

# FISHER *M-SCOPE*®

## ID Excel

Target I.D. Metal Detector

Hot Digital Technology  
NEW FOR 2004!



## Operating Manual

FISHER RESEARCH LABORATORY

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# ABOUT YOUR DETECTOR

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Your ID Excel is the hottest digital technology on the market. It was designed to give you maximum performance, superior target separation, and a 4 tone audio ID - all in an easy to use, lightweight package.

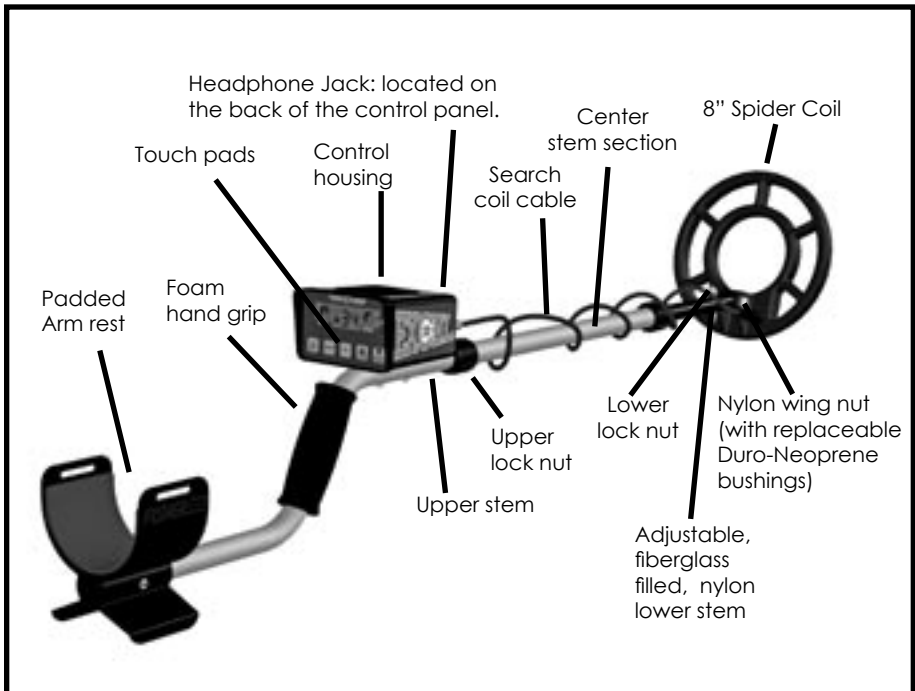
Read this instruction manual thoroughly, practice often and you will be ready for some exciting and rewarding treasure hunting. Drop us a line if you have any questions, comments or good finds to tell us about. In the meantime...

Happy Hunting!  
Fisher Labs

# SETTING UP

Your Fisher ID Excel is built to last for years. Handle it carefully, care for it regularly, and it will give you years of dependable service. The ID Excel requires little assembly.

1. Unpack your ID Excel carefully and save the carton: it may come in handy if you ever have to return the instrument for service.
2. Slip the lower stem into the middle stem.
3. Adjust the stem length and coil angle so that the search coil rests flat on the ground about 6 to 12 inches in front of and slightly to the right of your right foot (to the left of your left foot for left handers). Your arm should be straight and relaxed, the grip held loosely (see drawing on next page). The stem length is adjusted by loosening the lower lock nut and allowing the spring clip to snap into one of the



holes in the center stem. The coil angle is adjusted by loosening the nylon wing nut on top of the search coil.

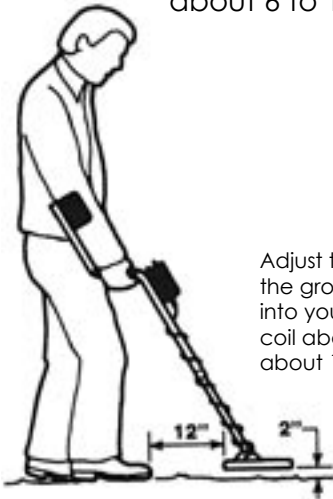
**NOTE:** Remember, the longer the shaft, the more you'll have to bend your elbow to keep the coil off the ground and the sooner your arm will get tired. The ID Excel is balanced for comfortable searching in a tight semicircle around the front of the operator.

4. With the stem length properly adjusted, wrap the search coil cable snugly around the lower stem and the center section. Leave just enough slack near the coil to allow it to be tilted completely backward and forward.

**NOTE:** A loose cable near the search coil may cause false signals, but don't wrap it so tightly that it pulls against the housing or the coil.

5. Reconnect the coil cable to the control housing. Be careful not to cross thread it and make sure it's snug, but hand tightened only.

6. With the shaft length and coil angle properly adjusted, you should be able to move into your search position by leaning forward very slightly and raising the angle so the coil rests flat on the ground about 6 to 12 inches in front of your arm.



Adjust the stem length and coil angle so the coil rests flat on the ground about 6 to 12 inches in front of your foot. Move into your "search" position by leaning slightly and raising the coil about 2 inches off the ground. This should put the coil about 12 to 18 inches in front of your lead foot.

# CONTROL PANEL

The ID Excel control panel is an all new digital I/O System. The LCD Display provides you with a constant control readout showing you all of your current settings.



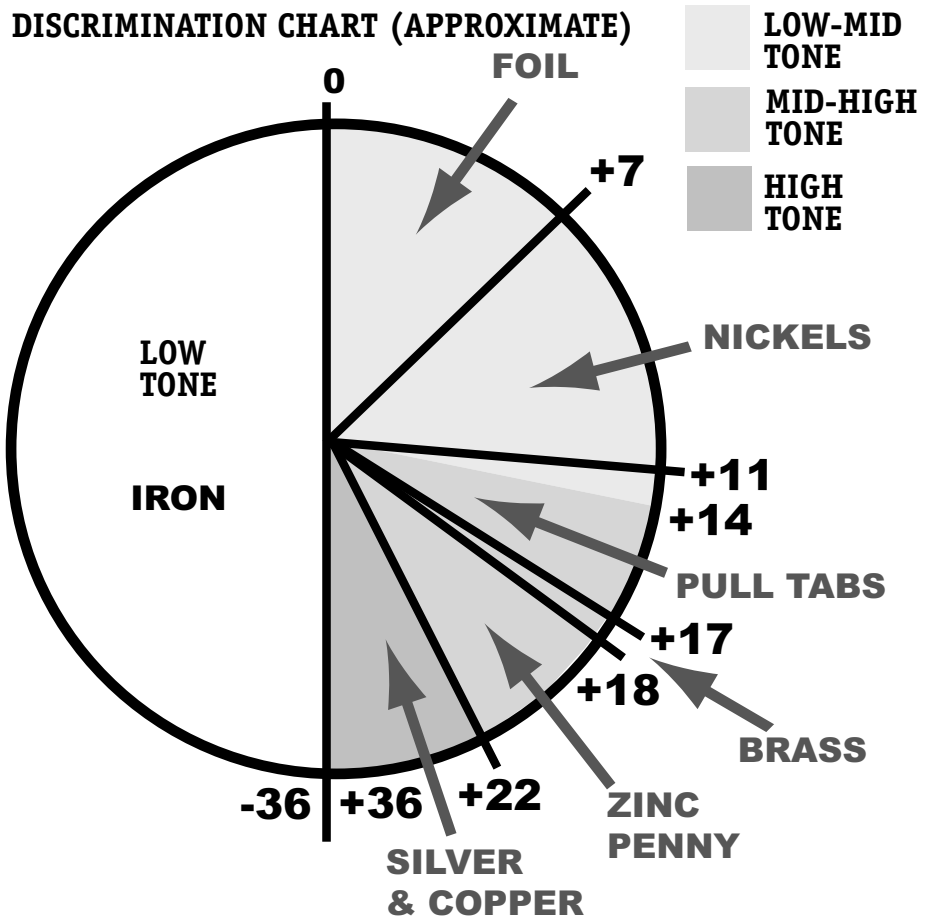
**1.** The POWER button turns the unit ON and OFF. One of the first things you will notice when you turn on your ID Excel is the battery level display. Fresh batteries will show 9 volts; when the battery level is down to 6 volts, you have about an hour of battery life left. The detector will not turn on if the search coil is not properly connected. This can prove to be a timesaving safeguard.

**2.** The MENU button enables you to enter the “menu mode,” in which you can adjust the discrimination and sensitivity controls with the UP/DOWN arrow buttons. Notice that when the MENU button is pushed, the active control blinks — this is the control that can be adjusted with the UP or DOWN arrow buttons. To move to the next control, just press the MENU button again. When you have all your settings completed, press the P/P (Pinpoint) button to return to the search mode.

**CONTROL PANEL**

A. The DISCRIMINATION control can be varied from a setting of -36 to +22 with the arrow buttons when the DISC icon is flashing.

**DISCRIMINATION CHART (APPROXIMATE)**



B. The SENSITIVITY control can be varied from a setting of 1 to a maximum of 10 with the arrow buttons when the SENS icon is flashing. As with most detectors, set the sensitivity higher for best depth performance in soils that are low in mineralization. As the mineralization gets worse, lower the sensitivity setting as needed. Please note that a SENS setting of 1 will still yield excellent results.

*Remember, to exit the MENU mode at any time, simply press & release the P/P button to return to the SEARCH mode*

## CONTROL PANEL

3. The P/P (Pinpoint) button is used to return to the search mode after you set all your current settings when it is pushed and released. As mentioned above, if the P/P (Pinpoint) button is pushed and held while hunting, the Precision Visual Pinpoint Mode will be activated.

4. The MODE button enables you to toggle between two operating modes: a “true” all metal detecting mode or, with an advanced discrimination system activated. To switch between the two modes while hunting, press the arrow down/mode button.

## FACTORY PRESET MODE

Fisher recommends that for a quick start setup and while you are learning to hunt with your ID Excel that you use the factory preset mode. Factory preset mode can be set by pressing the MENU button until the FP icon flashes on the LCD display. When the FP appears, press and hold the P/P (Pinpoint) button until you hear a brief tone. This activates the factory preset setting of discrimination at +5 to reject ferrous targets and Sensitivity at 6 in the disc mode.



# 4 TONE AUDIO SYSTEM

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The four-tone audio system provides you with more information per sweep, acting as a target I.D. system in the “discrimination” mode. While sweeping the ID Excel search coil over a target, you will hear one of four tones:

LOW TONE = Iron objects (ferrous)

LOW/MID TONE = Foil, Nickel, Round Tabs

MID/HIGH TONE = Square Tabs, Zinc Pennies

HIGH TONE = Copper, Clad, Silver Coins

If a bell tone audio is heard, accompanied by an “OL” on the LCD, the coil has encountered a larger or shallow target and the search coil must be lifted to avoid overload and inaccurate I.D. When hunting in the ALL Metal mode, a single tone will be heard for any metal object the coil is swept over. This mode responds much like the “auto tune” mode of previous detectors.

## Pinpointing

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When the P/P (Pinpoint) button is pushed and held, the non-motion pinpoint mode is activated. This pinpoint mode may be familiar in some ways (when the target is approached, the audio intensity increases), but different in others (the digital numeric indicator). The two digit (0-99) LCD will help you to accurately pinpoint your target by increasing in value as the center of the target is approached. This gives you much more resolution in pinpointing than a “depth estimation” system, and allows you to characterize size, shape, and location of your target better.

# LCD IDENTIFICATION SYSTEM

The LCD will also show you an indication of the type of target you have found, in conjunction with the audio tones, by showing you a number preceded by a “-” or “+” sign. The target identification system works as follows:

When in either search mode (ALL METAL or DISC), a target will produce a number between 0 and 36 indicating target type.

In addition, the - or + sign in front of the number indicates whether the target is ferrous in nature (an iron target) “-” / or nonferrous (a non-iron target) “+”.

The target I.D. numbers correspond to the following target types:

All negative (-) numbers:	Iron
+0 to +8:	Foil
+9 to +11:	Nickel
+17 to +18:	Square Tab/Brass
+20 to +22:	Zinc Pennies
+28 to +30:	Copper pennies, dimes
+30 to +34:	Quarters
+34 to +36	Silver

*Remember, this Numeric I.D. system is activated in either the All-Metal or Disc. modes (although the 4-tone audio I.D. is only active in the Disc. mode).*

*Also, the discriminator can silence the audio for certain targets, but the two-digit I.D. will always reveal the target identity.*

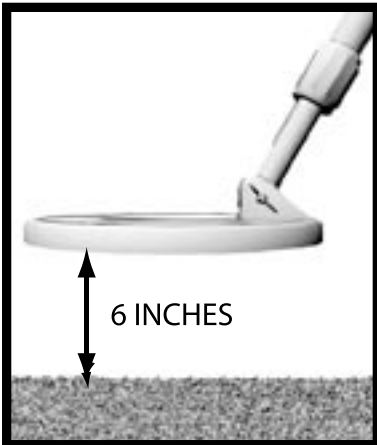
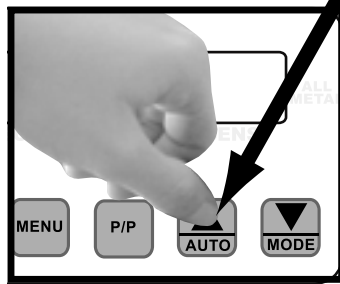
# AUTO GROUND BALANCE:

The precision automatic ground balance system will provide ground balance accuracy that exceeds any setting achieved manually. The procedure is quite simple: After you have set up your controls and are back in the search mode, lower the search coil to the ground in an area completely void of metal. Next, press the AUTO button and hold it for about 2 seconds. Then, while still holding the AUTO button down, lift the coil about 6 inches off the ground, hold for a second, and release the button. The ID Excel will give you a brief tone to let you know the ground balance has been achieved. This procedure can be repeated at any time, as you change your settings or ground conditions change. It is fast and accurate. If the detector gives you 4 brief tones, it is letting you know it has not ground balanced due to the presence of metal under the coil. If this happens, move to another location and try the auto ground balancing procedure again.

## STEP #1 - Lower to ground



## STEP #2 - Press & hold for 2 seconds



**STEP #3** - [while still pressing AUTO]  
Lift coil 6" off ground & release button.  
Listen for a brief tone.

**\*WHEN TONE SOUNDS,  
THE UNIT IS PROPERLY  
GROUND BALANCED**

# ADDITIONAL FEATURES

**AUTOMATIC LOW BATTERY WARNING:** The ID Excel will let you know when a low battery condition will begin to effect performance — the batteries must be changed at this time. When the batteries get too weak, the audio system will produce a wavering tone to alert you to the low battery condition.

**AUTOMATIC SIGNAL OVERLOAD WARNING:** The ID Excel will alert you to the presence of a large metal object in close proximity to the search coil by sounding off an audio bell tone. This lets you know that the object is too close to the coil for the 4-tone audio or LCD systems to accurately identify the object.

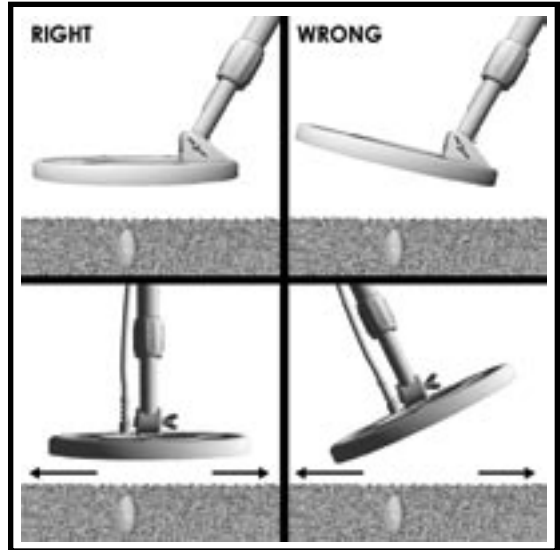
**CONSTANT CONTROL READOUT:** Unlike many digital detectors, the ID Excel LCD shows you the control settings at all times while in the search mode. The control icons are similar to the knobs of older detectors, constantly showing where the settings are at in one easy glance. In addition, even more accurate information regarding the control settings can be obtained by entering the MENU mode and observing the two-digit number accompanying each control, showing improved resolution of each control.

# SEARCHING

Good search techniques are every bit as important as having a good detector.

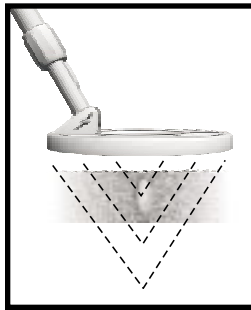
1. Once your controls are properly set, press and release the P/P touch pad, and move into your search position. Begin your search by walking slowly and sweeping the search coil in a tight semicircle.
2. Keep the coil parallel to the ground and as close to the ground as practical. This is extremely important for maximum coverage and depth. If you're searching on a lawn, you may set the coil right on the grass and lightly "scrub it."

Keep the search coil as close to the ground as possible for greater penetration, and make sure the search coil remains parallel to the ground as you search.

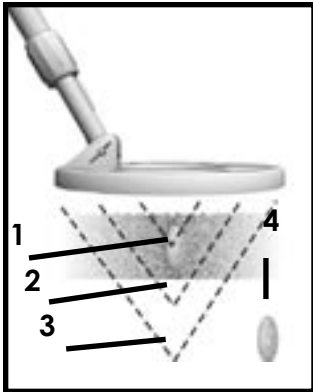


3. Overlap your sweeps by at least 50 percent. Remember that your coil's search pattern is conical and if you don't overlap each sweep you'll miss the deeper targets.
4. Search in a methodical manner. Pay close attention to where you're going and where you've been so that you don't retrace your steps or miss any productive areas.

5. Keep the search coil moving at a comfortable rate.
6. Take your time. If you walk too fast you can overlap your sweeps and you'll miss a lot of ground. If you swing your coil too fast, you could lose some sensitivity to deep and/or small targets.
7. The illustration below shows the ID Excel search coil pattern and how it is effected by sweep speed, ground mineralization and search mode.



The conical search pattern of the ID Excel search coil means you'll get better ground penetration and coverage by overlapping your sweeps.



Effects of sweep speed, ground mineralization and search mode

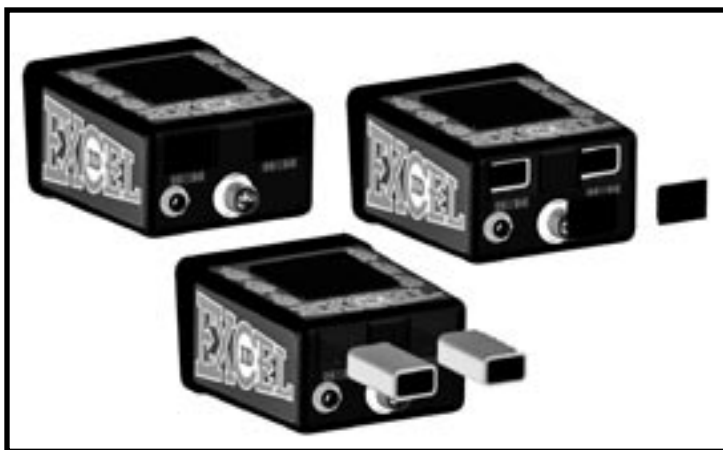
1. **Minimum depth**
  - a. Very slow or very fast sweep speed
  - b. Highly mineralized soil.
2. **Good depth**
  - a. Moderate sweep speed
  - b. Moderately mineralized soil
3. **Maximum depth**
  - a. Moderate sweep speed
  - b. Non-mineralized soil
4. **Missed target**  
Many targets well within the range of your ID Excel will not be detected unless you overlap your sweeps.

Unlike other metal detectors, the discrimination settings have little if any effect on the depth capability of the ID Excel. Depth is also determined by the size, shape and conductivity of the target as well as the sensitivity setting of the ID Excel.

# BATTERY REPLACEMENT

Battery replacement is simple with the ID Excel drop-in battery compartments: just pop the doors open. Two 9-volt transistor batteries are located in separate compartments at the rear of the housing. When it's time to replace the batteries, always replace both of them.

1. To open the battery compartments, press gently down and out on the battery door latch. The doors are tethered; do not attempt to completely remove them.
2. Tilt the housing gently and the batteries will slide out.
3. Insert the new batteries. Make sure the contact end goes in first and that you match the polarity markings on the control housing.



# MAINTENANCE

Your ID Excel doesn't require a lot of care. It's built with high-quality materials. But there are a few things you should do to keep it in peak operating condition.

1. If you're not going to be using it for a while, take the batteries out. Acid damage caused by leaking batteries can be severe.
2. Avoid extreme temperatures. Don't leave it inside a closed car that's sitting in the sun. Or even worse, the trunk of a car.
3. If you "scrub" the search coil on the ground, you'll eventually wear through the bottom of the coil. Replacement coils are expensive. Instead, invest in a coil cover; they're cheap.
4. Keep your ID Excel dry and clean. If you've been working in or around dust, wipe it down with a damp cloth and dry it with a hair dryer (low or no heat) or a dry cloth. Remove and clean the lower stem. Keep the lock nuts free of sand and dirt.

# TREASURE HUNTER'S CODE OF ETHICS

## LET'S PRESERVE OUR TREASURED SPORT!

Laws governing the use of metal detectors are becoming more and more common. In many countries, the use of metal detectors is illegal or severely restricted. Don't let this happen in your area.

**ALWAYS** get permission to hunt on private property.

**ALWAYS** leave a site cleaner than you found it. Take at least some trash with you or, if you can, take it all.

**ALWAYS** fill in your holes neatly whether you're in a city park or remote wilderness. Leave the land as it was before you disturbed it.

**ALWAYS** obey all laws relating to Treasure Hunting.

**ALWAYS** return valuable property if you can locate the original owner.

# SPECIFICATIONS

## FREQUENCY

1. Operating Frequency..... 6.5 KHz
2. Audio Target Response:  
Iron ID ..... (LOW TONE)  
Foil, Nickel, Rnd. Tabs..... (MID LOW TONE)  
Square Tabs, Zinc..... (MID/HIGHTONE)  
Copper, Clad, Silver Coin ..... (HIGH TONE)

## LENGTH

Extended..... 52"      Collapsed <sup>3</sup>..... 42"

## WEIGHT

Complete ..... 2.76 lbs

## OPERATING MODES

- ID discrimination with 4 tone audio & high resolution numeric target ID <sup>4</sup>
- True ALL-Metal mode with single tone & high resolution numeric target ID <sup>4</sup>
- Pinpoint - no motion mode with precision numeric readout

## SPECIAL FEATURES

Controls ..... keypad with tactile response  
Display..... LCD w/ constant control readout  
DISC control..... Yes  
SENS control..... Yes  
Automatic Ground Balance ..... Yes  
Programmed Coin/Relic Mode..... Yes (FP)  
Audio Output Stereo Jack ..... Stereo Headphones (Optional)

## SEARCH COIL

Type..... Concentric, Co-planar Spider  
Diameter..... 8"  
Shielding..... 100% ESI <sup>6</sup>  
Submersible Coil ..... Yes

## BATTERIES

Drop-in, no wires ..... Yes  
Automatic Low Battery Alert..... Yes  
Type ..... Two, 9-Volt Alkaline <sup>5</sup>  
Life..... 20-25 hours (Alkaline) <sup>2</sup>

## WARRANTY

Lifetime Limited Warranty\*  
\*warranty may vary outside of the United States,  
see your dealer for details

## NOTES

1. Subject to improvement or modification without notice.
2. Approximate.
3. The ID Excel disassembles to fit into an optional carrying case measuring approximately 6"x 21" x 15".
4. The ID Excel is a motion detector in the All Metal and Target ID modes.  
The search coil must be moving at least slightly to detect a target.
5. For maximum performance and battery life, always use Alkaline Batteries. .
6. ESI: Electro-Static Insulated to eliminate certain types of false signals.

## ACCESSORIES

### Standard Items:

8" Spider Coil with cable  
Operating manual

### Optional Items:

Carrying Bag  
Coil covers

Hard Carrying Case  
Fisher Phones  
Stereo Phones







## **QUALITY**

Fisher detectors are renowned for their quality.  
Each instrument is hand crafted in the USA with pride

## **PERFORMANCE**

Our detectors are durable, dependable, and search deeper.

## **REPUTATION**

Fisher produced the first patented metal detector in 1931. For over 70 years, the Fisher logo has been a mark of excellence.

## **LIFETIME WARRANTY**

Fisher believes in the products we produce and backs this belief with a Limited Lifetime Warranty for a Lifetime of Service & Satisfaction.!

\*Warranty may vary outside the United States. See your dealer for details

## **SERVICE**

Fisher is committed to providing you, our valued customer, with superior service. Each and every instrument is rigidly tested & carefully inspected during assembly and before shipment.

**Should you have any questions or problems, contact:**

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