

TFXIDF

Operations Manual



THANK YOU

Thank you for choosing Teleflex Sonar, manufactured by Techsonic Industries, for your sonar fishfinder and depthsounder. Techsonic has built its reputation by designing and manufacturing top-quality, thoroughly reliable marine equipment. Techsonic has designed your Teleflex Sonar unit to be trouble free even in the harshest marine environments.

In the unlikely event that your Teleflex Sonar product does require repairs, Techsonic offers an exclusive Service Guarantee - free of charge during the first year after purchase, and available at a reasonable rate after the one-year period. Complete details are included at the end of this manual.

We encourage you to read this operations manual carefully in order to get full benefit from all the features and uses of your Teleflex Sonar product. Also, to register your purchase and help us learn more about you, please fill out the included warranty registration card

WARNING! This device should not be used as a navigational aid to prevent collision, grounding, boat damage, or personal injury. When the boat is moving, water depth may change too quickly to allow time for you to react. Always operate the boat at very slow speeds if you suspect shallow water or submerged objects.

WARNING: Dis-assembly and repair of this electronic unit should only be performed by authorized service personnel. Any modification of the serial number or attempt to repair the original equipment or accessories by unauthorized individuals will void the warranty. Handling and/or opening this unit may result in exposure to lead, in the form of solder.

WARNING: This product contains lead, a chemical known to the State of California to cause cancer and birth defects and other reproductive harm.

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SPECIFICATIONS

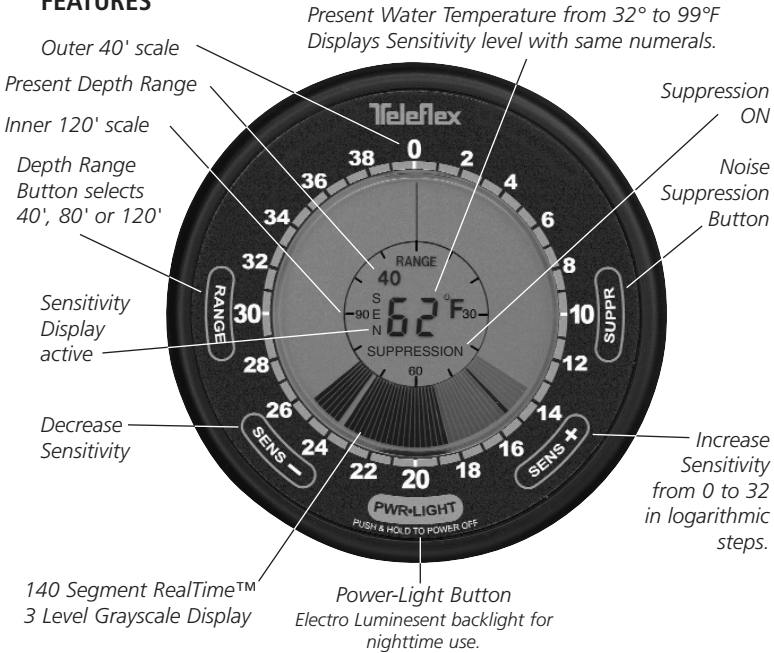
SPECIFICATIONS0-40 feet (outer scale)
.0-80 feet (outer scale x 2)
.0-120 feet (inner scale)
Pulse Length0-40 feet 100 μ sec (microseconds)
.0-80 feet .200 μ sec
.0-120 feet .300 μ sec
Frequency	200 kHz
Temperature	32 to 99° F
Output power	600 watts peak to peak
Target Separation	3.43"
Voltage	12 vdc nominal, 9-16 vdc
Current Drain	40ma/80ma w/backlight
Dimensions:	4" OD, .250" bezel height,
.	1.85: depth 2.025 clearance
.	from top surface of dash.

INTRODUCTION

INTRODUCTION

Welcome to the World of Real-Time Sonar™. Only Real-Time Sonar™ can truly tell you what is under your boat-instantly and accurately. By reading this manual you will realize the maximum features of your new sonar. Please read carefully before installing and using your unit.

FEATURES



- Instantaneous Real-Time Sonar™ display
- Digital sensitivity control for super fine gain adjustments
- 600 watts of peak to peak output power
- 3.4 inches of target resolution
- Three levels of gray scale
- Time Variable Gain (TVG)
- LCD panel display – no moving parts
- Readable in direct sunlight and extreme viewing angles
- Readable with polarized glasses
- Minimum depth reading of 1.5 feet
- 200kHz operating frequency
- Weatherproof
- Full one year warranty
- Made and assembled in the USA

USING THE IDF SERIES

CONTROLS AND OPERATIONS

CONTROLS AND OPERATIONS

POWER: Press the PWR/Light, switch on the front panel of the IDF unit to turn the unit on, a second push will turn the backlight on. Push a third time to turn the backlight off. A long depression of the PWR/Light switch will power the IDF off.

SENSITIVITY: The logarithmic nature of the Sensitivity Control allows improved fine tuning of the unit's gain. From the zero setting to the 32 setting of the sensitivity key the gain is increased from zero to full. At the 10 Position the gain is approximately 20% with full gain being achieved at the 32 setting as shown on the display.

RANGE: The unit powers up on the 40' RANGE and can be changed to the 80' or 120' RANGES by depressing the RANGE button. The selected RANGE will be displayed in the center of the *IDF*. A shallow RANGE selection may not display a bottom return.

SUPPRESSION: The unit will power up without SUPPRESSION. To add SUPPRESSION, press the SUPPRESSION key. Pressing the key again will eliminate SUPPRESSION. SUPPRESSION provides an advanced level of control over the amount of visible detail on the unit. You can choose the setting that works best for your style of use.

With SUPPRESSION set to **OFF**, the *IDF* displays increased detail, showing more thermoclines, structure, fish and even your bait when it falls within the sonar cone. However, this extreme sensitivity requires you to optimize the installation of your unit and transducer so that "noise" generated by a moving boat is not picked up by the fishfinder.

With SUPPRESSION set to **ON**, excessive clutter often caused by interference from other fishfinders, your boat's engine, or from noise generated by the hull at high speeds is reduced in the display. This provides a cleaner image on the display in most cases. Adjust SENS (SENSITIVITY) for best display at various speeds, from trolling on up to your boat's maximum speed with RealTime™ Sonar.

BACKLIGHT ON: To turn the display BACKLIGHT on press the Power Light switch once. To Turn the Backlight off, press the Power Backlight Switch momentarily. Continued Depression will turn the Unit off.

USING THE IDF SERIES

SIGNAL INTERPRETATION

SIGNAL INTERPRETATION

Remember, sound waves bounce off a target and return with the strength of its density. More dense targets (i.e. large fish) return and display a strong signal. Less dense objects (i.e. weed, schools of small fish) return and display a weak signal. Dense objects on the edge of the cone return a weaker signal.

The Zero mark will be on at all times.

This mark represents the start of the Sonar Depth scale, which is relative to the placement of your transducer.

This *IDF Series* unit is extremely sensitive and powerful. It will give a very detailed representation of the environment beneath the transducer. Information on bottom hardness and content, weeds, brush, steep slopes and fish are readily attainable.

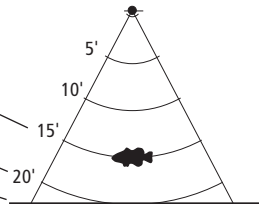


Sensitivity is adjusted using the SENS - and the SENS + keys, the present setting adjusted and shown when either key is depressed

As With all sonar units, experience is the best device for interpreting the target returns accurately. To aid in the interpretation on the display, the following examples are provided.

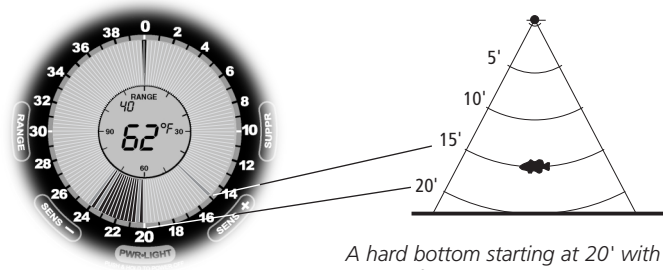


A hard bottom starting at 20' with a Big fish giving a strong return at 15'. If a fish moves horizontally through a sonar cone, it will start at one level, move up and then back down again as it moves beneath the transducer.

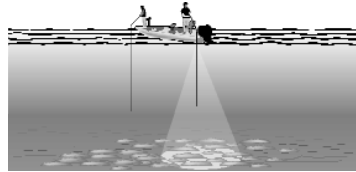


USING THE IDF SERIES

SIGNAL INTERPRETATION

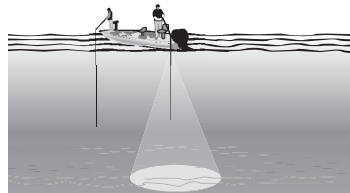


A hard bottom starting at 20' with a smaller fish giving a weak return at 15'.



Hard bottom at 18'

Hard Bottom: The illustration at the bottom of the previous page identifies a hard bottom at 18 feet. You can determine a hard bottom because of the strength of the return (clear, black signal). A second echo would normally appear at 36 feet. However, the IDF unit has a feature to prevent wrap on all scales to assist in differentiating bottom, second echo and fish.

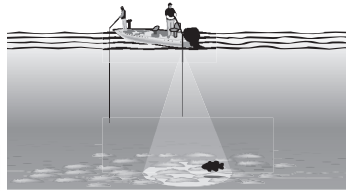


Soft bottom about 18'

Soft Bottom: A soft bottom is displayed on the IDF as a gray return. Soft bottoms absorb the sound waves and thus return a weak signal. Adjust the sensitivity level for a better bottom signal.

USING THE IDF SERIES

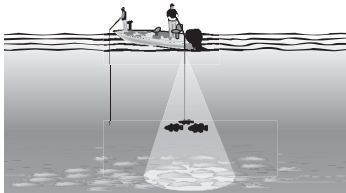
SIGNAL INTERPRETATION



Fish near Bottom

Strong Bottom Return 18'

Fish near the Bottom: The IDF offers a 3.43" target separation. The result is the ability to identify targets laying on or very close to the bottom. This illustration shows a fish one segment from a hard bottom. Most other electronic units would not read this fish since they offer a target separation of 6" to 12".

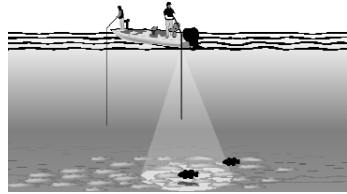


Fish at 11'

Suspended Fish: This display is reading suspended targets at 11' over an 18' bottom.

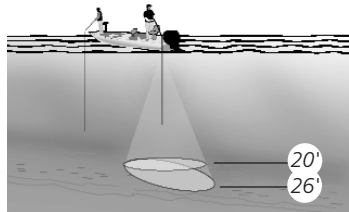
USING THE IDF SERIES

SIGNAL INTERPRETATION



Fish at 17' and either baitfish or larger fish at edge of cone at 16'.

Grayscale: The grayscale feature on the IDF will identify the 1) size of a target, 2) presence of baitfish 3) bottom content and 4) fish on the edge of the cone angle. Here, a fish at 16' is moving either in or out of the transducer cone, while another fish is directly under the transducer cone near 17'.

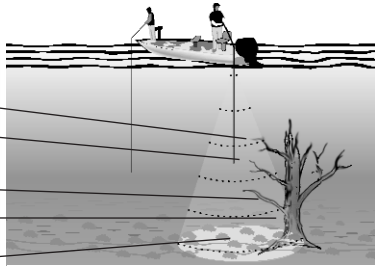


A sloping bottom causes a "Dead Zone". In this illustration, the Dead Zone starts at 20' and continues to 26'

Dead Zone: Any and all sonar devices will have a dead zone in certain instances, such as sharp drop offs. Anything below the shallowest return in the cone cannot be seen.

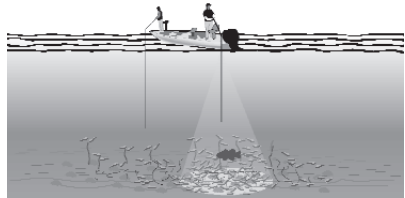
USING THE IDF SERIES

SIGNAL INTERPRETATION



Structure such as trees give returns at various depths.

Trees: the signals here indicate an underwater tree or brush pile. The water is 18' deep and the tree extends to 7'. Limbs at various depths return individual signals. Since fish relate to submerged trees and similar cover, these are excellent areas to fish. To detect fish, anchor your boat and watch for signals that come and go or move to different depths. Trees, of course, will appear stationary. Another way to identify fish is to reduce the sensitivity and grayscale to minimize the number of segments. Dark segments may be fish.



17' bottom with low dense weeds changing to sparse weeds at 14', a possible fish at 13' and clear water from 11' up.

Weeds: Fish also relate to weeds so the ability to identify weeds is very important. Solid weeds can appear as part of the bottom. If this is the case, use the sensitivity control to grayscale out the weeds and mark targets holding in the cover.

MAINTENANCE AND WARRANTY

TROUBLESHOOTING/MAINTENANCE

TROUBLE SHOOTING

If you have trouble with your *IDF*, consult the following troubleshooting guide before contacting Customer Support.

SYMPTOM

Unit turned on but unit displays zero at all times and light does not operate.

Unit turned on but unit displays zero at all times. Night light operates but no bottom display.

Unit operates fine when boat is not moving and at slow speeds, but random flashes occur at higher speed.

No grayscale

POSSIBLE CAUSE

- Check power cable connection and fuse. Verify red lead to positive (+) battery terminal, black lead to negative (-) battery terminal. Verify 12 VDC at power cable.
- Sensitivity adjusted too low
- RANGE set shallow
- Transducer not plugged in
- Defective or damaged transducer
- Poor transducer placement.
- Sensitivity adjusted too high
- Suppression off
- Interference from other electrical equipment or boat/motor.
- Sensitivity too high

MAINTENANCE

Your *IDF* is designed to provide years of trouble free operation with virtually no maintenance. Follow these simple procedures to ensure your *IDF* continues to deliver top performance.

- If the unit comes into contact with salt spray, simply wipe the affected surfaces with a cloth dampened in fresh water. Do not use a chemical glass cleaner on the lens. Chemicals in the solution may cause cracking in the lens of the unit.
- When cleaning the LCD protective lens, use a chamois and non-abrasive, mild cleaner. Do not wipe while dirt or grease is on the lens. Be careful to avoid scratching the lens.

MAINTENANCE AND WARRANTY

WARRANTY AND SERVICE POLICY

- If your boat remains in the water for long periods of time, algae and other marine growth can reduce the effectiveness of the transducer. Periodically clean the face of the transducer with hot water. Pivoting the transducer up in the bracket may allow better access for inspection or cleaning.
- If your boat remains out of the water for a long period of time, it may take some time to wet the transducer when returned to the water. Small air bubbles can cling to the surface of the transducer and interfere with proper operation. These bubbles dissipate with time, or you can wipe the face of the transducer with your fingers after the transducer is in the water.
- Never leave the **IDF** in a closed car or trunk—the extremely high temperatures generated in hot weather can damage the electronics.

TECHSONIC ONE YEAR FULL WARRANTY

First year repairs (from original date of purchase) on your **IDF** are absolutely free. This does not include physical damage to the unit or its accessory items. Any modification or attempt to repair the original equipment or accessories by unauthorized individuals will void the warranty. Return the warranty registration card and retain your bill of sale for warranty verification. Accessories not manufactured under the Techsonic Teleflex Sonar trade name are not covered by our warranty. **The customer is responsible for shipping charges to Techsonic.** This warranty applies to the original purchaser only.

This warranty is in lieu of all other warranties expressed or implied and no representatives or persons are authorized to provide for any other liability in connection with the sale of our products. Techsonic reserves the right to perform modifications or improvements on its products without incurring the obligation to install the changes on units previously manufactured, sold, delivered, or serviced.

THIS IS A FULL WARRANTY AS DEFINED BY THE FEDERAL WARRANTY ACT, EFFECTIVE JULY 4, 1975.

SERVICE POLICY

This Service Policy is valid in the United States only. This applies to Teleflex Sonar units returned to our factory in Eufaula, Alabama, and is subject to change without notice.

All repair work is performed by factory-trained technicians to meet exacting factory specifications. Factory serviced units go through the same rigorous testing and quality control inspection as new production units.

MAINTENANCE

CUSTOMER SUPPORT

Even though you'll probably never need to take advantage of our incredible service guarantee, it's good to know that we back our units this well. We do it because you deserve the best. We will make every effort to repair your unit within three working days from the receipt of your unit. This does not include shipping time to and from our factory. Units received on Friday are usually shipped by Wednesday, units received Monday are usually shipped by Thursday, etc.

We reserve the right to deem any product unserviceable when replacement parts are no longer reasonably available or impossible to obtain.

After the original warranty period, a standard flat rate service charge will be assessed for each repair (physical damage and missing parts are not included). Please call our Customer Support Department to verify the service charge for your unit.

If shipping charges are not prepaid, the unit will be returned C.O.D. If you are experiencing problems related to bottom or depth readings, please send your transducer along with your unit when sending for repair.

CUSTOMER SUPPORT

If you have any questions, call our Customer Support Hotline:

334-687-0503

Throughout the U.S. and Canada, hours are Monday-Friday, 8:00 a.m. to 5:00 p.m. Central time.

If after reading "Troubleshooting" you determine your unit needs factory service, please attach a description of the problem and send it with the unit to the address below.

If you are including a check, please attach it to the unit.

Techsonic Industries Inc.
Service Department
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USA



A Division of Teleflex Marine