Site Preparation

Overview

The Catalyst Test System Site Preparation Guide provides installation planning and implementation information for the Catalyst test system.

The Site Preparation Guide is designed to help prepare the customer, the field office, and the factory for the upcoming installation. It addresses issues affecting the success of the installation.

This manual describes all the information needed to fill out the Site Preparation Checklist. Completing the checklist helps ensure that the installation goes smoothly.

If you need additional information to complete a checklist item, or if you have questions about the test system installation, contact your local Teradyne Sales office or Field Service engineer.

Please be as specific and concise with your answers as possible. Return the checklist by mail to Teradyne's ICD Product Support Group, 321 Harrison Ave. Boston, MA 02118, USA or fax to 617-422-2340.

! Caution

Site preparation and installation of Catalyst test systems can be dangerous to personnel. To avoid accidental injury, pay special attention to the information enclosed in "Caution" sections (such as this one) throughout this guide and any following installation manuals.

Overview of Responsibilities

Teradyne installs the Reid-Ashman Manufacturing (RAM) manipulator as part of the Catalyst test system installation.

Teradyne provides the following:

- Site Preparation Guide
- Installation Checkout Guide for the RAM manipulator

Teradyne will not provide the customer with any Reid-Ashman or inTEST specific information or services such as the following:

- Operator and/or maintenance training/service
- Alignment and/or calibration training/service
- Maintenance and troubleshooting procedures
- Replacements parts (including warranty parts)
- Technical assistance

It is the responsibility of the customer to obtain the following from RAM and inTEST:

- Manipulator and docking plate information and documentation
- Parts and technical assistance

The customer is responsible for working directly with Reid-Ashman or inTEST if the customer desires design changes. The customer must notify Teradyne if design changes are made to either product that would alter the existing installation procedure.

Reid-Ashman Field Service Problem Escalation Process

First point of contact:

Allen J. Reid

Director of Sales & Marketing

(Teradyne ICD Account Manager)

Reid-Ashman Mfg.

582 North 3050 East

St. George, UT 84790, USA

Phone: (435) 652-8422 ext. 3011

Fax: (435) 652-8440

Toll-free: (800) 890-7343 ext. 3011

Mobile phone: (435) 703-0268

E-mail: areid@reidashman.com

Alternative first points of contact:

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Reid-Ashman Mfg.
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E-mail: ogura@intest.co.jp

System Specifications

This section describes the dimensions and weights of the major system components.

Catalyst Test System Configurations

The major components of the Catalyst test system are:

- Catalyst mainframe
- One or two video monitors and monitor cart
- Outer ac power vault
- One or two test heads
- User computer
- One or two manipulators (optional)

  The Catalyst test system uses the Teradyne universal manipulator or the RAM manipulator.
- Docking hardware on the test head

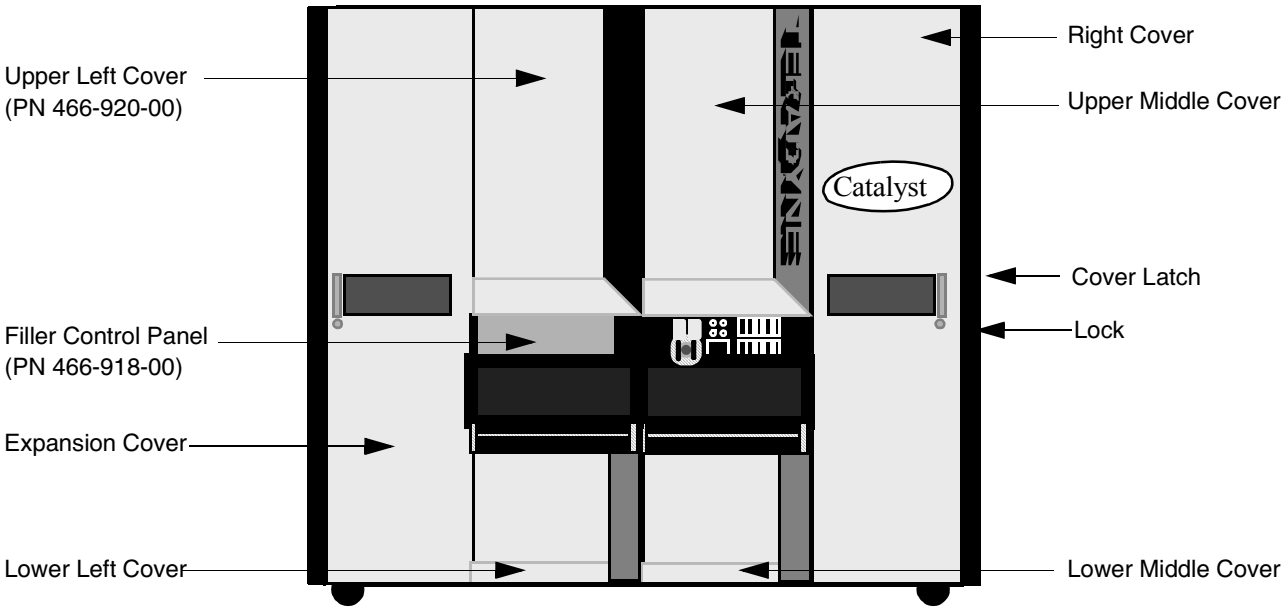
  The Catalyst test system uses the Teradyne Kinematic Coupling System or the inTEST docking plate.
- Optional expansion cabinet(s)

Expansion Cabinets (Optional)

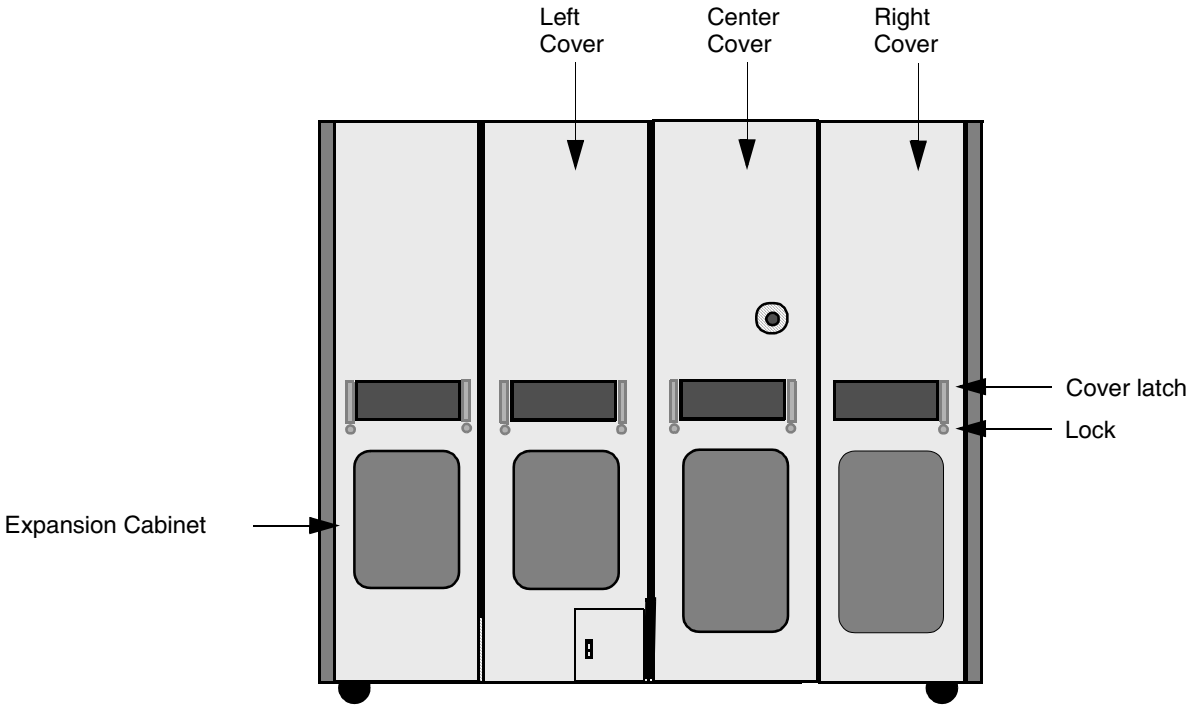
The single-bay expansion cabinet(s) option permits system growth beyond the three bay mainframe configuration. The expansion cabinet option may be configured by the factory or field and ships separately for on-site installation. See Catalyst Mainframe.

The expansion cabinet receives power from the mainframe power system. No separate/external power is required. The expansion cabinet has its own distribution vault in the base of the cabinet. Power usage in this bay is limited by the output of the distribution vault.

The Catalyst test system may use one or two additional expansion cabinets. The second optional expansion cabinet contains an octal current voltage source (OVI).



Operator side



Service Side

Catalyst Mainframe

Catalyst Dimensions and Weights

Catalyst Major Test System Component Dimensions and Catalyst Major Component Weights list the Catalyst dimensions and weights. In Catalyst Major Test System Component Dimensions, height is the distance from the bottom of the component to the top, standing upright. Length refers to the longest dimension, and width is the measurement taken at right angles to length.

Catalyst Major Test System Component Dimensions

Test System Components	Height		Length		Width	
	in	cm	in	cm	in	cm
Mainframe	77	196	67.25	172	50	127
Expansion Cabinets	77	196	27	69	40	102
Outer Vault	46	118	21	53	22	55
Test Head	22.1	56	43.5	110	31.8	81
Test Head Cart	30.2	76.9	47.1	119.9	35.5	90.3
Dual Test Head Cart	55.2	140.4	47.1	119.9	35.5	90.3
Universal Manipulator (without test head)	51.6	131	77	196	46	117
Universal Manipulator (with test head)	51.6	131	87	221	46	117
RAM Manipulator (without test head)	82	208.3	65	165	51	129.5
RAM Manipulator (with test head)	82	208.3	80	203	65	165
Monitor	19	48	21	53	19	48
Keyboard	2.5	6.4	18	46	7.5	19
Mouse and Pad	1.5	4	9	23	8	20
Dual Cart	37	94	50	127	30	76
Cart	30	76	26	66	29	74

Catalyst Major Component Weights

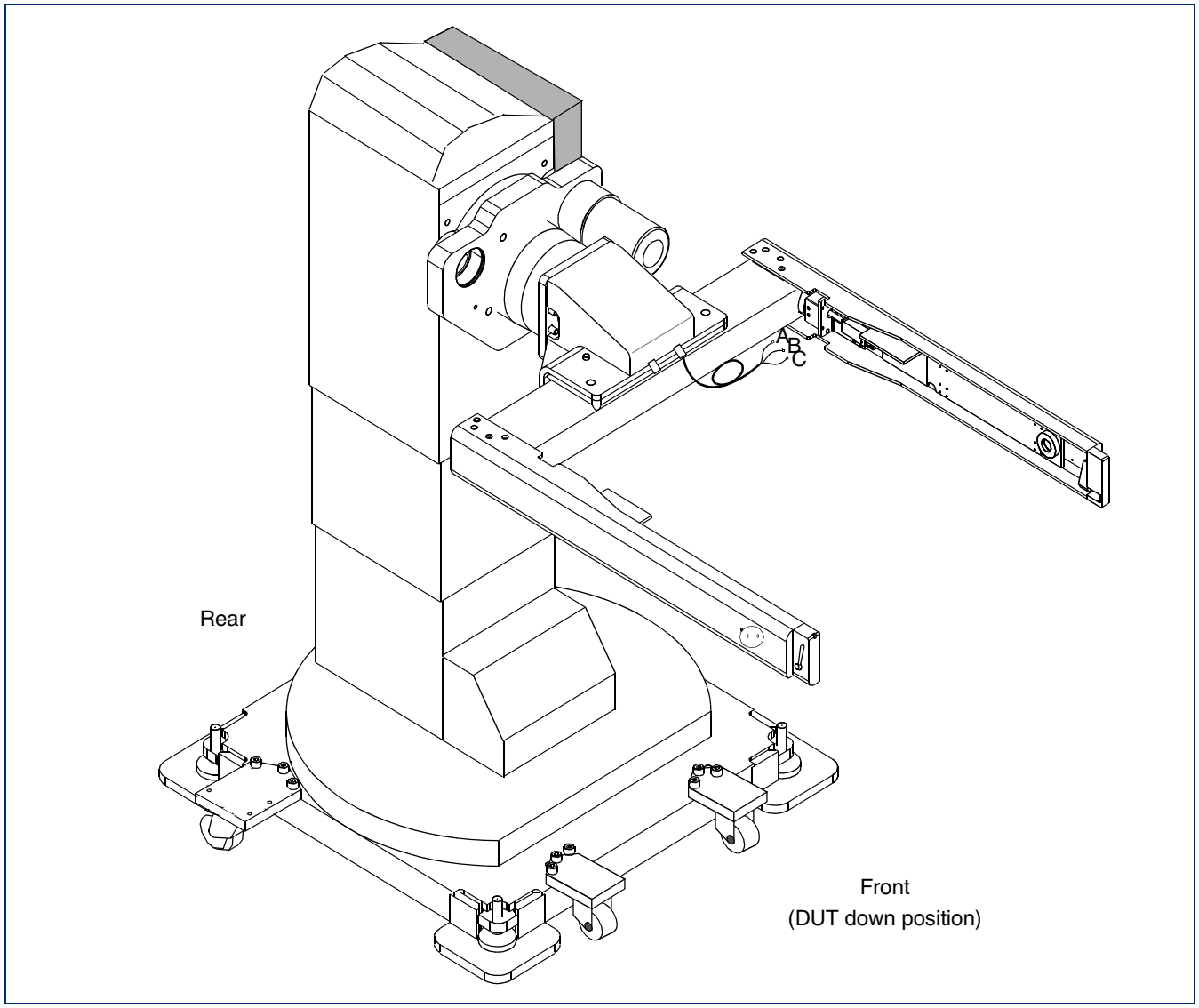
System Component	lb	kg
Mainframe	2500	1134
Expansion Cabinet	1000	453
Expansion Cabinet with OVI	765	347
Test Head	800	364
Test Head Shipping Cart	200	91
Mainframe with one Test Head and Test Head Cart	3285	1490
Mainframe with two Test Heads and Two Test Head Carts	4070	1846
Outer Vault	930	423
Universal Manipulator (without test head)	2770	1256
Universal Manipulator (with test head)	3600	1636
RAM Manipulator (without test head)	2250	1021
RAM Manipulator (with test head)	3900	1769
Computer Monitor	60	27

Note

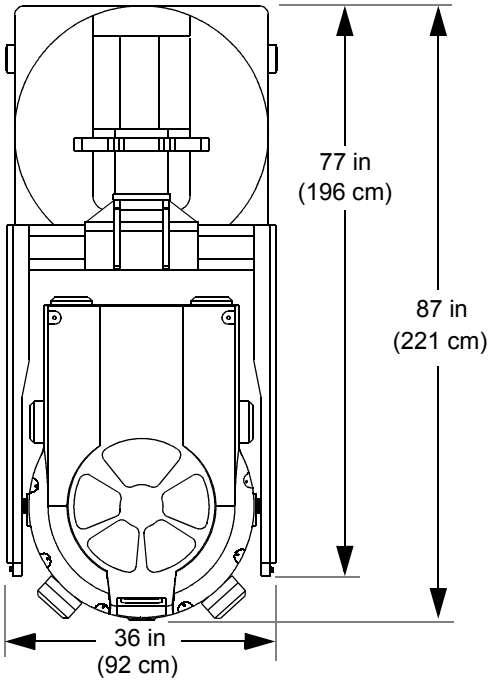
The weight of the mainframe may vary by as much as 500 pounds (267 kilograms) depending on system options.

The Manipulator

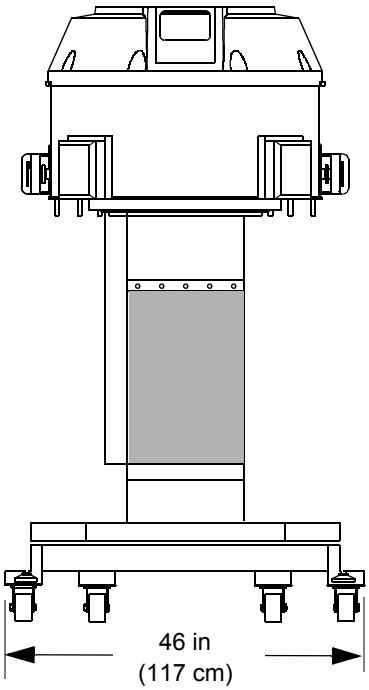
The manipulator for the Catalyst test head ships separately from the test head. The Catalyst test head mounts between the support arms of the manipulator. The universal manipulator is shown in Manipulator and Test Head with Universal Manipulator. (The RAM manipulator is not shown.)



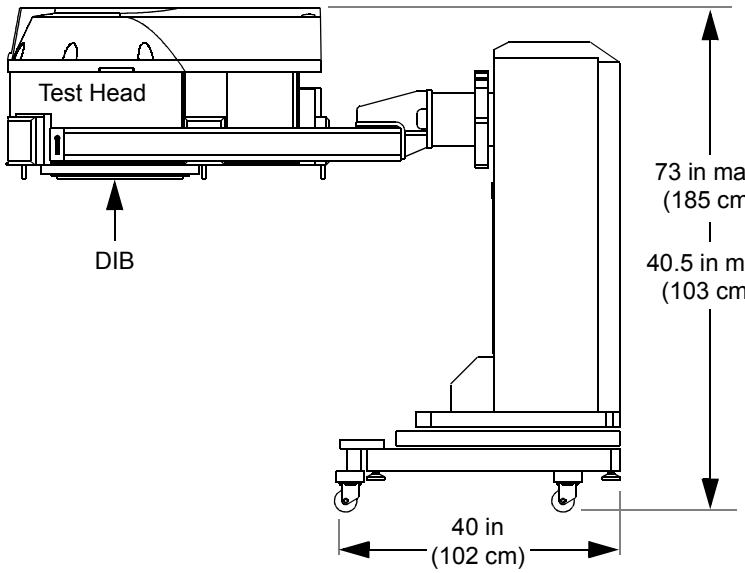
Manipulator



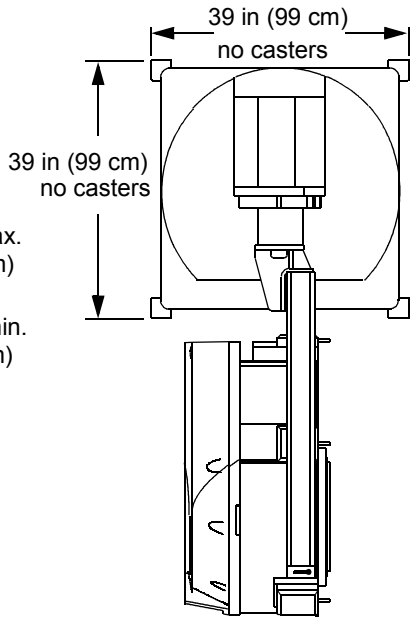
Top View



Front view



Side view



Top View

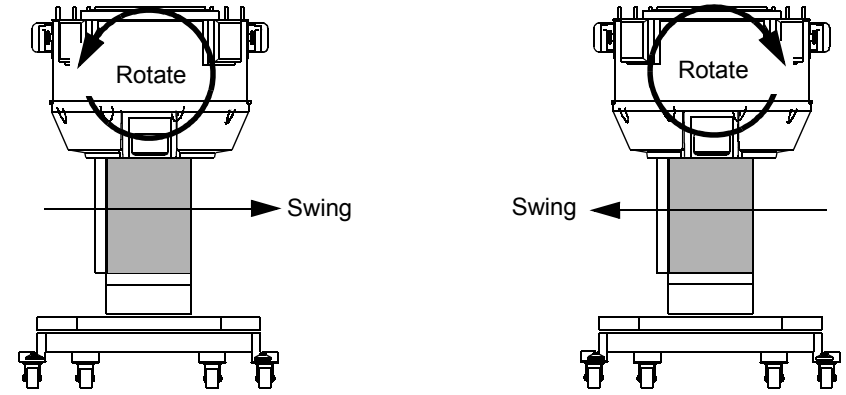
Test Head with Universal Manipulator

Manipulator Movements

The manipulators can be configured to maneuver either:

- swing right, rotate left
- swing left, rotate right (“opposite swing”)

Swing right, rotate left means that the test head swings right and rotates left, or counter-clockwise (operator facing test head). This is the default configuration. See Manipulator Swing and Rotation Options.



Manipulator Swing and Rotation Options

Site Requirements

This section provides information on site requirements including:

- test system weight distribution
- flooring needs
- recommended floor plans
- ac power specifications
- environmental requirements

Flooring Requirements

The test system can be installed on any flooring surface (including ventilated panels) able to support the total system weight and meet the weight per foot specification.

If installing the test system on a raised floor, do not place it near or above ventilation tiles in the floor.

For more information, see Weight Distribution.

Weight Distribution

This section provides information on weight distribution for the Catalyst test system.

Catalyst Mainframe

There are six wheels on the bottom of the Catalyst mainframe (three on each end). It moves through hallways on these wheels. The load per wheel is 2,200 pounds per square inch (155 kilograms per square centimeter).

When the system is in place, levelers are installed on the weight distribution plates located on the bottom of the mainframe cabinet. The levelers adjust to raise the system off the wheels. When the mainframe is sitting on the weight distribution plates, the load per plate is 40.7 pounds per square inch (18.5 kilograms per square centimeter). See Weight Distribution Pad Locations on Mainframe Cabinet.

Manipulator

Teradyne Universal Manipulator

There are four wheels on the universal manipulator base (one near each corner). The wheels are used for moving the manipulator. The rolling weight of the universal manipulator without test head is 700 pounds (318 kilograms) per wheel. The point load per wheel on the universal manipulator is 1,400 pounds per square inch (99 kilograms per square centimeter).

With only the universal manipulator in place, a load of 19 pounds per square inch (1.34 kilograms per square centimeter) is placed on the floor when the leveling pads are lowered and its wheels removed.

With the universal manipulator and test head in place, a load of 23 pounds per square inch (1.62 kilograms per centimeters squared) is placed on the floor when the leveling pads are lowered and its wheels are removed. The rolling weight of a manipulator with an attached test head is 900 pounds (408.2 kilograms) per wheel.

RAM Manipulator

There are eight wheels on the RAM manipulator (one near each corner and one in the middle of each side). The wheels are used for moving the manipulator. The rolling weight of the RAM manipulator without test head is 235 pounds (107 kilograms) per wheel. The point load per wheel on the RAM manipulator is 600 pounds per square inch (42.2 kilograms per square centimeter).

With only the RAM manipulator in place, a load of 70 pounds per square inch (4.92 kilograms per square centimeter) is placed on the floor when the leveling pads are lowered and its wheels removed.

With the RAM manipulator and test head in place, a load of 153 pounds per square inch (10.75 kilograms per centimeters squared) is placed on the floor when the leveling pads are lowered and its wheels removed. The rolling weight of a manipulator with an attached test head is 510 pounds (35.86 kilograms) per wheel.

Expansion Cabinet Option

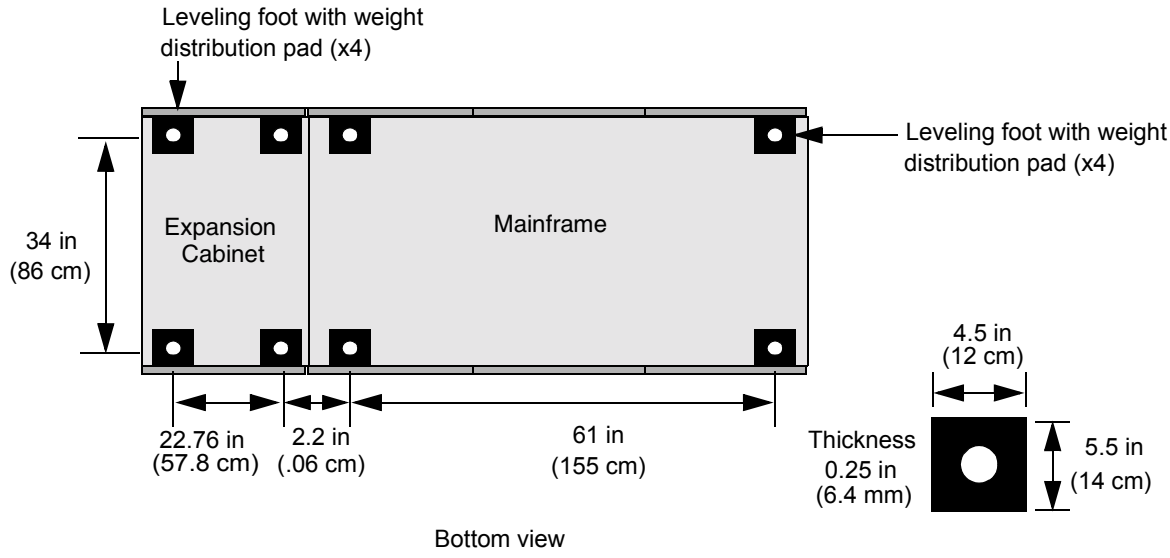
There are four wheels on the bottom of the expansion cabinet (two at each end). When the expansion cabinet is unloaded after shipment, it moves through hallways using these wheels. The rolling weight is 250 pounds (113.4 kilograms) per wheel.

When the expansion cabinet is in place, levelers are installed on weight distribution plates located on the underside of the expansion cabinet. The levelers adjust to bring the expansion cabinet up off the wheels. In this position, the load per distribution plate is 11.1 pounds per square inch (0.78 kilograms per square centimeter).

Expansion Cabinet with OVI Option

There are four wheels on the bottom of the expansion cabinet (two at each end). When the expansion cabinet is unloaded after shipment, it moves through hallways using these wheels. The rolling weight is 191 pounds (86.6 kilograms) per wheel.

When the expansion cabinet is in place, levelers are installed on weight distribution plates located on the underside of the expansion cabinet. The levelers adjust to bring the expansion cabinet up off the wheels. In this position, the load per distribution plate is 8.4 pounds per square inch (0.59 kilograms per square centimeter).



Weight Distribution Pad Locations on Mainframe Cabinet

AC Power Requirements

The customer-provided ac input power to the system requires a separate power line that is physically isolated from high-noise sources, and is also a high quality ground line.

The ac line cord is not supplied with the test system and must be provided by the customer. The cutout on the mainframe's ac entrance panel (service side) is 2 1/2 inches (6.35 centimeters) in diameter, allowing for a two inch (5.08 centimeter) NPT fitting. Local electrical codes are the controlling standard.

Manipulator AC Power Requirements

The manipulator will not function without 110 Vac power. An external 110 Vac 15 A outlet is recommended for installation to allow the installer to dock the test head to the manipulator prior to mainframe installation. The mainframe provides a dedicated 110 Vac outlet for manipulator operation when the main system power is on.

Input Power Limits

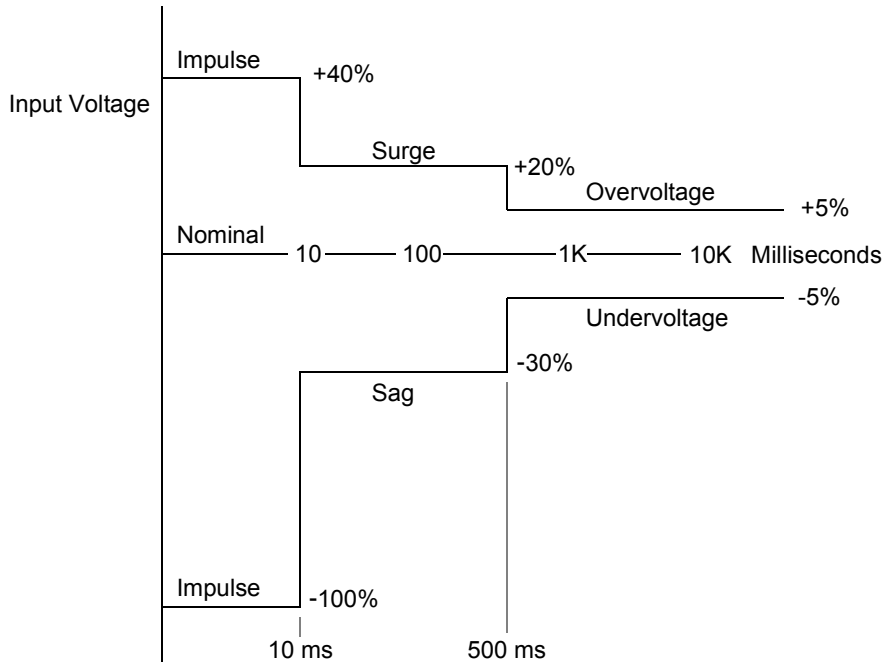
For the system to operate within specifications, the input power line must conform to the limits of impulse, surge, sag, over-voltage, and under-voltage. Working definitions:

- Impulse is a measure of non-periodic instantaneous noise.
- Surge and sag define over-voltage and under-voltage conditions for a short (specified) period of time.
- Over-voltage and under-voltage define constant voltage levels that are above or below the nominal level.

AC Power Limits provides guidelines for power line analysis.

Note

The conditions shown in AC Power Limits apply only to three-phase delta power configurations. For verification, use a BMI 4800 or Drantez Series 626 Universal Analyzer with 626-PA-6003-1 (three phase ac, 50/60 Hz plug in).



AC Power Limits

AC Power Line Quality

The Catalyst test system is designed to operate within the stated input voltage range with a clean power source and a reliable ground line. However, there are situations where additional power conditioning may be needed to control power line-induced problems such as: frequent line fluctuations, lightning strikes, or high incidence of line noise. Power line problems can cause malfunctions in the user and test computers, deterioration of electrical performance and failure of electrical components.

The mainframe accepts four-wire delta (three phases plus ground) 200/208 Vac input. The optional outer vault can accept ac mains voltages of 190 V, 240 V, 380 V, 400 V, 416 V or 480 V.

Frequency: 50 Hz or 60 Hz, ±2Hz

Maximum line variation: ±5%

Noise Transients:

Low Voltage

Up to 300 V peak spike containing less than one joule of energy per spike (non-repetitive).

Note

One joule equals one watt per second.

High Voltage

300 V to 1 kV peak spike containing less than one joule of energy per spike (non-repetitive).

Duration not to exceed 8 ms. Average power per spike not to exceed 1 W.

External RFI:

10 kHz - 1.6 MHz at 1 V decreasing to 5 mV or less
1.6 MHz - 30 MHz at 15 mV or less

Maximum inrush current @ 50 kVA with the optional outer vault:

2220 A per line at 190 Vac nominal
1440 A per line at 200 Vac nominal
1390 A per line at 208 Vac nominal
1200 A per line at 240 Vac nominal
760 A per line at 380 Vac nominal
720 A per line at 400 Vac nominal
700 A per line at 416 Vac nominal
600 A per line at 480 Vac nominal

Note

The above currents are for half-cycle, decreasing in amplitude to normal line current for an additional ten cycles.

Input Current per Line versus Channel Count (one test head) and Input Current per Line versus Channel Count (two test heads) list the input line current requirements.

Input Current per Line versus Channel Count (one test head)

Input Voltage	128 Channels	256 Channels	384 Channels	384 Channels w/Max. options
190 Vac	71 A	96 A	121 A	136 A
200 Vac	67 A	91 A	115 A	130 A
208 Vac	65 A	88 A	111 A	125 A
240 Vac	56 A	76 A	96 A	108 A
380 Vac	35 A	48 A	61 A	68 A
400 Vac	34 A	46 A	58 A	65 A
416 Vac	32 A	44 A	55 A	62 A
480 Vac	28 A	38 A	48 A	54 A
Power Consumption	23.3 kVA	31.6 kVA	39.9 kVA	44.9 kVA

Input Current per Line versus Channel Count (two test heads)

Input Voltage	128 Channels	256 Channels	384 Channels	384 Channels w/Max. options
190 Vac	81 A	116 A	151 A	166 A
200 Vac	77 A	110 A	143 A	158 A
208 Vac	74 A	106 A	138 A	152 A
240 Vac	64 A	92 A	119 A	131 A
380 Vac	40 A	58 A	75 A	83 A
400 Vac	38 A	55 A	75 A	79 A
416 Vac	37 A	53 A	69 A	76 A
480 Vac	32 A	46 A	60 A	66 A
Power Consumption	26.5 kVA	38.1 kVA	49.6 kVA	54.6 kVA

Note

If the ac mains line cannot meet this requirement, it is recommended that the test system power control assembly ground lug be connected to a local low-impedance ground bus or ground rod.

Breaker Box

An ac breaker box is required at the test site for ac power. If it is not easily accessible, it could present a hazardous safety condition.

It is recommended that the customer-provided circuit breaker be located within 15 feet (4.6 meters) of the test system. The breaker must be capable of locking in the OFF position.

Outer AC Vault

The test system can be supplied with an optional outer ac vault. The outer vault consists of a 50 kVA power distribution unit (PDU) that supplies 208 Vac to the mainframe. The PDU has an ac input voltage range from 190 Vac to 480 Vac.

The power vault steps down the primary input voltage and isolates the system from the ac mains.

Note

The ac cord into the outer vault must be harmonized and sized per local electrical codes.

Safety Grounding and Bonding (50/60 Hz)

Safety grounding schemes cannot be altered or removed. The safety grounding conductor is the green/yellow wire from the building power distribution system terminated inside the equipment enclosure. For permanently connected equipment, installation of the safety ground is done in accordance with local electrical code requirements.

Safety bonding in each product is type tested to demonstrate every accessible metal part of the equipment is bonded to the enclosure with less than 0.1 ohm from the terminal where the safety ground terminates on the equipment enclosure when measured with an external 25 A 50/60 Hz source.

Isolation and Step Up/Down Transformers

If the optional outer vault is not ordered, the customer must provide isolation and step up/down transformers. The step up/down transformer must be able to output 208 Vac.

The Catalyst test system (including the outer vault (PDU)) is CE certified and is delivered with a Declaration of Conformity. The Teradyne PDU or equivalent must be used with the Catalyst test system to maintain the CE certification of the system. Therefore, when the Catalyst test system is ordered without the PDU, the system will be delivered without CE certification and the customer must act as system integrator. The CE marking can be applied after material provided by the system integrator has been declared in

compliance with the directives. A letter of Declaration of Incorporation stating the material provided by Teradyne complies with the EU Directives is included with the system, along with the CE marking for use by the system integrator. Only European Notified Bodies or designated labs listed in the Official Journal of European communities (available at http://eur-op.eu.int/indexen.htm) may be used as a certification supplier for the material provided by the system integrator.

The customer acknowledges that Teradyne recommends the Catalyst test system be used with the TEAL PDU (pn 806-044-00) at all times for the following reasons:

- The system will be delivered with the CE mark and a Declaration of Conformity
- The PDU provides line conditioning. Custom line filters and surge suppressors, located on the secondary of the transformer, reduce normal mode noise. The isolation transformer's high-performance shield protects against ground line impulses (common mode noise). Load regulation is maintained to ± 2% at peak power. Low transfer impedance ensures that electronic loads can be supplied with a minimum voltage waveform distortion.
- The PDU satisfies IEC664 Category II, local level transient overvoltage protection. The PDU will withstand and protect against the 6,000 V, 3,000 A Category B impulse.
- The PDU is built to UL/CSA standards.
- The PDU satisfies IEC950/EN60950, reinforced insulation and spacing requirements.
- The PDU reduces the safety leakage current from the main chassis from 60 mA to less than 0.5 mA.
- The PDU accepts all the following input voltages: 200 Vac_{L-L}, 208 Vac_{L-L}, 380 Vac_{L-L}, 400 Vac_{L-L}, 416 Vac_{L-L} and 480 Vac_{L-L}. The vault has one output voltage: 208 Vac_{L-L}. The Catalyst test system operates on 208 Vac ± 5%.

For PDU (pn 806-044-00) orders, customers are responsible for importation and customer clearance to any location outside of the United States.

Environmental Requirements

The test system is designed to operate within the following environmental ranges:

- Temperature: 20°C to 30°C (68°F to 86°F)
- Relative humidity: 40% to 60%, non-condensing

By operating within these ranges, you extend the life cycle of the electronic components.

Exposure to unusual environmental conditions (e.g., sudden temperature changes, thermal gradients, electrical noise, line transients, excessive vibrations, etc.) decreases the service life of the system. For maximum performance, the environment should also be kept clean and dust-free.

Fire Control and Sensors

If a Halon gas release fire control system is used on site, verify that Halon gas alarms are installed and functioning properly.

Note

If Halon gas can be released into a room, Teradyne employees will not be allowed to enter the Halon control area unless Halon alarms are installed, tested, and certified operational.

Air Conditioning Requirements

All specifications listed below are for test systems with one or two test heads and a representative sample of customer options.

Note

Allow additional air conditioning, as required, to compensate for personnel and external equipment.

Power Dissipation Versus Channel Count with One Test Head shows the power dissipation (in Btu/hour) versus channel count for the test system with one test head. (Conversion factor: 1 kilowatt = 3,416 Btu/hour.)

Power Dissipation Versus Channel Count with One Test Head

Channel Count	128 Channels	256 Channels	384 Channels	384 Channels w/Max. Options
Btu/Hour	69 K	99 K	128 K	140 K

Minimum Air Conditioning Versus Channel Count with One Test Head shows the minimum air conditioning (in tons) required versus channel count for the test system with one test head. (Conversion factor: 12,000 Btu/hour = 1 AC ton.)

Minimum Air Conditioning Versus Channel Count with One Test Head

Channel Count	128 Channels	256 Channels	384 Channels	384 Channels w/Max. Options
AC tons	6	9	11	12

Power Dissipation Versus Channel Count with Two Test Heads shows the power dissipation (in Btu/hour) versus channel count for the test system with two test heads. (Conversion factor: 1 kilowatt = 3,416 Btu/hour.)

Power Dissipation Versus Channel Count with Two Test Heads

Channel Count	128 Channels	256 Channels	384 Channels	384 Channels w/Max. Options
Btu/Hour	84 K	118 K	163 K	175 K

Minimum Air Conditioning Versus Channel Count with Two Test Heads shows the minimum air conditioning (in tons) required versus channel count for the test system with *two* test heads. (Conversion factor: 12,000 Btu/hour = 1 AC ton.)

Minimum Air Conditioning Versus Channel Count with Two Test Heads

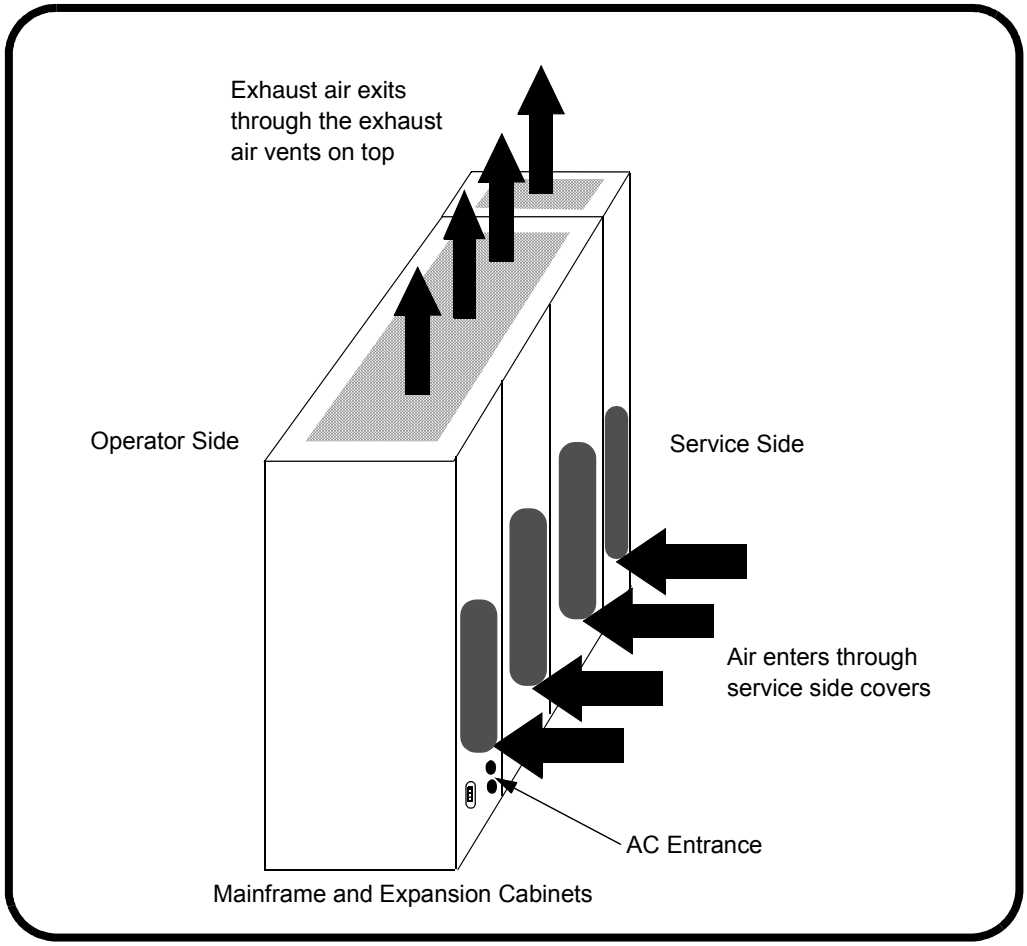
Channel Count	128 Channels	256 Channels	384 Channels	384 Channels w/Max. Options
AC tons	7	10	14	15

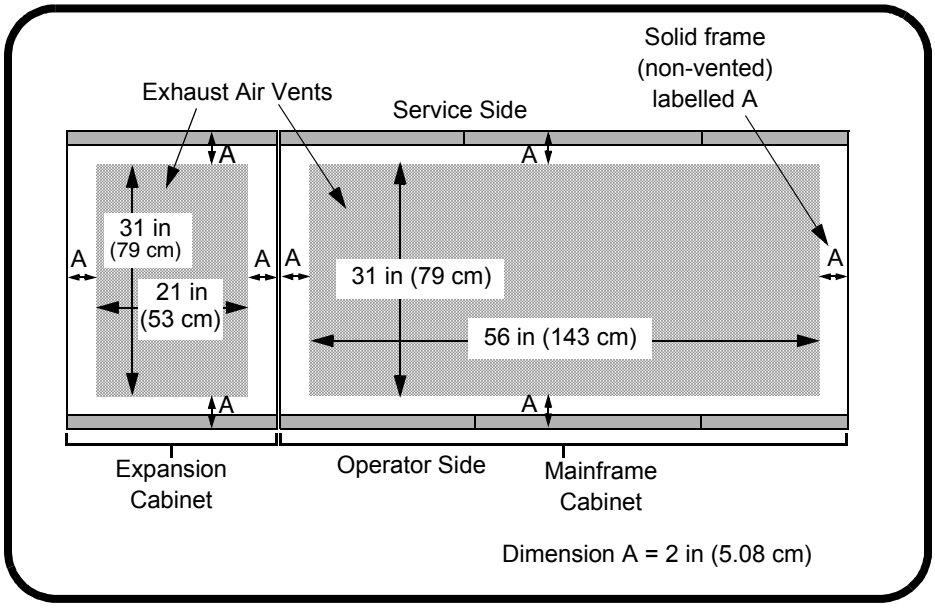
Clearance for Air Circulation

There must be adequate space above the system for air discharge and circulation. Allow a minimum 18 inch (46 centimeters) radius arc of open space above the system.

When planning the floor space to meet requirements for installation, be sure to maintain the minimum recommended distance of 38 inches (96.5 centimeters) between any surrounding walls and the rear of the system cabinet. These clear areas permit adequate air circulation around the system as well as maintenance access. Although the ends of the system do not require clearance for airflow, space must be allotted to allow passage on one or both sides for servicing the system.

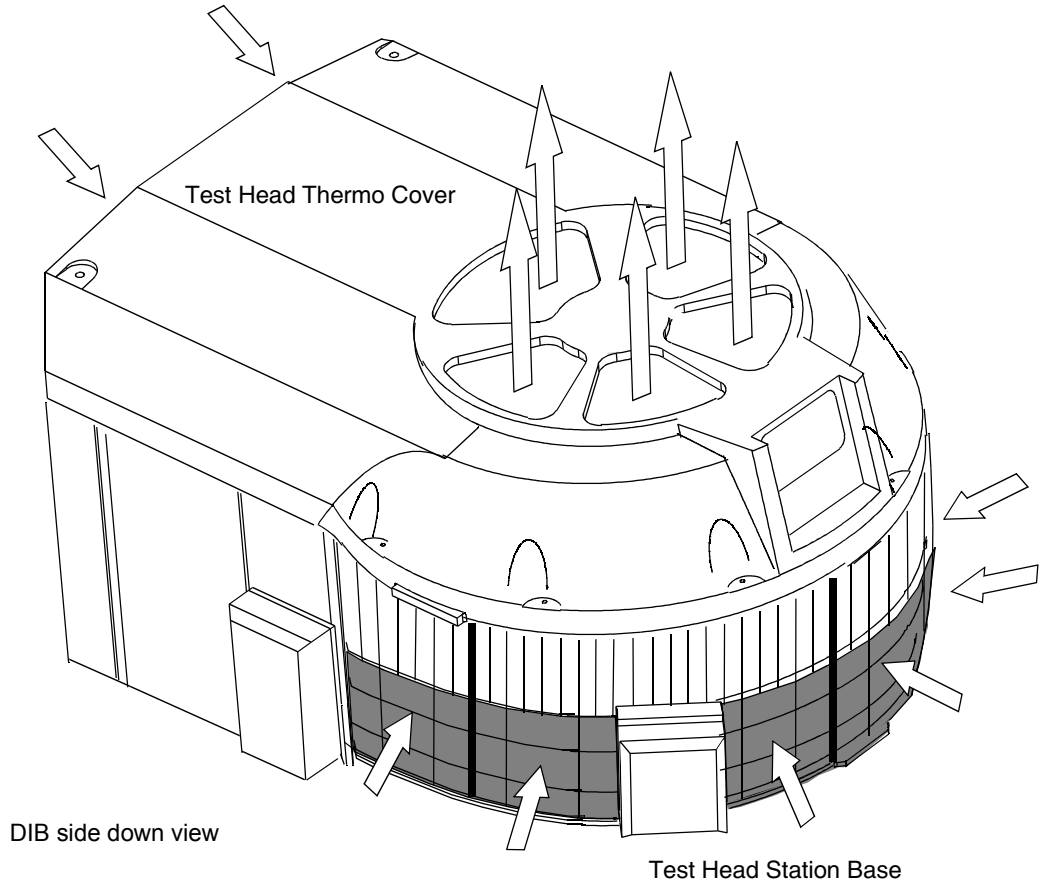
Airflow Pattern Through Mainframe shows the airflow pattern around the mainframe and the dimensions of the exhaust air vents on the top of the system in the event a hood will be installed. Airflow for Catalyst Test Head shows the airflow pattern around the Catalyst test head.





Overhead view

Airflow Pattern Through Mainframe



Airflow for Catalyst Test Head

Flow Rate of Exhaust Fans

The total number of fans within the mainframe depends upon the options present. All fans require 24 Vdc.

In the service side left bay, general purpose cooling is provided by two 160 CFM “flushing” fans located at the top of the bay and three 130 CFM fans located at the bottom of the linear power door.

The CDM cooling assembly, located in the middle bay, houses four 230 CFM fans. The test head analog power door has two 112 CFM fans.

In the service side right bay, the PACS II fan tray assembly houses six 112 CFM fans. Sometimes the PACS II fan tray is placed in the expansion cabinet.

The test head cooling is provided by two fan assemblies. The “pusher” fan assembly has two 130 CFM fans, and the “puller” fan assembly has five 130 CFM fans and one 230 CFM fan.

Test System Thermal Sensors

Under normal operating conditions, the temperature sensors in the mainframe perform an emergency (EMO) shutdown when the exhaust air temperature reaches 65°C ± 3°C (149°F ± 5.4°F). This is considered an over-temperature condition.

Temperature sensors are also located in the Catalyst Test Head(s) and are set to perform an emergency (EMO) shutdown of the system at 45°C ± 3°C (113°F ± 5.4°F). This is considered an over-temperature condition.

Ceiling Thermal Sensors

After an emergency shutdown, it is possible for the mainframe temperature to momentarily rise as high as 70°C (158°F). Therefore, the sensors at the installation site should not be set to trip at a temperature at or below 70°C (158°F). The system over-temperature condition will reset only when the thermostat temperature drops below 30°C ± 4°C (86°F ± 7.2°F).

Note

The heat sensor requirements for the expansion cabinet option are the same as the requirements for the Catalyst mainframe.

Compressed Air Pressure Requirements for the Manipulators

The manipulators require a constant dry, clean source of compressed air for operation. No oil should be present in the air supply.

The compressed air requirement for the universal manipulator is:

- Inlet pressure: 60 pounds per square inch (4.23 kilograms per square centimeter) to 90 pounds per square inch (6.34 kilograms per square centimeter)
- Flow rate: 25 cubic feet per minute minimum (.71 cubic meters per minute)
- Teradyne supplies a fitting (a 1/4 inch male NPT plug of the Industrial Interchange design) attached to the manipulator, along with a 20 foot (6.1 meter) hose. The facility must provide connection from the 3/8 inch (9.5 millimeter) inside diameter hose to the compressed air drop of the facility.

The compressed air requirement for the RAM manipulator is:

- Inlet pressure: 60 pounds per square inch (4.23 kilograms per square centimeter) to 90 pounds per square inch (6.34 kilograms square centimeter)
- Flow rate: 3-5 cubic feet per minute minimum (.0850-.0142 cubic meters per minute)

RAM supplies a fitting (a 1/4 inch male NPT plug of the Industrial Interchange design) attached to the manipulator, along with a 20 foot (6.1 meter) hose. The facility must provide connection from the 3/8 inch (9.5 millimeter) inside diameter hose to the compressed air drop of the facility.

Recommended System Floor Plans

Teradyne recommends various floor plans for the Catalyst test system. See Catalyst Test System Floor Plans.

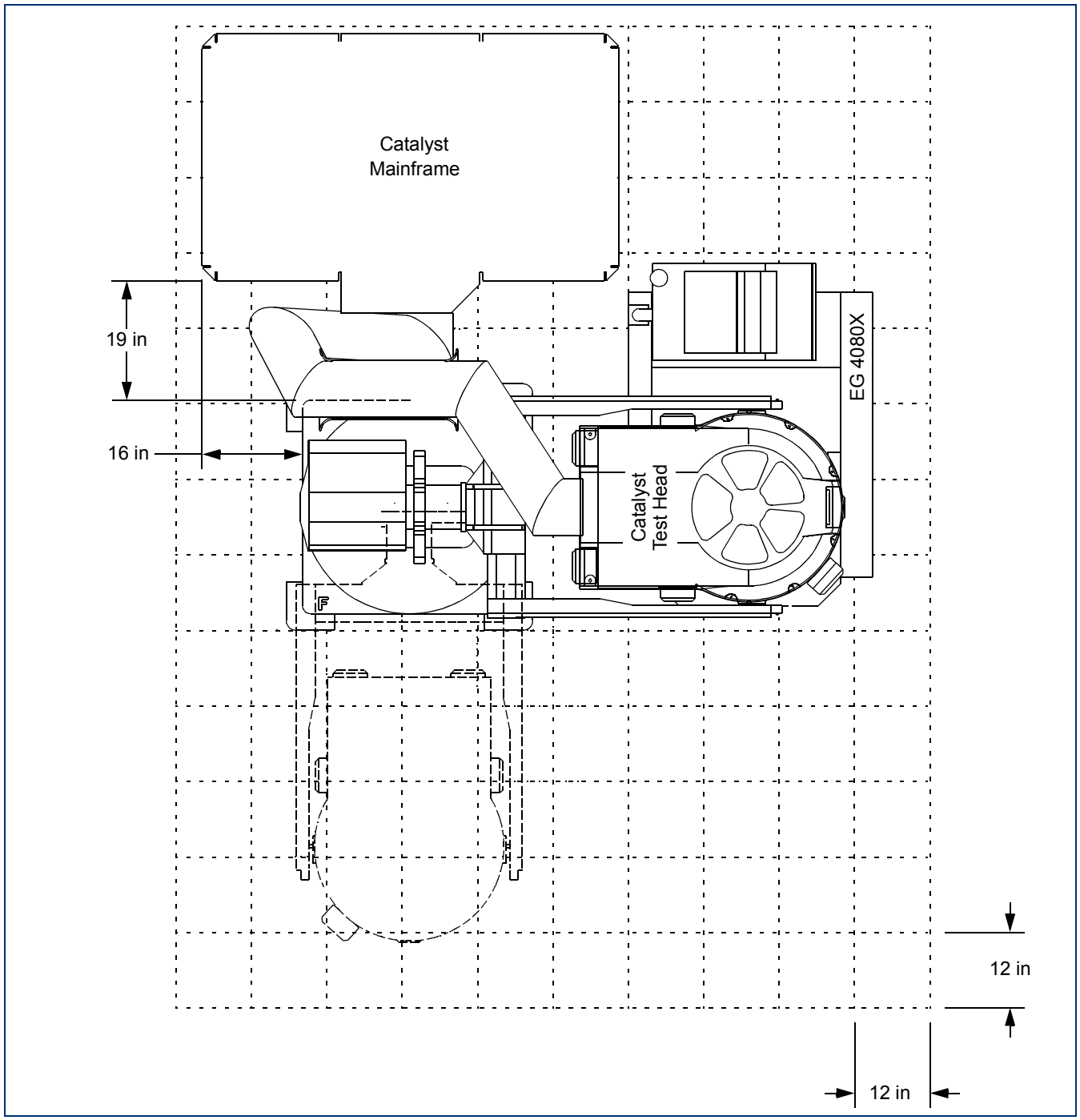
Catalyst Test System Floor Plans

Number of Test Heads	Configuration	Illustration
One Test Head	Suggested floor plan "A" for a catalyst system with one test head and a left-configured manipulator	Floor Plan "A" for a Left-Configured Manipulator and One Test Head
	Suggested alternate floor plan "B" for a Catalyst system with one test head and a left-configured manipulator	Floor Plan "B" for a Left-Configured Manipulator and One Test Head
	Suggested alternate floor plan "C" for a Catalyst system with one test head and a left-configured manipulator	Floor Plan "C" for a Left-Configured Manipulator and One Test Head
Two Test Heads	Suggested floor plan "A" for a Catalyst system with two test heads and a right-configured manipulator	Floor Plan "A" for a Right-Configured Manipulator and Two Test Heads
	Suggested alternate floor plan "B" for a Catalyst system with two test heads and a right-configured manipulator	Floor Plan "B" for a Right-Configured Manipulator and Two Test Heads
	Suggested floor plan "A" for a Catalyst system with two test heads and a left-configured manipulator	Floor Plan "A" for a Left-Configured Manipulator and Two Test Heads
	Suggested alternate floor plan "B" for a Catalyst system with two test heads and a left-configured manipulator	Floor Plan "B" for Left-Configured Manipulator and Two Test Heads
RAM Manipulator	Suggested floor plan "A" for a Catalyst system with two test heads and a RAM manipulator	Floor Plan "A" for RAM Manipulator and Two Test Heads
	Suggested floor plan "B" for a Catalyst system with two test heads and a RAM manipulator	Floor Plan "B" for RAM Manipulator and Two Test Heads

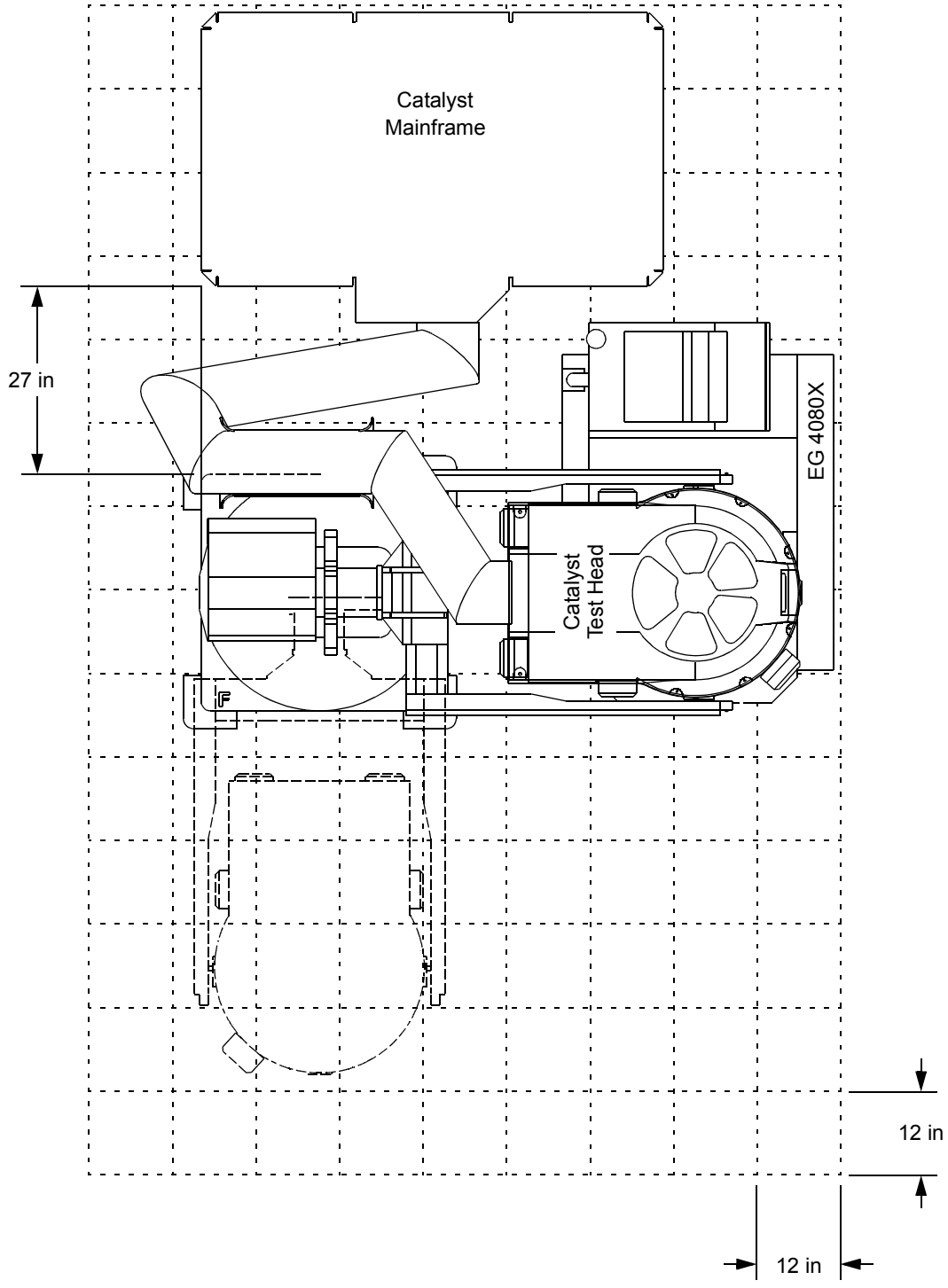
Teradyne recommends including additional floor space for people, manipulators, external test equipment and storage of spare parts.

Note

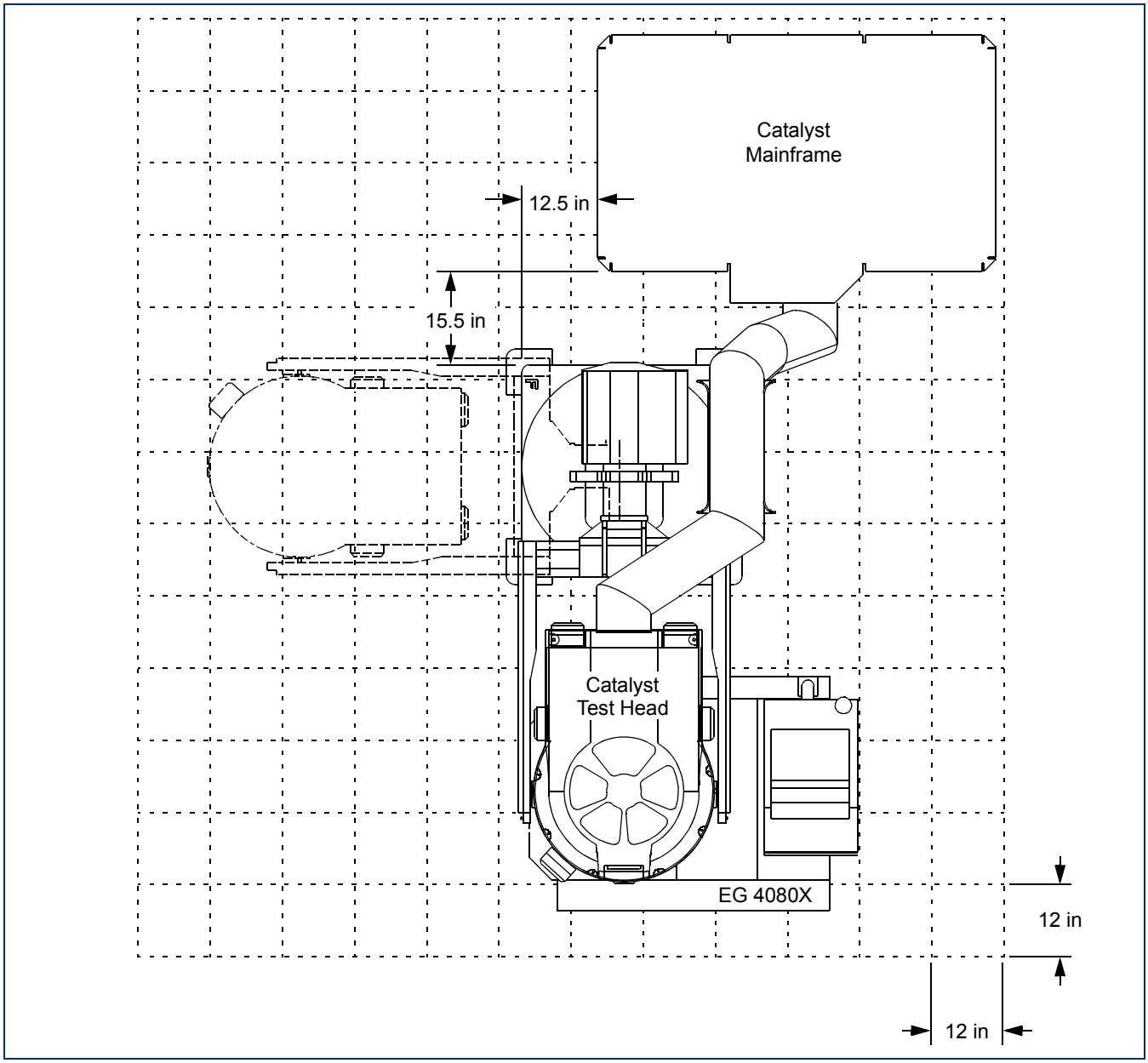
TЬV requires that the user computer be located within 10 feet (3.1 meters) of an Emergency Off (EMO) switch. There are EMO switches on the mainframe and the test heads.



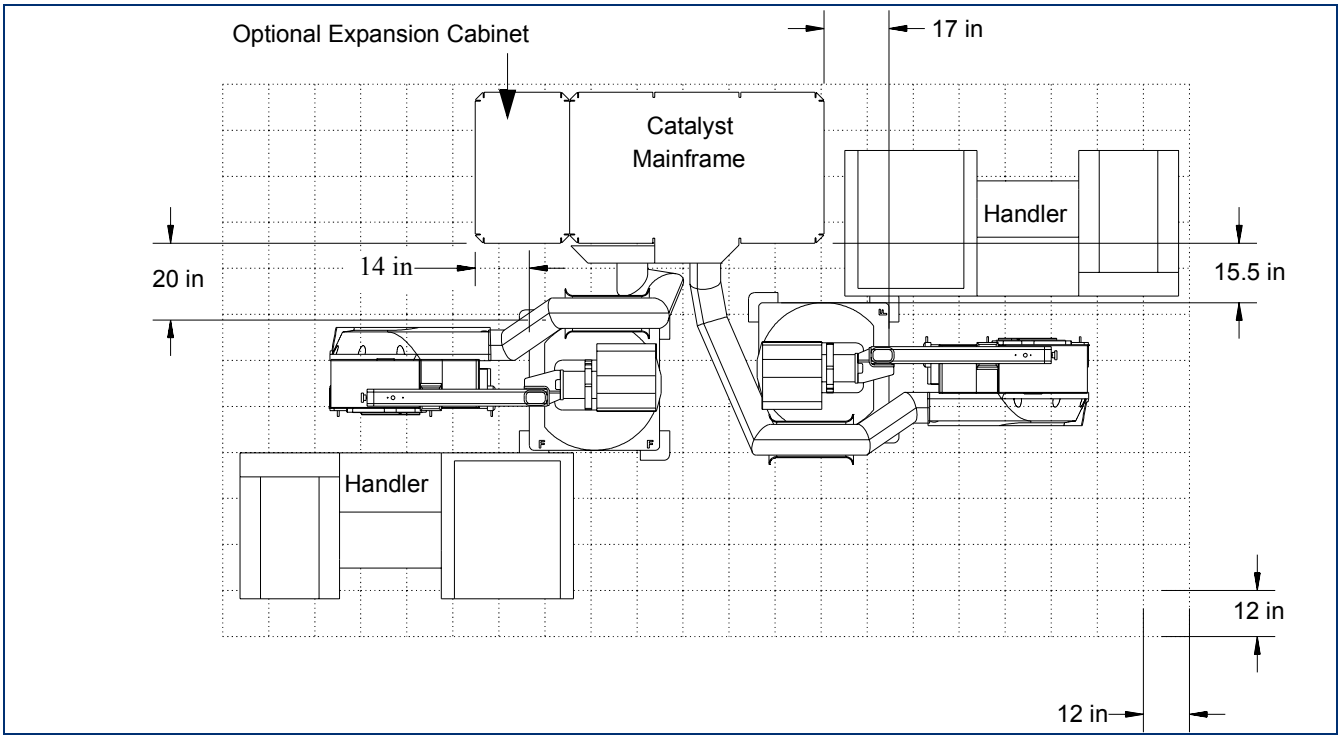
Floor Plan “A” for a Left-Configured Manipulator and One Test Head



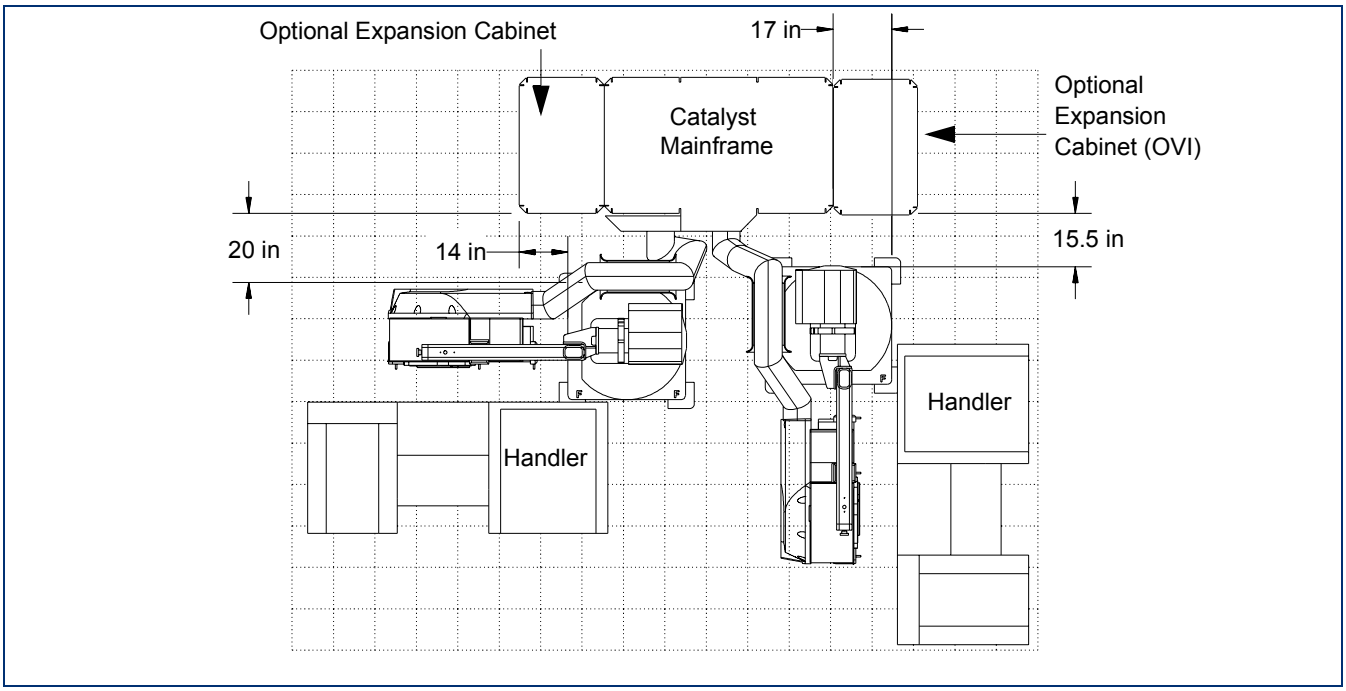
Floor Plan “B” for a Left-Configured Manipulator and One Test Head



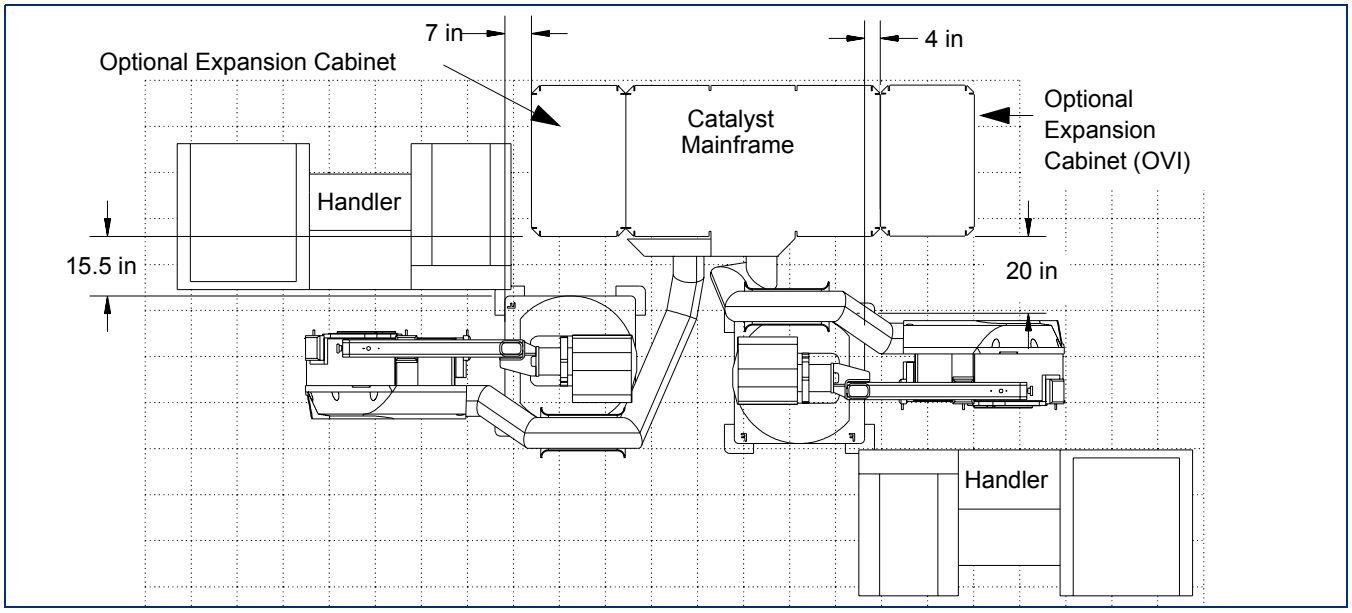
Floor Plan “C” for a Left-Configured Manipulator and One Test Head



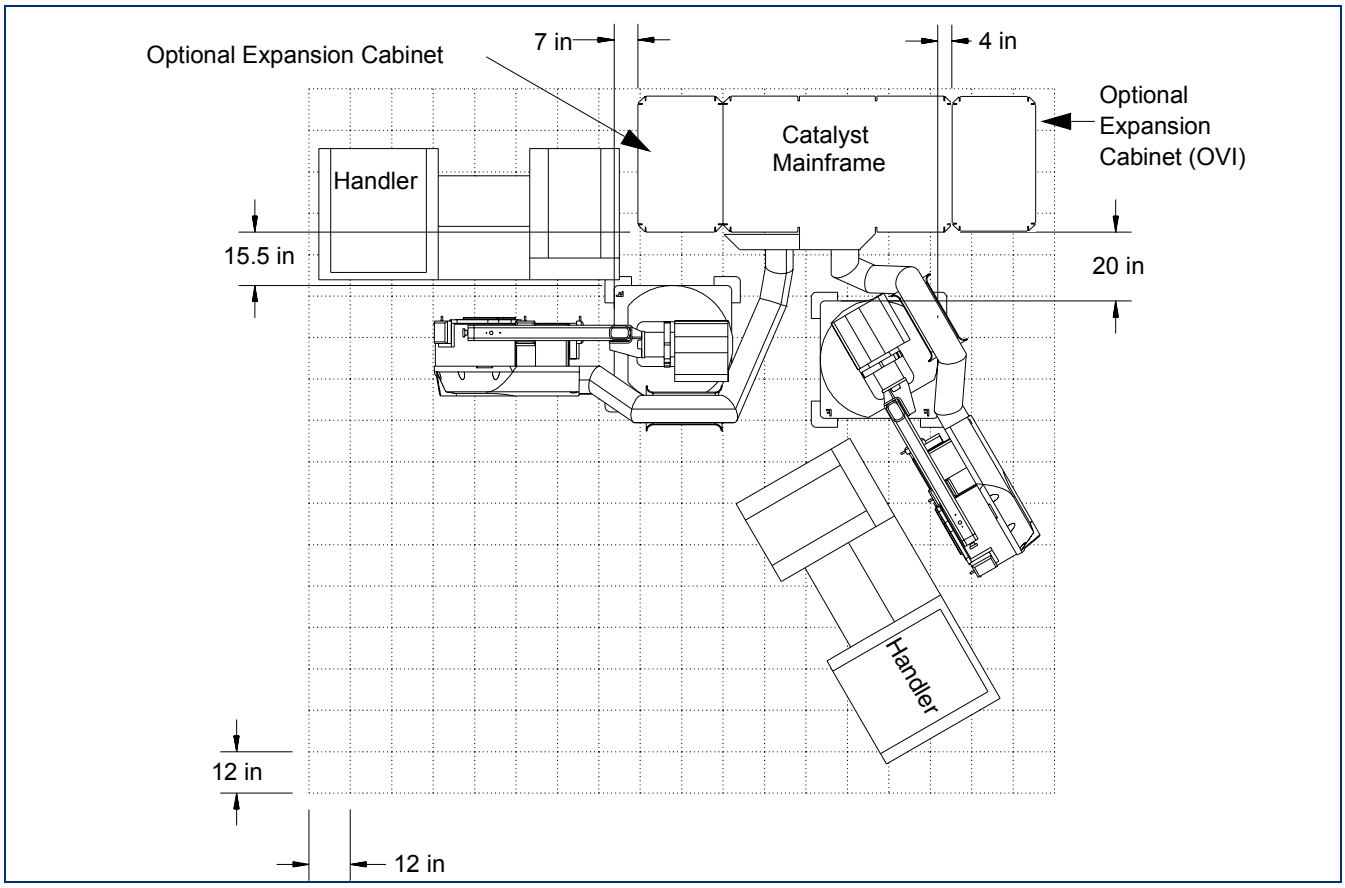
Floor Plan “A” for a Right-Configured Manipulator and Two Test Heads



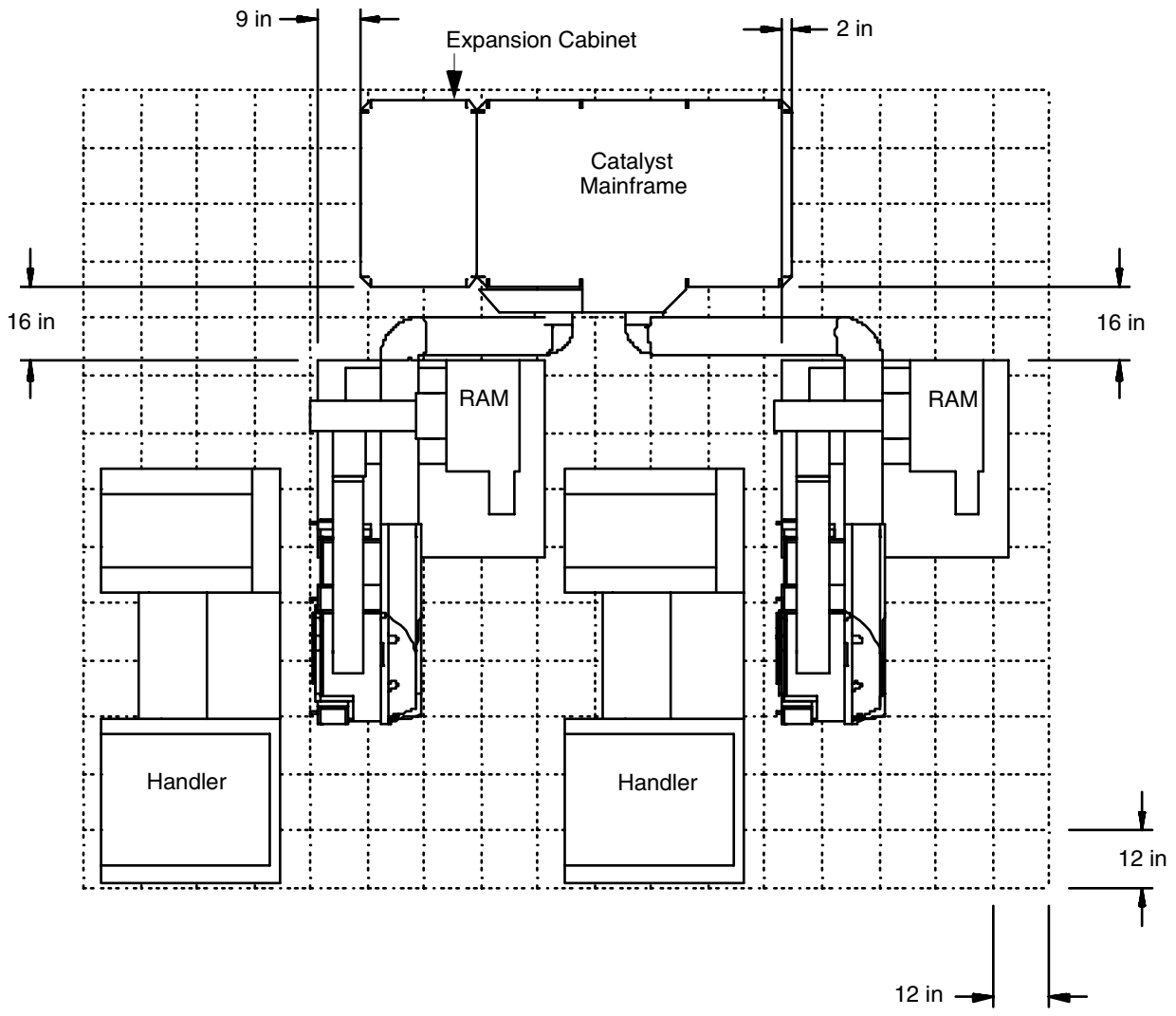
Floor Plan “B” for a Right-Configured Manipulator and Two Test Heads



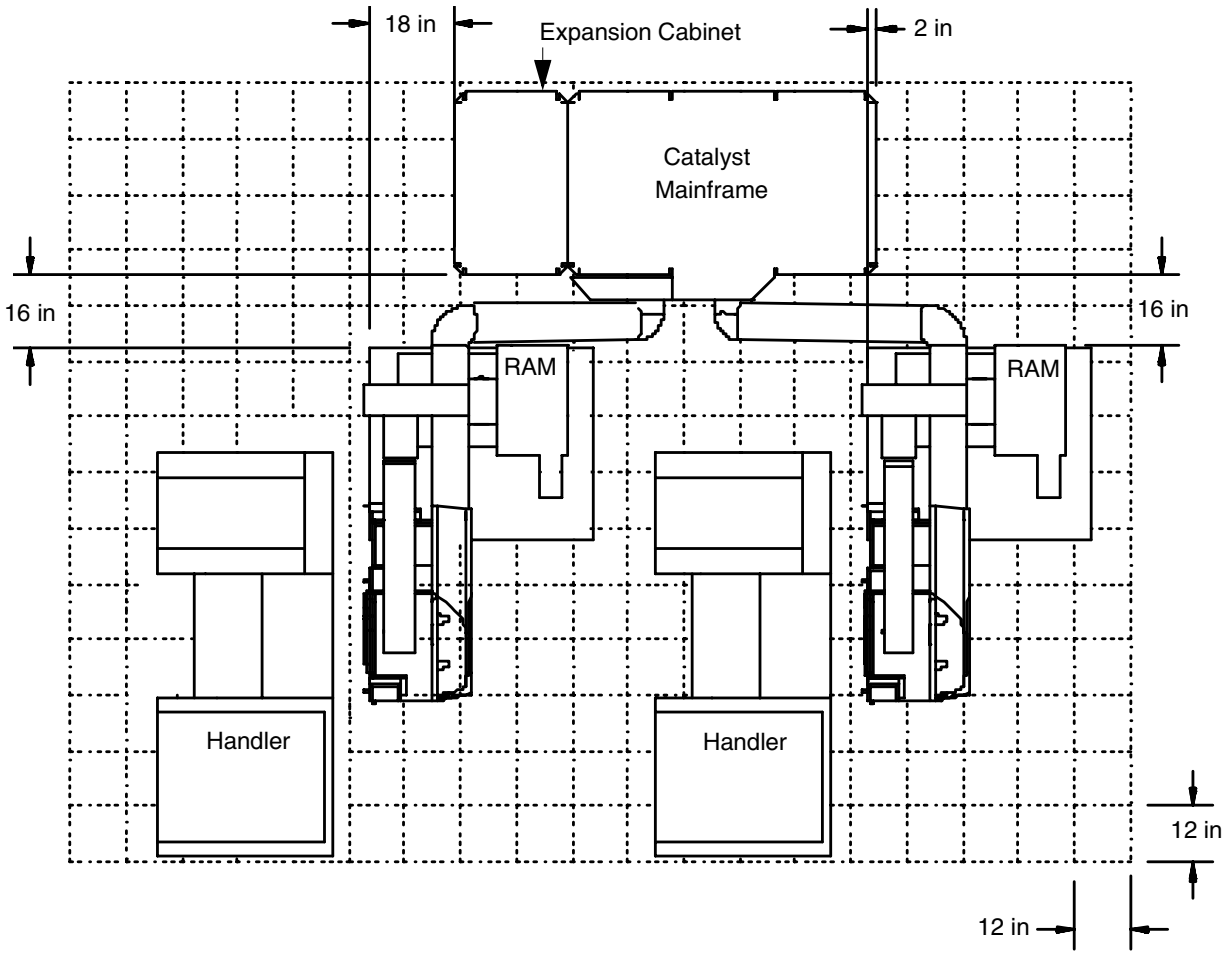
Floor Plan “A” for a Left-Configured Manipulator and Two Test Heads



Floor Plan “B” for Left-Configured Manipulator and Two Test Heads



Floor Plan “A” for RAM Manipulator and Two Test Heads



Floor Plan “B” for RAM Manipulator and Two Test Heads

Transit Route Requirements

Due to the size and weight of the test system and shipping crates, the unpacking process and the route to the test system's final destination needs to be carefully evaluated.

This section provides the transit route requirements that must be met.

! Caution

For the safety of people and equipment, Teradyne recommends that no fewer than five people be available to move the system down the ramp. Position two people on the side opposite the ramp to push the system, and two people in front and one person to the side of the test head to guide the system and cabling as it rolls down the ramp.

Following this procedure allows the Catalyst test system to be removed from the crate with a reasonable amount of stability.

Shipping Crate Dimensions and Weights

Shipping Crate Dimensions and Loaded Shipping Crate Weights provide the crate dimensions and weights to help determine the space requirements for receiving and unpacking the Catalyst test system.

Shipping Crate Dimensions

Test System Components	Height		Length		Width	
	in	cm	in	cm	in	cm
Mainframe	93	236	145	368	81	206
Expansion Cabinet (with and without OVI)	90	229	65	175	52	132
Universal Manipulator	90.5	230	122	310	70	178
RAM Manipulator	96	244	83.5	212	67	170
Outer Vault	56	142	36	91	32	81
Miscellaneous Box	44	112	58	148	42	107

Loaded Shipping Crate Weights

System Component	Weight	
	lb	kg
Mainframe with one test head and cart	4650	2114
Mainframe with two test heads and cart	5435	2470
Expansion Cabinet	1540	700
Expansion Cabinet with OVI	1305	592
Universal Manipulator	3095	1404
RAM Manipulator	2500	1134
Computer Monitor	70	32
Miscellaneous box on shipping pallet	405	184
Outer vault	1087	494

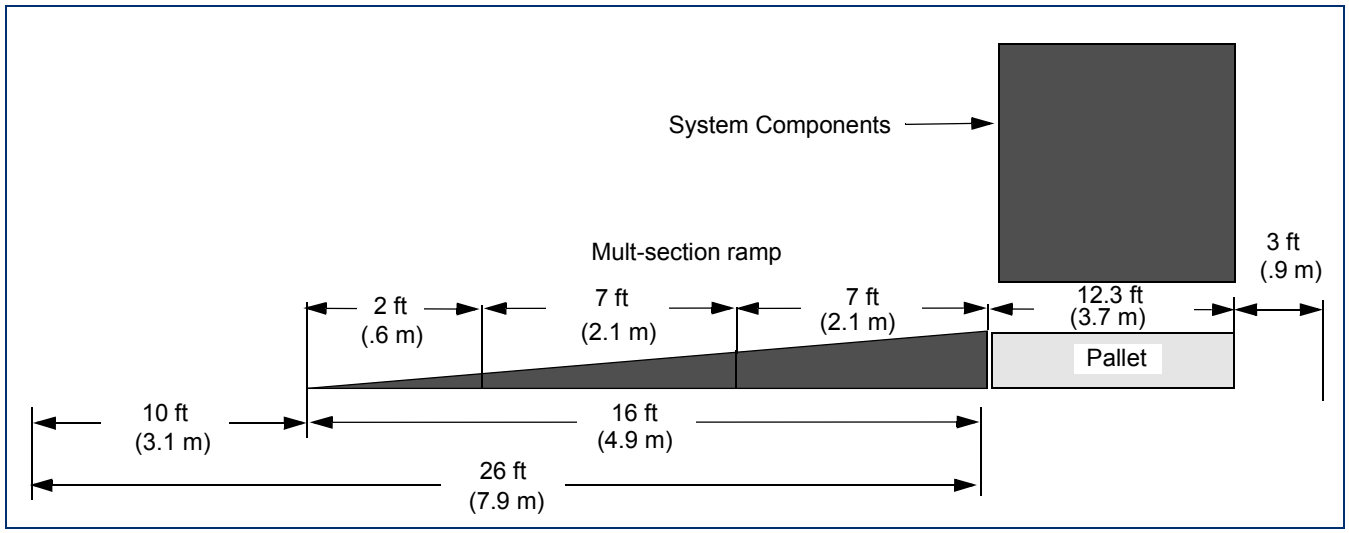
Unloading and Unpacking

Because of the size of the crates with the ramp attached, considering space in front of and behind the crates is necessary. See Space Requirements, Mainframe and Test Head Ramp Space Requirements, Universal Manipulator Ramp Space Requirements, RAM Manipulator Space Requirements and Expansion Cabinet Ramp Space Requirements.

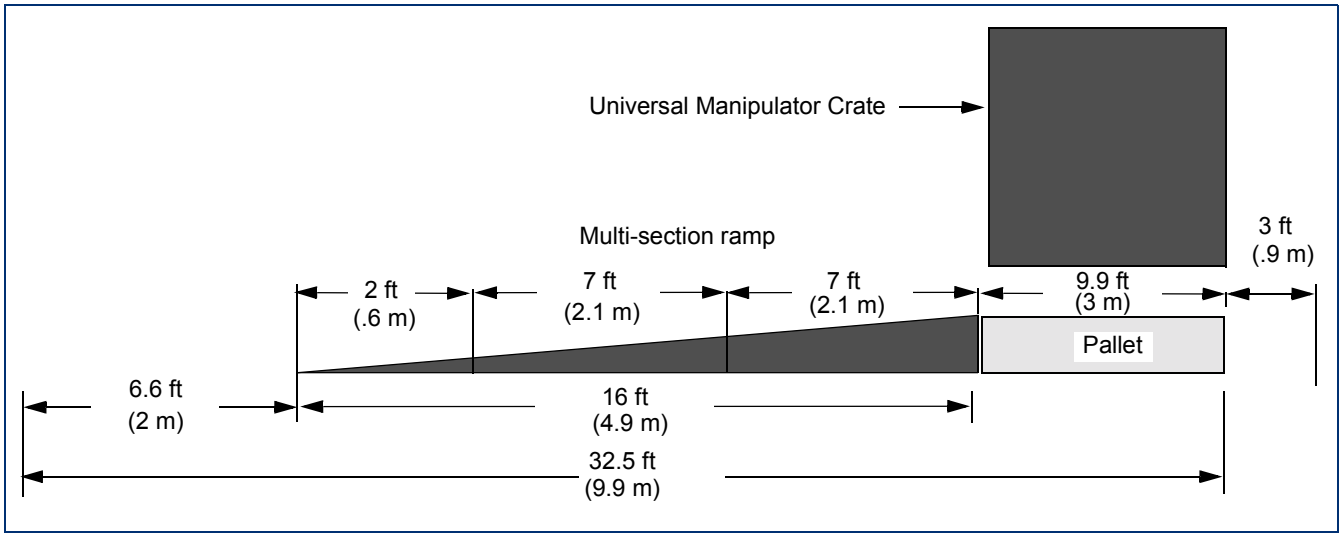
Space Requirements

Equipment	Required Space (ft)			Diagram
	Front (Ramp Side)	Back	Total	
Mainframe and Test Head	26	3	41.3	Mainframe and Test Head Ramp Space Requirements
Universal Manipulator	22.6	3	35.5	Universal Manipulator Ramp Space Requirements
RAM Manipulator	18.3	7.5	32.5	RAM Manipulator Space Requirements
Expansion Cabinet (with and without OVI)	22.6	3	30.1	Expansion Cabinet Ramp Space Requirements

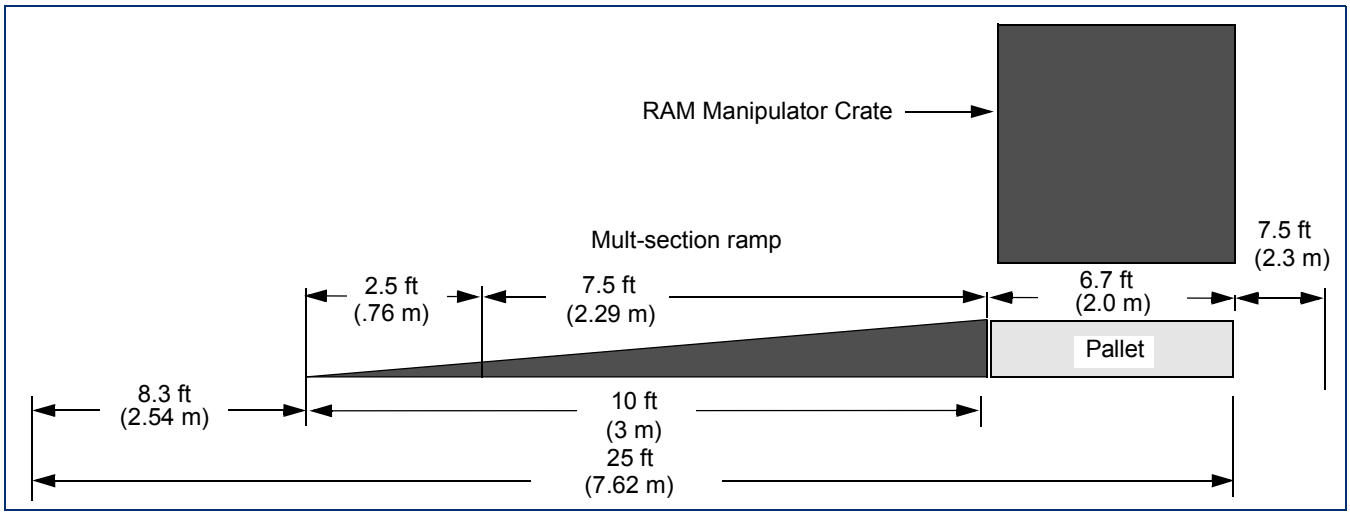
The dimensions listed in Space Requirements include adequate space for attaching the ramps to the skid and for lowering the system off and completely out of the crate.



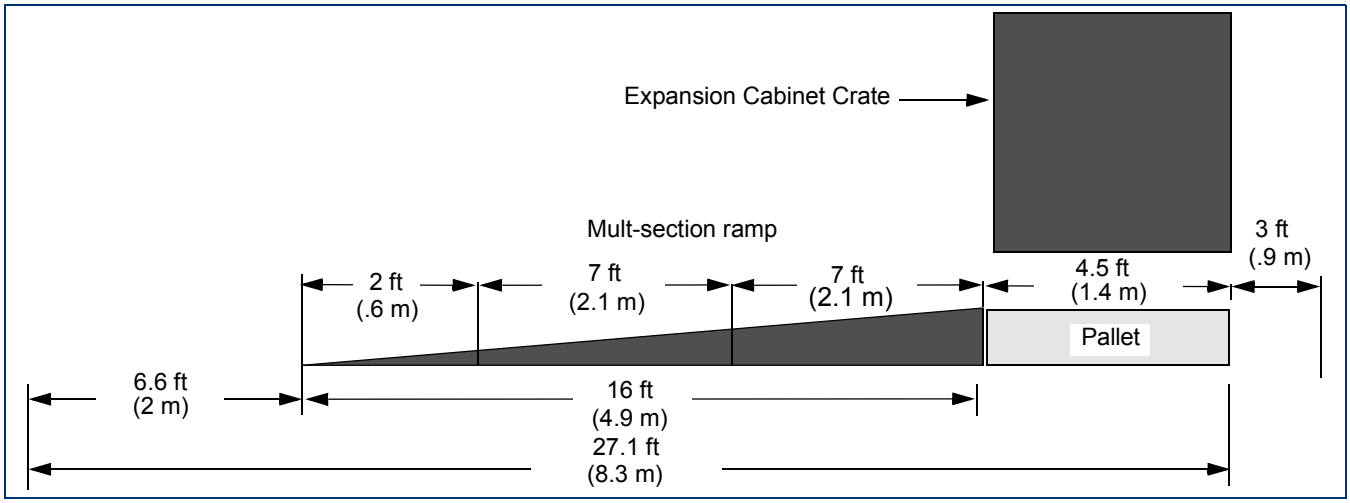
Mainframe and Test Head Ramp Space Requirements



Universal Manipulator Ramp Space Requirements



RAM Manipulator Space Requirements



Expansion Cabinet Ramp Space Requirements

Forklift

To move the system from the delivery vehicle, use either:

- a forklift, rated at 6,000 pounds (2,722 kilograms) minimum
- a suitable pallet jack

The design of the shipping crates allows standard forklifts to lift and move the system crates.

Flooring

The system moves on the six wheels located on the bottom of the mainframe cabinet. The load per wheel is 2,200 pounds per square inch (155 kilograms per square centimeter).

Refer to Catalyst Major Component Weights for maximum test system component weights to see if the hallway floors, ramps, etc., need to be reinforced.

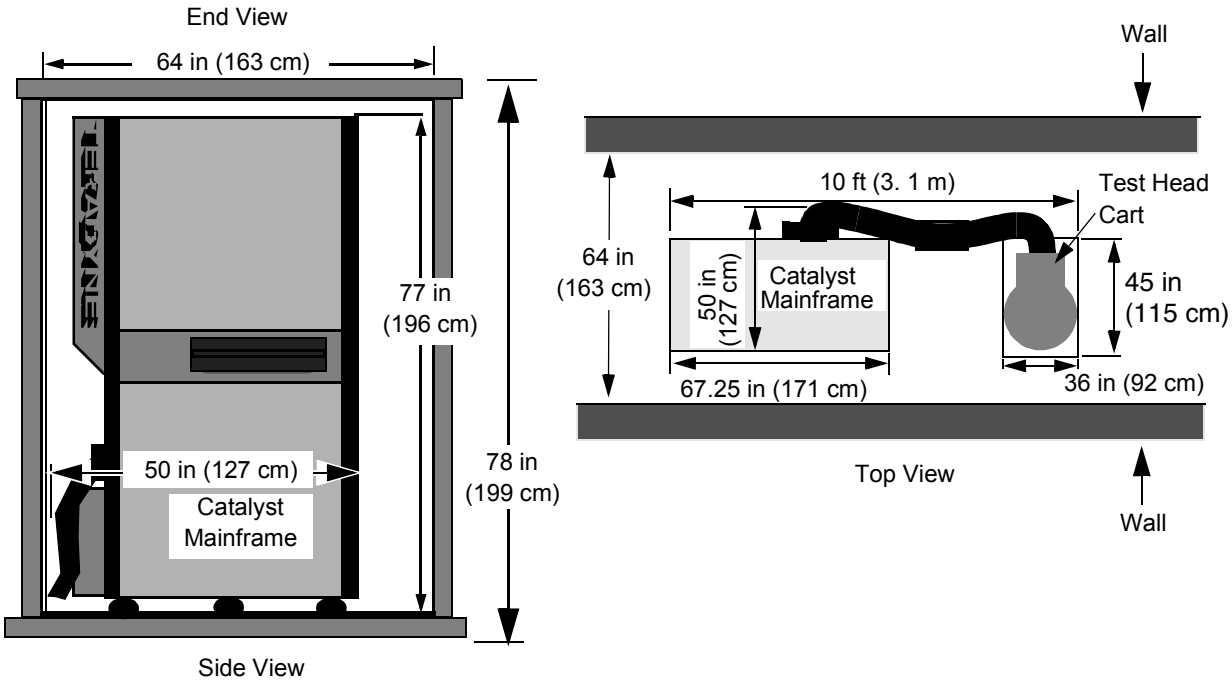
Hallways and Doorways

All doorways and hallways must be at least 64 inches (163 centimeters) wide and 78 inches (198 centimeters) high. Anything that hangs down from the hallway ceiling (light fixtures, sprinklers, pipes, etc.) must also be at least 78 inches (198 centimeters) from the floor.

Note

Doorways and hallways must be must be 82 inches (208.3 centimeters) high if using the RAM manipulator.

Recommended Clearances Through Hallways and Doorways shows recommended minimum clearances for hallways and doorways. Add any threshold heights that must be crossed to the recommended minimum clearances. Doorway thresholds cannot exceed 1 5/8 inches (4.2 centimeters) in height. See Ramp Grade and Calculation of Ramp Grade.

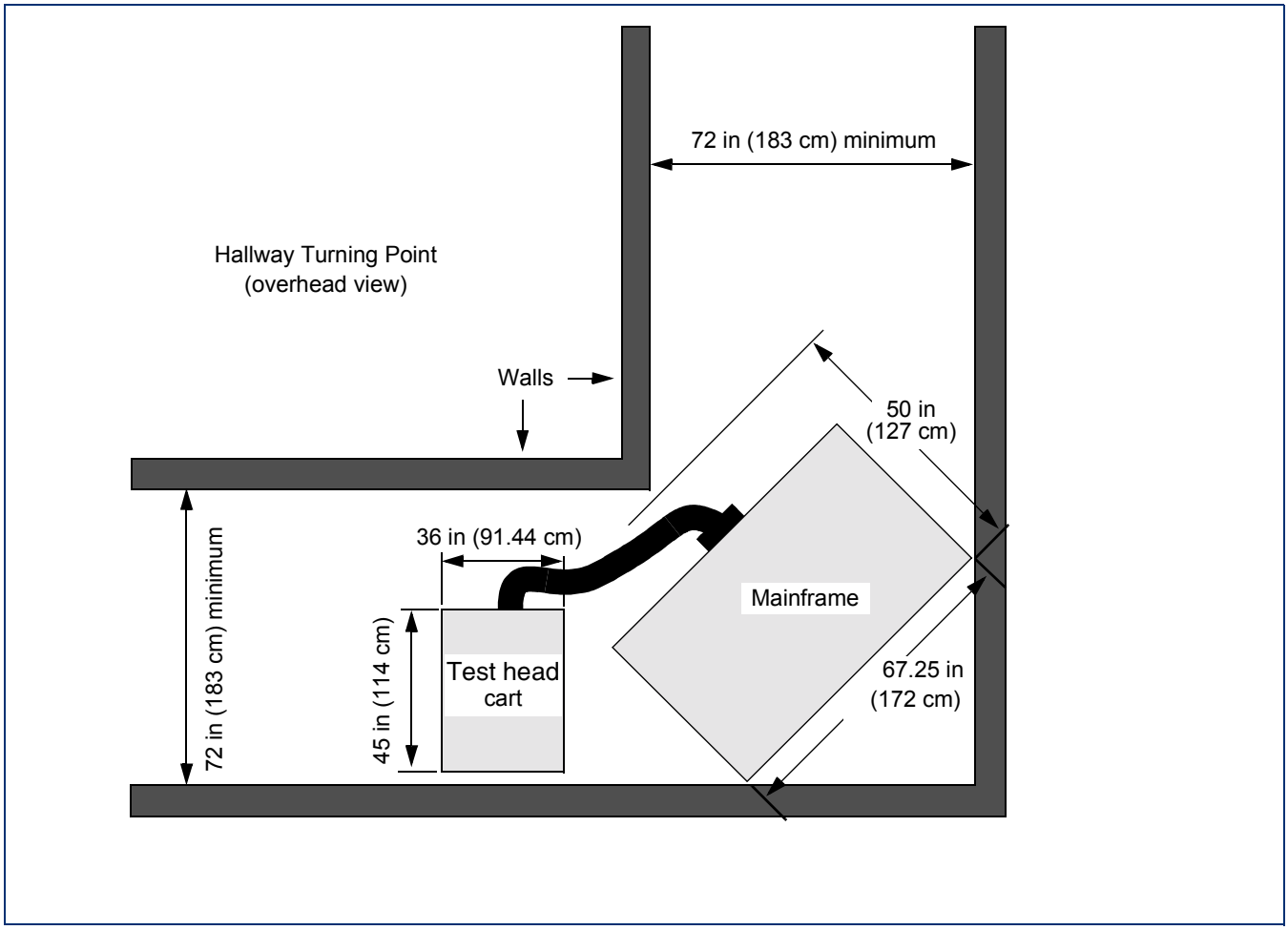


Recommended Clearances Through Hallways and Doorways

Turning Points

All turning points along the route from the unpacking area to the installation site must meet the recommended minimum clearance requirements.

The minimum recommended turning clearance for Catalyst systems is 67.25 inches (172 centimeters). See Minimum Clearance Requirements for the Catalyst Mainframe and Test Head.

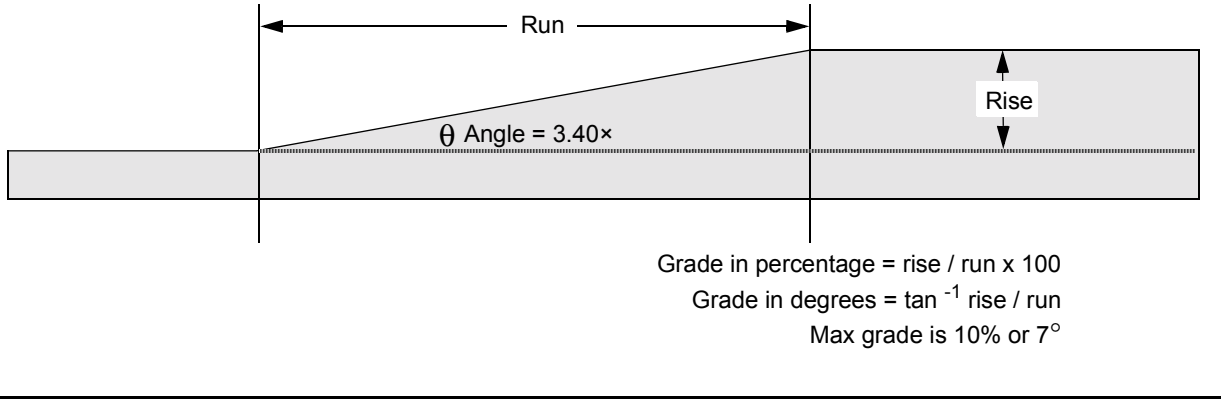


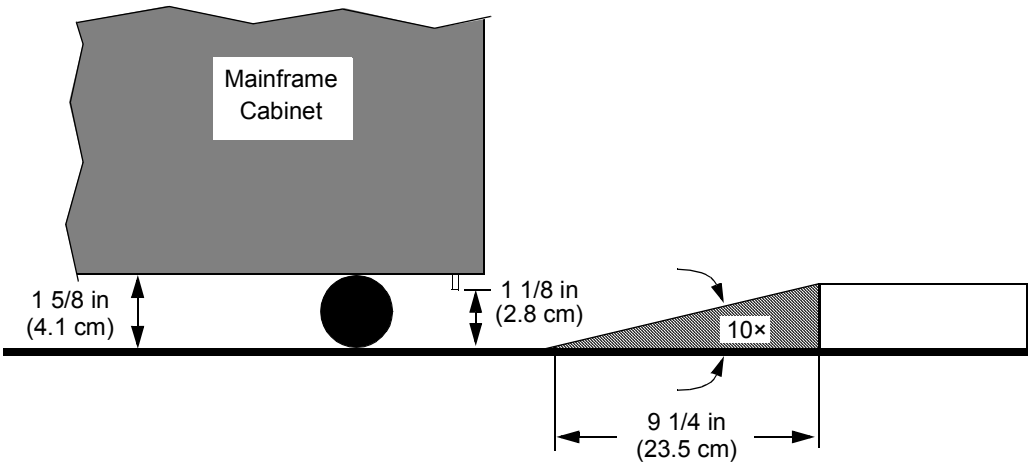
Minimum Clearance Requirements for the Catalyst Mainframe and Test Head

Ramps

All ramps along the route from the unpacking area to the installation site must meet the recommended minimum clearance and maximum grade requirements.

The recommended minimum clearance requirements are the same for hallways and doorways (see Recommended Clearances Through Hallways and Doorways). The maximum allowable grade for a ramp is 5.9% or a rise angle of 3.4°. A grade steeper than 5.9% does not allow the system to clear the top of the ramp. See Ramp Grade and Calculation of Ramp Grade.



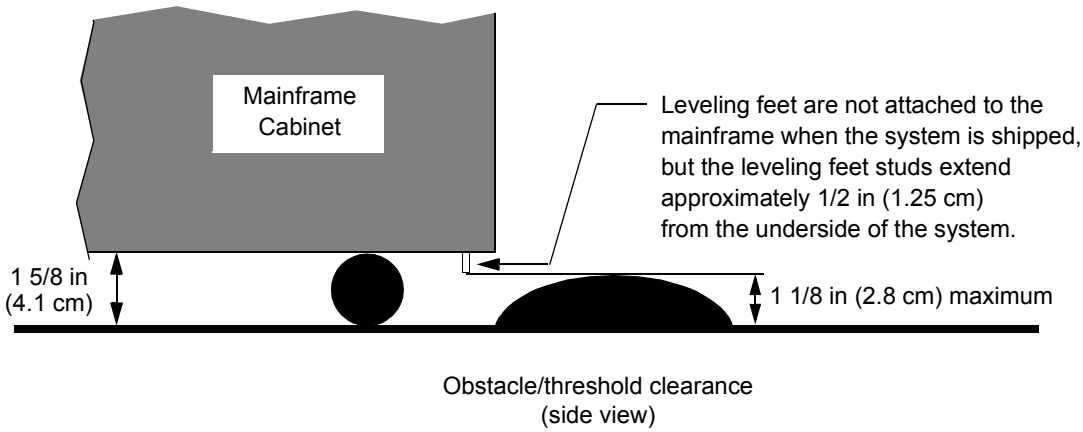


Obstacle/threshold clearance using ramp (side view)

Ramp Grade and Calculation of Ramp Grade

Floor Obstacles

The maximum floor obstacle height is 1 1/8 inches (2.8 centimeters). Any obstacle that exceeds 1 1/8 inches (2.8 centimeters) impedes movement of the system.



Minimum Clearance Requirements for Obstacles

Elevators

If it is necessary to use an elevator, make sure that the elevator's interior and doorways meet the recommended minimum clearance requirements. Also make sure that the elevator is capable of supporting the system's weight (see Shipping Crate Dimensions and Catalyst Major Component Weights).

General Considerations

If it is necessary to exit the facility to reach the installation site, precautions must be taken to protect the system from bad weather.

If the system must be left unattended for any length of time, keep it in a secure area.

System Installation Process and Verification

Teradyne has developed a standard process for the installation and verification of the Catalyst test system. Installation by Teradyne or its designated representatives is an important part of ensuring a functional system.

The standard verification procedure is a key part of the installation. This procedure demonstrates that the system has been successfully installed. It is performed prior to system shipment and again at the customer site during installation. The customer may make arrangements to observe the verification at Teradyne prior to the shipment.

Installation is provided for the system and for options supplied by Teradyne. Unless otherwise contracted, the following items are not covered:

- inTEST docking plate calibration
- Checkout of spare parts
- Execution of customer-developed checker or device programs

- Installation/integration of non-Teradyne peripherals and options.

The installation process performed by Teradyne field engineers is outlined below:

1. Verification that the site has been prepared according to the Teradyne Product Support and Site Preparation Guide prior to system delivery
2. Verification of the contents and integrity of the shipment against the Teradyne packing slips.
3. Connection of Mechanical and Electrical System Elements
4. System check (run Teradyne supplied checker programs).
5. Completion of the On-Site form that provides input for Teradyne's warranty tracking program.

System Support

Spare Parts

Spare parts are critical to the overall system support plan for achieving maximum system uptime. Kits are available for the base test system, for system options and for OEM (Original Equipment Manufacturer) elements, including computer systems and power supplies. The recommended spares for a particular system may include several kits depending on a system's configuration, complexity, and the options installed.

The purchase of a defined level of spare parts is required to qualify for certain service agreements. In remote regions, purchase of defined spare parts is required to qualify for warranty and support coverage of on-site labor and emergency part service.

Teradyne can make recommendations based on a customer's specific need. This need should be discussed with your Teradyne salesman.

Storage and Handling of Spare Parts

When purchasing spare parts for the system, allowances for space and storage location must be included in the planning of the installation site. The storage space will vary depending on which system options are purchased.

Printed circuit boards (PCBs) must be stored appropriately. Never stack circuit boards on top of each other or allow them to flex, as this may cause electrical connections to break or other damage. If possible, Teradyne parts should be stored in their original Teradyne-supplied shipping boxes until needed. These boxes provide both structural integrity and electrostatic discharge (ESD) protection. Grounding of storage and handling areas should also be in place. Always wear a grounded wrist strap when handling circuit boards. Store circuit boards in static-shielded containers, such as Teradyne-supplied shipping boxes and conductive bags.

Interface Boards

The Device Interface Board (DIB) is the link between the test electronics and the device under test. The Handler Interface Board (HIB) is the link between the test electronics and the handler. The Prober Interface Board (PIB) is the link between the test electronics and the prober. These boards are purchased separately depending on the customer's specific device testing needs.

Teradyne recommends storing the interface boards in a cabinet with individual compartments that protect the boards. The cabinet should be near the test system for convenient access to the boards.

Warranty

The Catalyst test system has a full one year warranty, parts and labor.

Training

Teradyne offers separate training courses for Catalyst system maintenance and system programming. Training courses should be taken prior to system delivery, so that personnel can use and support the system in a timely manner.

To register for a Teradyne training course or to obtain training information, contact your local Teradyne service center; or contact one of Teradyne's customer service training departments listed in Training Centers:

Training Centers

Location	Telephone Number	Fax Number
Boston, Massachusetts USA	617-422-2191	617-422-2720
Bracknell, United Kingdom	44-344-426899	44-344-867567
Tokyo, Japan	Programming: 81-3-3719-0171 Maintenance: 81-3-3719-0151	81-3-3791-2878 81-3-3711-8597
Republic of Singapore	65-773-0788	65-773-0961

Documentation

The Industrial/Consumer Division publishes a complete set of programming and service manuals for the Catalyst test system. Teradyne recommends storing manuals near the test system for convenient access.

A Teradyne Sales Engineer can help determine which manuals should be ordered in addition to those supplied with the system.

Telephone

A telephone with an outside line installed at or near the test system is a valuable and efficient tool when working with Teradyne applications and field service personnel.

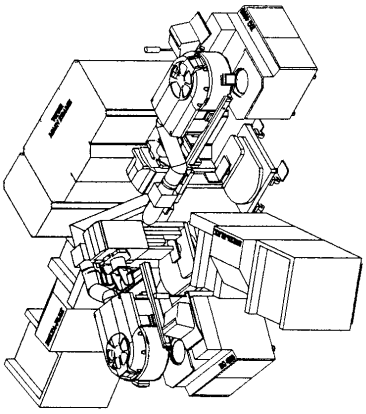
Product Integration

Product Integration Data

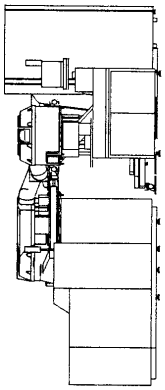
The following figures provide a general overview of typical components used at the interface between the Catalyst test system and handler and probers:

- Catalyst Floor Plan with Two Delta-Flexes and EGs
- Upper and Lower Limits of the Catalyst Manipulator and Test Head
- Catalyst Test Head Dimensions
- IFCD Generic XYZ Information for Catalyst
- Catalyst to Vertical Plane Handler, Typical Setup (pn 480-069-08) (exploded view)
- Catalyst to Prober, Typical Setup (exploded view)
- DIB Stiffener Overall Dimensions (Sheet 1 of 2)
- DIB Stiffener Overall Dimensions (Sheet 2 of 2)
- IFCD Preliminary Outline Dimensions Probe Card
- IFCD Preliminary Outline Dimension Prober Interface Board
- Catalyst Top Load Prober Interface Assembly
- Catalyst Top Load Prober Interface Assembly
- Location of Catalyst KCS Grooves

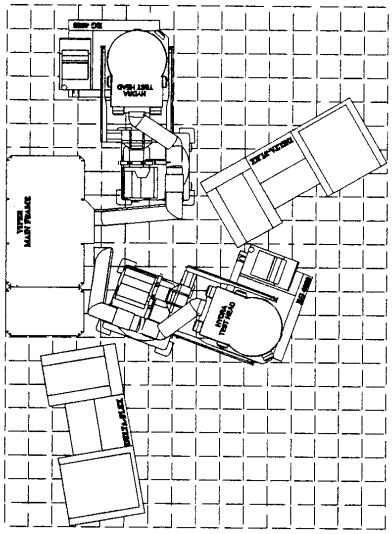
For customer specific handler and prober solutions, contact your local Teradyne sales office.



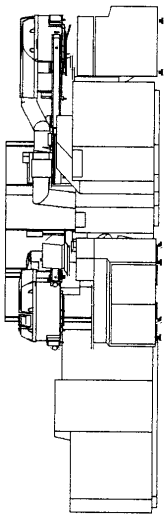
Right Side View



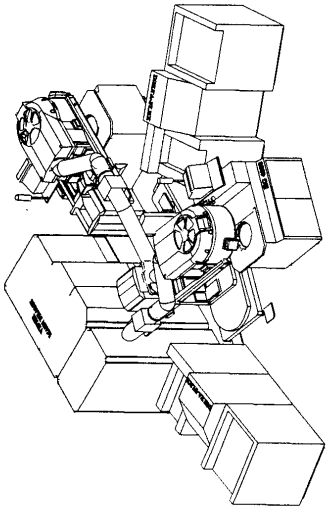
Right Side View



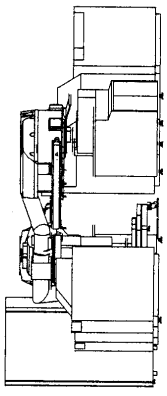
Top View



Front View

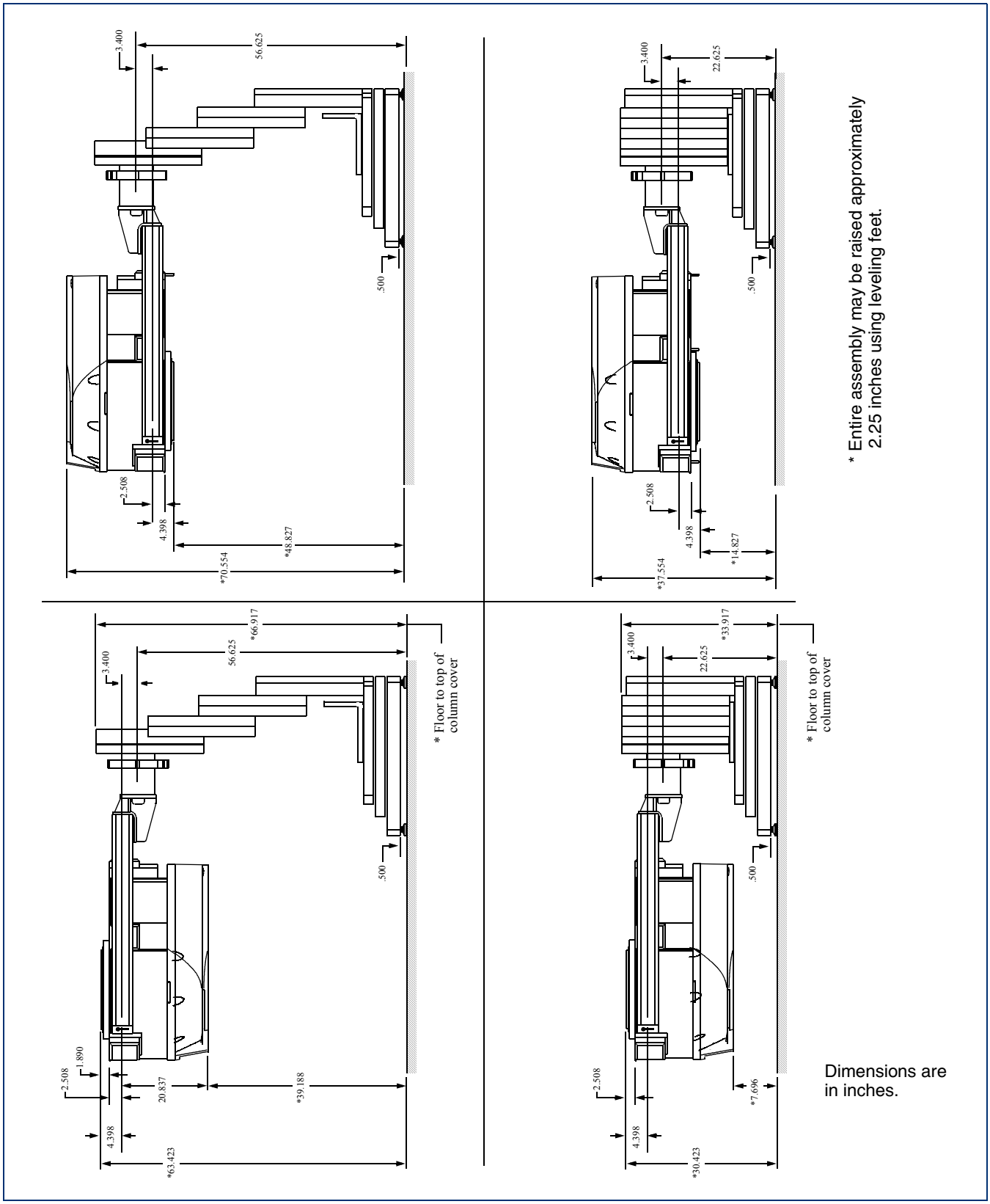


Left Side View

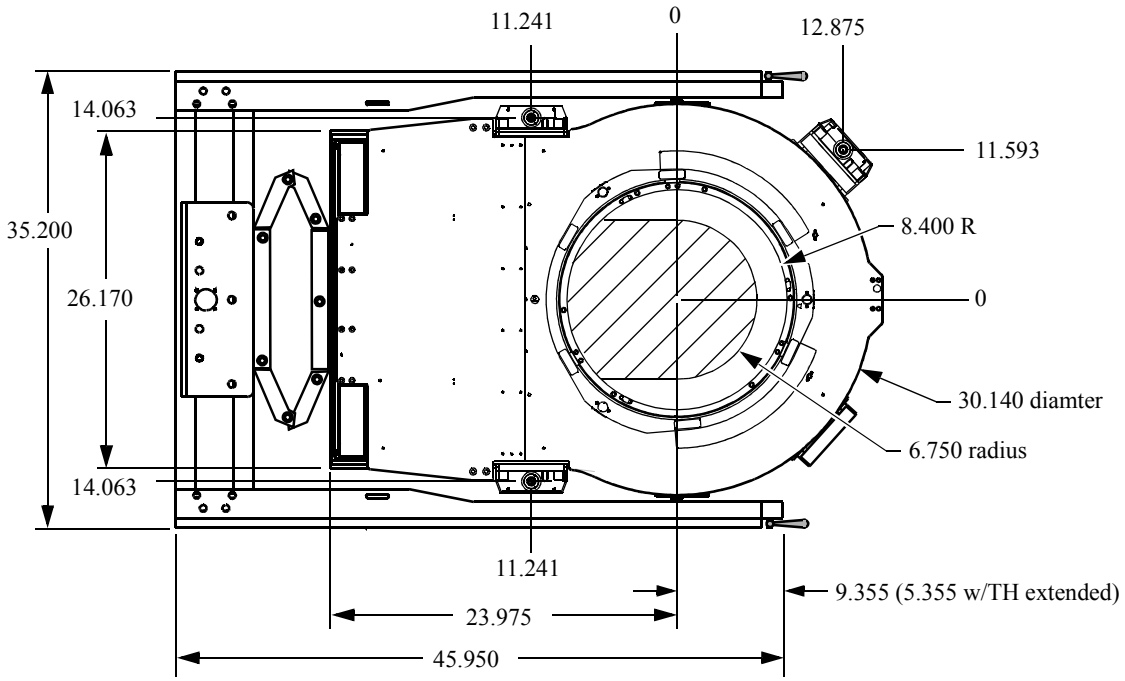


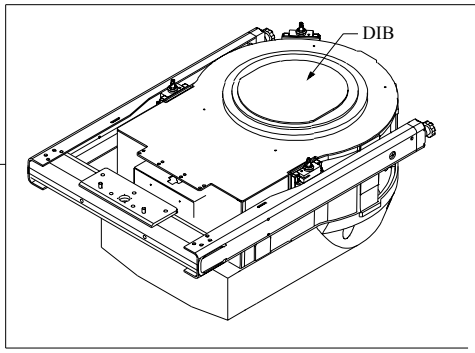
Left Side View

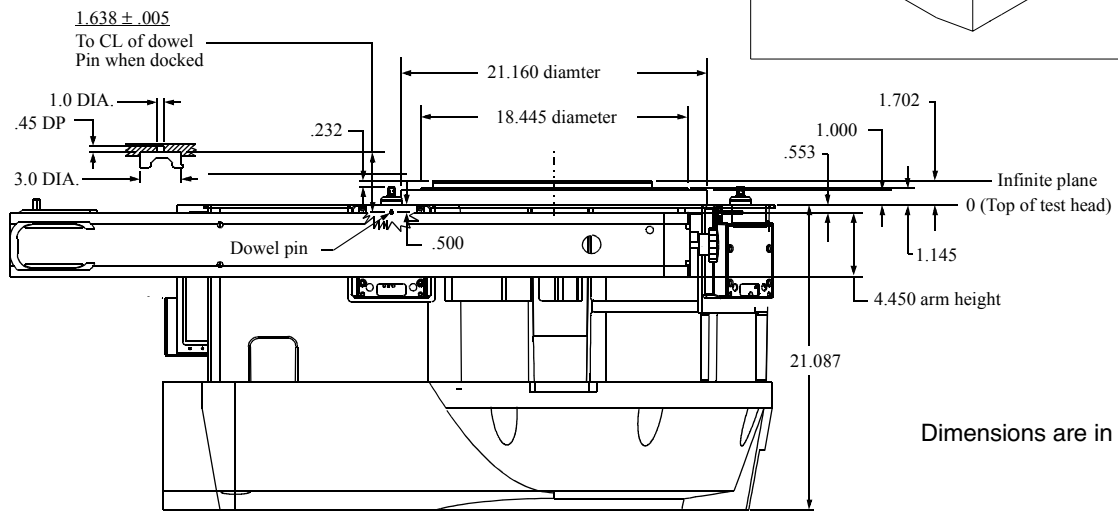
Catalyst Floor Plan with Two Delta-Flexes and EGs



Upper and Lower Limits of the Catalyst Manipulator and Test Head



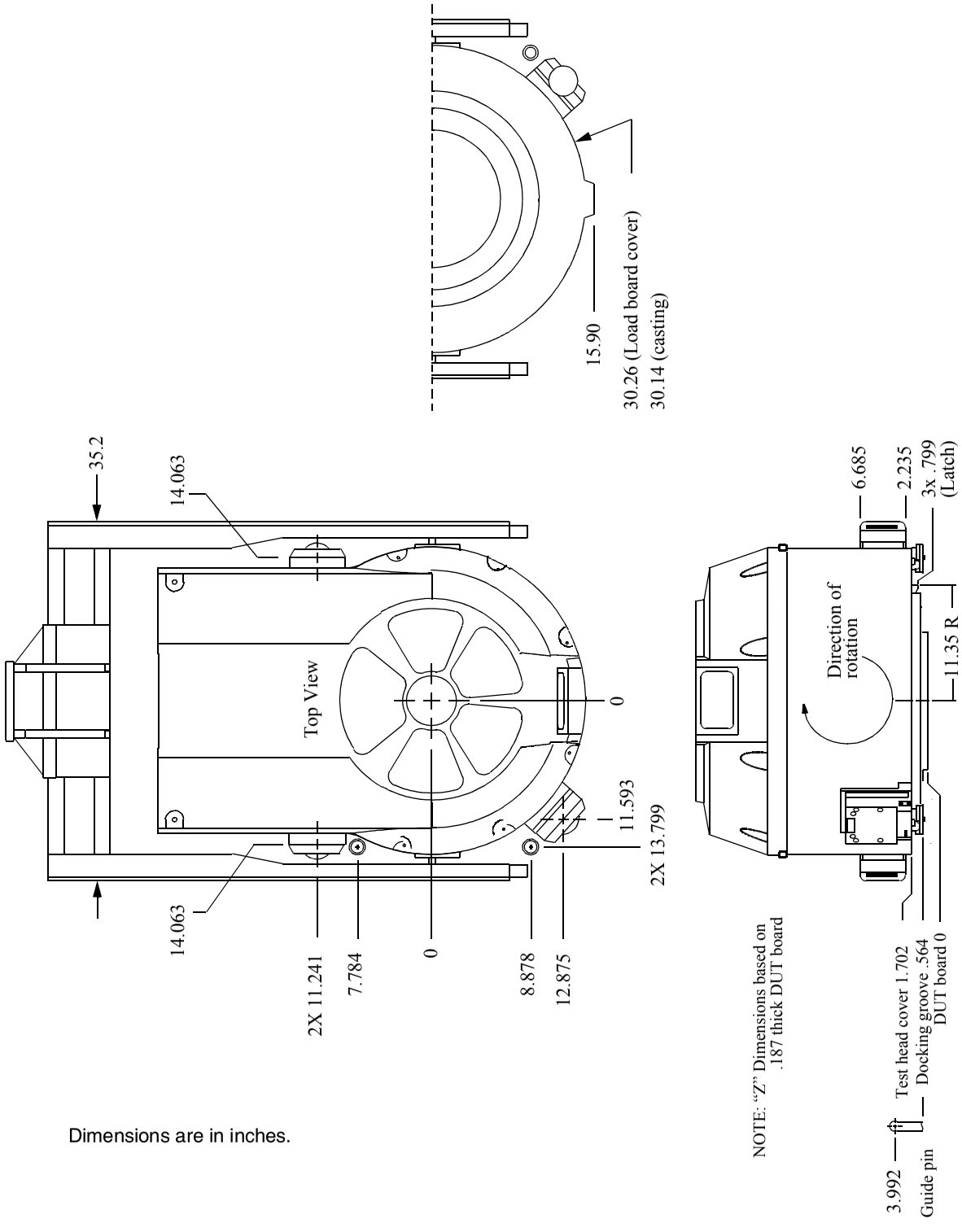




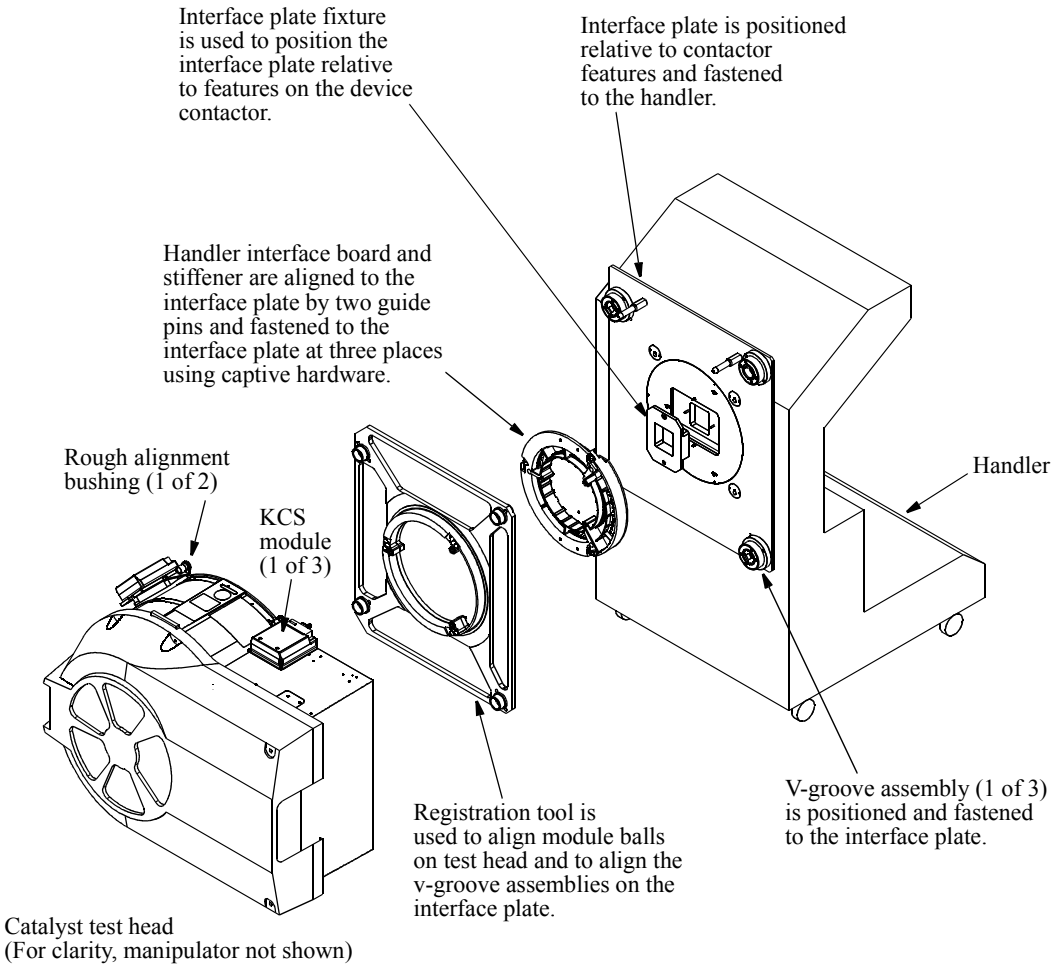
Dimensions are in inches.

Dimensions reflect .187 in DIB board.

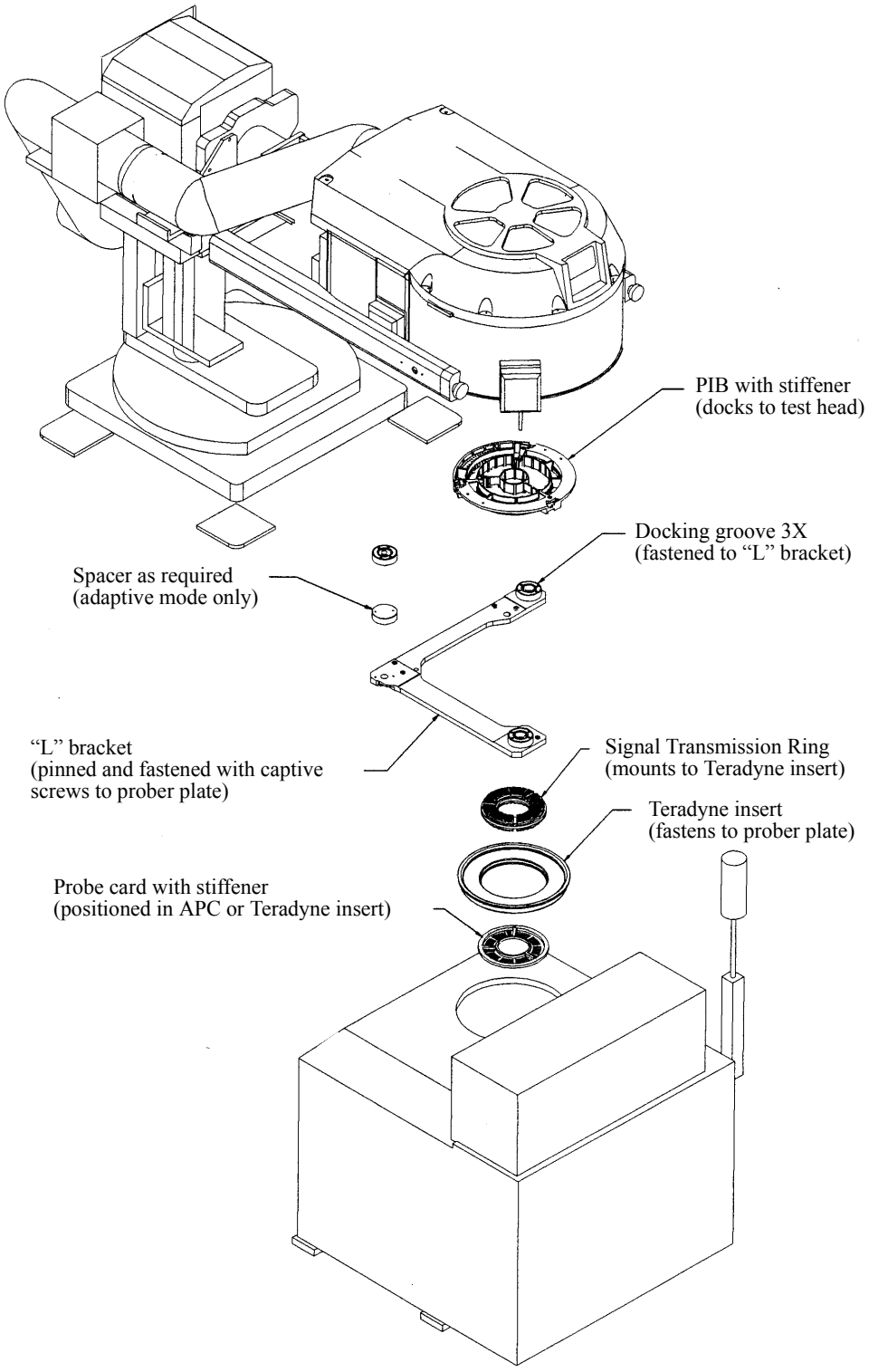
Catalyst Test Head Dimensions



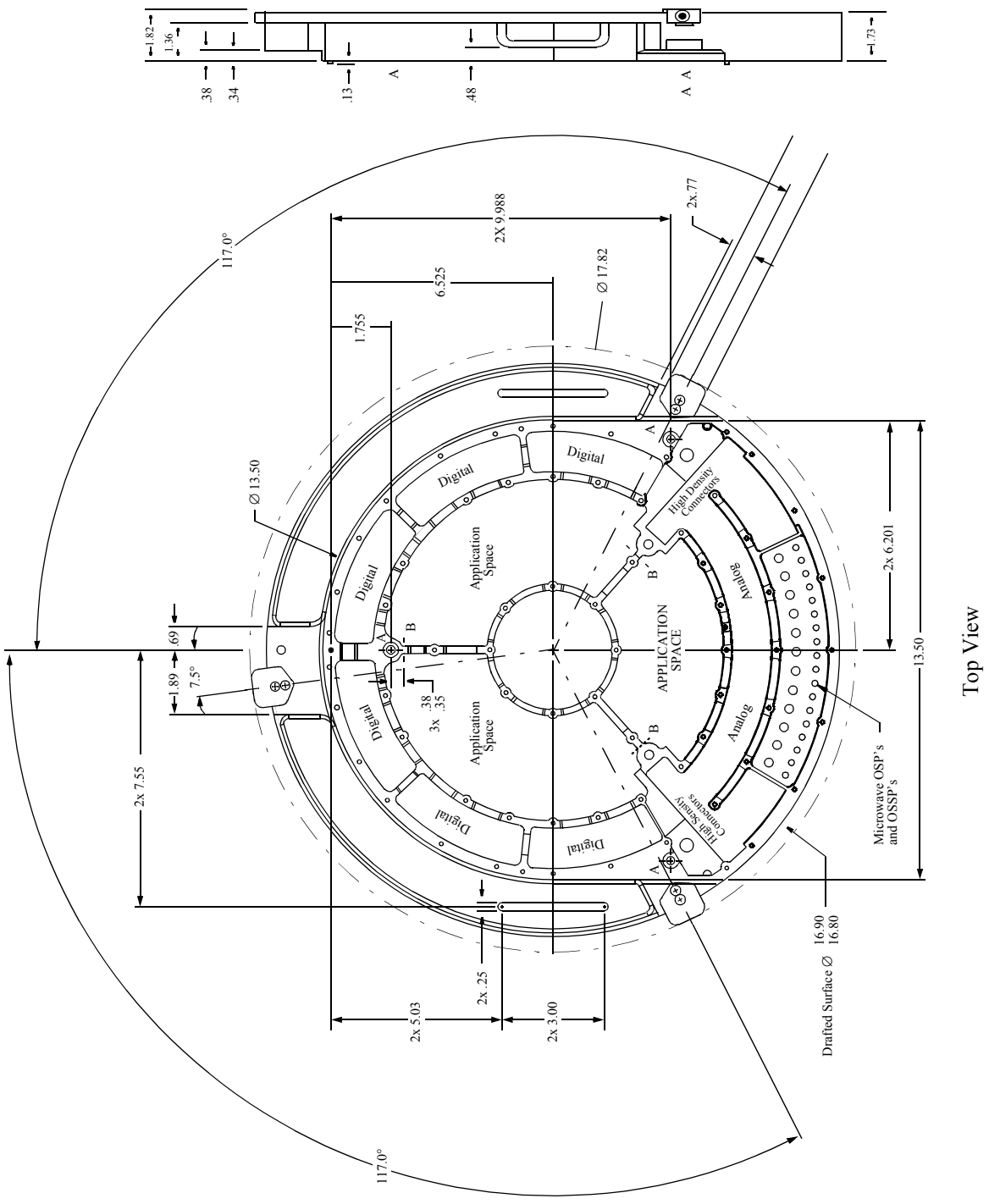
Dimensions are in inches.



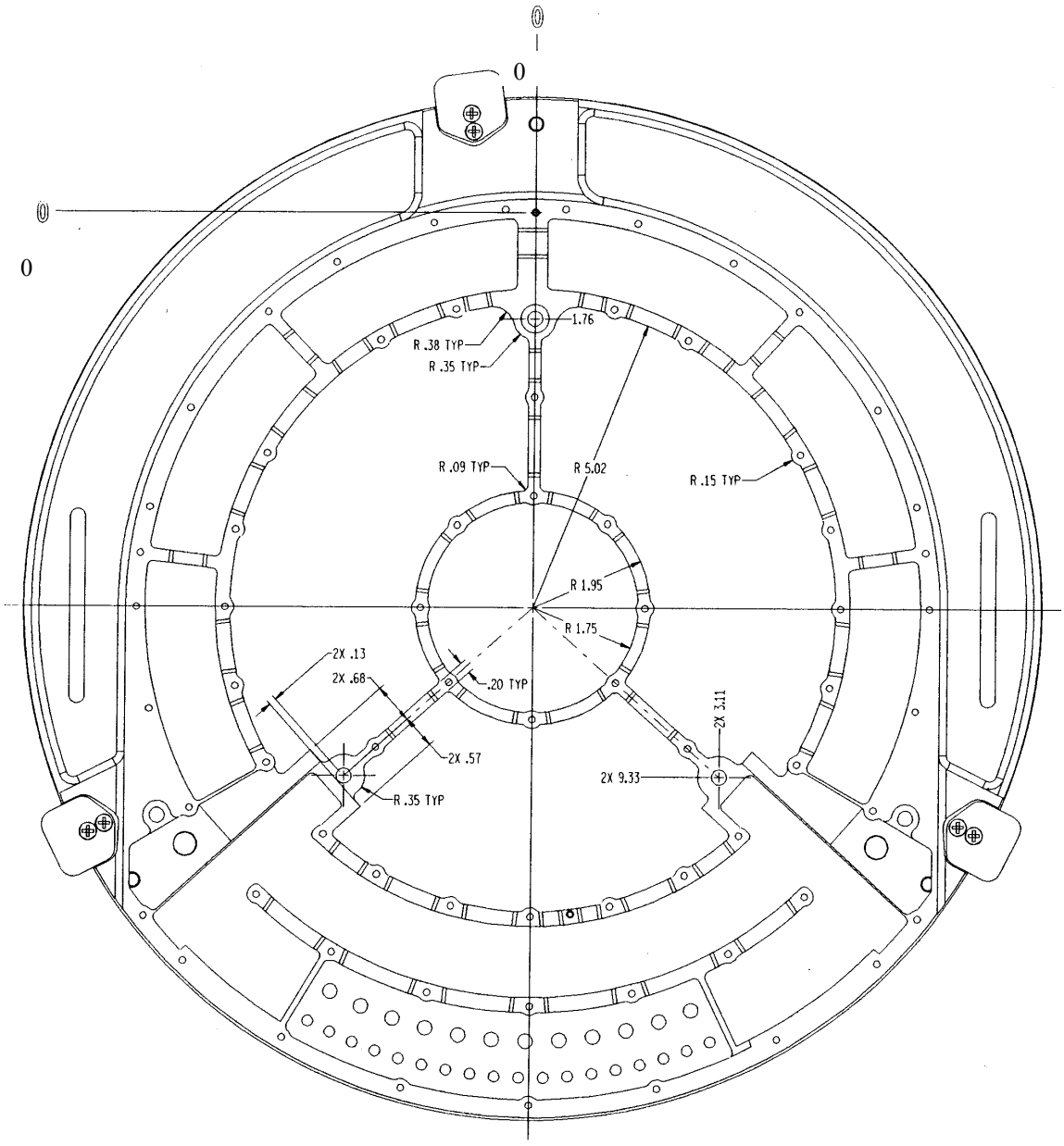
Catalyst to Vertical Plane Handler, Typical Setup (pn 480-069-08) (exploded view)



Catalyst to Prober, Typical Setup (exploded view)

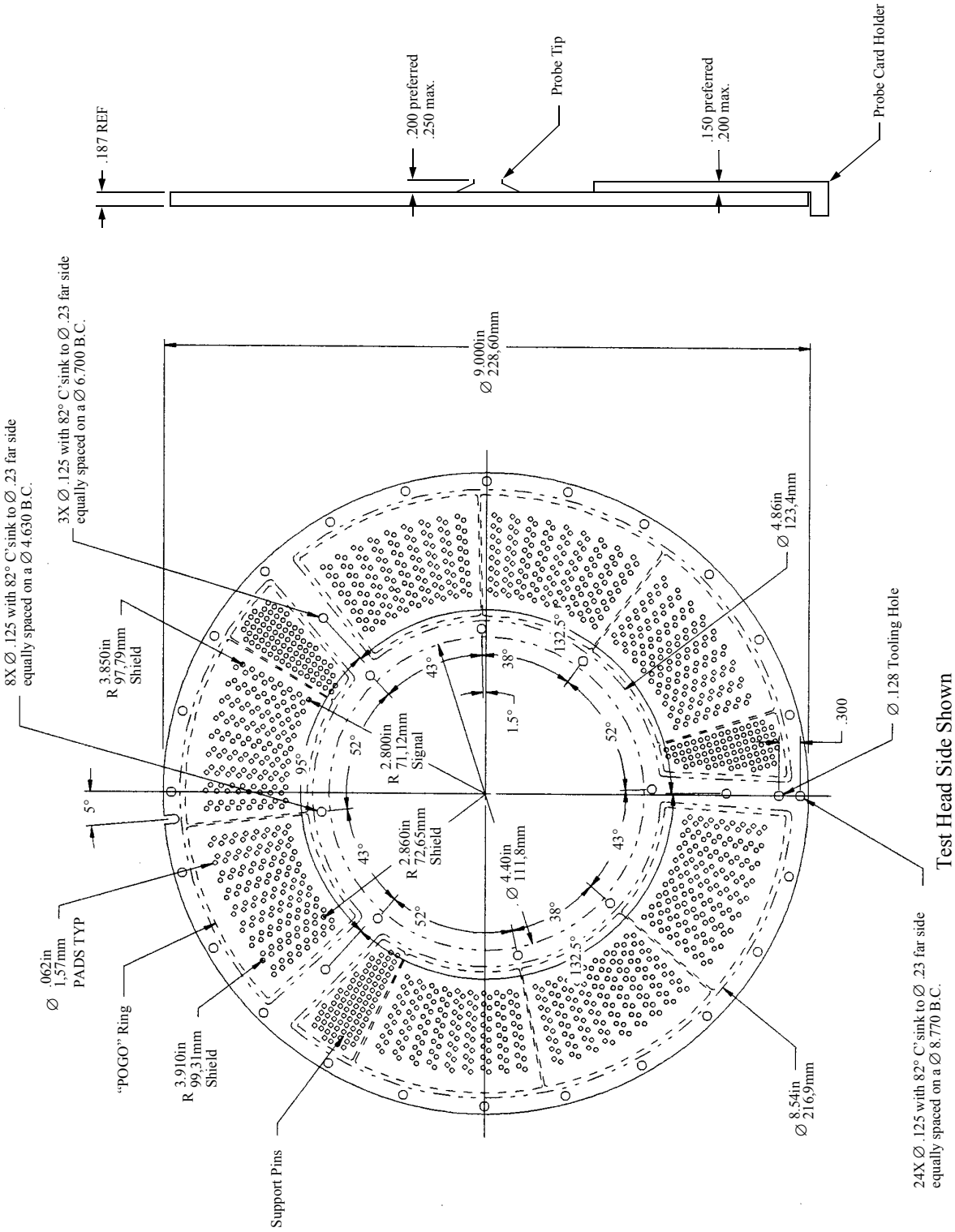


DIB Stiffener Overall Dimensions (Sheet 1 of 2)

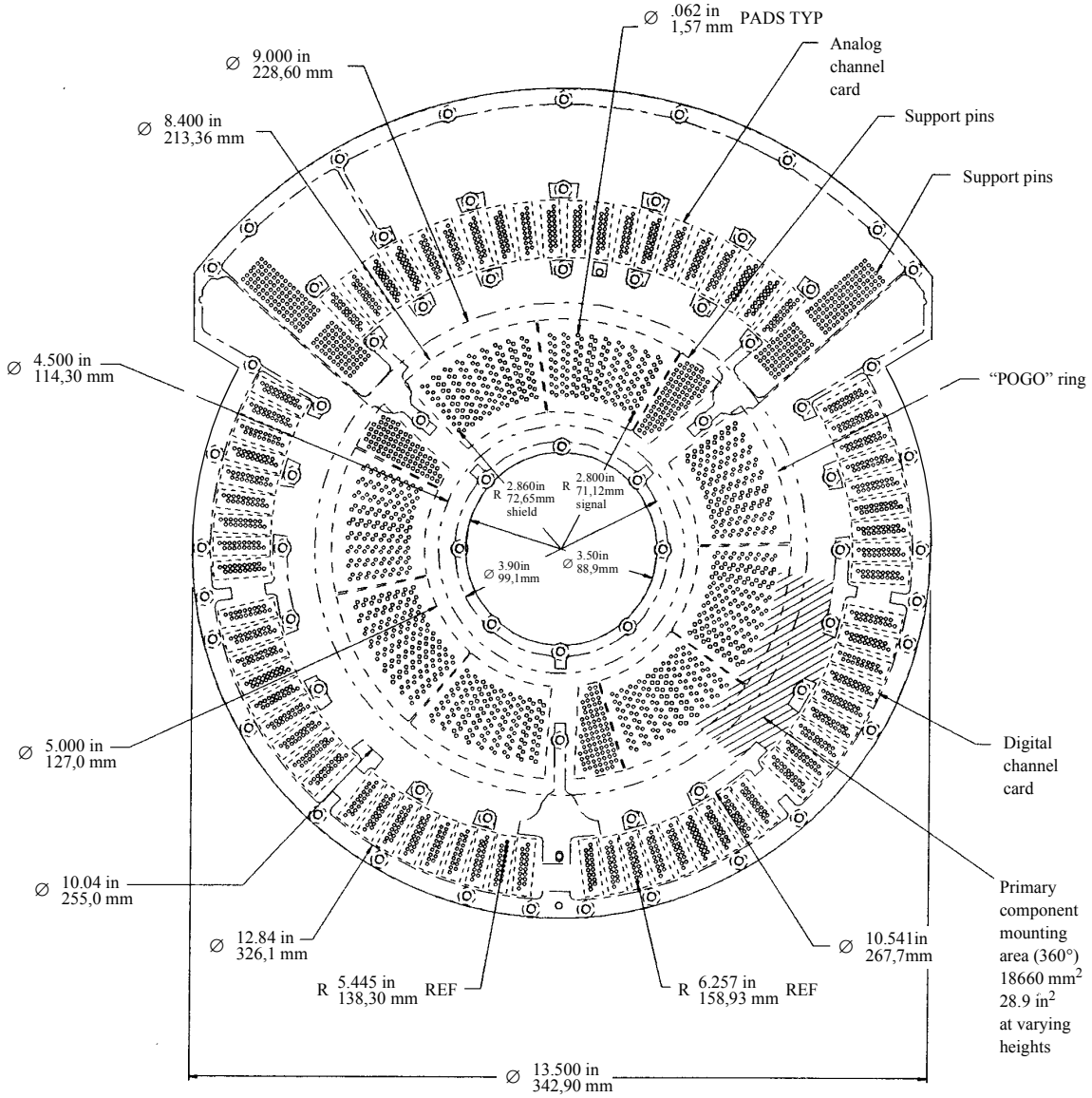


Top View

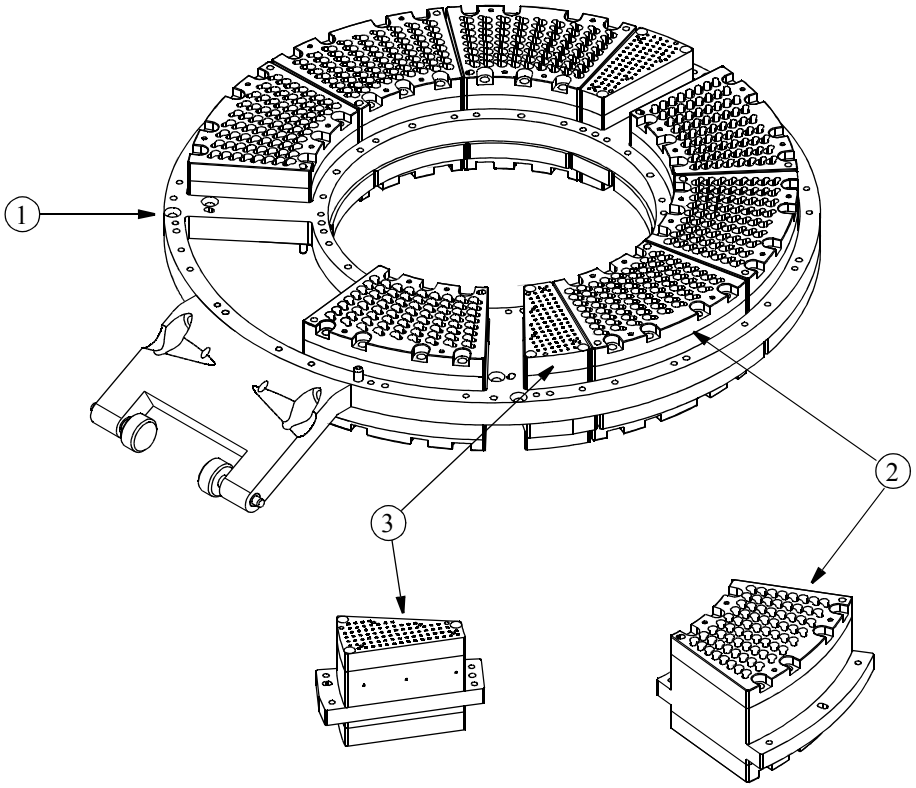
DIB Stiffener Overall Dimensions (Sheet 2 of 2)



IFCD Preliminary Outline Dimensions Probe Card

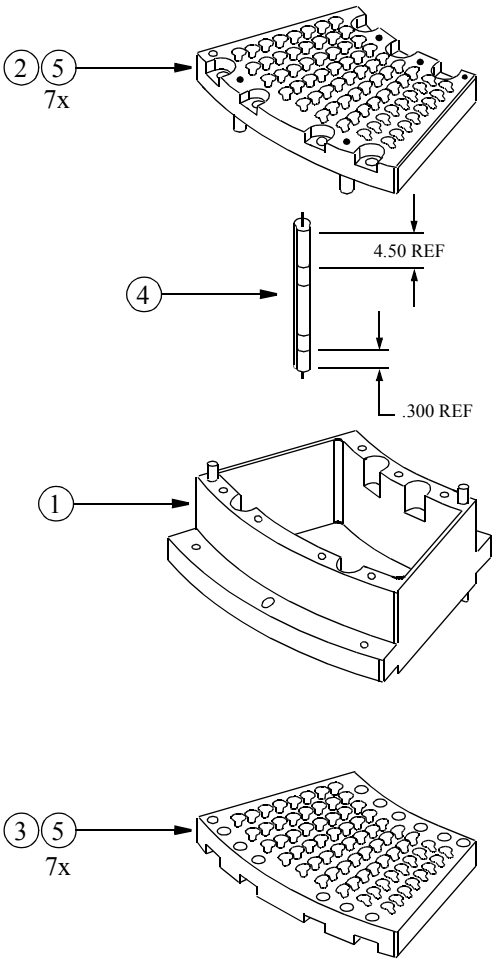


IFCD Preliminary Outline Dimension Prober Interface Board



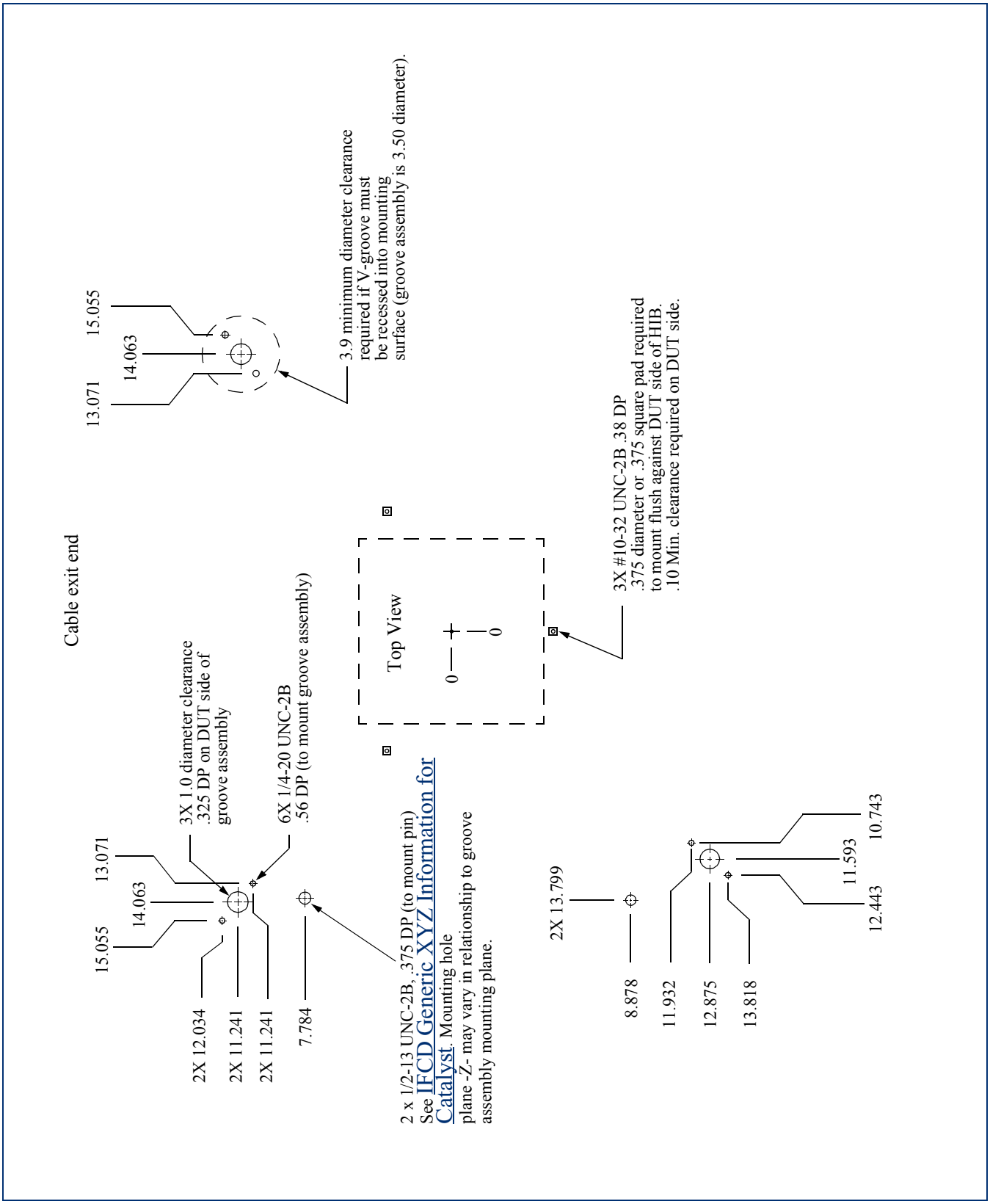
Key Number	PN	Description	Quantity
1	420-011-00	Pogo Tower Support Frame, Hinged	1
2	420-178-00	Signal Module Probe Assembly (50 ohm)	8
3	420-179-00	Utility Module Probe Assembly	3

Catalyst Top Load Prober Interface Assembly



Key Number	PN	Description	Quantity
1	480-000-00	Housing, Signal Module, 50 ohm, Probe	1
2	480-001-00	Top Plate, Signal Module, 50 ohm, Probe	1
3	480-002-00	Bottom Plate, Signal Module, 50 ohm, Probe	1
4	480-024-00	Spring Pin, Probe, 50 ohm	72
5	470-050-09	Screw, SKT HD, 4-40 x 3/8, Black Oxide	14

Catalyst Top Load Prober Interface Assembly



Location of Catalyst KCS Grooves

Site Preparation Checklist

Purpose

The purpose of this checklist is to help prepare the installation site, the customer, the field office and the factory for the upcoming Catalyst installation. By evaluating your site and installation requirements before shipment you will uncover potential problems that may affect the installation process.

Knowing problems in advance makes it possible for you to correct those that affect your site prior to shipment. You can also alert Teradyne personnel to any areas that might affect Teradyne's installation process.

Instructions

Please complete each item in the checklist and return it four to six weeks prior to shipment by mail or Fax to:

Mail: Product Support Group M/S H56
c/o Teradyne, Inc.
321 Harrison Avenue
Boston, MA 02118
USA

Fax: 617-422-2340

The checklist is organized into sections that mirror the Site Prep Guide. If you have questions as you complete the checklist, refer to the corresponding section in the Site Prep Guide. For example:

Hallway

	YES	NO
Do the hallways along the route meet the minimum height and width requirements?	☐	☐

If you don't know the minimum clearance requirements for hallways, see Transit Route Requirements, Hallways and Doorways. You will find that the minimum requirements are 64 inches for width and 78 inches for height (82 inches for height if the RAM manipulator is used). If these requirements cannot be met, you need to make alternative transit plans.

If you need further assistance, please contact your local Field Service engineer.

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Note

The pages in the checklist are printed on single sides and are perforated for easy removal to fax this information to the factory.

General Information

	YES	NO
Is this the first Catalyst system to be installed at this site?	☐	☐
If the answer is no, will this system be installed in the same location as the previously installed system?	☐	☐

Customer Information

Name: _____

Address: _____

_____

Phone Number: _____

Sales Contact: _____

Installation Site Information

Name: _____

Address: _____

_____

Phone Number: _____

Sales Contact: _____

System Information

System Type: _____ ac Power: _____
Test Heads: _____ Channels: _____

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Options / Special Requirements:

_____

_____

_____

Teradyne Information

Sales Engineer:_____
Teradyne Office: _____
Tag Engineer: _____
Teradyne Office: _____
Field Service Engineer: _____
Teradyne Office: _____

Site Requirements

Flooring Requirements

The floor meets or exceeds the total weight specification of the system. (See System Specifications and Site Requirements.)

YES ☐ NO ☐

The floor meets or exceeds the weight per square inch of the system. (See Flooring Requirements and Shipping Crate Dimensions and Weights).

YES ☐ NO ☐

! Caution

If installing the test system on a raised floor, do not place it near or above ventilation tiles in the floor.

The test system will not be placed above or near ventilation tiles.

YES ☐ NO ☐

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Power Requirements

AC Power

	YES	NO
Customer-provided ac power line is ready prior to installation.	☐	☐
Customer-provided circuit breaker is located within 15 feet of test system.	☐	☐

! Caution

If the circuit breaker is not within 15 feet of the test system, this could create a safety hazard.

For US installation only:

	YES	NO
Breaker box conforms to OSHA lock and tag requirements.	☐	☐

Input Power Limits

Refer to the AC Power Requirements. Using Tables Input Current per Line versus Channel Count (one test head) and Input Current per Line versus Channel Count (two test heads) and in accordance with the local electrical codes for your installation site, determine the service required for the installation.

Voltage (Vac): _____

Current (A): _____

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

☐ 3 Phase Delta

☐ 50 Hz

☐ 60 Hz

☐ Other (please describe)

_____

_____

_____

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Isolation and Step-Up/Down Transformers

	YES	NO
Customer is using Teradyne's optional outer ac vault, or is providing their own isolation or step-up/step-down transformer.	☐	☐

If supplying your own isolation transformer, please complete the following:

Make: _____

Model: _____

kVA:_____

V:_____

Frequency (Hz): _____

Secondary Impedance (Ohms): _____

If available, please attach a copy of the specification sheet.

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

If supplying a step-up/down transformer, please complete the following:

Make: _____

Model: _____

kVA:_____

V:_____

Frequency (Hz): _____

Secondary Impedance (Ohms): _____

If available, please attach a copy of the specification sheet.

AC Power Connections

	YES	NO
Customer is prepared for an electrician or other certified personnel to make all ac power connections between the test system and facility.	☐	☐

Note

The customer is responsible for providing an electrician or other certified personnel to make these connections.

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Environmental Requirements

	YES	NO
Air conditioning unit meets the minimum requirements for AC tons. (See Air Conditioning Requirements for further information.)	☐	☐

Note

Allow additional air conditioning as required to compensate for personnel and external equipment.

Air Flow

Some sites may require the addition of an exhaust duct. All exhaust duct designs must be reviewed by Teradyne. If you already have an exhaust duct, please indicate the type of airflow it utilizes:

☐ Ceiling to floor

☐ Floor to ceiling

☐ Other (please describe)

_____

_____

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Air Clearance

	YES	NO
Airflow above the test system meets minimum requirements of 18 inches.	☐	☐
There is a minimum of 38 inches between surrounding walls and the rear of the system.	☐	☐

Ceiling Thermal Sensors

	YES	NO
Ceiling heat sensors above the test system do not trip at a temperature below 70°C (158°F).	☐	☐

Test System Floor Plans

	YES	NO
Customer floor plans meet the Teradyne recommended open space requirements above and surrounding the test system. See Recommended System Floor Plans.	☐	☐

Transit Route Requirements

Personnel

Note

Be sure that no fewer than five people are available to unload and unpack the test system.

	YES	NO
Customer will have the appropriate personnel on site and ready to unpack and install the system.	☐	☐

☐

☐ System will be unpacked by:

☐ Teradyne

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Customer

Customer provided contractors

	YES	NO
Customer is integrating test system with prober and/or handler at installation.	☐	☐

If yes, specify type(s):

Prober _____

Handler_____

If yes, integration will be performed by:

☐ Teradyne

☐ Customer

☐ Customer provided contractors

Unloading

	YES	NO
Customer has approximately three (3) times the floor space of the shipping crates available to unpack the system. (See Unloading and Unpacking.)	☐	☐

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Note

If no, then make plans to unpack the system outside. If unpacking outside, the customer should make arrangements to protect the system from the outside environment.

Forklift

	YES	NO
Customer has a forklift minimally rated at 6,500 pounds (2,948 kilograms) or a suitable pallet jack to remove system crates from the truck.	☐	☐

Note

If pallet jack is not available, take the combined length of the forklift and the system into consideration when confirming if dock space is adequate.

Flooring and Ramps (Weight)

	YES	NO
Flooring along the route is minimally rated to support the system's weight. (See Catalyst Major Test System Component Dimensions and Loaded Shipping Crate Weights.)	☐	☐

Note

If moving the test system over soft or uneven surfaces such as carpet or brick, you need to lay down flooring/sheeting along this surface. Also, the test system cannot be moved over steps without the aid of a forklift. If necessary, please make appropriate arrangements before receiving the test system.

	YES	NO
Ramps along the route are minimally rated to support the system's weight. (See Catalyst Major Test System Component Dimensions, Space Requirements and Ramps.)	☐	☐

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Hallways and Doorways (Clearance)

	YES	NO
All hallways meet minimum clearance requirements. (See Hallways and Doorways.)	☐	☐
All doorways meet minimum clearance requirements. (See Hallways and Doorways.)	☐	☐

Turning Points (Clearance)

	YES	NO
All turning points along the route meet minimum clearance requirements. (See Turning Points.)	☐	☐

Ramps (Clearance)

	YES	NO
All ramps along the route meet minimum clearance requirements. (See Ramps.)	☐	☐

Floor Obstacles (Clearance)

	YES	NO
There are no obstacles that exceed 1 1/8 inches (2.8 centimeters) in height along the transit route. (See Floor Obstacles.)	☐	☐
Elevator interior and doorway meet the minimum clearance requirements (see Turning Points).	☐	☐
Elevator meets the minimum weight requirements (see Catalyst Major Component Weights and Loaded Shipping Crate Weights).	☐	☐

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Miscellaneous Installation Requirements

Networking

Is the customer expecting Teradyne to install the test system on an Ethernet network? YES ☐ NO ☐

If yes, enter the name of the System Administrator for the facility:

_____

Is there a 10 or 100 Base-T network connection available? YES ☐ NO ☐

Note

The System Administrator should be available for the installation if you are installing the test system on your network.

Teradyne provides a 65.5 foot (20 meter) external Ethernet cable with the system (five feet of this length will be contained inside the system). Will this cable be long enough? YES ☐ NO ☐

Special Instructions

Do you have any special requirements, issues or conflicts with Teradyne's requirements in your facility? YES ☐ NO ☐

If yes, please specify and contact your Field Service engineer:

_____
_____
_____
_____
_____
_____

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

Do you have any specific needs not addressed by this checklist, such as security clearance, non-Teradyne peripherals, device programs, checker runs, etc.?

YES ☐ NO ☐

If yes, please specify and contact your Field Service engineer:

_____
_____
_____
_____

Installation Signoffs

Is there a Factory Acceptance scheduled for this system shipment?

YES ☐ NO ☐

Standard ☐

Custom ☐

Name of customer contact for final sign-off of system hardware installation:

_____
_____Telephone number (include extension)

Is there an on-site verification of Factory Acceptance scheduled after the system hardware installation is completed and signed off?

YES ☐ NO ☐

Name of customer contact for final sign-off on system hardware installation:

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

_____

_____Telephone number (include extension)

Is there a complete written description of requirements for the on-site verification of Factory Acceptance available for on-site review?

YES ☐ NO ☐

Is a copy provided?

YES ☐ NO ☐

Note

If any statements are checked NO, you must make alternative plans or contact your local Field Service engineer.

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