**23G ECM-100 MAIN & RELAY BOARD UPDATES**

Due to the older design of the 23G ECM-100 circuit boards (PCAs), efforts were made to update the design to allow continued production and spares.  These boards are to be implemented in mid-2016 or when the current V2 version supply is exhausted.  There is no requirement to update unless desired.  Current product will perform as intended without this update.

The new boards were updated to more modern component and design criteria allowing for parts availability and improved production capabilities.  There were no program changes made to the software, and the new boards (deemed the 'V3/2016' versions) are backwards compatible in similar fashion to the current V2 versions.  See Table 2 at end of document to determine compatibility.  If only one of the two boards fails and requires replacement, it may not be necessary to replace both depending on your version.

There were two changes made that users should be aware of.
1. Dual color Red/Yellow LEDs[i].
2. USB computer and printer connections

The dual color LEDs allow users who do not want red indicators (Alarm and Permeate Divert) to use a yellow indicator.  This is changed on the back of the Main Board by changing the SW1 and SW2 switches located near the top right from the up position to the down position (see Image 1 at end of this document).

The USB connections update the standard RS-232 [ii]9-pin connector the 23G has traditionally been equipped with.  This allows for more modern equipment to be used to obtain the historical data retained by the 23G.  The user manual has been updated (Mar Cor P/N W3T572846 revision I) to explain in detail the usage of these features.

**Table 1 Spare Parts**

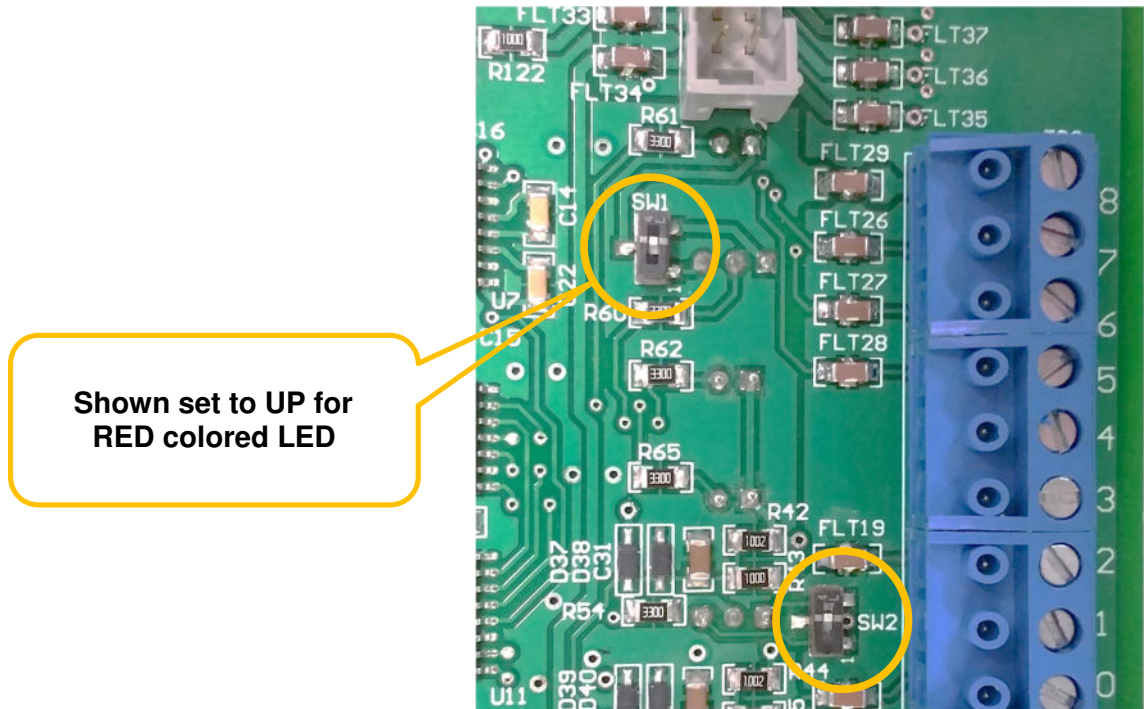| Spare Part Number | Description |
|---|---|
| W3T572846 | 23G User Manual – Revision I and newer |
| W3T573794 | Spare, Main PCA, ECM-100, 2016, 50/60Hz |
| W3T572448 | Spare, Relay PCA, ECM-100, 2016, 50/60Hz |

**Shown set to UP for RED colored LED**

**Image 1 – SW1/2 Locations**

**Table 2 Compatibility**

| Main Board Version | Compatible with Relay Board Version(s) |
|---|---|
| V1 | V1 only |
| V2 | V1, V2, V3/2016 |
| V3/2016 | V1, V2, V3/2016 |

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[i] If your current main board has yellow LEDs you will need to make the switch change as described in the next paragraph.

[ii] The RS-232 connection is retained in the V3/2016 design and can continue to be used if facility is already setup for it.