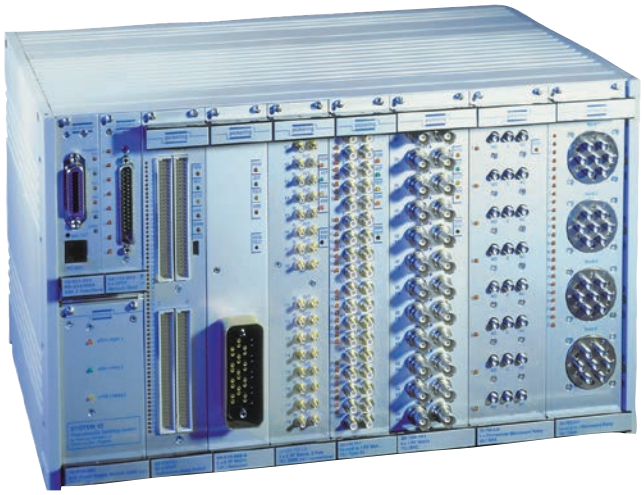
- Compact Bench Top Chassis Which May Be Rack Mounted
- Available in 3U and 6U Versions
- Choice of Module Access at Front or Rear of Chassis
- Use With Any Combination Of System 10 or 20 Modules
- Includes Complete Pre-Wired System Backplane
- DIN 41494 (IEC 297) Compatible



System 10/20 Mixed Chassis type 20-935A-001, viewed from front panel (with 12/72 split). The hinged rack mount brackets may be pulled out for cabinet mounting.

Chassis Overview

Chassis types 20-935A/936A are intended for applications requiring the use of both System 10 and System 20 switching modules within the same unit. These chassis are suitable for both bench top and rack mounting, with either front or rear access versions to suit all cabling needs.

The 20-935A/936A Switching System Chassis should be chosen when both System 10 and 20 switching modules are required or for when just System 20 modules will be used.

The chassis is suitable for both bench top and rack mount use (using built in rack mount brackets). It is supplied complete with pre-wired internal backplanes and module guides to match the configuration required, unused slots have blanking panels inserted.

6U System 10/20 Chassis

Chassis type 20-935A has the most capacity, the standard chassis are available with the following standard splits:

- 24/60 Split (24HP for System 10, 60HP for System 20)
- 42/42 Split (42HP for System 10, 42HP for System 20)
- 12/72 Split (12HP for System 10, 72HP for System 20)

However the chassis may be specially ordered to match any combination of switching modules.

3U System 10/20 Chassis

Chassis type 20-936A, is a smaller 3U chassis and is available in only one configuration: 12HP for System 10, 18HP for System 20. Allowing up to 2 x System 20 modules and 2 x System 10 modules to be used in a compact 3U chassis.

Front or Rear Access

Chassis are available with a choice of front or rear switching module loading:

Front Access Chassis are generally popular for smaller systems where the unit will be used on a bench top, the switching modules plug into the front of the chassis.

Rear Access Chassis are usually more convenient for larger systems where a complete test or data acquisition system is being assembled into a cabinet. The switching modules plug into the rear of the chassis, keeping all wiring inside the cabinet, leaving the front panel uncluttered. This chassis version has a simple front panel with power indicator (same as illustration of 10-934A-002 on System 10 chassis data sheet).

Expansion Modules

If the number of modules you require does not fit within a standard chassis or if you wish to split the switching system into two or more chassis (e.g. to keep high voltage modules away from low voltage types) then there are 2 options:

1. Simply treat each chassis as a separate system, each with it's own 10-921-001 interface module - This is the preferred option.
2. Use 10-925 expansion modules. Here the chassis with the 10-921-001 interface module acts as the master with all other chassis acting as slaves. Each chassis must contain it's own power supply unit plus expansion module/s. Expansion modules must be used in pairs, the expansion cable linking them can be ordered to the length required.

Model illustrated above is type 20-936A-001 this is used for smaller systems requiring both System 10 and System 20 modules.

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Serviceability

All Pickering Interfaces chassis types are passive, they contain no active components. Therefore virtually all maintenance and servicing can be done by simple module swapping, without having to remove the chassis.

Note: Many details here are the same as for the System 10 Chassis type 10-930, so please refer to that data sheet for further information.

System 10/20 Backplane

The 20-935A/936A Mixed System Chassis contains the standard System 10/20 backplane which provides all modules with power and communication. Each slot has a DIN 41612 64-pin connector. All slots are arranged on a 0.6 Inch pitch (each module may take from 2 to 7 slots).

System 10 Analogue Bus Is used by multiplexer modules to carry analogue signals. 10 poles, each pole separately screened, plus "settled" line are available.

System 20 Analogue Bus Is used by multiplexer and matrix modules to carry analogue signals. 24 poles, each pole separately screened, plus "settled" line. A special analogue bus backplane routing up to 128 poles is available.

Backplane Connector Type DIN 41612 type A/C (64-pin), rated for 500 insertions.

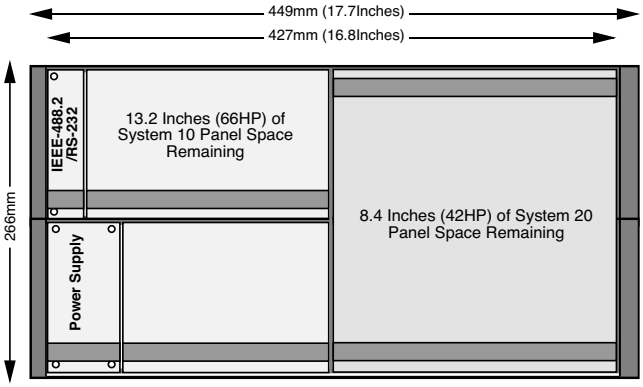
Revised Power Supply

From March 1999 all power supply modules (10-910) have been 12HP Wide. Prior to this date rear access power supplies were 18 HP wide. This change now gives rear access cases 6HP more room.

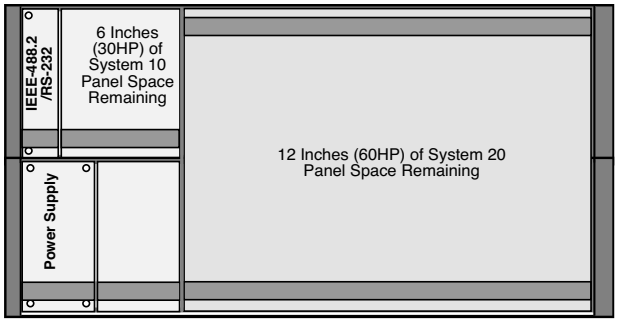
Chassis Schematic Diagrams

The chassis diagrams illustrate all chassis variants showing how much switching module space is available for each type. These will allow the most suitable chassis type to be selected.

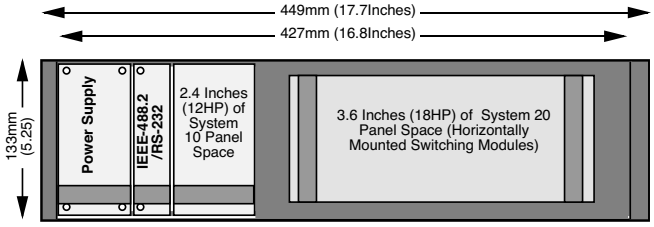
The standard 6U chassis is split 24/60, many other configurations are available, for instance the 12/72 split shown. Please contact factory if you require further information.



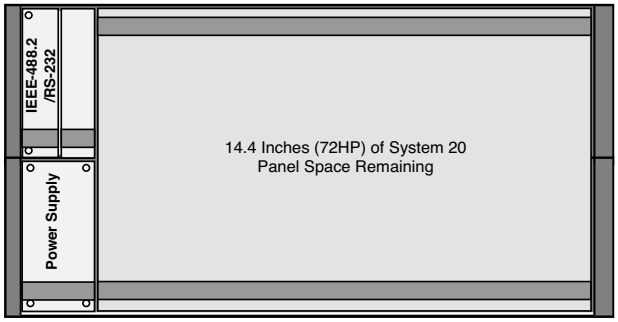
Chassis 20-935A-001-42/42 or 20-935A-002-42/42



Chassis 20-935A-001-24/60 or 20-935A-002-24/60
(This split is the prefered option)

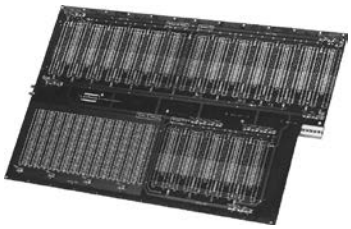


3U Chassis 20-936A-001 and 20-936A-002
(System 20 modules mount horizontally)



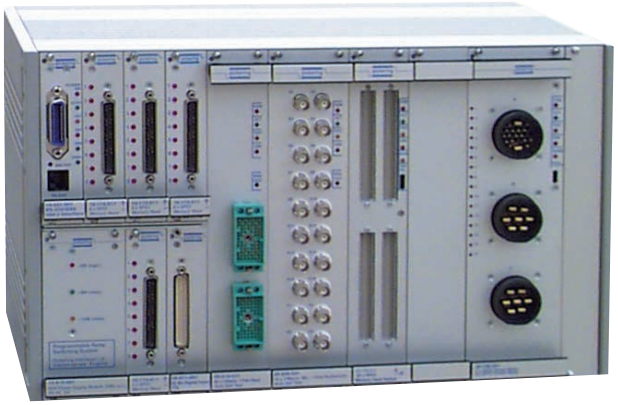
Chassis 20-935A-001-12/72 or 20-935A-002-12/72

Internal Backplane PCB from 20-935A Chassis



Built In Rack Mounting Ears

The chassis has built -in rack mounting ears (see picture). These allow the chassis to be either used on a benchtop or in a cabinet with the ears pulled out.



Typical Examples of Model 20-935A-001 with 24/60 Split

Product Order Codes

6U System 10/20 Chassis, Front Access	20-935A-001
6U System 10/20 Chassis, Rear Access	20-935A-002
Please specify the System 10/System 20 split when ordering	
The preferred option is 24/60	24/60
	42/42
	12/72
For example: 20-935A-002-24/60	
3U System 10/20 Chassis, Front Access	20-936A-001
3U System 10/20 Chassis, Rear Access	20-936A-002

Additional Product Order Codes

System 10/20 Expansion Module	10-925-001
Expansion Cable Assembly (2m Length)	10-953-020

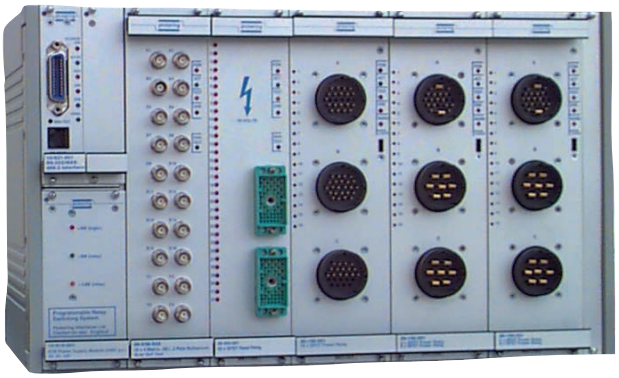
Other cable lengths may be specified e.g. -010 (1m), -005 (0.5m) (Expansion Modules must be used in pairs).

PCB Card Guide	10-941-001
Plug-In Module Card Guide	10-941-002
Blanking Panel (3U) 3HP	10-942-003
Blanking Panel (3U) 6HP	10-942-006
Blanking Panel (3U) 12HP	10-942-012
Blanking Panel (3U) 21HP	10-942-021
Earthing Stud (M8) 6HP Panel (3U)	10-942-903
Blanking Panel (6U) 3HP	20-942-003
Blanking Panel (6U) 6HP	20-942-006
Blanking Panel (6U) 12HP	20-942-012
Blanking Panel (6U) 21HP	20-942-021
Earthing Stud (M8) 6HP Panel (6U)	20-942-906

All switching systems are shipped with blanking panels installed in unused slots.

Expansion, Power Supply & Earthing Details

Refer to the 10-930A System 10 Chassis data sheet for further information.



Typical Example of Model 20-935A-001 with 12/72 Split

Mechanical Characteristics

All chassis conform to DIN 41494 Part 5, IEC 297 Sec 2 (see diagrams above). For further data please contact Pickering Interfaces.

- Chassis Color: Light Grey
- Chassis Weight: Depends upon case number and type of modules being used.
- Chassis Width: 449mm
- Chassis Height: 6U (266mm)
- Chassis Depth: 250mm

For rear access chassis types allow extra space for switching module protruding connectors (possibly up to 100mm).

Environmental Specification

- Operating Temperature 0°C to 50°C.
- Storage Temperature -20°C to 75°C.
- Humidity 95% Non Condensing.
- Cooling Requirements Natural Convection, No Internal Fan.