

# Razor - Todco Door Installation

## Installation instructions for the Razor Electric Drive Kit.

**IMPORTANT:** The following information is based on the assumption that the Todco door is being fitted by a competent Todco door installer.

**The Razor electric door kit can be fitted to new and existing trailers and rigid vans.**

**The kit comes with the following components:**

- Shaft mountable geared electric drive motor (Door Drive) complete with torque bracket.
- Razor electronic motor controller.
- Razor power kit. (inclusive of battery and charger)
- 1 Vertical remote with bezel.
- Wiring harnessing and hard ware kit.
- Installation instructions and drilling patterns.

**Please Note:** For installation to an existing Todco door it will be necessary to remove the balance spring shaft and spring assembly.

## FITTING INSTRUCTIONS

### Door Drive and Vertical key pad.

Refer to: *Razor – Todco Door Drive Installation*

1. Slide the Door Drive onto the balance spring shaft.
2. After mounting balance spring shaft with geared electric drive motor attached, locate torque bracket position and fasten to trailer roof lining.
3. When the door has been adjusted to operated correctly manually, 'loctite' and tighten the 2 supplied securing M8 grub screws on the Door Drive and the torque bracket bolt.
4. Drill a hole, nominally 0.5" (13mm), in the trailer door pillar to allow the routing of the wiring to the geared electric drive motor. A grommet or similar should be used to protect wiring from chaffing around drilled hole for the Door Drive wiring
5. Mount the vertical key pad with approved fasteners to the face of door pillar. A grommet or similar should be used to protect wiring from chaffing around drilled hole for the Door Drive wiring
6. The bezel mounted on the vertical door pillar is for dock height door activation. This location can be chosen for operator convenience either on the rear of the trailer or toward the rear on either side of the trailer.

## **Razor motor controller and Razor power kit.**

7. The motor controller and power kit needs to be mounted adjacent to each other, close enough to allow the two wiring loam plugs to connect. It is recommended they be mounted to the trailer chassis by drilling to the patterns provided and fastened with the hardware supplied.

## **Connecting the wiring harnesses.**

Refer to: *Razor Power Door System – Wiring Schematic*

8. Take the 2 core power harness (PN0001E) and connect to the 2 pin plug from the Door Drive. Take the 2 core battery harness(no fuse) (PN0006E ) and connect to the 2 pin plug from controller, and allow to route through the hole previously drilled into the door frame. Rejoin 2 core power harness(PN0001E) and Battery harness(no fuse)(PN0006E) once it is routed clear of the door frame with the heat shrink crimps supplied. Be sure to connect Red to Red and Black to Black.
9. The General Arrangement drawing supplied will show all the correct plug fitments.
10. The charge Harness PN0005E is connected to the clearance light circuit and/or the auxiliary circuit, on the trailer/body. This connection can be performed at the closest clearance light for convenience or anywhere on the trailer harness into the Brown wire + and the White wire -. The charge harness PN0005D 3 core is Blue +, Brown + and White -.
11. On completion of the plug connections fasten loose wiring securely to trailer to prevent chaffing using standard methods.

**NOTE: The Razor battery charger will not operate if the charge harness is in reverse polarity. On testing the system for operation, a red light on the battery charger will verify the charge harness is connected correctly, when the clearance lights are illuminated on the trailer.**

## **OPERATING THE DOOR**

Simply press the up (blue) button or down (green) button once, from any key pad location including the motor controller key pad and the door will drive itself in that direction. The smart electronics will turn the motor off once the door is in the fully up or fully down position.

The door can be stopped at any time by pressing the STOP button or the button opposite the direction of door travel.

**IMPORTANT:** Confirm the Razor battery charger is operational by turning on the trailer clearance lights and observing the red LED on the battery charger is on. If the yellow LED on the battery charger is on this indicates the battery is charging, if the green LED on the battery charger is on this indicates the battery is fully charged.

The charger via the charge harness PN0005E will accept 10 to 30 DC Volt supply.

Once the charging has been confirmed, the installation is complete and the door is fully operational.