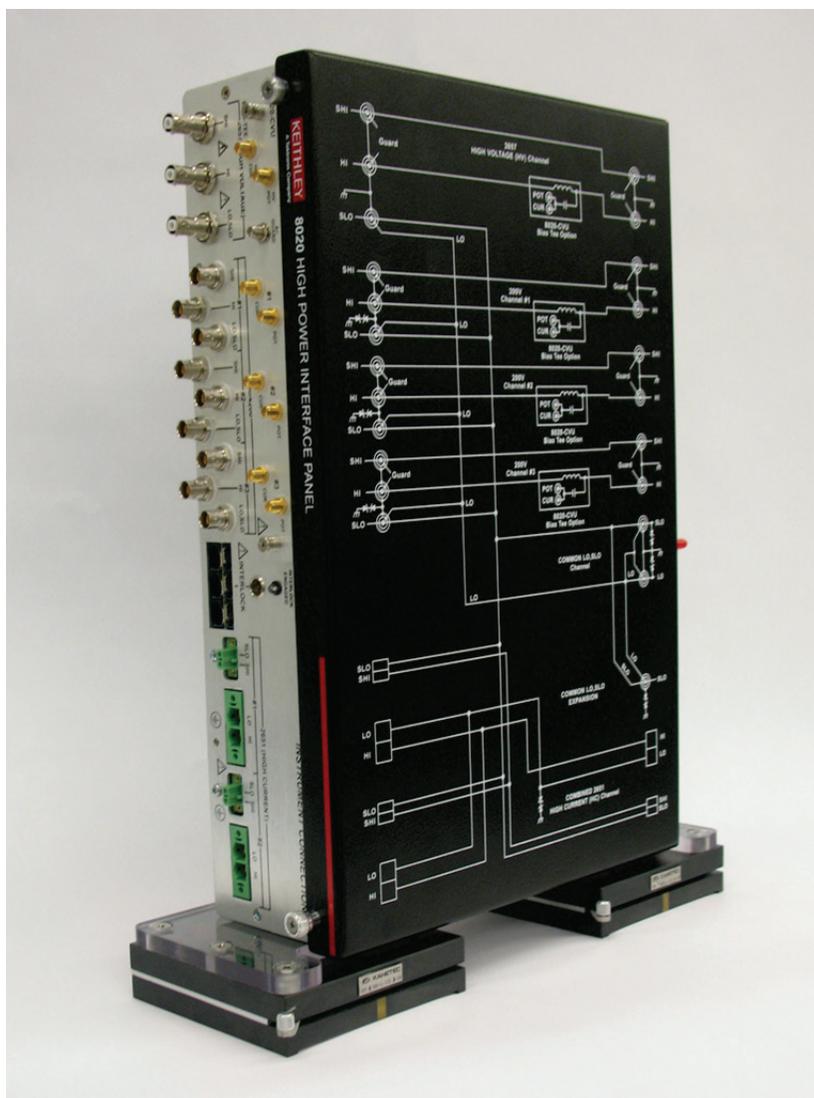


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### Description

The Model 8020-MAG-BASE is a magnetic mounting kit for the Model 8020 High Power Interface Panel. The kit includes an adapter plate, two switchable magnet mounts, and two types of mounting screws. The adapter plate and magnet mounts can be attached to the unit in a variety of ways to create a customized configuration. The Model 8020-MAG-BASE allows you to mount the Model 8020 quickly and rigidly while providing placement flexibility in your testing station.

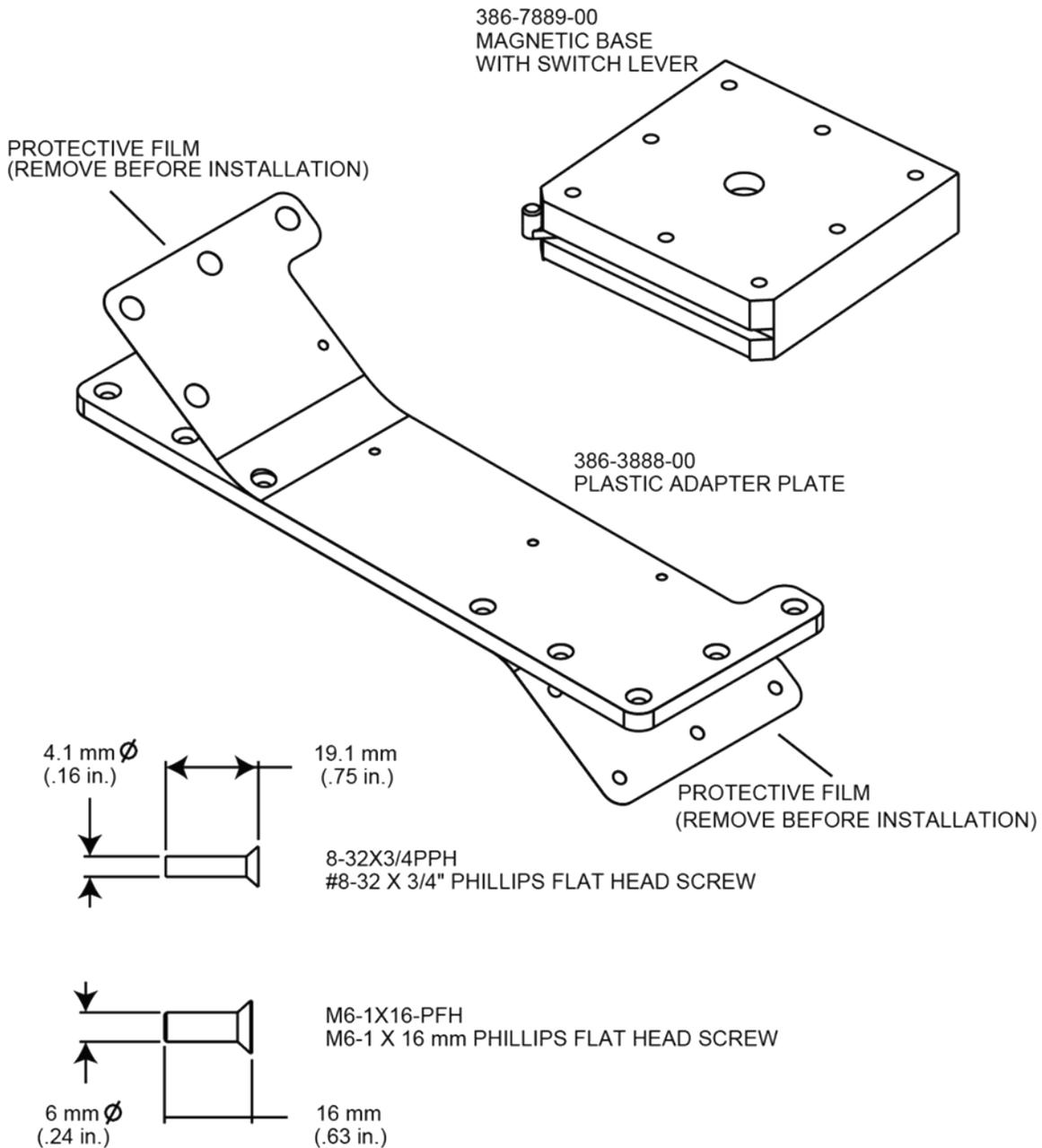
**Figure 1: 8020-MAG-BASE accessory installed on Model 8020**



## Parts list

Part number	Description	Quantity
M6-1X16PFH	M6-1 x16 Phillips flat head screw	10
386-7889-00	Magnetic base with switch lever	2
386-7888-00	Plastic adapter plate	1
8-32X3/4PFH	#8-32 x 3/4 Phillips flat head screw	4

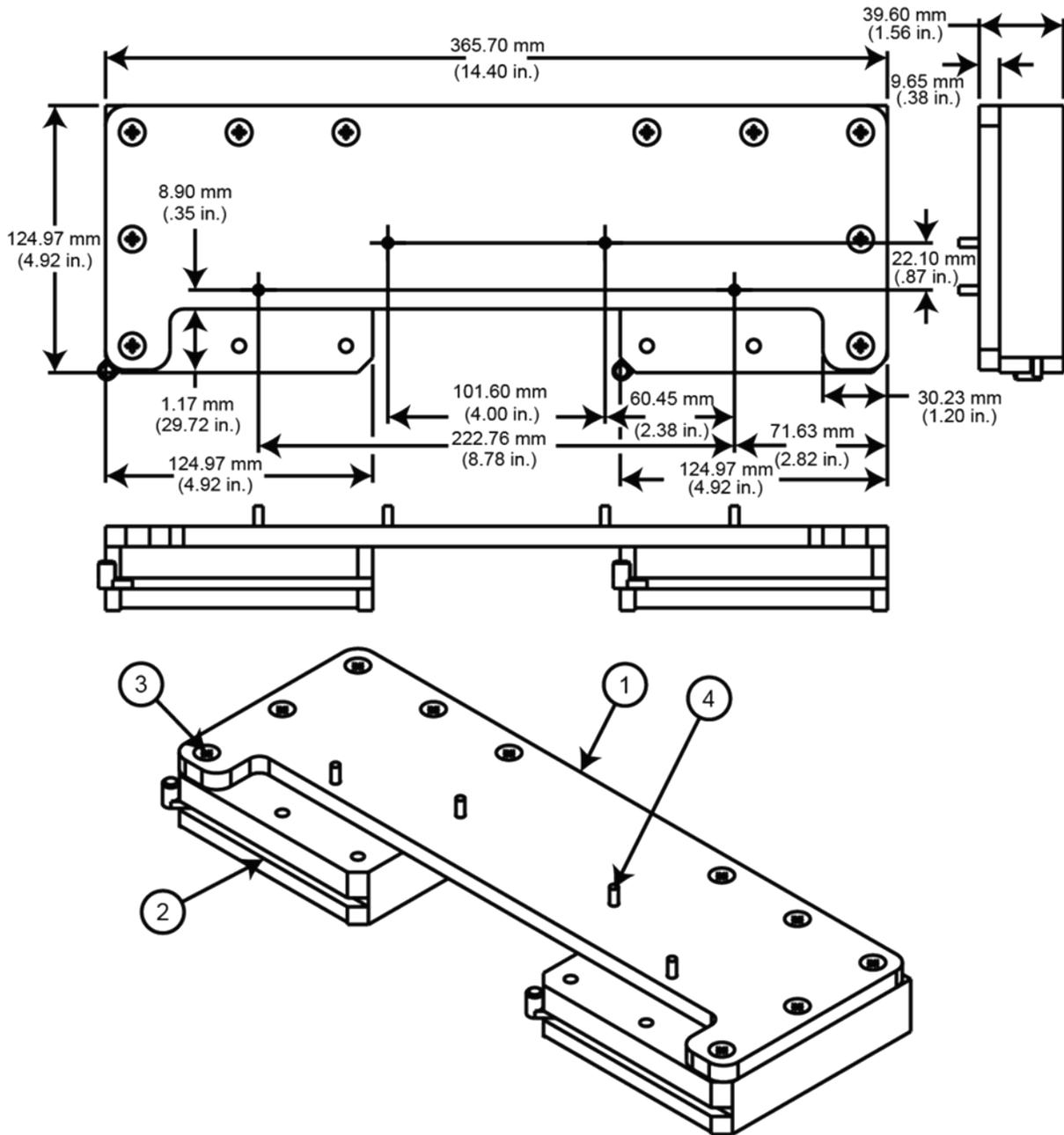
**Figure 2: 8020-MAG-BASE parts illustration**



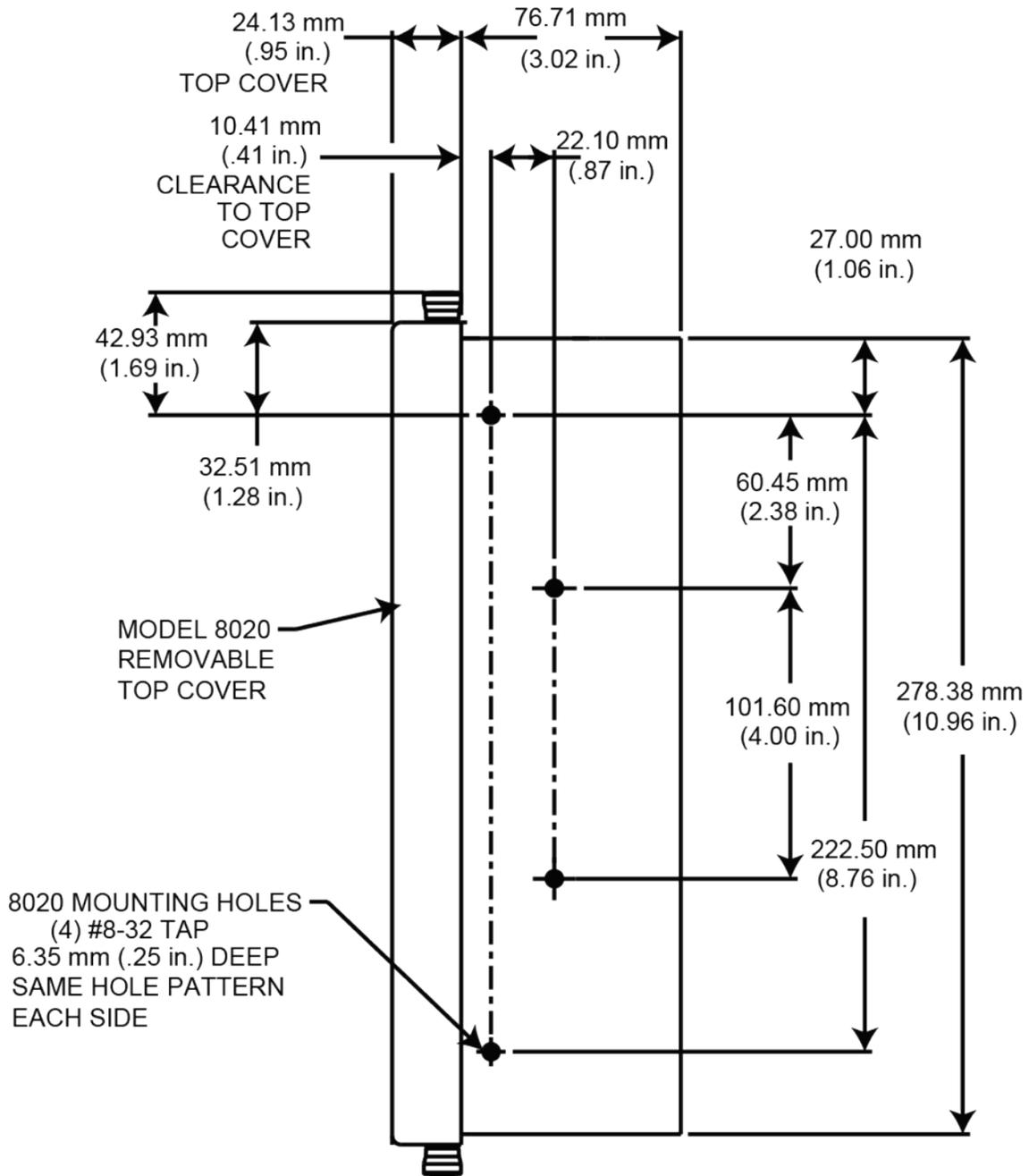
## Dimensions

Item number	Part number	Description	Quantity
1	386-7888-00	Plastic adapter plate	1
2	386-7889-00	Magnetic base with switch lever	2
3	M6-1X16PFH	M6-1 x 16 Phillips flat head screw	10
4	8-32X3/4PFH	#8-32 x 3/4 Phillips flat head screw	4

Figure 3: 8020-MAG-BASE mounting plate and magnet dimensions



**Figure 4: Model 8020 mounting hole dimensions, typical both sides**



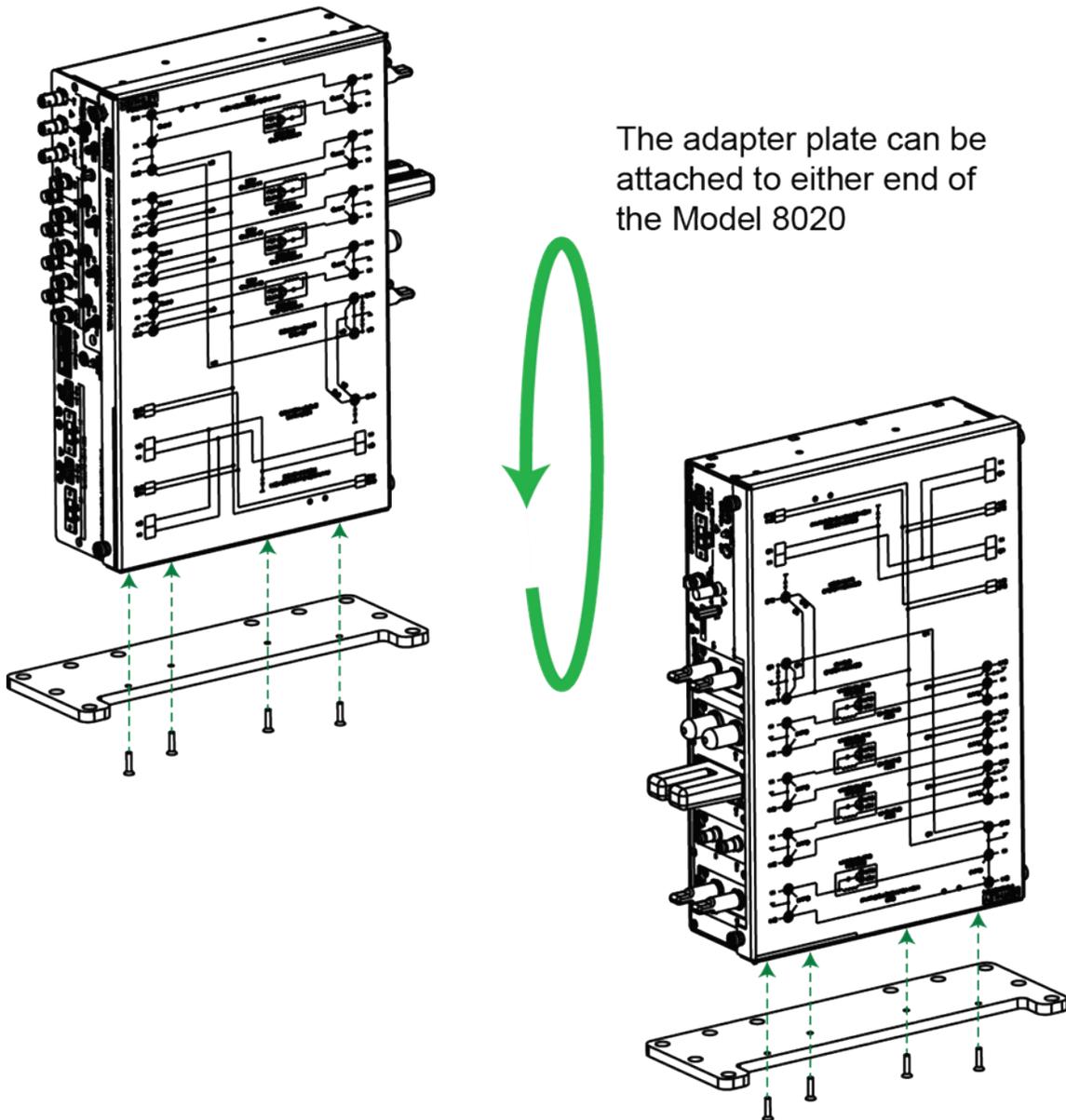
## Assembly

### NOTE

The Model 8020-MAG-BASE can be mounted to either end of the Model 8020 High Power Interface Panel. Before attaching the adapter plate, consider your test station layout and cable routing. The adapter plate can be un-installed and re-installed multiple times.

1. Remove the protective film from both sides of the adapter plate.
2. Position and align the adapter plate against either end of the Model 8020 so that the four smallest screw holes on the plate and fixture are aligned. See the below graphic.

**Figure 5: Attachment of the adapter plate to the Model 8020**



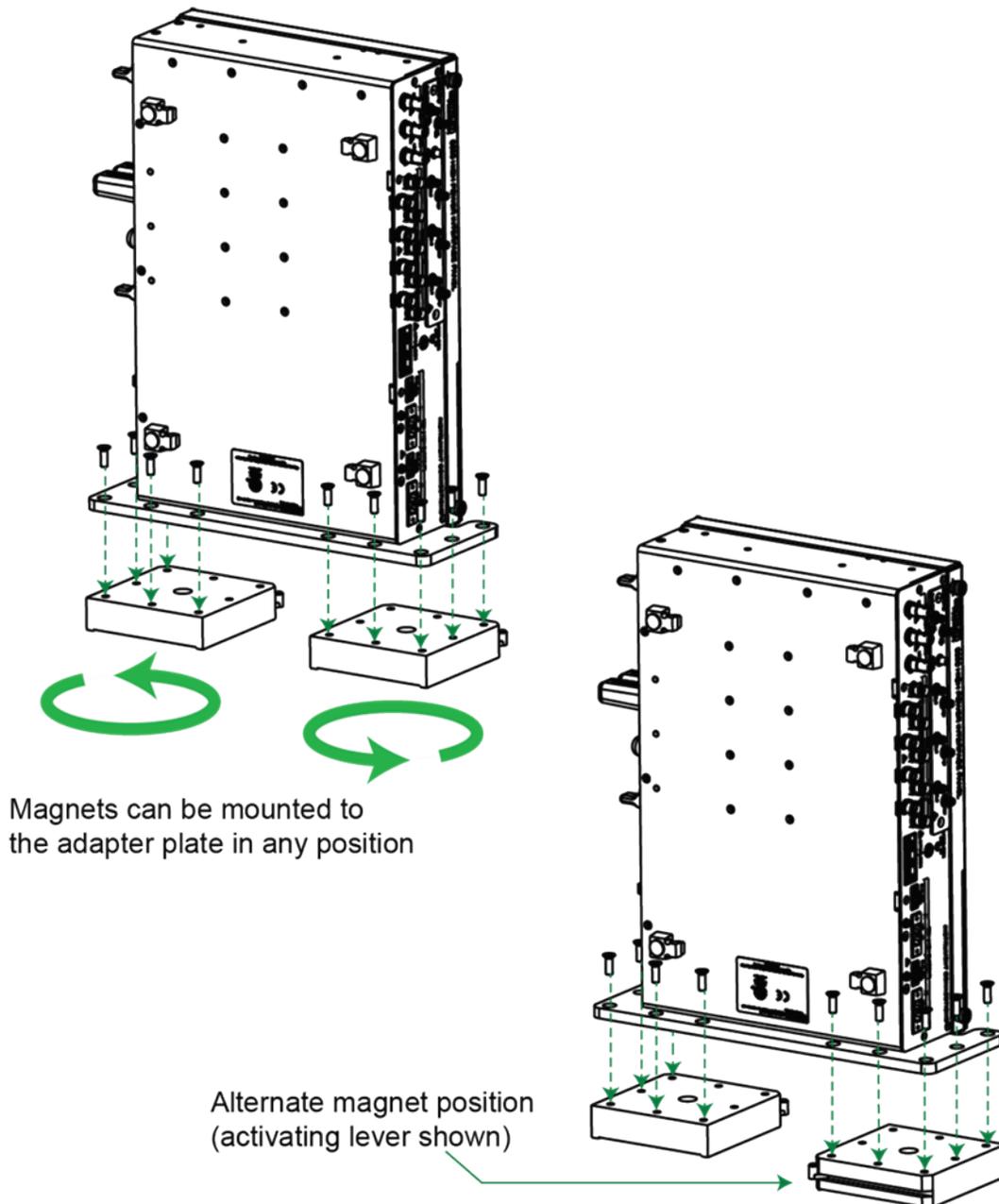
- Using the 4 #8-32 Phillips flat head screws, attach the adapter plate to either end of the Model 8020.
- Position the Model 8020 with the attached adapter plate on top of the two magnetic bases.

### NOTE

The two magnetic bases can be attached with the levers facing any direction. Before attaching the bases, make sure that you will be able to operate the release lever on the bases when the fixture and magnetic base are mounted in your test area. The magnetic bases can be un-installed and re-installed multiple times.

- Using 5 M6-1 x 16 Phillips screws for each magnetic base, attach each base the plate to either end of the Model 8020 (see the following figure).

**Figure 6: Attachment of the magnetic bases to the Model 8020**



## Installation

### CAUTION

The bases are not magnetized when the activating lever is moved to the far left. Do not attempt to mount the assembly when one or both bases are magnetized. The resulting collision force may damage the unit, the magnets, or the mounting surface.

### CAUTION

Do not mount the assembly upside-down, sideways, or in a manner that would otherwise cause the assembly to fall if one or both magnetic bases are accidentally de-magnetized.

### CAUTION

Keep magnets away from unshielded electronic equipment and storage media.

1. Select a flat, non-aluminum mounting surface that is free of debris.
2. Move the activating lever on one magnet base to the far right.
3. Test the magnet by firmly rocking the unit back and forth. The unit should not move. If the unit moves, select another mounting area.
4. Move the activating lever on the other magnet to the far right.
5. Test both magnets by rocking the unit back and forth.

### NOTE

Smooth, unpainted, and steel (ferrous) material surfaces generally offer the best magnetic connection. The thickness of the mounting surface has a direct correlation to the resulting observed magnetic force. Surfaces that are painted, uneven, or made from non-ferrous materials will reduce or eliminate the effectiveness of the magnetic bases.

The following safety precautions should be observed before using this product and any associated instrumentation. Although some instruments and accessories would normally be used with nonhazardous voltages, there are situations where hazardous conditions may be present.

This product is intended for use by qualified personnel who recognize shock hazards and are familiar with the safety precautions required to avoid possible injury. Read and follow all installation, operation, and maintenance information carefully before using the product. Refer to the user documentation for complete product specifications.

If the product is used in a manner not specified, the protection provided by the product warranty may be impaired.

The types of product users are:

**Responsible body** is the individual or group responsible for the use and maintenance of equipment, for ensuring that the equipment is operated within its specifications and operating limits, and for ensuring that operators are adequately trained.

**Operators** use the product for its intended function. They must be trained in electrical safety procedures and proper use of the instrument. They must be protected from electric shock and contact with hazardous live circuits.

**Maintenance personnel** perform routine procedures on the product to keep it operating properly, for example, setting the line voltage or replacing consumable materials. Maintenance procedures are described in the user documentation. The procedures explicitly state if the operator may perform them. Otherwise, they should be performed only by service personnel.

**Service personnel** are trained to work on live circuits, perform safe installations, and repair products. Only properly trained service personnel may perform installation and service procedures.

Keithley Instruments products are designed for use with electrical signals that are measurement, control, and data I/O connections, with low transient overvoltages, and must not be directly connected to mains voltage or to voltage sources with high transient overvoltages. Measurement Category II (as referenced in IEC 60664) connections require protection for high transient overvoltages often associated with local AC mains connections. Certain Keithley measuring instruments may be connected to mains. These instruments will be marked as category II or higher.

Unless explicitly allowed in the specifications, operating manual, and instrument labels, do not connect any instrument to mains.

Exercise extreme caution when a shock hazard is present. Lethal voltage may be present on cable connector jacks or test fixtures. The American National Standards Institute (ANSI) states that a shock hazard exists when voltage levels greater than 30 V RMS, 42.4 V peak, or 60 VDC are present. A good safety practice is to expect that hazardous voltage is present in any unknown circuit before measuring.

Operators of this product must be protected from electric shock at all times. The responsible body must ensure that operators are prevented access and/or insulated from every connection point. In some cases, connections must be exposed to potential human contact. Product operators in these circumstances must be trained to protect themselves from the risk of electric shock. If the circuit is capable of operating at or above 1000 V, no conductive part of the circuit may be exposed.

Do not connect switching cards directly to unlimited power circuits. They are intended to be used with impedance-limited sources. NEVER connect switching cards directly to AC mains. When connecting sources to switching cards, install protective devices to limit fault current and voltage to the card.

Before operating an instrument, ensure that the line cord is connected to a properly-grounded power receptacle. Inspect the connecting cables, test leads, and jumpers for possible wear, cracks, or breaks before each use.

When installing equipment where access to the main power cord is restricted, such as rack mounting, a separate main input power disconnect device must be provided in close proximity to the equipment and within easy reach of the operator.

For maximum safety, do not touch the product, test cables, or any other instruments while power is applied to the circuit under test. ALWAYS remove power from the entire test system and discharge any capacitors before: connecting or disconnecting cables or jumpers, installing or removing switching cards, or making internal changes, such as installing or removing jumpers.

Do not touch any object that could provide a current path to the common side of the circuit under test or power line (earth) ground. Always make measurements with dry hands while standing on a dry, insulated surface capable of withstanding the voltage being measured.

For safety, instruments and accessories must be used in accordance with the operating instructions. If the instruments or accessories are used in a manner not specified in the operating instructions, the protection provided by the equipment may be impaired.

Do not exceed the maximum signal levels of the instruments and accessories, as defined in the specifications and operating information, and as shown on the instrument or test fixture panels, or switching card.

When fuses are used in a product, replace with the same type and rating for continued protection against fire hazard.

Chassis connections must only be used as shield connections for measuring circuits, NOT as protective earth (safety ground) connections.

If you are using a test fixture, keep the lid closed while power is applied to the device under test. Safe operation requires the use of a lid interlock.

If a  screw is present, connect it to protective earth (safety ground) using the wire recommended in the user documentation.

The  symbol on an instrument means caution, risk of danger. The user must refer to the operating instructions located in the user documentation in all cases where the symbol is marked on the instrument.

The  symbol on an instrument means caution, risk of electric shock. Use standard safety precautions to avoid personal contact with these voltages.

The  symbol on an instrument shows that the surface may be hot. Avoid personal contact to prevent burns.

The  symbol indicates a connection terminal to the equipment frame.

If this  symbol is on a product, it indicates that mercury is present in the display lamp. Please note that the lamp must be properly disposed of according to federal, state, and local laws.

The **WARNING** heading in the user documentation explains dangers that might result in personal injury or death. Always read the associated information very carefully before performing the indicated procedure.

The **CAUTION** heading in the user documentation explains hazards that could damage the instrument. Such damage may invalidate the warranty.

Instrumentation and accessories shall not be connected to humans.

Before performing any maintenance, disconnect the line cord and all test cables.

To maintain protection from electric shock and fire, replacement components in mains circuits — including the power transformer, test leads, and input jacks — must be purchased from Keithley Instruments. Standard fuses with applicable national safety approvals may be used if the rating and type are the same. Other components that are not safety-related may be purchased from other suppliers as long as they are equivalent to the original component (note that selected parts should be purchased only through Keithley Instruments to maintain accuracy and functionality of the product). If you are unsure about the applicability of a replacement component, call a Keithley Instruments office for information.

To clean an instrument, use a damp cloth or mild, water-based cleaner. Clean the exterior of the instrument only. Do not apply cleaner directly to the instrument or allow liquids to enter or spill on the instrument. Products that consist of a circuit board with no case or chassis (e.g., a data acquisition board for installation into a computer) should never require cleaning if handled according to instructions. If the board becomes contaminated and operation is affected, the board should be returned to the factory for proper cleaning/servicing.

Safety precaution revision as of January 2013.