

19-inch Color LCD / Black Box type
Marine Radar

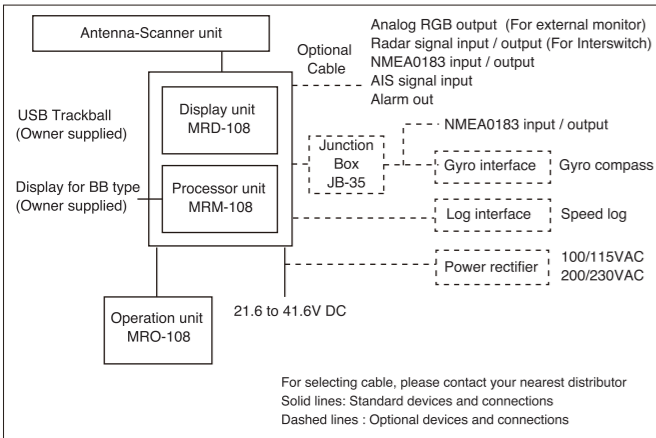
MDC-7900/7000 Series

SPECIFICATIONS

| Antenna-scanner unit | | | |
|----------------------------------|---|---------------------|---------------------|
| Model | MDC-7006 / MDC-7906 | MDC-7012 / MDC-7912 | MDC-7025 / MDC-7925 |
| Scanner unit | RB807 | RB808 | RB809 |
| Antenna type | Open antenna | | |
| Antenna length | 4 feet / 6 feet / 9 feet | | |
| Output power (Peak) | 6 kW | 12 kW | 25 kW |
| Output frequency | 9410 MHz ± 30 MHz | | |
| Horizontal beam width | 4 feet : 1.8° / 6 feet : 1.2° / 9 feet : 0.8° | | |
| Vertical beam width | 4, 6 feet: 22° / 9 feet : 25° | | |
| Rotation | 24 rpm or 48 rpm | 24 rpm or 42 rpm | |
| IF center frequency | 60 MHz | | |
| Range accuracy | 8 meters or 1% of the range scale selected, whichever is the greater | | |
| Minimum detecting distance | Within 40 m | | |
| Range resolution | Within 40 m | | |
| Warm-up time | 2 min | 3 min | |
| Pulse width | 0.08 us, 0.15 us, 0.3 us, 0.4 us, 0.6 us, 0.8 us, 1.2 us | | |
| Environmental | | | |
| Operating temperature | -25°C to +55°C | | |
| Water Protection | IPX6 | | |
| Display unit / Processor unit | | | |
| Model | MDC-7006 / MDC-7906 | MDC-7012 / MDC-7912 | MDC-7025 / MDC-7925 |
| Display unit | MRD-108 (MDC-7900 only) | | |
| Display size and type | 19" color TFT LCD (MDC-7900 only) | | |
| Processor unit | MRM-108 (MDC-7000 only) | | |
| Effective diameter | 282 mm (MDC-7900 only) | | |
| Display resolution | 1280 x 1024 pixels (SXGA) | | |
| Off-centering | Max. 75 % | | |
| Echo area | 2 types (Full screen, Inside of effective diameter) | | |
| Basic Range | 0.125 to 64 NM | | |
| Range Scales | 0.125 0.25 0.5 0.75 1.5 3 6 12 24 48 64 96 | | |
| Range interval | 0.0625 0.125 0.25 0.5 1 2 4 8 16 16 | | |
| | (64 NM: 6 kW, 12 kW only, 96 NM: 25 kW only) | | |
| Presentation modes | Head-up, North-up (True motion)*, North-up (Relative motion)*, Course-up (True motion)*, Course-up (Relative motion)* | | |
| Video levels | 16 | | |
| Range unit | NM, km, sm, kt, ky | | |
| Functions | Map overlay*, CFAR (Clutter rejection), Interference rejection, Target expansion, Process (Averaging), VRM, EBL, Parallel index, ERBL, Cursor position, Bearing (true / relative), Trail (true / relative)*, Own ship past track*, MAP(Event mark* etc.), Analog RGB output, Trial Manoeuvre* | | |
| Input data format and sentences | NMEA0183 BWC, DBT, DPT, DTM, GGA, GLC, GLL, GNS, HDG, HDT, HDM, MTW, RMA, RMB, RMC, ROT, RTE, THS, VBW, VDR, VHW, VTG, WPL, XTE, ZDA | | |
| Output data format and sentences | NMEA0183 DTM, EVE, GLL, HBT, HDT, ROT, RSD, OSD, POS, THS, TLB, TLL, TTD, TTM, VBW, VDR, VHW, VTG, ZDA | | |
| AIS interface* | 1000 Targets (Standard) | | |
| TT (ARPA)* | Auto / Manual 100 Targets (Standard) | | |
| Power supply | 21.6 to 41.6 VDC | | |
| Power Consumption (at 24 VDC) | 130 W or less | 150 W or less | 200 W or less |
| Environmental | | | |
| Operating temperature | -15°C to +55°C | | |
| Water Protection | Operation unit : IP23 (MDC-7000), Front panel and operation unit : IP23 (MDC-7900) | | |

* Requires heading, speed, and / or position signal input from external equipment including GPS Compass depending on application of user.

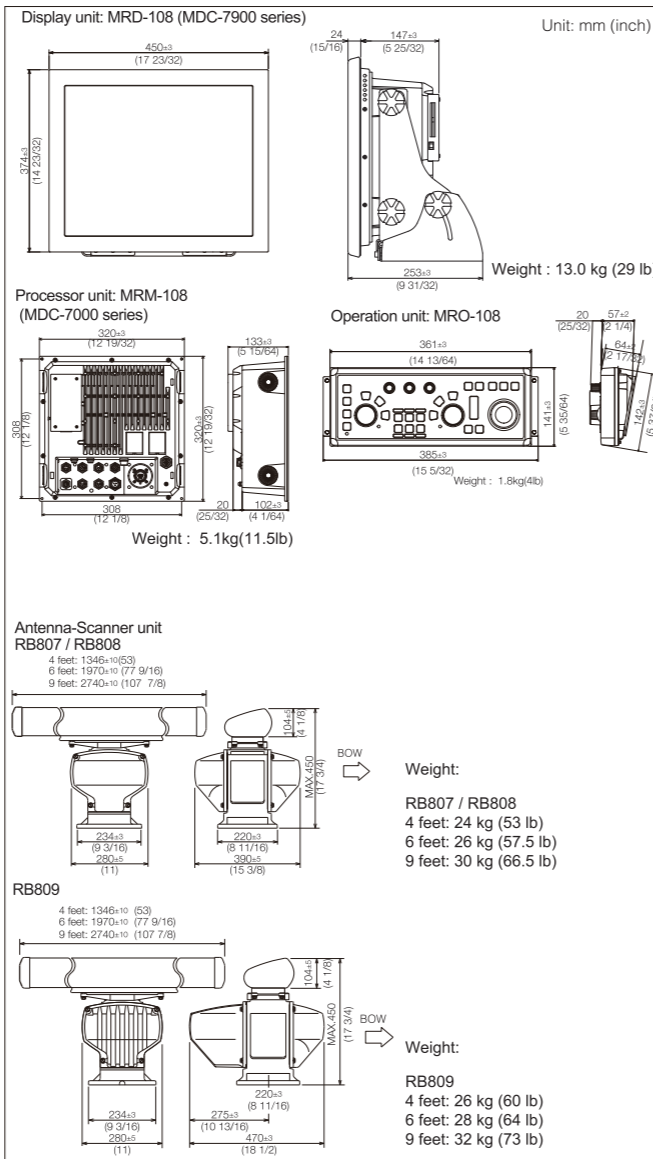
CONNECTIONS



EQUIPMENT LIST

| Standard Equipment | | | |
|---|--------------|-----------------------------------|--------|
| Antenna-Scanner unit | Scanner unit | RB807 | 6 kW |
| | | RB808 | 12 kW |
| | | RB809 | 25 kW |
| | Antenna unit | RW701A-04 | 4 feet |
| | | RW701A-06 | 6 feet |
| | | RW701B-09 | 9 feet |
| Display unit (MDC-7900 only) | MRD-108 | | |
| Processor unit (MDC-7000 only) | MRM-108 | | |
| Operation unit | MRO-108 | With 2 m connecting cable | |
| Connecting cable | CW-845-15M | 15 m with connectors on both ends | |
| DC power cable | CW-259-2M | 2 m | |
| Operation manual, Quick reference, Installation manual, Installation material, Fuse | | | |
| Option | | | |
| Gyro interface unit, Log interface unit, Power rectifier, AC power cable, Connecting cables, Junction Box | | | |

DIMENSIONS AND WEIGHT



* Design and specifications are subject to change without notice.

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Safety precaution To ensure proper and safe use of the equipment, please carefully read and follow the instructions in the Operation Manual.

For details, please contact:



MDC-7000

MDC-7900

MDC-7000 MDC-7900 Series

MDC-7900 series provide outstanding performance and clear image on a 19-inch high resolution SXGA display with anti-reflection coating.
MDC-7000 series Black Box radars connect to any SXGA type display (owner supplied).

| Model | 19-inch Display type | | | Black Box type | | |
|----------------|----------------------|----------|----------|----------------|----------|----------|
| | MDC-7960 | MDC-7910 | MDC-7920 | MDC-7060 | MDC-7010 | MDC-7020 |
| Standard model | MDC-7960 | MDC-7910 | MDC-7920 | MDC-7060 | MDC-7010 | MDC-7020 |
| CE model | MDC-7906 | MDC-7912 | MDC-7925 | MDC-7006 | MDC-7012 | MDC-7025 |

Features

- Clear image with High-speed sampling in short range.
- Auto GAIN with simple operation.
- Improved visibility by auto STC.
- Simple and easy operation by remote trackball unit via USB.
- Built-in AIS interface for up to 1000 targets.
- Built-in TT (ARPA) tracks up to 100 targets.
- C-Map chart (NT MAX) can be overlaid on the radar screen.
(Chart: owner supplied)

Map Overlay

C-Map chart (NT MAX)** can be overlaid on the radar screen to provide clear radar pictures of coastlines, buoys, and other features. C-Map NT MAX "World Wide" back ground chart is built-in as standard.
**Owner supplied. Basic chart information only. Extra features of C-Map such as photo indication are not available.



Data Display

Own ship data

TT (ARPA), AIS information

Target and Map information

Assistant display
(Navigation information)

Alarm display

TT (ARPA)

Built-in TT (ARPA) tracks up to 100 targets.
Selectable auto acquisition or manual acquisition.

AIS

Built-in AIS interface for displaying up to 1000 targets.

Standard model

| | | |
|---------------------|---------|-------------------------------|
| MDC-7060 / MDC-7960 | : 6 kW | 4 feet / 6 feet Open |
| MDC-7010 / MDC-7910 | : 12 kW | 4 feet / 6 feet / 9 feet Open |
| MDC-7020 / MDC-7920 | : 25 kW | 4 feet / 6 feet / 9 feet Open |

CE model

| | | |
|---------------------|---------|-------------------------------|
| MDC-7006 / MDC-7906 | : 6 kW | 4 feet / 6 feet Open |
| MDC-7012 / MDC-7912 | : 12 kW | 4 feet / 6 feet / 9 feet Open |
| MDC-7025 / MDC-7925 | : 25 kW | 4 feet / 6 feet / 9 feet Open |

Standard model

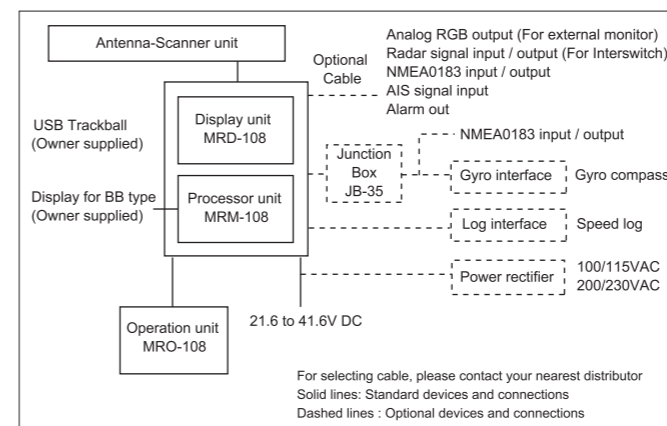
SPECIFICATIONS

| Antenna-scanner unit | | | |
|--------------------------------------|--|---|---------------------|
| Model | MDC-7060 / MDC-7960 | MDC-7010 / MDC-7910 | MDC-7020 / MDC-7920 |
| Scanner unit | RB717A | RB718A | RB719A |
| Antenna type | Open antenna | | |
| Antenna length | 4 feet / 6 feet | 4 feet / 6 feet / 9 feet | |
| Output power (Peak) | 6 kW | 12 kW | 25 kW |
| Output frequency | 9410 MHz ± 30 MHz | | |
| Horizontal beam width | 4 feet : 1.8° / 6 feet : 1.2° / 9 feet : 0.8° | | |
| Vertical beam width | 4, 6 feet: 22° / 9 feet : 25° | | |
| Rotation | 24 rpm or 48 rpm | | |
| IF center frequency | 60 MHz | | |
| Range accuracy | 8 meters or 1% of the range scale selected, whichever is the greater | | |
| Minimum detecting distance | Within 40 m | | |
| Range resolution | Within 40 m | | |
| Warm-up time | 2 min | 3 min | |
| Pulse width | RB717A RB718A RB719A | 0.08us, 0.25us, 0.5us, 0.7us, 1.0us 0.08us, 0.3us, 0.6us, 0.8us, 1.2us | |
| Environmental | | | |
| Operating temperature | -25°C to +55°C | | |
| Water Protection | IPX6 | | |
| Display unit / Processor unit | | | |
| Model | MDC-7060 / MDC-7960 | MDC-7010 / MDC-7910 | MDC-7020 / MDC-7920 |
| Display unit | MRD-108 (MDC-7900 only) | | |
| Display size and type | 19" color TFT LCD (MDC-7900 only) | | |
| Processor unit | MRM-108 (MDC-7000 only) | | |
| Effective diameter | 282 mm (MDC-7900 only) | | |
| Display resolution | 1280 x 1024 pixels (SXGA) | | |
| Off-centering | Max. 75 % | | |
| Echo area | 2 types (Full screen, Inside of effective diameter) | | |
| Basic Range | 0.125 to 64 NM | | 0.125 to 96 NM |
| Range Scales | 0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 64, 96 | | |
| Range interval | 0.0625, 0.125, 0.25, 0.5, 1, 2, 4, 8, 16, 16 | | |
| | (64 NM: 6 kW, 12 kW only, 96 NM: 25 kW only) | | |
| Presentation modes | Head-up, North-up (True motion), North-up (Relative motion), Course-up (True motion), Course-up (Relative motion)* | | |
| Video levels | 16 | | |
| Range unit | NM, km, sm, kf, ky | | |
| Functions | Map overlay*, CFAR (Clutter rejection), Interference rejection, Target expansion, Process (Averaging), VRM, EBL, Parallel index, ERBL, Cursor position, Bearing (true/relative), Trail (true/relative)*, Own ship past track*, MAP (Event mark* etc.), Analog RGB output, Trial Manoeuvre* | | |
| Input data format and sentences | NMEA0183 | | |
| Output data format and sentences | NMEA0183 DTM, EVE, GLL, HBT, HDT, ROT, RSD, OSD, POS, THS, TLB, TLL, TTD, TTM, VBW, VDR, VHW, VTG, ZDA | | |
| AIS interface* | 1000 Targets (Standard) | | |
| TT (ARPA)* | Auto / Manual 100 Targets (Standard) | | |
| Power supply | 21.6 to 41.6 VDC | | |
| Power Consumption (at 24 VDC) | 130 W or less | 150 W or less | 200 W or less |
| Environmental | | | |
| Operating temperature | -15°C to +55°C | | |
| Water Protection | Operation unit : IP23 (MDC-7000), Front panel and operation unit : IP23 (MDC-7900) | | |

| Display unit / Processor unit | | | |
|----------------------------------|--|---------------------|---------------------|
| Model | MDC-7060 / MDC-7960 | MDC-7010 / MDC-7910 | MDC-7020 / MDC-7920 |
| Display unit | MRD-108 (MDC-7900 only) | | |
| Display size and type | 19" color TFT LCD (MDC-7900 only) | | |
| Processor unit | MRM-108 (MDC-7000 only) | | |
| Effective diameter | 282 mm (MDC-7900 only) | | |
| Display resolution | 1280 x 1024 pixels (SXGA) | | |
| Off-centering | Max. 75 % | | |
| Echo area | 2 types (Full screen, Inside of effective diameter) | | |
| Basic Range | 0.125 to 64 NM | | 0.125 to 96 NM |
| Range Scales | 0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 64, 96 | | |
| Range interval | 0.0625, 0.125, 0.25, 0.5, 1, 2, 4, 8, 16, 16 | | |
| | (64 NM: 6 kW, 12 kW only, 96 NM: 25 kW only) | | |
| Presentation modes | Head-up, North-up (True motion), North-up (Relative motion), Course-up (True motion), Course-up (Relative motion)* | | |
| Video levels | 16 | | |
| Range unit | NM, km, sm, kf, ky | | |
| Functions | Map overlay*, CFAR (Clutter rejection), Interference rejection, Target expansion, Process (Averaging), VRM, EBL, Parallel index, ERBL, Cursor position, Bearing (true/relative), Trail (true/relative)*, Own ship past track*, MAP (Event mark* etc.), Analog RGB output, Trial Manoeuvre* | | |
| Input data format and sentences | NMEA0183 | | |
| Output data format and sentences | NMEA0183 DTM, EVE, GLL, HBT, HDT, ROT, RSD, OSD, POS, THS, TLB, TLL, TTD, TTM, VBW, VDR, VHW, VTG, ZDA | | |
| AIS interface* | 1000 Targets (Standard) | | |
| TT (ARPA)* | Auto / Manual 100 Targets (Standard) | | |
| Power supply | 21.6 to 41.6 VDC | | |
| Power Consumption (at 24 VDC) | 130 W or less | 150 W or less | 200 W or less |
| Environmental | | | |
| Operating temperature | -15°C to +55°C | | |
| Water Protection | Operation unit : IP23 (MDC-7000), Front panel and operation unit : IP23 (MDC-7900) | | |

* Requires heading, speed, and / or position signal input from external equipment including GPS Compass depending on application of user.

CONNECTIONS



For selecting cable, please contact your nearest distributor
Solid lines: Standard devices and connections
Dashed lines: Optional devices and connections

EQUIPMENT LIST

| Standard Equipment | | | |
|---|--------------|-----------------|-----------------------------------|
| Antenna-Scanner unit | Scanner unit | RB717A | 6 kW |
| | | RB718A | 12 kW |
| | | RB719A | 25 kW |
| | Antenna unit | RW701A-04 | 4 feet |
| | | RW701A-06 | 6 feet |
| | | RW701B-09 | 9 feet |
| Display unit (MDC-7900 only) | | MRD-108 | |
| Processor unit (MDC-7000 only) | | MRM-108 | |
| Operation unit | | MRO-108 | With 2 m connecting cable |
| Connecting cable | | 24ZJ159098B-15M | 15 m with connectors on both ends |
| DC power cable | | CW-259-2M | 2 m |
| Operation manual, Quick reference, Installation manual, Installation material, Fuse | | | |
| Option | | | |
| Gyro interface unit, Log interface unit, Power rectifier, AC power cable, Connecting cables, Junction Box | | | |

DIMENSIONS AND WEIGHT

