Marine Master Clock System

Standard Master Clock System (MCS-970)
Marine Standard Clock System



- Marine Master Clock System (MCS-970)

The Marine Master Clock System is designed to provide accurate time and date to all data logging and monitoring systems of vessels. The clock system has been using high precision 10.000MHz TCXO crystal, so the actual time variation has a 0.1 second error per a month. To increase reliability, C-MOS IC is used in the frequency divider circuit. The robust mechanism provides a useful system for sailing vessels. The design of the system prevents vibration, shock, air compression or salty contamination. As slave clocks are installed in the ship, they will be adjusted to desire time according to the position of ship.

The system is tested according to IEC60945, certified for CE by DNV Register.



Flush Type Clock





MCS-970 Main Unit







Pulse Type Slave Clock







Digital Type Slave Clock

- General Features

-1. Power Source : AC110/220V, 1Ø, 50/60 Hz
-2. Emergency Power : AC or DC 24V (Ripple less than 5%)
-3. Power Consumption : AC, less than 50VA
DC, less than 1.6A (at 24V DC)
-4. Automatically switch to DC when AC power causes failure
-5. Certification : DNV CE Submitted
-6. Temperature : -20℃ ~ +45℃
-7. Humidity : less than 90%
-8. Net Weight : 7.82Kg
-9. Painting Color : 5.4 PB 2.8/3.0(Dark Blue)
-10. Dimensions : 386(W) X 316(H) X 110(D)
-11. Fixing Type : Flush Mounting (Maker Standard)

- Capacity & function of the System

1) Crystal Oscillation Frequency: 10.000 MHz (TCXO)
2) Accuracy: Within ±1.0 sec per a month
3) Dual Clocks in Main Unit
-1. Master (UTC): Three Hands, 0.5sec. Leap, Ø80mm Dial
-2. Slave (LTC): Two/Three Hands, 30sec. Leap, Ø80mm Dial
4) Output Signal Form
-1. For 0.5sec Slave Clock: DC 24V, 0.5sec Polarized Pulse
-2. For 30sec Slave Clock: DC 24V, 30sec Polarized Pulse
-3. Time Signal for Engine Telegraph Logger: DC 24V, ±30sec Polarized Pulse (ADV/REV)
5) Slave Clock: up to 80ea
6) Battery Slave Clock (Options)
7) Digital Slave Clock (Options)
8) Built-in lighting control system (Dimmer)
9) Fully protects: power source and slave line circuit
10) Robust mechanism architecture and excellent stability
11) Easy time control: CW and CCW direction for slave clocks
12) High speed time setup

ISO 9001 & OHSAS 18001 Certified, for more information, visit www.mrckorea.com

MRC www.mrckorea.com CE DNV·GL

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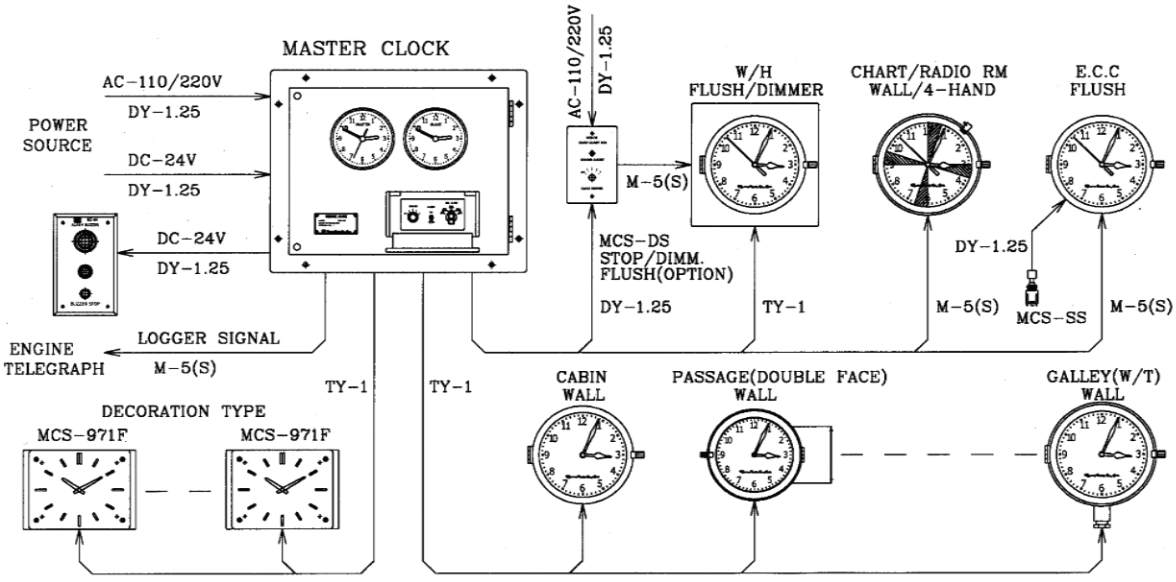
- Control Panel of Main Unit

Main Unit (MCS-970)
1. UT (Universal Time)
2. LT (Local Time)
3. Fixing Holes
4. Hinge
5. Display & Control
6. Name Plate
7. Front Panel Fixing

- Detailed Description of each part

1. "30-Sec Time adjust switch.
2. "TIME": Stopping time of all clocks for a while.
3. "DIMMER": Adjust illumination of back (EL) light.
4/5. AC/DC Power Fuse : 1.3A / 5.0A
6/7. 0.5S/30S Out Fuse : 1.0A / 1.0A
8/9. DC/AC Power Switch



Wiring Diagram of Digital Master Clock (MCS-970) System

Agent of MRC

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