## Configuration

| Dash # | Course Datum | Assy, CDI |
|--------|--------------|-----------|
| -706 | Omit | 9018540-3 |
| -707 | Include | 9018540-4 |

## Revision

| ECO | Rev. | Description | Date | Approved |
|-----|------|-------------|------|----------|
| | A | Production release. | 11/30/15 | MKN/WVC |

### J1 (25 PIN D-SUB) Pinout

| | | |
|---|---|---|
| 1 | OBS Resolver H | |
| 2 | OBS Resolver C | |
| 3 | OBS Resolver D | |
| 4 | OBS Resolver F | |
| 5 | OBS Resolver E | (NAV common ref) |
| 6 | OBS Resolver G | (NAV common ref) |
| 7 | + VOR/LOC Valid | |
| 8 | - VOR/LOC Valid | (NAV common ref) |
| 9 | + To | |
| 10 | + From | (NAV common ref) |
| 11 | + Left | |
| 12 | + Right | (NAV common ref) |
| 13 | + Up | |
| 14 | + Down | (GS common ref) |
| 15 | + Glide Slope Valid | |
| 16 | - Glide Slope Valid | (GS common ref) |
| 17 | GPS Annunciator | (gnd = active) |
| 18 | VLOC Annunciator | (gnd = active) |
| 19 | +12-32 VDC | (or pin 20)* |
| 20 | +12-32 VDC | (or pin 19)* |
| 21 | Power Ground | |
| 22 | +28 V Lighting | |
| 23 | +14 V Lighting | |
| 24 | NAV Annunciator | (gnd = active) |
| 25 | +5 V Lighting | |

* only one power input line required on either pin 19 or 20

### J2 (9 PIN D-SUB) Pinout (-707 only)

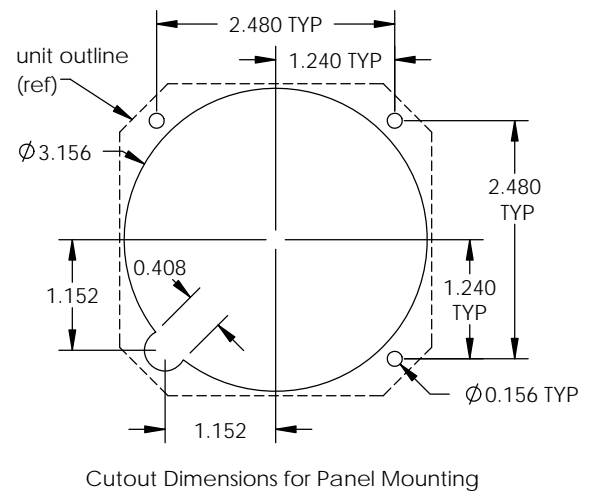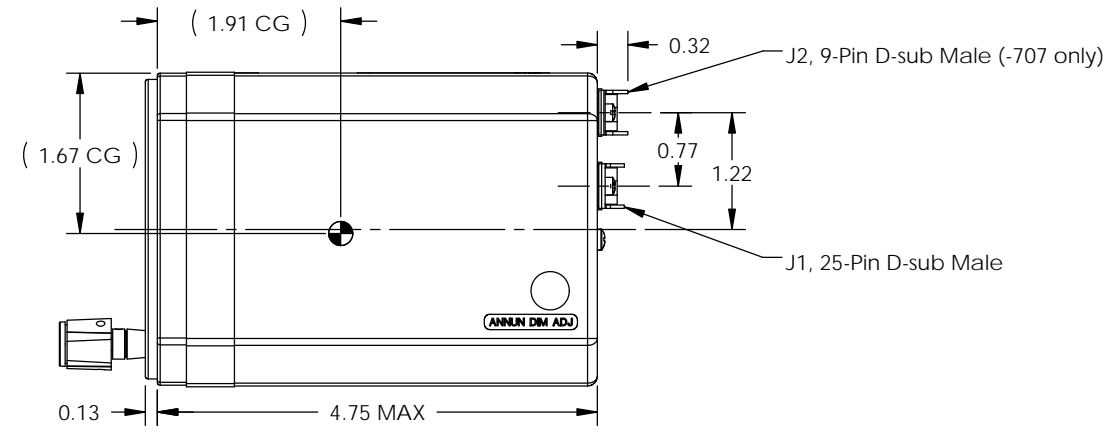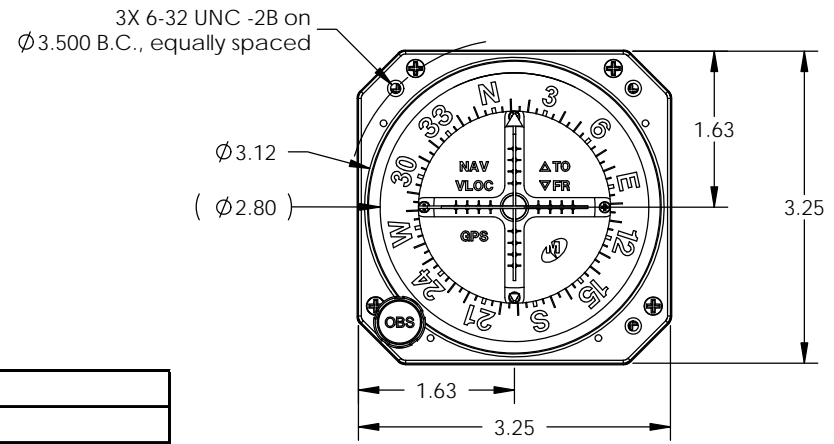| | |
|---|---|
| 1 | Course Datum H |
| 2 | Course Datum C |
| 3 | Course Datum X |
| 4 | Course Datum Y |
| 5 | Course Datum Z |
| 6 | Spare |
| 7 | Spare |
| 8 | Spare |
| 9 | Spare |
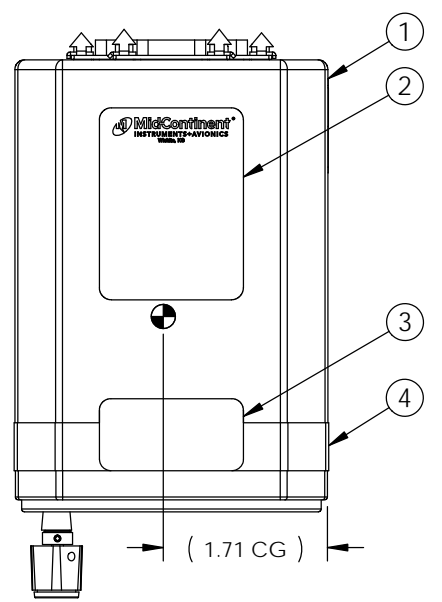
## Notes:

1. MD200 CRS/GS INDICATOR is a 3 inch dual pointer indicator.
2. Rectilinear VOR/LOC (vertical) deviation bar:
   - In view: indicates the amount of deviation and direction from a selected VOR course or localizer path.
   - Hidden: no power or no information is being provided to VOR/LOC deviation bar.
3. Rectilinear glide slope (horizontal) deviation bar:
   - In view: displays deviation from the glide path.
   - Hidden: no power or no information is being provided to the glide slope deviation bar.
4. TO/FROM annunciations: Indicate whether the bearing of the selected station is TO or FROM (FR) the aircraft when flying a selected course.
5. OBS knob: rotates azimuth card to the desired bearing.
6. Unit has integral wedge with HEA coating.
7. Mounting screws shall be 1.5" max.
8. Unit shall be identified as MD200-706 or MD200-707.

## Interface Technical Specifications:

1. OBS resolver: Zeroed at 300° ±1° ORZ (300° ±2.5° at max temp. range).
2. Course Datum Synchro: 26 VAC at 400 Hz. Output is 393 mV/deg ±1° (393 mV/deg ±2.5° at max. temp. range). Zeroed at 90° ±1° (90 ±2.5° at max. temp. range).
3. VOR/GS DEV: Input impedance is 1K ohms ±10% (1K ohms ±25% at max. temp. range), deflection sensitivity is 150 mV ±10% (150 mV ±25% at max. temp. range) for full scale deflection.
4. VOR/GS Valid: Input impedance is 1K ohms ±10% (1K ohms ±25% at max. temp. range). Valid signal sensitivity is 125 mV minimum for the deviation bar to remain hidden. 260 mV ±10% (260 mV ±25% at max. temp. range) maximum deviation bar fully in view.
5. TO/FROM Indication: 200 ohms ±10% (200 ohms ±25% at max. temp. range). ±40 mV ±15% (±40 mV ±25% at max. temp. range) maximum for annunciation.
6. Aircraft power can be connected to either J1 pin 19 or pin 20.



( 1.71 CG )

3X 6-32 UNC -2B on Ø3.500 B.C., equally spaced

Ø3.12
( Ø2.80 )

1.63
3.25
1.63
3.25

( 1.91 CG )
0.32
J2, 9-Pin D-sub Male (-707 only)
( 1.67 CG )
0.77
1.22
J1, 25-Pin D-sub Male
ANNUN DIM ADJ
0.13
4.75 MAX

### Cutout Dimensions for Panel Mounting

unit outline (ref)
2.480 TYP
1.240 TYP
Ø3.156
2.480 TYP
0.408
1.240 TYP
1.152
1.152
Ø0.156 TYP

## Specifications

| Model Number | MD200 |
|--------------|-------|
| Power Input | 12-32 VDC; 0.2 Amps MAX |
| Lighting | Dial: 0 to 5, 14 or 28 VDC; Annunciation: photocell with adjustment |
| Qualifications | FAA TSO: C34e, C36e, and C40c<br>RTCA DO-160B/G (See install manual for categories) |
| Connectors | 25-Pin D-sub Male<br>-707 only: 9-Pin D-sub Male |
| Mating Connectors | 25-Pin D-sub Female Connector Kit<br>-707 only: 9-Pin D-sub Female Connector Kit |
| Temperature | -55 °C to +70 °C |
| Altitude | 55,000 feet max |
| Weight | -706: 1.3 lbs; -707: 1.4 lbs |
| Colors | Bezel, Background, Cover: Black<br>Text, Bars, and Grads: White<br>VLOC, GPS, TO, FROM Annunciations: White<br>NAV Annunciation: Green |
| Install Manual | MCIA P/N 9018582 |

| Item | Qty | Part Number | Description |
|------|-----|-------------|-------------|
| 1 | 1 | See config | Assy, Course Datum Indicator |
| 2 | 1 | 9018586-1 | Nameplate, CDI, MCIA |
| 3 | 1 | 6018956 | Decal, Warranty |
| 4 | 1 | 8017360 | Tape, Acetate |

DRAWN: MKN 10/14/2015
APPROVED: WVC 11/05/2015

**MidContinent™ INSTRUMENTS + AVIONICS**

TITLE: Course Deviation Indicator
PART NUMBER: MD200-7XX
SCALE: 1:2
DO NOT SCALE THIS DRAWING
SHEET: 1 of 1