PRODUCT OPERATING MANUAL

PANBLAST™

AIRFLO ELECTRIC HANDLE

Manual Number: ZVP-PC-0062-01

SECTION

1.0 GENERAL INFORMATION

1.1 Panblast notice to purchasers and users

1.1.1 All products and equipment designed and manufactured by Panblast are intended for use by experienced users of abrasive blasting equipment and its associated operations and abrasive blasting media.

1.1.2 It is the responsibility of the user to:

- Determine if the equipment and abrasive media is suitable for the users' intended use and application.
- Familiarize themselves with any appropriate laws, regulations and safe work practices, which may apply within the users' working environment.
- Provide appropriate operator training and a safe working environment including operator protective equipment such as, but not limited to, blasting suit, safety footwear, protective eyewear and hearing protection.

1.1.3 Panblast Standard Terms and Conditions of Sale apply. Contact your local Panblast office or distributor should you require any further information or assistance.

1.2 ⚠ ! WARNING ! – READ THIS SECTION CAREFULLY BEFORE USING THIS EQUIPMENT/APPARATUS.

1.2.1 Heavy metal paint, asbestos and other toxic material dusts will cause serious lung disease or death without the use of properly designed and approved air supplied respiratory equipment by blast operators and all personnel within the work site area.

1.2.2 The compressor must have adequate output and the plumbing between the compressor and the point of attaching the air supply hose must have sufficient capacity to supply the volume of air at the pressure required.

1.3 Standard safety precautions

1.3.1 Approved safety eyewear, hearing and footwear protection should be worn at all times by the operator and all personnel in the immediate area that may be exposed to any hazards generated by the abrasive blasting process.

1.3.2 Suitably approved respiratory protection should also be worn when handling abrasive media, abrasive refuse dust and when carrying out any service/maintenance work where any dust may be present.

1.3.3 Any work performed on electrical wiring or components must only be carried out by suitably qualified and registered electrical trades' personnel.

1.3.4 Under no circumstances should any safety interlocks or features be altered or disabled in any way.

1.3.5 All equipment must be isolated from the compressed air supply and electrical power source prior to any service or maintenance work being carried out.

1.3.6 All care must be taken by the operator when lifting or moving equipment or components in order to prevent injury. Pressure blast pots must always be emptied of abrasive media before any attempt is made to move them.

1.3.7 Any modification of the equipment or use of non-genuine PanBlast™ replacement parts will void warranty.

1.3.8 Always check the Material Safety Data Sheet (MSDS) on the abrasive being used to ensure that it is free of harmful substances, in particular, free silica, cyanide, arsenic or lead.

1.3.9 Test the surface to be blasted for harmful substances, taking the appropriate measures and precautions to ensure the safety of the operator and others.

1.3.10 The operator should carry out a daily inspection before start up of all wearing and safety items to ensure that they are in correct operating order. In particular check all blast hose couplings and nozzle holders, ensuring that all couplings have engaged correctly and the safety locking pins are fitted and in good condition. Always install safety whip check cables at every connection. Ensure that the blast nozzle has been securely screwed into the nozzle holder and the nozzle holder has been secured to the blast hose correctly and that all screws are engaged.

2.0 INTRODUCTION

2.1 These instructions cover the installation, operation and maintenance of the PanBlast™ AirFlo Electric Remote Control Handle in its standard 12 Volt D.C. supply, other optional power supplies are available on request.

2.2 The PanBlast™ AirFlo Electric Remote Control Handle is an electric switch style deadman handle used for the remote control of abrasive blast pots. When operated it supplies a 12 Volt D.C. signal to the blast pot remote control system which then activates the blasting process.

2.3 The PanBlast™ AirFlo Electric Remote Control Handle is recommended for use with blast hose lengths in excess of 40m (130ft) or in instances where improved signal response is required.

2.4 The PanBlast™ AirFlo Electric Remote Control Handle and is used in conjunction with an PanBlast™ Electric Remote Control System and is used with the PanBlast™ range of remote control valve systems which includes the UniFlo, Helix, Sola, Kombi, Tandem and Safe-T-Pinch Valve systems.

NOTE: UNDER OSHA 1915:34(c)(1)(iv) DEAD MAN CONTROL. A DEADMAN CONTROL DEVICE SHALL BE PROVIDED AT THE NOZZLE END OF THE BLAST HOSE EITHER TO PROVIDE DIRECT CUTOFF OR TO SIGNAL THE POT TENDER BY MEANS OF A VISUAL AND AUDIBLE SIGNAL TO CUT OFF THE FLOW, IN THE EVENT THE BLASTER LOSES CONTROL OF THE HOSE. THE POT TENDER SHALL BE AVAILABLE AT ALL TIMES TO RESPOND IMMEDIATELY TO THE SIGNAL.

3.0 PREPARATION FOR OPERATION

⚠ ! WARNING ! THE COMPRESSED AIR SOURCE MUST BE ISOLATED BEFORE PERFORMING

ANY INSTALLATION WORK. FAILURE TO DO SO MAY CAUSE SERIOUS INJURY OR DEATH.

3.1 Attach the AirFlo Electric Remote Control Handle to the blast hose behind the nozzle holder using robust bands or strapping, trim any excess after fixing the handle so that they don't catch or interfere with the operator during the abrasive blasting process.

3.2 We recommend that the cable flex supplied with the handle be fitted off with an industrial grade IP68 rated sealed plug and socket connector, using a screwed coupling.

3.3 Ensure that the lead from the handle is under no load, as this will pull the wires from the switch body. To assist with this wrap the handle lead once around the blast hose and band each side of every connection.

3.4 The control cable should be minimum 2 cores with a minimum 1.0mm² cable and complete with a robust rubber outer carcass.

3.5 The fitted off cable should be strapped to the blast hose at 1 meter intervals.

3.6 Connect the control cable to the electric remote control box socket fitting.

3.7 The electric remote control box should be an IP66 enclosure incorporating the cable socket fitting; a solenoid operated air control valve and a power supply lead fitted off with battery cable clamps.

3.8 Connect the air control valve supply line to the supply port quick connect fitting on the remote control inlet valve, connect the air signal line to the pilot signal port quick connect fitting on the remote control valve.

3.9 Before connecting the power cables to the DC power supply ensure that the remote control handle lever is locked in the “Up” position and the main air supply is shut off.

3.10 The operating voltage range of the remote control handle micro switch is 12-24VDC. The rated current is 5A.

3.11 Connect the power supply leads to the D.C. power supply ensuring the (red) clamp connects to the positive power source terminal and the (black) clamp to the negative terminal.

4.0 OPERATING INSTRUCTIONS

⚠ ! WARNING ! – READ THIS SECTION CAREFULLY BEFORE USING THIS EQUIPMENT/ APPARATUS.

4.1 PanBlast™ AirFlo Electric Remote Control Handle is an electro-pneumatic deadman handle, when the lever is in the "Up" or un-activated position the electric signal from the electric remote control system is cut off and the pneumatic control valve is in the “open” position, there is no air signal to the remote control valve on the blast pot. When the lever is depressed to the "Down" or activated position the electrical switch is closed and an electrical signal is sent to the electric remote control system energizing the air control valve solenoid which in turn opens the valve sending a pneumatic signal to the remote control valve on the blast pot initiating the abrasive blasting process.

4.2 Before pressurizing the system, check the operation of the handle, is the lever safety lock operational, does it snap back to the “Up” position on releasing of the lever. Does the lever safety lock spring back when released; ensure that it is free in its action.

4.3 Connect the blast pot to an air supply that is adequate for the application, check the blast nozzle air requirement and the minimum air pressure required to operate the remote control valve.

4.4 Ensure that the mini ball valve or petcock on the remote control valve has been closed.

4.5 After following all start up procedures as detailed in the blast pot operating manual, pull back the lever safety lock, hold the lever safety lock down and depress the lever. This will send a signal to the electric remote control system and initiate the abrasive blasting process. Blasting will begin within a few seconds.

4.6 To stop blasting, release the lever, the lever safety lock will snap up and the electrical signal is cut off. Blasting will cease within 2-3 seconds.

⚠ ! WARNING ! THE LEVER MUST NEVER BE WIRED OR BANDED DOWN PERMANENTLY AS THIS MAY RESULT IN PREMATURE ACTIVATION OF THE SYSTEM THAT MAY CAUSE SERIOUS INJURY OR DEATH.

5.0 MAINTENANCE

⚠ ! WARNING ! THE SYSTEM MUST BE IN SHUTDOWN MODE AND THE COMPRESSED AIR AND ELECTRICAL SOURCE DISCONNECTED BEFORE PERFORMING ANY MAINTENANCE WORK. FAILURE TO DO SO MAY RESULT IN PREMATURE ACTIVATION OF THE SYSTEM THAT MAY CAUSE SERIOUS INJURY OR DEATH.

5.1 Check the operation of the lever safety lock and lever on a regular basis. Replace any broken or faulty components immediately.

5.2 Check the condition of the bumper button on the underside of the lever, replace if worn.

5.3 Check that the lever travel height adjustment is correct, the stops should be adjusted to prevent over travel, which will damages the switch. Adjust the travel by bringing the travel from non-operating to operating. This can be done by listening for the switch contactor “click” upon depression of the lever.

5.4 Ensure that the handle strapping is in good order, replace as required.

5.5 Check the control cable condition along its length ensuring there are no cracks or damage to the outer protection layer and no exposed section.

5.6 Ensure that the cable lead from the handle is under no tension load, there should be some slack in the lead to prevent the cable connections within the switch being subjected to load that may pull the wires from the switch.

6.0 TROUBLE SHOOTING GUIDE

PROBLEM	PROBABLE SOLUTION
The lever is depressed but the remote control valve does not operate.	Ensure that the “safety” mini ball valve or pet cock on the remote control valve has been closed.
	Check that the travel height adjustment on the handle is adjusted correctly, check that the switch is operating with a meter across the two pins of the plug. If this is not possible, disconnect the main air supply to the blast pot system and have an assistant operate the handle while listening for the sound of the solenoid operating at the electric remote control system.
	If the switch is operating and the solenoid is not, check for breakages in the control cable, ensure all wire connections at the cable connectors are in good order.
	Check the presence of signal returning to solenoid valve. If there is a signal and the solenoid valve does not operate, replace the solenoid valve coil.
	If the coil does energize but the valve does not operate, check that the solenoid valve spool has not jammed, repair as required.
	If the switch is found to be faulty replace the switch.
The lever does not pop up when released.	Check that the lever spring has not been damaged and is free in its action. Replace if required.
	Check that the lever pin is not jammed due to intrusion of abrasive dust.
The system starts up as soon as the compressed air is turned on without the lever depressed.	Check that the lever is disengaging from the switch and that the switch is operating correctly.
	Ensure that there are no short circuits along the control cable length. Replace shorted electric switch if necessary.
	Check the operation of the solenoid valve to ensure that it is not jammed, and that the valve spool is free in its action

7.0 ASSEMBLIES, PARTS LISTING & EXPLODED VIEW

7.1 AirFlo Electric Remote Control Handle Assembly

Stock Code	Description	Weight
BAC-RC-PB-0104	AirFlo Electric Control Handle	0.40 kg (0.88 lbs)

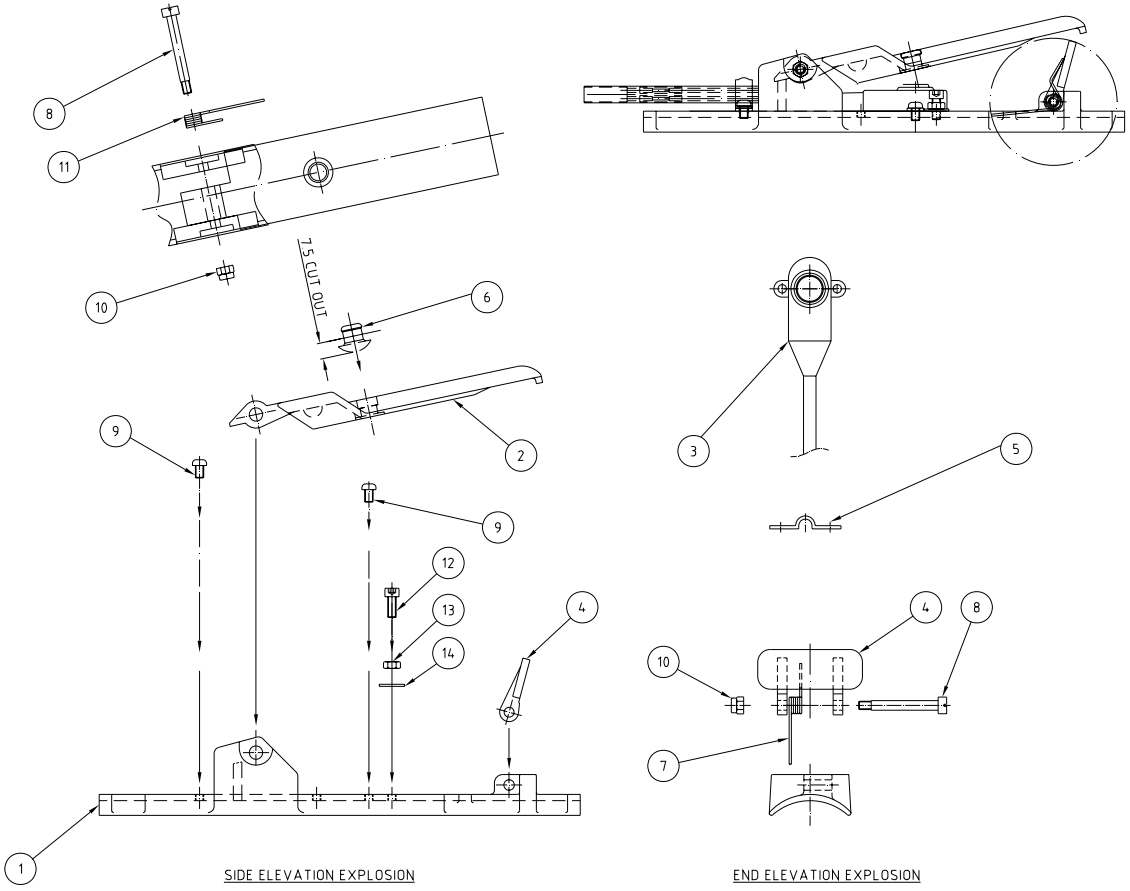
7.1.1 AirFlo Electric Remote Control Handle Parts Listing

Item	Stock Code	Description	Qty
1	YAC-RC-PB-0058	AirFlo Handle - Body	1
2	BAC-RC-PB-0059	Lever	1
3	BAC-RC-PB-0105	Electric Switch	1
4	YAC-RC-PB-0061	Lever Safety Lock	1
5	BAC-RC-PB-0107	Switch Cable Harness	1
6	YAC-RC-PB-0063	Bumper Button	1
7	YAC-RC-PB-0065	Safety Lock Spring	1
8	YAC-RC-PB-0066	Screw	2
9	YAC-FN-PB-0164	Screw	4
10	YAC-FN-PB-0141	Lock Nut	2
11	YAC-RC-PB-0067	Lever Spring	1
12	YAC-FN-PB-0201	Screw	2
13	YAC-FN-PB-0120	M4 Nut	2
14	YAC-FN-PB-0122	Flat Washer	2

7.1.2 AirFlo Electric Remote Control Handle Service Kits

Stock Code	Description
BAC-RC-PB-0116	AirFlo Bumper Kit - Includes Item: 6 (6 Off)
BAC-RC-PB-0117	AirFlo Lever Spring Kit - Includes Item: 11 (6 Off)

7.1.3 AirFlo Electric Remote Control Handle Exploded View



SIDE ELEVATION EXPLOSION

END ELEVATION EXPLOSION