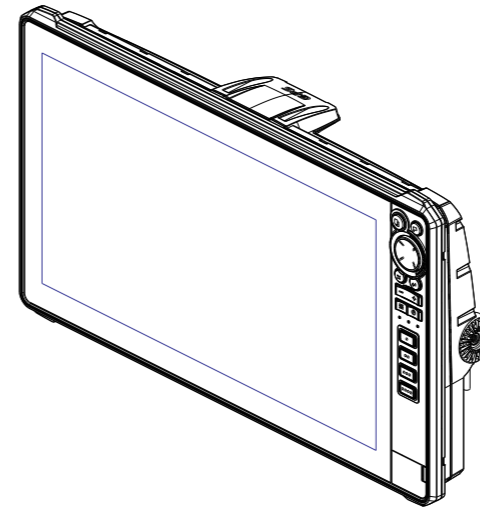


## Technical specifications

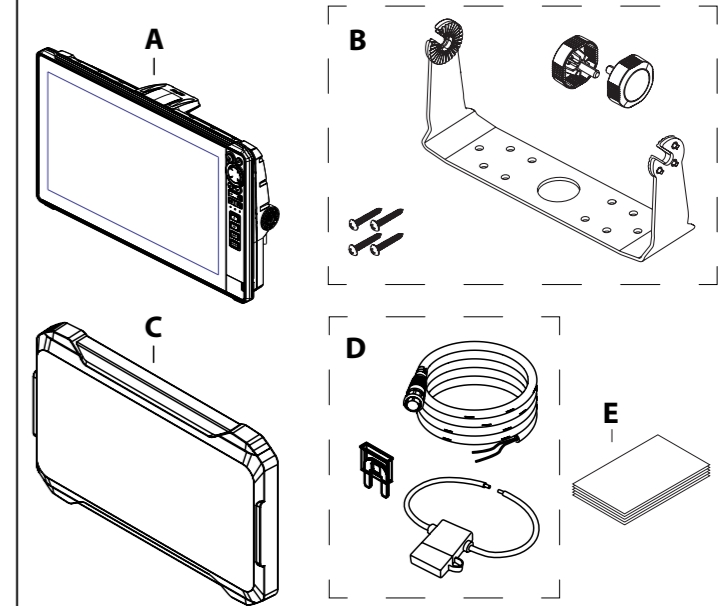
|   | 12"   | 16"                       |
|---|---|---------------------------|
| <b>Display</b>  |   |                           |
| Resolution  | 1280 x 800  | 1920 x 1080               |
| Brightness  | >1200 nits  |                           |
| Touch screen  | Multitouch  |                           |
| Viewing angles in degrees<br>(typical value at contrast ratio = 10) | 85° top/bottom, 85° left/right                              |                           |
| <b>Electrical</b>   |   |                           |
| Supply voltage  | 12 V DC (10.8 - 18 V DC)                                    |                           |
| Power consumption (max)   | 48 W (3.6 A at 13.8 V DC)                                   | 57 W (4.1 A at 13.8 V DC) |
| Recommended fuse rating   | 5 A   |                           |
| <b>Environmental</b>  |   |                           |
| Operating temperature   | -15°C to 55°C (5°F to 131°F)                                |                           |
| Storage temperature   | -30°C to 70°C (-22°F to 158°F)                              |                           |
| Waterproof rating   | IPX6 and IPX7   |                           |
| Shock and vibration   | 100,000 cycles of 20 G                                      |                           |
| <b>Interface/Connectivity</b>                                       |   |                           |
| NMEA 2000®  | 1 port (Micro-C connector)                                  |                           |
| NMEA 0183®  | 1 port (via the power connector)                            |                           |
| Sonar   | 2 ports (9-pin connector)                                   |                           |
| HDMI®   | 1 port for external input (HDMI® 1.4 sink and HDCP)         |                           |
| USB   | 1 port (USB-A) Output: 5 V DC, 1 A                          |                           |
| Analog video  | 1 port (via the power cable, adapter cable sold separately) |                           |
| Ethernet  | 100BASE-T, 2 ports (5-pin connector)                        |                           |
| Card reader   | 2 slots (microSD® SDXC)                                     |                           |
| Wi-Fi®  | Internal 802.11b/g/n  |                           |
| Bluetooth®  | Bluetooth® 5.2 with support for Bluetooth® classic          |                           |
| <b>Physical</b>   |   |                           |
| Dimensions  | Refer to the dimensional drawings section in this document  |                           |
| Weight (display only)   | 2.61 kg (5.76 lb)   | 3.60 kg (7.94 lb)         |
| Compass safe distance   | 65 cm (2.1 ft)  |                           |
| Mounting type   | Panel mount or bracket mount                                |                           |

# LOWRANCE®

## HDS® PRO 12" & 16" Installation Guide

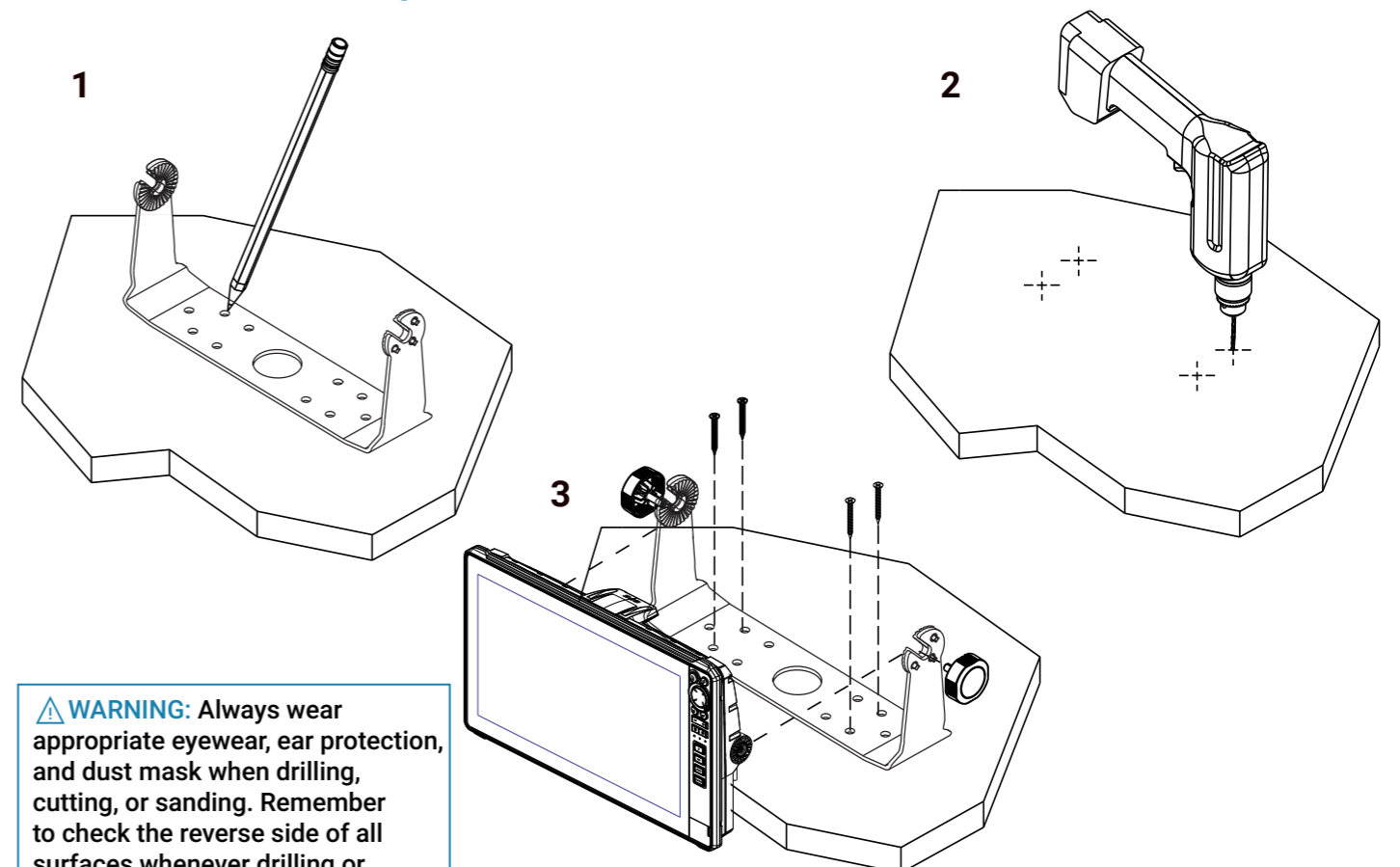


## Parts included



- A HDS® Pro 12" or 16" display unit
- B Gimbal bracket kit
- C Sun cover
- D Power cable kit
- E Documentation pack

## Gimbal bracket mounting



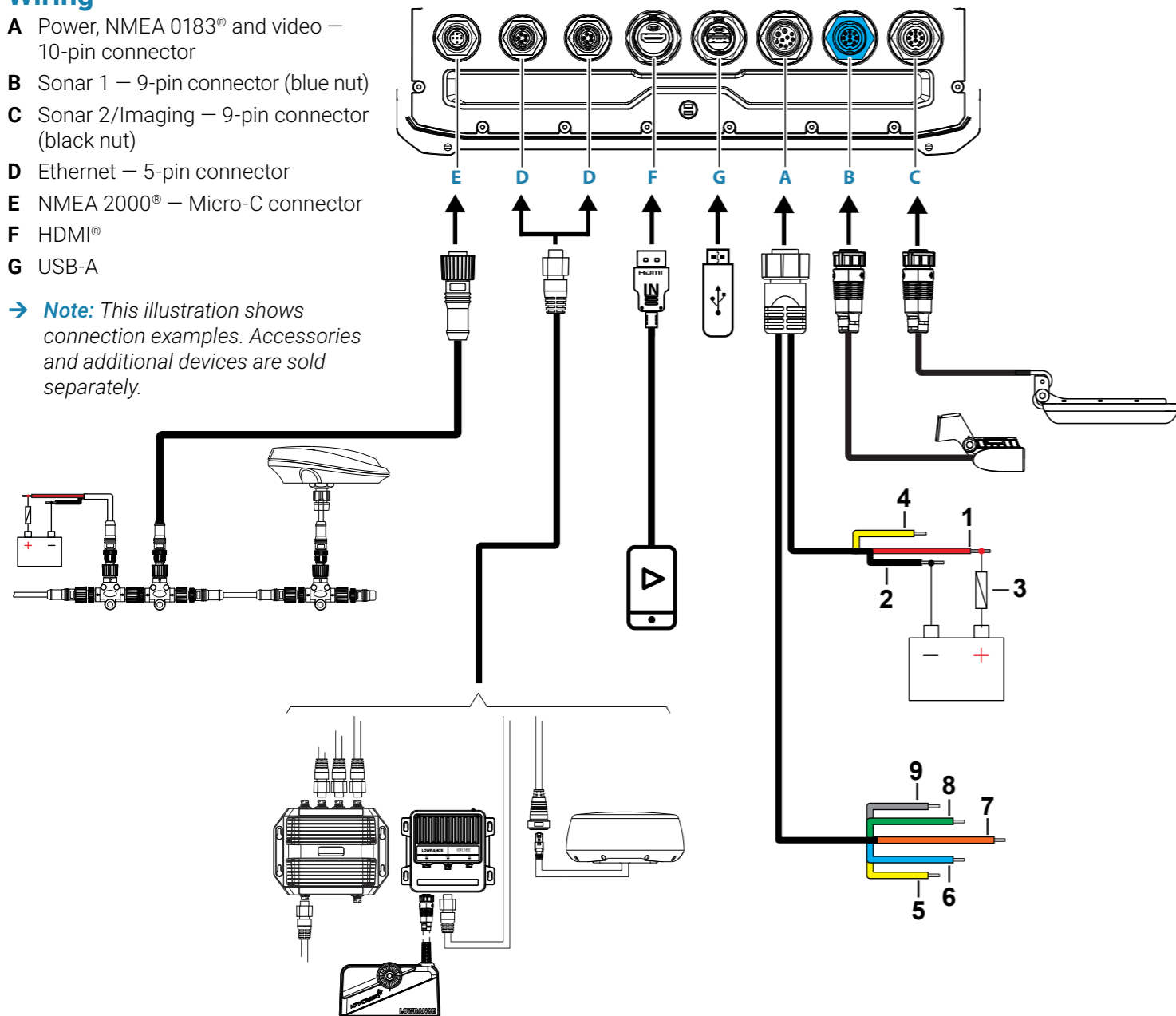
**⚠ WARNING:** Always wear appropriate eyewear, ear protection, and dust mask when drilling, cutting, or sanding. Remember to check the reverse side of all surfaces whenever drilling or cutting.



## Wiring

- A** Power, NMEA 0183® and video – 10-pin connector
- B** Sonar 1 – 9-pin connector (blue nut)
- C** Sonar 2/Imaging – 9-pin connector (black nut)
- D** Ethernet – 5-pin connector
- E** NMEA 2000® – Micro-C connector
- F** HDMI®
- G** USB-A

→ **Note:** This illustration shows connection examples. Accessories and additional devices are sold separately.



### Power and NMEA 0183® cable (A)

Provide 12 V DC power to the unit with a 5 A fuse or circuit breaker on the positive supply line. It is protected against reverse polarity, under/over voltage (for a limited duration).

| Key | Purpose                        | Color  |
|-----|--------------------------------|--------|
| 1   | +12 V DC                       | Red    |
| 2   | DC negative                    | Black  |
| 3   | Fuse                           | -      |
| 4   | Accessory wake up or ping sync | Yellow |
| 5   | NMEA 0183® Talker A (Tx_A)     | Yellow |
| 6   | NMEA 0183® Talker B (Tx_B)     | Blue   |
| 7   | NMEA 0183® Listener A (Rx_A)   | Orange |
| 8   | NMEA 0183® Listener B (Rx_B)   | Green  |
| 9   | NMEA 0183® Ground (shield)     | -      |

### Sonar 1 - blue nut (B)

Supports the following sonar technologies and frequencies:

- Sonar: Low, Medium, and High CHIRP up to 1 kW.
- DownScan: 455 kHz, 800 kHz CHIRP: 700 kHz and 1200 kHz

### Sonar 2/Imaging - black nut (C)

Supports the following sonar technologies and frequencies:

- Sonar: Low, Medium, and High CHIRP up to 1 kW.
- DownScan: 455 kHz, 800 kHz. CHIRP: 700 kHz and 1200 kHz.
- SideScan: 455 kHz, 800 kHz. CHIRP: 455 kHz and 1075 kHz.

### Ethernet (D)

Ethernet is used to connect devices such as radar, displays, and sonar modules such as ActiveTarget®2 or S3100. Connect a device directly to the Ethernet port, or use a network expansion device to connect multiple devices.

### NMEA 2000® (E)

The NMEA 2000® port supports data sharing between connected sources and is suitable for a compass, engine computers, and other sensors.

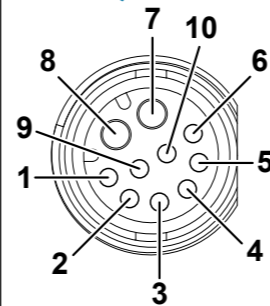
### HDMI® (F)

Use an accessory cable/adaptor (not supplied) to connect an external video source.

### USB-A (G)

Insert a USB-A storage device to update software, or backup/transfer user data.

## Power, NMEA 0183® and video connector



Unit socket (female)

| Pin | Purpose           |
|-----|-------------------|
| 1   | Accessory wake up |
| 2   | Listener B (Rx_B) |
| 3   | Video in +        |
| 4   | Talker B (Tx_B)   |
| 5   | Drain             |
| 6   | Talker A (Tx_A)   |
| 7   | + 12 V DC         |
| 8   | DC negative       |
| 9   | Video in -        |
| 10  | Listener A (Rx_A) |

→ **Note:** To use the video input functionality, an adapter cable has to be used: SKU 000-11010-001 (sold separately).

## NMEA 0183®

The unit has a built-in NMEA 0183® serial interface, providing both input and output. The port(s) uses the NMEA 0183® (serial balanced) standard, and can be configured in the software for different baud rates up to 38,400 baud.

### Talkers and listeners

Only one talker (output device) can be connected to a serial input (RX) on the unit, in accordance with the NMEA 0183® protocol. However, an output port (TX) on the unit may be connected to up to three listener (receiver) devices, depending on the hardware capabilities of the receiver.

### Video input

The unit can be connected to a composite video source, and display video images on its display.

### → Notes:

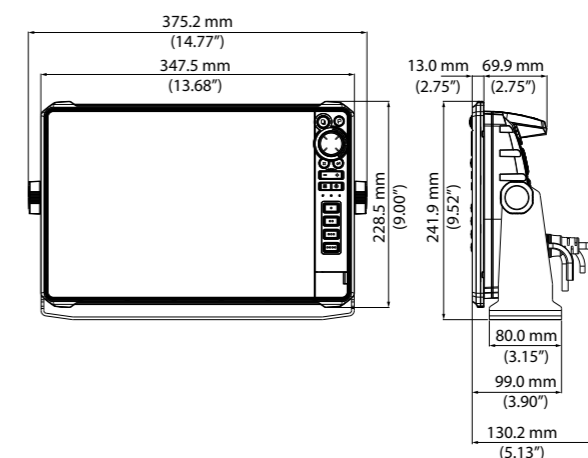
- Camera cables are not supplied, and will need to be selected to suit termination – RCA at the unit, and typically BNC or RCA plug at the camera end.
- The video images will not be shared with another unit via the network. It is only possible to view video on the unit connected to the video source.
- Both NTSC and PAL formats are supported.

### Video input configuration

Configurations to video input are made in the video panel. For further details, refer to the operator manual online: [www.lowrance.com/downloads/hdspro](http://www.lowrance.com/downloads/hdspro)

## Dimensions

### 12" unit



### 16" unit

