

# **peterson**

**SINGLE BOARD DUO SET (SBDS)  
COMBINATION ACTION**

**OPERATING INSTRUCTIONS**

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## **SINGLE BOARD DUO SET (SBDS) COMBINATION ACTION**

### **OPERATING INSTRUCTIONS**

**(To be left at the installation for organists)**

The Peterson Single Board Duo Set (SBDS) combination action is designed to recall the desired stop registrations of an organ by pressing a piston on the key slip, under the manual keys, or by pressing a toe stud with the foot. These pistons can be arranged by the organ builder as "divisional" pistons, affecting one particular division, or as "general" pistons, affecting all the stops in the organ.

Combinations can be set on these pistons in two different ways. A desired combination can be 'captured' by pressing and holding the set piston, and then pressing the desired numbered piston, divisional or general, which is to recall that registration. Release the numbered piston and then release the set piston. That stop registration is now stored in the memory and can be recalled at any time by pressing the numbered piston only. The other method of setting is to press and hold a numbered piston, divisional or general, and register the stops as desired. The SBDS will automatically go into the "set" mode after about one second, so it is not necessary to press the set piston. The stop combination will automatically be stored in the memory. This is the equivalent of the older "tripper" type combination actions found on some organs. Note that when the system is in the "set mode", either by using the Set button or by the Tripper method, the "+" symbol on the (optional) Mini (Control) Panel will be blinking.

NOTE: If the right decimal point is flashing there is a stuck piston.

Stop combinations may be cancelled at any time by pressing the "cancel" (or "general cancel") piston. Pressing the cancel piston will not affect the settings stored in the memories but will turn all the stops off.

On multiple memory systems, entirely different registrations can be set on the same pistons by selecting a different memory bank (or level) using the rotary knob on the Mini Panel. This allows organists to have different combinations for use with hymns, choir, recitals, etc., or to allow multiple organists to each have their own registrations. Simply rotate the knob clockwise to increase or counter clockwise to decrease the memory level number. There are a total of 128 memory levels available on the SBDS. Note that when rotating the knob above number 128 or below number 1 the level number will wrap around. From any level, pressing the knob will cause the system to go to level 1.

Optionally, the builder may provide Memory Up and Down buttons conveniently located on a key slip, that will also affect the memory level and display on the Mini Panel. Pressing both of these at the same time will cause the system to go to level 1.

On organs where a "lock-out" switch has been provided by the builder, combinations that have been set into the memory can be protected from accidental or unauthorized re-setting by use of this lock-out switch. With this switch in the "lock" position, memories cannot be changed (re-set). The lock-out switch may be configured, by the builder, to lock all the levels or one or more groups of 32 consecutive levels. Multiple key locks may also be configured to affect different groups of 32 levels. Note that whenever the system is "locked-out" the right hand decimal point will be on and setting is prevented. Also, the "+" on the Mini Panel display will not flash as the memory cannot be written.

The memories will automatically be protected against setting if the crescendo or sforzando (tutti) is active. The combinations of the crescendo and/or tutti, even though "blind", could otherwise be set by mistake. Be sure both the crescendo and tutti are off for normal setting.

Some organs may be provided with “Reversible” pistons. The builder may wire these to operate stops such as the “Swell to Pedal 8”. Pressing the reversible button for this stop will cause it to move to its opposite position on each press. The builder may also configure a reversible to turn off additional stops when the reversible stop goes off. For example, the “Swell to Great 16” and/or “Swell to Great 4” may go off when the “Swell to Great 8” goes off.

Another option that an organbuilder may install is a European style piston sequencer. This type of piston sequencer steps through the general pistons, incrementing by one for each press of the “Next” piston, or decrementing by one for each press of the “Previous” piston. When the last general is reached another press of the “Next” piston will cause the system to increment the memory level and return to general 1. Likewise, when on general 1 another press of the “Previous” piston will cause the system to decrement the memory level and go to the highest numbered general. If a general is manually pressed, then subsequent presses of the Next or Previous piston will continue from that general. Pressing Next and Previous at the same time will return the sequencer to general 1 on level 1.

If the piston sequencer is provided, an optional numerical display, indicating the number of the last general pressed, may also be provided by the builder, or lighted pistons may be used to indicate the most recent general that was pressed.

### IN CASE OF DIFFICULTY

If the SBDS fails to operate normally, or if memories appear to be changing, the following information (trouble shooting guide) should be checked before calling the service person or factory. This will aid them in determining the probable cause so they can be properly equipped for any necessary service call.

PROBLEM	THINGS TO CHECK
1. Pistons cannot be set (changed).	<ul style="list-style-type: none"> <li>A. Is the sforzando/tutti or crescendo on?</li> <li>B. Is the “lock-out” switch in lock position?</li> <li>C. Are all divisions affected or will any one division work properly?</li> <li>D. Are both ‘capture’ and ‘tripper’ modes not working?</li> </ul>
2. Piston(s) dead (stops won’t move).	<ul style="list-style-type: none"> <li>A. Are any of the pistons (or cancel) stuck in (won’t return)?</li> <li>B. Do any of the pistons work? Is only one division affected?</li> <li>C. Will general cancel work?</li> </ul>
3. Individual stops won’t set.	<ul style="list-style-type: none"> <li>A. Does the stop speak or remain silent with the stop in the “on” position?</li> <li>B. Are stops that won’t set grouped together?</li> </ul>
4. Piston(s) will make stops move, but change before finished, or give wrong combination.	<ul style="list-style-type: none"> <li>A. Does proper combination try to come on?</li> <li>B. Does combination obtained end up being from some other piston, level or cancel?</li> </ul>

(4. Cont.)	<ul style="list-style-type: none"> <li>C. Is only one division affected or are all divisions affected?</li> <li>D. Do any of the affected stops feel like they are binding?</li> </ul>
<p>5. Piston(s) set but memories changed later.</p>	<ul style="list-style-type: none"> <li>A. Have stops been added (set on), been lost (set off) or both? (Random setting)</li> <li>B. If pistons are reset to the desired stop combination do the same pistons or the same stops change if tried again?</li> <li>C. Are stops affected straight, couplers, tremolos, etc.?</li> <li>D. Do memories change while organ is being played or when organ power has been turned off and back on?</li> <li>E. Are the memory changes random, or is there some repeated order to the change?</li> </ul>
<p>6. Any of the above piston problems.</p>	<ul style="list-style-type: none"> <li>A. Does the rest of the organ work/play properly?</li> </ul>

If the service person or factory requires additional information, do you have access to a Voltmeter?

For additional information about this combination action or for service contact:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

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