MICROTEC ENGINEERING

EXTERNAL WARNING LIGHT INSTALLATION INSTRUCTIONS

LIEBHERR (LICCON)

ESTIMATED TIME OF INSTALLATION: 4 HOURS

SUPPLIED PARTS:

- 1x Activation box
- 5mtrs 7 core cable
- 1x eye crimp
- 1x liebherr pin
- 1x Panel key (option)
- 4x Self drilling screws
- Solder
- Heatshrink
- 15x Ferrules
- 1x External Warning Light
- Cable Ties

LIEBHERR LIGHT INSTRUCTIONS

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.
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, turn the 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 the machine off and on again. When the chart screen appears 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. Turn the over-ride key while still in this screen and check that all functions are operational. Beware: Autostop functions will not operate during over-ride.

- Should any of these tests fail call Microtec for service

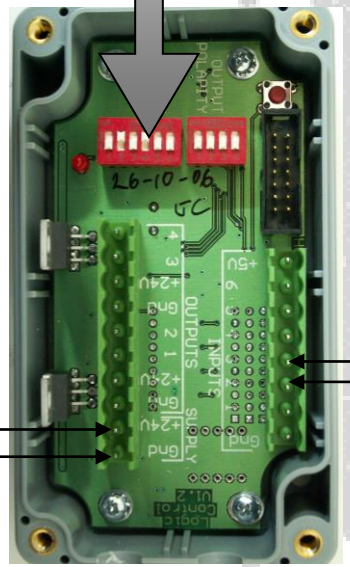
INSTALLATION OF INPUTS

PREINSTALLATION PREPARATION

1. Isolate batteries during installation with isolator switch.
2. Remove panels behind cabin to expose relays and fuses
3. Find a clear spot on the metal back plate and mount the activation box

CONNECTIONS TO LIEBHERR LICCON SYSTEM

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



SEE NOTE 1

SEE NOTE 2

Computer ZE0
Connector X70
Pin 16

Computer ZE0
Connector X70
Pin 20

Blade
connector X46
Pin 99.1

To Alarm Bell
cct.

Yellow
Green

7 CORE CABLE

Yellow
Green

White
Black

White
Black

- Unused wires 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.

24V

SEE NOTE 3

KEYSWITCH

NOTES

1

- Disconnect the X70 connector from the ZE0 computer by using a small flat screwdriver to disconnect the locking tab on the bottom of the connector.
- Undo the screw at the head of the connector as well as the 2 screws for the cable clamp part of the connector. Using a small flathead screwdriver, remove the rubber sealing gasket. The housing of the connector should now be easy to remove and expose the back of the connector pins.
- Locate pin 20. Cut the yellow wire to the correct length. Solder and crimp the liebherr pin to the end. Insert into pin 20.

2

- Locate X46, Terminal 99.1. X46 is connected to a blade connector that can be removed to disable the 100% buzzer, usually colored orange and fixed to the metal back plate.
- Run the red wire to this terminal and crimp the end of the wire with the supplied crimp connector. Connect to terminal 99.1.

3

- Take off the covers of the fuses. Using a multimeter, find a fuse that obtains +24V when the upper key switch is in the 'on' position. Run the white wire to the external fuse holder supplied and then to the left hand side of the fuse.
    - Option: if there is a unused or 'reserved' fuse within the liebherr fuse banks, you may use these instead of an external fuse holder.
- Find a suitable earth point (Terminal marked –M300 or anywhere on the metal back plate is ok). Connect the eye crimp to the black wire and terminate it to the earth point.