

Product Specification of FiTs II (Fiber Installation Tools)

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1. General Introduction

1.1 Description

The Fiber Installation Tools (FiTs II) is an instrument which provides an optical stable light sources and optical power meters. The universal main frame provides up to 4-CH FiTs II accordingly for installing power meter or light source module. The FiTs II is ideal for field or laboratory testing of optical network testing by changing the interchangeable module.

Download the Liverage official FiTs II APP, and get the IOS support version ≥ 9.0 , or [Android support version ≥ 5.0] mobile phone with Bluetooth could allow consumer to display the function of the FiTs II APP. FiTs II App functions: Reference function、switch measurement data for dBm/mW、save testing results and upload to Cloud、battery for FiTs II.

1.2 Features

- Pocket-size & rugged, handy stand alone design
- +5 ~ -70dBm power meter measurement range with SC/PC connector.
- +3/0/-3dBm optical power adjustable selectable for light source with SC/PC connector.
- Low cost and hot swap for both the light source and power meter module.
- Bluetooth transmission
- Support APP connection with Bluetooth.

1.3 Application

- Maintenance CATV / Telecom / FTTH fiber optical networks.
- Standard laboratory applications.
- Passive component fabrication.
- Optical fiber network traffic monitoring systems.
- Optical analog sensing system.

2. Specification

Operating Temp.	0℃ ~ 50℃
Storage Temp.	-20℃ ~ 70℃
Resolution	0.01 dB
Accuracy for Single mode	±0.3dB under calibrated condition
Accuracy for Multi mode	±0.5dB under calibrated condition
Power Supply	5V/1A
Dimension	168 * 108 * 36 mm
Weight	0.5 Kg

2.1. Power Meter Module selection guide

Calibration Wavelengths :	Power Range				Note
	Min.	Typ.	Max.	Unit	
1310nm , 1490nm , 1550nm	-60		+5	dBm	9 / 125 μm fiber
CWDM 1270nm ~ 1610nm	-60		+5	dBm	9 / 125 μm fiber
850nm VCSEL	-50		+5	dBm	62.5 / 125 μm fiber
1310nm , 1490nm , 1550nm	-70		+5	dBm	9 / 125 μm fiber For Return Loss Meter Module

2.2. Light Source Module selection guide

P/N: S20192320650	Min.	Typ.	Max.	Unit	Note
FP LD Output Power		0		dBm	SC / PC @ 25°C 62.5 / 125 μm fiber
Center Wavelength λ_c		650		nm	

P/N: S20193620850	Min.	Typ.	Max.	Unit	Note
VCSEL LD Output Power		0		dBm	SC / PC @ 25°C 62.5 / 125 μm fiber
Center Wavelength λ_c		850		nm	

P/N: S20193321310	Min.	Typ.	Max.	Unit	Note
FP LD Output Power	-3	0	+3	dBm	SC / PC @ 25°C 9 / 125 μm fiber
Center Wavelength λ_c	1290	1310	1330	nm	

P/N: S20193321550	Min.	Typ.	Max.	Unit	Note
FP LD Output Power	-3	0	+3	dBm	SC / PC @ 25°C 9 / 125 μm fiber
Center Wavelength λ_c	1520	1550	1570	nm	

P/N: S20193421310	Min.	Typ.	Max.	Unit	Note
DFB LD Output Power	-3	0	+3	dBm	SC / PC @ 25°C 9 / 125 μm fiber
Center Wavelength λ_c	1290	1310	1330	nm	

P/N: S20193421550	Min.	Typ.	Max.	Unit	Note
DFB LD Output Power	-3	0	+3	dBm	SC / PC @ 25°C 9 / 125 μm fiber
Center Wavelength λ_c	1530	1550	1570	nm	

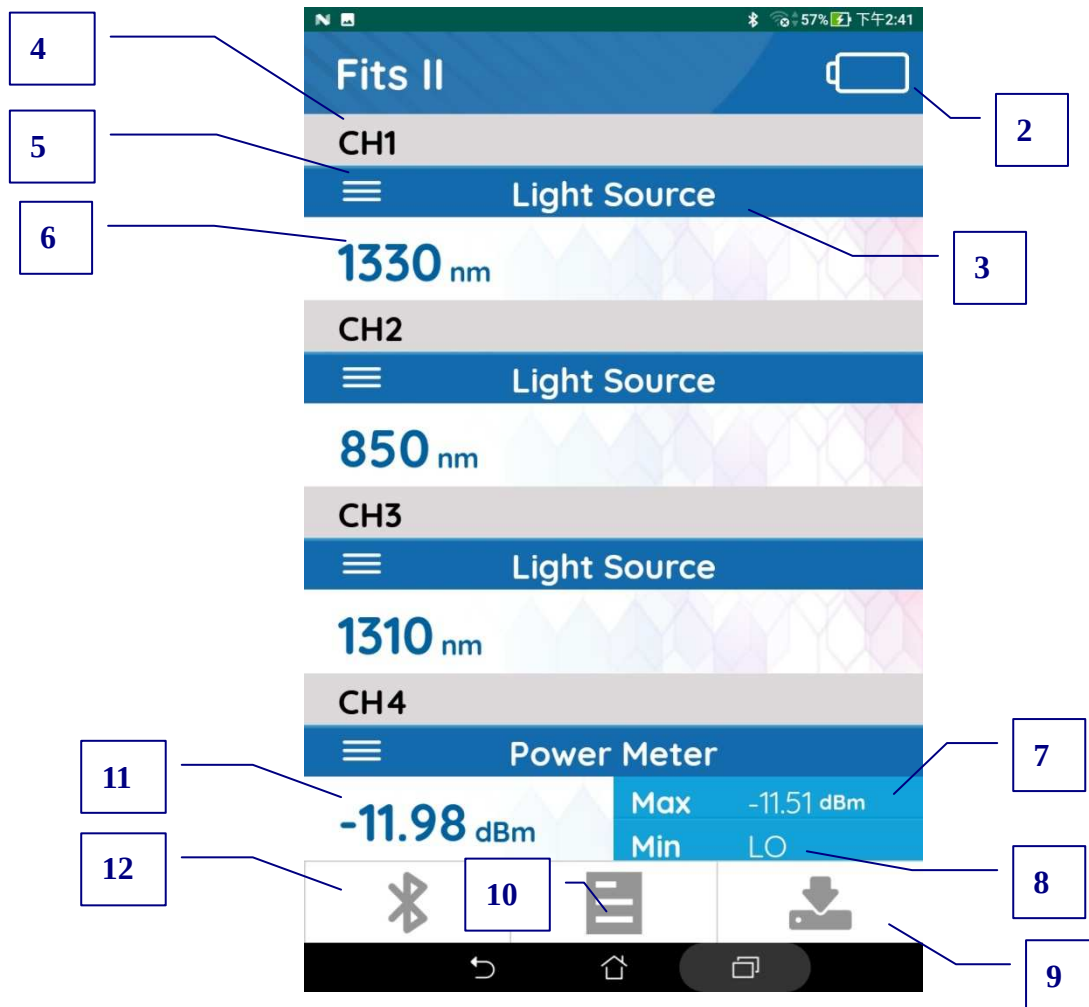
P/N: S2019352xxxx	Min.	Typ.	Max.	Unit	Note
CWDM LD Output Power	-3	0	+3	dBm	SC / PC @ 25°C 9 / 125 μm fiber
Center Wavelength λ_c	λ_c *- 3	λ_c *	λ_c *+3	nm	

* CWDM LD λ_c : S2012352xxxx= 1270 nm / 1290 nm / 1310 nm / 1330 nm / 1350 nm / 1370 nm / 1390 nm / 1410 nm / 1430 nm / 1450 nm / 1470 nm / 1490 nm / 1510 nm / 1530 nm / 1550 nm / 1570 nm / 1590 nm / 1610 nm / 1625 nm

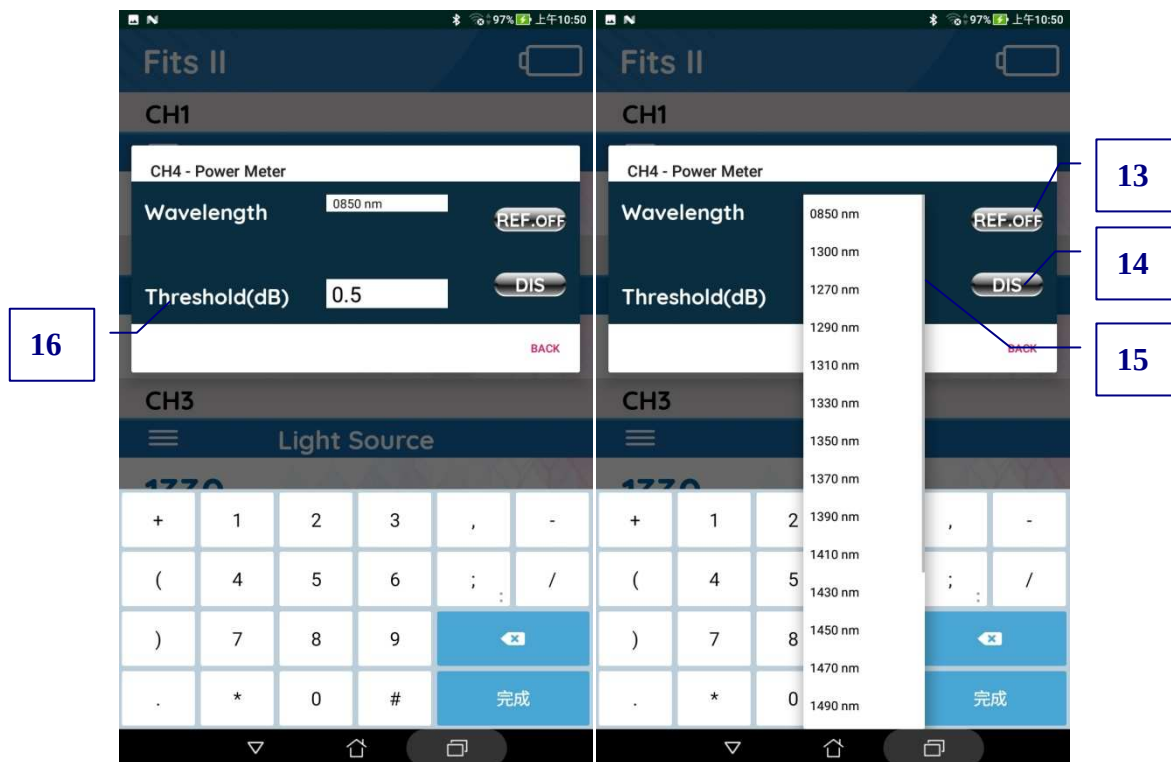
2.3 APP ICON & Interface



1. ICON:FiTs II APP ICON



2. **Battery:** Battery of FiTs II.
3. **Module Instruction:** When no module plug in, show ---, when plug in the Light Source or Power Meter module, would show the type of the module.
4. **Channel:** Show Channel.
5. **Setting:** Setting Light Source module or Power Meter.
6. **Wavelength:** Show Light Source module wavelength.
7. **Maximum:** Maximum of optical Power.
8. **Minimum:** Minimum of optical Power.
9. **Save:** Save the All Power Meter Data.
10. **Data:** Show the All Power Meter Data..
11. **Power Meter:** Show receiver O/P, when O/P over +5dBm or lower -70dBm, will show Hi or Lo.
12. **Bluetooth:** Search Bluetooth device of the Power Meter.

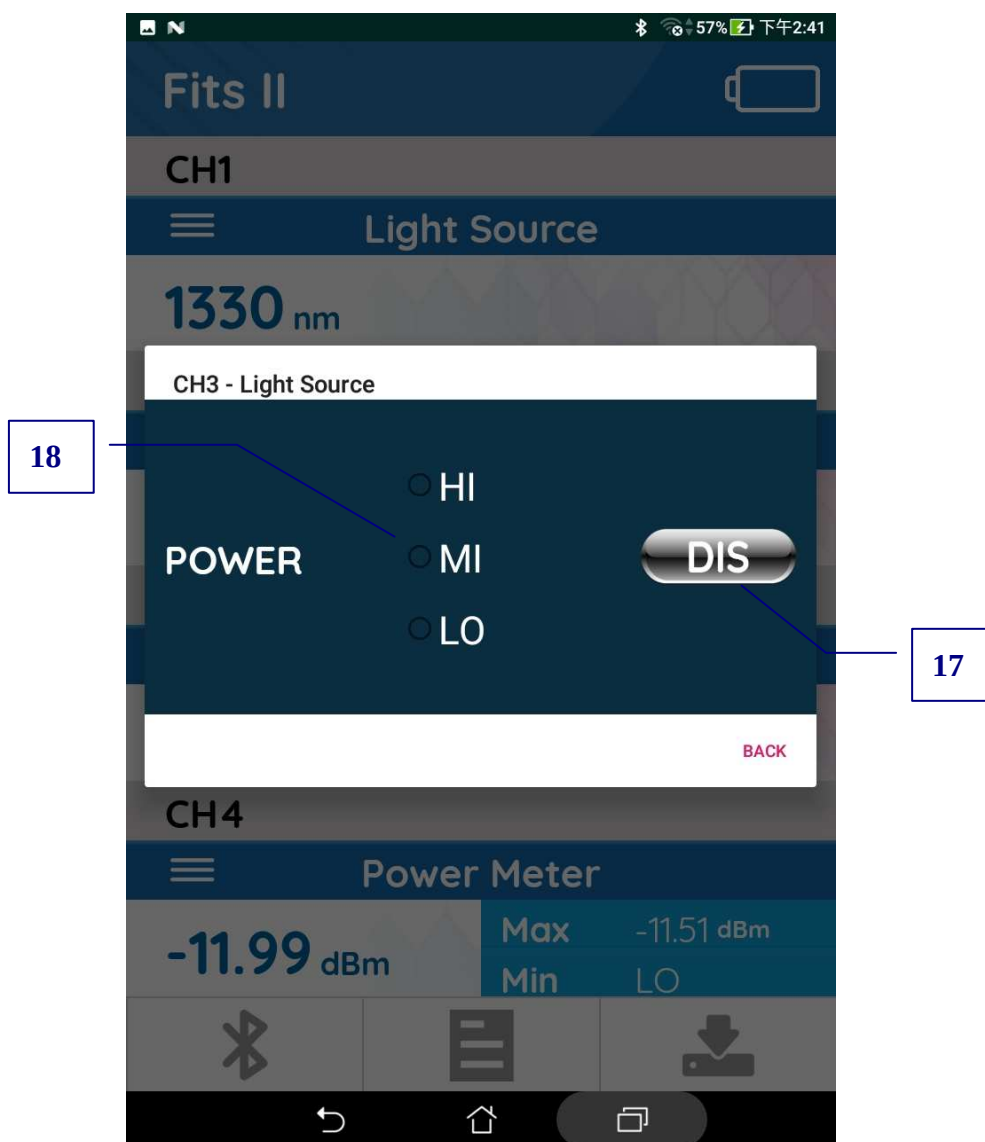


13. Reference: Do the Power Meter reference for the DUT test.

14. Turn ON / Turn OFF: Turn ON/ Turn OFF Power meter module function.

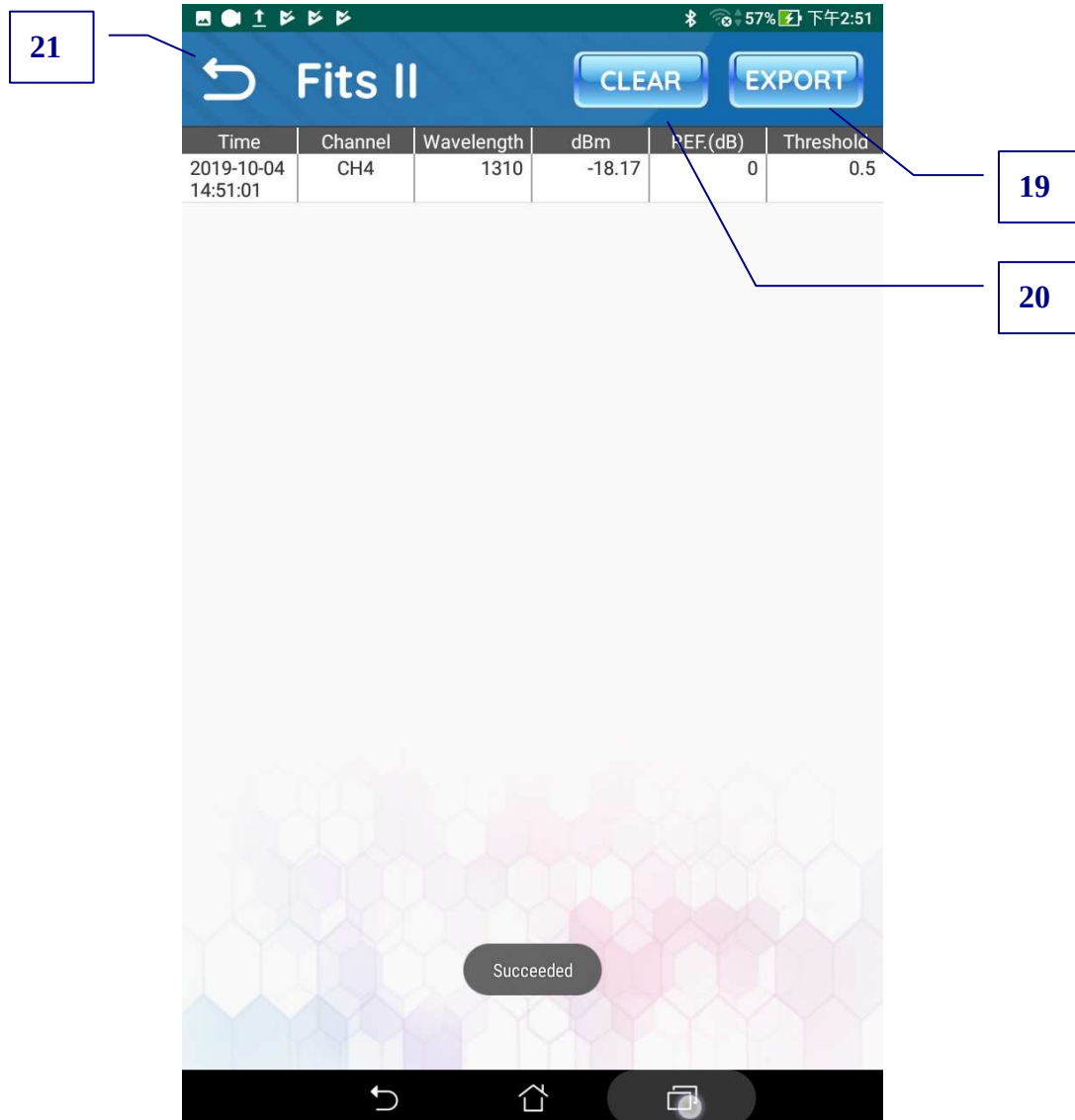
15. Wavelength Change: Choose the wavelength for the Power Meter measurement.

16. Threshold: Testing SPEC range setting, If the result higher or lower the setting SPEC, then the Power Meter result would show with RED word. (Do REF before DUT test)



17. Turn ON / Turn OFF: Turn ON/ Turn OFF Light Source module.

18. Output Power: Light Source output power select with High / Low / Medium.

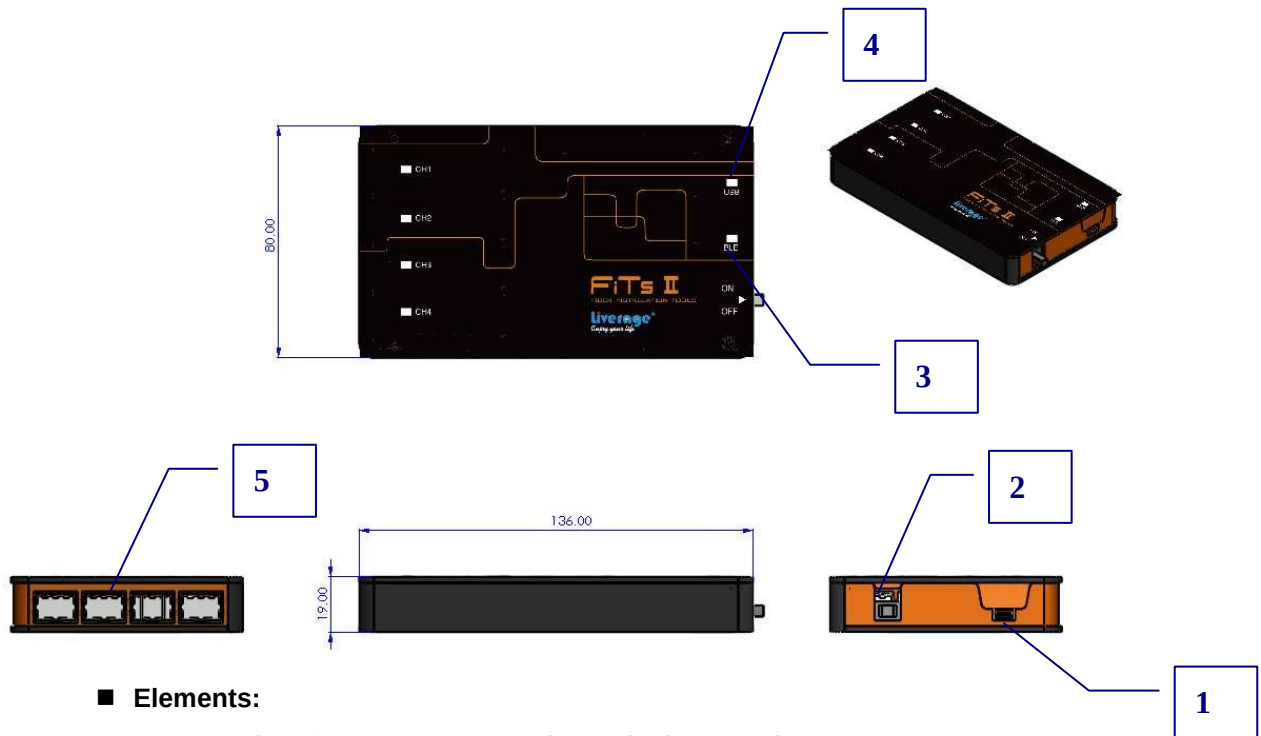


19. Back: Back to previous page.

20. Output Power: Light Source output power select with High / Low / Medium.

21. Output Power: Light Source output power select with High / Low / Medium.

3. Elements & Operating Instructions



■ **Elements:**

1. **USB interface** : To connect the optical power data to you PC.
2. **Switch** : Turn ON/OFF the Device.
3. **Bluetooth LED indicator**: In Operation indicator is shown Green.
4. **USB LED indicator**: In Operation indicator is shown Green.
5. **module Pug-In Cage** :for Light Source or Power meter module installation.

4. Maintenance

Compliance with other type of electronic equipments, this **FiTs II** should be kept away from water, high humidity, dust, electricity, and environments of extreme temperatures. Do not drop this tool on any hard surface!

The product warranty is one year. Internal modification of any of the **FiTs II** components can cause a malfunction and will invalidate the manufacturer's warranty.

5. Ordering Information

FiTs II Main Frame					
Part Number	Description				
S20193009999	4 ports	FiTs II mainframe / USB Cord			
Light Source Module					
Part Number	Media	Wavelength	Description		
S20192320650	SC MM	650 nm	Visible LD Light Source Module		
S20193620850	SC MM	850 nm	VCSEL LD Light Source Module		
S20193321310	SC SM	1310 nm	1310nm FP LD Light Source Module		
S20193321550	SC SM	1550 nm	1550nm FP LD Light Source Module		
S20193421310	SC SM	1310 nm	1310nm DFB LD Light Source Module		
S20193421550	SC SM	1550 nm	1550nm DFB LD Light Source Module		
S2019352xxxx	SC SM	1270 nm ~ 1610 nm	CWDM LD Light Source Module		
Power Meter Module					
Part Number	Wavelength		Connector	Rang	Accuracy
S20194122	1310 / 1490 / 1550 nm		SC	-60 ~ +5 dBm	+/- 0.3 dB
S20194122-P	1310 / 1490 / 1550 nm		SC	-70 ~ +5 dBm	+/- 0.3 dB
S20194325	850nm CWDM 1270~1610 nm		SC	-50 ~ +5dBm -60 ~ +5 dBm	+/- 0.3 dB
S20194328	850nm 1310 / 1490 / 1550 nm		SC	-50 ~ +5dBm -60 ~ +5 dBm	+/- 0.3 dB

6. Warranty

The manufacturer warrants this product to be free of defects in workmanship and materials for a period of one year after purchase. This warranty (excluding batteries) is solely limited to the repair or replacement of the original parts. All other costs are the sole responsibility of the owner. This warranty does not cover any defects, damage, or deterioration due to misuse, alteration, or negligence.

7. Service Contacts

Please contact us:

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8. Records of Revision

RECORDS OF REVISION		
VERSION	Date	Description
VER A	2019.10.16	Initial Released
VER B	2019.11.14	Corrected content
VER C	2020.06.16	Corrected content
VER D	2020.09.16	Modify P/N