

Configuration

Dash #	VOR Indication	Glideslope	OBS Resolver	Annunciation	Course Datum	Nameplate	Make from Subassy.
-302	X		X	X		8016867-1	8016651-8
-303	X		X	X	X	8016867-1	8016651-7
-306	X	X	X	X		8016867	8016651-5
-307	X	X	X	X	X	8016867	8016651-6
-306(5V)	X	X	X	X		8016867	8016651-55
-307(5V)	X	X	X	X	X	8016867	8016651-56

Revisions

ECO	Rev.	Description	Date	Approved
1318	A	"NAV" flag was "CDI" flag. 8016651-5 was 8017980-6, 8016651-6 was 8017980-7.	9/13/99	JBR
1530	B	GS & NAV flag orientation was 45°.	1/10/00	Sch,MTH
1549	C	Show triangle around To-From flag.	1/31/00	JBR
1739	D	Change annunciator colors: NAV was white, GPS was green.	6/2/00	JBR
1882	E	Revise note 10 to remove jumpers, add nameplate column to config. table.	8/16/00	SmH
2003	F	Add -302, -303. Add feature columns to config. -307 Nameplate was 8016867-1.	11/16/00	JBR
2344	G	Show 1 piece cover (was 2 piece).	5/21/01	JBR/Sch
4626	H	Add -306(5V) configuration, add BOM, update title block.	5/19/06	Sch/MCH
4706	J	Add -307(5V) configuration.	9/21/06	Sch/MCH

NOTES:

MD200-3xx CRS/GS INDICATOR is a 3 inch dual pointer indicator with following indications:

- 1) Rectilinear VOR/LOC deviation bar: indicates the amount of deviation and direction from a selected VOR course or localizer path.
- 2) NAV flag: presence of NAV flag indicates unreliable information is being supplied to the VOR/LOC deviation bar.
- 3) TO/FROM flag: indicates whether the bearing of the selected station is to or from the aircraft when flying a selected course.
- 4) Rectilinear glide slope deviation bar: displays deviation from the glide path.
- 5) Glide slope flag: presence indicates an unreliable glide slope signal.
- 6) OBS knob: rotates azimuth card to the desired bearing.
- 7) Indicator does not incorporate a company logo on the dial.
- 8) Unit has integral wedge with HEA coating. Shall have standard 14 volt and 28 volt lighting. 5 volt lighting is offered as an option.
- 9) NAV, GPS and BC annunciations shall incorporate photocell dimming with adjustment. NAV shall be green, GPS shall be white, BC shall be amber.
- 10) Seams to be covered with acetate tape for dust protection.
- 11) Bezel black anodized per MIL-A-8625 Type II Class 2. Mounting screws 1.5" max.

△ Mating connector kit is P/N 7014517 (Positronic RD25F10JVL0) for J1, and 8017287 (Positronic RD9F10JVL0) for J2.

TECHNICAL SPECIFICATIONS

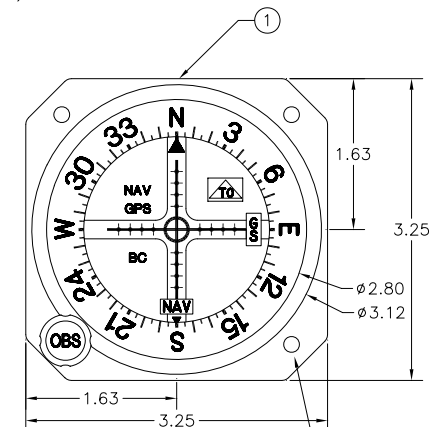
- 1) TSO: C34e, C36e, and C40c. DO-192, -195, -196 and -160B.
- 2) OBS resolver: Zeroed at 300°±1' ORZ (300°±2.5' at max. temp. range).
- 3) Course Datum Synchro: 26VAC at 400Hz. Output is 393mV/deg ±1' (393mV/deg ±2.5' at max. temp. range). Zeroed at 270°±1' (270°±2.5' at max. temp. range).
- 4) VOR/GS DEV: Input impedance is 1K ohms±10% (1K ohms±25% at max. temp. range), deflection sensitivity is 150mV±10% (150mV±25% at max. temp. range) for full scale deflection.
- 5) VOR/GS Valid Flag: Input impedance is 1K ohms ±10% (1K ohms±25% at max. temp. range). Flag sensitivity is 125mV minimum for flag to leave stop. 260mV±10% (260mV±25% at max. temp. range) maximum flag fully concealed.
- 6) TO/FROM Flag: 200 ohms±10% (200 ohms±25% at max. temp. range). ±40mV±15% (±40mV±25% at max. temp. range) maximum flag in view.
- 7) Normal Operating Temperature: 25°C.
- 8) Maximum Temperature Range: -55°C to +70°C.
- 9) Humidity: 95% Non-Condensing.
- 10) Altitude Range: 0 to 55,000 ft.
- 11) Vibration: DO-160B, Cat. M and N
- 12) Operational Shock: Rigid Mounting, 6 G operational, 15 G crash safety.

J1 (25 PIN D-SUB)

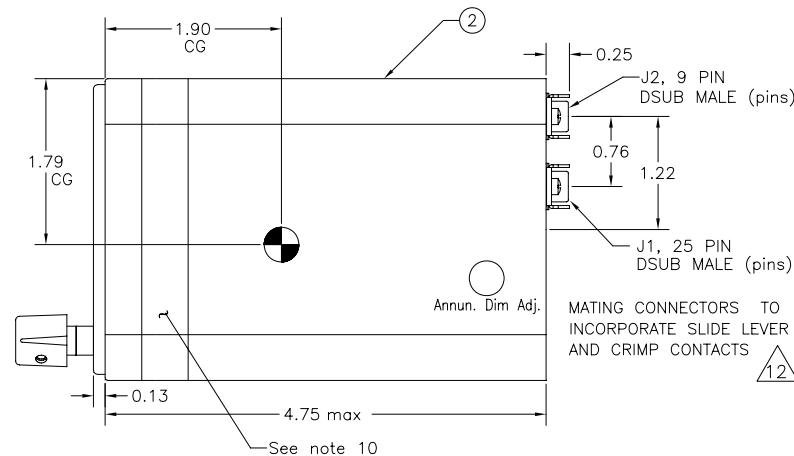
- |    |  |
|----|--|
| 1  | RESOLVER H                                 |
| 2  | RESOLVER C                                 |
| 3  | RESOLVER D                                 |
| 4  | RESOLVER F                                 |
| 5  | RESOLVER E                                 |
| 6  | RESOLVER G                                 |
| 7  | + CDI (NAV) FLAG                           |
| 8  | - CDI (NAV) FLAG                           |
| 9  | + TO                                       |
| 10 | + FROM                                     |
| 11 | + LEFT                                     |
| 12 | + RIGHT                                    |
| 13 | + UP                                       |
| 14 | + DOWN                                     |
| 15 | + VERT (GS) FLAG                           |
| 16 | - VERT (GS) FLAG                           |
| 17 | GPS ANNUNCIATOR (gnd=active)               |
| 18 | BC ANNUNCIATOR (gnd=active)                |
| 19 | ANNUNCIATOR POWER 14 VDC                   |
| 20 | ANNUNCIATOR POWER 28 VDC                   |
| 21 | POWER GROUND                               |
| 22 | 28 VOLT DIMMER/GROUND FOR 14 VOLT LIGHTING |
| 23 | 14 VOLT DIMMER                             |
| 24 | NAV ANNUNCIATOR (gnd=active)               |
| 25 | 5 VOLT DIMMER (5V UNITS ONLY)              |

J2 (9 PIN D-SUB)

- (-303, -307 only)
- |   |                |
|---|----------------|
| 1 | COURSE DATUM H |
| 2 | COURSE DATUM C |
| 3 | COURSE DATUM X |
| 4 | COURSE DATUM Z |
| 5 | COURSE DATUM Y |
| 6 | SPARE          |
| 7 | SPARE          |
| 8 | SPARE          |
| 9 | SPARE          |



(3) equally spaced 6-32UNC-2B threaded holes on 3.500 dia. B.C.



Item	Qty	Part Number	Description
1	1	See config.	OBS/GS Assy
2	1	See config.	Nameplate

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.  
TOLERANCE:  
FRACTIONAL=± 1/64  
.XX=± 0.015  
.XXX=± 0.005  
.XXXX=± 0.002  
ANGULAR=± 0.5°  
CONCENTRICITY: 0.005 TIR  
BREAK ALL SHARP EDGES  
THREADS PER MIL-S-7742

DRAWN:  
S. Haines  
7/14/99  
  
APPROVED:  
*dw*  
7/15/99

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**MID-CONTINENT**  
**INSTRUMENTS**

TITLE: Course Deviation Indicator		PART NUMBER: MD200-3xx	
SCALE: None	DO NOT SCALE THIS DRAWING	SHEET 1 of 1	