



DTS Swing Motor

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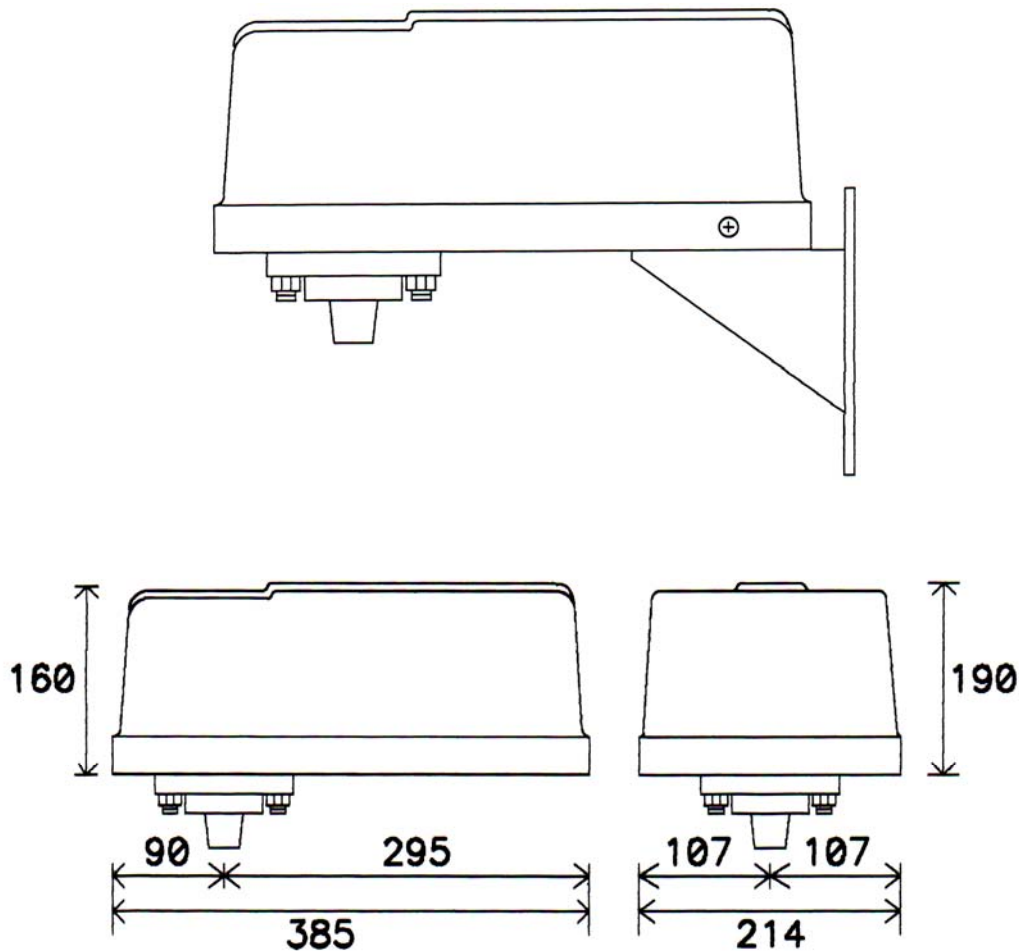
www.dtssecurity.co.za

SWING GATE MOTOR

The DTS Swing chain and sprocket motor for leafs up to 2.5m.

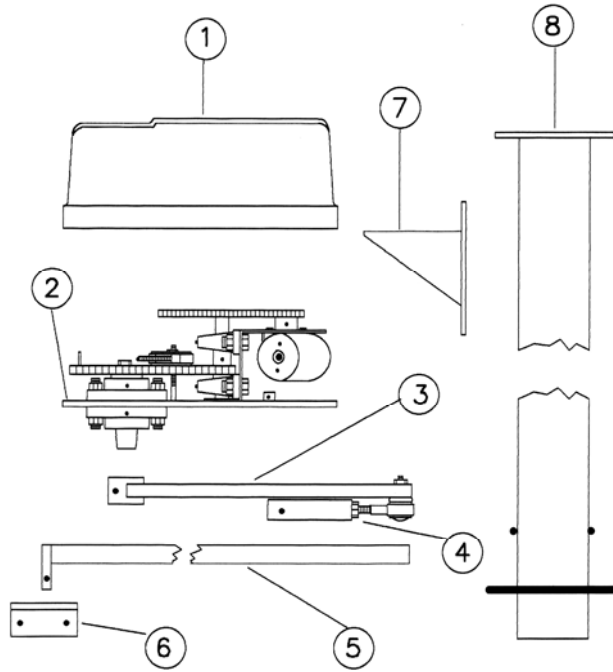
1. Single and double swing battery operated - for domestic use.

These motors are used where there are no 220V AC mains at the gate. The motor runs from the battery. A 16V AC, 1 Amp charge transformer is plugged into the nearest mains point and fed to the motor control charger. Opening per hour is determined by battery Amp or the transformer VA size.



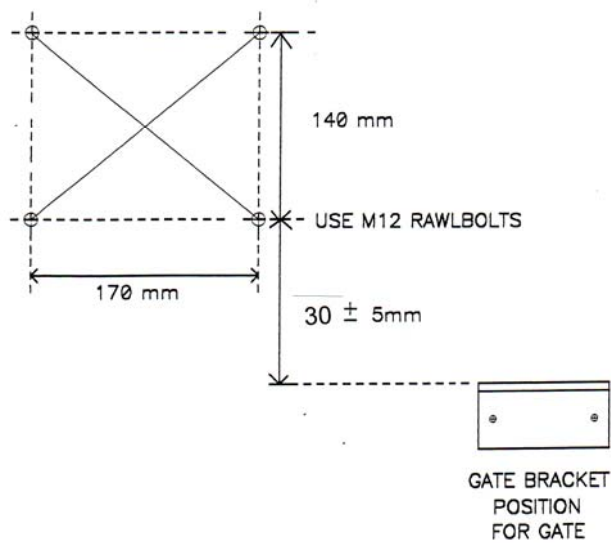
TECHNICAL SPECIFICATIONS

Power supply voltage	12V DC 7 A/Hr battery
Electrical voltage per motor	12V DC
Electrical power per motor	90W
Electrical current per motor	1.1 to 10A Max
Drive arm speed for 180° turn	15 sec
Pulling force at end of drive arm	45kg Max

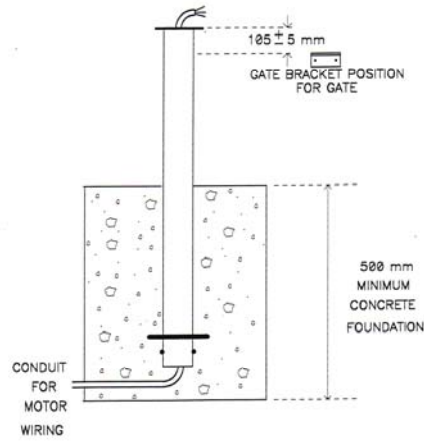


1. COVER
2. MOTOR AND BASE
3. DRIVE ARM
4. CONNECTING ARM
5. CONNECTING ARM EXTENSION
6. GATE BRACKET
7. WALL MOUNT BRACKET
8. PEDESTAL MOUNT PILLAR (OPTIONAL)

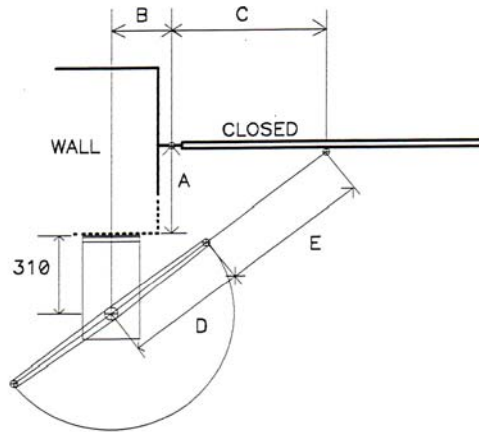
WALL MOUNT POSITION



PEDESTAL POSITION



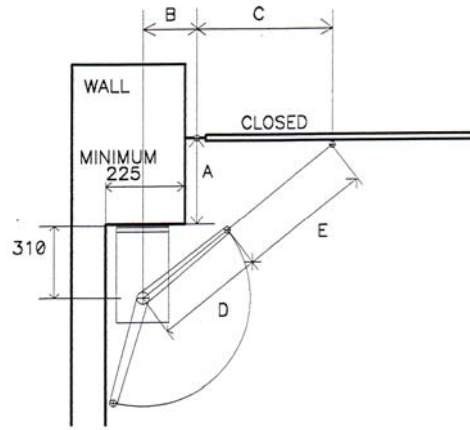
DTS JUNIOR SWING GATE OPERATOR WALL MOUNTED FOR INWARD SWINGING GATE



MOUNTING COMBINATIONS					
A	B	C	D	E	GATE OPENING
50	130	700	400	505	90°
100	155	670	400	520	90°
150	180	640	400	540	90°
200	205	610	400	560	90°
250	230	580	400	585	90°
300	255	550	400	610	90°
350	280	520	400	640	90°
400	305	490	400	665	90°

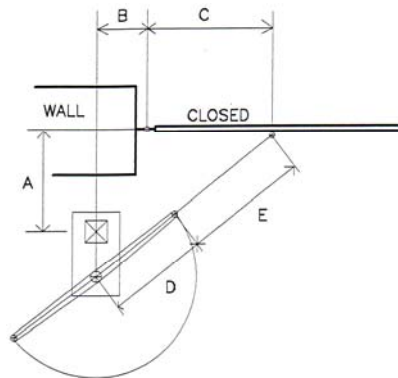
Decrease in dimension "C" will increase gate opening angle.
(PLEASE NOTE THAT "E" WILL THEN ALSO DECREASE IN DIMENSION).

WALL MOUNTED FOR INWARD SWING GATES



MOUNTING COMBINATIONS					
A	B	C	D	E	GATE OPENING
75	115	500	400	325	90°
100	140	500	400	360	90°
125	165	500	400	395	90°
150	190	500	400	430	90°
175	215	500	400	465	90°
200	240	500	400	500	90°
225	265	500	400	535	90°
250	290	500	400	570	90°

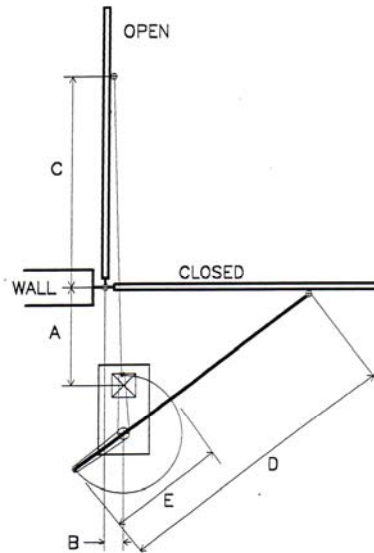
PEDESTAL MOUNTED FOR INWARD SWINGING GATES



MOUNTING COMBINATIONS					
A	B	C	D	E	GATE OPENING
350	100	580	400	500	90°
380	150	580	400	555	90°
410	130	580	400	610	90°
440	250	580	400	630	90°
470	300	580	400	670	90°
500	350	580	400	785	90°
530	400	580	400	840	90°
560	450	580	400	900	90°

**DECREASE DIMENSION "C" WILL INCREASE GATE OPENING ANGLE
INCREASING DIMENSION "C" WILL DECREASE GATE OPENING ANGLE**

PEDESTAL MOUNTED FOR OUTWARD SWINGING GATES



MOUNTING COMBINATIONS					
A	B	C	D	E	GATE OPENING
615	145	875	1250	250	90°
575	120	850	1190	250	90°
535	95	825	1125	250	90°
495	70	800	1065	250	90°
455	45	775	1000	250	90°
415	20	750	940	250	90°
375	-5	725	885	250	90°
335	-30	700	825	250	90°

Orion Systems Swing motor PCB

Please read this manual carefully prior to installation.

This control card is for automatic swing gate motors that runs from a 12 Volt DC battery that is trickle charged from the 220 Volt AC mains supply.

Motor one, pulling force of 7kg.

Motor two, pulling force of 10kg.

(A fish scale can be used to test the above pulling force.)

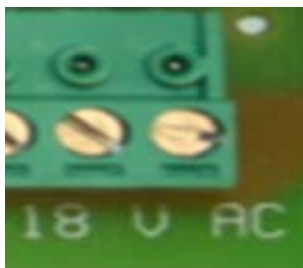
Note: Disconnect the battery and mains power from the unit if any welding is to be done on the installation.

1) **Power connections.**

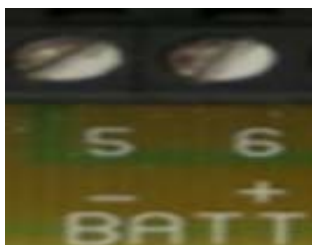
DO NOT CONNECT 220 VOLT DIRECTLY TO THE PCB.

Connect 220 V AC to the transformer.

Connect transformer wires to the 18 V AC terminals.



Connect battery Positive to terminal 6 and Negative to terminal 5.



2) Auto close.

Auto close can be selected by bridging the various three double pins

Eg: 1 second, leave all 3 sets of pins un-bridged.

10 seconds, bridge the 10 seconds pins only.

20 seconds, bridge the 20 seconds pins only.

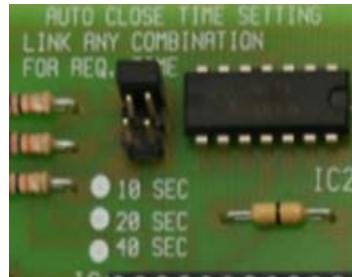
30 seconds, bridge the 10 & 20 seconds pins.

40 seconds, bridge the 40 seconds pins only.

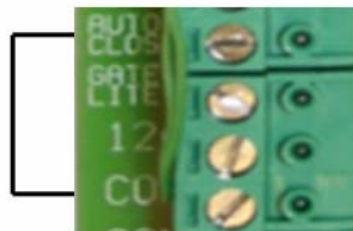
50 seconds, bridge the 10 & 40 seconds pins.

60 seconds, bridge the 20 & 40 seconds pins.

70 seconds, bridge the 10, 20 & 40 seconds pins.



To disable auto close, put a bridge between the auto close and common connector blocks.



An on/off switch or a receiver can also be connected to the auto close and common connector blocks to enable you to active and de-active your auto close randomly like a party mode.



3) Condominium mode.

To enable or disable condominium mode, the three pins, CLOSE DIS must be bridged either as ON or OFF.

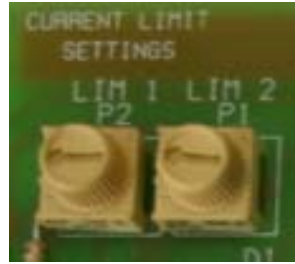
If bridged as ON, then the control card will only except signals while the gate is in the closed position or closing cycle. It will ignore all signals in the open position or opening cycle.

If bridged as OFF, the control card will accept all signals no matter what status or cycle the gate is in.



4) Motor sensitivity settings.

There are 2 load pots marked as current limit settings LIM 1 P2 for motor 1 and LIM 2 P1 for motor 2. The load can be adjusted by turning the load pot ANTI CLOCK wise to reduce the load and CLOCK WISE to increase the load.

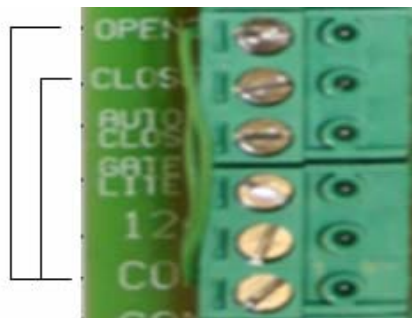


5) Motor connections.



The Master motor (motor 1) is connected to terminals 3 & 4 (SLIDER SWING), and the slave motor (motor 2) is connected to terminals 7 & 8 (SWING SLAVE).

If only 1 motor is used (single swing), bridge both terminals, OPEN 2 and CLOSE to COM.



6) Motor direction to gate.

To ensure that the motor and limit switch wires are correct, operate the gate to the open position. Firstly, both gates (if double swing) must run in the same direction, either both closing or both opening. When the gates are in the open position, check the following.

The green status LED must be on. If not, change terminal wires 3 to 4 and 4 to 3, also 7 to 8 and 8 to 7.

Master motor - The red open 1 limit switch LED must be on. If not, change open 1 and close limit wires around.

Slave motor - The red open 2 limit switch LED must be on. If not, change open 2 and close limit wires around.

7) Battery low.

The yellow LED will come on when the battery is in a fault condition or the voltage has dropped below 10.5 volts in the start up or running cycle. The gate will then not operate for approx. 2 to 3 minutes, allowing battery to charge.



8) Fuses.

5 Amp fuse – AC fuse, can also use a 2 amp fuse.

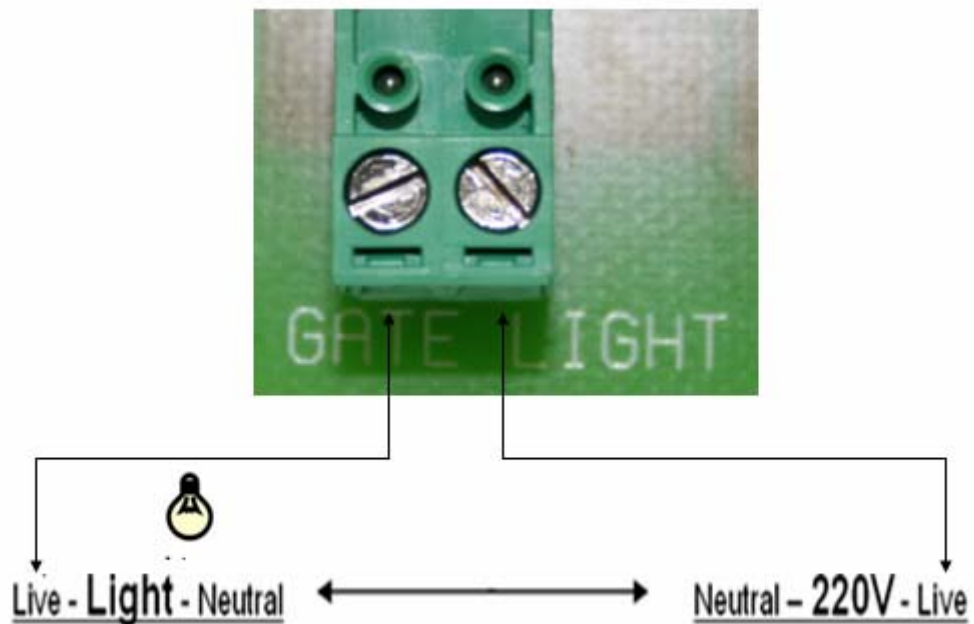
6 Amp fuse – Battery or Load fuse.

3 Amp Fuse – Strike lock fuse, can also use a 6 amp fuse.

9) Courtesy light.

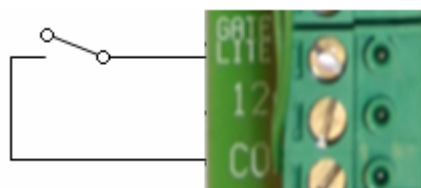
Courtesy lights can be connected with a 3 minute pre-set timeout period.

We recommend too use no more than 2 lights, with 60 watt globes (max. 100 watt). If energy saver globes are used and they flicker, change them with 60 watt globes. DO NOT connect spot lights or fluorescent lights to this facility.



Globe size - 60 W. Max 100 W. No fluorescent or spot lights can be used.

An on/off switch or receiver can be connected to the second gate light terminal which will allow for courtesy lights to be controlled manually.



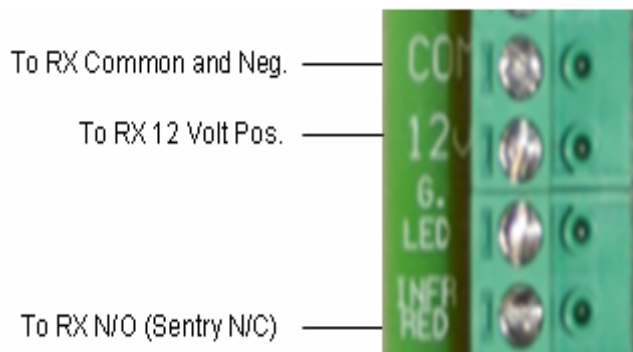
10) **Trigger button.**

A trigger push button is provided on the PCB for testing purposes whilst working on the motor.



11) **Infra red beams.**

A facility is provided to connect beams.
(Please note that should Sentry beams be used, connect INFR RED to N/C on the beams. All other beams must be connected to N/O.)



12) **Status LED.**

A facility is provided to connect an external status LED which can be connected to for example an intercom. The positive point of the LED must be connected to the terminal G.LED and the negative point to the terminal COM on the PCB.

The status indication will be as follow.

Gate closed – LED off.

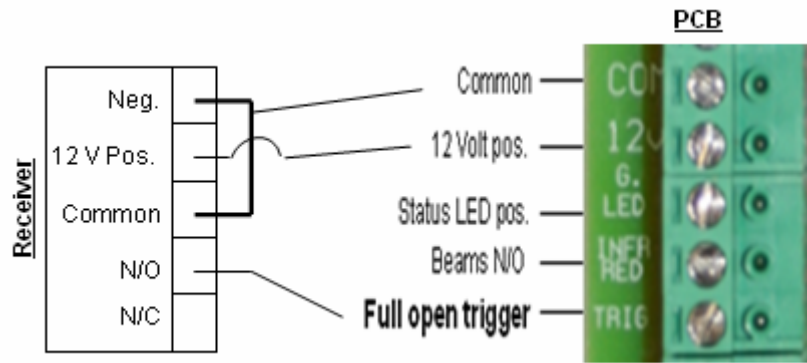
Gate opening – LED will flash slowly.

Gate closing - LED will flash fast.

Gate in open or part open position – LED will burn steady.



13) Receiver connections.



14) Control card

