

OPERATORS MANUAL

FLAME IGNITER model SF/IG-1010.24.x #11815

often used in automation using the **SPIRFLAME®**

INTRODUCTION

The use of flames generated by the SPIRFLAME® flame generator is mostly in semi- or fully automated applications for soldering-, brazing-, annealing, flaming of surfaces and other tasks using the advantages of such an artificial SPIRFLAME® generated flame.

Automated applications ask for a method to ignite the combustible gas released at torch (nozzle) by opening of an electromagnetic solenoid.

The FLAME IGNITER IG-1010.24.x / 11815 incorporates a completely encapsulated hi-voltage generator module drawing its power from any 12 to 28 VDC source and consumes upon ignition cycle a few milliAmps (mA).

A flexible high-voltage cable (like the ones used for the ignition circuits in cars) supplies the hi-voltage to the ignition electrode. The ceramic based ignition electrode (part TM-KE.01 / #11105) employs a special alloy to minimize electrode erosion /consumption by the sparks.

The high-voltage cable is permanently fixed to the igniter housing. The cable can be cut to needed length and then the electrode is push-twisted into the center core of the cable.

Preferably a copper tube is used to shield (and protect) the hi-voltage cable. Ground **MUST** be provided to the screw at the side of the high-voltage cable outlet and at that point also to the metallic shielding tube. Ground must obviously also applied to the torch nozzle / flame head to which the hi-voltage spark must jump to ignite the gas flowing from the nozzle(s).

Preferably the gas flow is controlled by a high quality electromagnetic solenoid valve like the part ET/MV2/2.024.NC.00 #11185). As the gas flow is opened by the valve the ignition cycle must be initiated at the Flame Igniter unit.

Function:

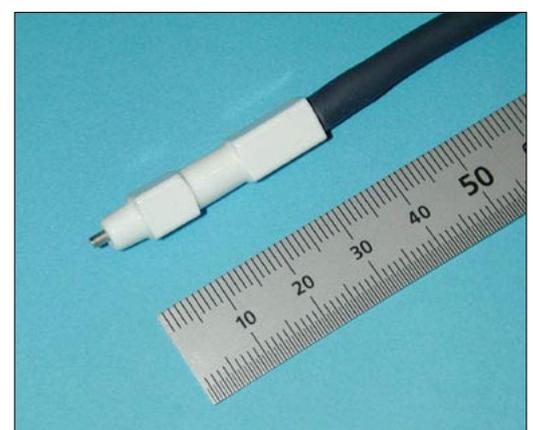
DC Supply to (2) -(5):

Connect (1) - (3) to start ignition or use manual button.

DC Supply to (2) -(4): Ignition starts as voltage is applied.

Size: 65 x 120 mm (face) x 35 mm deep, 250 gram.

A 3 meter long 5-pole cord (part: IG-KA5-3000 / 15640) connects Igniter to the external supply. See wire list. Cord 170 gram.



PIN	Wire colors			
1	weiss	white	blanc	external enable
2	braun	brown	brun	ground / supply 0 VDC
3	grün	green	vert	external enable
4	gelb	yellow	jaune	+24 VDC direct ignition start
5	grau	gray	gris	+24 VDC supply

NOTICE: This Igniter produces high-voltage sparks which can create electric shocks. Full responsibility for proper installation and RFI suppression is with the installer / integrator. Anything not clear? then before proceeding do REQUEST further information & assistance at info@spirig.com

INTRODUCTION

The application of flames generated by the SPIRFLAME® flame generator is mostly in semi- or fully automated applications for soldering-, brazing-, annealing, flaming of surfaces and other tasks using the advantages of such a SPIRFLAME® generated artificial flame. Automated applications demand a system to ignite the gas at the torch. Ignition can be made manually using matches, lighters or an electric spark. Usually the procedure is a sequenced approach controlled by the customer supplied electronic control:

1. Open gas exit valve at torch,
2. Start ignition sequence and
3. Control existence of a flame as sign of a successful ignition of the gas
 - 3.1 If not, then repeat ignition cycle and if still not successful a successful igniting, then
 - 3.2 close gas exit valve and go into ALARM state demanding operator interference.

The FLAME IGNITER IG-1010.xx generates an electric high voltage impulse or burst of impulses upon supply of 24 vdc to its input.

WARNING HIGH VOLTAGE Risk of electric shock

WARNING HIGH VOLTAGE Creates strong electric interference and noise

The FLAME IGNITER IG-1010.xx module needs an **electric shielded installation**.

The generator module must be installed into a closed metallic box .

The high tension cord must preferably be guided through a convenient installed copper(better is soft / magnetic steel) tube.

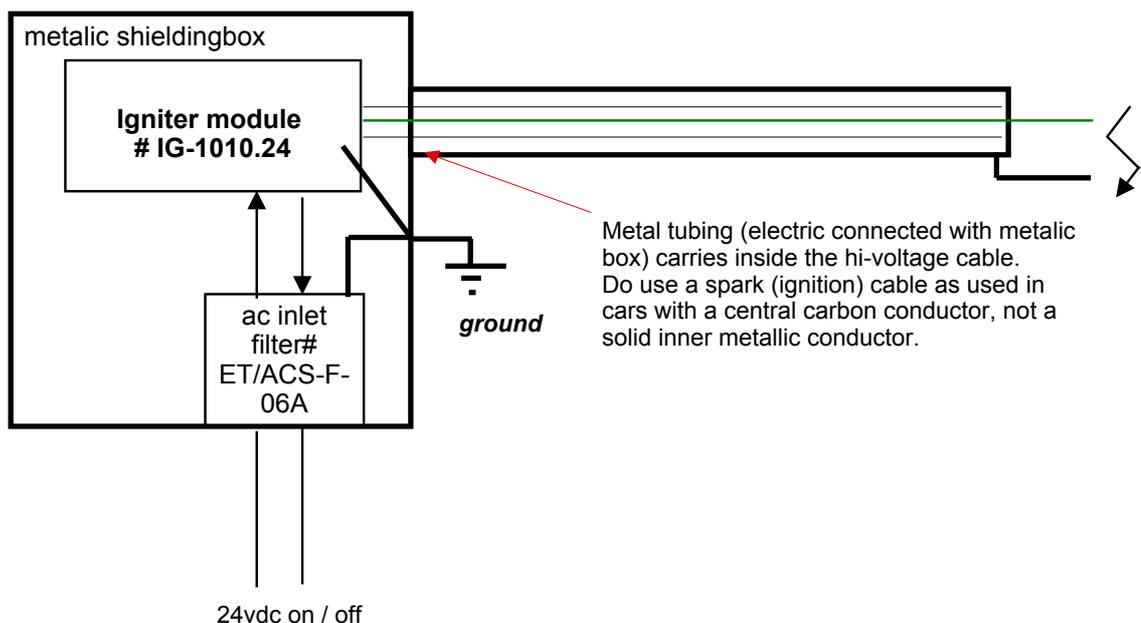
Exposed high tension lead length should be kept to a minimal length.

Solder the tube to the metallic housing case.

Ground MUST be preferably carried by the tube to the spark location.

Electric sparks can damage nearby electronic components by EMF.

Unshielded installation will interfere with electronic controls on equipments.



The on/off should be done by supplying the 24vdc from the outside. An ac inlet socket with integrated emi filter <Spirig part # ET/ACS-F-06A> will help suppress emissions.