



KONGSBERG

SIMRAD MF90

OMNI SONAR

Technology for sustainable fisheries



SIMRAD MF90 OMNI SONAR

Simrad MF90 Omni sonar

Medium frequency catch sonar

The MF90 is the latest addition to medium frequency Simrad Omni sonars.

The composite transducer makes it possible to transmit and receive in a wide range of frequencies, in fact 75-85 kHz! This makes it possible to achieve high resolution on longer ranges as well as tuning the frequency for better detection or avoiding a noisy source such as another echosounder or any other acoustic source. The MF90 also has the latest Winson SW enabling the user to view the various windows on separate displays using the new docking feature. Another great feature with the new SW is that it will ping all beams at the same time reducing the ping rate and increasing the update rate on the screen dramatically.

The composite transducer is more complicated to produce than traditional transducers with large investments in the production line. Today, SIMRAD has one of the most sophisticated transducer production lines and design departments in the industry.

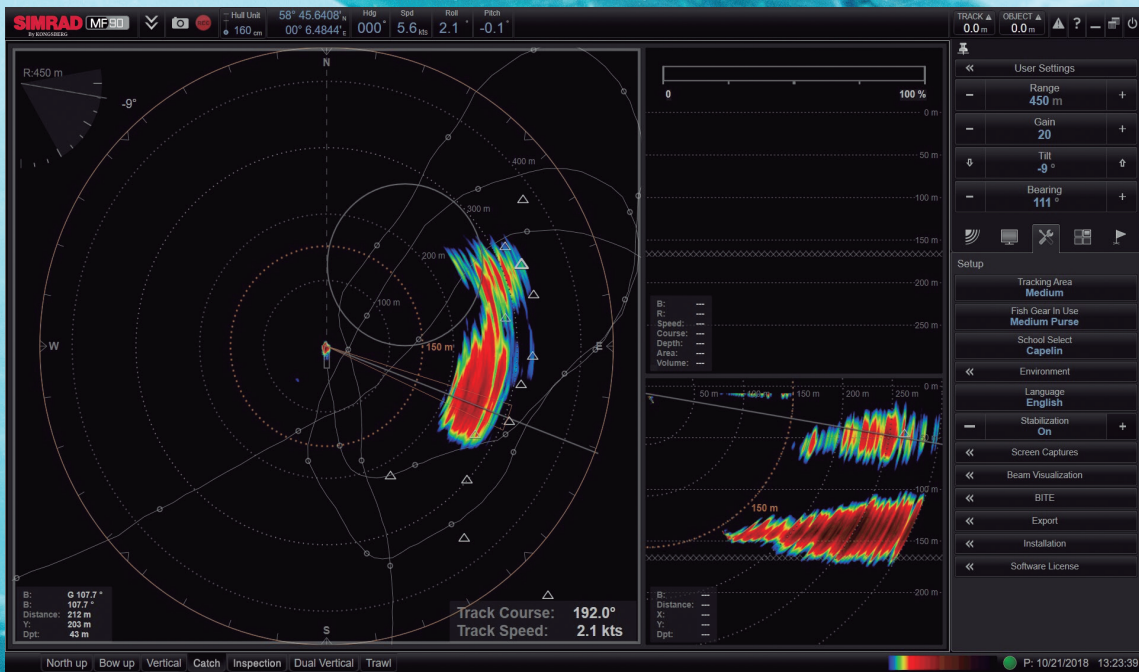
Sonar Operating Panel (SOP)

The Sonar Operating Panel (SOP) includes a handy multifunction joystick. It allows the operator to control the tilt, vertical and inspection beams easily just by pushing it and/or turning its top knob. With one single Operating Panel you can control up to four sonars. Or right the opposite: you can connect up to three different Operating Panels on different locations onboard to operate one sonar just by means of an Ethernet connection. One on the bridge, one on the wing and one in the tower, for example.

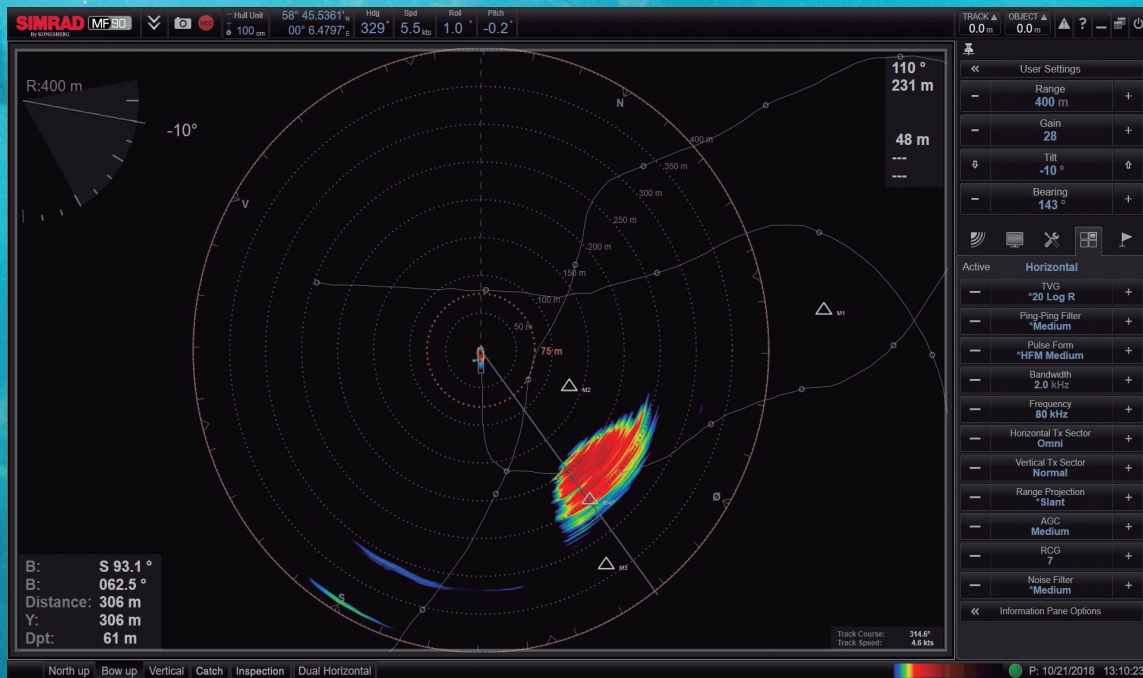
Also, the front panel USB port makes it possible to upgrade sonar SW as well as saving/importing user settings. Dedicated buttons as well as programmable buttons/knobs are also available. The SOP fits in the previous Simrad SOP spot using a bracket, making the upgrade easy as well.



1. USB port
2. Multifunction Joystick
3. Trackball
4. User defined function buttons
5. User defined potmeters (Gain, range, etc.)
6. Sonar selector



The MF90 is a broadband sonar capable of transmitting between 75 and 85 kHz. It features the new operating SW and is optimized for the new joystick Operating Panel. This makes the MF90 very efficient to use during purse seine operations when a lot of equipment must be operated at the same time.

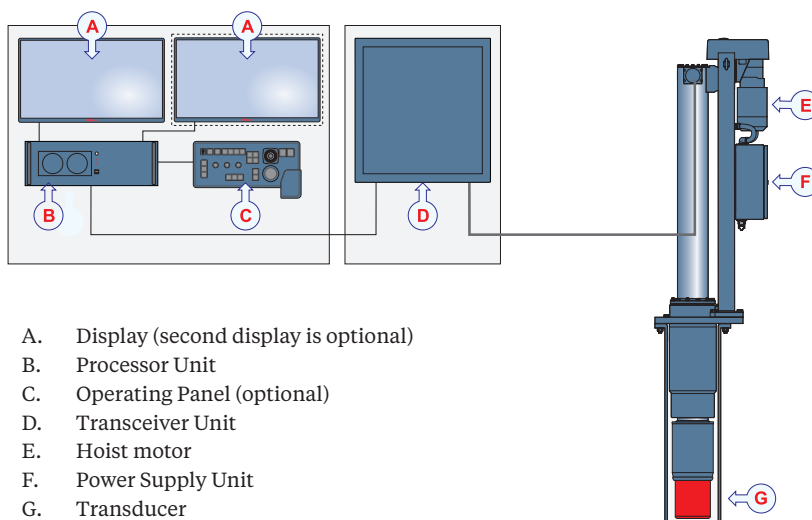


Notice the bandwidth here is 2 kHz with a center frequency of 80 kHz. This can be adjusted between 75-85 kHz. The MF90 is an Omni broadband sonar with a composite transducer. Here is an example from Mackerel fishery in the North sea. The MF90 includes the new Winson 2019 operating SW which provides several benefits.



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| MF90 TECHNICAL SPECIFICATION | | |
|-------------------------------------|------------|---|
| Display | | Simrad 24" or 27" monitor or any PC monitor |
| Menu Language | | English, Spanish, French, Chinese, Bangladesh, Vietnamese, Danish, German, Greek, Icelandic, Italian, Japanese, Korean, Norwegian, Polish, Russian, Swedish, Turkish, Chinese (Traditional), Chinese (Simplified) |
| Echo presentation colors | | 64 Colors |
| Operating modes | | Omni Horizontal, Vertical, 180 vertical, Inspection. Multitude of combinations. Dual Horizontal also supported. |
| Sonar frequency | | 75-85 kHz, in 0.5 kHz steps |
| Range scales | Meters | 25, 50, 75, 100, 150, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1200, 1500, 2000 m |
| | Feet | 82, 150, 250, 350, 500, 650, 1000, 1300, 1600, 2000, 2200, 2500, 3000, 3200, 4000, 5000, 6500 feet |
| Pulse length | | 1 to 40 ms, follows range scale and pulse name, e.g. LFM Long |
| Transmission modes | | CW, FM (Linear FM) |
| Beam width | Vertical | 7.5° |
| | Horizontal | 360° Omni |
| Ship speed | | 20 knots max (automatic withdrawal at max speed) |
| | | 20 knots raising and lowering |
| Automatic target track | | Yes, unlimited numbers but one is prioritised and controls the tilt |
| Tilt | Manual | -5° to +55° in 1° steps |
| | Auto | Yes |
| Bearing line/Audio channel | Manual | Yes |
| | Auto | Yes |
| Power supply | VAC | 110/230 (3-phase for the hull unit) |



- A. Display (second display is optional)
- B. Processor Unit
- C. Operating Panel (optional)
- D. Transceiver Unit
- E. Hoist motor
- F. Power Supply Unit
- G. Transducer

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