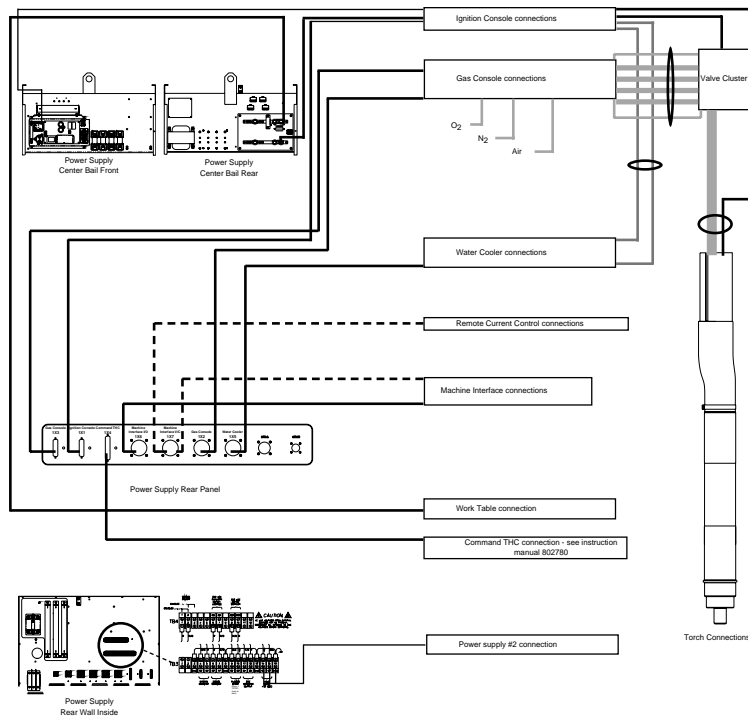
Section 2

INSTALLATION

See HT4400 instruction manual 803580 or HD4070 instruction manual 803760 *Installation* sections for system requirements, placement and safety information.

Use the diagrams on the following pages to make Titan system interconnections. See *Installation* section of the system's main instruction manual for specific information on each cable, hose or connection.

HT4400 Titan Ignition Console Installation

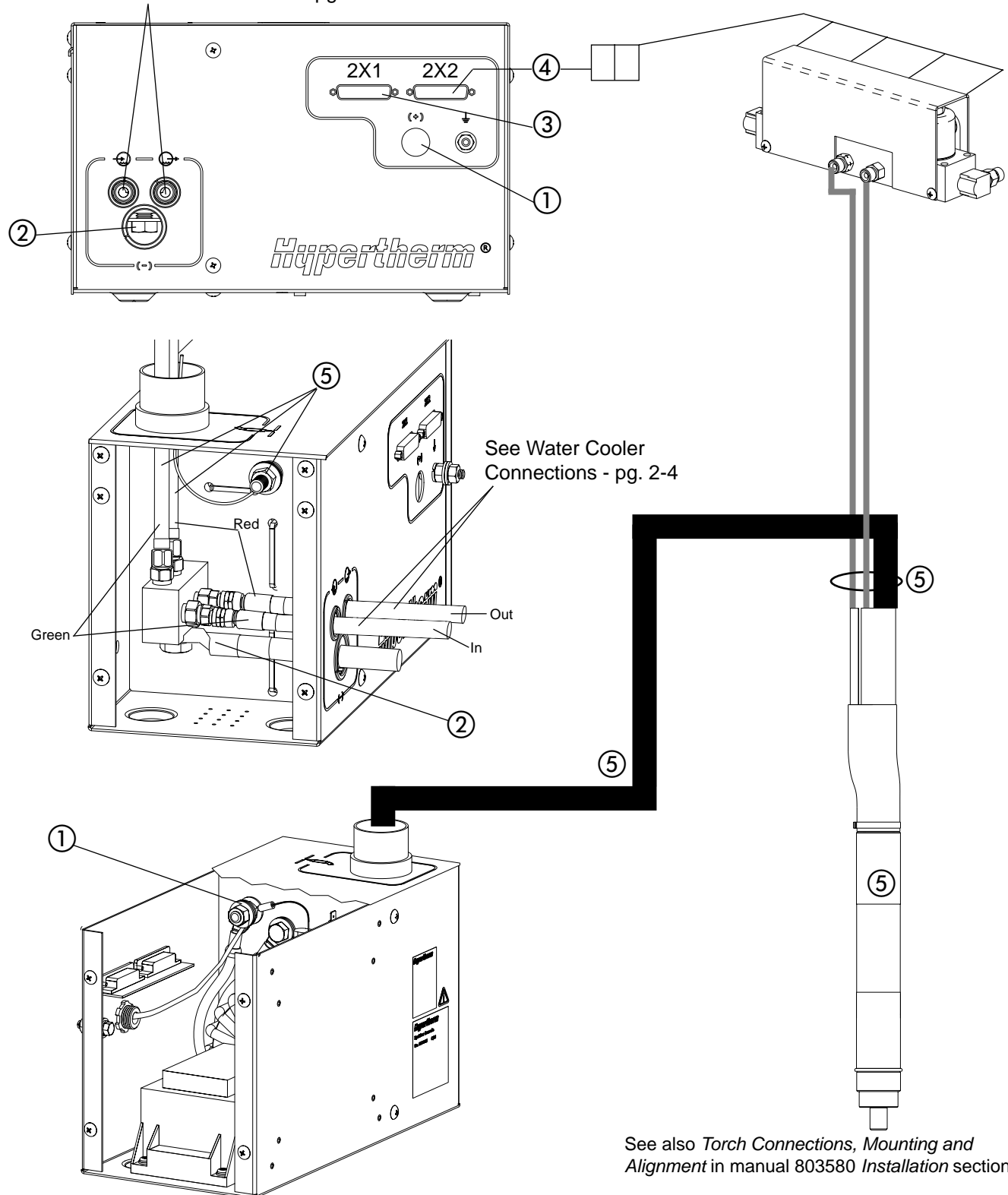


Refer to HT4400 manual 803580, *Installation* section, for detailed System Interconnection diagram and Specific cable and hose information.

- ① Nozzle (Pilot Arc) Lead (+)
- ② Negative Lead (-)
- ③ Cable - Ignition Console to Power Supply
- ④ Cable - Ignition Console to Valve Cluster
- ⑤ Torch Leads
- ⑫ Hoses - Water Cooler to Ignition Console, Pg 2-4

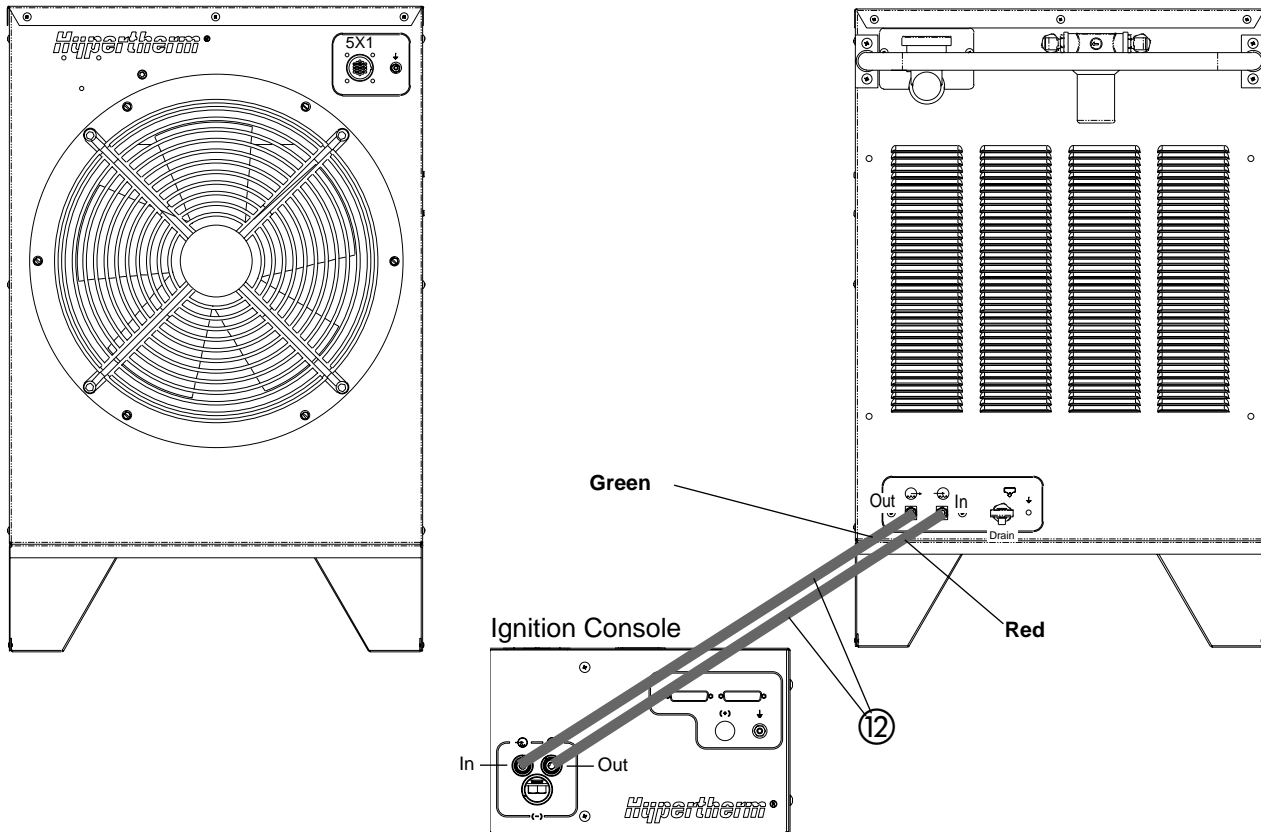
Ignition Console Connections

See Water Cooler Connections - pg. 2-4



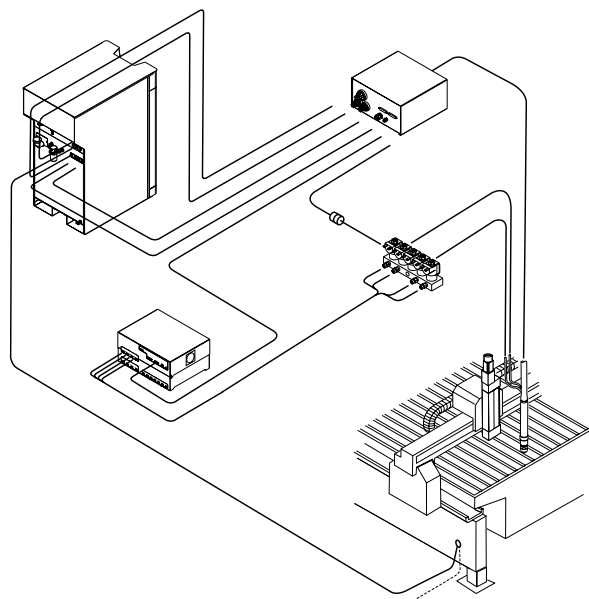
See also *Torch Connections, Mounting and Alignment* in manual 803580 *Installation* section.

Water Cooler Connection

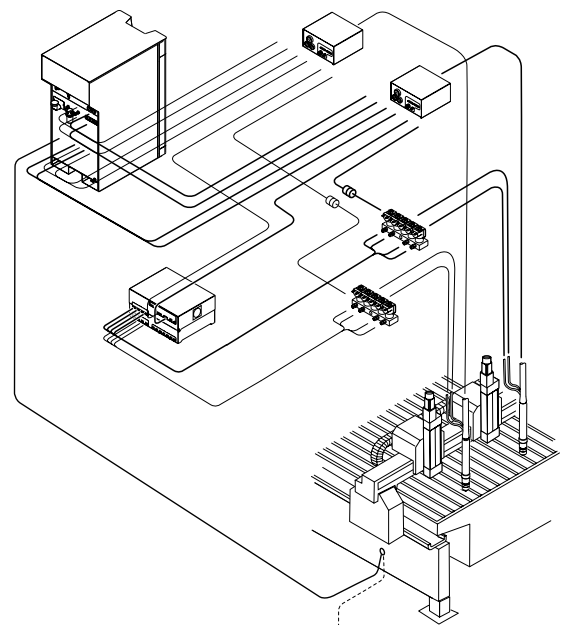


Note:
Connect hose from **Out** of cooler (↻) to **In** of ignition console (↻).
Connect hose from **In** of cooler (↻) to **Out** of ignition console (↻).
See also Ignition Console connections on page 3-12.

HD4070 Titan Ignition Console Installation



1- Torch Installation



2- Torch Installation

Refer to HD4070 Manual 803760, *Installation* section, for detailed System Interconnection diagram and Specific cable and hose information.

Note: 2- Torch installation requires 2 Ignition Consoles and 2 Off-valve assemblies.

System Components

- ① Power supply
- ② Gas console
- ③ Ignition console
- ④ Off-valve assembly

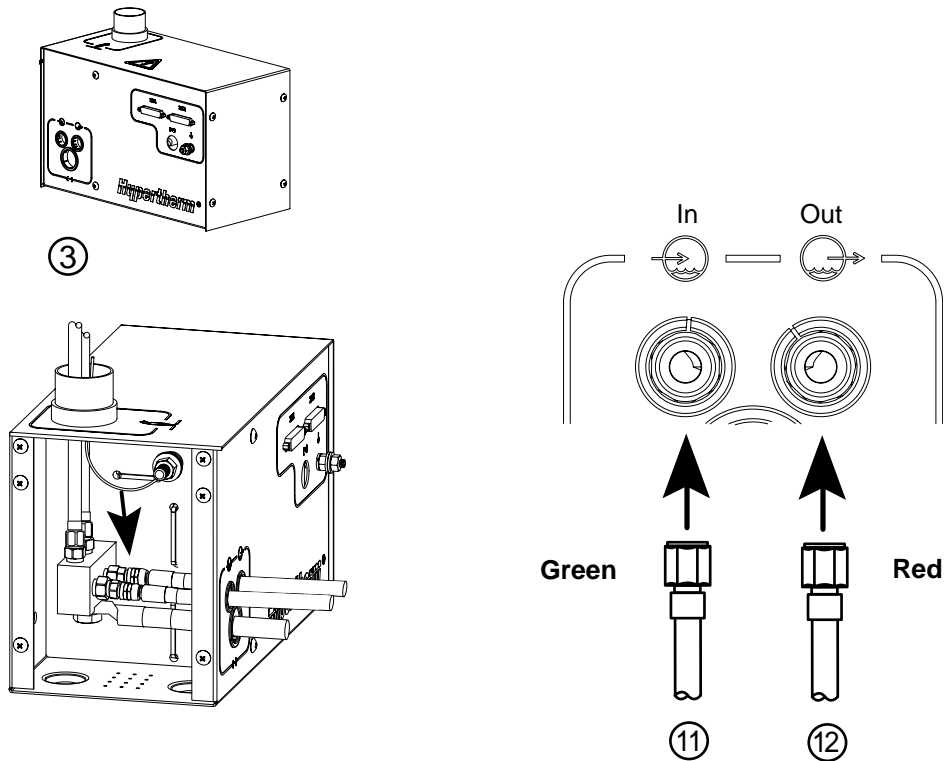
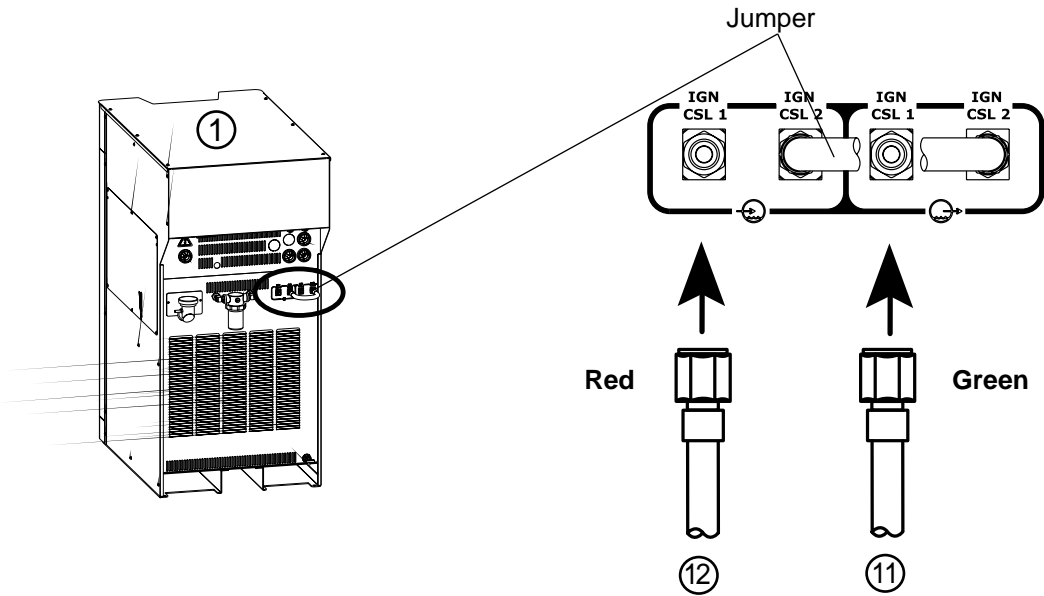
Cables and Hoses

- ⑪ Coolant hose assembly; see page 2-6.
- ⑫ Coolant hose assembly; see page 2-6.
- ⑬ Pilot arc lead; see page 2-7.
- ⑭ Negative lead; see page 2-7.
- ⑮ Work lead; see page 2-7.
- ⑯ Gas console cable; see page 2-8.
- ⑰ Gas hose assembly; see page 2-9.
- ⑱ Ignition console cable; see page 2-9.
- ⑲ Off-valve assembly cable 2-9

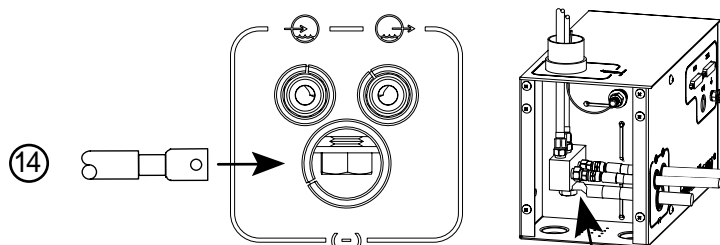
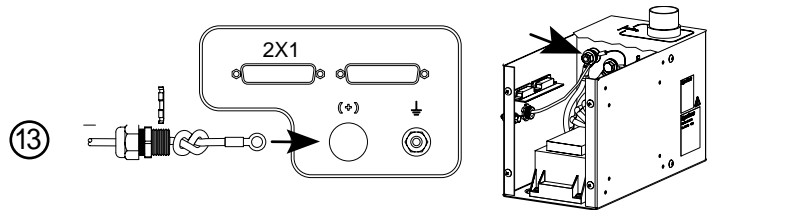
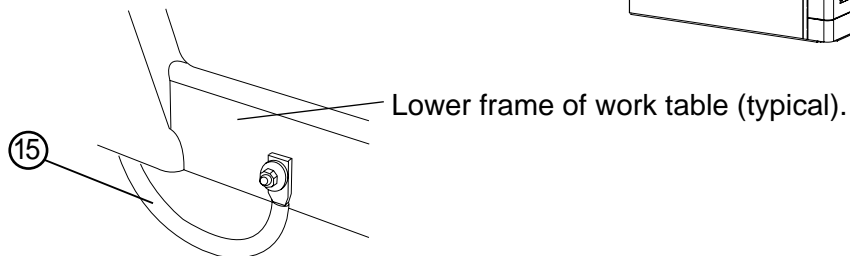
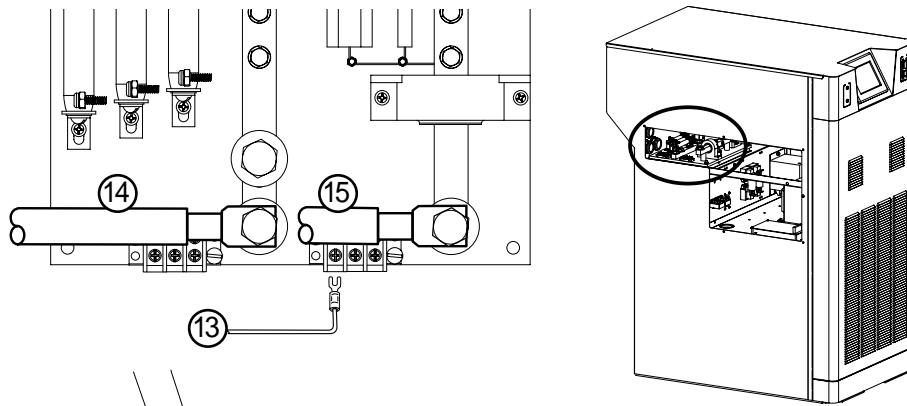
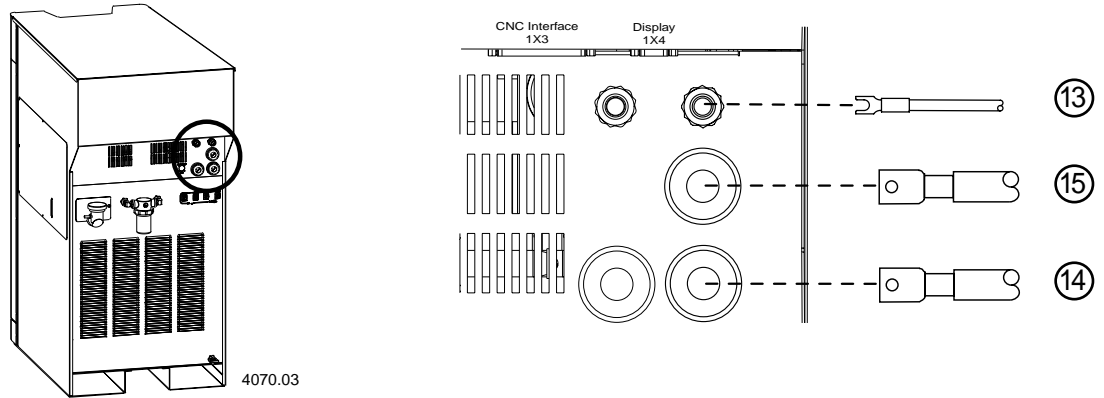
INSTALLATION

Install the coolant hoses

Important: A jumper hose is installed in power supplies configured for 1 torch and must be in place when system is run with one torch. Coolant will flow out if the jumper hose is not in place.



**Install the power supply to ignition console leads
install the work lead**

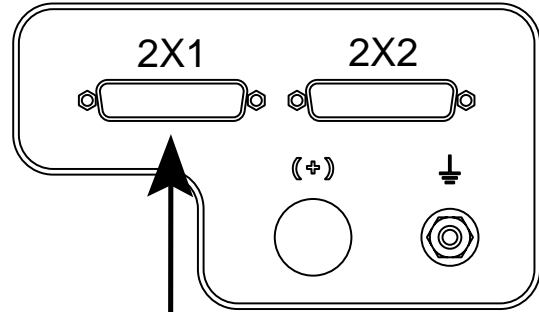
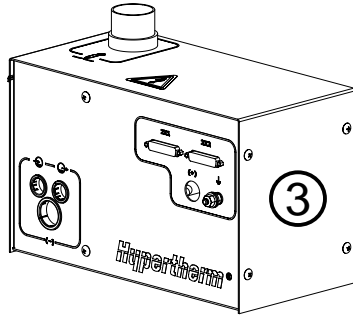
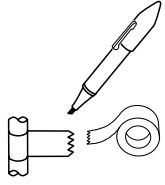


INSTALLATION

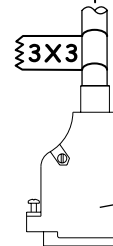
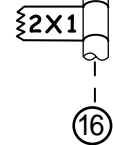
Install the gas console to ignition console cable

Installation Note

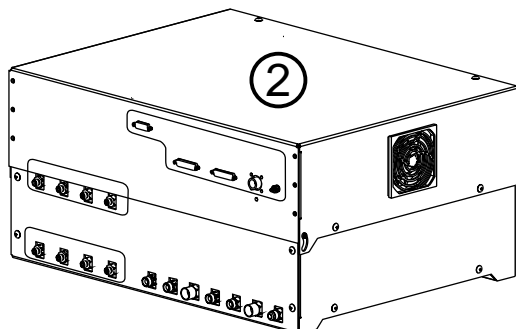
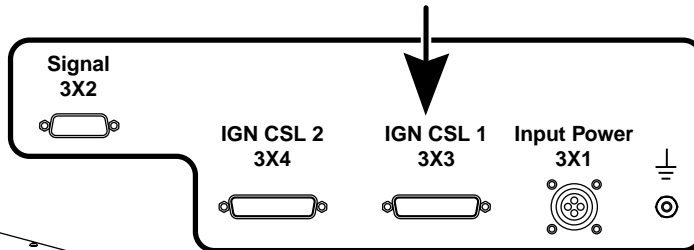
Mark the identification number on the ends of the cable.



Female end
(Sockets)



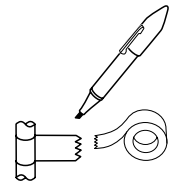
Male end
(Pins)



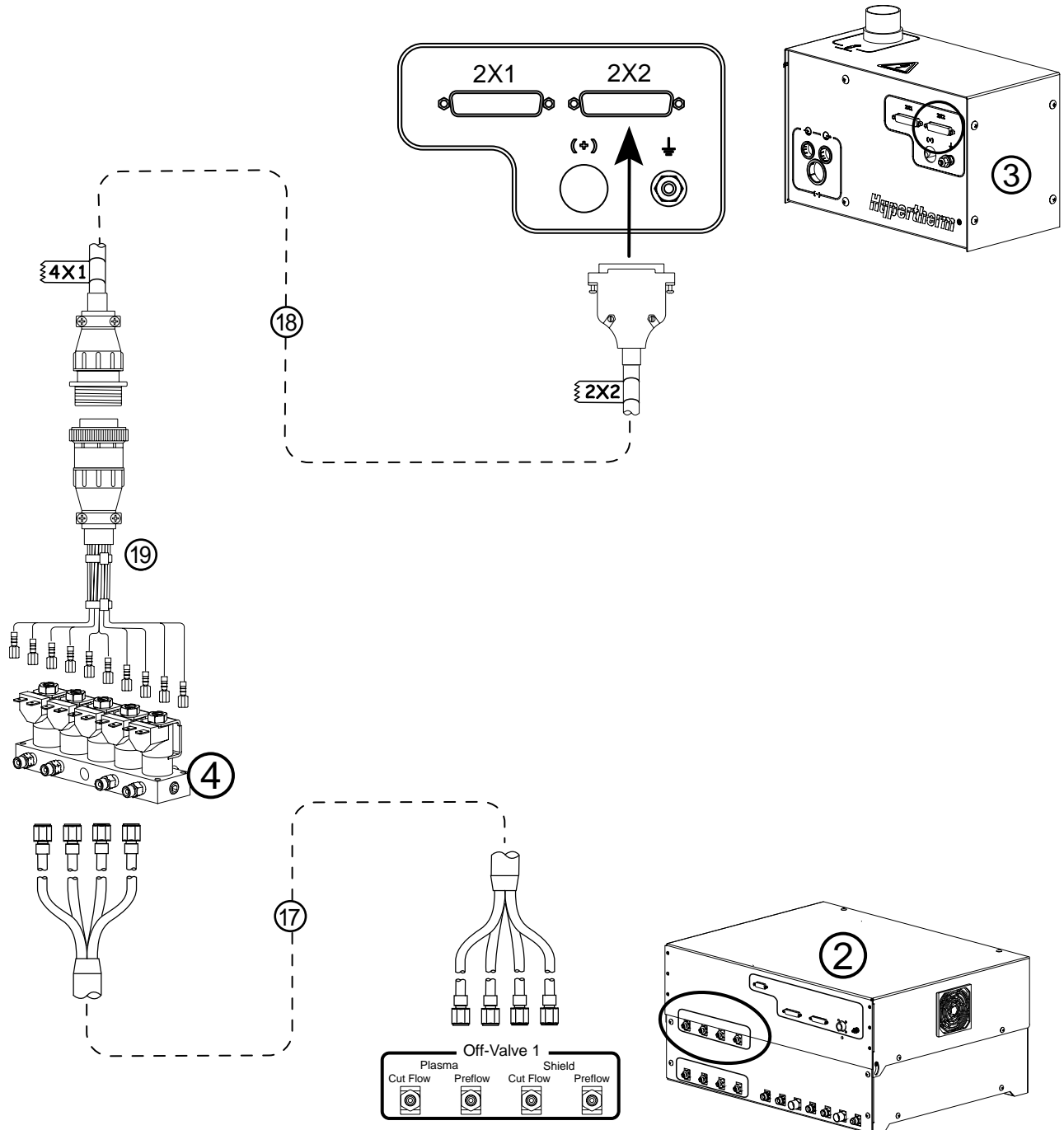
Install the ignition console to Off-valve cable and gas hose assembly

Installation Note

Mark the identification number on the ends of cable 18.



Make sure there are no leaks at connections.



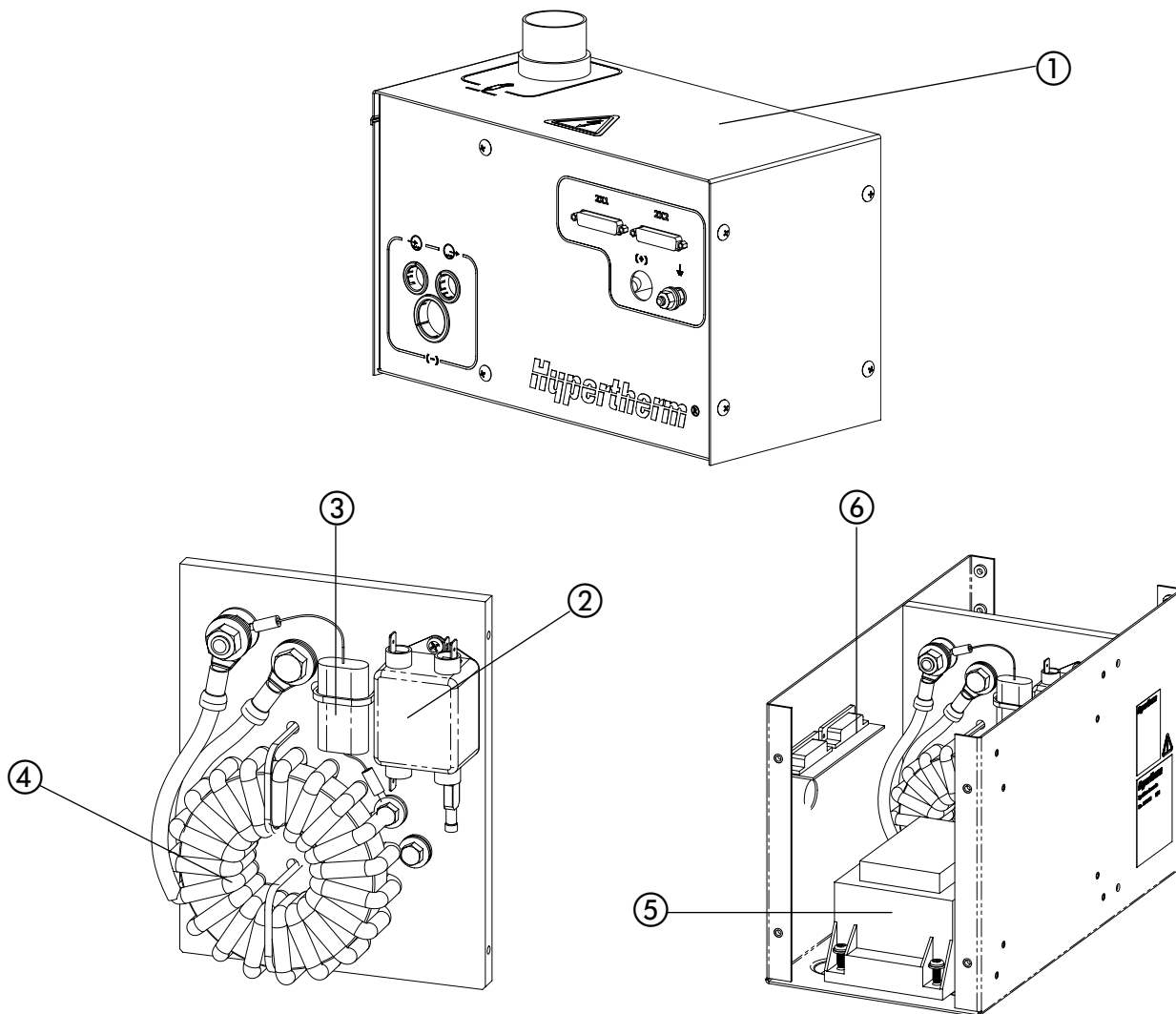
Section 3

PARTS LIST

This section provides part numbers for the components in the HT4400/HD4070 with Titan, Ignition console.

- See *Installation* Section in the system's main manual for part numbers of hoses and interconnecting cables.
- See HT4400 instruction manual 803580 or HD4070 manual 803760 for consumable parts kits, power supply breakdown and parts for other options.

Ignition Console



Item	Part Number	Description	Designator	Qty.
1	077045	HT4400 with Titan Ignition Console		
2	009040	Filter: 3A, 3W	FL1	1
3	128510	Kit: Filter Capacitor Replacement	C1	1
4	129616	Inductor: Ignition Console	L2	1
5	027648	Ignition Module	SSI1	1
6	041619	PCB Assy: Ignition Console Interface		1