



Reference Manual

R FR 3005

MiniModule Rack Frame 1

Series 3000
MiniModules



© LYNX Technik AG
Brunnenweg 3
64331 Weiterstadt
Germany
www.lynx-technik.com

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LYNX Technik AG warrants that the product will be free from defects in materials and workmanship for a period of one (1) year from the date of shipment. If this product proves defective during the warranty period, LYNX Technik AG at its option will either repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, customer must notify LYNX Technik of the defect before expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to the service center designated by LYNX Technik, with shipping charges prepaid. LYNX Technik shall pay for the return of the product to the customer if the shipment is within the country which the LYNX Technik service center is located. Customer shall be responsible for payment of all shipping charges, duties, taxes and any other charges for products returned to any other locations.

This warranty shall not apply to any defect, failure, or damage caused by improper use or improper or inadequate maintenance and care. LYNX Technik shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than LYNX Technik representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; c) to repair any damage or malfunction caused by the use of non LYNX Technik supplies; or d) to service a product which has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty servicing the product.

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Regulatory information

Europe

Declaration of Conformity

We
LYNX Technik AG
Brunnenweg 3
D-64331 Weiterstadt
Germany

Declare under our sole responsibility that the product

TYPE: R FR 3005

To which this declaration relates is in conformity with the following standards:

EN 55103-1 /1996

EN 55103-2 /1996

EN 60950 /1997

Following the provisions of 89/336/EEC and 73/23/EEC directives.

Winfried Deckelmann

Bickenbach, January 2003



Place and date of issue

Legal Signature

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Getting Started

Packaging

The shipping carton and packaging materials provide protection for the Rack Frame during transit. Please retain the shipping cartons in case subsequent shipping of the product becomes necessary.

Product Description

The R FR 3005 is a 19-inch rack mounting system for the Series 3000 MiniModule range of products

The R FR 3005 Rack Frame 1 system has been designed to accommodate up to 10 Series 3000 MiniModules. Installation and removal of the modules is simple and the rack offers the flexibility of being installed in the rear of equipment racks. The system is hinged, which allows the rack to be rotated out of the way for rear access to other front side equipment mounted in the rack. A front cable support bar is provided for wiring purposes and two rear support bars are also provided to accommodate power strips (not supplied).

When combined with the R FR 3010 Rack frame 2 option the Rack Frame 1 will have central power as well as optional redundant power.

Accommodation is also provided for one of the LYNX controller options, which provides for remote control / status monitoring and SNMP error reporting for installed MiniModules

The R FR 3005 is part of the Series 3000 MiniModule product range, which offers high quality, modularity and flexibility in a very small form factor ideal for applications where space is at a premium.

Assembly

The RFR 3005 consists of six major parts, and is supplied un-assembled for shipping purposes. Contents shown below.

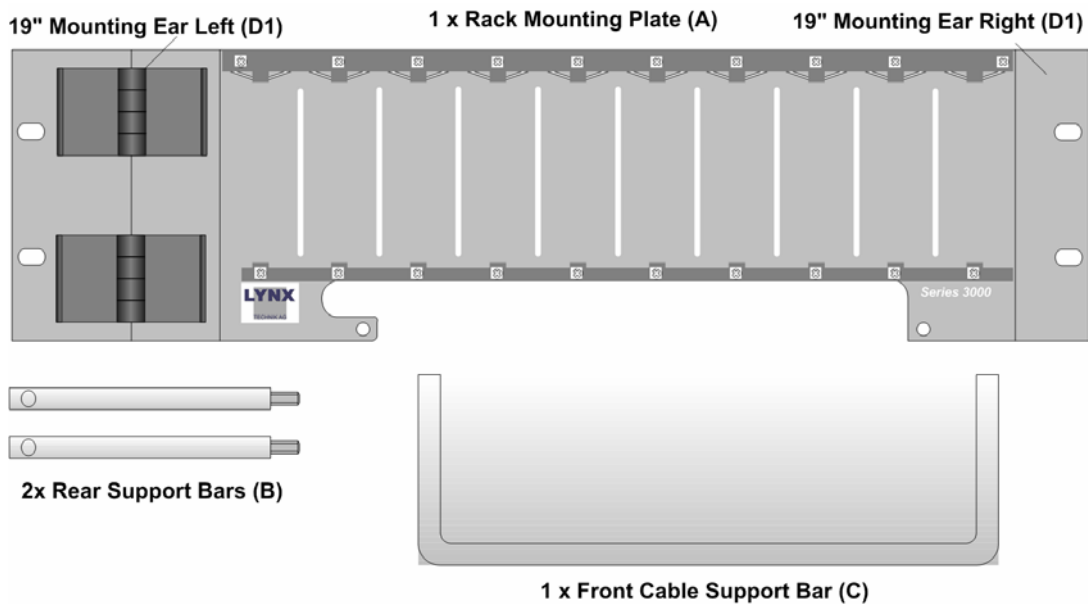


Figure 1- R FR 3005 Major Components

Assembly:

Mount the *19" Mounting Ears* (D1 and D2) with the supplied mounting material to the *Rack mounting plate* (A).

The *Rear Support Bars* (B) push through the holes provided in the *Rack Mounting Plate* (A) and screw into *Cable Support Bar* (B). Holes are provided in the support bars to assist in tightening the assembly, place a screwdriver through the holes in (B) to increase leverage.

Refer to figure 2 to see the unit assembled

Rack Frame Layout

Figure 2 (below) shows the physical layout RFR 3005 Rack Frame 1.

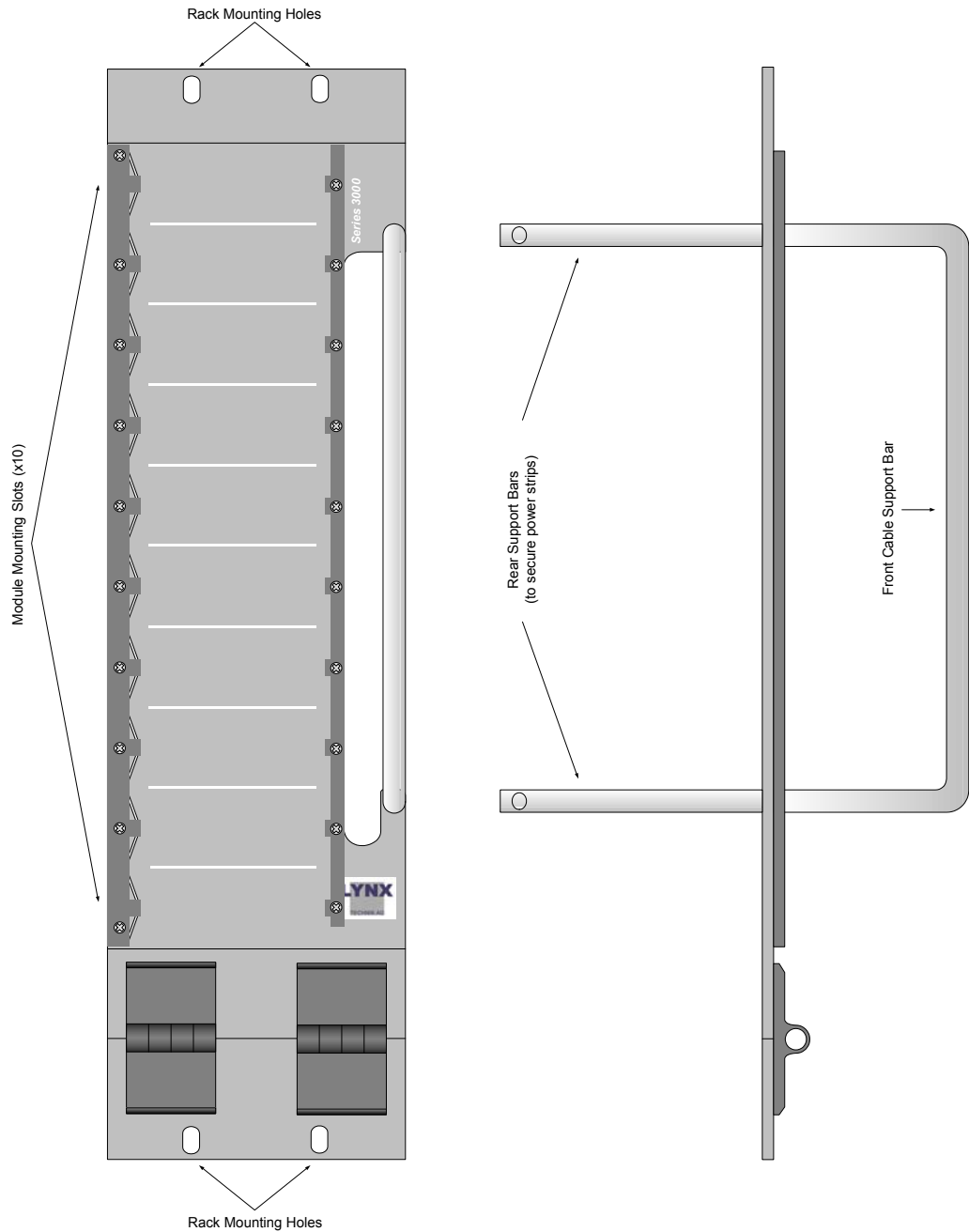


Figure 2- R FR 3005 Layout

Mounting

Rack Mounting

The RFR 3005 is designed for 19-inch rack mounting and has been engineered for the rear of the equipment rack rather than the front, where there is normally adequate space for additional equipment. Some considerations need to be made when selecting a suitable location.

- a) Ensure there is adequate space behind the RFR 3005 rear support bars and this does not interfere or impact existing wiring, or equipment installed in the rack
- b) The Rack Frame can be rotated out of the way for access to exiting equipment installed behind the rack, ensure there is adequate swing clearance for the mounting plate to swing out of the equipment rack.
- c) The Rack Frame includes a front cable support bar, which can accommodate and secure wiring looms to and from MiniModules installed in the rack. Ensure wiring looms are wired to exit on the hinged of the rack plate or the swing mechanism will not function. Also, allow enough slack in the wiring loom to facilitate easy opening of the Rack Frame.
- d) The Rear Support bars are provided to accommodate power strips (not supplied), which would be used for the R PS 3001 power bricks, (needed to power the individual MiniModules). The Power strips can be placed on top of the bars and secured using tie wraps (or any other alternate securing method)

Module Mounting

MiniModule mounting is simple, and requires no tools. Modules can be placed in any order desired, and occupy any available module slot.

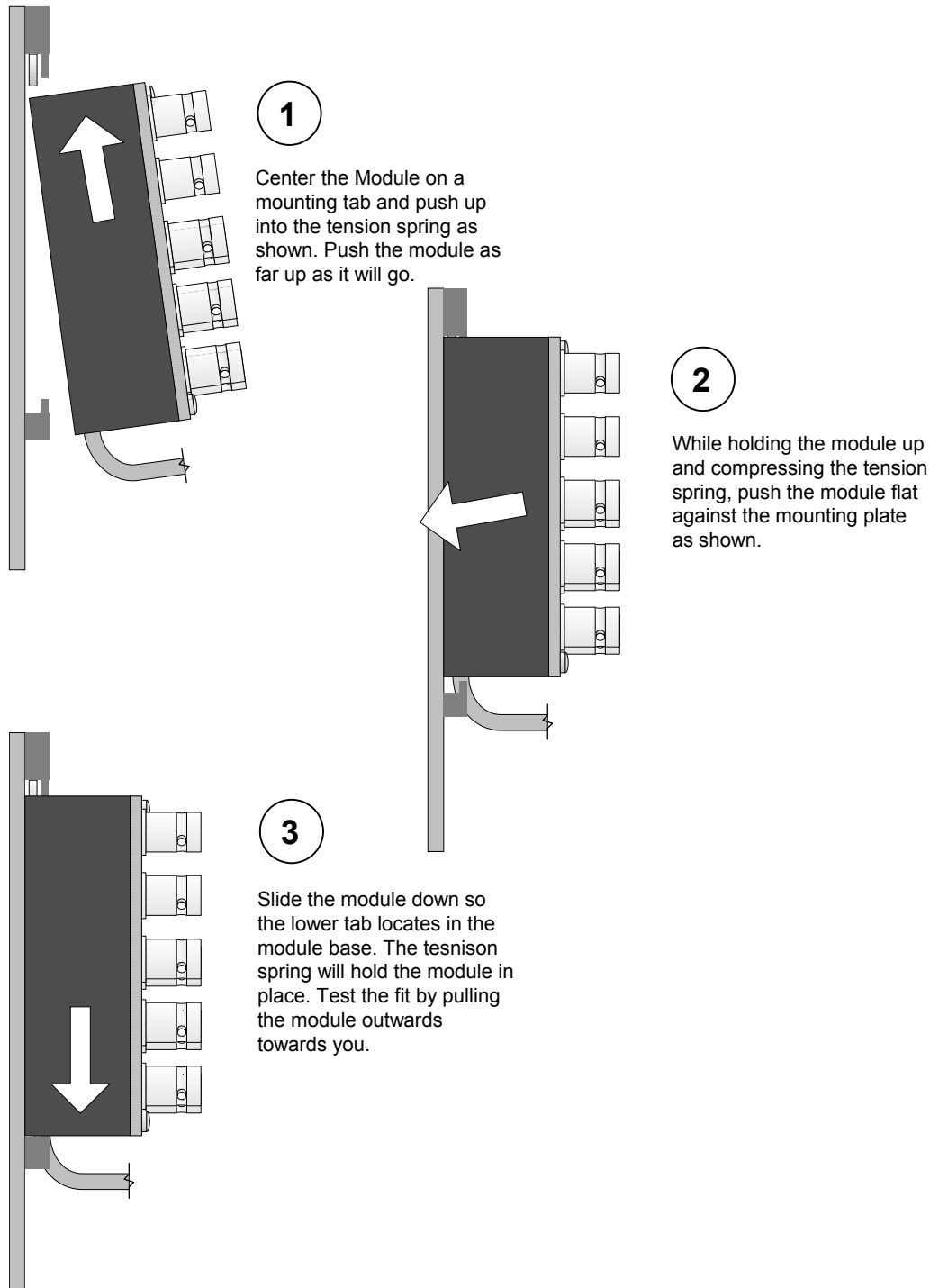


Figure 3 – Fitting MiniModules to Rack Frame

Alternative Mounting

It is possible to remove the rack mounting ears, (including the hinges) from the main rack plate. This could be done to accommodate custom mounting possibilities where the rack mounting ears are not required. The ears are held in place with nuts fitted to studs on the rack mounting plate.

See figure 4 below.

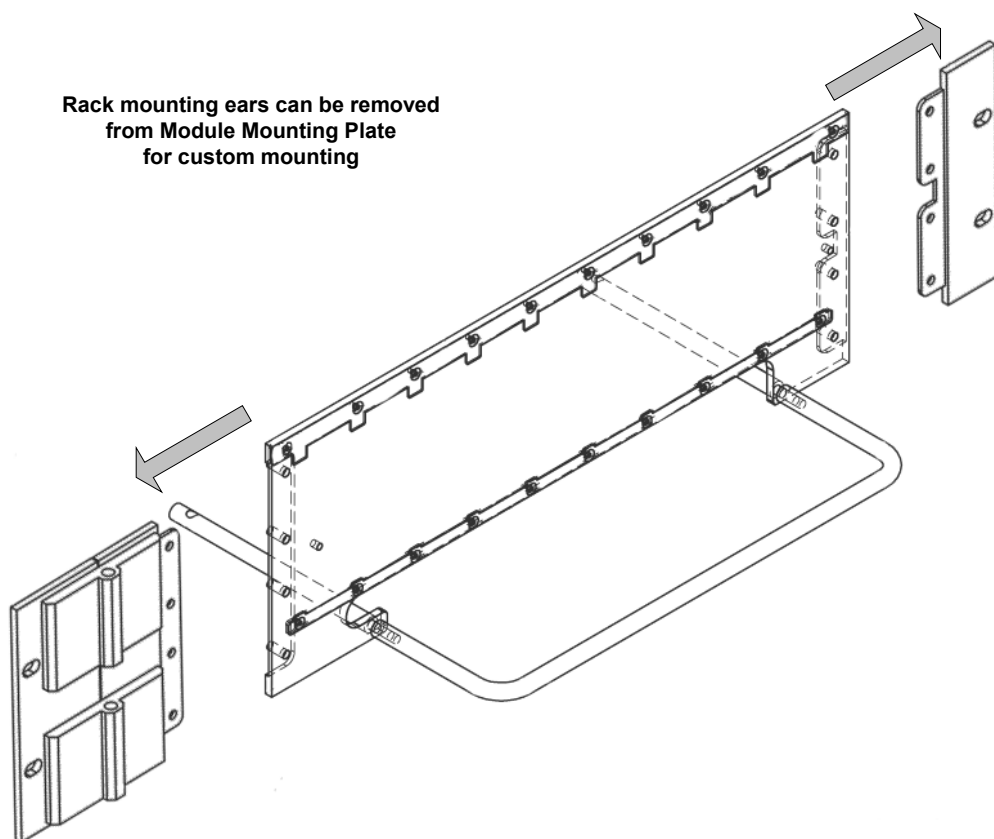


Figure 4 – Rack Ear Removal

Specifications *(R FR 3005)*

Mechanical

Rack Plate size (with ears)	3 RU high (132.5mm) x 482mm wide
Depth (rear support bars)	124mm back from rack plate surface (front)
Depth (front support bar)	76mm forward from rack plate surface (front)
Mounting	Standard 19" rack mounting
Swing Arc Radius	423mm
Weight (assembled)	1.2kg

Supplied Parts

Rack Mounting plate	x 1
Front Cable Support Bar	x 1
Rear Support bars	x 2

Supplied Accessories

Documentation	R FR 3005 Reference Manual
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Available Options

Below is a list of available options for the R FR 3005 Rack Frame. Please refer to product brochures or our web site for more detailed information.

Model	Description
R PS 3001 E	External brick power supply module for Series 3000 MiniModules. European market version. 100-240 VAC input, +5V DC output.
R PS 3001 U	External brick power supply module for Series 3000 MiniModules. USA market version. 110-240 VAC input, +5V DC output.
R PS 3001 -3	External desk power supply module for Series 3000 MiniModules. 110-240 VAC input, +5V DC output.
MiniModules	The Complete range of Series 3000 MiniModules are compatible with the RFR 3005 Rack Frame
R FR 3010	Rack Frame 2. This is a card cage with integrated central power supply, optional redundant power supply and optional controller, which can accommodate 10 MiniModules. Can be combined with R FR 3005
R PS C15	1.5m cable extension to connect one MiniModule to R FR 3010
R PS C25	2.5m cable extension to connect one MiniModule to R FR 3010
R PS 3010	Redundant power supply for the R FR 3010 card cage
R CT 5020	Rack controller for the R FR 3010 rack frame
R CT 5010	Rack Bus Extension for R FR 3010 rack frame. In combination with R CT 5020

Parts List

The following major mechanical components are available for replacement should something get damaged.

R FR 3005 Rack Frame 1 (complete)

Description	Rack Frame 1
Model Number	R FR 3005
Part Number	6.155.004.005

Parts

Module Mounting Plate (A) w/o 19" ears
Part Number 6.155.004.006

Rear Support Bars (B)
Part Number 6.155.003.008

Front Cable support Bar (C)
Part number 6.155.003.009

19" Mounting Ears (left and right) (D1 and D2)
Part number 6.155.003.020

Service

If you are experiencing problems, or have questions concerning your R FR 3005 Rack Frame please contact your local distributor for assistance.

More detailed information and product updates may be available on our web site:

www.lynx-technik.com

You will also find links to contact us directly for assistance.

Contact Information

Please contact your local distributor; this is your local and fastest method for obtaining support and sales information.

LYNX Technik can be contacted directly using the information below.

Address	LYNX Technik AG Sandstraße 7 64404 Bickenbach Germany.
Phone	+ 49 (0) 6257 938017
Fax	+ 49 (0) 6257 938025
Website	www.lynx-technik.com
E-Mail	info@lynx-technik.com

LYNX Technik manufactures a complete range of high quality modular products for broadcast and Professional markets, please contact your local representative or visit our web site for more product information.



