



MIB30/40 Training – Installation and service

Barrier

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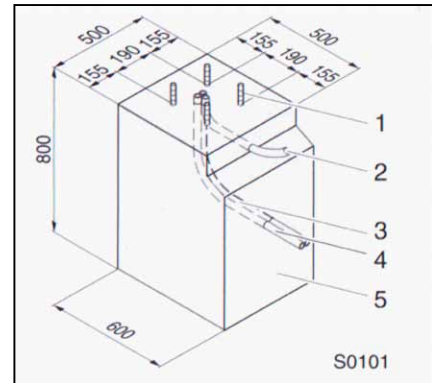
Maintenance

1. Installation

To ensure that the units are stable even when loaded, a foundation with the following dimensions must be provided:

Depth of foundation: at least 800 mm (frost-free)
 Base area of foundation: 500 x 600 mm

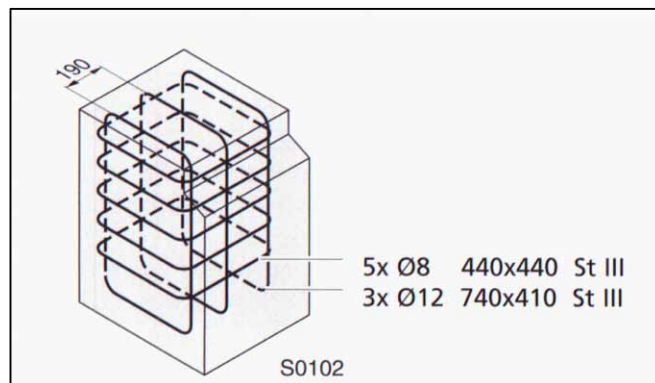
The base of the foundation is 100 mm larger towards the vehicle side than in the upper section of the foundation (see Fig. S0101).



1. shear connector (four in total)
2. empty conduit for induction loop connections, dia. 29 mm
3. empty conduit for power supply cable, dia. 29 mm
4. empty conduit for control cables, dia. 29 mm
5. concrete foundation (BH PC 250, strength = 25 N/mm²)

Empty conduit pipes each with a diameter of 29 mm must be installed to take the mains supply cable, the control cables and, possibly, the induction loop connections. (barrier: 2 or 3 empty conduit pipes; control pillar: 2 empty conduit pipes).

A reinforcing steel cage is absolutely essential for the stability of the foundation (see Fig.



S0102).

The foundation hole is filled with BH PC 250 grade concrete (strength: 25 N/m²). The plinth face must be carefully smoothed so that the barrier housing can be positioned in a level and horizontal manner.

Once the concrete has set to an adequate hardness, the holes for the shear connectors can be drilled into the face of the plinth in accordance with the dimensions shown in Fig. S0101.

Distance between drill holes: 190 mm (arranged in a square, see Fig. S0101)

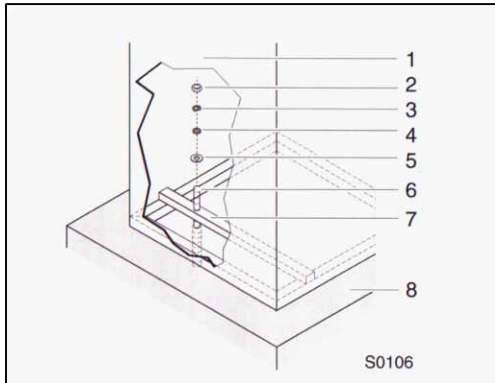
Hole diameter: 10 mm

Depth of hole: 80 mm

Please refer to the operating and instruction manual supplied with each barrier.

1. Installation - continued

The barrier housing is positioned vertically on the upper face of the foundation and secured using the fastenings in assembly set A that is supplied with the system. (See Fig. S0106). In order to be able to adjust the housing later, the nuts are only lightly tightened initially.

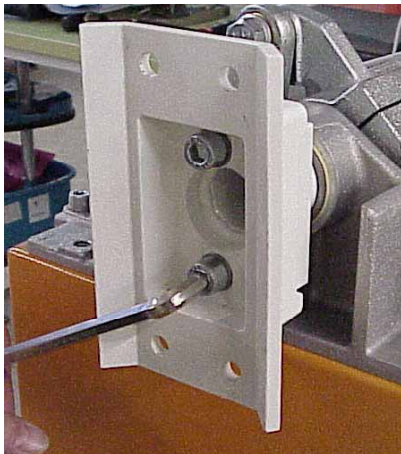


1. Barrier housing
2. Nut
3. Split washer
4. Plain washer
5. Plain washer
6. Masonry anchor
7. U-section
8. Concrete foundation

As shown in Fig. F0101, the flange is fastened to the drive shaft using two M10 x 25 hexagon socket screws.

The barrier boom is fastened to the flange as shown in Fig. F0102 using the fastenings in assembly set B that is supplied with the system.

The barrier boom can be fastened using plastic nuts if configured with a boom ejection contact and if the boom is designed to function as the breaking component. (Note: this only applies to MIB barriers up to a maximum boom length of 3 m). When fastening the barrier boom using plastic nuts, the split washer shown in Fig. F0102 is not necessary. Due to age deterioration (UV radiation), the plastic nuts must be replaced annually.



F0101



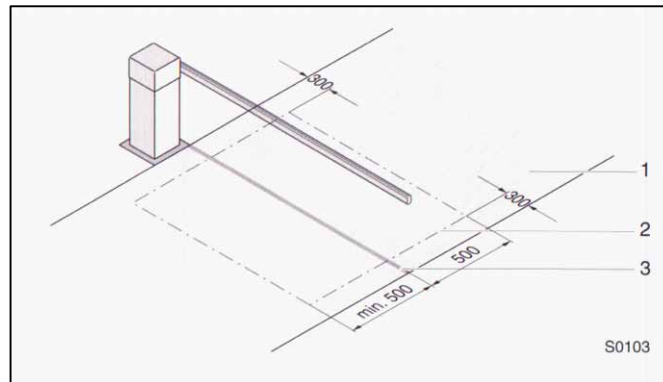
F0102

Please refer to the operating and instruction manual supplied with each barrier.

2. Loop configuration

The function of loop A is as a safety and closing loop i.e. the barrier remains open for as long as a vehicle is above the loop. The barrier closes automatically only after the vehicle has moved away from the loop. The safety loop function can be switched off at the MLC controller unit. See Operating Instructions Section 8.2 for the relevant controller settings.

Non-standard installations will require prior consultation with Magnetic. The standard installation is illustrated in Fig. S0103.



1. Lane
2. Induction loop
3. Projection of the barrier boom onto the surface of the lane assuming standard loop installation

The following points must be considered when installing the induction loop:

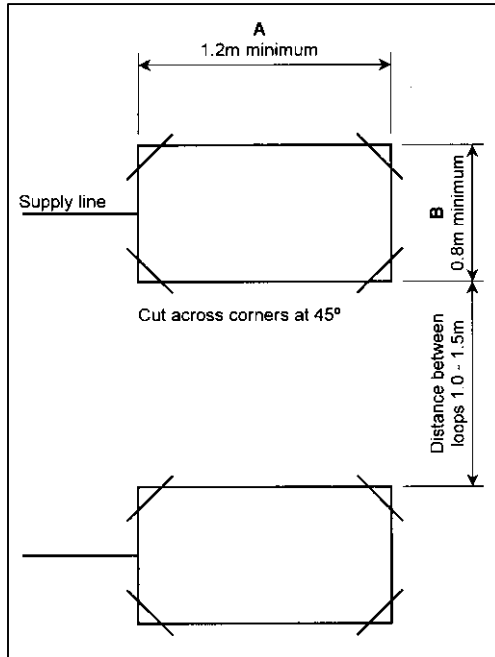
- The loop must be positioned so that it is symmetrical about the vertical plane through the barrier boom. It must be recalled that the barrier boom is attached to one side of the barrier housing!
- The distance from the barrier boom to the front and rear portions of the induction loop must be at least 500 mm. If in non-standard installations (e.g. in multi-storey car parks) significantly different distances arise, prior consultation with Magnetic should be sought.
- The distance between the induction loop and the tip of the barrier boom and the distance between the induction loop and the barrier housing should be approximately 300 mm.
- The loop must be installed so that it remains stationary when vehicles are passing the barrier.
- If the lane has iron-reinforcing bars then the induction loop should be positioned at least 50 mm away from the reinforcing bars. Metals close to the induction loop reduce its sensitivity.
- The supply line to the loop must not be longer than 15 m. The cable must not be coiled up within the barrier housing but should be cut to the appropriate length instead. The supply cable must be twisted about twenty times per metre.
- Once the loop has been installed, a check must be made that the resistance is $< 2 \Omega$ and that the insulation resistance is $> 1 M\Omega$ (for inductance value - see technical data). If the values quoted are not registered, the cable is maybe defective and should be replaced

Please refer to the operating and instruction manual supplied with each barrier.

2. Loop configuration - continued

If a presence loop is installed it is essential that vehicles activate both loops simultaneously as they pass through the barrier, recommended distance between loops = 1.0m to 1.5m.

The following diagrams show the recommended loop configurations.



Recommended number of windings

Circumference 4.0m (1.2m x 0.8m)	5 turns
4.0m to 10.0m	4 turns
over 10.0m	3 turns

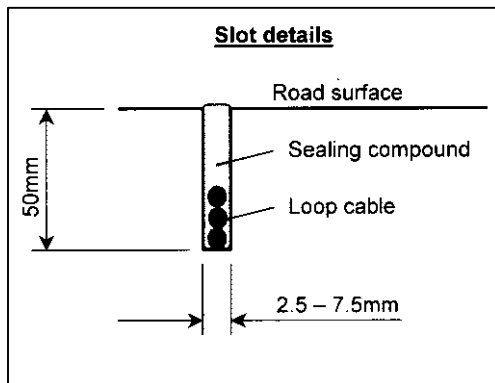
Maximum loop circumference = 24.0m

Ratio A / B = 4(max)

Inductance 70 μ H to 500 μ H

Supply lines to be twisted 20 times per metre
maximum length 20m

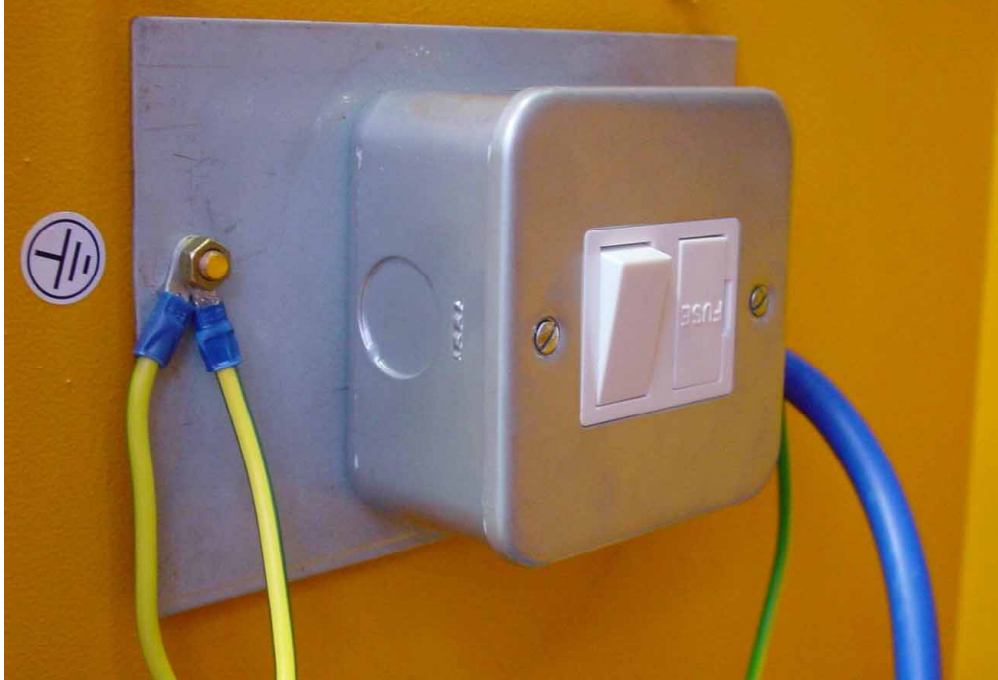
Distance between loop and reinforcing bars, ramp
heater etc > 50mm



Please refer to the operating and instruction manual supplied with each barrier.

3. Mains connections

The barrier is fitted with a fused spur; the mains supply must be connected via the fused spur and never direct to the control unit.

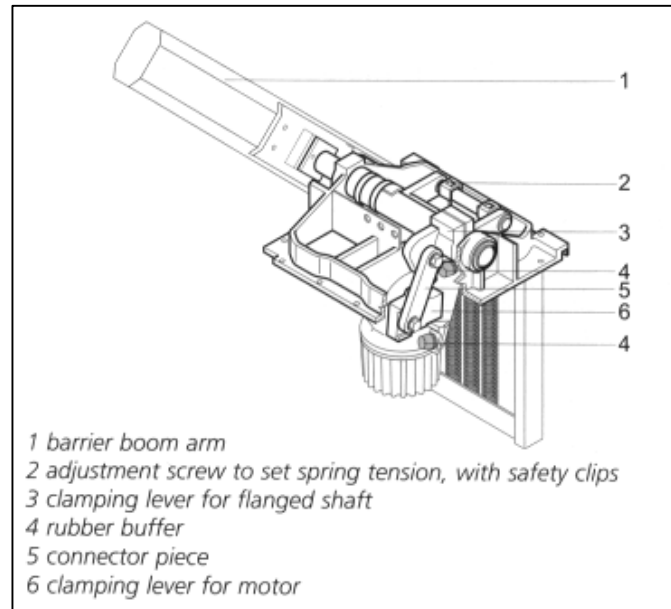


Ensure the supply voltage corresponds that shown on the barrier data plate.

Please refer to the operating and instruction manual supplied with each barrier.

4. Balancing the boom

The barrier is set at the factory for the maximum boom supplied. This setting should however be checked after the barrier arm has been installed and before the barrier is operated for the first time.



The barrier is functioning correctly when the weight of the barrier boom is balanced by the tensile force exerted by the springs. Any changes to the barrier boom must therefore always be followed by a readjustment of the springs.

Testing the spring settings:

1. Open the barrier door, swing out the mounting plate, unlock the cover and remove.
2. Disconnect the power supply.
3. Move the barrier boom manually to the 45° position and then let go. If the boom remains stationary in this position, the springs are correctly adjusted.

Readjusting the spring settings:

1. Remove the two safety clips from both spring adjustment screws. Tighten or loosen the screws on the left and the right uniformly until the barrier arm remains stationary in the 45° position.
2. Replace the screw retainers (safety clips).

Exception:

When the barrier is set to open automatically in the event of a power cut failure, the spring tension is greater than that described above. (Only possible for barrier boom up to 3.5 m in length).

Please note that if the barrier has been specially set at the factory to open in this way, the barrier is not locked when in its lower end position!

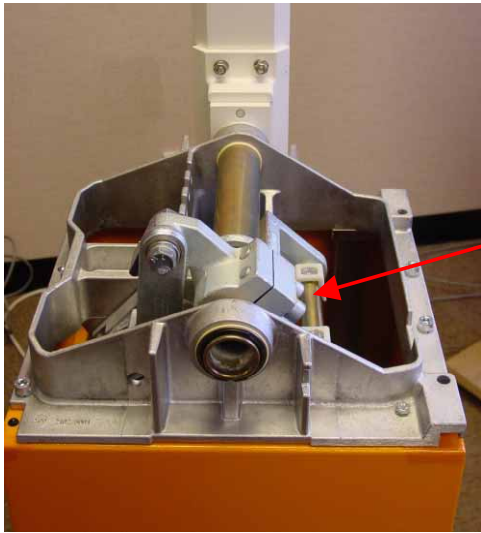
Please refer to the operating and instruction manual supplied with each barrier.

5. Aligning the boom



The barrier boom is factory set to horizontal this should be checked after installation and adjusted if necessary.

To readjust the position of the barrier boom (for example, after excessive force has been applied), proceed as follows:



1. Open the barrier door, swing out the mounting plate, unlock the cover and remove.
2. Raise the barrier boom by pressing the black button
3. Turn the rotary selector switch (2, Fig. S0227) on the front panel of the MLC controller unit to position '1'.
4. Loosen the two clamping screws on the clamping lever of the flanged shaft just enough so that the barrier boom is held safely in position whilst still allowing it to be repositioned by hand.
5. Readjust the position of the barrier boom (vertical position).
6. Retighten the clamping screws using a torque wrench (72 Nm).
7. Turn the selector switch (2, Fig. S0227) on the MLC controller unit back to position '0'.

Please refer to the operating and instruction manual supplied with each barrier.

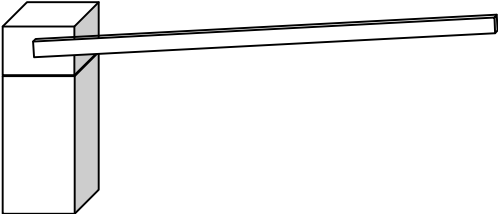
6. Fitting an end support post



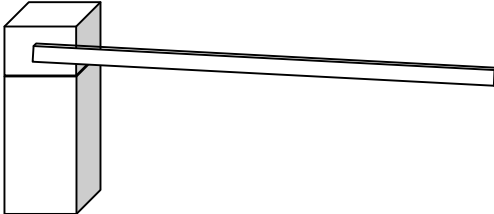
Barriers with booms over 3.5m in length require an end support post or pendulum support to reduce strain on the drive linkage and end stops.

Care should be taken that the support post does not prevent the drive mechanism from reaching its end position. For this reason it is recommended that the boom is fitted, balanced and adjusted before the support post is fitted.

Once the boom has been fitted and adjusted to the horizontal the end support post or pendulum support can be fitted and adjusted to just support the boom as it reaches the horizontal position.



Boom raised from horizontal
Support will be ineffective



Boom lower than horizontal
Support will restrict the drive mechanism

It is particularly important with shorter booms that the end support does not restrict the drive mechanism, in extreme cases this could mean that the boom position sensor cannot detect the horizontal position and the boom will crash down next operation or an error message will be shown on the MLC control and barrier will cease to operate.

Please refer to the operating and instruction manual supplied with each barrier.

7. Setting the boom to raise on power failure

The factory setting is that the boom remains down on power failure but can be raised by hand.

1. When the boom is horizontal, clamp lever (6) rests against the lower rubber buffer (4) the linkage is arranged so that the connecting link (5) has gone over it's centre position and helps lock the boom in the closed position. On power failure the rubber buffer pushes the clamp lever slightly forward releasing the clamp lever from it's over centre position. The boom can then be raised by hand.
2. To allow the boom to raise automatically on power failure (MIB30 only) the lower buffer has to be packed out with washers so that clamp lever and connecting link are directly in line. On power failure the rubber buffer pushes the clamp lever slightly forward and the springs can then be tensioned further to cause the boom to raise gently on power failure.
3. If the boom is to remain "locked down" on power failure then the washers under the lower buffer should be removed so that when power is removed the connecting link remains in the over centre position.



Please refer to the operating and instruction manual supplied with each barrier.

8. Ensuring the boom remains horizontal on power failure



If the barrier has been altered to raise on power failure it will be necessary to remove any extra packing washers from under the lower rubber buffer to ensure the connecting link goes over centre thus mechanically locking the barrier in the horizontal position

The springs may also need to be adjusted so that the boom is balanced at 45°.



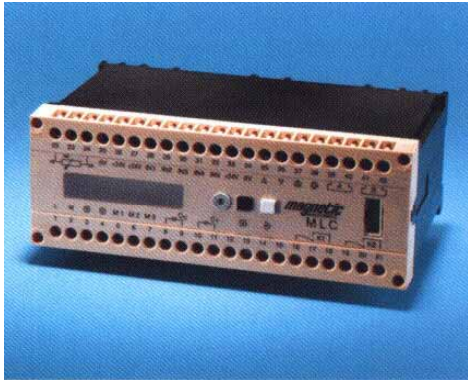
The rubber buffer is compressed by the drive motor under holding torque.



The drive lever is pushed forward by the rubber buffer if power is removed

Please refer to the operating and instruction manual supplied with each barrier.

9. MLC Control



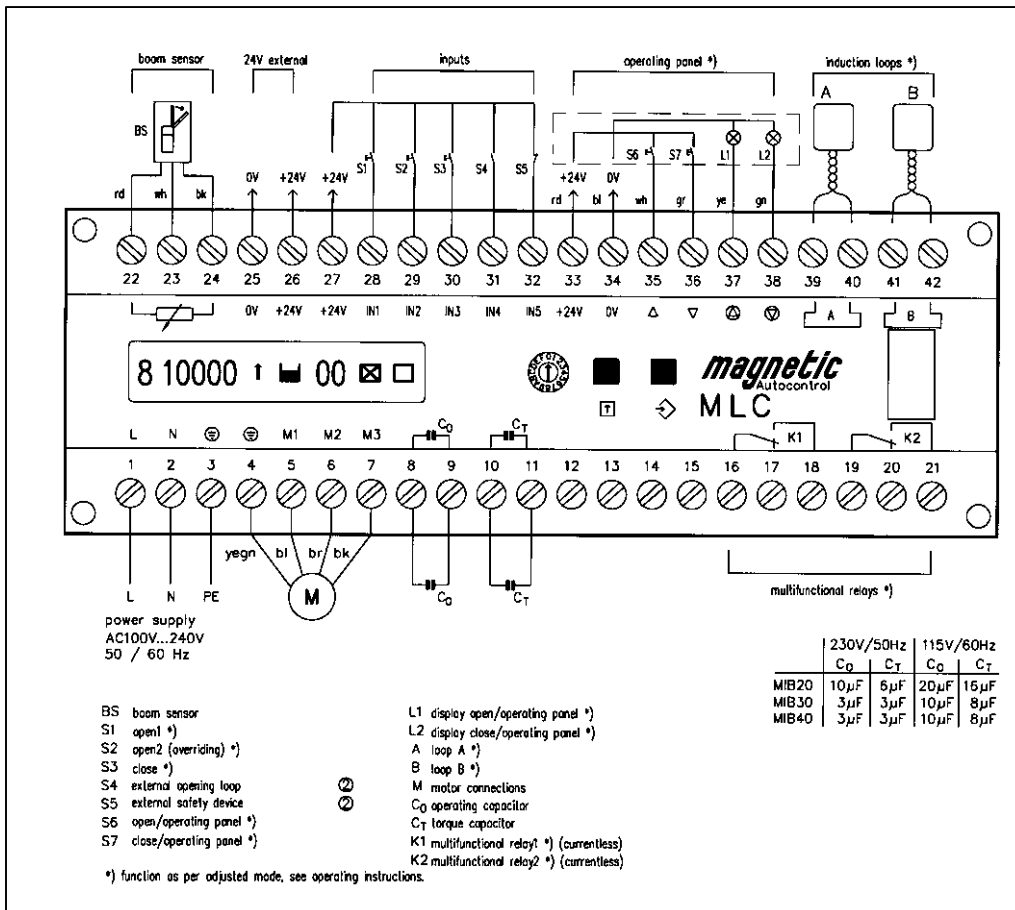
The MLC controller unit (Magnetic Line Controller) has been specially designed for use with MIB 20/30/40 barriers.

Most barrier system configurations can be realized using the standard version of the controller.

The position of the barrier boom is continuously detected by a sensor. This replaces the limit switch that is used in conventional barrier control systems. The combination of the sensor and the MLC unit guarantees the best possible control of the barrier boom movement.

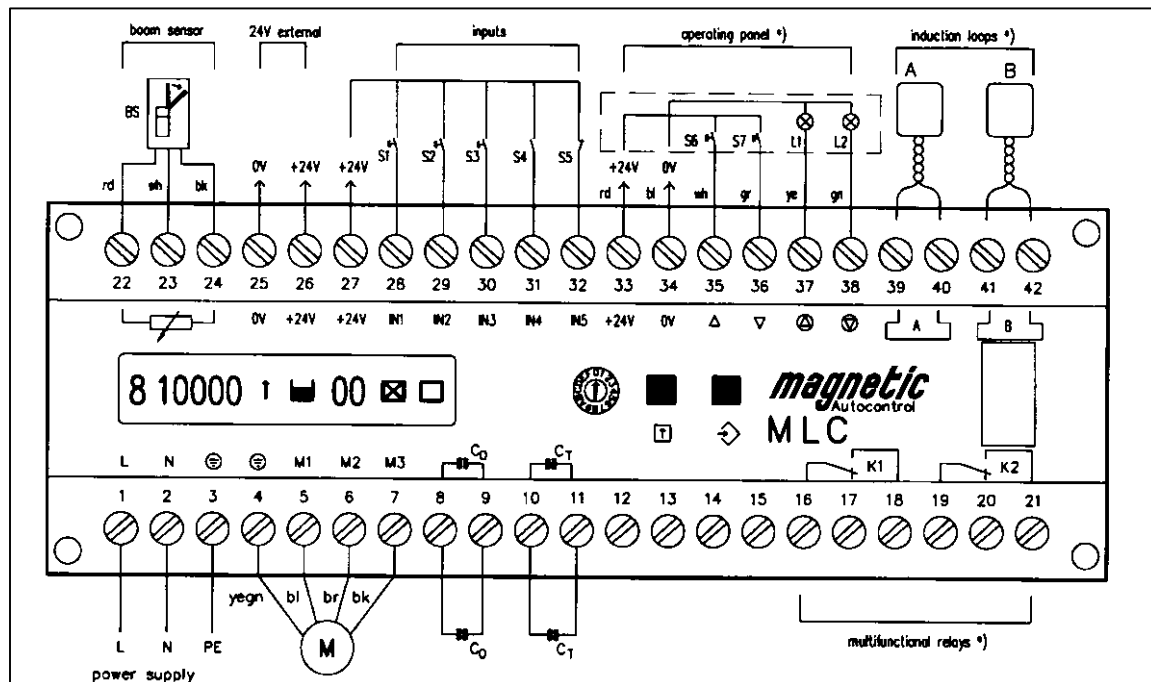
The controller can be expanded by use of an I/O box which offers a number of additional functions. Software modifications are normally included at the factory but they can also be loaded very easily into the controller unit at some later date by connecting a software memory card via the interface connector.

The barrier is correctly wired at the factory and is supplied ready for immediate connection. Electrical connections that need to be made during installation are illustrated in Fig. S0226.



Please refer to the operating and instruction manual supplied with each barrier.

10. Basic Connections



For initial testing connect:

- Safety loop (if installed) between terminals 39 & 40 – loop A
- Presence loop (if installed) between terminals 41 & 42 – loop B
- Opening signal (push button) between terminals 27 & 28 – input 1
- Closing signal (push button) between terminals 27 & 30 – input 3
- Wire bridge (if not fitted) between terminals 32 & 33 – input 5

Raise the barrier boom by hand to the horizontal position.

Set the rotary switch to position "0".

Check that the barrier data plate shows the correct voltage for your supply.

Connect the power and watch the LCD display

The LCD display will display the following results:

- | | |
|---|--------------------|
| • Magnetic company name | *** MAGNETIC *** |
| • Hardware and software reference numbers | Hard A, Boot 0002 |
| • MLC type and parameter ID | MLC10 - 100 S20000 |
| • Software number | 4096.0002 00 |
| • Barrier type and voltage frequency | MIB30 50Hz |

After a short period the LCD display flashes "Reset Requested" alternately with the display.

Briefly press the black and white keys simultaneously to reset the control – **Be aware that the boom may close at this point.**

Please refer to the operating and instruction manual supplied with each barrier.

11. Setting the barrier type

With the boom in the raised position to change the MLC barrier type turn the rotary switch to "position 1", hold down the black key, return the rotary switch to "position 0" and release the black key.

The display should now show

Sensor 0565
* MIB20 50 Hz

Press both the black and white keys simultaneously to show the barrier types

* MIB30 50 Hz
Close Barrier ?

Press the black key to scroll to the correct setting

When the correct barrier type is shown press the white key to confirm the setting

Press both the black and white keys simultaneously to drive the motor to the lower position and register the setting

At this point the control will go through an automatic setting routine for the barrier type selected.

Please wait 115

After a few seconds the display will show

Open Barrier ?

Press both the black and white keys simultaneously to drive the motor to the upper position and register the setting
(If the upper or lower readings are not correct within the program limits the program will abort and display)

Please wait 565

Adjust Sensor !

After a few seconds the display should read

sensor adjusted

The control will now run through a self-optimising program to set the upper and lower breaking

Press both the black and white keys simultaneously to continue

Close Barrier ?

Press both the black and white keys simultaneously again and the barrier will open and close repeatedly until the breaking is optimised.

During this cycle the display will show number on the right which change as the braking points are reached

Please wait 000

When the optimisation process is complete the display will show

Breaking OK

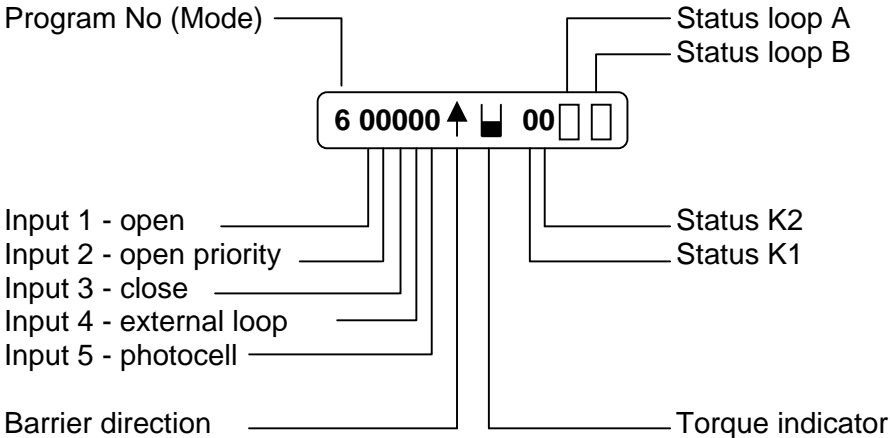
(If after about 50 operations the optimisation has not been completed the process must be stopped)

Once the optimisation is complete (or to stop it) turn the rotary switch to "position 1" and back to "position 0" again.

Please refer to the operating and instruction manual supplied with each barrier.

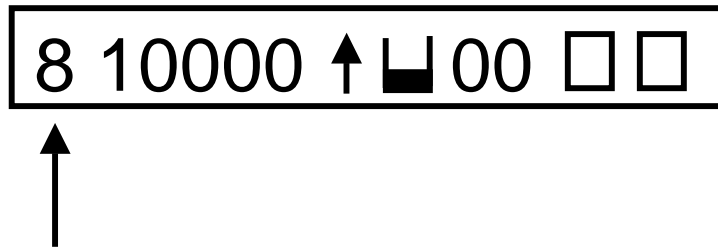
12. The LCD Display

The LCD display shows exactly how the control is set and what inputs or outputs are connected. This can be very valuable when trouble shooting



Please refer to the operating and instruction manual supplied with each barrier.

13. Program number



The first digit on the LCD denotes the program number (in this case 8)

To change the program number turn the rotary switch to “position 1”

Press both the black and white keys simultaneously

Use the black key to scroll through the options

Press the white key to confirm your selection

Press the black key to save the selection

Program no.	8
Program no.	<u>8</u>
Program no.	<u>6</u>
Save Y=↑ N=→ ?	
Program no.	6

The following table shows the program numbers with a brief description

Program No	Description
1	Simple switch operation between terminals 27 and 30 Contacts open = barrier open, Contacts closed = barrier closed
2	Dead man function, two push button contacts Terminals 27 & 28 = open pulse. Terminals 27 & 30 = close pulse, close pulse must be maintained until barrier is closed.
3	Pulse control with one push button connected between terminals 27 & 28. First pulse opens the barrier, next pulse closes.
4	Pulse control, two push button contacts. Terminals 27 & 28 = open pulse, Terminals 27 & 30 = close pulse
5	Dynamic function Terminals 27 & 28 = open pulse Terminals 27 & 30 = close pulse An open signal opens the barrier, it will automatically close after a pre set time (hold open time) or when a vehicle passes over both loops.
6	Similar to mode 5 but with direction sensing, the barrier closes immediately the safety loop has been cleared.
7	Static function, similar to mode 5 but without automatic closing after a pre set time (hold open time). The barrier remains open until both loops have been crossed or a close signal is given.
8	Similar to mode 7 but with direction sensing, the barrier closes immediately the safety loop has been cleared.

Please refer to the operating and instruction manual supplied with each barrier.

14. Torque Time

This is the time that the motor will remain under full power if no boom position sensor was present, or if the boom is obstructed. This is normally set to 5 seconds.

To adjust the torque time turn the rotary switch to “position 2”

Press both the black and white keys simultaneously

Use the black key to scroll through the options for tens of seconds and seconds.

Press the white key to confirm each selection

Press the black key to save the selection

Torque time	05
Torque time	<u>0</u> 5
Torque time	1 <u>0</u>
Save Y=↑ N=→ ?	
Torque time	10

15. Hold open time

This is the time that the barrier will remain open in program numbers 5 & 6 if the safety loop is not activated. This is normally set to 35 seconds.

To adjust the hold open time turn the rotary switch to “position 3”

Press both the black and white keys simultaneously

Use the black key to scroll through the options for each digit

Press the white key to confirm each selection

Press the black key to save the selection

hold-open t	035
hold-open t	<u>0</u> 35
hold-open t	02 <u>0</u>
Save Y=↑ N=→ ?	
hold-open t	020

Please refer to the operating and instruction manual supplied with each barrier.

16. Loop sensitivity

Loop sensitivity this is adjustable between 0 and 9 and is usually set to 5

To adjust the sensitivity of loop A turn the rotary switch to “position 4”

Press both the black and white keys simultaneously

Use the black key to scroll through the options

Press the white key to confirm the selection

Press the black key to save the selection

To adjust the sensitivity of loop B turn the rotary switch to “position 5” and follow the above procedure.

sensitivity A	5
sensitivity A	<u>5</u>
sensitivity A	<u>8</u>
Save Y=↑ N=→ ?	
sensitivity A	<u>8</u>
sensitivity B	5

17. Loop mode A

To adjust the mode of loop A turn the rotary switch to “position 6”

Press both the black and white keys simultaneously

Use the black key to scroll through the options

Press the white key to confirm the selection

Press the black key to save the selection

mode loop A	1
mode loop A	<u>1</u>
mode loop A	<u>4</u>
Save Y=↑ N=→ ?	
mode loop A	4

The following table shows the possible loop modes with the function of relay K1

Mode	Loop function	Relay function K1
0	None	Pulse when barrier opens
1	Safety / closing	Pulse when barrier opens
2	Safety / closing	Activated if loop A is occupied
3	Safety / closing	Pulse on entering loop A
4	Safety / closing	Pulse on leaving loop A
5	Safety / closing	Pulse on entering A (dir B-A)
6	Safety / closing	Pulse on leaving B (dir B-A)
7	Safety / closing	Active if A occupied (dir B-A)
8	Safety / closing	Active on leaving B (dir B-A)
9	None	Activated if loop A is occupied

Please refer to the operating and instruction manual supplied with each barrier.

18. Loop mode B

To adjust the mode of loop B turn the rotary switch to "position 7"

Press both the black and white keys simultaneously

Use the black key to scroll through the options

Press the white key to confirm the selection

Press the white key to confirm the selection or the black key to select the next option

Press the white key to confirm the selection

Press the white key to confirm the selection or the black key to select the next option

Press the white key to confirm the selection

Press the black key to save the selection

mode loop B	1
mode loop B	<u>1</u>
mode loop B	<u>4</u>
B opening loop	
B presence loop	
B entrance loop	
B exit loop	
Save Y=↑ N=→ ?	
mode loop B	4

The following table shows the possible loop modes with the function of relay K2

Mode	Loop function	Relay function K2
0	None	Activated when barrier closed
1	Opening (if selected)	Activated when barrier closed
2	Opening (if selected)	Activated if loop B is occupied
3	Opening (if selected)	Pulse on entering loop B
4	Opening (if selected)	Pulse on leaving loop B
5	Opening (if selected)	Pulse on leaving A (dir A-B)
6	Opening (if selected)	Pulse on entering B (dir A-B)
7	Opening (if selected)	Active on leaving A (dir A-B)
8	Opening (if selected)	Active if B occupied (dir A-B)

Please refer to the operating and instruction manual supplied with each barrier.

19. Loop frequency

To check the loop frequency turn the rotary switch to "position 8". This shows that loop A is selected, the "0" indicated the loop is not active and the frequency is 20,253 Hz

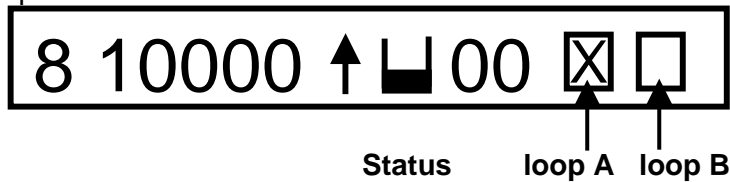
FREQ A 0 20253

Use the white key to scroll through to loop B

FREQ B 0 22168

Although there will be no interference between loops A and B other loops in the vicinity could cause interference and it is recommended that a difference of at least 10KHz is maintained between loops on different control units. If the loop frequency needs to be altered there are two DIP switches located under the upper terminal strip.

The status of the loops can be seen on the LCD display, return the rotary switch to "position 0"



Both loops are shown as connected with A occupied. Other symbols are:

! = loop not connected, ? = loop fault

Please refer to the operating and instruction manual supplied with each barrier.

20. Hardware errors

Turn the rotary switch to “position D” any errors will be shown here

If the following error is displayed the control must be re-set to the correct barrier type and the unit allowed to perform the automatic setting routine ([section 11](#))

no errors

Hardware error 80

21. Language

To change the language settings, turn the rotary switch to “position E”.

Press both the black and white keys simultaneously

Use the black key to scroll through the options

Press the white key to confirm each selection

Press the black key to save the selection

english

english	_
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deutsch	_
---------	---

Save Y= \uparrow N= \rightarrow ?

deutsch

22. Default settings

To change back to the default settings, turn the rotary switch to “position F”.

Press both the black and white keys simultaneously

Use the black key to revert to the default settings or the white key to cancel

default set

default \uparrow cancel \rightarrow

please wait	_
-------------	---

default set

Please refer to the operating and instruction manual supplied with each barrier.

23. Extra data

- sensor

Turn the rotary switch away from “position 0” hold down the black key and turn the rotary switch back to “position 0”.

The upper boom sensor position is displayed

sensor	0562
--------	------

This value should be between 555 and 565 in the upper position and approx 115 in the lower position if these values vary too much it may be necessary to adjust the boom sensor

- angle of safety

Hold down the black key and turn the rotary switch to “position 1”

angle safety	30
--------------	----

Press both the black and white keys simultaneously

angle safety	<u>3</u> 0
--------------	------------

Use the black key to scroll through the options in 5 degree increments

angle safety	<u>1</u> 5
--------------	------------

Press the white key to confirm the selection

Save Y=↑ N=→ ?	
----------------	--

Press the black key to save the selection

angle safety	15
--------------	----

This is the angle to horizontal that the safety loop is cut off at, or in the case of “dead-man operation” (program number 4) the down button can be released.

- hour counter

Hold down the black key and turn the rotary switch to “position 2”

hours	00561.6
-------	---------

This is the total number of hours the barrier has been connected to the mains supply with this control unit.

- cycle counter

Hold down the black key and turn the rotary switch to “position 3”

cycles	03043
--------	-------

This is the total number of cycles the barrier has completed with this control unit.

Please refer to the operating and instruction manual supplied with each barrier.

23. Extra data continued

- brake settings

Hold down the black key and turn the rotary switch to “position 4”

↑ 160 ↓ 200

This is the values of the upper and lower breaking positions which should be within the limits shown in the instruction manual. These values will change as the barrier operates in different conditions

- reset options

Hold down the black key and turn the rotary switch to “position C”

Signal reset

Press both the black and white keys simultaneously

Signal reset	_
--------------	---

Use the black key to scroll through the options

Auto reset	_
------------	---

Press the white key to confirm the selection

Save Y=↑ N=→ ?

Press the black key to save the selection

Auto reset

Signal reset is the normal setting. This means that after power failure, if the barrier is not fully closed it will open and only revert to its normal function when given a signal. Auto reset means the barrier will close automatically when power is returned. In this case the barrier will close even if a vehicle is on the safety loop since the loop detector will have returned with the vehicle present.

- test mode

Hold down the black key and turn the rotary switch to “position D”

Test mode	4
-----------	---

Press both the black and white keys simultaneously

Test mode	9
-----------	---

Turn the rotary switch back to “position 0” and the barrier will cycle continuously – this function is only used for initial testing in the factory.

- motor

Hold down the black key and turn the rotary switch to “position E”

motor	0562
-------	------

Press both the black and white keys simultaneously

motor	0562 ↓	⏏
-------	--------	---

This shows the motor with position sensor at 562 ready to drive down under reduced torque. Scroll though the options with the black key using the white key to drive the motor in the required direction either under full torque or reduced torque.

Please refer to the operating and instruction manual supplied with each barrier.

24. Boom position sensor adjustment

If the boom position sensor does not return the correct values with the pre-set limits the control will display the “adjust sensor” and register the error “hardware error 80”

adjust sensor	!
---------------	---

To adjust the sensor first raise the barrier boom to the vertical position.

Turn the rotary switch to “position 1”, hold down the black key, return the rotary switch to “position 0” and release the black key.

Sensor	0785
--------	------



With the boom in the raised position release the allen screw and pull out the sensor

With the boom still in the raised position adjust the sensor value to approximately 560.

Put in the sensor and fix it with the allen screw.

The display should now show

Sensor	0560
--------	------

Press both the black and white keys simultaneously to show the barrier types

* MIB20	50 Hz
---------	-------

Press the black key to scroll to the correct setting

* MIB30	50 Hz
---------	-------

When the correct barrier type is shown press the white key to confirm the setting

Close Barrier	?
---------------	---

Press both the black and white keys simultaneously to drive the motor to the lower position and register the setting

At this point the control will go through an automatic setting routine for the barrier type selected.

Please wait	115
-------------	-----

After a few seconds the display will show

Open Barrier	?
--------------	---

Press both the black and white keys simultaneously to drive the motor to the upper position and register the setting

Please wait	560
-------------	-----

After a few seconds the display will show

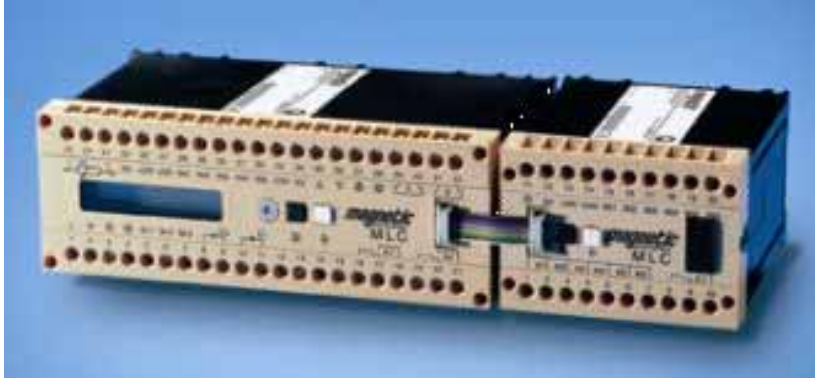
6 00001	↑	▣	00	▣	▣
---------	---	---	----	---	---

Turn the rotary switch to “position 1”, and back to “position 0”

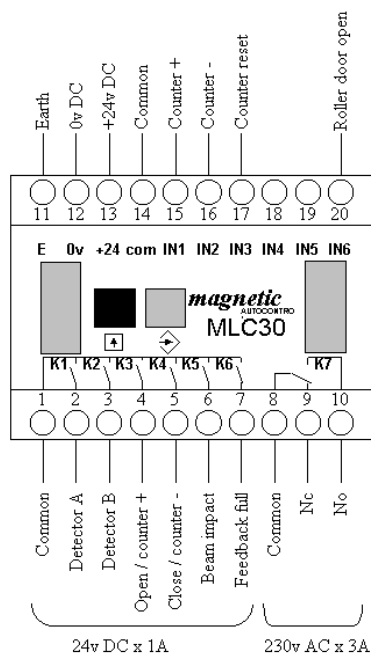
sensor adjusted

Please refer to the operating and instruction manual supplied with each barrier.

25. MLC 30 I/O Box



MLC30 Connections



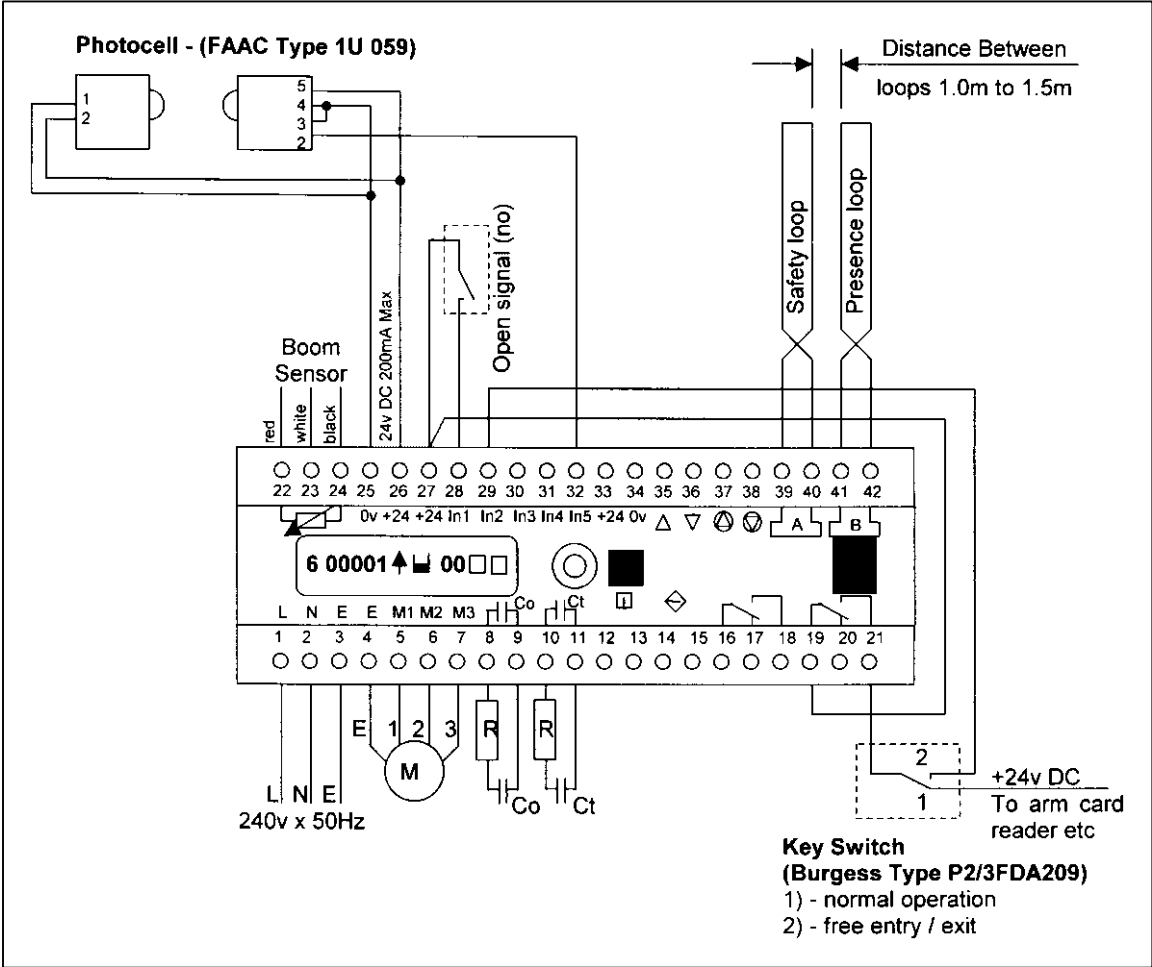
The MLC30 (I/O box) is an extension unit to the MLC10 and can be used for the following additional functions:

- Capacity counting with switching of full sign
- Additional inputs / outputs for use with car parking systems
- Two way traffic light control
- Customised applications

Please refer to the operating and instruction manual supplied with each barrier.

26. Key Switch & Photocell Connections

The following diagram shows the connection details for the Aer Rianta barriers supplied to Eccles Court Company September 1999



Please refer to the operating and instruction manual supplied with each barrier.

Maintenance

All barrier motors and controls are maintenance free and should be returned to EMS if a fault is suspected. The manufactures warranty covers the replacement of faulty parts for a period of 2 years but does not cover parts subjected to fair wear and tear, abuse or neglect.

It is recommended that barriers are checked every 6 months for the following:

- Boom fixings for security and wear
- Boom balance
- Boom alignment
- End post adjustment
- Drive linkage and springs for obstructions or signs of wear
- Rubber buffers for signs of wear

Any faulty or worn items should be replaced

Please refer to the operating and instruction manual supplied with each barrier.