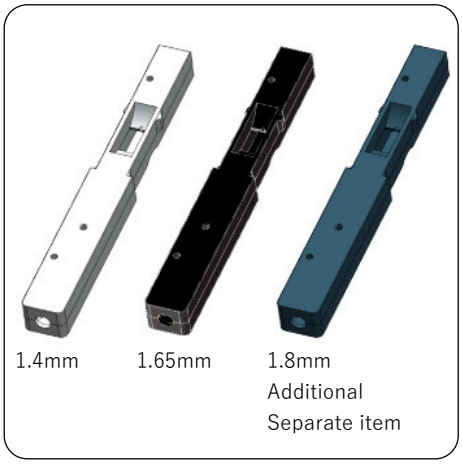
Air Blown Fiber Installation Tool

User Manual

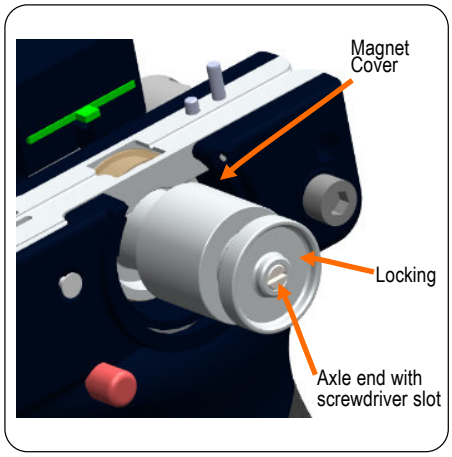
Quick Start Guide without duct clamp

The ABF (Air Blown Fibre) tool is used to install Hexatronic Stingray fibres into small duct tubes. Depending on the duct size and fibre size, the fibre can be installed over fairly long distances. The motor pushes the fibre through the tube with the air used to float the fibre in the tube and reduce friction between the fibre and inside of the tube.

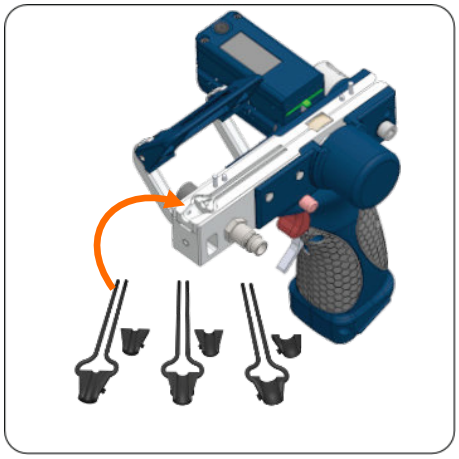
1. Identify the fibre that you need to blow. Check the outside diameter of the cable (refer to the data sheet specification if required).



2. Select the correct fibre guides based on the cable diameter and put them on the tool (See section 4.4 of the user manual).



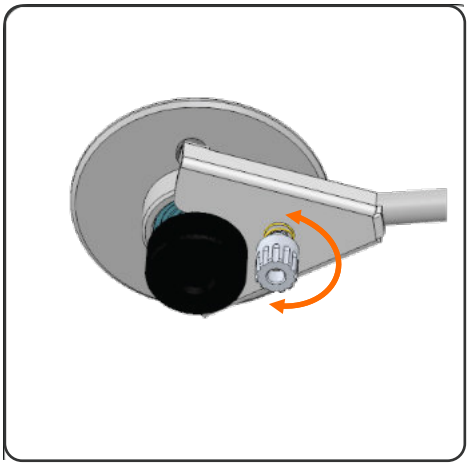
3 Adjust the clutch tension for the fibre type. (See section 4.1 of the user manual).



4. Identify the duct size the fibre will be blown into and change both rubber nozzles (upper and lower to the correct size (see section 4.7 of the user manual).

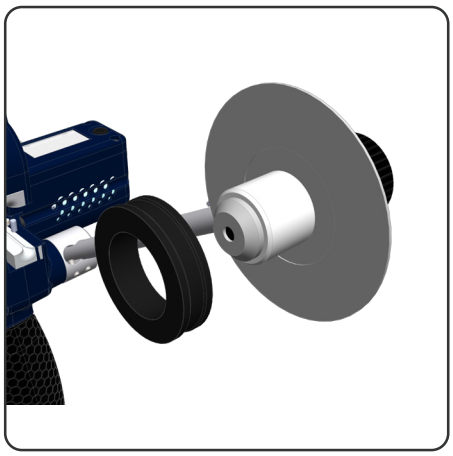
5. Put a charged battery into the tool.

6 Put the reel arm in place according to the reel size (bare fibres can be installed directly through the back of the gun and no reel arm is needed).



7. Adjust the brake plate tension to have a small amount of braking applied. Loosen first, then adjust to have some friction applied.

8. Mount the ABF tool to the tripod at the work area.

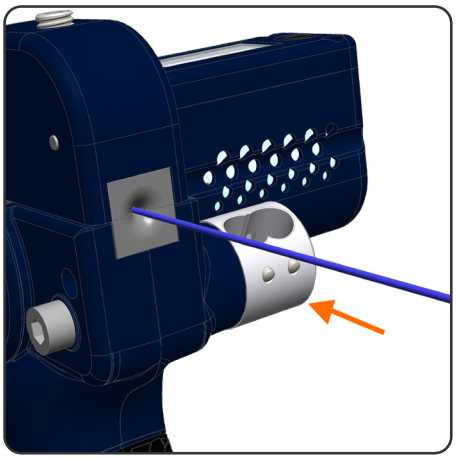


9. Mount the fibre reel. Loosen the knob to reduce the expander (shown yellow). Fit the reel (add black fitting if required). Tighten knob until reel fitting is good.

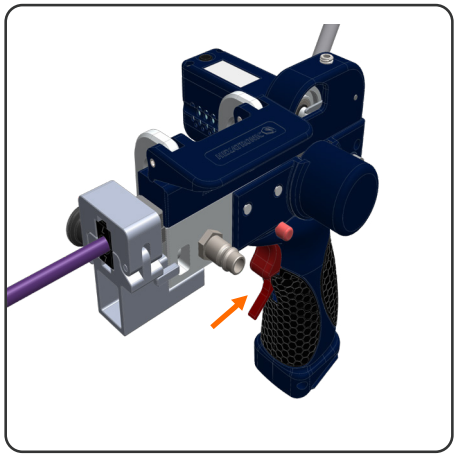
10. Open the clamp, lift the top body and place the duct onto the nozzle, hold whilst closing the clamp. (for pre-connectorized fibre: push the ferrul into the duct before closing the lever).

11. Connect the air filter and valve assembly to the tool - open the valve - turn anticlockwise.

12. Purge the air from the compressor & leave the valves open (see compressor operating guide). Connect the air line, first to the ABF tool, then to the compressor.

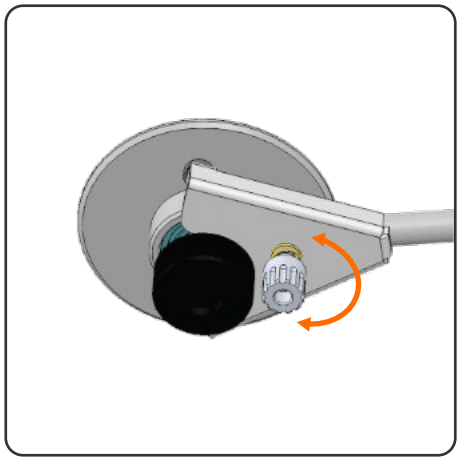


13. Start the compressor. if using bare fibre from the pan. Feed the fibre into the back of the ABF tool so it comes through a short way and reaches the duct you are blowing the fibre into.



14. Pull the trigger and ensure the fibre is moving freely.

15. The display will show the distance the fibre has travelled and the speed while the fibre is moving.



16. If the fibre reel spins when you let go of the trigger - apply a little more pressure to the brake plate.

User Manual

Air Blown Fiber Pro Installation Tool

Content

This product is covered by producer responsibility for electrical and electronic products. Electrical waste must be sorted out from and handled separately from other waste to facilitate recycling opportunities. Worn out Air Blown Fibre Pro tools can be returned to Hexatronic for disposal and recycling. Hexatronic is registered in the Environmental Protection Agency's EE and Battery Register and the registration number is 3476.

ABF Installation Tool Safety Instruction

WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/ or serious injury.

Save all warnings and instructions for future reference.
The term “power tool” in the warnings refers to your battery-operated (cordless) power tool.

Work Area Safety

Keep your work area clean and well-lit. Cluttered or dark areas increase the risk of accidents. **Do not operate power tools in explosive environments, such as near flammable liquids, gases, or dust.** Power tools can generate sparks that may ignite vapors or particles.
Keep children and bystanders at a safe distance while operating a power tool. Distractions can lead to loss of control.

Personal safety

Stay alert. Use caution and good judgment when operating a power tool. Never use a tool when tired or under the influence of drugs, alcohol, or medication. Inattention can cause serious injury.

Wear appropriate personal protective equipment. Always use eye protection. Depending on the task, wear a duct mask, non-slip shoes, a hard hat, or hearing protection to minimize risk.

Remove all adjustment tools before turning the power tool on. A wrench or key left attached to a rotating part may cause injury.

Do not overreach. Maintain proper footing and balance at all times. This provides better control of the power tool in unexpected situations.

Dress appropriately. Do not wear loose clothing or jewelry. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can get caught in moving parts.

Power Tool Use and Care

Store idle power tools out of reach of children and do not allow people unfamiliar with the power tool or these instructions to operate it. Power tools are dangerous in the hands of untrained users.

Maintain power tools. Check for misalignment or binding of moving parts, broken parts, or any other condition that may affect the tool's operation. If damaged, have it repaired before use. Many accidents are caused by poorly maintained power tools.

Use the power tool and accessories according to those instructions, considering the the working conditions and the task performed. Using the tool for operations it wasn't designed for could result in a hazardous situation.

Battery Tool Use and Care

Recharge only with the charger specified by the manufacturer. A charger suitable for one type of battery pack may create a fire risk if used with another type.

Use power tools only with specifically designed battery packs. Using any other battery packs may create a risk of injury or fire.

Never charge a battery at temperatures below freezing. The battery may be permanently damaged. **When the battery pack is not in use, keep it away from metal objects, such as paper clips, coins, keys, nails, screws, or any other small metal items that could connect one terminal to another.** Shorting the battery terminals may cause burns or a fire.

Avoid battery contact. Leaking battery may cause burns or eye irritation. Rinse with water and seek medical help if contact occurs.

Electrical Safety

Use only matching, grounded plugs. Do not modify plugs or use adaptors. **Keep chargers dry.** Water increases electric shock risk.

If charging in damp areas, use an RCD-protected AC outlet. This reduces shock risk.

Service

Only use identical replacement parts and qualified repair technicians. This ensures safe tool operation.

General Safety Warnings

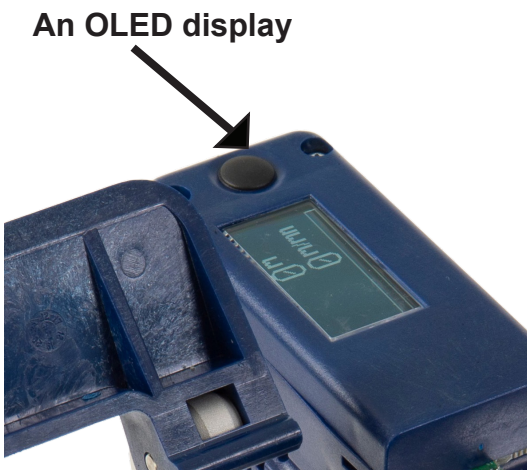
Unplug the tool before adjusting or changing accessories. Prevents accidential starts.
Assemble the tripod correctly before mounting the tool. Ensures stability.
Securely attach the tool to the tripod. Prevents movement and loss of control.
Set the tripod on a stable, level surface. Shifts or uneven ground can affect safety.

1. Description

The Pro version of the installation tool feeds ABF (Air Blown Fiber) units into micro ducts, using compressed air and a feeder motor. The upper clamp opens to secure the fiber during installation and allows easy removal after use.

The battery pack is housed in the handle. Compressed air connects via a CEJN 320 quick connector and is regulated by a valve on the filter assembly.

An adjustable magnetic coupling limits feeding force to protect the fiber. An OLED display shows installation speed and total fiber length with non-volatile memory, reset, and sleep modes to save battery.



Interchangeable fiber guides and nozzles support various duct sizes and fiber types.

The **Pro model** feature a front-mounted plastic clamp that protects against crush damage and adapts to a wider range of cable and duct diameters, enabling safer, more flexible instalations.

ABF units come pre-connectorized on reels, or loose in a pan.

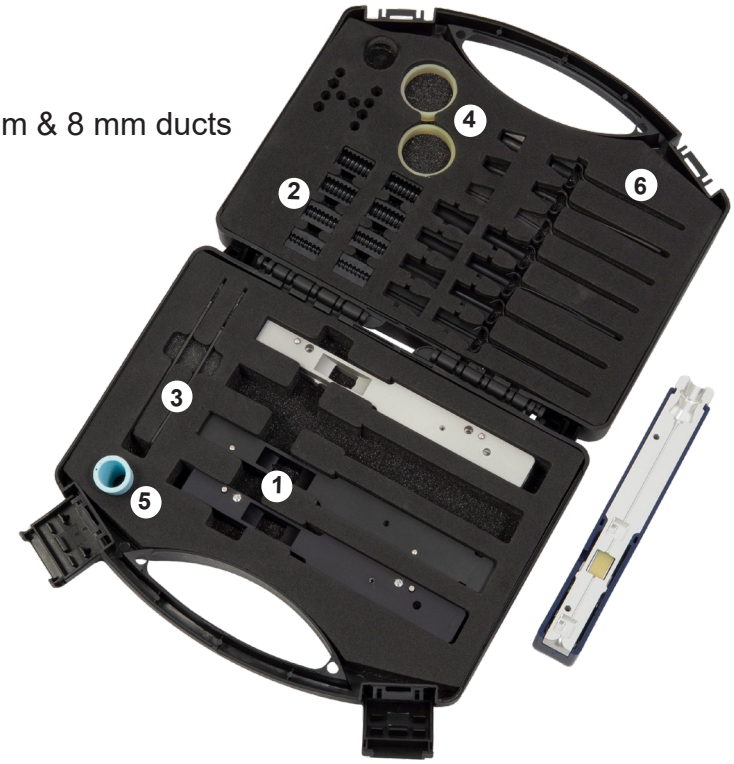
2. Tool Set Contents

2.1 Large Case

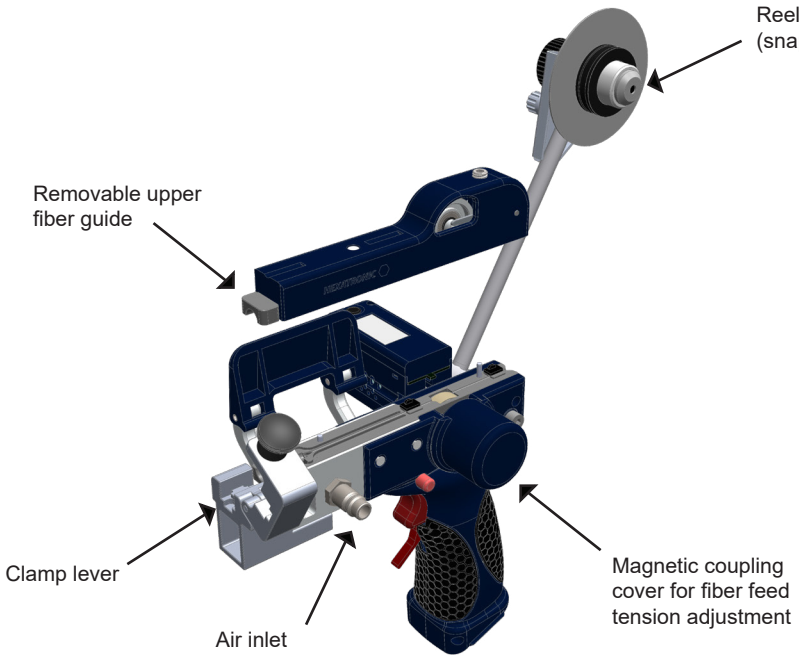
1. Microduct cutter
2. Reel arm (snap-in)
3. ABF installation tool
4. Air filter and valve assembly
5. Battery charger AC adapter (includes EU, UK, US, and AUS plug adapters)
6. Car charger adapter
7. Two batteries
8. Tool and spare parts accessory case

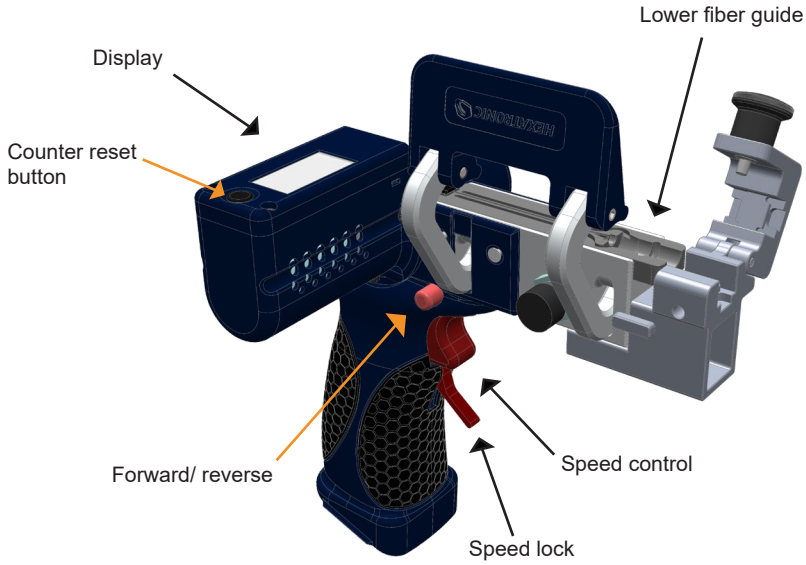
2.2 Tool and Spare Parts Case

1. Fiber guides (1.65 mm & 1.85 mm)
2. Clamp inserts for 3 mm, 5 mm, 7 mm & 8 mm ducts
3. Allen keys: 2 mm, 2.5 mm & 4 mm
4. Spare drive rings (rubber)
5. Spare air filter cartridge
6. Rubber fiber guide seels



3. Main Components of the Tool

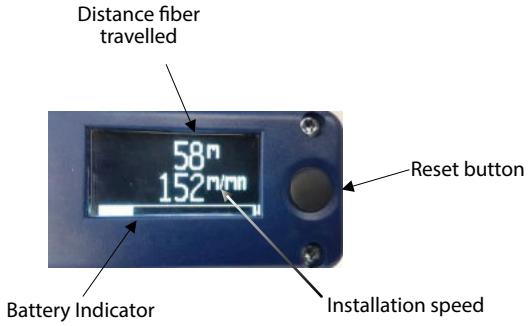




3.1 Display

The installation tool is equipped with an OLED display that automatically activates when the speed control is engaged.

The display provides real-time information on:
- Installation speed
- Distance installed
- Battery status



Message displayed when distance is reset

Reset Button Function

Short push - display intensity change
Long push - distance reset

3.2 Compressed Air Supply

Note: Always use dry, oil-free, and clean compressed air at a maximum pressure of 1 MPa (10 bar), using the supplied air filter and valve assembly.

Compressed air consumption varies depending on the microduct's inner diameter and the installation length.

For the longest installation distances, a pressure of 1 MPa (10 bar) is required. A compressor capable of delivering 30 L/min at 0.8 MPa (8 bar) is sufficient for most standard installations.

For shorter distances, the required pressure can be significantly reduced. For distances up to 50 meters, compressed air may not be required.

Connection steps

1. Turn off the compressor.
2. Purge the air from the compressor by opening the valves.3. Once the air is fully purged, close the valves.
4. Connect the air line to the compressor.
5. Then connect the air line to the ABF tool.
6. Close the valve on the ABF tool.
7. Open the valves on the compressor.
8. Start the compressor.

Fig. 4.9.2
Disconnection Steps:

1. Turn off the compressor.
2. Purge the air from the compressor by opening the valves.
3. Disconnect the air line.
4. Close the valves.

3.3 Charger and Battery

The batteries are of Li-Ion type. The charger unit consists of an AC plug-in adaptor unit and a charger station. The adaptor has four exchangeable AC plugs (EU, UK, US and AUS). A car charging adapter unit is also included. The battery is fully charged in 3 to 3.5 hours depending on charging source.

LED indicator	***Meaning*** Idle,
Static Blue	insert battery
Flashing Blue/Red	Charging, almost empty
Static Red	Charging
Flickering Red	Charging, almost full
Static Green	Battery fully charged
Fault codes	
Flashing Red / Green	Battery voltage out of range (overcharged?)
Flashing Blue	Supply voltage out of range Charger will retry in 5 seconds
Flashing Red	Unstable supply Charger will retry in 60 seconds
Flashing Green	Contact Service
Flashing Red / Blue	Contact Service

Note 1: The charger is for **indoor use only.** Input 100-240V 50/60 Hz AC.

Note 2: Batteries will not charge at temperature below freezing.

The charger unit includes temperature sensor that regulates the charging circuit cinnected to the battery. If a battery temperature falls outside the specified range, the circuit will stop accepting current from the charger. Charging will automatically resume once the temperature returns to the acceptable range.

4. Regular Maintenace

There are two components on the tool that require regular adjustment: the magnetic coupling, which sets the fiber feed force, and the reel friction brake.
The feed wheel located in the upper fiber guide housing is factory-set to 7N of pressure and typically does not require adjustment.

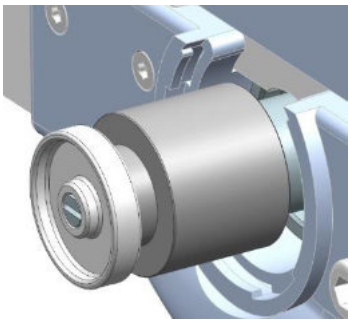
4.1 Fiber Feed Force - Adjustment Procedure

The maximum allowable feed force varies depending on the type of fiber. To protect the fiber, the tool uses an adjustable magnetic coupling, which can be set between 2N and 5.5N by repositioning the magnet cover along the axle.
When the outer locking knob is flush with the end the axle, the coupling is at its lowest setting, providing 2N of feed force before slipping occurs.
To adjust the feed force: Hold the magnet cover steady and turn the locking knob counterclockwise until it loosens.
While still holding the magnet cover, adjust the axle by turning it using the screwdriver slot

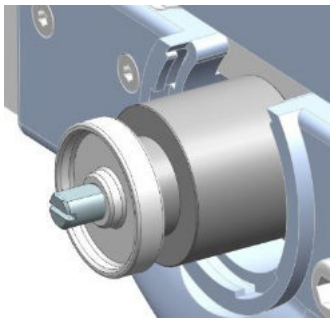
Turning the axle counterclockwise increases both extension and feed tension. Each 1 mm shift of the cover along the axle alters the force by approximately 0.5N.
Lock the setting by hand-tightening the locking knob and magnet cover against each other.

Fiber Count	Required Feeding Force
2 - 4 F	2.5 N
12 F	4 N
24 F	5 N

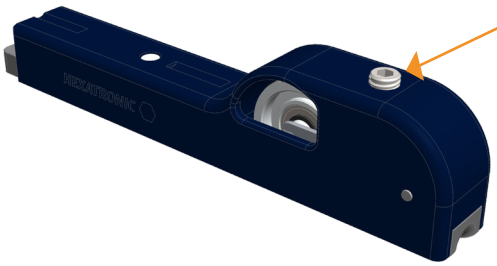
Force	2 N	2.5 N	3 N	3.5 N	4 N	4.5 N	5 N	5.5 N
Extension	0 mm	1 mm	2 mm	3 mm	4 mm	5 mm	6 mm	6.5 mm



Setting for 2N force



Setting for 5N force, 8 turns of axle from flush position, 6 mm extension.



DO NOT ADJUST!

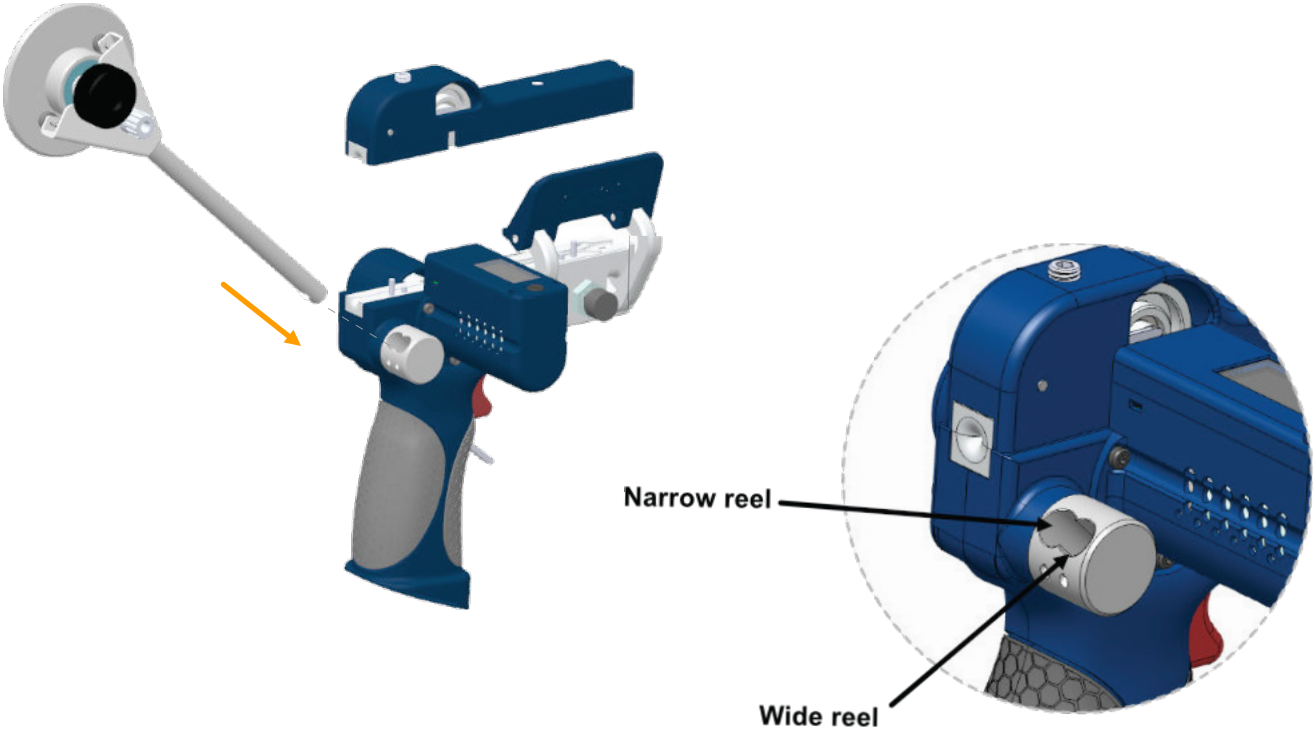
This component is factory-calibrated to apply a precise pressure to top wheel. No user adjustment is required.

The feed force for the fiber type is adjusted, using the ‘clutch’.
See the table and instructions above in section 4.1 to set the tool to the appropriate fiber type.

Note: Do not etch/ engrave serial numbers onto the top body as they can be accidentally swapped between tools, causing administrative problems with tool maintenance and servicing.

4.2 Reel arm and holder

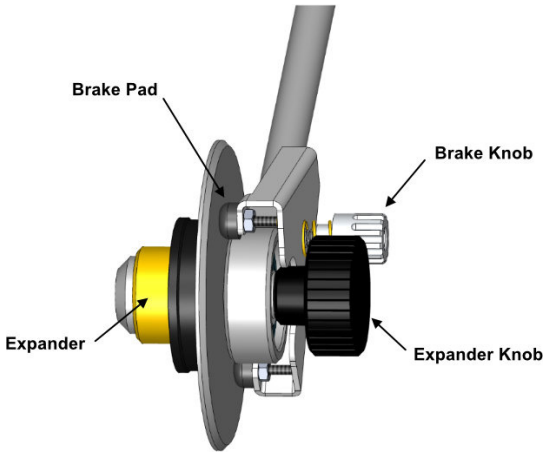
The reel arm is easily attached to the installation tool with a snap-in function. The reel arm offset can be changed between two positions in the arm hub, to suit different reel widths.



4.3 Reel Brake

For the most precise reel control, manual braking by hand is recommended.

Note: Excessive brake setting will decrease blowing speed.



4.4 Fiber guides

The tool includes three sets of fiber guides:
- **Silver guide set** - designed for 2-4 fiber units, up to 1.3 mm in diameter.
- **Black guide set** - features a wider slot for 8-12 fiber units, up to 1.5 mm in diameter.
- **Blue guide set** - intended for 24 fiber units up to 1.8 mm in diameter.

The lower fiber guide includes integrated spring pins and guide pins to ensure precise fiber alignment. All fiber guide sets are available as spare parts.

4.5 Lower fiber guide - replacement

Loosen the hex screw to release the lower fiber guide *(Fig. 4.5.1).*
When removing the guide, take care not to lose the internal springs or the O-ring located in the base *(Fig. 4.5).*

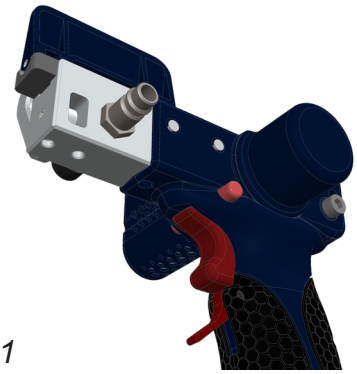


Fig. 4.5.1

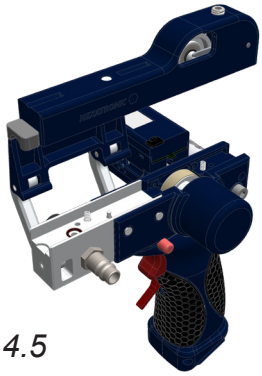


Fig. 4.5

The guide pins and spring pins stay in the fiber guide (Fig. 4.5.3).

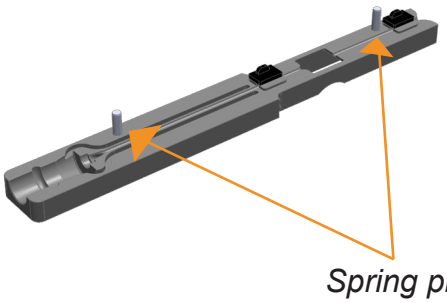
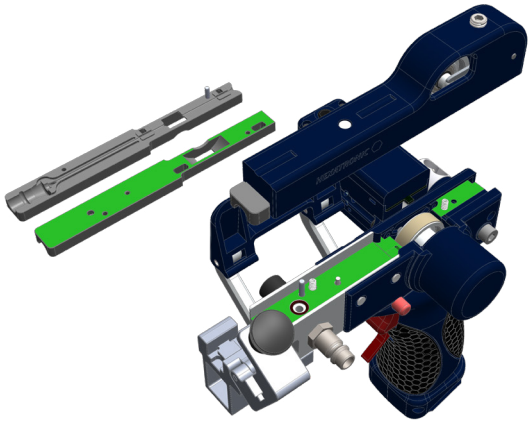


Fig. 4.5.3

Ensure mating surfaces (highlighted in green) are completely clean, so the fiber guide sits correctly.



Place the new fiber guide onto the tool body and refit the hex screw *(Fig. 4.5.1)*. Do not over tighten.

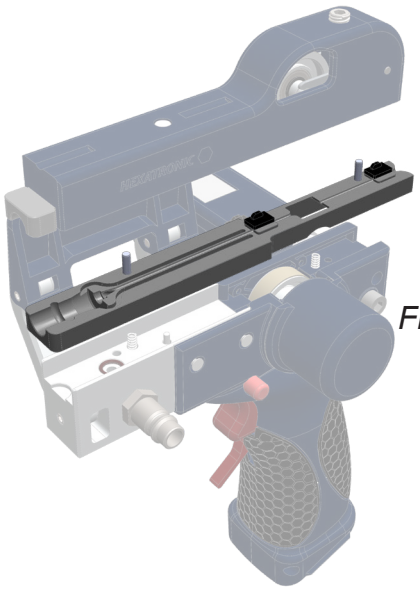
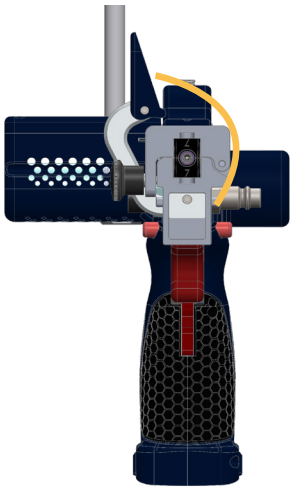


Fig. 4.5.1

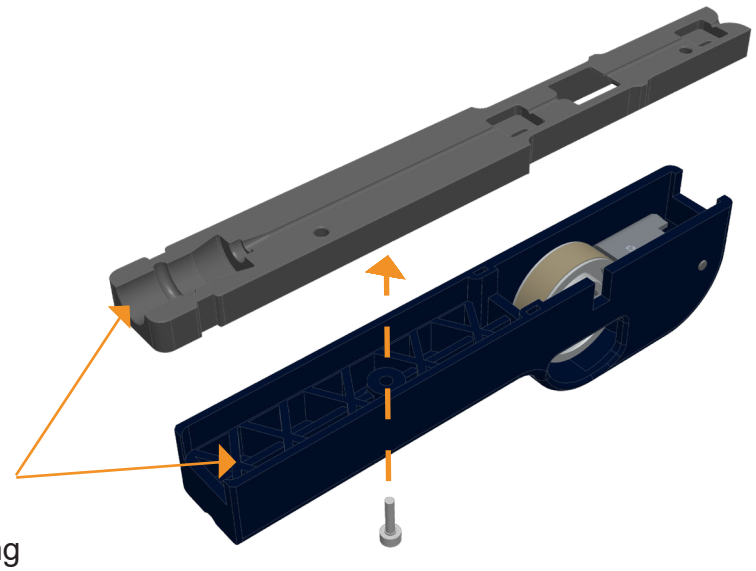
4.6 Upper fiber guide - replacement

Replace the clamp and lift the upper fiber guide assembly from the tool body.



- Using a 2.5 mm hex key, loosen the hex screw and remove the fiber guide.
- Ensure that both contact surfaces - the underside of the new fiber guide and he housing surface where it will be seated - are clean.
- This will help ensure proper alignment on the fiber guide.
- Do not overtighten the screw. Its only purpose is to hold the fiber guide in place.

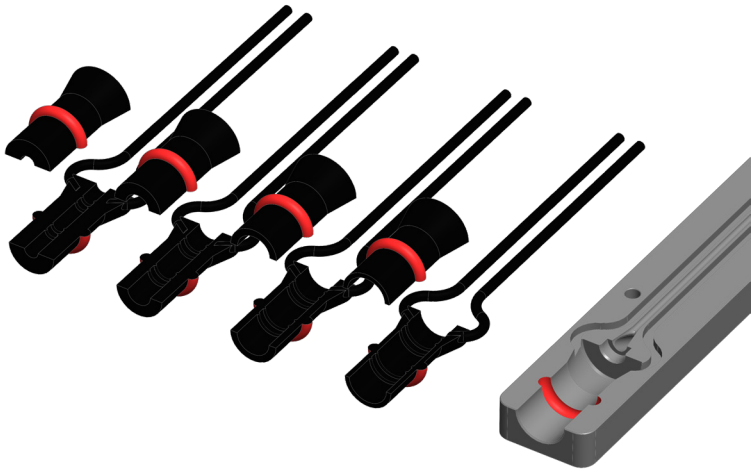
Reattach the fiber guide to the tool, then close the clamp.



Clean the bottom surface of the fiber guide and the seating surface of the holder

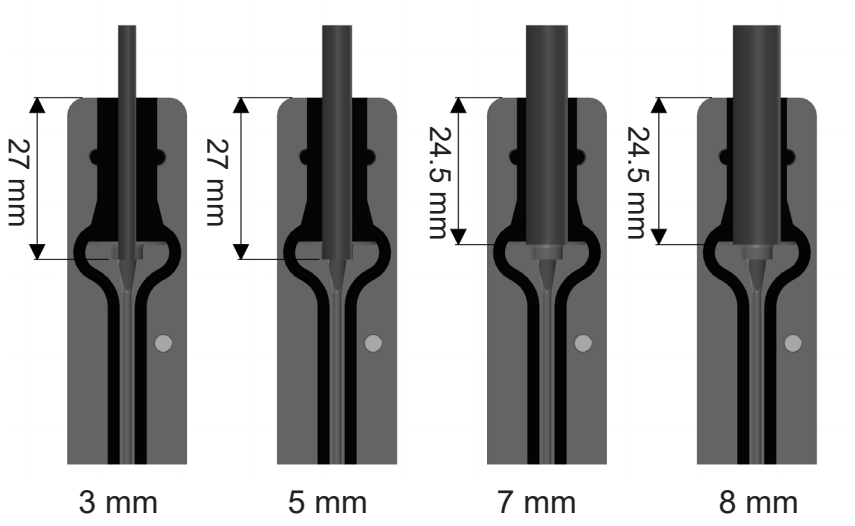
4.7 Nozzles

The nozzles secure the duct and form an air-tight seal to maintain system pressure. Four sets are provided for 3 mm, 5 mm, 7 mm, and 8 mm duct diameters, with the 5 mm nozzle pre-installed on the tool.



Nozzles can be changed by hand and should be replaced if visibly worn or when switching duct sizes.
Ensure both nozzle “ears” (highlighted in red) are fully inserted into the holes in the fiber guides.

Interchangeable nozzle sizes accomodate various duct diameters and securely clamp them in place.

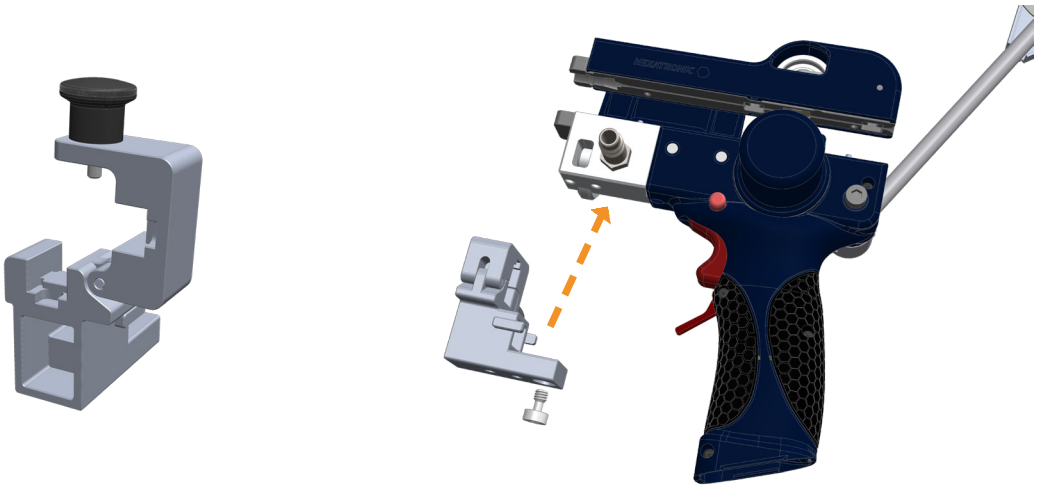


Attaching the Duct Clamp

Attach the duct clamp, using a 4 mm Allen Key (as featured below).

Interchangeable fiber guides and nozzles support various duct sizes and fiber types.

The Pro model features a front-mounted plastic clamp that protects against crush damage and adapts to a wider range of cable and duct diameters, enabling safer, more flexible installations.



Refit the rubber ring and mount the wheel into the holder. Ensure the wheel is positioned on the correct side of the upper body, with the magnet aligned as shown in *Fig. 4.9.3*. (If the meter counter is not working, check that the wheel and the magnet are installed in the correct orientation).

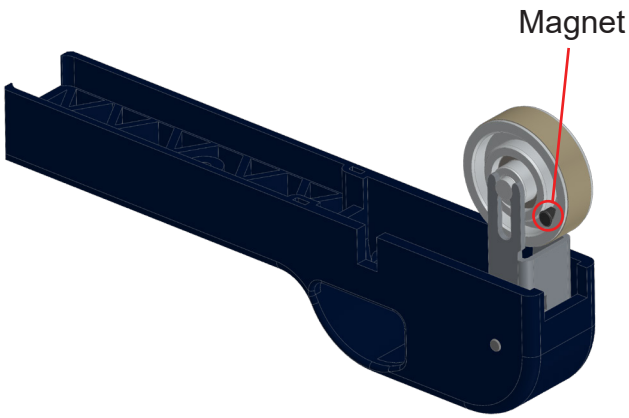


Fig. 4.9.3

4.8 Maintenance

This installation tool is a precision instrument. To ensure optimal performance and long service life, regular cleaning and maintenance are recommended.

4.8.1 Daily Cleaning

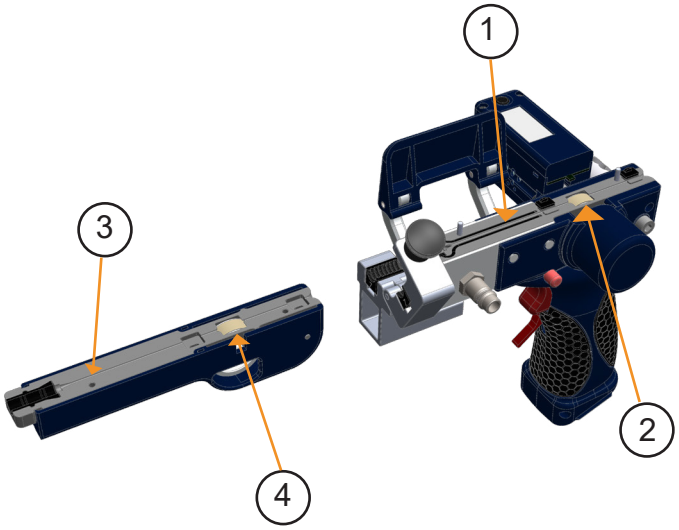
It is recommended to clean the tool at the end of each day of use.
Use cleaning swabs moistened with isopropyl alcohol to remove debris from the grooves in both the upper and lower fiber guides.

Clean the surface of the rubber rings as well. To do this:

- Manually rotate the wheel on the upper fiber guide to expose the full surface of the upper rubber ring.

- Rotate the spindle wheel to turn the lower rubber ring.

Ensure the entire circumference of each rubber ring is thoroughly cleaned.



4.8.2 Major Cleaning and Maintenance

Depending on how intensively the tool is used, a more thorough cleaning and condition check is recommended every two weeks or once a month.
Remove the fiber guides and the wheels, including the magnetic coupling. Follow the same procedure described in earlier sections. Clean all surfaces thoroughly using cleaning

swabs dipped in ethanol. Inspect parts - especially the rubber components - for wear and replace them if necessary.
Service centers can perform this cleaning, assess the tool for wear, and, if needed, identify any components that require replacement. A repair quotation will be provided. Once approved, the service center will carry out the rapair and return the tool.

4.8.3 Authorised Services and Repair Centers

Please contact your regional repair center for tools that need repair or extended service. The repair center will determine the nature of the fault and the extent of the damage to provide a repair cost estimate. Once you approve, the tool can be sent in for full assessment and a formal quotation.
External damage can lead to internal damage that may not be visible during initial evaluation. Once the tool is received, it will be fully assessed, and a firm quote will be issued before proceeding with any repair.
A copy of the estimate must be attached to the tool when it is sent to the service center.
If the tool was purchased through a separate sales channel, return it to the original distributor.

Note: Procedures may vary by service center. Please check with your local center beore sending the tool.

America

East Coast
Hexatronic Service Centre
977 Torrington Road
Clifton, SC 29325

email: nasales@hexatronic.com

West Coast
Light Brigade
835 Central Ave N. Suite D-132 Kent,
WA 98032

(206) 575 0404
email: sales@lightbrigade.com

Australasia & Oceania

Loop Technologies 35 Bryant Road
PO Box 10417, Te Rapa Hamilton
3241, New Zealand
Service Request:
https://portal.looptechnologies.com

Sweden

Maskingatan 16
70286, Örebro
Sweden

Kabelvagen 1
SE-824 82 Hudiksvall
Sweden

Sweden Service Booking link:
https://www.hexatronic.com/sv/service

United Kingdom

Hexatronic Service Center Quay Lane
Gosport
Hampshire

+44 (0) 2392 580 555
emil: servicing@hexatronic.co.uk

Germany

Opturnus GmbH
Bahnhofstraße 5
22941 Bargteheide
Germany

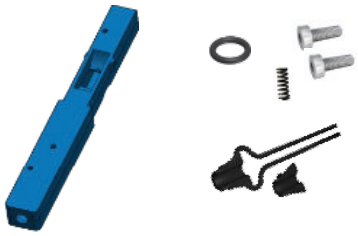
+ 49 (0) 4532 2044 109

Norway

Jonsvannsveien 1040
7048 Trondheim
Norway

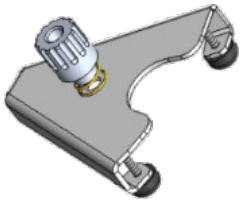
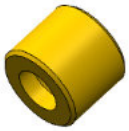
email: infor@hexatronic.no
+47 902 46 666

5. Spare Parts

FOTX-NTB101083/1	**ABF Tool - ABT Fiber Guide 4F** Includes: 1.4 mm fiber guides 5 mm nozzle Springs O-ring Fixing screw	
FOTX-NTB101083/2	**ABF Tool - ABT Fiber Guide 8-12F** Includes: 1.65 mm fiber guides 5 mm nozzle Springs O-ring Fixing screw	
FOTX-NTB101083/3	**ABF Tool - ABT Fiber Guide 24F** Includes: 1.8 mm fiber guides 5 mm nozzle Springs O-ring Fixing screw	
FOTX-ABF-NOZ-KIT-01	3, 5 & 7 mm Nozzles (1 Set)	

New Style Fiber Guides: Improved fiber guides and duct clamps offer enhanced duct grip. The new duct clamp be used with the updated, longer fiber guides, which are not compatible with standard versions.

FOTA-ABFPRO-2F-BP	**ABF Pro 2F** Includes: 1.4 mm fiber guides Compatible with 3 mm, 5 mm, 7 mm, and 8 mm duct	
FOTA-ABFPRO-12F-BP	**ABF Pro 12F** Includes: 1.65 mm fiber guides Compatible with 3 mm, 5 mm, 7 mm, and 8 mm duct	
FOTA-ABFPRO-24F-BP	**ABF Pro 24F** Includes: 1.9 mm fiber guides Compatible with 3 mm, 5 mm, 7 mm, and 8 mm duct	
FOTA-ABFPRO-DC-KIT	**ABF Pro Duct Clamp Kit** Includes inserts for: 3 mm duct 5mm duct 7 mm duct 8 mm duct	
FOTA-ABFPRO-2F-24F-KIT	**Complete Kit for All Stingray Fiber Types** Includes: Fiber guides: 1.4 mm, 1.6 mm, 1.9 mm Duct clamp & inserts: 3 mm, 5 mm, 7 mm, 8 mm Nozzles: 3 mm, 5 mm, 7 mm, 8 mm.	

FOTX-ABF-NOZKIT-02	3, 5, 7 and 8 mm Nozzles (Set of 2)	
FOTX-ABF-BRKKIT-01	Brake Plate Kit	
FOTX-ABF-BRKKIT-02	Brake Pads (Pack of 10)	
FOTX-SXA1136161	Reel Expander	
FOTX-HSXA136136	Cardboard Reel Locking Ring	

FOTX-SXA1136247	Rubber Ring	
FOTA-HKFU901073/3	Air Filter 5 µm	
FOTX-SXA1139498/1	Clutch Cover	
FOTX-78/SBA16603012	Fiber Guide Screw	
FOTX-ABF-FGKIT-01	Fiber Guide Springs and 0-Ring Set	 x5 x10

FOTA-LTT-BKB90278	Replacement Battery	
FOTX-BML901295	Battery Charger & Accessories	

We, the undersigned, on behalf of Hexatronic UK Ltd, hereby declare that the product listed below conform to the REACH regulations EC 1907/2006, as well as pertinent clauses of the references mentioned herein. Based on the information available to us from our raw material suppliers, and our knowledge of the products' compositions the products listed below do not contain any substances mentioned in EU Directive 2011/65 EU. Based on the material content certifications provided by our suppliers, none of the substances restricted by the candidate list or RoHS-directive are present in materials we use in our products

The products listed below comply to EMC Test (electrical disturbances) according EN 61 000-6-2 (2005), EN 61 000-6-3 (2007) + A1 (2011).

FOTA-ABF-LTT1792040/ FOTA-ABF-LTT1792040/7/ FOTA-ABF-LTT1792040/US/ FOTA-ABF-LTT1792040/PRO

CE

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Unit B, Quay West,
Hardway, Gosport PO12 4LJ
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Kieran Stone
CEO, Hexatronic UK

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