



Monday, 4 January 2010  
PA02-TB

## IPM Relay PRODUCT-UPDATE

**SUBJECT: IPM HAS BEEN UPDATED TO ALLOW THE USE OF 100:1 AS WELL AS 1000:1 CT'S**

Dear Customer:

Good news from Electronics – The IPM relay has again been upgraded to broaden its applications, this time the current range of the relay has been expanded and now covers the range from 0.5125Amps to 640Amps. This range change has been included after the "Snore" function (for automatic pump operation, where the IPM software controls the starting and stopping of the pump) was added.

This Extended range is achieved by selecting current Transformer ratio's of either 1000:1 (original ratio) or 100:1, this selection is now part of the IPM's parameter set-up. IPM software Version 09 (V09) is needed to fully use this function; older versions are can only be used with the 1000:1 ratio. The original RTM V0 (part# 121506) will function with the new or updated IPM relay when using the 1000:1 ratio only. A new version RTM V1 (part# 142035) is required to use the extended current range of the IPM relay.

### New Parameter:

CT Ratio (IPM level parameter). This can be set to either 100:1 or 1000:1. The load current value displayed on the IPMs default status page will be scaled accordingly.

When setting the current value (RTM level parameters), the values displayed are dependent on the selected value in the CT Ratio parameter.

### New Status Messages:

#### "RTM CT Ratio Error"

This message indicates that the attached RTM was set up using a different CT Ratio than that of the IPM in use. Modifying the current level will save the correct CT Ratio in the RTM and clear this error.

#### "RTM Version Error"

This message indicates that the attached RTM does not support 100:1 CT operation. A new RTM (#142035) with updated firmware is required to use the 100:1 CT ratio.

### Limitations:

Log will display the "100% Current" parameter value as per the "CT Ratio" setting. This means that if the CT ratio is changed, the log may display incorrect values for the current parameter. The correct historical value can be determined by examining the log history for changes in the CT Ratio parameter.

---

#### AMPCONTROL ELECTRONICS

Ampcontrol CSM Pty Limited  
ABN 35 000 770 141  
7 Billbrooke Close  
CAMERON PARK NSW 2285 Australia  
Tel: (02) 4903 4800  
Fax: (02) 4903 4888  
[www.ampcontrolgroup.com](http://www.ampcontrolgroup.com)

AMPCONTROL POWER  
[power@ampcontrolgroup.com](mailto:power@ampcontrolgroup.com)  
AMPCONTROL ELECTRONICS  
[electronics@ampcontrolgroup.com](mailto:electronics@ampcontrolgroup.com)  
AMPCONTROL SERVICE  
[service@ampcontrolgroup.com](mailto:service@ampcontrolgroup.com)

LOCATIONS  
NSW – Newcastle & Hunter Valley | Lithgow | Sydney | Wollongong |  
QLD – Mackay | Moranbah | Brisbane |  
VIC – Mt Waverley |  
WA – Perth |

An RTM programmed with one CT ratio is not compatible on IPMs of other CT ratios.

#### **New Firmware Versions:**

IPM Firmware is now version 9 ("IPM V1 s/w V0.9 2009")

RTM Firmware version is now 20. (This is visible from the IPM when the RTM is connected)

There will be no new part number for the IPM relay. These are just software upgrades to existing production item.

#### **Compatibility:**

To ensure the new 100:1 CT mode of the IPM cannot result in conflicting outlet protection settings, the following compatibility rules are applied. In general both old and new equipment can interoperate when used only in 1000:1 mode. To use 100:1 mode both a new IPM (V09) and a new RTM (V1) will be required.

Old IPM with a new RTM:

- RTM set up for 1000:1 CT - Yes
- RTM set up for 100:1 CT - No (The IPM will display RTM off line and RTM Mem Error messages)

Old IPM with an old RTM:

- Yes. No changes.

New IPM with an new RTM:

- IPM in 1000:1 CT mode:
  - \* RTM set up for 100:1 CT - No ("RTM CT Ratio Error")
  - \* RTM set up for 1000:1 CT - Yes
- IPM in 100:1 CT mode:
  - \* RTM set up for 100:1 CT - Yes
  - \* RTM set up for 1000:1 CT - No ("RTM CT Ratio Error")

New IPM with an old RTM:

- IPM in 1000:1 CT mode - Yes
- IPM in 100:1 CT mode - No ("RTM Version Error")

#### **Hardware Changes:**

There are no changes to the IPM or RTM hardware. It will be possible therefore to upgrade existing IPM relays to use the new firmware. As RTM units are encapsulated, it is not possible to upgrade their firmware, and they will need to be replace, if the load is to be used with a 100:1 CT ratio IPM.

Yours sincerely  
**AMPCONTROL CSM PTY LTD**

**TERRY J BROWN**  
BE; MSc; PEng.  
**PRODUCT MANAGER**

CC