

A Family Fingerprint Reader

User Manual

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1 Manufacturer's Declaration and Approval



WARNING

This is a Class A product. In domestic environment, this product may cause radio interference in which user may be required to take adequate measures.

FCC-Class A Declaration

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Modifications not authorized by the manufacturer may void users authority to operate this device.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CAN ICES-3 (A)/NMB-3 (A)



The device complies with the requirements of the EEC directive 2014/30/EU with regard to 'Electro-magnetic compatibility" and 2014/35/EU "Low Voltage Directive" and RoHS directive 2011/65/EU.


Therefore, you will find the CE mark on the device or packaging.

The following information is for EU-member states only:

Disposal of products

(based on EU-Directive 2012/19/EU)

Directive on Waste electrical and electronic equipment – WEEE)

	<p>The use of the symbol indicates that this product may not be disposed as unsorted municipal waste and has to be collected separately. Integrated batteries and accumulators can be disposed of with the product. They will be separated at the recycling centers.</p> <p>The black bar indicates that the product was placed on the market after August 13, 2005.</p> <p>By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environmental and human health, which could otherwise be caused by inappropriate waste handling of this product.</p> <p>For more detailed information about the take-back and recycling of this product, please contact your supplier where you purchased this product.</p>
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Changes or modifications not expressly approved by the manufacturer for compliance could void the User's authority to operate the equipment.

2 Supplier's Declaration of Conformity

Product Description: Fingerprint Reader

Model: FP A Family

Party issuing Supplier's Declaration of Conformity

Diebold Nixdorf Singapore PTE. LTD.

30A Kallang Place

#04-01

Singapore 339213

Phone: +65 6747 3828

Responsible Party – U.S. Contact Information

Diebold Nixdorf

5995 Mayfair Road

N. Canton, OH 44720 / USA

Phone: +1 330 490 5049

FCC Compliance Statement (for products subject to Part 15)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

3 About this manual

This manual informs you about everything you might need to know for the installation (hardware and software), the operation and the maintenance of your A Family Fingerprint Reader.



NOTE

Notes in the manual are marked by this symbol.



WARNING

This symbol is used for warnings.

4 The Parts in a Kit

The kit contains the A Family Fingerprint Reader.

5 About the Device

The A Family Fingerprint Reader module delivers a secure login and identification process for the retail sector. Via biometric analysis of fingerprints, it offers a perfect authentication for securing access into EPOS systems, especially in those retail environments that are accessible and open.

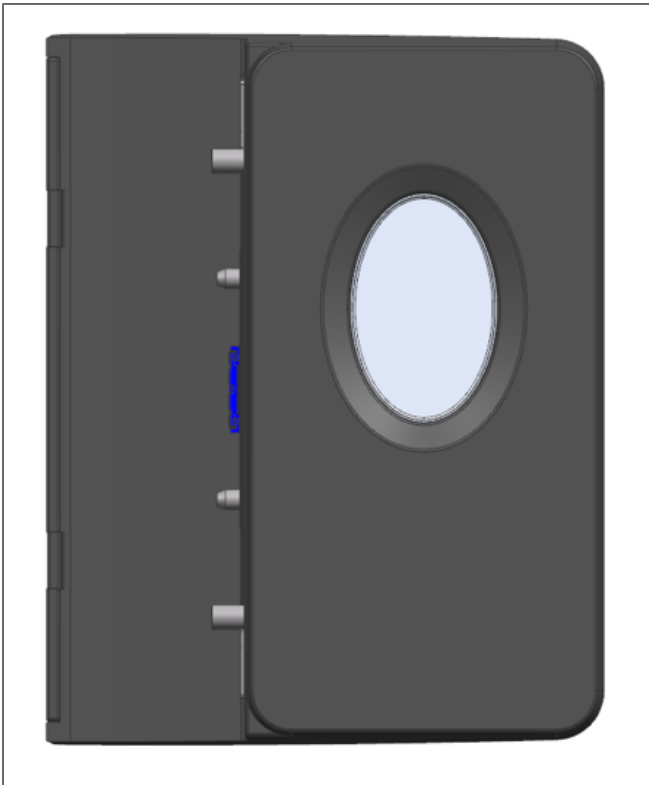


6 Installing the A Family Fingerprint Reader to the BEETLE A Family

Unpack the parts and check whether the delivery matches the details of the delivery note.

The Fingerprint Reader can be installed on either the right or the left side of the screen. You will find a flap at the rear side of the display at the position for the peripherals.

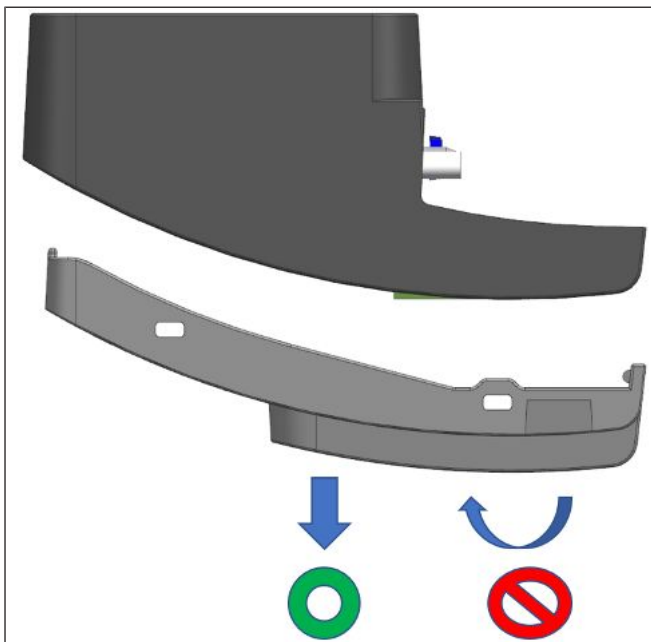
Follow the steps below to install the reader to the display.



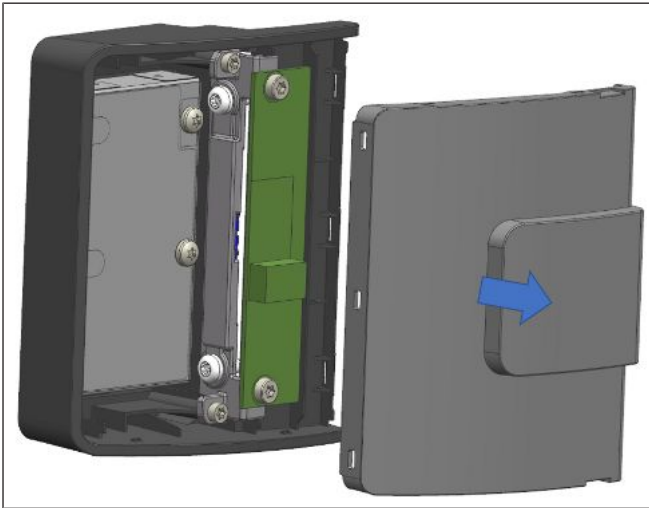
1. The Fingerprint kit is as seen. It contains the Fingerprint module.



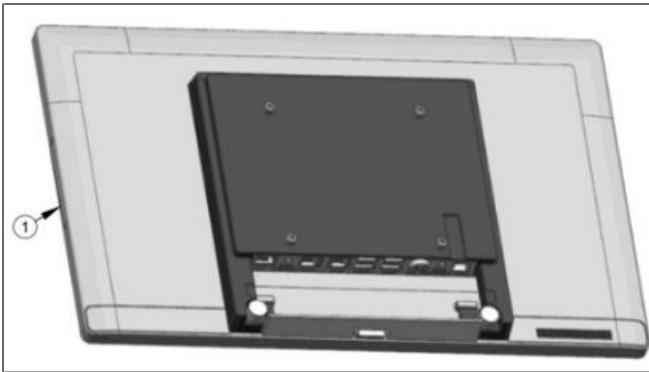
2. Gently remove the side cover by prying the 2 ends outwards (see arrows) with a small screwdriver.



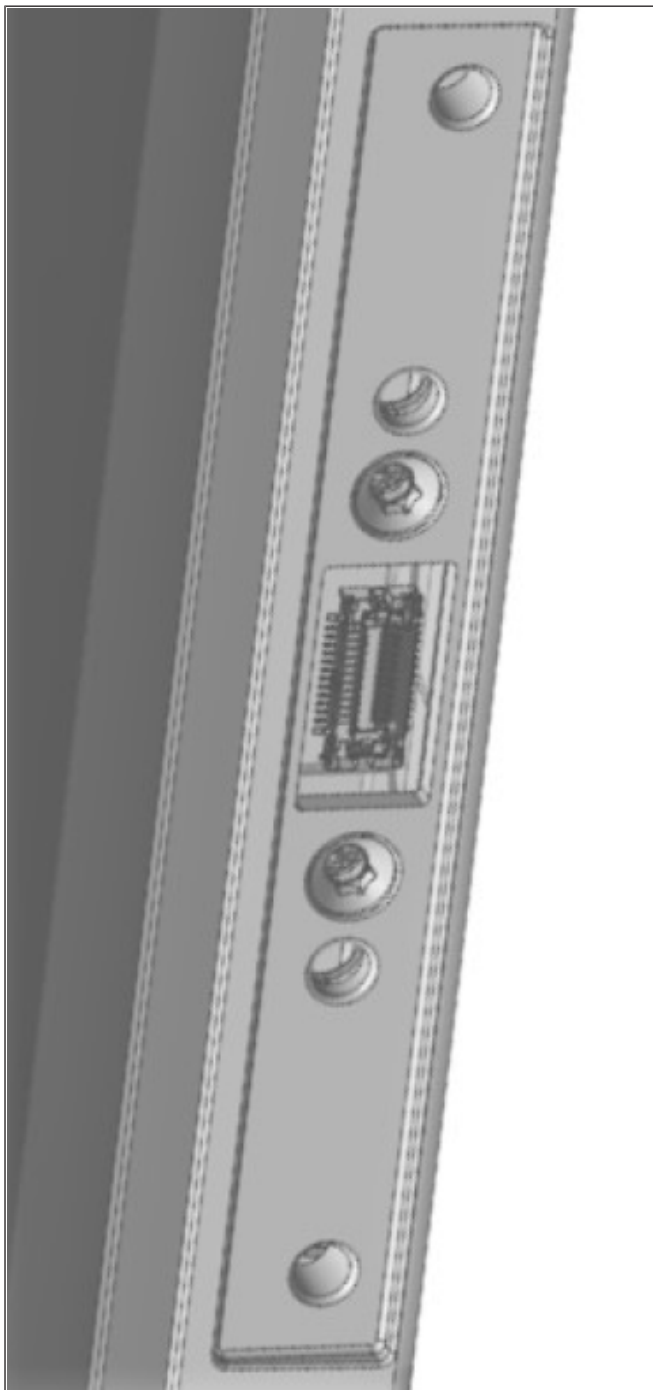
3. Then, slide the side cover out (see arrow).



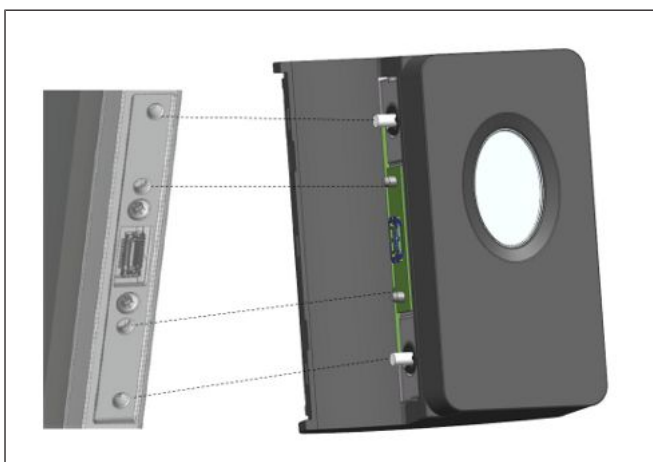
NOTICE! Make sure to slide out the side cover correctly.



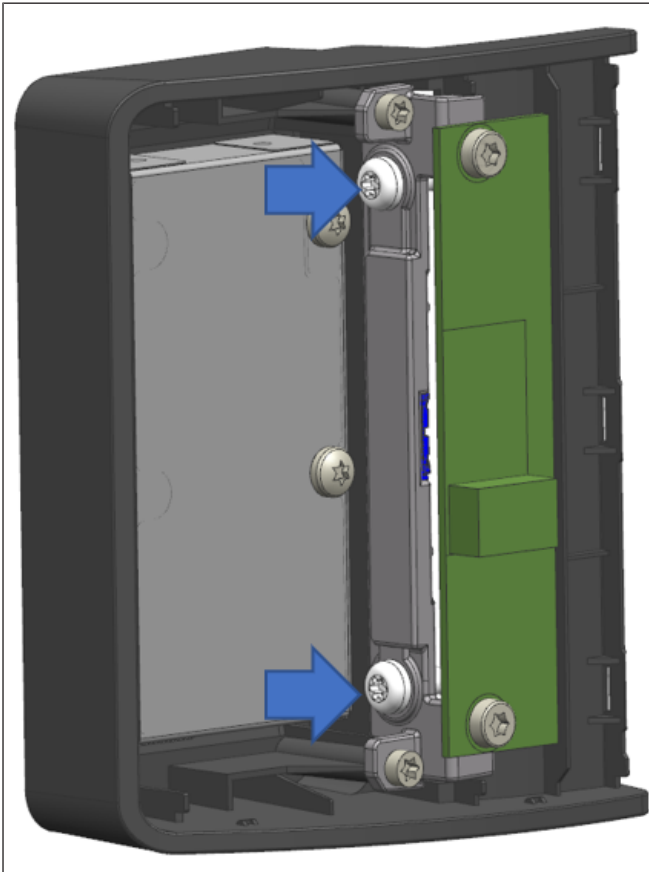
4. On the side to install the peripheral, remove the side-attach peripheral connection cover (1) of the BEETLE A Family.



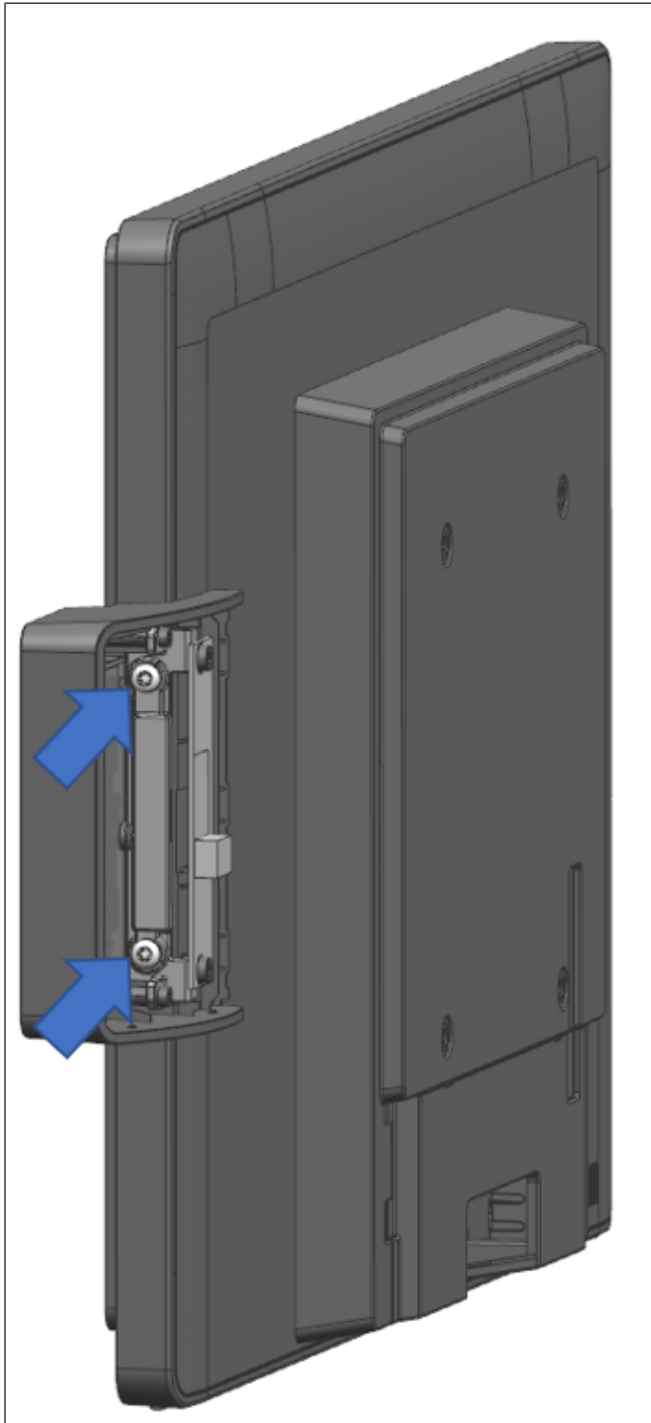
5. The side-attach peripheral connection cover is now removed as seen.



6. Insert the Fingerprint module into the now exposed USB port of the BEETLE A Family.
7. Fit each knob on the Fingerprint module into its respective groove on the system as indicated.

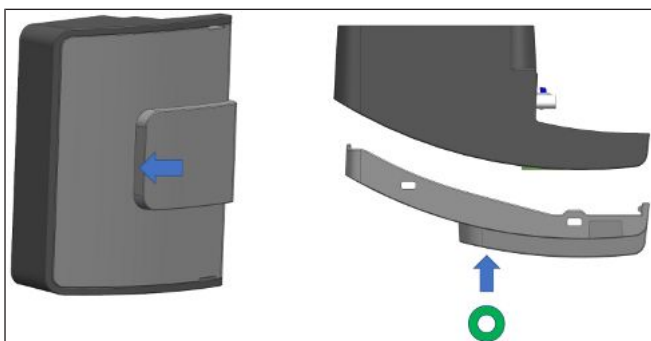


8. Position the screws to the correct location.

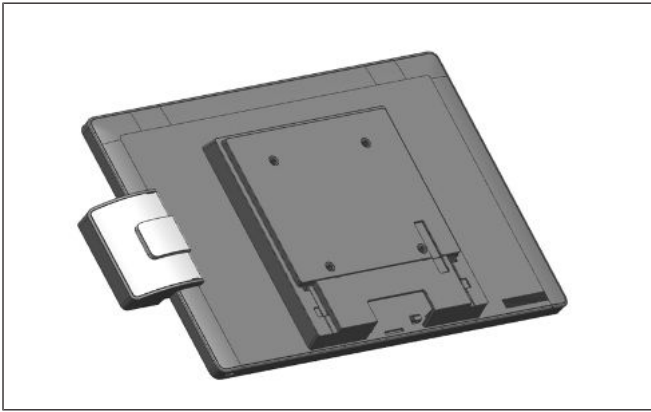


9. Then put on and tighten two M3x7 screws with Torx screwdriver (T-10).

Screw in torque = 5 to 7 kgf.cm



10. Re-attach the side cover (see arrows).



11. Re-attach the side cover. The Fingerprint module is now installed.

7 Software Installation

The Windows Biometric Framework (WBF) driver for Windows Hello login function can be downloaded for free from the below website. Look for DIGITALPERSONA 4500 WBF DRIVER to download.

<https://www.hidglobal.com/drivers>

For developers, system integrators and end-user who want to develop own application, HID Global offers Software Development Kits (SDK) at a subscriptions fee. For subscriptions fee, please visit the site with the link below.

<https://commerce.hidglobal.com/collections/development-center/products/access-to-the-digitalpersona-touchchip-developer-center>

The SDK include complete API, drivers and biometric engine for multiple platforms and language interface. For more information, please visit the site with the link below.

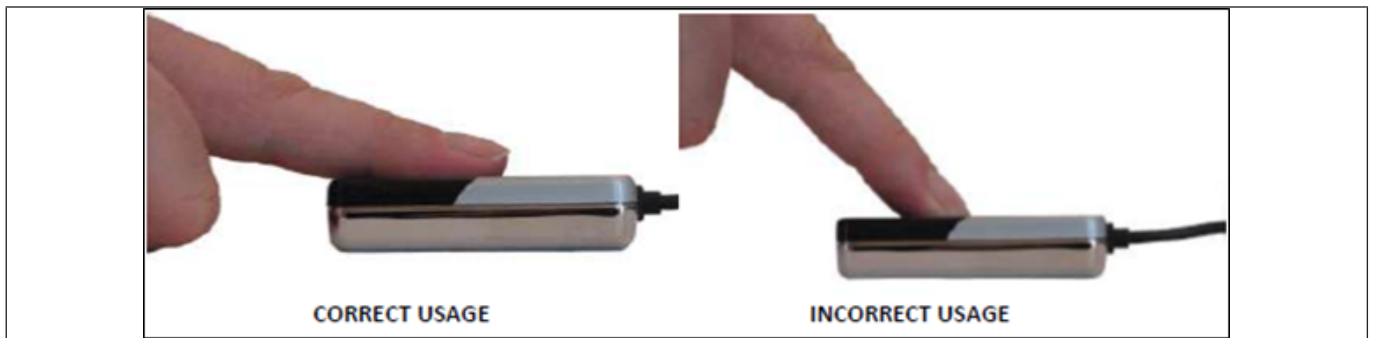
<https://www.hidglobal.com/developer-center/digitalpersona-touchchip>

8 Operating the Fingerprint Reader



The operation of the FP A Family depends very much on the software used or its implementation in the customer's POS application which Diebold Nixdorf does not provide. In any case, fingerprint reading is very simple, once it is activated and ready indicated by blue lighting on the window just press your thumb or index finger on the oval-shape window and wait for a prompt to indicate completion.

To have a repeatable fingerprint recognition place “pad” of the finger, not in the “tip” as shown in the picture below.



To encourage flat finger placement, it is important that the tilt angle of the module's window be horizontal or even slanted forward (away from the user) in all applications where the module is one foot or more below eye level.

Note on different finger skin conditions:

- Dry skin fingers
- Worn out fingers print pattern

If users are facing difficulties to detect or recognize finger, users may apply a thin layer of lotion or moisturizer on the finger skin for better detection and recognition.


8.1 Cleaning Instruction

Fingerprint Readers can be cleaned using the same Optical Cleaning Products used to clean eyeglasses or cell phone glass surfaces. These Optical Cleaning Products include lens tissues, microfiber cloths and cleaning solutions.

Use normal adhesive cellophane tape to pick the dust particles by lightly pasting it on the window and then peeling slowly until the window is cleared of all noticeable particles.

If user wants to disinfect the windows, they may use Ethanol or Isopropanol in a concentration of up to 70%. Apply the liquid to a soft lint-free material (as used to clean eyeglasses or camera lenses) or to a cotton swab and gently wipe the capture area.

If necessary, gently dab the fingerprint sensor (do not wipe) with a soft cloth (not paper) dampened with a mild ammonia-based glass cleaner to remove any milky haze.

	⚠ CAUTION
	<ul style="list-style-type: none">• Do not pour cleaning fluid directly on the fingerprint capture area.• Do not submerge the sensor in liquid.• Do not rub the fingerprint capture area with any abrasive material, including paper.

9 A Family Fingerprint Reader Module Specification

Model	FP A Family	
Host interface	USB 2.0 full speed	
Operating voltage	5V ± 5%	
Current consumption	Scanning	< 100 mA (Typical)
	Idle Mode	120 mA (Typical)
	Suspend Mode	< 0.5 mA (Maximum)
Operating Temperature	5° - 40° C	
Operating Humidity	20% - 80% non-condensing	
Storage Temperature	-10° - 60° C	
Storage Humidity	10% - 90% non-condensing	
Optical Sensors	Pixel resolution	512 dpi
	Scan capture area	14.6 mm x 18.1 mm
	Scan Data	8-bit grayscale (256 levels)
	Image Distortion	< 1% (Typical)
	Speed of Image Transfer	<0.17 seconds
Compatible System	DN A Family and D-series	

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