Parts and Repair

ABB Symphony Harmony/INFI 90 DCS Remote I/O module upgrade kit

As part of ABB's continued lifecycle support for Symphony Harmony/INFI 90 process control systems, a Remote I/O Module Upgrade Kit with a new, low-cost IMRIO22 module is now available.

Problems solved with Remote I/O upgrade kit

- Component obsolescence, new parts are no longer available
- Cost to replace parts is high
- Decreasing ability to repair parts
- Electrical remote communication links are susceptible to noise; lightning strikes
- Difficult to troubleshoot remote I/O problems
- Link is slow; takes time for I/O points to update

- Controller configuration requires special "tuning" using multiple segment control blocks
- Firmware compatibility issues between IMRIO02 and some I/O modules
- Must be careful when replacing parts in the system

Why ABB's solution is best

Benefits

- Reliability; newer technology, improved fiber optic communications
- Availability of new replacement parts
- Easy to replace the existing remote I/O setup same rack form factor; uses existing fiber optic cables; the RIO22 replaces the RIO02 in the Remote cabinet
- Reduced cabinet footprint as the RIO02 in the Local cabinet is no longer required; its functionality is now included in a BRC300/400. The BRC replaces existing MFP or MFC controllers in the Local cabinet
- Improved control performance increased memory capacity, faster execution and communication speeds
- Improved speed of communication link and remote I/O updates
- Improved hardware/firmware compatability between remote
 I/O processor and remote I/O modules
- Easier firmware upgrades; IMRIO22 module has flash memory
- Improved redundancy; faster detection/failover from primary to backup IMRIO22
- Improved error-checking and diagnostics for troubleshooting
- Redundant HNET remote communication channels

Minimum System Requirements

- BRC300/400 controllers require Process Bus Adapters (PBA).
 Please add these if they do not currently exist
- Composer Engineering Tools version 5.0 or later
- Fiber optic cable (62.5/125 micrometer multimode) for remote link

Restrictions/Limitations

- Supports only fiber optic point-to-point communication links
- Electrical links (twin axial or coaxial cable) must be replaced with fiber optic
- Serial or daisy chain multi-drop links are not supported; multiple drops to remote cabinets (up to 6) now require a star configuration from the Local cabinet

Remote I/O Module Upgrade Kit

- Part number INRIOK01 (for non-redundant configuration).
- Part number INRIOK02 (for redundant configuration).

Each kit includes the following components:

Component Quantities		Part Number	Description
INRIOK01	INRIOK02		
1	2	IMRIO22	Harmony remote I/O module
1	2	PHCBRCPBA20000	Process bus adapter
4	4	NTRL04	HNET fiber optic repeater
			termination unit
2	2	PMKHRMPBA1T004	Process bus adapter cable
			for HNET
4	4	PHAMSCTER30000	HNET bus terminator
0	1	PMKHRMBRC3000A	Bridge controller
			redundancy cable

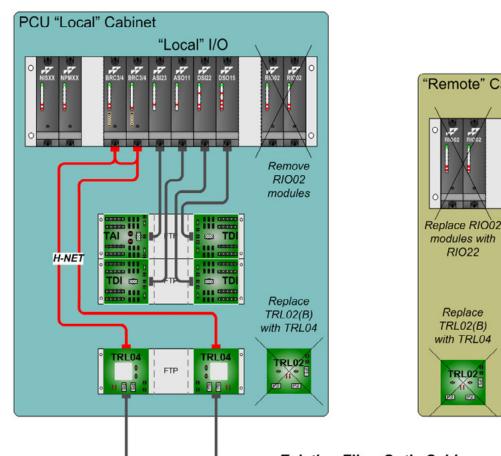
Note: Multi-drop remote I/O architectures will require inter-column connection cables for daisy chaining additional termination units in a local cabinet.

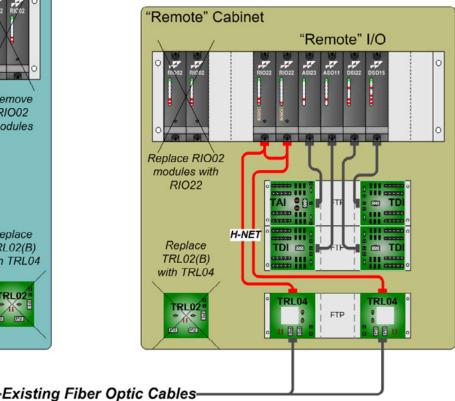
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System/Application Compatibility

The remote I/O functionality is compatible with all other existing features of the Harmony BRC300/400 or later controllers. This includes, but is not limited to, the following:

- Support for multiple remote I/O links
- Support mixed I/O types, e.g. IOR/S800, Harmony Rack I/O, Harmony Block I/O
- Re-use of existing fiber optic remote link cables





To order:

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option 2, option 2 for parts

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Contact ABB today for specific part availability or for additional

information.