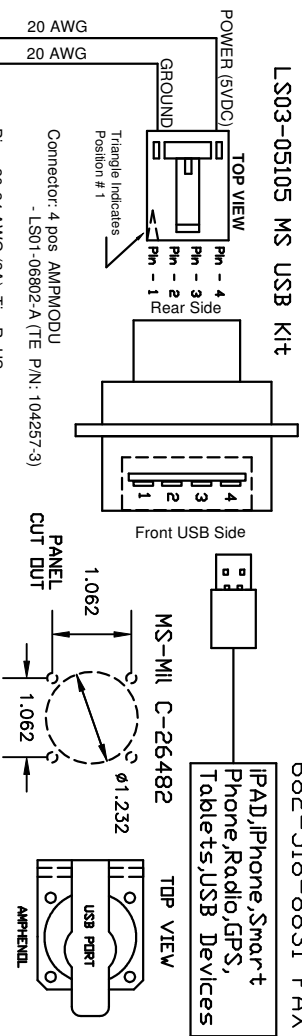


Lone Star Aviation recommends the use of Apple MFi Certified and tested USB Lightning Cables such as the Lone Star Aviation LS03-05037 & LS03-05038 Ruggedized USB Cables.

LS03-05105 MS USB Kit



LONE STAR AVIATION CORP.
 604 S. WISTERIA ST.
 MANSFIELD, TX 76063
 682-518-8882
 682-518-8831 FAX

IPAD, iPhone, Smart Phone, Radio, GPS, Tablets, USB Devices

Mounting Limitations:
 Mount DC Converter in electronics bay or cabin equipment rack near on board avionics equipment or electronics.

Item	Description	Quantity
1	AN 526 Screw 6-32 R	4
2	AN 960 Washer	4
3	AN356-632- Locknut	4

Connector Kit:

PN: LS03-05026 - DB-25 pin size, 5pins, 10 Amp Solder cup, Gold plated

DC Converter / MS-USB Kit:

PN: LS03-05105 Includes:
 LS03-05003-005 - 24v - 5v DC Converter
 LS03-05026-(-) - Connector kits -(A,B,C,D)
 LS03-05050-B - MS-USB panel mt.

UL94V-0, -40°C to +70°C
 - TE Conn, 4 pos. (104257-3)
 LS01-06802-A - Pins 20-24 AWG (104479-2)
 LS01-06805 - 20-24 AWG, Tin (104479-2-CT)
 Optional Pins -20-24 AWG, Gold (1-104479-2)

(Additional Equipment)
 Hand Crimp Tool - TE Conn. 91601-1 Crimper

- FAA AC 43.13: Aircraft Mods, Alterations
- FAA AC 20-173: Installation of EFBS
- FAA AC 120-76B: Operational use of EFBS
- FAA AC 91-178: Use of Class I or II EFBS

MS-USB Receptacle	5V USB Charging Device
LONE STAR PART NO.	LS03-05050-B (5.3V 2.4A)

REV	ECH #	ZONE	DESCRIPTION OF CHANGE(S)	DATE	PREPARED/APPROVED
REV-0			INITIAL RELEASE	12-16-11	JRM
REV-1			Res Chg./IPad 4, Pins(20awg)	3-5-13	JRM
REV-2			pin p/n, Input A, Equip Inspec	8-21-15	JRM
REV-3			Defined specs for MS-USB kit	8-18-17	JRM
REV-4			Updated MS-USB kit	4-11-18	JRM
REV-5			Corrected Cutout Dim.	8-17-18	JRM

NOTE: For multiple MS-USB LS03-05050-B installations, contact the factory for engineering assistance and guidance

Product Specifications: LS03-05003-005 Model
 Input Voltage (nom.): 28v DC
 Input Current: 0.5 Amps
 Circuit Breaker (1 MS-USB): 0.5A (@28v DC)
 Output Voltage (nom.): 5.3v DC
 Output Current: 7 Amps (cont.)
 Physical Dimensions: 2.50W x 3.70D x 1.00H
 Weight: 3.88 oz. 110g

LS03-05050-B incorporates an Auto-Detect circuit compatible with Apple and other USB PED devices. The eFuse circuitry provides precision current limit & over-voltage clamp, along with output short-circuit protection

Operating Instructions:
 The LS03-05003-005 converts 28v DC to 5v DC (adjustable). Up to 7 Amps of output current is possible
 The LS03-05050-B MS-USB provides up to 2.4 Amps for quick charging of PEDS.
Installation: Connect the Input (+Vin), A1, to the aircraft buss with appropriate 16 AWG wire and Circuit Breaker. Connect Grd, A2, to aircraft ground with appropriate 16 AWG wire.
 Connect Output (+Vout), A3, to MS-USB.
 Connect Remote (On/Off), A4, to 28v DC switch and set piano tabs for REMOTE.
 Default piano tab setting is DIRECT POWER, no connection to A4 is necessary.

Product Testing:
 TSO Testing: Paper 100-54/DO-60
 TSO C71: Category A
 Remote On/Off = Left tab down (piano tab pos) Right tab up
 Direct Power = Left tab up (piano tab pos) Right tab down

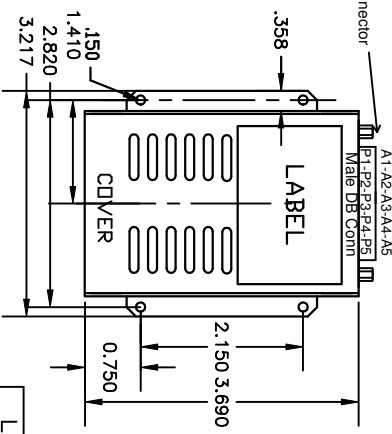
Product Specifications: LS03-05050-B
 Input Voltage (Min/Max): 5.3 VDC / 7.2 VDC
 Input Voltage (Protection): 20 VDC
 Output Voltage (Min): 5.0 VDC
 Output Current (Max): 2.5 A ±6.5%
 Operating Temp. (Min/Max): -40°/+70°C
 Thermal Shutdown (Norm): 155°C
 Thermal Shutdown (SO): 135°C
 Short Circuit Time (resp): ~3.5 us
 Altitude (Max): 50,000 ft

Protections (LS03-05050-B):
 O.V., O.C., O.T., U.V., S.C.
Equipment Inspection: Annual
 Visual inspection for the following:
 1. Enclosure: Check hardware to mounting plate.
 2. Connector: Check hardware, power cable.
 3. USB Cable: Check for Damage near connector

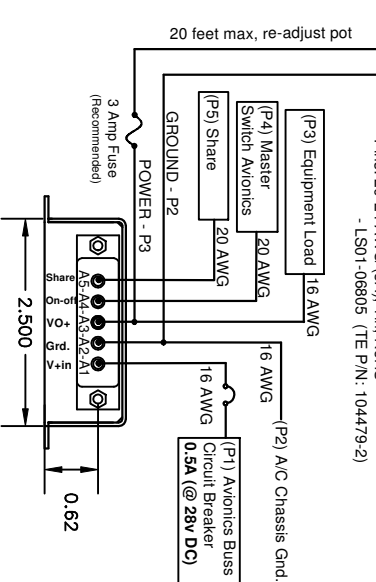
Damaged Equipment Procedure:
 If equipment fails to function or meet original specification call the factory for a replacement.

UNLESS NOTED OTHERWISE TOLERANCE BLOCKS DIMENSIONS ARE IN INCHES
 DIMENSIONS ±.030 ANGULAR ±1°
 XXX ±.015
 XXXX ±.0005
 DO NOT SCALE DRAWING
 MATERIAL N/A
 FINISH N/A

PRELIMINARY THIS DOCUMENT AND THE DATA DISCLOSED HEREIN IS NOT TO BE REPRODUCED, USED FOR, OR IN PART TO AUTHORIZE WITHOUT WRITTEN AUTHORIZATION FROM LONE STAR AVIATION
 APPROVED BY: JRM
 DATE: 12-16-11
 DRAWN BY: LMD
 DATE: 12-16-11
 TITLE: MS-USB Kit (LS03-05105) Installation
 INST DRAWING NO: LS03-05003-06
 SCALE: NDNE
 SHEET: 2 of 2



Female Connector Kit
 LS03-05026 - plastic hood
 See web for alternate pin



Connector: 4 pos AMPMODU
 - LS01-06802-A (TE P/N: 104257-3)
 - LS01-06805 (TE P/N: 104479-2)
 Pins: 20-24 AWG (3A), Tin, RoHS