IDNet Isolator2 Compatibility Chart

Introduction

Read this document to clarifiy which products you can use in conjunction with the IDNet Isolator2 and IDNet Isolator2 Bases. Refer to *579-1313AC* IDNet Isolator2 Usage Guidelines for more information about Isolator2 usage.

Note: Some PIDs in the IDNet Isolator2 Compatibility Chart are also available with a BA suffix. In relation to the IDNet Isolator2 compatibility requirements, these PIDs are equivalent to the default PIDs.

IDNet modules incompatibility

The following table details IDNet modules that are not compatible with the Isolator2.

Table 1: IDNet modules that are not compatible with Isolator2

PID or Part Number	Item	Additional note
PC Board Assembly: 566-071J 566-071N 566-072	SPS	Discontinued
PC Board Assembly: 565-158 PID A100-3103	Quad Isolator	

Note: The modules listed in Table 1 do not recognize the Isolator2 devices. If Isolator2 devices connect to equipment identified in Table 1, the Isolator2 devices will report a “no answer” trouble on the control unit. However,other devices downstream will continue to communicate with the control unit.

IDNet devices incompatibility

You can not connect the devices listed below to the IDNet2 channel alongside the IDNet Isolator2 where ULC S524 7th edition isolator requirements must be met (even when all other software and hardware assembly revisions on the IDNet2 channel meet the Isolator2 compatibility requirements).

Note: If you use equipment listed in Table 2 on the IDNet2 channel alongside the IDNet Isolator2, all operation except compliance with ULC S524 7th edition isolator requirements will function properly.

Table 2: IDNet2 channel equipment

PID	Item
A4090-9105, A4090-9107	IDNet Fiber Transmitter
A009-9810, A009-9811	IDNet Fiber Receiver
A4009-9809	IDNet Repeater
A4090-9116	IDNet Isolator
A4098-9777, A4098-9793	IDNet Isolator Base

IDNet2 modules revision compatibility

Read the following section to identify the specific module revision for Isolator2 compatibility. For ULC S524 7th edition compatibility, make sure the firmware and PC Board assemblies meet the minimum revisions below.

Table 3: ULC revision compatibility IDNet2, IDNet2 Loop Card, 4007ES NAC PSU and IDNAC PSU

PID or Part Number	Item	PC Board Assembly Revision Requirements	Software Revision Requirements
A010-9929 **A100-3109** **A100-3110** **A100-3112** **A100-3117** **A100-9760** **A100-9761** **A100-9762** **A100-9763** **A100-9764** **A100-9765**	IDNet2 / IDNet2+2	566-1019AC Revision D or later	IDNet2: 3.01 or higher 4100ES/4010ES: 6.01 or higher
A007-9803 **A100-3110** **A100-3111** **A100-3112**	IDNet2 Loop Card	566-1021 Revision C or later 566-1071 Revision C or later	N/A

Table 3: ULC revision compatibility IDNet2, IDNet2 Loop Card, 4007ES NAC PSU and IDNAC PSU

PID or Part Number	Item	PC Board Assembly Revision Requirements	Software Revision Requirements
A007-9101 **A007-9102**	4007ES NAC PSU	566-1030AC Revision F or later	IDNet2: 3.01 or higher 4007ES: 6.01 or higher
A007-9201 **A007-9202**	4007ES IDNAC PSU	566-989AC Revision D or later	IDNet2: 3.01 or higher 4007ES: 6.01 or higher

Table 4: ULC revision compatibility for 4010ES MSS2

PID or Part Number	Item	PC Board Assembly Revision Requirements	Software Revision Requirements
A010-9401 **A010-9402** **A010-9403** **A010-9404** **A010-9421** **A010-9422** **A010-9428** **A010-9435** **A010-9501** **A010-9502** **A010-9521** **A010-9522**	4010ES MSS2	566-1104AC Revision A or later	IDNet2: 3.01 or higher 4010ES: 6.01 or higher

Table 5: ULC revision compatibility for 4010ES ESS

PID or Part Number	Item	PC Board Assembly Revision Requirements	Software Revision Requirements
A010-9601 **A010-9602** **A010-9604** **A010-9621** **A010-9622** **A010-9623** **A010-9624** **A010-9633** **A010-9711** **A010-9712** **A010-9721** **A010-9722**	4010ES ESS	566-1025AC Revision C or later	IDNet2: 3.01 or higher 4010ES: 6.01 or higher

Note:

1. The modules listed above recognize the Isolator2 devices and can communicate with them only if the software revision requirements are met.
2. If the assembly (566-XXX) revision requirement is not met but the software is, then the following applies:
   - Class A / DCLA or Class X / DCLC operation can not be guaranteed to work to ULC S524 7th edition.
   - Class B / DCLB operation meets ULC S524 7th edition.
3. All products sold after the release of the Isolator2 meet the minimum requirements.

IDNet devices PC Board assembly compatibility

For ULC S524 7th edition compatibility, make sure the PC Board assemblies of the active field devices meet the following minimum revisions.

Table 6: PC board assembly revision requirements

PID	Description	PC Board assembly revision requirements
A4090-9001	Supervised IAM with LED with T-Sense	565-757 Revision H or later
A4090-9002	Relay IAM	566-913 Revision D or later
A4090-9007	Signal IAM	566-660 Revision E or later
A4090-9008	Dual Contact Relay IAM	566-965 Revision D or later
A4090-9010	8A Relay IAM	566-996 Revision C or later
A4090-9051	Encapsulated Supervised IAM	566-582 Revision C or later
A4090-9118	Relay IAM with T-Sense	565-980 Revision F or later
A4090-9119	Relay IAM with Unsupervised Input	565-981 Revision G or later
A4090-9121	Security Monitor IAM	565-986 Revision F or later
A4099-9004CA, **A4099-9004CAB**, **A4099-9004CAF**, **A4099-9005CA**, **A4099-9005CAB**, **A4099-9006CA**,	IDNet 2 Stage Pull Station	565-759 Revision H or later

Note:

1. You can easily recognize the minimum PC Board Assembly revision of the devices listed in Table 6 is met by verifying the presence of a purple **Isolator2 Compatible** sticker 623-2564.

2. If the devices you are using from Table 6 do not have the **Isolator2 Compatible** sticker it means their PC Board assemblies are at revisions older than shown above. You can use them on the system but it will not meet the requirements of ULC S524 7th edition.
3. The devices in Table 6 have no minimal firmware requirement.
4. All products sold after the release of the Isolator2 meet the minimum requirements.

Other compatible IDNet Devices

All other IDNet devices not mentioned in Table 6 are compatible with the Isolator2 and meet ULC S524 7th edition. They do not have an **Isolator2 Compatible** sticker and do not require a minimum PC Board assembly revision. **Isolator2 Compatible** stickers are only applied to devices and appliances listed in Table 6 that have minimum firmware or PC Board assembly revision requirements to support ULC S524 7th edition Isolator2 operation.

Isolator and Isolator2 use cases for IDNet2

You can mix legacy IDNet Addressable Isolator devices (A4090-9116) or IDNet Isolator Bases (A4098-9777, A4098-9793) with Isolator2 devices (A4090-9122, A4098-9766, A4098-9767) on the same IDNet2 channel but it is not preferred. See Table 7 outlining the impact the different configurations have on the system.

Table 7: Mixed isolators system impacts

IDNet2 channel configuration	Guaranteed to meet ULC S524 7th?	Earth Fault Search	Startup Time & Recovery Time
Isolator2 only (A4090-9122, A4098-9766, A4098-9767)	Yes	Can use the automatic diagnostic tool. Finds the closest Isolator2.	Improved
Isolators only (A4090-9116, A4098-9777, A4098-9793)	No	Can use the automatic diagnostic tool. Finds the closest isolator.	Normal
Isolators and Isolator2	No	The automatic diagnostic tool will only report legacy Isolator (See note 1).	Slightly improved (See note 2).
Isolators on loop1 **Isolators on loop2**	No	Can use the automatic diagnostic tool. Finds the closest isolator.	Normal
Isolators on loop1 **Isolators2 on loop2**	Only loop2 can meet it.	Can use the automatic diagnostic tool on loop1. It will find the closest isolator (See note 1). Manual Earth fault search must be done on loop 2.	Normal on loop1. Improved on loop2

Note:

1. If legacy Isolators and Isolator2 isolators are mixed on an IDNet2 channel, although the isolation performance will remain at least equivalent to the legacy Isolator performance, the automatic ground fault search will be degraded and will not recognize Isolator2 isolators. When there is a mix of legacy Isolators and Isolator2 isolators on an IDNet2 channel, automatic ground fault search will only report the address of the closest legacy Isolator that is connected before the Isolator2 isolator with a ground fault - It will never report the address of an Isolator2 isolator. In order to identify the location of a ground fault down to the closest Isolator2 isolator, you need to perform a ground fault search manually on each isolator on the channel. For this reason, it is not recommended to mix legacy Isolators and Isolator2 isolators on an IDNet2 loop or channel.
2. Performance improvements depend on the ratio and exact placement of the Isolator2 over the legacy Isolator. The less legacy Isolator devices, the better the recovery performance.