

# Terra by Trimble TDF 100D

## Automatic Direction Finder

*Reduces pilot workload, while increasing safety and pilot awareness*

The Terra by Trimble TDF 100 Automatic Direction Finder (ADF) points personal aircraft owners in the right direction.

The TDF 100D system is comprised of three components: the TDF 100D panel-mounted receiver/control unit, the TA 10 combination Sense/Loop antenna, and the TDI 10 ADF indicator.

The compact, power-efficient TDF 100D features a brilliant planar gas discharge display which is clearly visible, even in bright sunlight. Also, as with all Terra by Trimble radios, it has an automatic dimming feature which adjusts for all lighting conditions.

ADF control is accomplished by the multi-function concentric knob. The outer knob is used to select ADF/ANT/BFO/ID modes while the inner knob selects ON/OFF/VOL.

The TDF 100D allows you to tune frequencies from 200 KHz to 1800 KHz in 1 KHz increments, utilizing the cursor tuning knob. You can also receive 2182 KHz, the Marine Distress Frequency.

Like the other practical Terra by Trimble radios, the TDF 100D displays active and standby frequencies which may be transferred by pushing a single button. The TDF 100D is equipped with a non-volatile memory that stores up to ten frequencies, so re-selecting commonly used frequencies is simple.

You will notice the Terra by Trimble Technology Advantage by the

small size and weight of the TA 10 ADF antenna. This compact unit contains two loop antennas with a sense antenna and amplifier circuits for each antenna. The antenna may be top or bottom mounted and has provisions for quadrantal error adjustments.

The TDI 10 ADF indicator has a selectable heading knob which allows you to position the compass card. The ADF needle is driven by a stepper motor

which provides the most reliable and accurate needle indication.

Like all Terra by Trimble radios, the TDF 100D control unit comes in a rugged stainless steel tray, in either a single or dual-mount chassis. You can also purchase an optional chassis that mounts into a standard 3" ATI cutout.

For an ADF that is small in size but big in features, the Terra TDF 100D is the only way to go.

### Key Features and Benefits

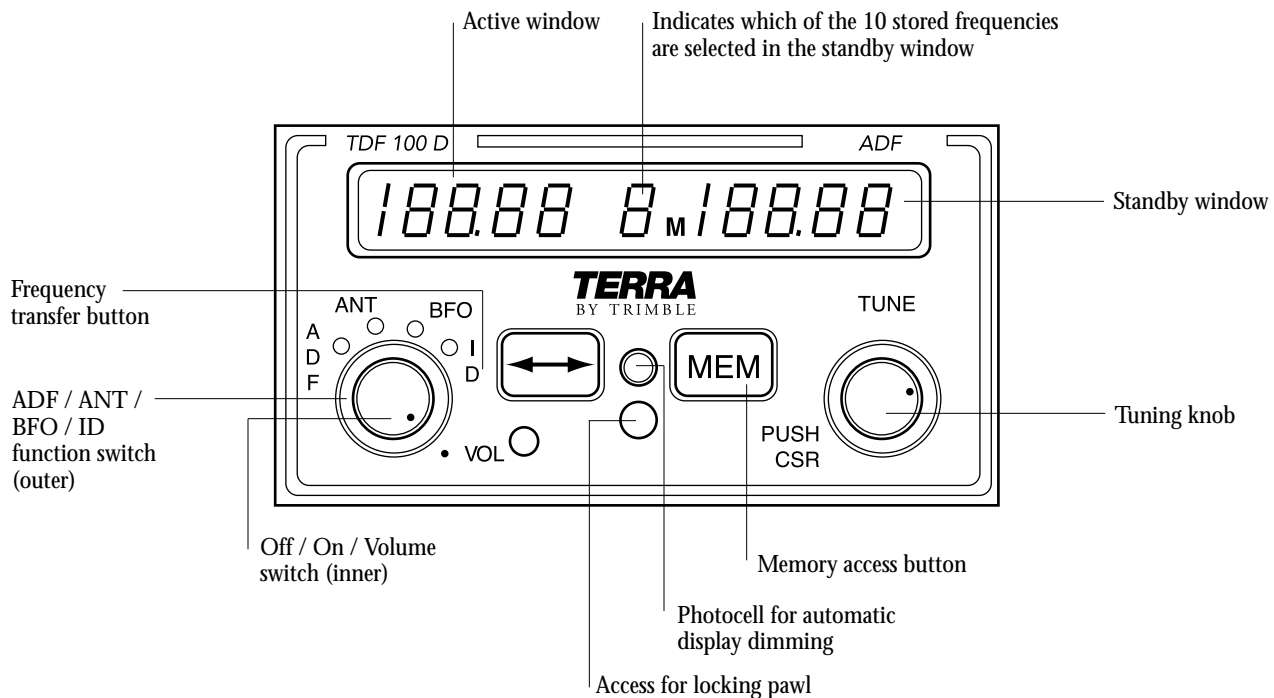
- The smallest Automatic Direction Finder with the most features
- Highly visible gas discharge display
- Easy-to-use single-knob cursor tuning
- Active and standby frequencies
- Small and lightweight, easy-to-install
- Air show proven, rugged and reliable
- 10 frequency memory reduces pilot workload
- Unparalleled three year warranty



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## Automatic Direction Finder

### Features



### Technical Specifications

#### Navigation Receiver

Planar gas discharge display, auto dimming  
 Single knob tuning  
 Integrated Sense-Loop antenna  
 Dual display active/standby  
 10 frequency storage in non-volatile memory

#### Altitude:

50,000 feet

#### Temperature:

(Operating) Receiver/Control & Indicator/Power Supply Unit -20°C to +55°C; Antenna Assembly -55°C to +70°C

#### Frequency Range:

200 KHz to 1800 KHz in 1 KHz increments +2182 KHz  
 Marine distress frequency

#### Audio Output:

100 mW across 500 ohms

#### Power requirements:

13.75 VDC or 27.5 VDC;  
 400 MA to 280 mA

#### Sensitivity:

ADF Mode (S+N)/N = 6 dB @ 150  $\mu$ V/m, 30% Mod., 400 or 1000 Hz;  
 ANT Mode (S+N)/N = 6 dB @ 70  $\mu$ V/m, 30% Mod., 400 or 1000 Hz.

#### Selectivity:

6 dB Bandwidth:  $\pm$ 2KHz max from center frequency; 80 dB Bandwidth:  $\pm$ 7 KHz max from center frequency

#### Spurious:

80 dB down  $\pm$ 12 KHz from center frequency

#### Intermodulation/Cross Modulation:

50 KHz to 550 KHz — 65 dB min.  
 550 KHz to 1500 KHz — 72 db min.

#### ADF Indicator Speed:

5 seconds maximum with indicator 175° off bearing and an RF input signal level of 70  $\mu$ V/m to 0.5 V/m.

#### ADF Bearing Accuracy:

$\pm$ 3° from 70  $\mu$ V/m RF Input

#### Size:

Receiver: 3.125"W; 1.6"H; 11.45"L (incl. mounting tray)  
 Indicator: 3" ATI; 5.5"L  
 Antenna: 5.3" W; 1"H; 8"L

#### Weight:

Receiver 1.45 lbs.  
 Indicator 1.2 lbs.  
 Antenna 1.75 lbs.

\*D model Comms, Navs, ADF's and Transponders are also available in a standard 3" ATI mount. Specifications subject to change without notice.



For Sales Information:  
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 Fax: (512) 836-9413

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