

## RTV-S & RTV-XS 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.

# 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 on the RTV-S. Or the Power Pack may be mounted vertically at another location of your choosing which is required for the RTV-XS. 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-S

Designed for use on:

- Trucks
- Loaders
- Equipment up to 2300mm deck height

Compatible OEM models include:

785B	785C	785D	793B	793C
793D	793F	992C	992D	992G
992K	993K	844H	854K	854G
730E	830E	930E	960E	
EH4500	EH5500	T262	T282	

May contain a horizontal Power Pack in the actuator box.



## RTV-XS

Designed for use on:

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

Compatible OEM models include:

773F	775F	777F	777G	797F
988F	988G	988H	WA900	

Must have a special mount and vertically located Power Pack due to the short length of actuator box.



The Power Pack for this RTV-XS has been mounted vertically under the stair.

## 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.

### 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.



# Specifications

The Safe-Away® RTV-XS 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

## RTV-XS Range Dimensions

Steps	A-Deck Height Maximum	B-Lowered Reach Limit	C-Raised Handrail
4	1045mm    41.1in	655mm    25.7in	835mm    32.8in
5	1260mm    49.6in	855mm    33.6in	1140mm    44.8in
6	1475mm    58in	1085mm    42.7in	1445mm    56.8in
7	1690mm    66.5in	1300mm    51.1in	1745mm    68.7in
8	1905mm    75in	1515mm    59.6in	2050mm    80.7in
9	2120mm    83.4in	1730mm    68.1in	2365mm    93.1in
10	2335mm    92in	1945mm    76.5in	2660mm    104.7in

