

Product Communication

Certification of ABB inverters to AS/NZS 4777.2:2015

Sydney, 20th May 2016

Dear Customer,

AS/NZS 4777.2:2015 is the Australian standard which stipulates the general rules for grid connected inverters. This standard comes into effect on 9th October 2016. After this date, inverters which are not compliant to this standard will not be acceptable for connection to the grid in Australia. ABB Australia is in the process of certifying inverters according to AS/NZS 4777.2:2015.

Changes to current ABB inverters will include firmware and labelling. Firmware is able to be updated in Australia.

Below is a summary of the models which will be updated with certification to AS/NZS 4777.2:2015:

Inverter Model
PVI-3.0/3.6/4.2-TL-OUTD
PVI-5000/6000-TL-OUTD
TRIO-5.0/5.8/7.5/8.5-TL-OUTD
PVI-10.0/12.5-TL-OUTD
TRIO-27.6/20.0-TL-OUTD

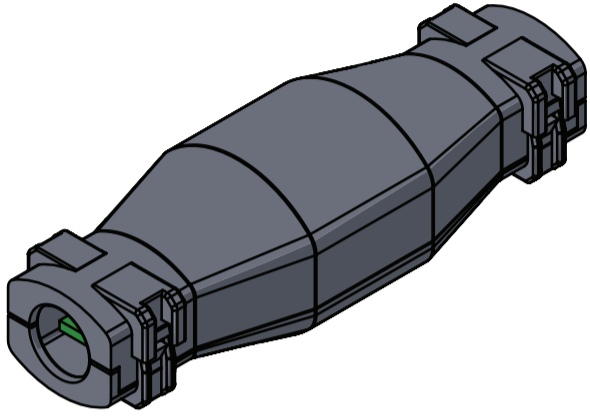
There will be two current models of inverter which will not be certified to AS/NZS 4777.2:2015. It is important to note that although these models will not be certified after the 9th of October, they are still in production in our factory for other markets and will be serviced by ABB for the duration of the warranty period.

The products ABB Australia is not going to certify to AS/NZS 4777.2:2015 are:

Inverter Model	Reason for not certifying
UNO-2.0/2.5-I-OUTD	There is the upcoming release of the UNO-2.0/3.0-TL models which will be certified and provide more features than the current models.
PRO-33.0-TL-OUTD	There is the upcoming release of the TRIO-50.0-TL models which will be certified which provides greater flexibility especially in the hot Australian climate.

Best Regards

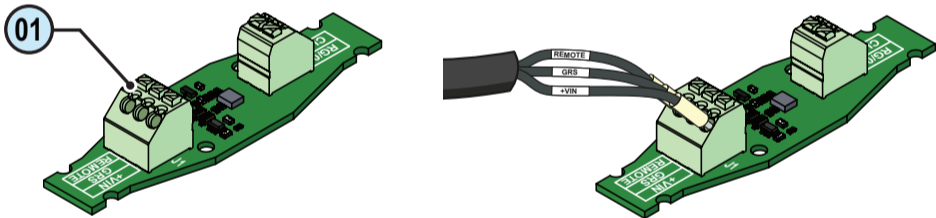
Joseph Kassouf
Solar Product Manager
ABB Power Conversion
ABB Australia Pty Limited



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5.1

Inverter side connection
To connect the DRM0-INTERFACE to the inverter use the Inverter side connector (01) located in the DRM0-INTERFACE board marked by "J1" silkscreen. Each cable type have three wires marked with the same name of terminal of the Inverter side connector (01) (marked in the board silkscreen).



The terminal and the cable type (supplied) to be used to connect the DRM0-INTERFACE to the inverter depend on the model of inverter. The list of the supported inverter models and the related connection procedures are shown below:

INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals						
PVI-3.0/3.6/4.2-TL-OUTD (Construction A)	Model 1	YES	<table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J42)</td> </tr> <tr> <td>two poles connector</td> <td>two poles connector on adapter board</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J42)	two poles connector	two poles connector on adapter board
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J42)								
two poles connector	two poles connector on adapter board								
PVI-3.0/3.6/4.2-TL-OUTD (Construction B)	Model 1	YES	<table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J9)</td> </tr> <tr> <td>two poles connector</td> <td>two poles connector on adapter board or on J4 METER connector (if METER is not present)</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J9)	two poles connector	two poles connector on adapter board or on J4 METER connector (if METER is not present)
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J9)								
two poles connector	two poles connector on adapter board or on J4 METER connector (if METER is not present)								

1.

Preliminary operations

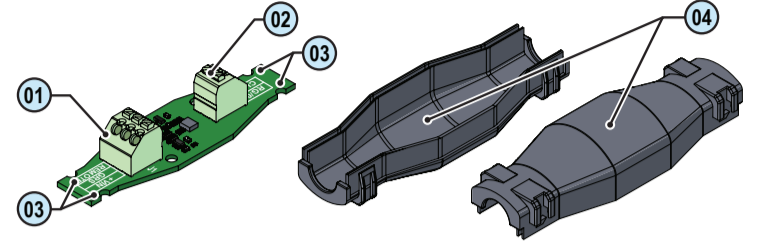
- REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**
For safety reasons, only a qualified electrician who has received training and/or demonstrated skills and knowledge of the inverter's structure and operation may install this device in the inverter.
- Before the DRM0-INTERFACE has been installed on the inverter, the REMOTE ON/OFF function of the inverter have to be enabled to allow at the DRM0-INTERFACE to power-off the inverter when it is needed: Refer to the User Manual of the related inverter to know how to enable the REMOTE ON/OFF function.**

2.

Main components

The main components of the DRM0-INTERFACE are shown in the figure and described in the following table:

- | Main components |
|----------------------------|
| 01 Inverter side connector |
| 02 DRM0 side connector |
| 03 Fixing eyelet |
| 04 Enclosure |



3.

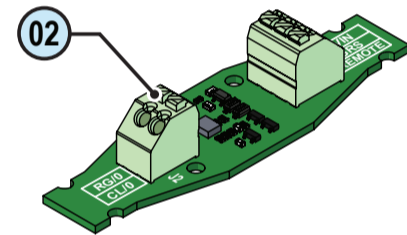
List of components supplied

Available components*	Quantity	Available components*	Quantity
DRM0-INTERFACE board	1	Cable Model 1 3-wires Cable	1
Plastic enclosure	1	Cable Model 2 Two-poles connectors Cable	1
Adapter board	1	Cable Model 3 RJ45 connector Cable	1
Standhoff	1	DRM available label	1
Standhoff screw	1	Cable tie	2
		Quick installation guide	1

*The content of the packaging may depend on the DRM0-INTERFACE kit related to the single inverter model.

4.

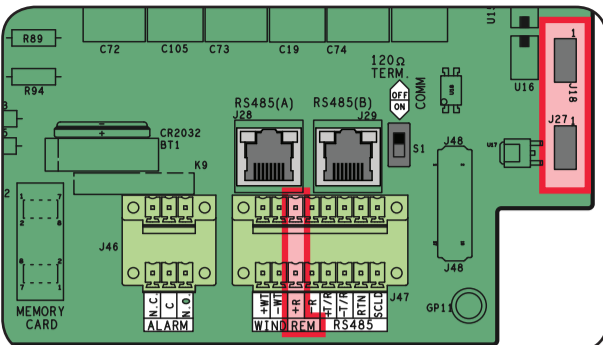
To connect the DRM0-INTERFACE to the distribution grid use the DRM0 side connector (02) located in the DRM0-INTERFACE board marked by "J2" silkscreen.

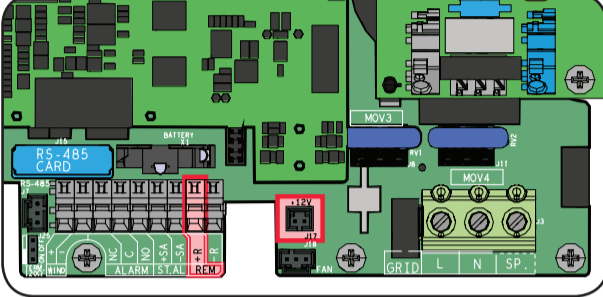


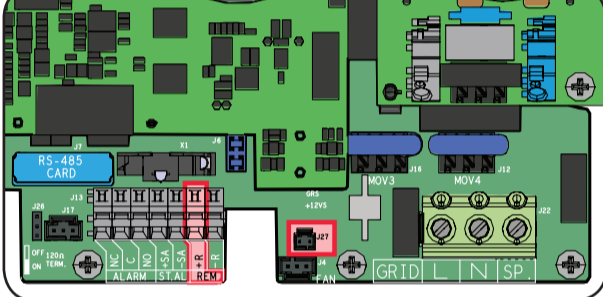
5.2

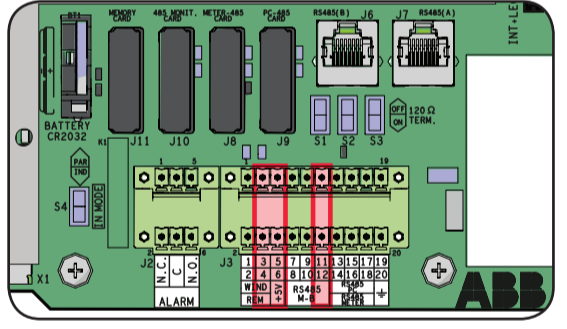
Inverter side connection

INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals						
PVI-5000/6000-TL-OUTD (Construction A)	Model 1	YES	<table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J49)</td> </tr> <tr> <td>two poles connector</td> <td>two poles connector on adapter board</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J49)	two poles connector	two poles connector on adapter board
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J49)								
two poles connector	two poles connector on adapter board								
PVI-5000/6000-TL-OUTD (Construction B)	Model 1	YES	<table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J31)</td> </tr> <tr> <td>two poles connector</td> <td>two poles connector on adapter board or on J19 METER connector (if METER is not present)</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J31)	two poles connector	two poles connector on adapter board or on J19 METER connector (if METER is not present)
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J31)								
two poles connector	two poles connector on adapter board or on J19 METER connector (if METER is not present)								
PVI-10.0/12.5-TL-OUTD (Construction A)	Model 1	YES	<table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J47)</td> </tr> <tr> <td>two poles connector</td> <td>two poles connector on adapter board</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J47)	two poles connector	two poles connector on adapter board
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J47)								
two poles connector	two poles connector on adapter board								

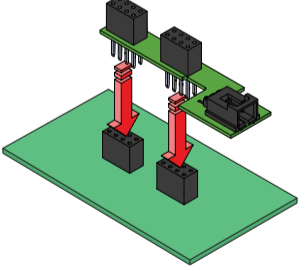
INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals						
PVI-10.0/12.5-TL-OUTD (Construction B)	Model 1	YES	 <table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J47)</td> </tr> <tr> <td>two poles connector</td> <td>two poles connector on adapter board</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J47)	two poles connector	two poles connector on adapter board
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J47)								
two poles connector	two poles connector on adapter board								

INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals						
UNO-2.0/3.0-TL-OUTD	Model 1	NO	 <table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J2)</td> </tr> <tr> <td>two poles connector</td> <td>(J17) "+12V" two poles connector</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J2)	two poles connector	(J17) "+12V" two poles connector
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J2)								
two poles connector	(J17) "+12V" two poles connector								

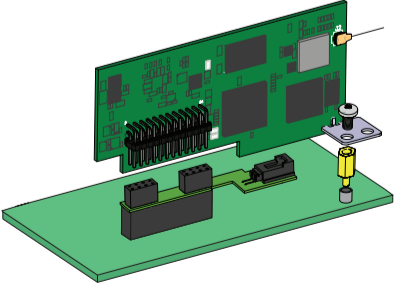
INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals						
UNO-3.6/4.2-TL-OUTD	Model 1	NO	 <table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>+R (J13)</td> </tr> <tr> <td>two poles connector</td> <td>(J27) two poles connector</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	+R (J13)	two poles connector	(J27) two poles connector
DRM0-INTERFACE	Inverter terminals								
REMOTE	+R (J13)								
two poles connector	(J27) two poles connector								

INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals								
REACT-UNO-4.6-TL-OUTD	Model 2	NO	 <table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>4 (J3)</td> </tr> <tr> <td>+VIN</td> <td>6 (J6)</td> </tr> <tr> <td>GRS</td> <td>12 (J9)</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	4 (J3)	+VIN	6 (J6)	GRS	12 (J9)
DRM0-INTERFACE	Inverter terminals										
REMOTE	4 (J3)										
+VIN	6 (J6)										
GRS	12 (J9)										

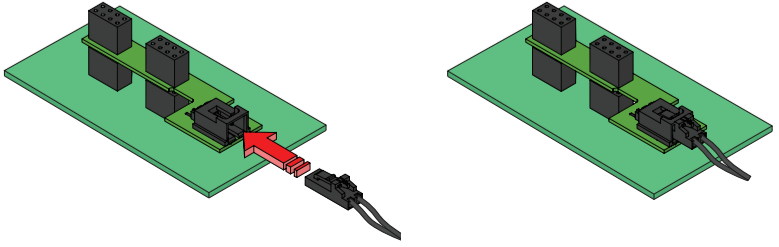
For the models that require the installation of the adapter board (refer to the previous table), follow the procedures below.

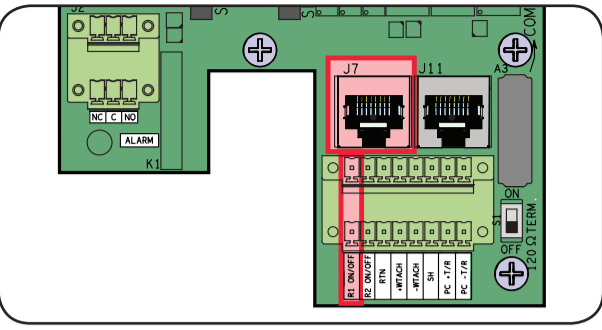


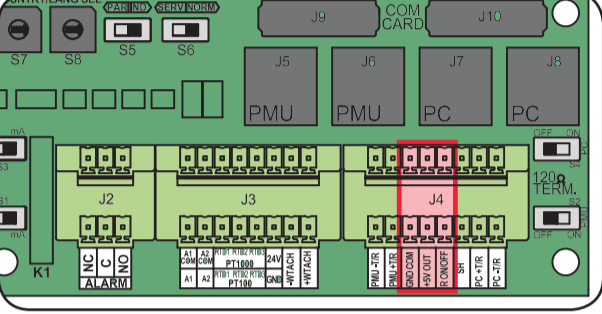
Note for installation on inverter equipped WIFI LOGGER CARD (VSN300):
In this case is necessary to install the standoff (supplied with the packaging) under the mechanical mounting bracket as shown in the picture below:

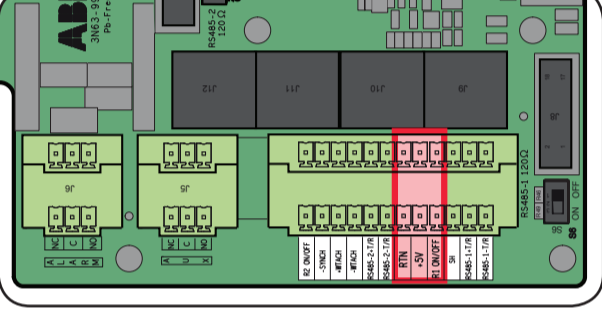


After the installation of the adapter board to the inverter it will be possible to connect the DRM0-INTERFACE to the adapter board using the specific connector of cable "Model 2":

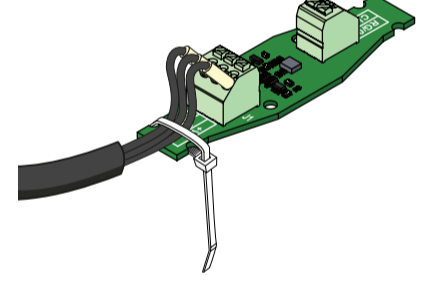


INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals						
TRIO-5.0/5.8/7.5/8.5-TL-OUTD	Model 3	NO	 <table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>R1 ON/OFF (J4)</td> </tr> <tr> <td>RJ45 Connector</td> <td>J7 (RJ45 Connector)</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	R1 ON/OFF (J4)	RJ45 Connector	J7 (RJ45 Connector)
DRM0-INTERFACE	Inverter terminals								
REMOTE	R1 ON/OFF (J4)								
RJ45 Connector	J7 (RJ45 Connector)								

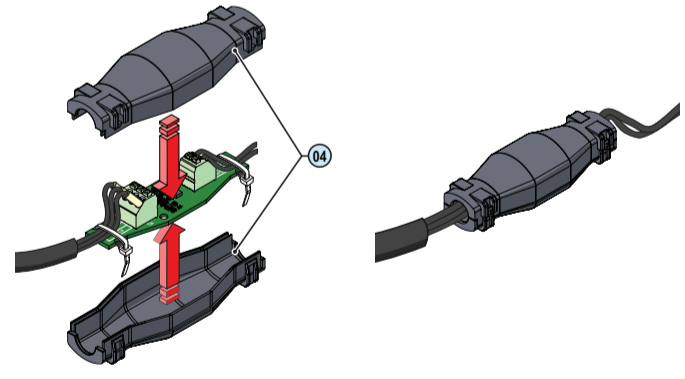
INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals								
TRIO-20.0/27.6-TL-OUTD	Model 2	NO	 <table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>R ON/OFF (J4)</td> </tr> <tr> <td>+VIN</td> <td>+5VOUT (J4)</td> </tr> <tr> <td>GRS</td> <td>GND COM (J4)</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	R ON/OFF (J4)	+VIN	+5VOUT (J4)	GRS	GND COM (J4)
DRM0-INTERFACE	Inverter terminals										
REMOTE	R ON/OFF (J4)										
+VIN	+5VOUT (J4)										
GRS	GND COM (J4)										

INVERTER MODEL	Cable to be used	Adapter board	Motherboard position and inverter terminals								
TRIO-50.0-TL-OUTD	Model 2	NO	 <table border="1"> <thead> <tr> <th>DRM0-INTERFACE</th> <th>Inverter terminals</th> </tr> </thead> <tbody> <tr> <td>REMOTE</td> <td>R1 ON/OFF (J7)</td> </tr> <tr> <td>+VIN</td> <td>+5V (J7)</td> </tr> <tr> <td>GRS</td> <td>RTN (J7)</td> </tr> </tbody> </table>	DRM0-INTERFACE	Inverter terminals	REMOTE	R1 ON/OFF (J7)	+VIN	+5V (J7)	GRS	RTN (J7)
DRM0-INTERFACE	Inverter terminals										
REMOTE	R1 ON/OFF (J7)										
+VIN	+5V (J7)										
GRS	RTN (J7)										

After the installation on the inverter board it will be possible to fix the wires on DRM0-INTERFACE board using the fixing eyelet (03) with the supplied cable tie on both sides:



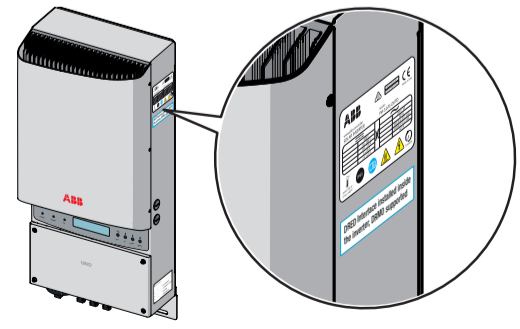
After the cable fixing close the enclosure (04) to complete the DRM0-INTERFACE assembly:



After the assembly, make sure to put the DRM0-INTERFACE inside the inverter enclosure in a suitable position: The DRM0-INTERFACE device position cannot interfere with mobile parts of the inverter (fans, switch...) or dangerous electrical parts.

To check if the DRM0-INTERFACE works, switch on the inverter and disconnect the wire from DRED: in case of a correct installation the inverter should power-off.

At the end of installation phase, apply the supplied "DRM available label" near the Regulatory label of the inverter. The DRM available label shows which type of DRM are available for the inverter models.



Contact us

www.abb.com/solarinverters

DRM0-INTERFACE - Quick Installation Guide EN - RevA
EFFECTIVE 2016-06-20
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Specifications subject to change without notice.