



AI-5 Pro

OPTICAL FIBER FUSION SPLICER

Suitable for security monitoring projects

SIGNAL FIRE INTELLIGENT MANUFACTURING



SIX MOTORS



CORE ALIGNMENT



8S SPLICING



18S HEATING

Signal Fire AI-5Pro is mainly suitable for security monitoring and other engineering projects. six motors、 core alignment, Adopting a 5-inch color screen, the operation graphics are simple and intuitive; Up to 320x focusing magnification, 8 second high-speed splicing, 18 second heating, with a 50% increase in work efficiency compared to ordinary fusion machines; The 5200mAh lithium battery can fuse and heat about 160 cells when fully charged. Its unique lighting design makes it convenient for night construction or emergency repairs.

SUPER COST-EFFECTIVE



METAL BODY

BEAUTIFUL DETAILS



11 languages available

Multilingual Settings, covering the global market



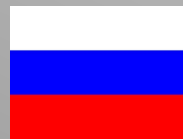
Chinese



English



French



Russian



Italian



Ukrainian



Portuguese



Polish



Spanish



Thai



Arabic

5200mAh lithium battery

Charging time ≤ 3.0 hours

In full state, 160 cores can be continuously fused and heated

Charging channel

The battery can be removed and charged separately



Press to pop up the battery

Charging port

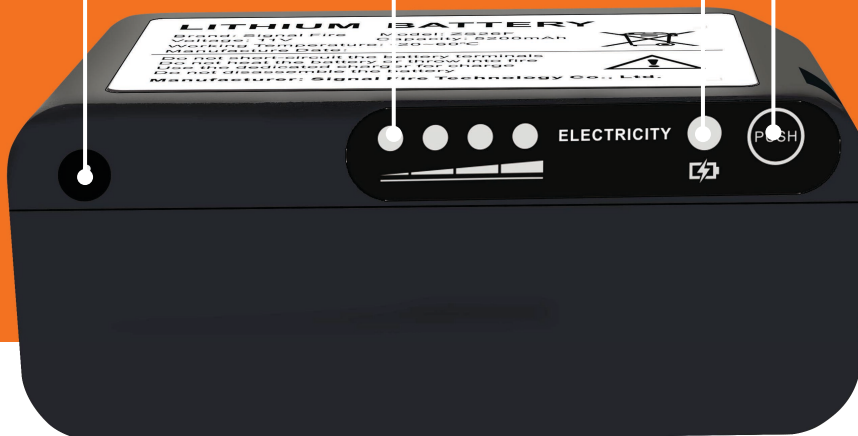
Input
voltage : $13.5 \pm 0.5V$
Input current : 4.8A

Power indicator light

Charge indicator light

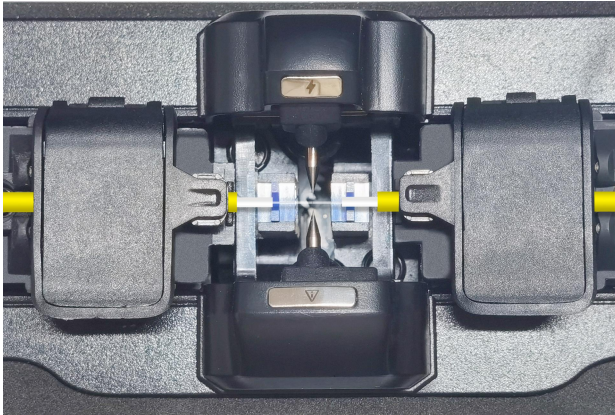
Indicator light turns off when fully charged

Press to check the power level

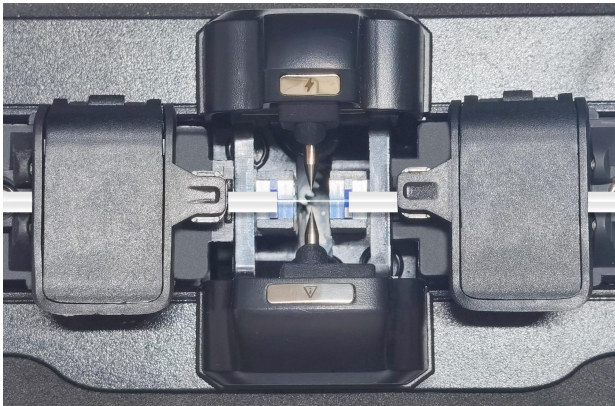


3 in 1 fiber holder

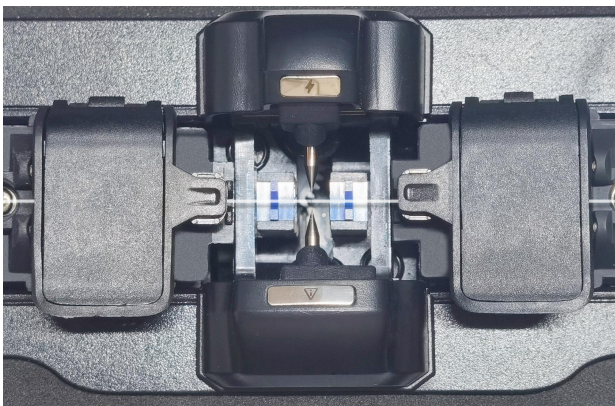
SM, MM, bare fiber, pigtail, Drop cable, multi fiber cable



Jumper fiber
(pigtail)



Drop cable



Bare fiber

Dust prevention fall prevention shock prevention



Thickened buffer structure

Don't be afraid to knock! Touch! Fall!

Lighting for splicer

Convenient for night operation



Basic parameter

Fiber alignment	Core/cladding
Motor number	Six motors (accurate of fiber alignment: 0.5μm)
Splicing time	8s
Heating mode	18s, can be customized according to the external environment
Fiber type	Single-mode fiber (SMF/G.652), multimode fiber (MMF/G.651), dispersion-shifted fiber(DSF/G.653), non-zero dispersion-shifted fiber (NZ-DSF/G.655), and bend-insensitive fiber (BIF/G.657); suitable for splicing bare fiber, pigtail, drop fiber, patch cord, and invisible fiber.
The cladding diameter	80-150 μm
Splicing loss	0.02dB (SM) 、0.01dB (MM) 0.04dB (DS/NZDS)
Splicing mode	Automatic focusing core alignment, conventional/high precision welding
Splicing way	Automatic, semi-automatic
Fiber holder	Three in one fixture, no need to change, suitable for single/multi-mode, multi-core cable/bare fiber, tail fiber, jumper fiber,drop cable
Battery capacity	5200mAh large capacity lithium battery charging time ≤3.5; It can continuously weld and heat about 160 cores
Magnification	320x (X or Y axis single display) , 160x (x and Y axis dual display)
Fiber diameter	Coating diameter: 80-150μm/Coating diameter: 100-1000μm
Cutting length	Coating layer 250μm below: 8-16mm/coating layer 250-1000μm: 16mm
Heat shrink tube	60mm、50mm、40mm、25mm
Tensile testing	standard 2N
display	5 inch TFT color display screen
Boot time	1s, boot can enter the working mode
Data is stored	Unlimited, machine storage 1000 groups, the excess part can be stored in the server, can export data.
Wireless communication	Based on bluetooth 4.2 protocol standard, the working band is 2.4GHz, the maximum transmission range is 60m
Software upgrade	Mobile phone APP Internet update, enable Bluetooth synchronization upgrade machine software
Management function	The equipment owner can be bound as the highest authority, and can remotely view the welding records, welding time, loss, etc. through the mobile phone APP. The number of welding times or working time of the equipment can be set. The manager can effectively manage a single or multiple equipment.
interface	USB2.0 (Type A) can be used to connect external LED lights and charge mobile devices
Return loss	Better than 60 db
Product protection	Waterproof, dustproof and fall proof
Power supply	Input AC100-240V 50/60Hz, output DC13.5V/4.8A, the current power mode can be identified, real-time monitoring of the current battery level
The work environment	Temperature: -15 ~ +50℃, humidity: < 95%RH (no condensation), working altitude: 0 ~ 5000m, maximum wind speed: ≤15m/s

RANDOM CONFIGURATION



- ① Fusion Splicer ② Toolkit ③ S07 Fiber Cleaver
- ④ Alcohol Bottle ⑤ Wire stripping pliers ⑥ Miller stripper
- ⑦ Belt ⑧ Toolbox strap ⑨ Power Adapter ⑩ Fiber for ARC calibration/User's manual/Quality Certificate/Warranty Card

Size and weight



Machine weight

1.91kg (with battery)

1.55kg (without battery)



Toolkit weight

3.50kg

(including machine and
accessories)



Total weight

4.05kg

SERVICE COMMITMENT

Two years warranty, but these circumstances are not within the scope of this provision.

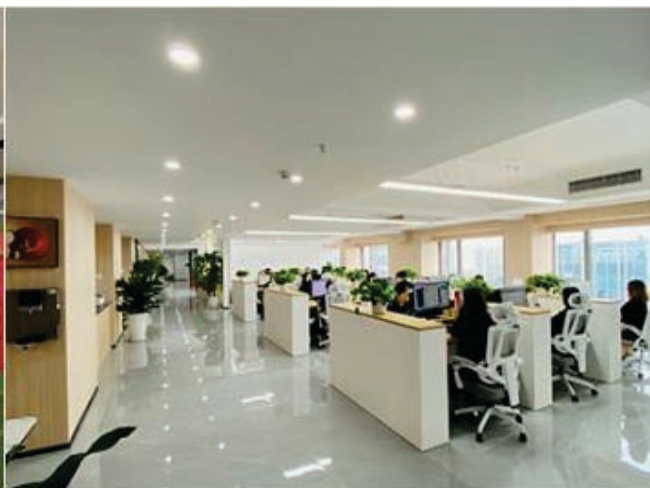
01. Except for the cleaver, miller clamp, stripping pliers, fiber holders and other tools whose life depends on the frequency of use and the use of the environment. Also electrodes are consumption materila which are not in the warranty.

02. Battery and poer adapter are warranty for one year, it is in free warranty where it is dammaged or can not be charges in one year.



Signal Fire Technology Co., Ltd. is a high-tech joint-stock enterprise specializing in the research and development, production, and sales of communication equipment, with a registered capital of 10 million. It is a national high-tech enterprise. Our main products include fiber optic fusion splicers, electric fiber cleaver, OTDR (Optical Time Domain Reflectometer), and 9-in-1 optical fiber stripper. They are widely used in the construction, maintenance, emergency repair, security monitoring, and research and teaching of optical cable lines in telecommunications, mobile, China Unicom, radio and television operators, post and telecommunications, railway, engineering companies, and public institutions.





The factory is located in Chengdu High tech International Enterprise Port, with a modern production factory and standardized office buildings. We have passed the ISO9001 international quality management system certification, and our products have passed the EU CE, ROHS. International certifications such as FCC in the United States and UKCA in the United Kingdom have been passed by the National Institute of Quality Supervision and Inspection, China Academy of Information and Communications Technology.







The qualified testing of Taier Laboratory has obtained nearly a hundred domestic and international patents at the same time. The "Signal Fire" series products have been sold to over 100 countries and regions including North America, South America, Europe, Africa, and Asia, and have received unanimous praise from customers.



Operator winning bid brand



Telecom installation and maintenance skills competition, Signal fire fusion splicer excellent performance, won the group first prize



Exhibition photos



Product testing certificate

Signal Fire Technology Co., Ltd. has passed the ISO9001 international quality management system certification. The product has passed international certifications such as the CE, RoHS, the United States FCC, and UKCA in the United Kingdom, and passed the qualified test through National Quality Supervision Institute, China Xintong Institute, and Tel Laboratory. At the same time, we obtained nearly 100 patents.

CERTIFICATE



CERTIFICATE
Of Conformity
Directive 2014/53/EU
On The Radio Equipment Directive

Certificate No.: AT18220WC202819

Certificate Holder: SIGNAL FIRE TECHNOLOGY CO., LTD.

Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liando U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu China

Manufacturer: SIGNAL FIRE TECHNOLOGY CO., LTD.

Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liando U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu China

Product Name: OPTICAL FIBER FUSION SPLICER

Model No.: AI-9, AI-6C, AI-6V, AI-7C, AI-8C, AI-8X, AI-7V, AI-X, S9

Trade Mark: Signal fire

Rating: Input: 13.5V/4.8A DC (with DC 11V, 7800mAh Battery inside)

The radio equipment meets the following essential requirements	Complied
Article 3(1)(a) ■ Safety	EN IEC 62368-1:2020+A11:2020
Article 3(1)(b) ■ Health	EN 50663: 2017, EN 62479: 2010
Article 3(1)(b) ■ EMC	ETSI EN 301 488-1 V2.3.2 (2019-11) ETSI EN 301 488-17 V3.2.4 (2020-09)
Article 3(2) ■ Radio	ETSI EN 300 328 V2.2.2 (2019-07)

Note: The attached Annex forms part of this certificate which consists of 2 pages.



The CE Marking may only be used if all relevant and effective EU Directives are complied with

Certified by



Kingkong Jin



Shenzhen Anbotek Compliance Laboratory Limited

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China 518128

Tel: (86)755-26066440 Fax: (86)755-26014772

Http://www.anbotek.com Email: service@anbotek.com

CERTIFICATE



CERTIFICATE
Of Conformity
Radio Equipment Regulations 2017
(SI 2017 No. 1206)

Certificate No.: AT18220WC202820

Certificate Holder: SIGNAL FIRE TECHNOLOGY CO., LTD.

Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liando U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu China

Manufacturer: SIGNAL FIRE TECHNOLOGY CO., LTD.

Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liando U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu China

Product Name: OPTICAL FIBER FUSION SPLICER

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Trade Mark: Signal fire

Rating: Input: 13.5V/4.8A DC (with DC 11V, 7800mAh Battery inside)

The radio equipment meets the following essential requirements	Complied
CHAPTER 1(General)(1)(a) ■ Safety	BS EN IEC 62368-1:2020+A11:2020
CHAPTER 1(General)(1)(a) ■ Health	BS EN 50663: 2017, BS EN 62479: 2010
CHAPTER 1(General)(1)(b) ■ EMC	ETSI EN 301 488-1 V2.3.2 (2019-11) ETSI EN 301 488-17 V3.2.4 (2020-09)
CHAPTER 1(General)(2) ■ Radio	ETSI EN 300 328 V2.2.2 (2019-07)

Note: The attached Annex forms part of this certificate which consists of 2 pages.



The UKCA Marking may only be used if all relevant and effective UK Regulations are complied with

Certified by



Kingkong Jin



Shenzhen Anbotek Compliance Laboratory Limited

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China 518128

Tel: (86)755-26066440 Fax: (86)755-26014772

Http://www.anbotek.com Email: service@anbotek.com

CERTIFICATE

TCB

GRANT OF EQUIPMENT AUTHORIZATION

Certification

Issued Under the Authority of the Federal Communications Commission

By:

LGAI Technological Center S.A. (APPLUS)
Ronda de la Font del Carme, s/n
P.O. Box 98193,
Barcelona,
Spain

Date of Grant: 01/17/2024

Application Dated: 01/17/2024

Signal Fire Technology Co., Ltd.
No.8-6 Qingyang Zone, Jiaolong Industrial Park
Qingyang District, Chengdu, China
Chengdu,
China

Attention: Jason Yang

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: ZAB9B-AI-10A

Name of Grantee: Signal Fire Technology Co., Ltd.

Equipment Class: Digital Transmission System

Notes: OPTICAL FIBER FUSION SPLICER

Grant Notes	FCC Rule Parts	Frequency Range (MHz)	Output Watts	Frequency Tolerance	Emission Designator
	15C	2402.0 - 2488.0	0.00193		

Output power listed is conducted. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons. End-users must be provided with operating procedures for satisfying RF exposure compliance.



QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No.: 11423Q45347R2M

This is to certify that the Quality Management System of

SIGNAL FIRE TECHNOLOGY CO., LTD.

Unified Social Credit Code: 9151010072411028D

Registered Address: No.1111 Changsheng Bridge, Honggang Town, Small and Micro Enterprise Innovation Park, North Area of Chengdu Modern Industrial Port, Pidu District, Chengdu

Production Office Address: Building 18, Chengdu High-tech International Enterprise Park, Liando U Valley, No.1111 Changsheng Bridge Road, Pidu District, Chengdu City, Sichuan Province, China

Has been audited to conform to the following Quality Management System standard

GB/T19001-2016/ISO9001:2015

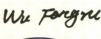
The Applicable Scope

The production of optical fiber fusion splicer

Date of initial issuance: Aug. 22, 2017

Date of issuance: Jul. 11, 2023

Date of expiry: Jul. 20, 2026

Issued by:  Beijing East Allreach Certification Center Co., Ltd.





The certificate will remain valid only if the certified organization accepts surveillance audits at regular intervals and is added to be qualified. The information of this certificate is available at EACC website (www.eacc.cn) and CNCA's official website (www.cnca.gov.cn), and it's also available by scanning the QR Code to the lower right corner.

Address for EACC: No. 121 Building, No. 17, Jingcheng Street, Jingcheng Science & Technology Industrial Zone, Jingcheng Park of Jingcheng Science & Technology Zone, Jingcheng District, Beijing 101012

International Patent

United States of America



To Promote the Progress of Science and Useful Arts

The Director

of the United States Patent and Trademark Office has received an application for a patent for a new, original, and ornamental design for an article of manufacture. The title and description of the design are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the design shall be granted under the law.

Therefore, this United States

Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the design throughout the United States of America or importing the design into the United States of America for the term set forth by law.

Coleman M. Smith
ACTING DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

EP 4024101



**EUROPÄISCHES PATENT | EUROPEAN PATENT
BREVET EUROPÉEN**

Hiermit wird bescheinigt, dass für die in der Patentschrift beschriebene Erfindung ein europäisches Patent für die in der Patentschrift bezeichneten Vertragsstaaten erteilt worden ist.

It is hereby certified that a European patent has been granted in respect of the invention described in the patent specification for the Contracting States designated in the specification.

Il est certifié par la présente qu'un brevet européen a été délivré pour l'invention décrite dans le fascicule de brevet, pour les États contractants désignés dans le fascicule.

Europäisches Patent No. / European patent No. / Brevet européen n°: **EP4024101**

Tag der Bekanntmachung des Hinweises auf die Erteilung des europäischen Patents / Date of publication of the mention of the grant of the European patent / Date de la publication de la mention de la délivrance du brevet européen: **14.08.2024**

OPTICAL FIBER FUSION SPLICER

Patentinhaber | Proprietor(s) of the patent | Titulaire(s) du brevet

Signal Fire Technology Co., Ltd.
No.8-6 Qingyang Zone
Jiaolong Industrial Park
Qingyang District
Chengdu, Sichuan 610015
CN

António Campinos
Präsident des Europäischen Patentamts | President of the European Patent Office | Président de l'Office européen des brevets
München, den | Munich, | Munich, le **14.08.2024**

URKUNDE | CERTIFICATE | CERTIFICAT



EP 4024101



European Patent Office
80299 MUNICH
GERMANY

Questions about this communication?
Contact Customer Services at www.epo.org/contact

Date: **03.09.2024**

Referenz: **PW498EUEP** Application No./Patent No.: **19945932.2 / 4024101**

Proprietor: **Signal Fire Technology Co., Ltd.**

European patent with unitary effect

Communication of the date of registration of unitary effect pursuant to Rule 7(1) UPR

The request for unitary effect received at the EPO on 21.08.24 meets the requirements of Rules 5(2) and 6 UPR.

The unitary effect of European patent No. EP4024101 was registered in the Register for unitary patent protection on 03.09.24.

Date of effect

Under Article 4(1) Regulation (EU) No 1257/2012, the European patent with unitary effect takes effect in the participating Member States on the date of publication of the mention of the grant of the above European patent in the European Patent Bulletin, i.e. on 14.08.24.

Territorial scope

Pursuant to Article 18(2) Regulation (EU) No 1257/2012, by way of derogation from Articles 3(1), 3(2) and 4(1), a European patent for which unitary effect is registered has unitary effect only in those participating Member States in which the Unified Patent Court has exclusive jurisdiction with regard to European patents with unitary effect at the date of registration. For the above European patent with unitary effect, the participating Member States at the date of registration are:

AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT RO SE SI

For proprietor(s):
Signal Fire Technology Co., Ltd.
No.8-6 Qingyang Zone
Jiaolong Industrial Park
Qingyang District
Chengdu, Sichuan 610015
CN

Represented by:
Lerner, Christoph
Nove Haus - Design Offices
Luitz-Ullrich-Straße 14
80636 München
DE

The registration will be published in the European Patent Bulletin under Section IV.2(1).

Registered Letter
EPO Form 7030 01.22

EP 4024101



Registered / Eingetragen 17/03/2023
No 015014933-0001

Christian Archambeau
The Executive Director / Der Exekutivdirektor

**AMT DER EUROPÄISCHEN UNION FÜR
GEISTIGES EIGENTUM
ENTRAGUNGSSURKUNDE**

Die Eintragungsurkunde wird für das unten genannte eingetragene Gemeinschaftsdesignrecht als Register für Gemeinschaftsdesignrechte anerkannt.

The Certificate of Registration is hereby issued for the corresponding entries have been recorded in the Register of Community Designs.

**EUROPEAN UNION INTELLECTUAL
PROPERTY OFFICE
CERTIFICATE OF REGISTRATION**

22

INTELLECTUAL PROPERTY INDIA © 2003-2014. All rights reserved.		फार्म नम्बर - 2 Form IP-2 ब्रजपति No. 347/2009
स्वायत्त चिह्न रजिस्ट्री, भारत सरकार Trade Marks Registry, Government of India स्वायत्त चिह्न अधिनियम, 1999 Trade Marks Act, 1999 स्वायत्त चिह्न के रजिस्ट्रेशन का प्रमाणपत्र / Certificate of Registration of Trade Mark (चार्ट 23 (2), नियम 56 (1)) Section 23 (2), Rule 56 (1)		
स्वायत्त चिह्न संख्या / Trade Mark No. तिथि / Date ज. संख्या / J. No.	: 6001994 : 6/30/2023 : 2128	
प्रमाणित किया जाता है कि स्वायत्त चिह्न / जिसके प्रतिपक्ष इसके संबंध में यह के नाम से वर्ग में संबंध के अंतर्गत निम्नलिखित के स्वतंत्र रजिस्ट्रेशन किया गया है।		
Certified that Trade Mark / a representation is annexed hereto, which was registered in the name(s) of / SIGNAL FIRE TECHNOLOGY CO., LTD. No.1111 Changsheng Bridge Hongqiang Tian-Guang and Min Enterprise Innovation Park, Puzi, Dui-Cheng, Shaoxing, #11720 China, limited liability company under the laws of China. (Body incorporate)		
In Class 7 Under No. 6001994 as of the date 30 June 2023 in respect of		
Goods and service as annexed		
Trade Mark as annexed		
आज की 20^{थी} तिथि के माह के 16^{थी} दिनांक के दिनांक को प्रतिपादित किया गया Signed at my direction, this 16th day of April, 2024		
 स्वायत्त चिह्न रजिस्ट्रार Registrar of Trade Marks		
स्वायत्त चिह्न रजिस्ट्री मुंबई Trade Marks Registry MUMBAI आवेदनकर्ता को सूचित है कि यह प्रमाणपत्र केवल सूचना के लिए जारी किया गया है और इसे कानूनी प्रमाण के रूप में नहीं माना जाएगा। (The applicant is notified that this certificate is issued for information only and it shall not be treated as legal evidence.) यदि आवेदनकर्ता को सूचित है कि यह प्रमाणपत्र केवल सूचना के लिए जारी किया गया है और इसे कानूनी प्रमाण के रूप में नहीं माना जाएगा। (If the applicant is notified that this certificate is issued for information only and it shall not be treated as legal evidence.) नियम 56 (1) के तहत आवेदनकर्ता को सूचित है कि यह प्रमाणपत्र केवल सूचना के लिए जारी किया गया है और इसे कानूनी प्रमाण के रूप में नहीं माना जाएगा। (The applicant is notified that this certificate is issued for information only and it shall not be treated as legal evidence.) यदि आवेदनकर्ता को सूचित है कि यह प्रमाणपत्र केवल सूचना के लिए जारी किया गया है और इसे कानूनी प्रमाण के रूप में नहीं माना जाएगा। (If the applicant is notified that this certificate is issued for information only and it shall not be treated as legal evidence.) नियम 56 (1) के तहत आवेदनकर्ता को सूचित है कि यह प्रमाणपत्र केवल सूचना के लिए जारी किया गया है और इसे कानूनी प्रमाण के रूप में नहीं माना जाएगा। (The applicant is notified that this certificate is issued for information only and it shall not be treated as legal evidence.)		

TRADE MARKS
REGISTRY



REGISTRATION
CERTIFICATE

Trade Marks Act 1994 of

Great Britain and Northern Ireland

I certify that the mark shown below has been registered under No. UK00003888005 effective as of the date 13/03/2023 and has been entered in the register on 12/01/2024

Signed this day at my direction



Adam Williams
REGISTRAR

Representation of Mark

The logo for 'Signal fire' features a stylized rainbow with three bands (black, white, and black) arching over the words 'Signal fire' in a bold, sans-serif font. The word 'Signal' is on the top line and 'fire' is on the bottom line, both in black.

The mark has been registered in respect of:

Class 7:

Cutting machines; Clippers [machines]; Splicing machines; Knives , electric; Hand-held tools, other than hand-operated; Electric arc welding apparatus; Electric arc cutting

Intellectual Property Office is an operating name of the Patent Office

Registered / Eingetragen 21/04/2023

No 0178902832

ZHUOSHI

AMT DER EUROPÄISCHEN UNION FÜR GEISTIGES
EIGENTUM
ENTRAGUNGSSURKUNDE

Diese Entragungssurkunde wird für die unten
angegebene Unionmarke ausgestellt. Die betreffenden
Anfragen sind in dem Register der Union
eingetragen worden.

These Certificate of Registration is hereby issued for the
mark specified below. The corresponding entries have been recorded in the
Register of European Union trade marks.

THE EUROPEAN UNION INTELLECTUAL PROPERTY
OFFICE
CERTIFICATE OF REGISTRATION

 **EU IPO**
EUROPEAN INTELLECTUAL PROPERTY OFFICE





The Executive Director / Der
Exekutivdirektor

Christian Archambeau

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