Safetran

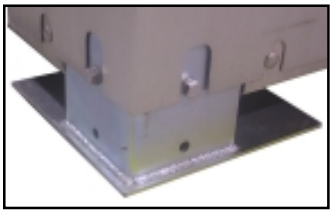
INSTRUMENT HOUSES

Safetran Instrument Houses can be furnished in several sizes with a variety of door arrangements. Construction can be of aluminum, steel, or Cor-Ten® steel. Doors on these houses are provided with hooks and clips to hold the door(s) at a 90 degree position and are completely removable when open. Door handles are designed to accept padlock, or can be locked by an optional built-in locking screw, which uses a standard terminal wrench.

The walls are formed panels in two-foot sections with all seams sealed. Inside walls can be equipped with shelf brackets, mounting boards, and wire chassis with tag boards. Each house is equipped with a light switch and duplex outlet, located at the entrance door. An overhead light receptacle with pull chain and convenience outlet is provided. Wiring can be installed utilizing Safetran's electrical outfitting process or by the customer.

Multiple Faraday Shield options are also available upon request. Refer to page E-1-4.

ALUMINUM INSTRUMENT HOUSE SPECIAL FEATURES (OPTIONAL)



Adjustable Foundation

Adjustable Foundation – Drop down adjustable foundations eliminate costly time spent attempting to level individual fixed foundations and are available in house sizes: 4 x 6, 6 x 6, 6 x 8, and 8 x 8.

Vent Fan

Vent Fan – The intake louver assembly contains a filtering system and outer protective screen. Both louvers open automatically when fan is operated. The exhaust fan will be mounted on any desired wall, with intake louver assembly mounted on opposite wall at time of manufacture.

Ground Wire

Grounding – External grounds are available in either a weld-on version (pig tail) as shown or a conventional ground stud bolt.

Power-off Light

Power-off Light – Power off lights can be installed in both corners of the house (as shown) and viewed from two directions or installed separately and located per customer request.

Generator Outlet

Generator Outlet – A standard 120V/220V external generator outlet is supplied, upon request. This allows the usage of a back-up generator, if needed, for emergency electrical failures.

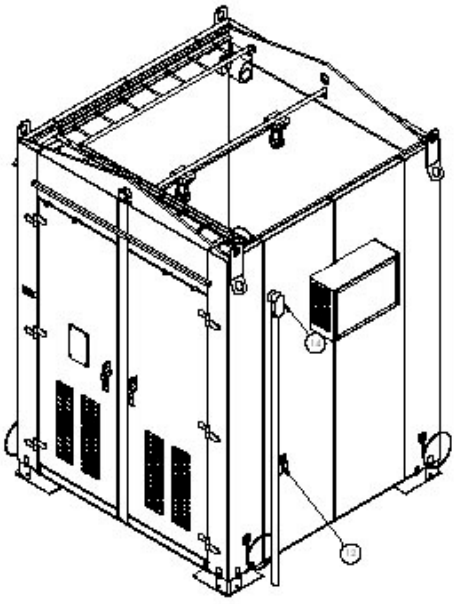
ORDERING INFORMATION

Insulation: The interior of a house can be lined with an optional single (1/2 inch), double (1 inch) or high effieciency Thermax® (2 inch) insulation.

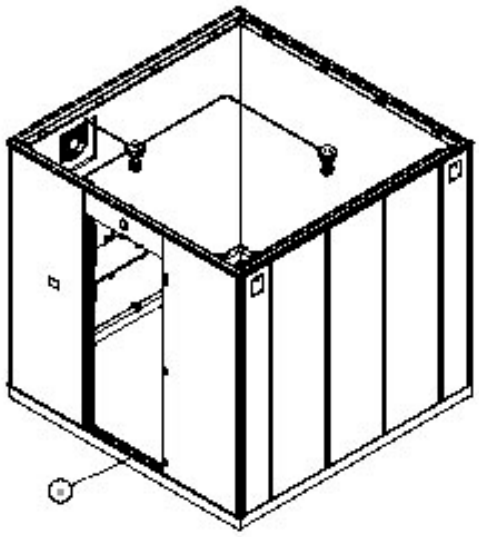
Insulation used in Safetran Instrument houses save on energy costs by maintaining a more uniform interior temperature and eliminating the usage of Heating and Air conditioning units.

Houses are designed to support the interior lining for the insulation. Filtered ventilation openings are provided in either the door or wall to provide the best distribution of airflow for convection cooling. These openings are provided with insulation filler for cold weather protection. Thermax® surfaces, which are made of aluminum, are fireproof.

When houses are convection-cooled in summer and heated by equipment waste heat in winter, the result is a much more consistent temperature in the instrument house. This generally provides for improved electronic equipment performance and longer life and also proves for substantial energy cost savings.



6 x 6 house diagram



8 x 8 house diagram

DESCRIPTION AND PART NUMBERS

Aluminum House Size In Feet	Part Number	Steel House Size In Feet	Part Number	Cor-Ten® Steel House Size In Feet	Part Number
4 x 6	058400-K46	4 x 6	051600-K46	4 x 6	051600-KC46
6 x 6	058400-K66	6 x 6	051600-K66	6 x 6	051600-KC66
6 x 8	058400-K68	6 x 8	051600-K68	6 x 8	051600-KC68
8 x 8	052800-K88	8 x 8	051600-K88	8 x 8	051600-KC88
8 x 10	052800-K810	8 x 10 (2 doors)	051600-K810	8 x 10 (2 doors)	051600-KC810
8 x 12	052800-K812	8 x 12 (2 doors)	051600-K812	8 x 12 (2 doors)	051600-KC812

SURGE PANEL INFORMATION

(FARADAY SHIELD SYSTEM)

North American railroads are adopting Faraday Shield (cage) technology to protect signal equipment from external electrical interference:

- Eliminate electromagnetic interference (EMI) inside signal enclosures
- Provide superior surge protection and grounding
- Reduce wiring time/cost for signal enclosures

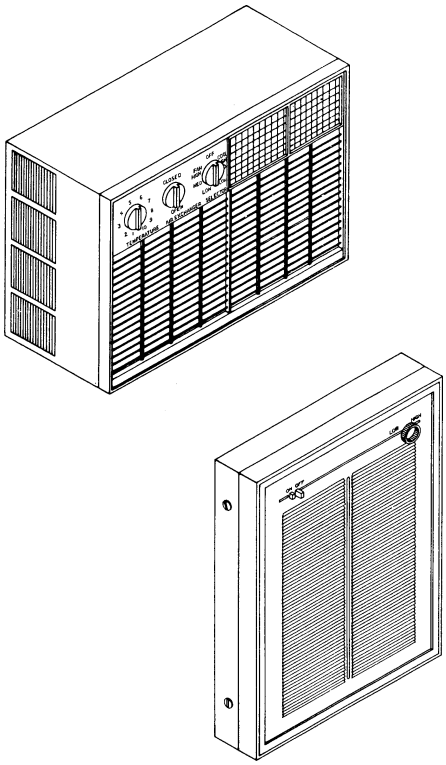
The Faraday Shield System replaces the standard cable termination board with an aluminum plane that is part of the enclosure structure and is grounded with the enclosure. Incoming cable is terminated on one side of the plane while house wiring is terminated on the opposite side, thus, eliminating any path for EMI to enter the enclosure. Various configurations are available for terminating cable and house wiring. A lockable door provides access to the external termination points.

HEATING AND AIR CONDITIONING UNITS

Heating and Air conditioning units can be ordered for use in Safetran Instrument Houses.

Air conditioning units for instrument houses are of high quality, featuring high BTU output with minimum operating costs. A change-over thermostat is used, to insure proper transfer from air conditioning to heating and vice versa. A weather hood of steel or aluminum, depending on the type of house, is provided to protect the air conditioner and insure longer life of the unit.

Wall Heaters feature protected and efficient cast aliminum heating grids and directional louvered cover for circulation of warm air and even distribution. Heaters may be completely installed and wired in place with the instrument house.



MANUFACTURING PROCESS

Safetran aluminum equipment houses are manufactured in Louisville, Kentucky and can be ordered in many sizes or built to customer specific needs. Other material, such as steel or Cor-Ten® steel are also available.

Blueprints of each section of the house are programmed into specialized computer equipment. The cutting machine then cuts each piece to the exact measurement programmed into it. This process allows the house to be built quickly and accurately. Once the material is cut and prepared for the house, it is welded together by Safetran in-house welders.

Houses are built on a step-by-step process and assembled in-house. From fabrication, welding, assembly and electrical outfitting, each house is inspected during separate phases of the manufacturing process to ensure that the customer's order is being built to satisfaction.

Houses can be insulated and fitted with a main power switch, flooring, equipment racks, lights, heating and air conditioning equipment and wiring.