

CASCO PRODUCTS CORPORATION

DUAL SMART USB CHARGER 2.4 A

&

USB BRACKET

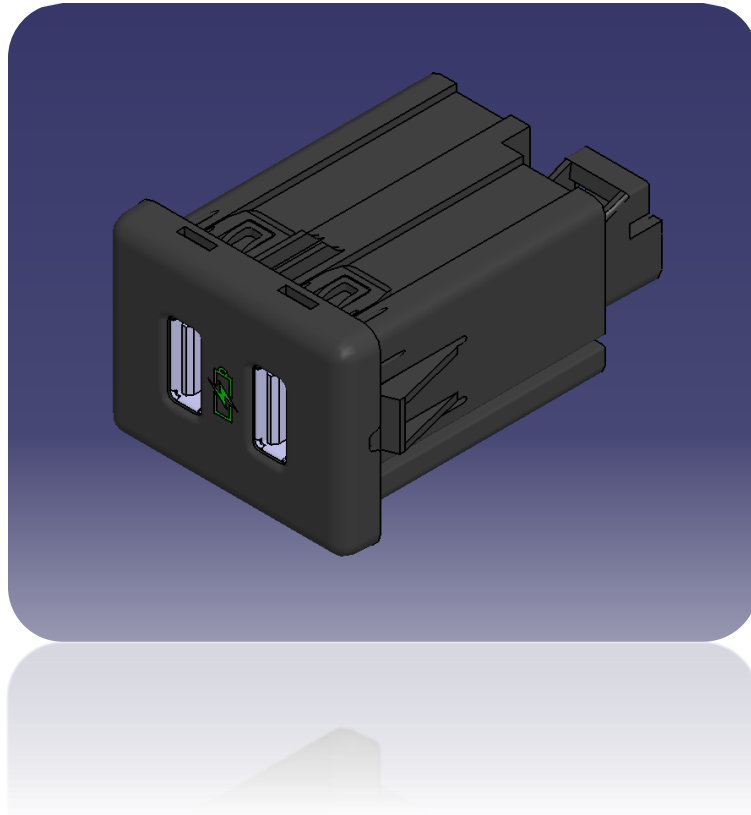
TECHNICAL MANUAL



SECTION 1

DUAL SMART USB CHARGER

1. Dual Smart USB Charger Overview

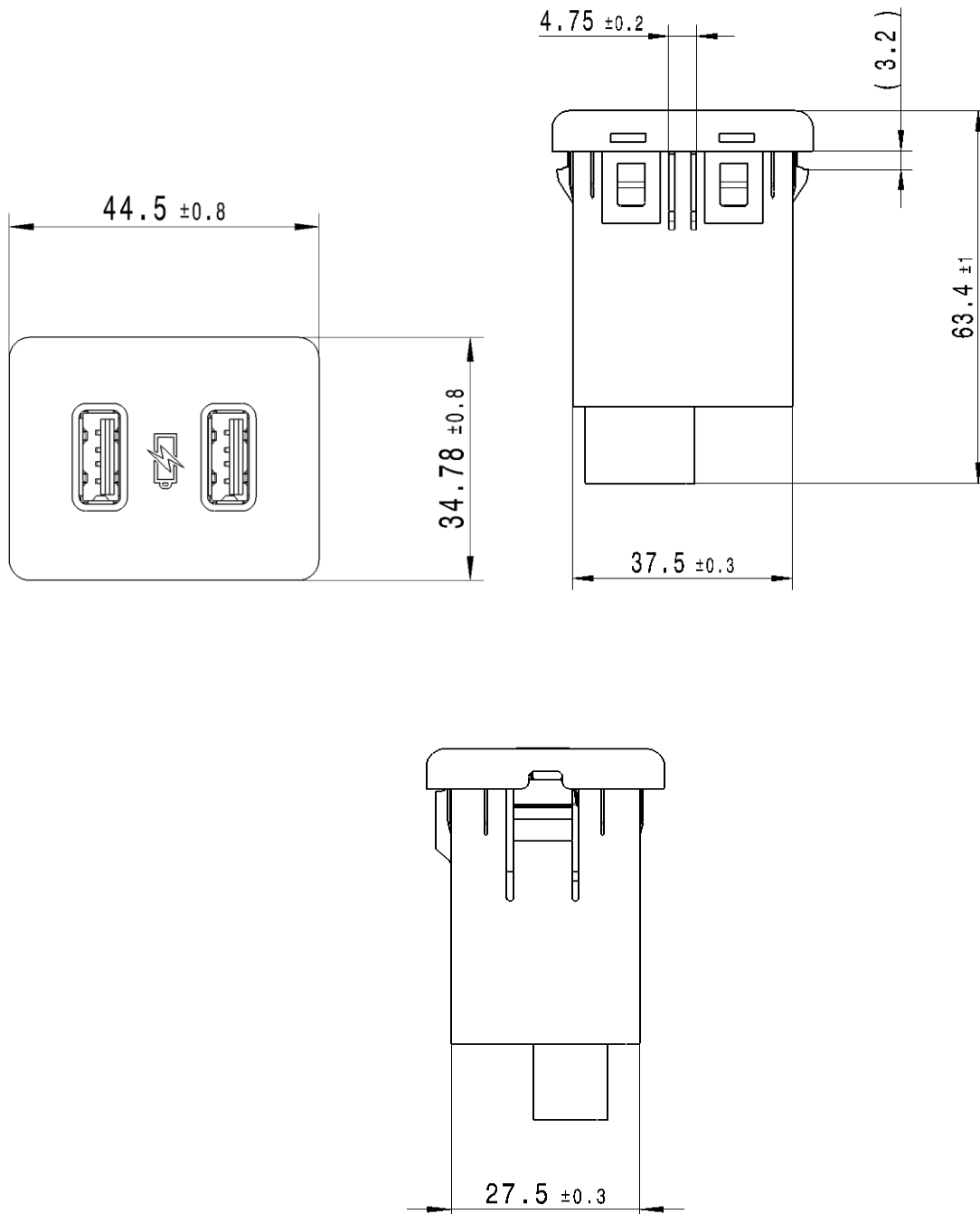


Dual Smart Charger

Dual Smart USB Charger Casco Part Number :1073100064

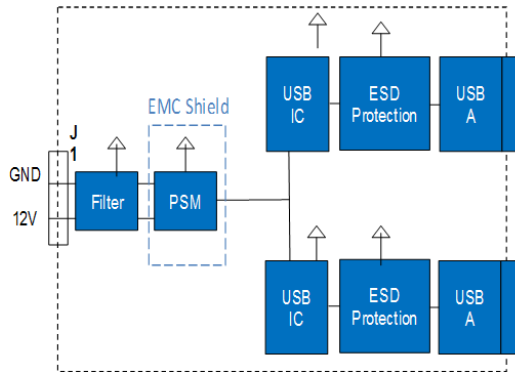
- Off-shelf product offering the latest in USB Charging technology
- Charges all common global cell phone interfaces and iPad/Tablet charging up to 2.4A
- Independent charging – each port at 2.4A (i.e. can charge 2 Tablets)
- Low quiescent current allows for charger to be connected to battery

2.Mechanical Specifications



3. TECHNICAL SPECIFICATION

Block diagram



J1 Mating Connector: Delphi 12052832

- Supports all commonly known charging profiles, enabling optimal device charging rates
- Charges two devices simultaneously at optimal current, up to 2 x 2.4A
- Integrated ESD protection to protect against damage from electrical static discharge
- Power supply unit with built in over and reverse voltage protection
- Tuned and shielded for low radiated emissions, preventing interference with nearby electronics
- Commonly available, low cost, integrated connector
- Operation across a wide voltage range, from 9 - 16V (12V nominal)
- Over temperature protection prevents damage if used with non-USB compliant devices

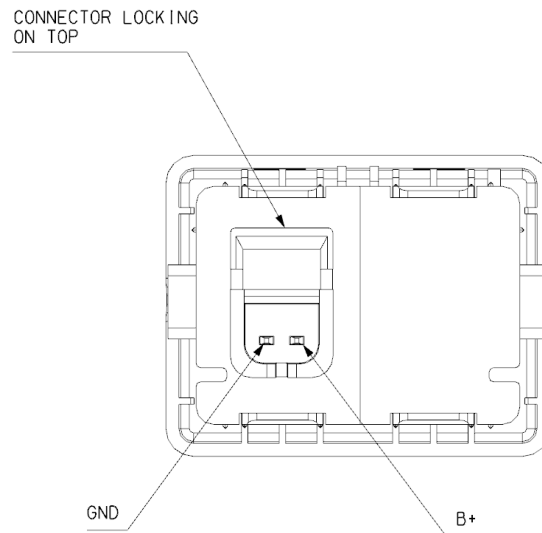
Supported Charging Profiles

- BC1.2
- China Telecom YD/T
- Divider 1 Mode
- Divider 2 Mode
- Divider 3 Mode
- 1.2V Divider Mode

4. PERFORMANCE SPECIFICATIONS

Jump Start	Withstand 26.0V for 1 minute without performance degradation
Reverse Polarity	Withstand -13.5V for 1 minute without performance degradation
Operating Voltage Range	Maintain operation across 9 to 16V range without performance degradation
Operating Temperature Range	Maintain operation across -40 to +85C range without performance degradation
Storage Temperature	Withstand 500 hours at +95C without performance degradation
Vibration	Withstand 50 hours of random vibration at 19m/s ² in X, Y and Z directions without performance degradation
Humidity	Withstand 10 days at +65C and 90%RH without performance degradation

5.MATING CONNECTOR DETAILS:

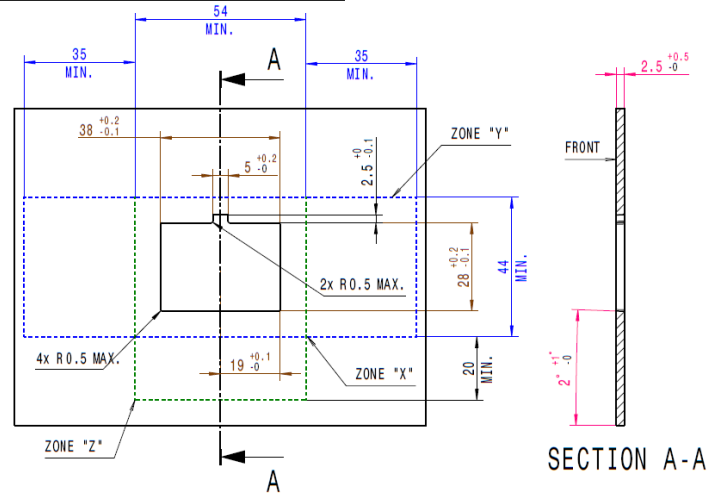


Molded in connector: Delphi 12186848

Harness connector: Delphi 12052832

6.MOUNTING PANEL SPECIFICATIONS

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NOTES:

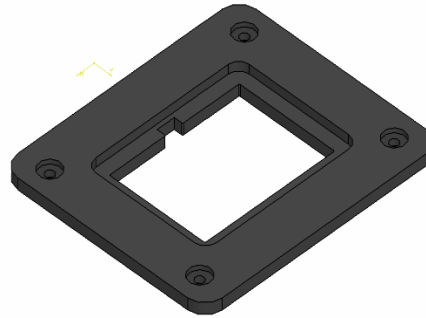
- THE REAR PANEL SURFACE SHALL BE UNIFORMLY FLAT WITHIN AN AREA 5mm FROM THE HOLE EDGE.
- THE FRONT PANEL SURFACE "A" SHALL NOT EXCEE 0.3mm IN A RAISED DIRECION FROM THE PANEL HOLE SURFACE WITHIN ZONE "Y".
- CLEARANCE ZONE "Y" IS FOR USE OF AN ETRACTION TOOL AND ZONE "X" IS FOR FLATNESS OF THE PANEL.
- CLEARANCE ZONE "Z" IS FOR A PULL OFF DUSTCOVER.

MOUNTING PANEL SPECIFICATION

SECTION 2

MOUNTING BRACKETS

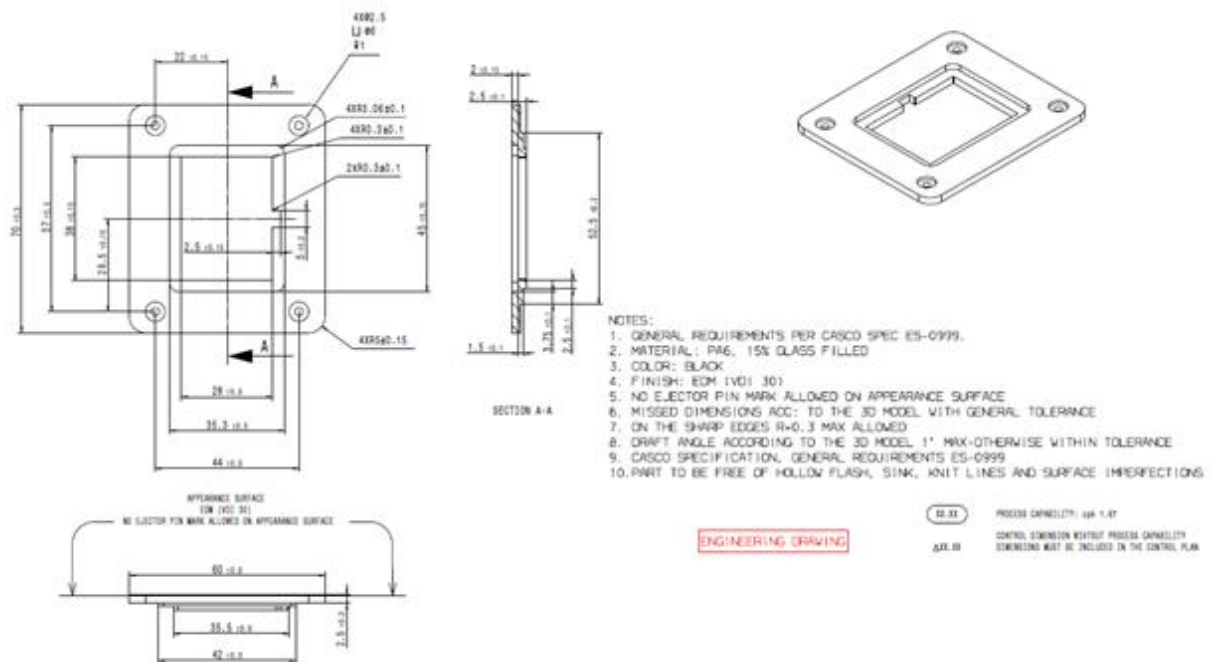
2.1 FLUSH MOUNT BRACKET FOR DUAL SMART CHARGER



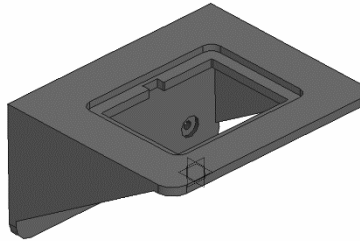
3D VIEW FLUSH DASH (IP) MOUNT BRACKET

Flush Mount USB Bracket Casco Part Number:1073200090

2.2 SPECIFICATION OF FLUSH MOUNT BRACKET



2.3 UNDER DASH (IP) MOUNT BRACKET FOR DUAL SMART CHARGER

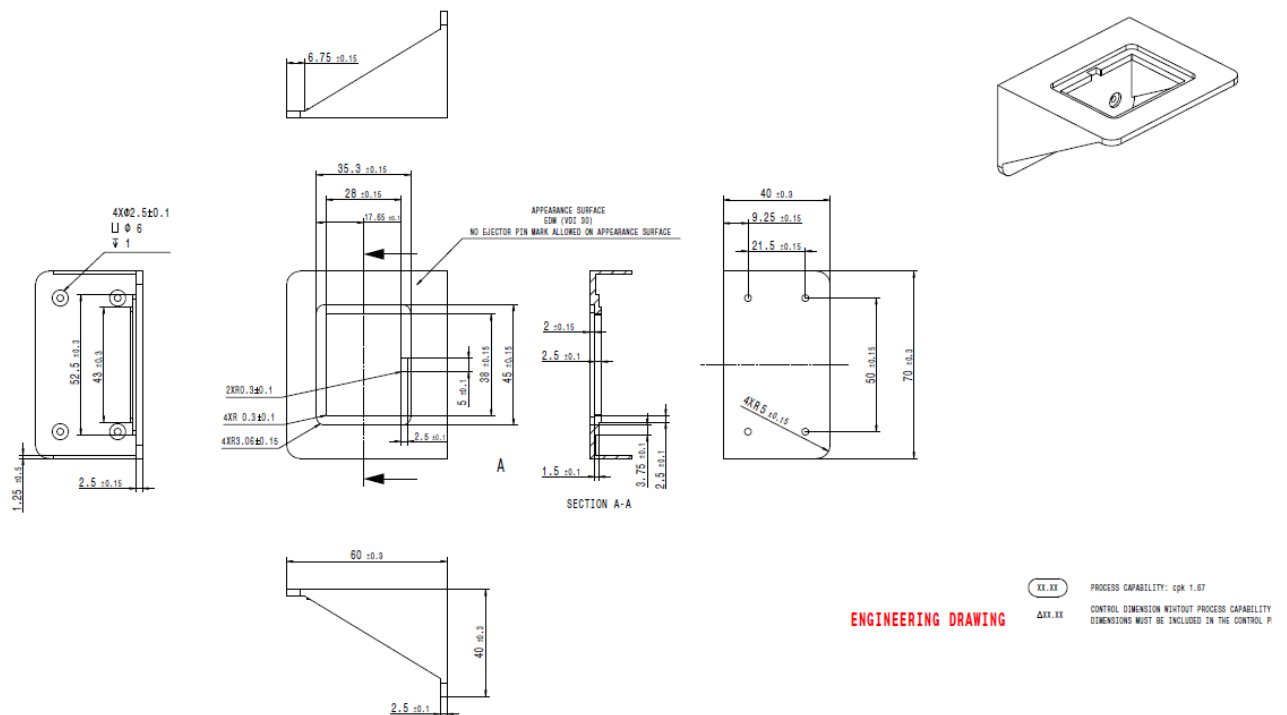


3D ISO METRIC VIEW UNDER DASH (IP) MOUNT BRACKET

Note: All technical specifications are included in the next version for the manual.

Under Dash (IP) Mount USB Bracket Casco Part Number:1073200091

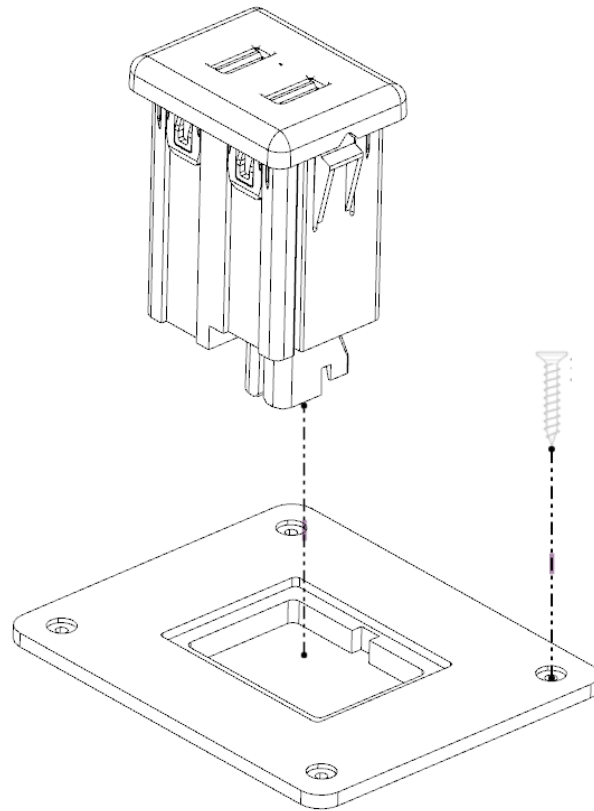
2.4 SPECIFICATION OF UNDER DASH (IP) MOUNT BRACKET



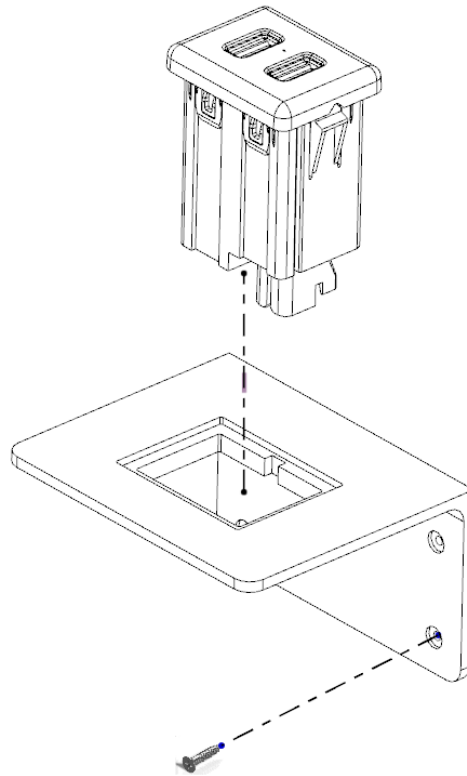
SECTION 3

INSTALLATION INSTRUCTIONS

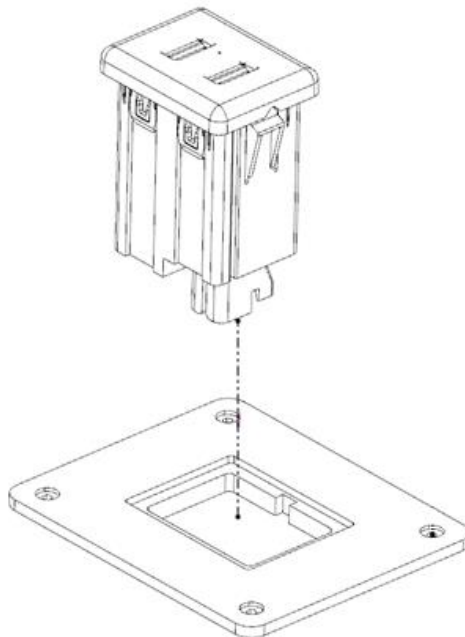
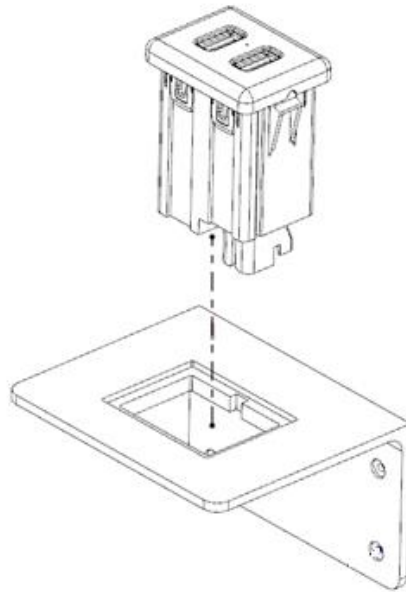
3.1 USB FLUSH MOUNT INSTALLATION INSTRUCTIONS



3.2 USB UNDER DASH (IP) MOUNT INSTALLATION INSTRUCTIONS

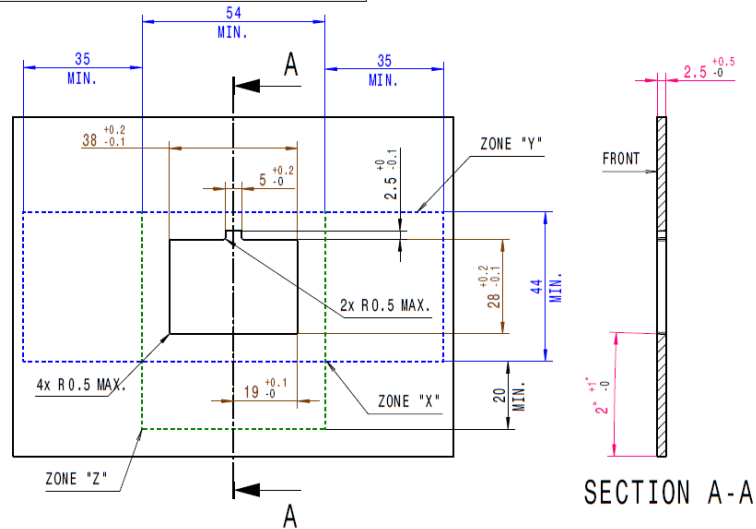


3.3 USB UNDER DASH/ IP MOUNT GENERAL INSTALLATION INSTRUCTIONS



3.4 USB UNDER DASH/ IP MOUNTING REQUIREMENTS

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MOUNTING PANEL SPECIFICATION

OPERATING INSTRUCTIONS

- ✓ Do not plug any cables to USB device under wet conditions.
- ✓ Operate in dry environment.
- ✓ Do not over load device, it is designed for 2.4A.
- ✓ check for loose connection.
- ✓ Make sure that there are no loose screws or other components inside the vehicle.
- ✓ Follow all 29 CFR 1926.400; Subpart K procedure.
- ✓ Follow all National Electric Code (NEC) procedure.



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