

## RTV Stairs

The Safe-Away<sup>®</sup> Raise To Vertical (RTV) Stairs have been designed to improve safety for operator and maintenance staff when accessing large earthmoving equipment employed in the mining industry.

To reduce the possibility of physical damage to the stairs, the RTVs are retracted to a vertical position above the ground when the machine is operational. The 45° stair offers easier access for maintenance personnel when accessing the vehicle while carrying tools.



# Safety & Efficiency

The **Safe-Away® RTV Stairs** have been specifically designed to suit a wide range of equipment and provides:

- 45° stair for access and egress while carrying tools and other items.
- Steps of regulation size.
- Fixed handrail system for three points of contact.
- A simple robust hydraulic actuator to raise the Stair to the vertical position above the ground when the machine is operational.
- Park Brake Interlock Kit providing additional protection by ensuring the Stair is raised automatically when the park brake is released. (Note: not applicable with Momentary operation configuration).

# Innovation

The **Safe-Away® 2009 Series Access Control System** manages all Stair operations.

It provides:

- Simple downloading of day to day logged data to a USB.
- Sequential reports on all events with time and date stamps:
  - Raising and lowering,
  - Fault indications.
- Operational history data logs
- Diagnostics and error reporting accessed directly from the incab control digital display.

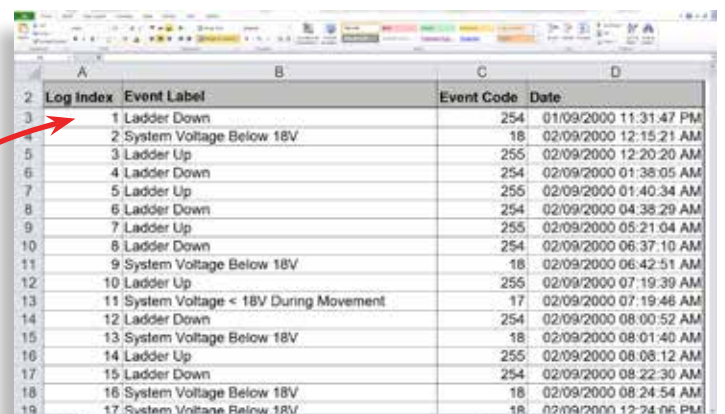
## Access Control System Features

- Incab control panel with a digital touch pad display showing:
  - Access system status; UP, DOWN and IN MOTION.
  - Detailed fault indication with audible alarm and system event log.
  - 3,000 point event data log with download using a USB key connection to the side of the in cab control panel.
- View downloaded log files as summary and/or full log data in Microsoft® Excel using the supplied SLA to XLS file converter.



The **Safe-Away® 2009 Series Power Pack** is driven by the Access Control System. Conveniently, the top step/platform is the Power Pack box designed to safely store the hydraulic Safe-Away® Series 2009 Power Pack in a horizontal position. Or the Power Pack may be mounted vertically at another location of your choosing. It includes:

- Harnesses and Leads.
- Battery Circuit Breaker Kit.



Log Index	Event Label	Event Code	Date
1	Ladder Down	254	01/09/2000 11:31:47 PM
2	System Voltage Below 18V	18	02/09/2000 12:15:21 AM
3	Ladder Up	255	02/09/2000 12:20:20 AM
4	Ladder Down	254	02/09/2000 01:38:05 AM
5	Ladder Up	255	02/09/2000 01:40:34 AM
6	Ladder Down	254	02/09/2000 04:38:29 AM
7	Ladder Up	255	02/09/2000 05:21:04 AM
8	Ladder Down	254	02/09/2000 06:37:10 AM
9	System Voltage Below 18V	18	02/09/2000 06:42:51 AM
10	Ladder Up	255	02/09/2000 07:19:39 AM
11	System Voltage < 18V During Movement	17	02/09/2000 07:19:46 AM
12	Ladder Down	254	02/09/2000 08:00:52 AM
13	System Voltage Below 18V	18	02/09/2000 08:01:40 AM
14	Ladder Up	255	02/09/2000 08:08:12 AM
15	Ladder Down	254	02/09/2000 08:22:30 AM
16	System Voltage Below 18V	18	02/09/2000 08:24:54 AM
17	System Voltage Below 18V	18	02/09/2000 12:24:06 PM

# Designed to suit your fleet

There are 2 models of **Safe-Away® RTV Stairs** designed to suit OEM vehicles.

Each of these RTV models may be varied to accommodate your requirements for specific mount points, platform handrails, infills, platforms, site and/or OEM colours, and Power Pack locations.

## RTV-CF

Designed for use on:

- Shovels
- Loaders
- Excavators
- Equipment up to 4900mm deck height

Compatible OEM models include:

PC3000	PC4000	PC5500	PC8000
H285	EX1900	EX2500	EX3500
EX3600	EX5500	L1850	L2350
994	996	RH120	RH170
RH200	RH340	RH400	B295

The RTV-CF can be adapted for other equipment.



## RTV-B

Designed for use on:

- Trucks
- Loaders
- Excavators
- Equipment up to 3000mm deck height

Compatible OEM models include:

994 WA1200

The RTV-B can be adapted for other equipment.



## Optional extras

### 1. Additional Raise and Lower Control Panel Kit



A remotely mounted control panel designed to enable the raise and lower operation from outside of the vehicle's cab, or at a position accessible from ground level. Encased in a protective aluminium case.



### 2. Hydraulic Emergency Down Kit

A lever operated three-way ball valve and mounting bracket provides a fail safe emergency down function. *Comes standard with RTV-CF Stairs.*

### 3. Boarding Light and Audible Alarm Kits



The boarding light (left) and audible alarm (below) are activated by pressing the up or down directional switch. The light will stay on for an adjustable/preset period.



### 4. Inhibit Kit

A relay with connecting harness for customer only installation of machine inhibit functions independent of the standard Safe-Away® in-built ladder safety functions.



### 5. Reservoir Heater & Circuit Breaker

The Reservoir Heater ensures the viscosity of the oil is maintained to raise and lower the ladder in cold climates.



### 6. Momentary Operation

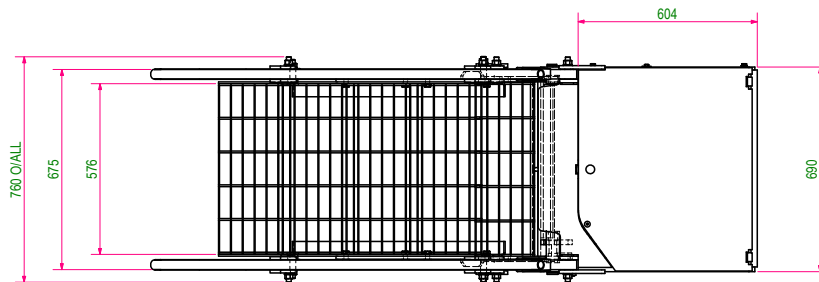
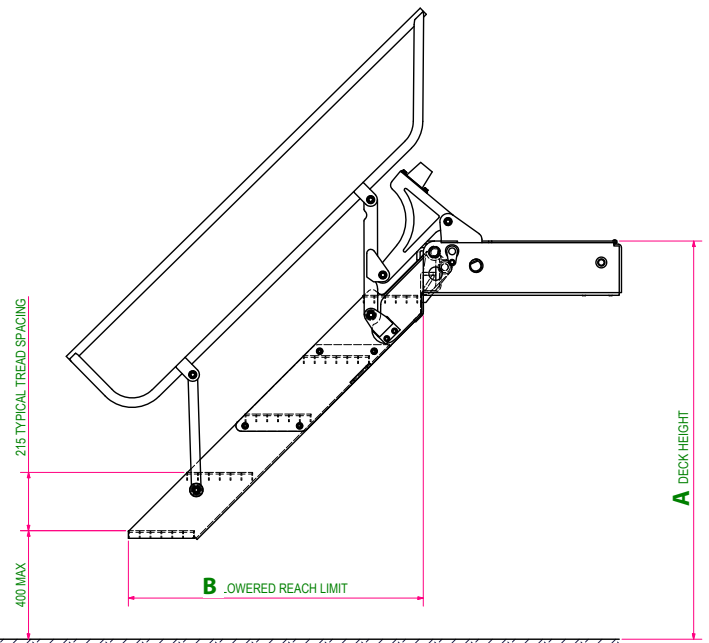
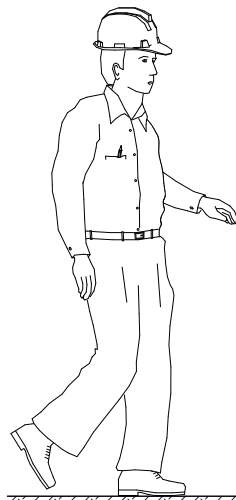
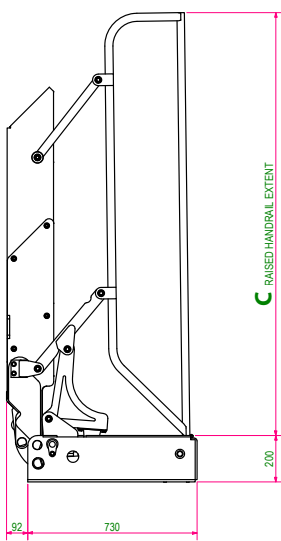
Safe-Away® Access Systems can be supplied with momentary operation.

# Specifications

The Safe-Away® RTV-B has been designed and manufactured to comply with the relevant sections of the following standards:-  
SAE J185\_200305 ISO 2867:2011 ANSI Z535.4-2007 ANSI A14.2-2007 AS 3868-1991 AS1657-2013

## RTV-B Range Dimensions

Steps	A-Deck Height Maximum	B-Lowered Reach Limit	C -Raised Handrail
6	1465mm 57.6in	1085mm 42.7in	1825mm 71.8in
7	1680mm 66.1in	1300mm 51.1in	2125mm 83.6in
8	1895mm 74.6in	1515mm 59.6in	2425mm 95.4in
9	2110mm 83in	1730mm 68.1in	2725mm 107.2in
10	2325mm 95.1in	1945mm 76.5in	3025mm 119.1in
11	2540mm 100in	2160mm 85in	3325mm 130.9in
12	2755mm 108.4in	2375mm 93.5in	3625mm 142.7in
13	2970mm 116.9in	2590mm 101.9in	3925mm 154.5in
14	3185mm 125.3in	2805mm 110.4in	4225mm 166.3in



MHG00110\_2\_24082021