165 Al Mooney Road North Kerrville, Texas 78028



SERVICE INSTRUCTION SIM20-130 Date: SEPTEMBER 20, 2018

SUBJECT: MOONEY ULTRA INTERIOR DOOR HANDLE UPGRADE

 MODELS/ SN
 M20U OVATION ULTRA 32-0002 thru 32-0005

 AFFECTED:
 M20V ACCLAIM ULTRA 33-0002, 33-0003, 33-0005

 TIME OF
 AS REQUIRED

 COMPLIANCE:
 Compliance

INTRODUCTION: Mooney International Corporation has developed a new door handle design. This Service Instruction has been written in 2 Steps, for convenience. **Step 1:** How to remove and replace existing door handle with the new design. **Step 2:** Sending the door panels to the factory for repair and recover.

INSTRUCTIONS: Read entire procedures before beginning work.

STEP 1 - Install New Bellcrank and Handle Assembly

- 1.1. On Pilot and Co-Pilot side entrance doors, cover wing walk area with protective cover.
- **1.2.** Open Pilot and Co-Pilot doors, remove interior door handle placard screws, and remove placard as shown in Figure SIM20-130-1.
- **1.3.** Remove door handle pull screws and remove upper and lower interior door panel screws, keep for reassembly, remove panels from door as shown in Figure SIM20-130-1.
- **1.4.** Remove cabin door handle cover plate, with (3) screws and (3) washers, and 1 outer bushing (plastic), keep for re-assembly.
- **1.5.** Locate and remove 3 clevis attachment points to bellcrank, cotter pins and washers, keep clevis pins 1 and 2 and washers for reassembly. Clevis pin #3 will require a new one found in the kit.
- **1.6.** Install new bushing LFI-0405-08 into bellcrank and install into door. Due to tight clearance, it may be helpful to temporarily install clevis pin #3 into bellcrank hole and temporarily secure with a cotter pin before installing into position. Install #1 and #2 clevis pins, washers and new cotter pins. On # 3 clevis, carefully pull temporary cotter pin out, slide clevis pin out far enough to install clevis, push #3 clevis pin thru and add washer, secure with new cotter pin. See figure SIM20-130-2.
- **1.7.** Re-install cabin door handle cover plate and 1 bushing onto bellcrank shaft, and secure with (3) screws and (3) washers, from dis-assembly.
- **1.8.** Before installing interior door panels, check adjustment of the latching mechanism. Make any necessary adjustments per the service and maintenance manual.
- **1.9.** If sending interior door panels for re-upholstery at this time, Refer to **Step 2**.
- **1.10.** If not sending interior door panels at this time, temporary install lower interior door panels, and mark where the cutout should be for bellcrank shaft to protrude thru panel.
- **1.11.** Carefully cutout a hole thru panel for bellcrank arm to protrude, see figure SIM20-130-2.
- **1.12.** Install Upper and Lower interior door panels, use loctite 222MS on screws and secure panels as shown in Figure SIM20-130-1.
- **1.13.** Slide new door handle 310389-1 onto bellcrank shaft, add loctite 222 (Purple) or 242 (Blue) to screw threads MS24694-C15 and secure door handle.
- **1.14.** Install new placards SIM20-130-003 LH and SIM20-130-004 RH on existing metal door handle placard and mount back into position with existing screws to cover slot.
- **1.15.** Add Placard p/n 150110-A1048B (LH) or 150110-A1049B (RH) to upper door panel.
- 1.16. Add Storm Window Stops: (This limits travel of storm window in the open position)a. Remove lower hinge screws, see Figure SIM20-130-2.

Page 1 of 6



165 Al Mooney Road North Kerrville, Texas 78028

SERVICE INSTRUCTION SIM20-130 Date: SEPTEMBER 20, 2018

- b. Add 320021-13 Stops to both lower hinges.
- c. Secure with (2) new screws MS24693-S25 (use existing nut).
- **1.17.** Return aircraft to service.
- 1.18. Procedure complete.

STEP 2 - Send Interior Panel in to Mooney:

- **2.1.** Temporary install lower interior door panels, carefully cutout hole for bellcrank shaft to protrude thru panel, check fitment (hole centered) before sending to Mooney.
- **2.2.** <u>Call Mooney Service Parts 830.792.2901 for RMA</u> and schedule repair Allow approximately 1 week to recover panels and send back to you.
- **2.3.** Package and Send both top and bottom panels to Mooney International Corporation "Attention Mooney Service Parts" to: 165 Al Mooney Road North, Kerrville, Texas 78028
- 2.4. Once door panels are returned from Mooney, test fit door panels, and install 130400-65 Trim Ring with RAS13270 adhesive in center of hole cutout. Install Upper and Lower interior door panels, use loctite 222MS on screws and secure panels as shown in Figure SIM20-130-1.
- **2.5.** Slide new door handle 310389-1 onto bellcrank shaft, add loctite 222 (Purple) or 242 (Blue) to screw threads and secure.
- 2.6. Return aircraft to service.
- **2.7.** Procedure complete.

NOTE:

Fill out compliance card and send by MAIL, FAX or EMAIL to Mooney International Corporation as indicated on the attached Compliance Card (Refer to Figure SIM20-130-4).

- **WARRANTY:** Mooney International Corporation will warrant labor 2.5 hours when work is completed in accordance with **STEP 1** procedures and 2 hours when work is completed in accordance with **STEP 2** procedures of this Service Instruction for aircraft currently covered under the Mooney International Corporation factory warranty program.
- **REFERENCE** 1. Applicable Mooney International Service and Maintenance Manual

DATA:

PARTS LIST: Service Instruction Kit SIM20-130-001

| <u>ltem</u> | <u>P/N</u> | Description | <u>Qty</u> | |
|-------------|---|---|--|--|
| 1. | 310389-1 | Handle, Door (LH/RH) | 2 | |
| 2. | MS24694-C15 | Screw | 2 | |
| 3. | 310388-1 | Bellcrank (LH) | 1 | |
| 4. | 310388-2 | Bellcrank (RH) | 1 | |
| 5. | LFI-0405-08 | Bushing (install into LH/RH Bellcranks) | 2 | |
| 6. | MS20392-2C15 | Clevis Pins | 2 | |
| 7. | NAS1149F0332P | Washers | 3 | |
| 8. | MS24665-151 | Cotter Pins | 3 | |
| 9. | 150110- A1048B | Placard, Door Handle (LH) | 1 | |
| 10. | 150110- A1049B | Placard, Door Handle (RH) | 1 | |
| 11. | SIM20-130-003 | Placard, Cover Door Slot (LH) | 1 | |
| 12. | SIM20-130-004 | Placard, Cover Door Slot (RH) | 1 | |
| 13. | 130400-65 | Trim Ring, Door Panel | 2 | |
| 14. | 320021-13 | Stop, Pilot Window | 2 | |
| 15. | MS24693-S25 | Screws | 2 | |
| plied | | Loctite® 222MS | AR | |
| plied | | Adhesive RAS13270 | AR | |
| | | | Page 2 of 6 | |
| | 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. plied | 1. 310389-1 2. MS24694-C15 3. 310388-1 4. 310388-2 5. LFI-0405-08 6. MS20392-2C15 7. NAS1149F0332P 8. MS24665-151 9. 150110- A1048B 10. 150110- A1049B 11. SIM20-130-003 12. SIM20-130-004 13. 130400- 65 14. 320021-13 15. MS24693-S25 | 1. 310389-1 Handle, Door (LH/RH) 2. MS24694-C15 Screw 3. 310388-1 Bellcrank (LH) 4. 310388-2 Bellcrank (RH) 5. LFI-0405-08 Bushing (install into LH/RH Bellcranks) 6. MS20392-2C15 Clevis Pins 7. NAS1149F0332P Washers 8. MS24665-151 Cotter Pins 9. 150110-A1048B Placard, Door Handle (LH) 10. 150110-A1049B Placard, Door Handle (RH) 11. SIM20-130-003 Placard, Cover Door Slot (LH) 12. SIM20-130-004 Placard, Cover Door Slot (RH) 13. 130400-65 Trim Ring, Door Panel 14. 320021-13 Stop, Pilot Window 15. MS24693-S25 Screws plied Loctite® 222MS | |

SERVICE INSTRUCTION



165 Al Mooney Road North Kerrville, Texas 78028

SERVICE INSTRUCTION SIM20-130 Date: SEPTEMBER 20, 2018

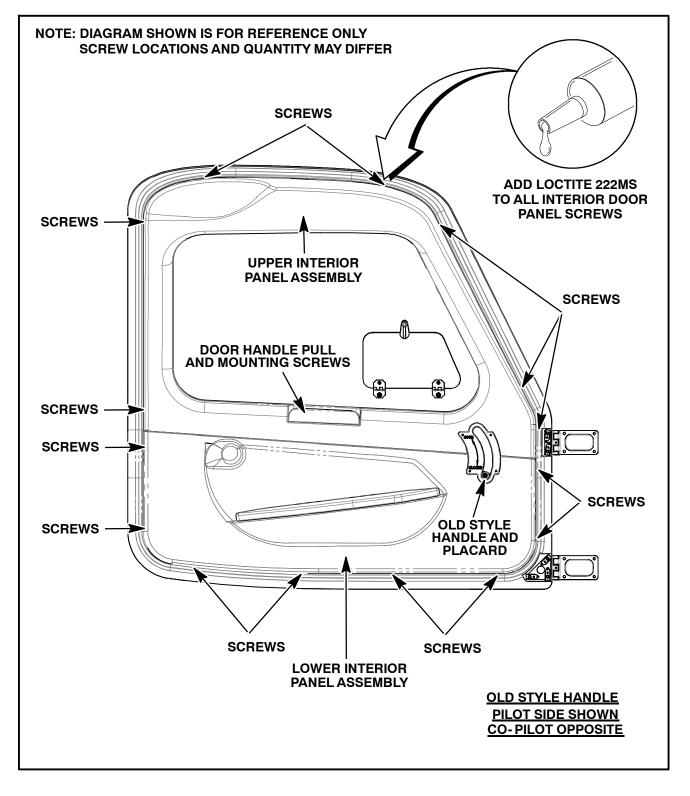


Figure SIM20-130-1 - EXISTING INTERIOR DOOR PANEL AND HANDLE ASSEMBLY

SERVICE INSTRUCTION



165 Al Mooney Road North Kerrville, Texas 78028

SERVICE INSTRUCTION SIM20-130 Date: SEPTEMBER 20, 2018

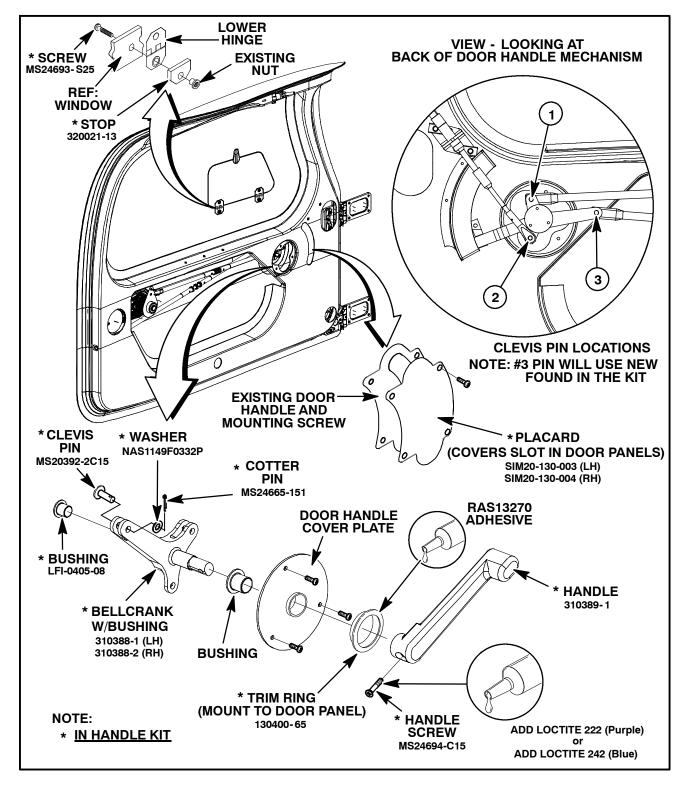


Figure SIM20-130-2 - INTERIOR DOOR HANDLE MECHANISM AND STORM WINDOW



165 Al Mooney Road North Kerrville, Texas 78028

SERVICE INSTRUCTION SIM20-130 Date: SEPTEMBER 20, 2018

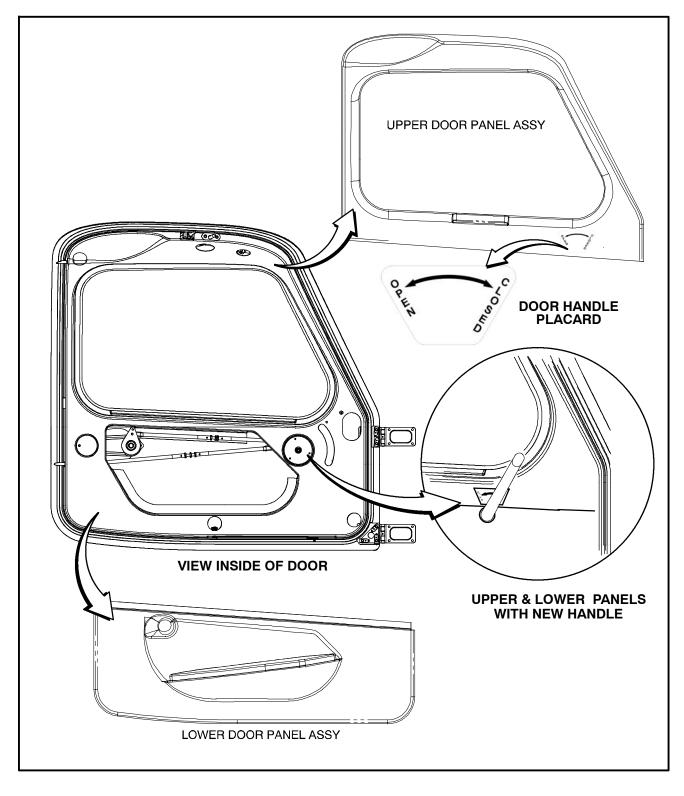


Figure SIM20-130-3 - NEW INTERIOR DOOR PANELS

Page 5 of 6

SERVICE INSTRUCTION



165 Al Mooney Road North Kerrville, Texas 78028

SERVICE INSTRUCTION SIM20-130 Date: SEPTEMBER 20, 2018

| MOONEY INTERNAT KERRVILLE, TEXAS | | | |
|-------------------------------------|---------------|-------------------|--|
| SERVICE (BULLETIN) (INSTRUCTION) NO | ОНА | HAS BEEN COMPLIED | |
| WITH ON AIRCRAFT MODEL | SERIAL NUMBER | | |
| Tach. Time: Owner: | Date of | (Reg. No.) | |
| Inspection Report: | | | |
| | | | |

SEND TO: Mooney International Corporation 165 Al Mooney Road North Kerrville, TX 78028 FAX: (830) 257-4635 or EMAIL TO: techpubs@mooney.com

Figure SIM20-130-4 - FILL OUT COMPLIANCE CARD

Page 6 of 6