

# MSI-90U Mk2

Combat Management System



KONGSBERG

## MSI-90U Mk 2 Combat Management System

The MSI-90U Mk 2 Submarine Combat Management System (CMS) is designed for 21<sup>st</sup> Century operational and lean manning requirements for conventional submarines.

The MSI-90U Mk 2 CMS typically comprises three to five Multi-Function Consoles (MFC). This number can easily be adjusted upwards or downwards to meet the customer's operational concept or to fit the available space. The MSI-90U Mk 2 CMS can be delivered with water- or air-cooled MFCs, 60 or 70 cm wide, fitted to the available cooling infrastructure and physical space in the CIC.

The MSI-90U Mk 2 can be integrated to any sensor and weapon type to be selected by the End Customer. The following torpedo types are already integrated: SST4/SUT mod. 0, DM2A3/DM2A4, A184 Mod. 3, NSP/Black Shark.

The system is prepared for integration of sub-launched missiles.

### FEATURES

#### Main Application Functions:

- Sensor Integration
- Target Motion Analysis
- Classification/Identification
- Threat Evaluation
- Tactical Functions
- Engagement Analysis
- Weapon Preparation & Control

#### Utility Functions:

- Data Recording
- Image Recording
- Replay
- Built-in simulation



## MSI-90U MK 2 RESILIENCE & REDUNDANCY

The MSI-90U Mk 2 application SW can be operated from any of the MFCs.  
The MSI-90U Mk 2 has redundant processes to maintain mission critical functions.

## MSI-90U MK 2 SYSTEM MODES

Operation of the MSI-90U Mk 2 can be controlled through the following System Modes:

- Tactical
- Maintenance
- Training
- Test



## MSI-90U MK 2 SUB-MODES

Functionality can be tailored to the current tactical situation by using Sub-Modes. A Sub-Mode is defined as a set of functionalities made available to support the operators in executing their tasks. All Sub-Modes are available on all MFCs, and the selection of one Sub-Mode on one MFC will not exclude the Sub-Mode to be selected on another MFC.

The following sub-modes have been defined:

- Tactical
- TMA
- Torpedo



## TECHNICAL DATA

Dimensions:	700 * 1660 * 1400 or 600 * 1660 * 1400 mm per MFC
Weight:	approx. 200 kg per MFC
Power:	160-290V DC or 115V 400 hz (~1200 W per MFC)
Cooling:	Water cooling or air cooling
Shock:	BV 043
Temperature (operating):	0 – +55 °C according to MIL-STD 810G with water cooling available
Temperature (storing):	-40 – +70 °C according to MIL-STD 810G
EMC:	MIL-STD 461E, Table V
Electro Static Discharge:	EN 61000-4-2 or equivalent
Radiated noise through air:	MIL-STD 1474D, equipment grade A12 (≤ 54dB)
Radiated noise through structure:	MIL-STD 740-2, equipment type 3