615-0180 Magnetic Field Pointer

Introduction: magnetism is a force, but it is not simply a straight line that emanates from the magnetic to the object being affected. Instead, it is a field. This means that the magnetic force permeates the space around the magnet, becoming weaker the further away from the magnet you get. When susceptible objects, such as some metals or other magnets, enter this field, they are affected by it. The process as to why magnets produce and are affected by these fields is well understood, but explaining it is beyond the scope of this guide.

Magnetic fields are invisible. To be more accurate, they are invisible to human eyes, as our senses correspond to a very narrow segment of the electromagnetic spectrum. It is not altogether inconceivable that an organism might be able to see magnetic fields, but in any case we cannot. To determine the extent and shape of a magnetic field, we need an instrument.

Operation: The pointer is composed of a small bar magnet mounted on a swivel inside of a gimbal. This allows the bar magnet to freely move in all three axes. This means it can be used to determine the extent of a magnetic field in all three dimensions.

Using the point is very simple. Place the magnet you wish to examine on a table. Slowly bring the pointer near. Monitor it closely for motion, because it will begin to swing as it enters the field. The closer it gets to the magnet, the greater the deflection. If you move the pointer around the magnet, you can monitor the swing to determine the shape of the field. Like all magnets, opposites attract, meaning the north pole of the pointer will be attracted to the south pole of the magnet.

Warranty and Parts:
We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.