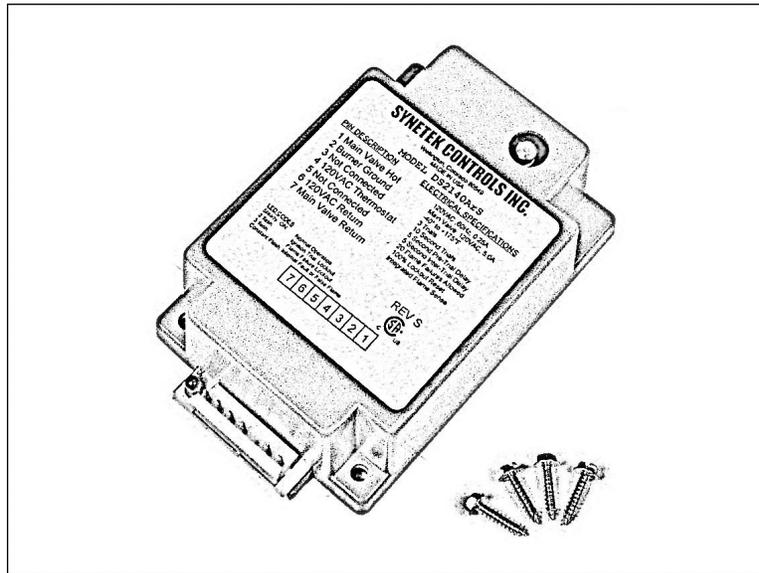


SYNETEK CONTROLS INC.

DS1-S: INSTALLATION INSTRUCTIONS



Synetek Controls Inc. model DS1-S replaces the following 120VAC Direct Spark Ignition controls in commercial laundry dryers. The Model DS1-S is designed for simple installation and long lasting operation by eliminating most nuisance lockouts and providing simple diagnostic indication of failure.

ALLIANCE / HUEBSCH / SPEED QUEEN / WASCOMAT

M406789

RAM ELECTRONICS

M406789

DS1-S Kit Contents	Tools and Materials Required	DS2140ArS Rev. S Specifications			
1 - DS2140ArS Control	- DS1-S Kit and Installation	Input Voltage:	120VAC, 60Hz (+10% to -15%)	Ignition Trials	3
1 - DS1-S Installation Instructions	Instructions	Current Draw:	.2A flame sense modes	Trial Time:	10 sec.
4 - Mounting Screws	- Slotted Screwdriver or 1/4" Nut Driver	Lockout:	.35A ignition mode	Prepurge:	5 sec.
	- 5/32" Drill Bit	Temp Range:	Reset by power interruption of 5 sec.	Interpurge:	5 sec.
	- Drill Motor				

PRE-INSTALLATION INSTRUCTIONS

IMPORTANT

Installation should only be attempted by persons trained and qualified to service and repair commercial laundry dryer ignition controls and equipment.

- 1 Read carefully through the DS1-S Installation Instructions before attempting installation.
- 2 Be certain dryer is operating correctly except for failed ignition control. Repair malfunctioning items as required. Installation of the DS1-S will only correct malfunctions created by a failed ignition control.
- 3 Inspect the burner and burner compartment for soot, cracks and corrosion. Clean, repair or replace as necessary.
- 4 Inspect the electrode for cracks in the ceramic insulator, burns on the electrode rod and damage to the high voltage lead. Repair or replace as necessary.

NOTE: Spark gap must be 3/16" to 1/4"

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INSTALLATION PROCEDURE

WARNING - Property Damage, Injury or Death can result from replacing an ignition control not listed in these instructions.

IMPORTANT -Turn OFF gas and electrical power before beginning the Installation Procedure.

- 1 Locate the ignition control to be replaced and verify that the model number of the control is listed in these instructions.
- 2 Remove the mounting hardware from the control to be replaced and set the control aside, leaving all wire leads connected.
- 3 Mount the new Model DS2140ArS control module in place of the old control module using the Mounting Screws supplied in the DS1-S kit. If necessary, drill holes using Drill Motor and 5/32" Drill Bit.
- 4 Disconnect wire connector from control being replaced and connect to the Model DS2140ArS.

NOTE: The existing wiring harness should mate with DS2140ArS connector. If the connectors do not match, contact Synetek Controls, Inc. or your Distributor for further information.

- 5 Remove high voltage lead from the old control module and connect to the DS2140ArS high voltage terminal.
- 6 If you are satisfied that the previous steps are correct and complete, go to CHECK OUT SEQUENCE.

CHECK OUT SEQUENCE

NOTE: Leave gas supply turned OFF until prompted in step 3.

- 1 Turn ON power to the dryer (gas supply OFF) and start the dryer cycle. Observe the following:
 - 1.1 Green diagnostic LED is on.
 - 1.2 5-7 seconds after tumbler starts, the high voltage spark starts.
 - 1.3 Sparking continues for 10 seconds then pauses for 5 seconds and repeats this cycle an additional 2 times.
 - 1.4 Spark stops and DS2140ArS goes into lockout mode. Green diagnostic LED will flash 2 times.
- 2 Reset DS2140ArS lockout mode by opening dryer door until LED stops flashing. Close dryer door and observe sequence in step 1 again. If you are satisfied that the previous steps are correct and complete, continue to step 3.
- 3 Turn ON the gas supply to the dryer.

IMPORTANT

If you smell gas, immediately turn the gas supply OFF and repair to gas leak. DO NOT continue the CHECK OUT PROCEDURE until the gas leak has been repaired.

- 4 Start the dryer and observe the following:
 - 4.1 Green diagnostic LED is on.
 - 4.2 DS2140ArS starts the ignition spark in 5-7 seconds and flame is established within a few seconds.
 - 4.3 Spark stops after flame is established.
 - 4.4 Main burner flame shuts off after thermostat is satisfied and reignites when temperature drops.

TROUBLESHOOTING

Problem	Solution
<i>No ignition spark. LED is OFF.</i>	No power to the control. Be sure the accumulator has time on it, the door switch is closed and the thermostat is calling for heat. Check thermostat, airflow switch and high limit switch. Repair or replace a necessary.
<i>No main burner flame LED is flashing 2 times.</i>	Control is in safety lockout. Reset by opening door till dryer stops. Restart dryer.
<i>Main burner lights for 8 seconds or less then goes out. LED is flashing 2 times after 3 spark cycles.</i>	Controls is not sensing flame has been established. Check flame probe alignment, probe should be in the flame.
<i>Ignition sparks but does not light the burner. LED is flashing 2 time after 3 spark cycles.</i>	Check that the spark is arching across the spark gap. Check for cracks in the ceramic insulator of the electrode and for shorts from the high voltage lead the the chassis of the dryer. Repair or replace as necessary.
<i>High voltage lead or flame sensor lead is burnt at the connector.</i>	Check the lint screen, ducting, and fan. Clean, repair or replace as necessary. Check the airflow switch for correct operation. Repair or replace as necessary.

WARRANTY

Synetek Controls Inc. guarantees to the first retail purchaser that, should the control be defective within 24 months of manufacturing, due to manufacturing defects, Synetek Controls Inc. will repair or replace the defective control. Synetek Controls Inc. is not responsible for equipment down time, labor costs or any other expenses associated with the failure of our controls.