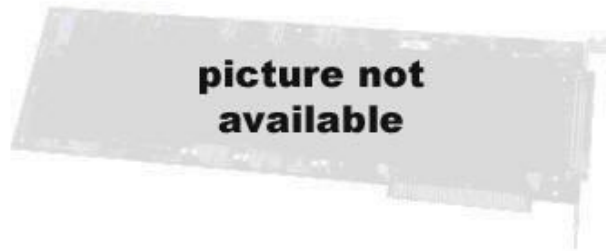




BBG-2572

Marine Navigation Interface



Description

The BBG-2572 was designed to receive heading, roll, pitch data from the C.Plath SR-2100 FOG Gyrocompass and speed from any commercial GPS and provide the necessary outputs to support the MK 49 radar. The unit transmits 1X and 36X 115VAC/400HZ heading, 2X and 36X 115VAC/400HZ roll, 2X and 36X 115VAC/400HZ pitch, and 1X 115VAC/400HZ speed in synchro format. The interface transmits the heading, roll, and pitch information in real time to synchro signal amplifiers that in turn support the MK 49 radar.

Data is transmitted to the interface via serial RS-422 communication lines from the SR-2100 Fog and the GPS. Input termination is listed in section 6. The interface has disconnect switches for power, heading, roll, pitch, and speed located on the front panel.



Power Input
115VAC 60HZ
115VAC 400HZ

Input signal requirements:

- NMEA 0183 serial heading data. (\$HEHDT)
- NMEA 0183 serial roll and pitch. (\$PPRP)
- NMEA 0183 serial speed. (\$GPVTG)

Functional Description

As discussed earlier the BBG-2572 accepts NMEA data from the SR-2100 compass and transmits synchro signals out. This interface has four (4) circuit cards that operate independent of each other. The operation of these cards is as follows.

- Circuit card #1 is designated for heading only. This card receives serial data from the SR-2100 and converts it to 1X and 36X 115VAC/400HZ synchro output at 4.5VA. The outputs of this card are fuse protected at the maximum output power of 63ma. Outputs are connected via terminal block to the synchro signal amplifier.
- Circuit card #2 is designated for roll only. This card receives serial data from the SR-2100 and converts it to 2X and 36X 115VAC/400HZ synchro output at 4.5VA. The outputs of this card are fuse protected at the maximum output at 63ma. Outputs are connected via terminal block to the synchro signal amplifier



- Circuit card #3 is designated for pitch only. This card receives serial data from the SR-2100 and converts it to 2X and 36X 115VAC/400HZ synchro output at 4.5VA. The outputs of this card are fuse protected at the maximum output power of 63ma. Outputs are connected via terminal block to the synchro signal amplifier.
- Circuit card #4 is designated for speed only. This card receives serial data from the GPS in the \$VTG sentence format. This is then converted to 1X 115VAC/400HZ synchro output at 4.5VA. The outputs of this card are fused at its maximum output power of 63ma. Outputs are connected via terminal block to the equipment that requires it. The 1X output represents 40 knot speed.

Baud rate Selection

11 MHz Boards (small crystal)

Switch	4800	9600	19200
6	OFF	OFF	OFF
7	ON	OFF	OFF
8	OFF	ON	OFF

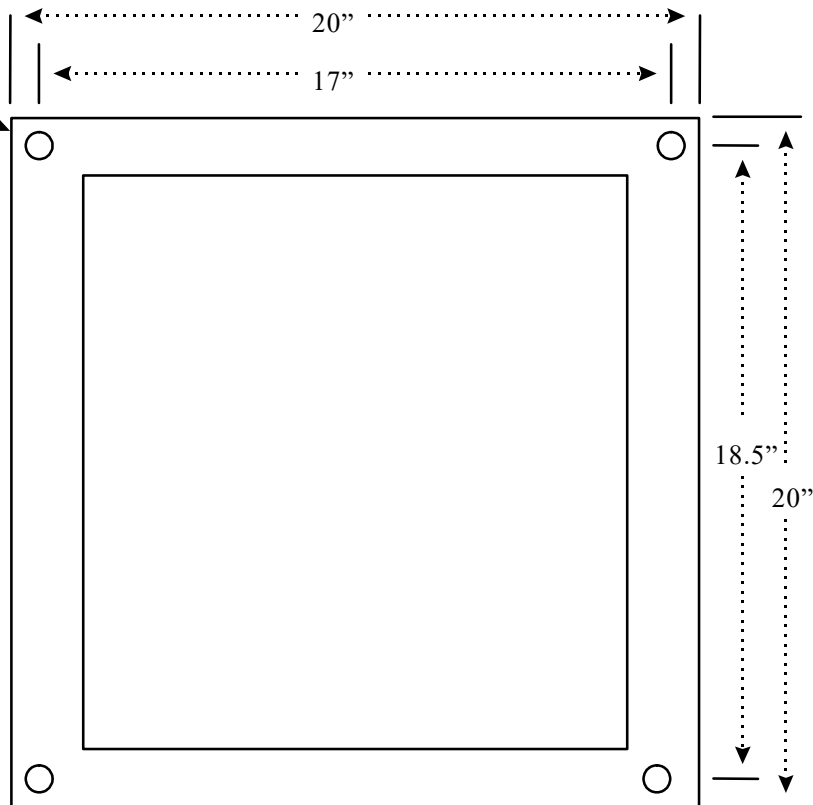
22 MHz Boards (large crystal)

Switch	9600	19200	38400
6	OFF	OFF	OFF
7	ON	OFF	OFF
8	OFF	ON	OFF



GS-2572 Mounting

Accepts .500"
bolt or studs for
mounting.

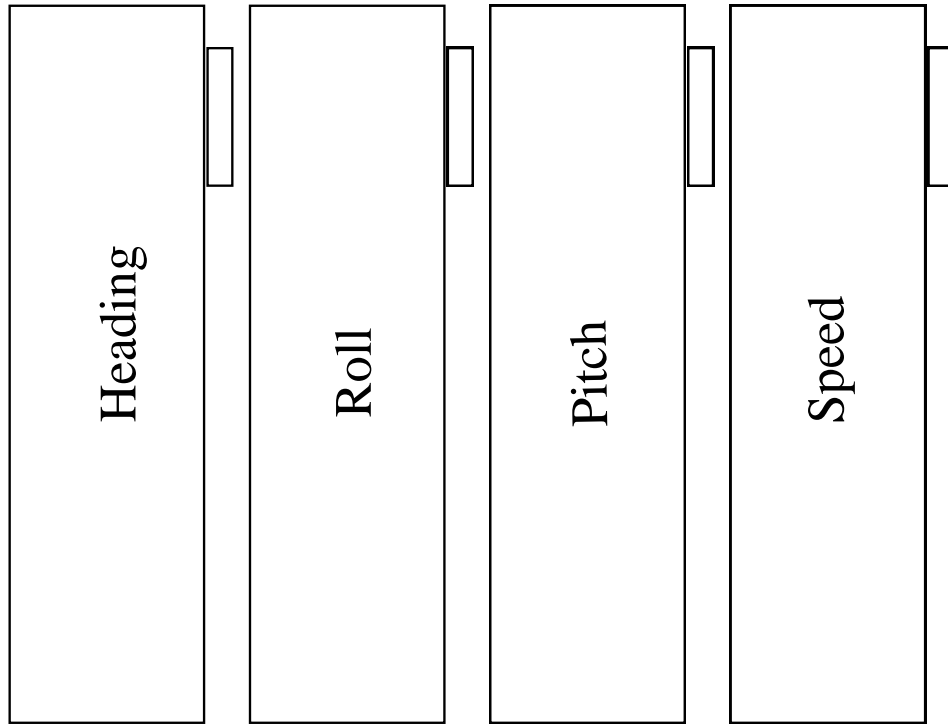


Notes:

1. All dimensions are in inches.
2. Enclosure is 20" x 20" square.
3. 2" angle iron is recommended for mounting to bulkhead.
4. Unit must be mounted flush to eliminate circuit board warpage.



Layout



TB 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
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TB2

44	45	46	47	48
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