

DISCLAIMER: Emtion Pty Ltd, Trading as Microtec Engineering, do not take any responsibility for any damage caused installing this product

## **MICROTEC ENGINEERING**

### **EXTERNAL WARNING LIGHT INSTALLATION INSTRUCTIONS**

#### **KATO MS15B**

**ESTIMATED TIME OF INSTALLATION: 3 HOURS**

#### **Required PARTS:**

- 1x Activation box
- 5mtrs 7 core cable
  - Solder
  - Heatshrink
- 1x External warning light
  - 15 x Ferrules
  - Cable Ties
- 2 x self drilling screws
- 1 x Red eye crimp (Small)
- 1 x Blue eye crimp (Small)

# **KATO MS15B LIGHT INSTALLATION**

*Read all instructions before commencing*

## **PRE-INSTALLATION CHECKS**

1. Set up machine on full outriggers and raise the boom so there are no errors or buzzers active. Set-up computer for main hook, full outriggers.
2. Raise any hook to an ATB alarm situation. Check that the crane motions winch up, luff down, and tele out functions are cut off. Check that the “safe” crane motions winch down, tele in and luff up are operable.
3. Whilst still in alarm condition, switch the ATB over-ride and verify that the unsafe functions are now operable.
  - *note: be careful not to overwind hook*
4. Repeat steps 2-3 with the other hook.
5. Restart the computer by turning off and on again. Set-up computer for no outriggers and maximum angle fly jib. Check that the computer is now at 100% or more. Check that all unsafe motions (Luff down, winch up, Tele out) are in-operable and safe functions (luff up, winch down, tele in) are operable.
6. Then turn the ACS over-ride key. Test that all unsafe functions are operational with over-ride switch on.
  - *Beware: Autostop functions will not operate during over-ride.*
7. When in 100% condition also verify that the buzzer is sounding.
  - Should any of these tests fail call Microtec for service

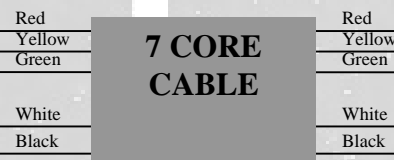
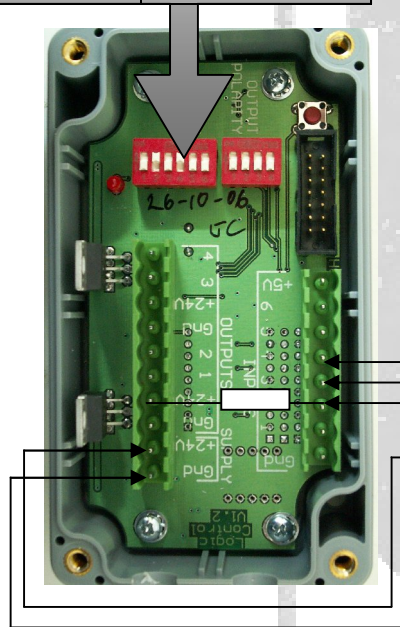
## **INSTALLATION OF INPUTS**

### **PREINSTALLATION PREPARATION**

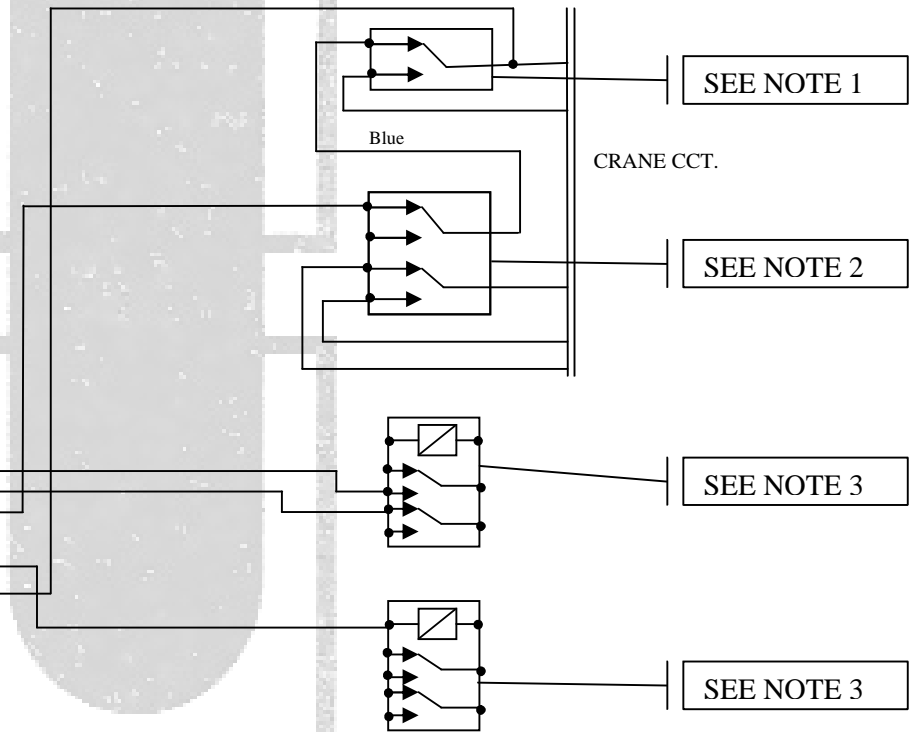
1. Isolate batteries during installation with isolator switch.
2. Remove seat from cabin
3. Remove panel located on left of seat to reveal the connections to the relay switches.
4. Mount activation box behind this panel if possible. If there is not enough room, anywhere near this area is still suitable.
5. Remove panel to reveal connections to the ACS over-ride key and the ATB over-ride switch

# CONNECTIONS KATO MS15B

| SWITCH NO. | SWITCH POSITION |
|------------|-----------------|
| 1          | Off             |
| 2          | Off             |
| 3          | Off             |
| 4          | Off             |
| 5          | Off             |
| 6          | On              |



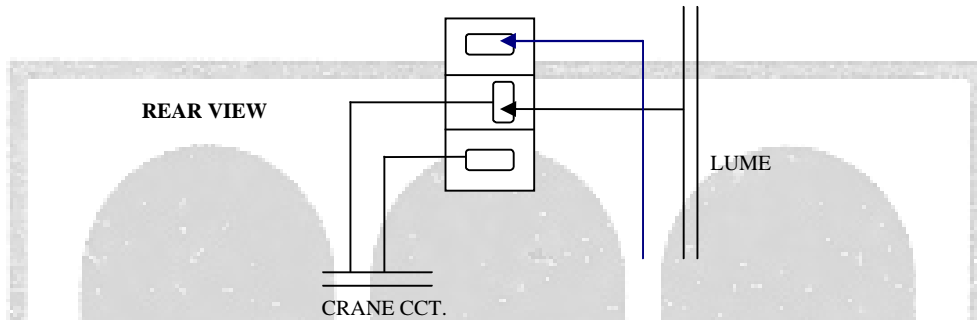
❖ Unused from 7 core cable may be cut off from the loom.



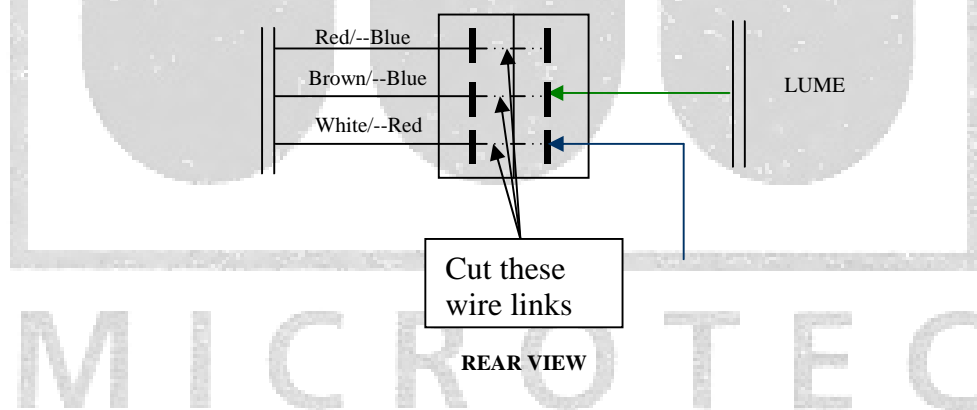
Use ferrule crimps provided to make the connections to the activation box. You may also need to shorten the length of the ferrules so the lid can close easily.

## NOTES

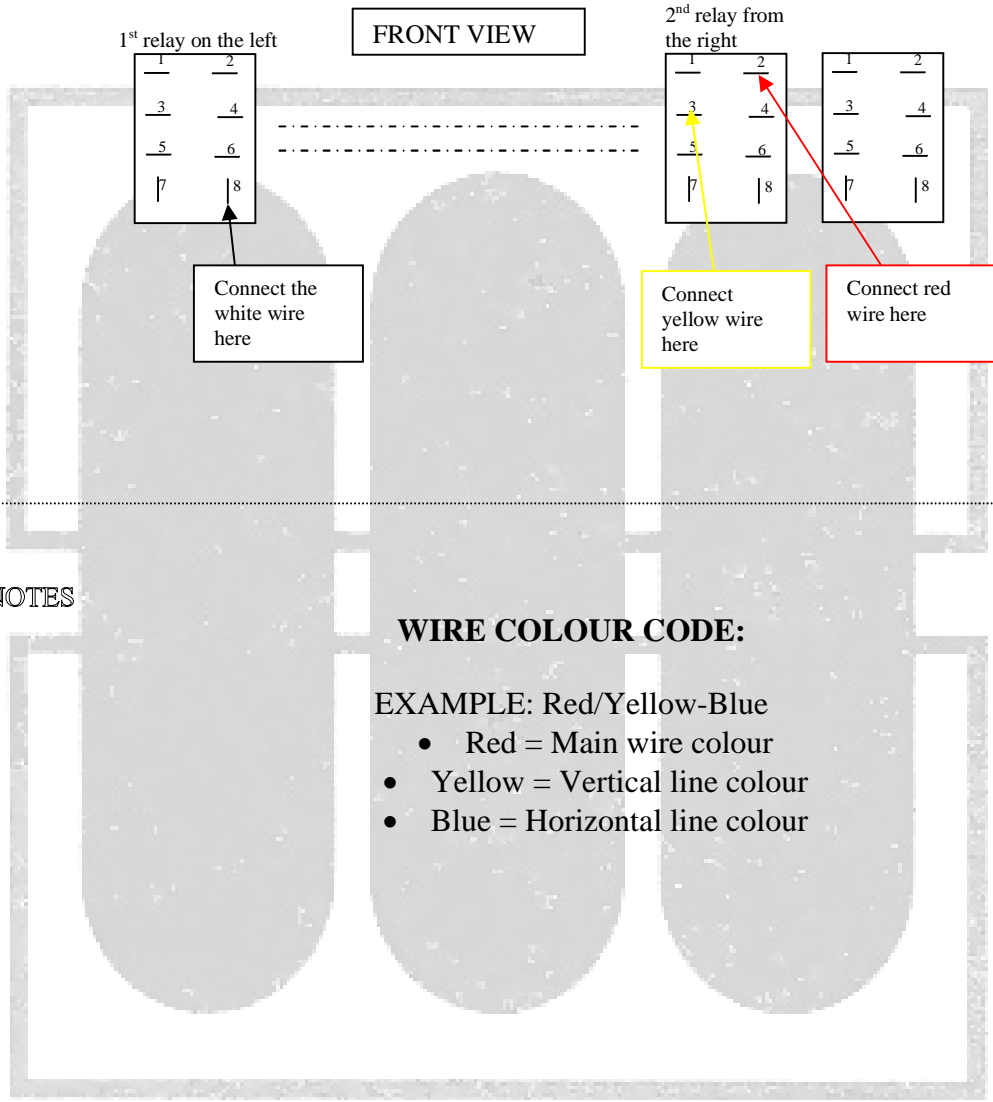
- 1
- Locate the connections to the ATB over-ride switch. Make sure that 2 out of the 3 terminals are connected (As shown below)
  - Connect the black wire from the loom to the middle contact along with the wire already connected to it. Use a blue eye crimp supplied.
  - Cut off the blue wire from the loom and connect one end of the wire to the terminal that has no wire connection. Use a red eye crimp supplied.



- 2
- Locate the connections to the ACS over-ride switch. There should be 3 wires connected to 3 terminals on the switch, followed by a wire link connecting each terminal to the terminal opposite it.
  - As shown in the diagram below, cut all 3 of these wire links out from the switch so you now will have 3 free terminals.
  - Connect the other end of the blue wire that is connected to the ATB over-ride to the bottom contact as shown below. Use solder and heatshrink supplied.
  - Connect the green wire from the loom to the middle contact.. Use solder and heatshrink supplied.



- 3
- Locate the relay bank of 6 relays (These are all the same type of relay)
  - Locate the 2<sup>nd</sup> relay from the right. Connect the yellow wire from the loom to pin 3. Connect the red wire to pin 2. (As shown in the diagram below)
  - Locate the far left relay. Connect the white wire to pin 8 as shown in the diagram below.
  - Use solder and heatshirnk provided



**EXTRA NOTES**

**WIRE COLOUR CODE:**

**EXAMPLE:** Red/Yellow-Blue

- Red = Main wire colour
- Yellow = Vertical line colour
- Blue = Horizontal line colour

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