



## Application Notes

Rev 01.

### AN32 - Upgrading Firmware on the INC



It is advisable to familiarise yourself with the "INC User Guide" in conjunction with this application note.

In this application note we show to upgrade the firmware programme running on the INC. Before you start:

1. Make sure your INC is turned on and operating normally.
2. Make sure you are not working in the rain or anywhere that may get the screen wet.
3. Use a computer that has an SDcard reader built in or use a USB-to-SDcard reader adaptor.
4. You need an SDcard.

#### What SDcard?

The INC uses an SDcard interface for file transfer. The memory card is formatted as FAT32. Typical memory device specifications are:

- Capacity: 8GB/16GB
- Standard: SDA 2.0
- Dimensions: 24 x 32 x 2.1mm (W x H x D)
- Weight: 2g
- Voltage: 2.7~3.6V
- Performance: Approximate Speed (read): 10~14 (MB/s), (write): 4~5 (MB/s)
- Speed Class: Class 4



Other card specifications may work but the user should verify that the INC can read the memory card correctly.

#### Firmware Distribution

New firmware can be issued to you in a number of ways:

- Emailed to you by QTech
- Downloaded from the Water-Insight web site
- Placed in a folder on your QIMS pc (usually a folder called SDcard on the windows desktop)

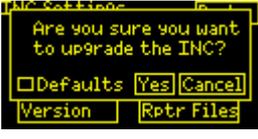
However you receive the firmware files, they need to be transferred to the SDcard before you can proceed to upgrade the INC.

#### Important

The firmware file must be named **INC-App.bin** and located in a folder called **firmware**. The firmware folder must be located in the root directory of the SDcard.

#### Follow these steps:

Step	Instruction	Note
1	Insert Your SDcard into the QIMS PC or your laptop, wherever the new upgrade files have been stored.	
2	Copy the firmware folder containing the INC-App.bin firmware file onto your SDcard. Make sure the firmware folder is in the root directory of the SDcard disk.	Use Windows file explorer to drag and drop or copy and paste the folder to the SDcard drive. 
3	Now move the SDcard and insert it into the INC. (make sure it clicks in properly) It is good practice to Eject the drive before removing it from the SDcard slot.	Right click on the drive letter in windows explorer and choose eject to safely remove the SDcard before pulling it out of the slot.

4	tap the screen on your INC to bring up the main screen.	
5	Tap settings > version This will display the current version of firmware operating on the INC	
6	Tap upgrade You will be prompted if you want to reprogram the INC, tap Yes. The unit will attempt to look for the INC-App.bin file on the SDcard and will load the new firmware. Once complete the INC will return to the main screen.  Note you can normally leave the <b>Defaults</b> checkbox unticked. Water-Insight will instruct you if the particular upgrade will also require resetting the unit to factory defaults.	 <p data-bbox="986 656 1394 784">If it fails recheck that the file has been stored in the correct location on the SDcard and is correctly named. Make sure it hasn't accidentally been stored in a sub-folder.</p>
7	Tap settings > version and verify that the firmware version number has changed to the new firmware version.	
8	Now you should reload the pod list and the schedules onto the device. To return the device to full operation. Follow the user manual or refer to Water-Insight application notes for this process.	It pays to have these folders already stored on you SDcard
9	All Done	

For more information email [support@waterinsight.co.nz](mailto:support@waterinsight.co.nz)