

ACR1 / ACR3 / FCR25 port replacement

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FCR25 rack



ACR3 rack



ACR1 rack

Renishaw racks
Renishaw racks allow fast repeatable exchanging of probes and styl without the need for manual intervention.
This leaflet covers the replacement of ports for ACR1, ACR3 and FCR25 racks.

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Patents
Features of the Renishaw autochange rack systems and associated products and equipment are the subjects of the following patents and patent applications:
CN101675318B EP2142881 IN2008/132484 JP5615696 US8430331
CN100542740 EP1463604 JP4758065 US7722515
Renishaw part no: H-1000-5054-03-A
Issued: 10.2015

Replacing an ACR1 port



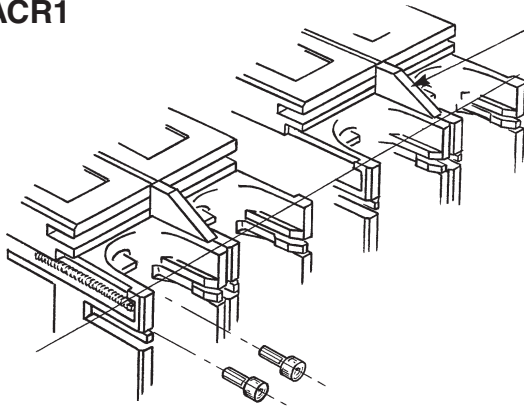
CAUTION: Disconnect power from the ACR1 before replacing ports.

1. Remove the two M3 × 6 mm securing screws as shown in the figure below, and remove the port(s) to be replaced.

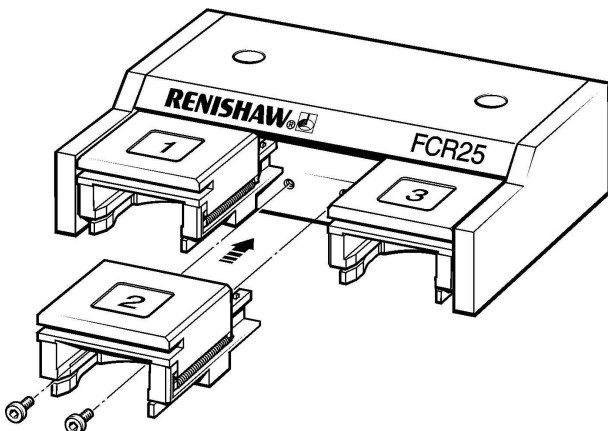
NOTE: On some racks the ports may have four holes however only two will be used.

2. Loosen the securing screws on the remaining ports in preparation for final alignment.
3. Position the replacement port(s) onto the rack and loosely screw in place. It is very important that the ports are correctly aligned.
4. Wedge open all the port lids using the lid clips supplied with the ACR1.
5. Place a rigid straight edge along the port datum position as shown in the figure above and tighten all securing screws to 0.6 Nm / 0.7 Nm.
6. Remove straight edge and lid clips.
7. Check that the run-out across individual ports does not exceed 100 µm.
8. Re-datum the rack.

ACR1



FCR25



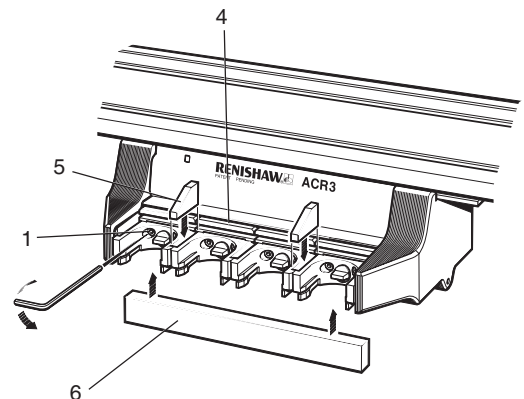
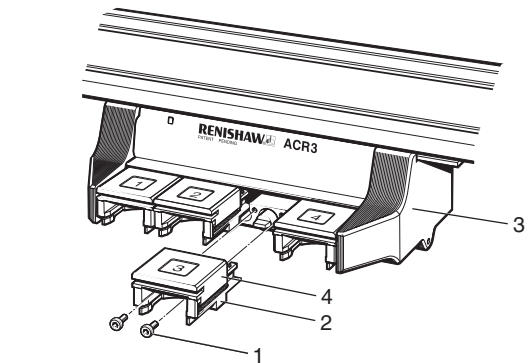
Replacing an ACR3 or FCR25 port



CAUTION: As the ACR3 or FCR25 is positioned within the working envelope of the CMM, the CMM must be stationary throughout this procedure.

1. Release and remove the two M3 × 6 mm long screws [1] and remove the port(s) [2] to be replaced.
2. Loosen the M3 × 6 mm long screws [1] securing the remaining ports in preparation for final alignment.
3. Position the replacement port(s) onto the rack [3] and loosely screw in place.
4. Open all the port lids [4] using the lid clips [5] supplied with the rack.
5. Place a rigid straight edge [6] along the underside of all the ports [2] and tighten all M3 × 6 mm long screws [1] to 0.3 Nm. **Ensure that the ports are correctly aligned.**
6. Remove the straight edge [6] and lid clips [5].
7. Re-datum the rack in accordance with the instructions provided in the appropriate guide:
 - Autochange system user's guide (for ACR1 information) (Renishaw part no. H-1000-5090)
 - ACR3 system installation and user's guide (Renishaw part no. H-1000-5087)
 - SP25M installation, integration and user's guide (Renishaw part no. H-1000-5104)

ACR3



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|-------------------------|------------------|
| 1. M3 × 6 mm long screw | 4. Port lid |
| 2. ACR3 port | 5. Lid clip |
| 3. ACR3 | 6. Straight edge |