KOBELT MANUFACTURING
COMPANY LIMITED

Model 6503 Electronic Control Interface Unit

The 6503 unit is a two function control card that will provide electronic throttle output and clutch solenoid control signals in the Kobelt Mighty Mariner control system.

It can
- monitor all input information from the control heads and their associated switch panels;
- monitors its clutch and throttle positions and the synchronizer inputs;
- controls and positions its electronic throttle and its electric clutch in accordance with the Control Head lever movement;
- communicates with the control stations through panel lights and sonalerts.

The purpose of the 6503 is to operate the clutch solenoid via dry contacts and the electronic throttle signal. The 6503 uses standard Microchip Picprocessor circuitry. All the system adjustments can be maintained through adjustable trimpots and DIP switches. All connections to the 6503 are hard wired into pluggable connectors on the board.

The 6503 is housed in a heavy duty enclosure (7173-K box) designed to prevent dust and moisture intrusion.

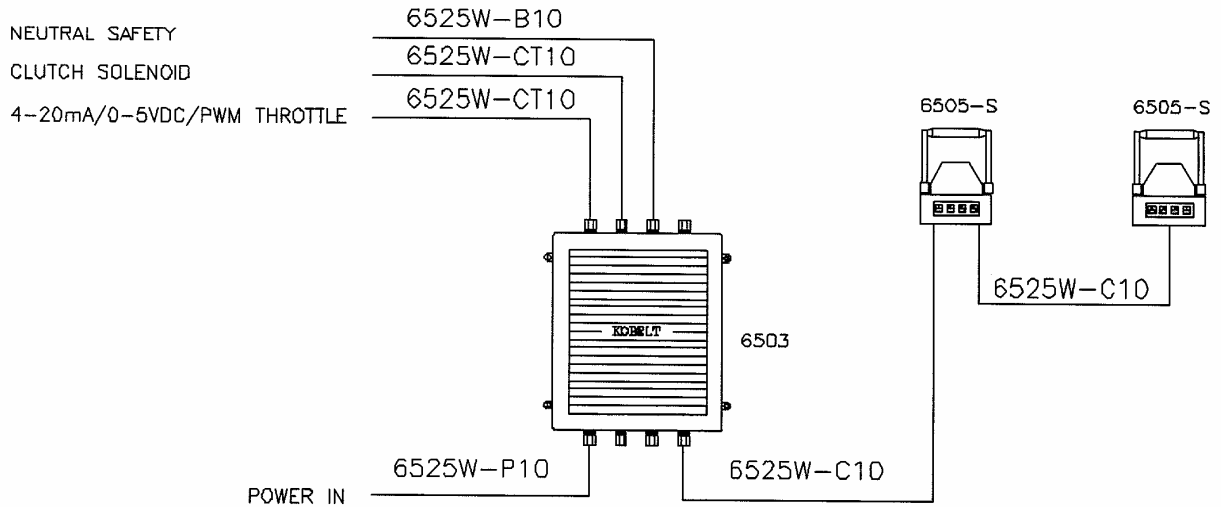The 6503 has three types of electronic throttle output available:

4-20mA,
0-5VDC and
PWM (Pulse Width Modulation).

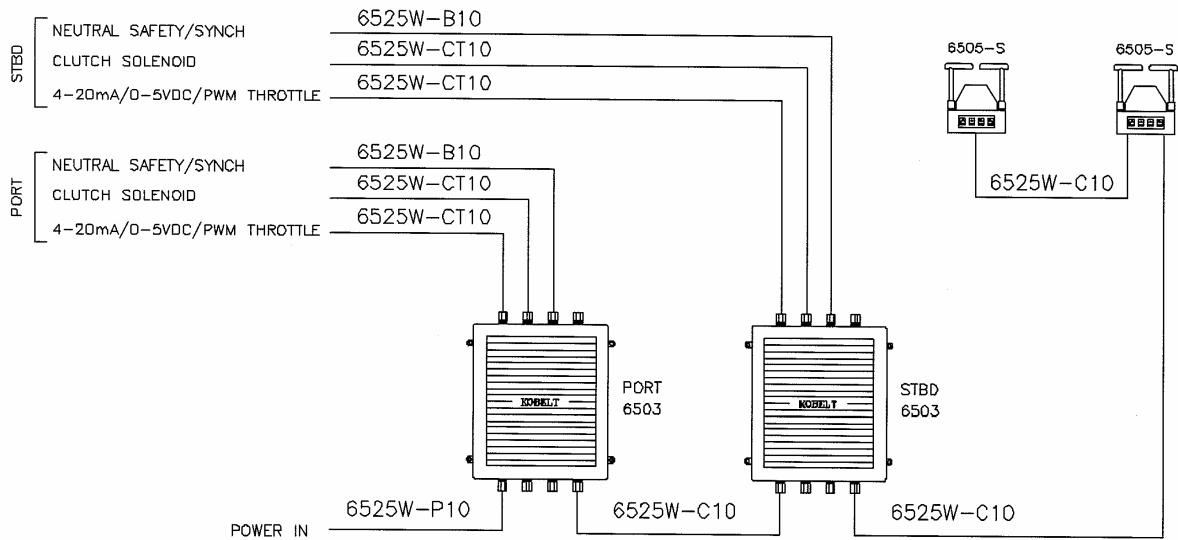These outputs change proportionately with the station control head lever positioning.

The Synchronizer System is adjustable to designate either the Port or the Starboard engine as the Main Engine.

Operating range of the 6503 is -10° to +55° Celsius.

Typical Application Layout

NEUTRAL SAFETY

CLUTCH SOLENOID

4-20mA/0-5VDC/PWM THROTTLE

6525W-B10

6525W-CT10

6525W-CT10

6505-S

6505-S

6525W-C10

KOBELT

6503

6525W-P10

6525W-C10

POWER IN

Double Station Single Engine Electric Clutch / Electronic Throttle

STBD

NEUTRAL SAFETY/SYNCH

CLUTCH SOLENOID

4-20mA/0-5VDC/PWM THROTTLE

6525W-B10

6525W-CT10

6525W-CT10

PORT

NEUTRAL SAFETY/SYNCH

CLUTCH SOLENOID

4-20mA/0-5VDC/PWM THROTTLE

6525W-B10

6525W-CT10

6525W-CT10

6505-S

6505-S

6525W-C10

KOBELT

PORT
6503

KOBELT

STBD
6503

6525W-P10

6525W-C10

6525W-C10

POWER IN

Double Station Twin Engine Electric Clutch / Electronic Throttle