HADES DEFENDER600

The Hades DEFENDER is an automatic rising Bollard designed to prevent vehicle theft and control vehicle access. We have undergone thorough testing to ensure the product is of the highest standard, every unit undergoes testing before being shipped.

Dynamic Power	Electric hydraulic system
Voltage	AC220V/110V(+-10v)
Movement Power	350W
Up speed	4.5S
Down speed	3S
Bollard Material	304 stainless steel
Bollard Rising height	600mm
Bollard Diameter	219mm
Bollard thickness	6mm
Emergency	In case of a power outage, the bollards can be manually lowered by the battery backup in the control panel
Warning sign	White reflective strip
Net weight	60kg
Shock absorption treatment	Cushioning and shock-absorbing
IP rate	IP68
Control unit	PLC control box
Working temperature	-35 ℃~75 ℃
Operation	Encrypted App Control
Integrated movement	Stroke 600mm, outer diameter of oil cylinder 60mm, rod diameter 16mm, hydraulic cylinder double seal, hydraulic drive with built-in hydraulic lock

Installation Instructions for Hades DEFENDER600 Automatic Bollard

Materials/Tools Required: shovel + post hole gigger, breaker, buckets, small and large spirit levels, grinder, pointing trowel; rubble sacks, 10mm gravel/shingle, post-mix (concrete), steel re-enforcement bars, sand & cement (& mortar dye), various electrical cables (refer to electrical section), ip68 junction boxes, weatherproof compound

1. Decide installation position with bollard centres to be at a spacing of 1500mm, can be up to 1800mm if user desires less bollards.

2. If paved, lift paving blocks, if tarmac/concrete/resin grind out surface at bollard location and use a breaker to get through the ground. Dig a hole of dimensions approx. 400mm diameter, 1000mm deep using a posthole digger and shovel

3. Place a 200mm bed of 10mm gravel/shingle in base of hole. Carefully lower the DEFENDER into it. Check that the height of the top plate of your DEFENDER is flush with the finished paving, adjust height as necessary by adding or removing gravel from bottom of hole. A technique to lower the height of the bollard is to raise and firmly hit the bollard down onto the gravel.

4. Once set to the correct height, place a spirit level across the top, levelling in all directions. Once you are happy it is level, backfill around the DEFENDER 1/3 of the way up with 10mm gravel/shingle or the earth that was removed when digging. Gently compact, making sure not to disturb the DEFENDER's position. If installing multiple DEFENDERs then either level all DEFENDERs with each other to ensure when risen they are the same height, or just level with exterior ground, the choice is down to you on what you think will look better.

5. The electrician by now should have connected the control panel to power supply in the property and should run the cables from where the control panel will be to where the DEFENDER/s will go. The cables should either be in protective conduit or be armoured cable and should either be buried in the ground (recommended) or clipped surface level at the perimeter. Where you join the cables to the cables of the DEFENDER, the connection should be in a weatherproof junction box filled with gel. Apply a weatherproof compound (putty) in the opening the cables come out of the DEFENDER to further ensure weatherproofing.

5. Fill the hole to just below ground level with post-mix/rapid set concrete (allowing enough depth to re-instate the driveway as desired). Put in steel re-enforcement to strengthen the mix. Tamp and let set. (Bollards should be tested before concreting)

6. Make good of the driveway surface by re-finishing to match the existing driveway material. In many instances a concrete casing should be formed around the top plate of the DEFENDER i.e when there is sloped ground.

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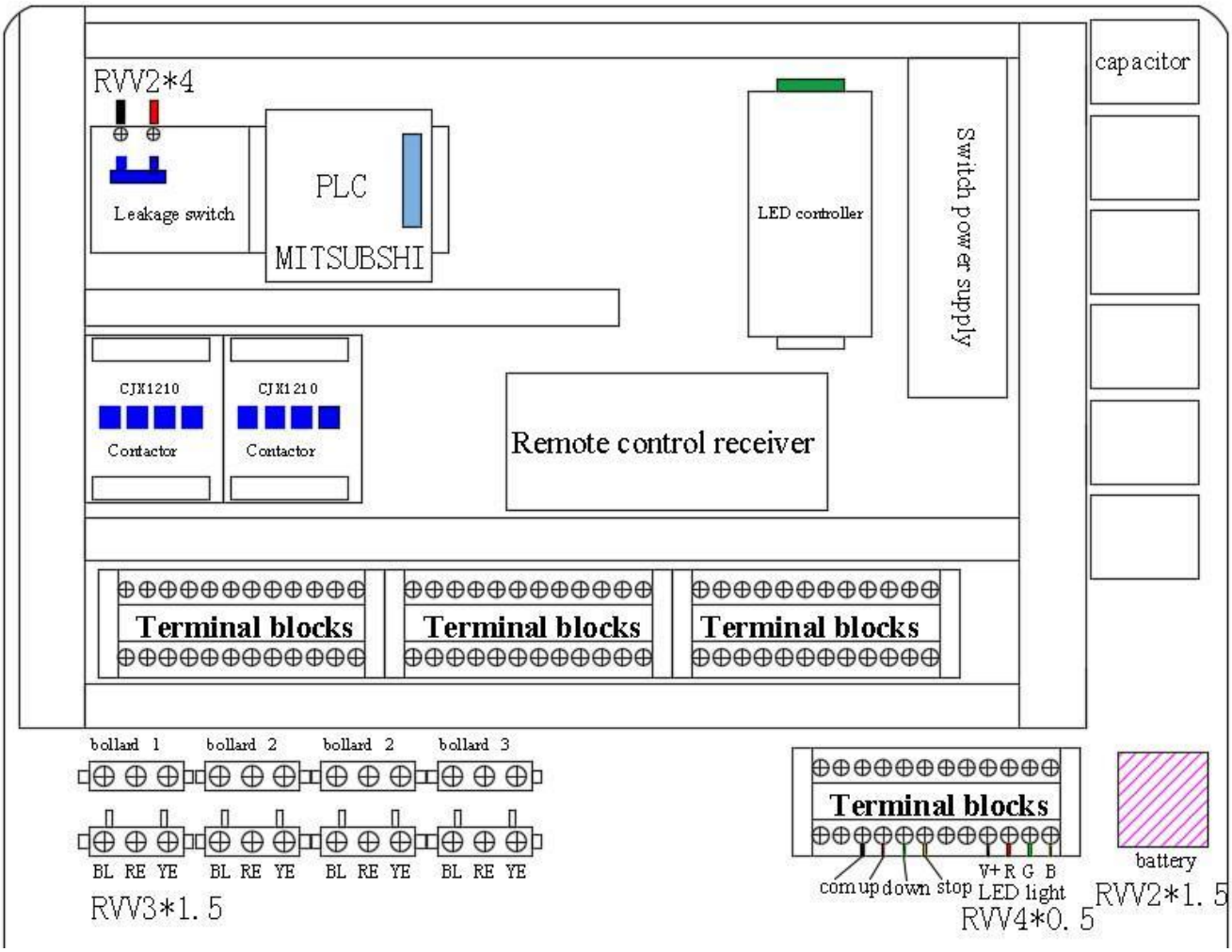
Control Panel



Refer to next page for wiring instructions

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Electrical Wiring

You will see 3 sets of cables attached to the DEFENDER:

CABLE 1 (3 cores)

Black for COM, Red for UP, Yellow for DOWN. These connect to the control panel in bottom left - refer to diagram. The red and yellow cables can be paralleled with the connected Black (or Red) cable on the terminal block.

Join a 1.5mm^2 3 core cable to this set of cables.

CABLE 2 (2 cores) (pink cables)

Used to lower the DEFENDER in case of power failure – connects to the pressure relief switch in the bottom right of the control panel – refer to diagram.

Join a 1.5mm^2/1mm^2 2 core cable to this cable

CABLE 3 (4 cores/2 cores)

For the LED lights – there will be 2 cores for DEFENDERs with motion activated lights and 4 cores for DEFENDERs with continuous illumination (full light colour functionality) – connects in lower middle-right in control panel - refer to diagram. These can be connected in parallel.

Join a 1mm^2/0.5mm^2 4 core/2 core cable to this cable.

ENSURE ALL CONNECTIONS ARE IN IP68 JUNCTION BOXES. SEAL CABLE HOLES IN CONTROL PANEL IF MOUNTING OUTSIDE.

RECOMMENDED CABLE IS RUBBER FLEX (H07RN-F). The cable must be put in protective conduit. If found to have used improper cable the warranty will be void.

Wire all bollards individually.

The system requires a 4mm^2 cable to bring power to it. If in a 120V +-10 country, there will be a transformer in the system will be a cable left that you can connect to.

The system must be on a 32A breaker.

Please hook up the battery backup at the 2 connection points with the provided charger, plug it into the charging point within the control panel. You can either leave it plugged in all the time or for extended battery life you can charge it once every 3 – 4 months.

Debugging Guide Available on Request

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Setup and Operation

1. Download the Remootio App and give it all permissions.
2. Search for a new device within the app ensuring your phone is connected to the wi-fi network.
3. The Remootio device will be found by the app and that phone will have the admin key, this can be transferred.
4. Go to settings and select the 2nd Output Configuration setting.
5. There will be one button split down the middle on the main screen, one side will be for up and one for down.
6. Navigate to the keys tab in order to share the key.
7. In case of power failure there is a pressure relief switch in the bottom right of the control panel that you can lower the bollards by. This must be left down in order for the DEFENDER to operate normally
8. There is also a hard-wired set of buttons within the control panel that you can raise and lower the bollards by.
9. Ensure the control panel is kept locked at all times when not in use.
10. Do not allow an excess of debris/small stones to build up on the DEFENDER.