Proposal for iFixit repair

Date: 22 October 2018
To: Dr. Janice Cools-Stephens, iFixit EDU
From: Mr. Jay Fude
Team Tag: MWSU-COOLS STEPHENS-F18S1G2
Camera: Canon EOS XS with 10.1 megapixels
Subject: Ifixit proposal: Troubleshooting USB-Micro Power Adapter

I propose to create an iFixit guide demonstrating the troubleshooting of various USB-Micro power/charging (12V, 120V, from device i.e. computer) devices. I was unable to find on iFixit any guides on adapters for electronic devices. Similar guides could be created for laptop power supplies as a complement, or modification of this guide to include same.

Title:

Proposed title “Troubleshooting USB-Micro Power Adapter”

Procedure:

I. Function check: power output from USB-Micro adapter (standard car charging)
   A. Using micro breakout, multimeter (Image required)
   B. Ensure proper polarity, voltage (zoom of image A)
II. Internals: open adapter when failure is detected (except for computer/other device)
   A. check fuse – use multimeter to confirm continuity (Image required)
   B. cabling – visual inspection for breaks, can confirm continuity (Image required)
   C. ICB/PCB components – inspect for obvious damage, can test using multimeter
III. Replacement: fuse, or damaged component
   A. Soldered in fuse/component replacement (Image required)
   B. Spade or automotive style fuse replacement (Image of types required)
IV. Re-test:
   A. Ensure voltages and functions as expected

Why this guide is needed: If a device does not charge, the problem could be the device, or its charging unit. Diagnosis of the charging unit, cabling or internals could save both time and money, and prevent objects from being prematurely discarded.

Tools required:

Multimeter, screwdriver, spudger, USB-Micro breakout board, possible spare parts, soldering gun, Variable 1-12v power source, or standard 12v power outlet (cigarette lighter style).

Risk analysis:

Slight risk, as testing live circuits required. Voltages/Amperages are low, and risks are minimal.