#### COMMERCIAL DRYER MODEL T-20 SWD VENDED C-SERIES CONTROL, NATURAL GAS/LP HEATED



### OPERATOR'S MANUAL INSTALLATION & OPERATION INSTRUCTIONS

The dryer must not be stored or installed where it will be exposed to water and/or weather.

## A WARNING:

#### FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death or property damage.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Clear the room, building or area of all occupants.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

Post the following "For Your Safety" caution in a prominent location:

#### FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

It is important that you read this Manual and retain it for future reference. For service or replacement parts, contact the distributor in your area or the manufacturer. AVERTISSEMENT. Assurez-vous de bien suivre les instructions données dans cette notice pour réduire au minimum le risque d'incendie ou d'explosion ou pour éviter tout dommage matérial, toute blessure ou la mort.

 Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

- QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:
  - Ne pas tenter d'allumer d'appareil.
  - Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous trouvez.
  - Évacuez la pièce, le bâtiment ou la zone.
  - Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
  - Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.
- L'installation et l'entretien doivent être assures par un installateur ou un service d'entretien qualifie ou par le fournisseur de gaz.

### POUR VOTRE SÉCURITÉ

Ne pas ente poser ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

You, the purchaser, must post in a prominent location instructions to be followed in the event the user smells gas. Consult your local gas supplier for procedure to be followed if the odor of gas is present.

## Dexter Laundry, Inc.

2211 West Grimes Avenue Fairfield, Iowa 52556

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## WARNINGS ABOUT USE AND OPERATION

**DO NOT MODIFY THIS APPLIANCE. KEEP SHIELDS, GUARDS, AND COVERS IN PLACE.** These safety devices are provided to protect everyone from injury.

It is **ABSOLUTELY ESSENTIAL** that the dryer be grounded to a known earth (zero) ground in accordance with local codes or, in the absence of local codes, with the latest editions of the National Electric Code, ANSI//NFPA 70 or Standard CSA C22.1 Canadian Electrical Code Part 1. This is not only for personal safety, but is necessary for proper operation of the controller. Failure to do so will void the warranty of the controller.

A DRYER SHOULD BE CONNECTED TO POWER FOR THREE (3) MINUTES before it is operated or before a program change is made. Operation or program changes, which occur during this "power up" period, are subject to loss in case of power interruption. After the initial three minutes, all programmed data is protected from power interruptions of any length and the customer's individual cycle is protected up to 3 seconds. This is done without batteries.

**LEAVE THE ELECTRICAL POWER TO THE DRYER ON AT ALL TIMES** except when necessary for service or other similar activities. The hour meter function adds only full hours to its reading. If the power is shut off every night, any fraction of an hour of time that is on the machine at that time will be lost. Turning the power off every night could also have some effect on the long-term life of the memory after a number of years. Turning power off occasionally won't affect the unit.

**THIS DRYER IS EQUIPPED WITH AN OVER-TEMPERATURE THERMOSTAT** located on the end of the burner housing above the gas valve. Should the dryer cease to operate, refer to your "Service Procedure and Parts Data" book for instructions.

**CHECK THIS THERMOSTAT WHEN INSTALLING DRYER** to assure it is not tripped. Impacts such as rough handling in shipment, may trip the thermostat. It may be reset by inserting a wooden pencil or dowel through the bushing in the cover.

#### DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE while in operation.

#### THIS APPLIANCE SHALL NOT BE USED TO DRY OFF SOLVENTS OR DRY-CLEANING FLUIDS.

#### 20 lb. Commercial Dryer: T-20 SWD DCS020N\_-15\_C\_X (60 Hz), DCS020N\_-39\_C\_X (50 Hz) **Cabinet Height** 34 3/4" 883 mm. (Assumes minimum leveling leg adjustment) 27″ Cabinet Width 686 mm. Cabinet Depth 44 5/8" 1137 mm. Floor to Bottom of Door 8 1/2" 215 mm. Door Opening 18 1/8" 460 mm. Dry Wt. Capacity 20 lbs. 9.1 ka. Cylinder Diameter 25 1/2" 647 mm. 24″ Cylinder Depth 609 mm. Cylinder Volume 7.0 cu. ft. 198.2 liters Lint Screen Area 285 sq. in. 1839 sq. cm. Gas Input (60 hz) 56,000 Btu/hr 59MJ/hr (16.4 kW) 47,000 Btu/hr Gas Input (50 hz) 50MJ/hr (13.8 kW) Gas Supply Connection 1/2" 12.7 mm. Natural Gas Supply (Water Column) 5" - 8" 127 mm. - 203 mm./1.25kPa - 1.99kPa Natural Burner Manifold (60 hz Water Column) 3.5" 88.9 mm./0.87kPa (50 hz Water Column) 3.5" 88.9 mm./0.87kPa Propane or ULPG Supply (Water Column) 292 mm. - 343 mm./2.86kPa - 3.36kPa 11.5" - 13.5" Burner Manifold Pressure Propane (60 hz Water Column) 11″ 279 mm./2.75kPa Propane or ULPG (50 hz Water Column) 11" 279 mm./2.75kPa 6″ Exhaust Size 152 mm. Make-up Air 100 sq. in. 645 sq. cm. Example: 100 sq. in = 10 in. long X 10 in. wide Motor Size (50 or 60 Hz) .248 kW 1/3 H.P. Airflow (60 hz) 10.5 m^3/min 370 CFM Airflow (50 hz) 300 CFM 8.5 m^3/min

#### Electrical Specifications - 208-240/60/1

Voltage/Hz/Phase	208-240V/60Hz/1Phase
Running Amps	1.9
Circuit Protection Amps	15
Wire Size	12 gauge
Electrical Service	2 wire + ground

#### Electrical Specifications – 120/60/1

Voltage/Hz/Phase	120V/60Hz/1Phase
Running Amps	3.9
Circuit Protection Amps	15
Wire Size	12 gauge
Electrical Service	2 wire + ground

#### Electrical Specifications – 220-240/50/1

Voltage/Hz/Phase Running Amps Circuit Protection Amps Wire Size Electrical Service

Shipping Weight

Net Weight

220-240V/50Hz/1Phase 3.4 15 3.5 mm2 2 wire + ground 350 lbs. 320 lbs. 145 kg.

457 mm.

18"

Clearance Behind Machines (min.)

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## T-20 SWD DRYER DIMENSIONS – FRONT VIEW INCHES (MILLIMETERS)





## T-20 SWD DRYER DIMENSIONS – REAR VIEW INCHES (MILLIMETERS)



## **INSTALLATION AND OPERATING INSTRUCTIONS**

# This dryer may have been supplied as part of a washer/dryer stacked appliance. If so, refer to the washer instructions for uncrating and hard mounting the stacked unit to a concrete floor and observe the dryer clearances listed below.

STACK WASHER / DRYER INSTALLATION (when necessary):

- 1. Place dryer on top of washer and align (4) mounting holes. The front (2) mounting holes are located inside the lint compartment 5 <sup>3</sup>/<sub>4</sub>" from the front of the machine. The back (2) mounting holes are located on the right/left side of the machine, at the base of the back panel. Removing the rear guard is necessary to access the back mounting hole located opposite the duct work.
- 2. Use (4) supplied  $5/16'' \times 1-1/4 \log$  tip bolts to secure the dryer on top of the washer.

#### **DRYER INSTALLATION**

**1. CODE CONFORMITY.** All commercial dryer installations must conform with local codes or, in the absence of local codes, with the latest edition of the National Fuel Gas Code ANSI Z223.1A. Canadian installations must comply with current Standard CAN/CGA-B149 (.1 or .2) Installation Code for Gas Burning Appliances or Equipment, and local codes if applicable. Australian installations must meet installation requirements and pipe sizing requirements of AS/NZA 5601. The appliance, when installed, must be electrically grounded in accordance with the latest edition of the National Electrical Code, ANSI/NFPA70, or, when installed in Canada, with Standard CSA C22.1 Canadian Electrical Code Part 1.

To connect the dryer to the supply piping, use a listed connector in compliance with the Standard for Connectors for Gas Appliances, ANSI Z21.24 • CSA 6.10.

2. INSTALLATION CLEARANCES. This unit may be installed at the following alcove clearance. (millimeters)

I. Left Side	0″
II. Right Side	0″ *
III. Back	18" (457) (Certified for 1" (25) clearance; however, $18$ " (457) clearance is necessary behind the belt guard to allow servicing and maintenance.)
IV. Front	48" (1220) (to allow use of dryer)
V. Тор	Refer to figure on the next page labeled "Vertical Clearance Dimensions".
	AB. Certification allows 0" clearance for wall framing at the top up to 18" (456 mm) back from the front.
	However, a 1/4" (6 mm) clearance should be allowed in case the dryer needs moving. C. A 10" (250 mm) clearance is required from top at all other points.
VI. Floor	This unit may be installed upon a combustible floor.

Do not obstruct the flow of combustion and ventilation air.

Maintain minimum of 1" (25mm) clearance between duct and combustible material.

Refer to installation label attached to the rear guard of the dryer for other installation information.



Vertical Clearance Dimensions

**3. MAKE-UP AIR.** Adequate make-up air must be supplied to replace air exhausted by dryers on all types of installations. Refer to specifications for the minimum amount of make-up air opening to outside for each dryer. This is a net requirement of effective area. Screens, grills or louvers, which will restrict the flow of air, must be considered. Consult the supplier to determine the free area equivalent for the grill being used. The source of make-up air should be located sufficiently away from the dryers to allow an even airflow to the air intakes of all dryers. Multiple openings should be provided.

The sources of all make-up air and room ventilation air movement to all dryers must be located away from any dry cleaners. This is necessary so that solvent vapors will not be drawn into the dryer inlet ducts. Dry cleaner solvent vapors will decompose in contact with open flame such as the gas flame present in clothes dryers. The decomposition products are highly corrosive and will cause damage to the dryer(s) ducts and clothes loads.

**4. ELECTRICAL REQUIREMENTS.** The electrical power requirements necessary to operate the unit satisfactorily are listed on the serial plate located on the back panel of each dryer and in the specifications section of this manual. The electrical connection should be made to the terminal board, on the rear of the unit. It is absolutely necessary that the dryer be grounded to a known ground. Individual circuit breakers for each dryer are required.

Individual circuit breakers for each unit are recommended. Do not use ground-fault circuit breakers or ground-fault circuit interrupter outlets. The wiring diagram is located on the belt guard on the back of the machine.

## **IMPORTANT: TRANSIENT VOLTAGE SURGE SUPPRESSORS**

Like most electrical equipment, your new machine can be damaged or have its life shortened by voltage surges due to lightning strikes which are not covered by factory warranty. Local power distribution problems also can be detrimental to the life of electrical components. We recommend the installation of transient voltage surge

suppressors for your new equipment. These devices may be placed at the power supply panel for the complete installation and don't require an individual device for each machine.

These surge protectors help to protect equipment from large spikes and also from small ongoing spikes in the power that occur on a day to day basis. These smaller surges can shorten overall life of electrical components of all types and cause their failure at a later date. Although they can't protect against all events, these protective devices have a good reputation for significantly lengthening the useful life of electronic components. Electronic components are helped to have a longer useful life when they are supplied with the clean stable electrical power they like.

We are including the following names and phone numbers of a few suppliers of these devices for those who don't currently have a source.

MANUFACTURER	<u>CONTACT</u>	PHONE
Innovative Technology, Inc (Eaton)	Factory	1-800-647-8877 or <u>www.itvss.com</u>
EFI Electronics Corporation (Schneider Electric)	Factory Distributor – Surge Pro	1-800-877-1174 or <u>www.efinet.com</u> 1-877-233-0153
MCG Surge Protection	Factory	1-800-851-1508 or www.mcgsurge.com
Advanced Protection Technologies Inc.	Factory	1-800-237-4567 or <u>www.aptsurge.com</u>

**5. GAS REQUIREMENTS.** The complete gas requirements necessary to operate the dryer satisfactorily are listed on the serial plate located on the back panel of the dryer.

The inlet gas connection to the unit is 1/2-inch pipe thread.

An individual gas shutoff valve is recommended for each dryer and may be required by local code (not supplied).

A joint compound resistant to the action of liquefied petroleum gases should be employed in making pipe connections.

A <sup>1</sup>/<sub>8</sub>-inch NPT plugged tapping, accessible for test gage connection, must be installed immediately upstream of the gas supply connection to the dryer.

A drip tee should be provided in the gas piping entering the unit to catch dirt and other foreign articles.

All pipe connections should be checked for leakage with soap solution. Never check with an open flame.

The recommended natural gas supply pressure is 7 inches water column (17.8cm) at each dryer.

For altitudes above 2,000 feet (610m) it is necessary to de-rate the BTU input. Contact your local distributor for instructions.

L.P. gas conversion kits are available for this dryer. Contact your local distributor.

**CAUTION:** The dryer must be disconnected from the gas supply piping system during any pressure testing of that system. Do not expose the dryer's gas control valve to testing pressure.

**6. EXHAUST INSTALLATION.** Exhausting of the dryer(s) should be planned and constructed so that no air restrictions occur. Any restriction due to pipe size or type of installation can cause slow drying time, excessive heat, and lint in the room.

From an operational standpoint, incorrect or inadequate exhausting can cause a cycling of the high limit thermostat which shuts off the main burners and results in inefficient drying.

Individual exhausting of the dryers is recommended. All heat, moisture, and lint should be exhausted outside by attaching a pipe of the proper diameter to the dryer adapter collar and extending it out through an outside wall. This pipe must be very smooth on the inside, as rough surfaces tend to collect lint which will eventually clog the duct and prevent the dryer from exhausting properly. All elbows must be smooth on the inside. All joints must be made so the exhaust end of one pipe is inside the next one downstream. The addition of an exhaust pipe 8514-280-001 REV H PAGE 9 tends to reduce the amount of air the blower can exhaust. This does not affect the dryer operation if held within practical limits. For the most efficient operation, it is recommended that no more than 14' (4m) of straight 6" (152mm) diameter pipe be used with two right angle elbows. When more than two elbows are used, 2' (600mm) of straight pipe should be removed for each additional elbow. No more than four right angle elbows should be used to exhaust a dryer.

Maintain minimum 1" (25mm) clearance between duct and combustible material.

If the exhaust pipe passes through a wall, a metal sleeve of slightly larger diameter should be set in the wall and the exhaust pipe passed through this sleeve. This practice is required by some local codes and is recommended in all cases to protect the wall. This type of installation should have a means provided to prevent rain and high winds from entering the exhaust when the dryer is not in use. A hood with a hinged damper can be used for this purpose. Another method would be to point the outlet end of the pipe downward to prevent entrance of wind and rain. In either case, the outlet should be kept clear, by at least 24" (610mm), of any objects which would cause an air restriction.

Never install a protective screen over the exhaust outlet.

When exhausting a dryer straight up through a roof, the overall length of the duct has the same limits as exhausting through a wall. A rain cap must be placed on top of the exhaust and must be of such a type as to be free from clogging. The type using a cone shaped "roof" over the pipe is suitable for this application.

Exhausting the dryer into a chimney or under a building is not permitted. In either case there is a danger of lint build-up which can be highly combustible.

Installation of several dryers, where a main discharge duct is necessary, will need the following considerations for installation. Individual ducts from the dryers into the main discharge duct should be at a 45 degree angle in the direction of discharge air flow.

**NOTE:** Never install the individual ducts at a right angle into the main discharge duct. The individual ducts from the dryers can enter at the sides or bottom of the main discharge duct. The main duct can be rectangular or round, provided adequate air flow is maintained. For each individual dryer, the total exhausting (main discharge duct plus duct outlet from the dryer) should not exceed the equivalent of 14 feet (6m) and two elbows. The diameter of the main discharge duct at the last dryer must be maintained to exhaust end.

**NOTE:** A small diameter duct will restrict air flow; a large diameter duct will reduce air velocity – both contributing to lint build up. An inspection door should be provided for periodic clean-out of the main duct.

**NOTE**: STATIC BACK PRESSURE should be a maximum of 0.3 at the rear exhaust outlet of the dryer. If multiple dryers are connected to the common duct, ensure the back draft damper is installed properly.



DIAMETER TO INCREASE AS SHOWN



**7. DRYER IGNITION (SOLID STATE IGNITION).** The solid-state ignition system lights the main burner gas by spark. The gas is ignited and burns only when the gas-valve relay (in the electronic controller) calls for heat. The procedure for first-time starting of a dryer is as follows:

A. First, review and comply with the "WARNINGS ABOUT USE AND OPERATION" found on the inside front cover of this manual. Be sure the electrical power supply is connected correctly. The white (neutral) wire is to be connected to the N terminal while the black (line) wire to the L1 terminal of the terminal block in the rear control box. The dryer MUST be properly grounded.

B. Make sure all gas supply lines are purged of air. Close the main gas shut-off valve and wait for five minutes before turning the valve back on.

C. Turn on main electrical power switch. The dryer may be started by following the "OPERATING INSTRUCTIONS" found later in this manual.

D. Natural gas and liquefied petroleum gas fired dryers both operate in the same manner. When gas-valve relay contacts are closed (indicating a demand for heat), the solid-state ignition control will automatically supply energy to the redundant gas valve. Spark will continue until a flame is detected by the sensing probe, but not longer than 10 seconds. If the gas fails to ignite within 10 seconds, the gas will shut off for 15 seconds. The control will attempt to ignite two more times in a similar manner. If the gas fails to ignite after three tries, the gas valve closes and the system will "lock out". No further attempts at ignition will be performed automatically. It is then necessary to interrupt electrical power to the ignition system before making another attempt to light the burners. This can be done by opening the dryer door, allowing the dryer to come to a stop for 15 seconds, closing the door, and pushing the "Start"  $\diamondsuit$  button. The dryer will then repeat the ignition trial cycle.

#### **DRYER SHUTDOWN**

To render the dryer inoperative, turn off the main gas shut-off valve and disconnect electrical power to the dryer.

## THE INSTALLER MUST TEST THE DRYER FOR OPERATION AND INSTRUCT THE USER BEFORE LEAVING THE INSTALLATION.

## **DESCRIPTION OF DRYER CONTROL**



## **OPERATING INSTRUCTIONS**

#### **STARTING THE DRYER**

- 1. The display on the dryer control will show the required vend amount when in idle mode. Once the door is opened it will prompt the user to add money. Load clothes into the dryer. Close the door completely.
- 2. Deposit coins equal to or greater than the displayed vend price. The display on the control will prompt the user to choose a drying temperature.
- 3. Select the drying temperature by pressing the appropriate button for "high", "med" (medium) or "low". This will turn on the red indicator light showing the selected temperature.
- 4. Press the "start" button to start dryer. This will turn on the green indicator light. The drying time purchased is now displayed. The colon begins flashing to indicate that the timer is counting down.

#### **RUNNING THE DRYER**

-Opening the door will stop the dryer, but the timer will continue to count down. The dryer will restart, if time has not expired, upon closing the door and pressing the "start" button.

-Selected temperature may be changed at any time (unless Temperature Pricing feature is activated).

-Running time may be extended by depositing coins and pressing the "start" button. Unless time has expired, the controller will accept coins whether or not the original vend price is equaled.

-If time has run out, the dryer must be restarted as if it was at the beginning of drying the load, which requires meeting or exceeding the vend price.

-Clothes should be removed promptly after the cycle is completed to prevent excessive wrinkling.

-Cool-down time (owner programmable) is always part of the cycle time purchased by the customer. For example, if the cool-down time is 2 minutes, then the last 2 minutes of the cycle will have no heat.

## PROGRAMMING THE DRYER CONTROL

The dryer control can be programmed to prompt the user for alternate vend prices, change dryer cycle times, temperatures and many other options. This can be accomplished in two ways:

- 1. Manual programming utilizing the "Start", "High", "Medium" and "Low" buttons for the bottom dryer.
- 2. USB download of a customizable User File. For instructions on using the USB download feature, please contact your local Dexter distributor or visit DexterLive.com.

#### MANUAL PROGRAMMING:

The dryer must be in idle mode for the manual programming menus to be accessed. Idle mode is when the dryer is not actively running a drying cycle and the vend price is displayed on the screen (for both upper and lower dryers).

To enter the manual programming mode, the control tray on the dryer must be unlocked and pulled out to reveal the programming button. The programming button is then pressed for 1 second. The control should display "DRYER PROGRAMMING".

See the figure below for the location of the programming button on the control tray.



When manual programming mode is entered, the "Start", "High", "Medium" and "Low" buttons perform alternate functions.

Button Name	Alternate Function in Programming Mode
Start	Becomes the action to accept the displayed option or the "Enter" key
High	Becomes the action to move UP through displayed options (Press & hold for accelerated scrolling)
Medium	Becomes the action to move DOWN through displayed options (Press & hold for accelerated scrolling)
Low	Becomes the action to move back a step (1 press) or EXIT from programming mode (press for 3 seconds)

These alternate functions allow the user to move through a menu of options to choose various programmable settings. The figure below shows the top level menu. Choosing an option from the top level menu will then display the next level of options (the sub menu).



#### **Quick Test Option:**

When the Quick Test Option is chosen, the dryer will begin a shortened dry cycle without the displayed vend price being met. The purpose of this shortened cycle is to test all major components for proper operation. Error Codes should all function normally during this test. The display will show customer prompts in a similar way to a normal dry cycle.

#### **Continuous Test Option:**

Similar to the Quick Test, when the Continuous Test Option is chosen, the dryer will begin a dry cycle without the displayed vend price being met. However, in this case, it will be a continuously-running cycle. It will not time out after any designated amount of time.

CAUTION: This option is meant for factory use only. Do not operate the dryer with this cycle active without factory authorization.

#### **Error Code Historical Log:**

The last fifteen occurring error codes will be stored in the control with a time and date stamp. The purpose of this option is only to observe the history of these code occurrences (no changes can be made).

The time is based off the Real Time Clock, but potentially shifted by the user's manual programming changes (Shift Hours option) and/or network time override. As additional error codes occur, the oldest of the fifteen logged codes is cleared from memory.

#### **Prices Option:**

This option allows the user to set values for coin acceptor inputs, vend price & time and extend dry price & time. It also allows the user to return the values to factory defaults. After changing prices using the "Up" or "Down" buttons, the "Enter" button must be pressed again for the control to store the changes that have been made. Note that, in general, time values are set in 1 minute increments. This can be changed to 30 second increments, by changing the "Display Time" to "MIN+SEC" (refer to the "Settings" section").

- 1. "RIGHT COIN" and "LEFT COIN" are the two possible inputs from coin acceptors.
- 2. "PRICE SET VEND" is the actual Base Vend Price (or Vend Price A) that is shown on the control display. The value can be increased or reduced even down to "0". In this case, the displays will prompt "FREE" and the cycle will start as soon is the "Start' button is pressed (without any vend price being met).
- 3. "TIME SET VEND" is the cycle time that the customer has available once they've met the Base Vend Price.
- 4. "FREE SET TIME" is the cycle time that the customer has available if the Base Vend Price is set to "FREE".
- 5. "EXTEND DRY" sets the price and time for additional drying time that becomes available after the customer has already met the Base Vend Price.

To reset either the coin acceptor inputs or the vend price to factory default, press "Enter" when the "DEFAULT" prompt is shown. Press "Enter" again when the "RESET" prompt is shown to confirm the action.

Example- A store owner has programmed the control for the following values:

Base Vend Price	\$1.00	
Base Vend Time	30 minutes	
Extend Dry Price	\$.25	
Extend Dry Time	8 minutes	

In this case, the customer adds 4 quarters to satisfy the \$1.00 Vend Price. The display shows 30 minutes of drying time. At this point, if an additional quarter is added, the customer display shows an additional 8 minutes of drying time (38 minutes total) as per the Extend Dry Price & Time.

The customer starts the drying cycle and at 25 minutes into the cycle (13 minutes displayed), they add an additional quarter. The controller adds 8 minutes to the displayed time again (21 minutes total) as per the Extend Dry Price & Time.

"AFTER CYCLE" allows the user to choose whether a customer is allowed to add "EXTEND DRY" time for up to 30 seconds after the dryer door is opened after a completed cycle.

The figure below shows the sub menu options for Prices:



#### **Cycles Option:**

This option allows the user to set temperature and cooldown information for the drying cycle. It also allows the user to return the values to factory defaults.

- 1. "TEMP SETTINGS" allows the user to make adjustments, within a designated range, to the cycling temperature for each of the "Low", "Medium" and "High" customer choices.
- 2. In addition, on the "Low" setting, the user can reduce the cycling temperature below 110 degrees F. In this case, when the customer chooses the "Low" setting, the dryer will not turn on the gas valve. When checked, the displayed temperature will read "NO HEAT". Press and hold the "start" button and the active temperature button while the dryer is running to display the current dryer temperature.
- 3. "COOLDOWN" allows the user to change the designated time at the end of a cycle where the gas valve relay is turned off. On "High" and "Medium" temperature settings, the designated time cannot be reduced to less than 2 minutes.
- 4. "DEFAULT TEMP" allows the user to choose which general temperature setting, "High", "Medium" or "Low", the control will default to at the beginning of each cycle if the customer does not make a choice.
- 5. "ANTI WRINKLE" is a feature that periodically rotates the dryers after a cycle is complete. If the door was closed at the end of the cycle, and is left closed for 5 minutes, the enunciator will sound and the display begins scrolling "ANTI WRINKLE". 5 seconds later, the dryer motor will turn on for 60 seconds and then turn off. The gas valves will not be turned on. The "ANTI WRINKLE" message will continue throughout the time that the motor is turned on. The user can choose to enable or disable this feature.

To reset all values in the Cycles option to factory default, press "Enter" when the "DEFAULT" prompt is shown. Press "Enter" again when the "RESET" prompt is shown to confirm the action.



#### **Temperature Pricing Option:**

This option allows the user to require additional vend amounts be added based on the drying temperature chosen by the customer. This pricing adder is effective only for the Base Vend Price (it does not affect the Extend Dry Price). It allows a pricing adder separate for "Medium" and "Hot" temperature settings.

Example A store owner has programmed the control for the following.		
Vend Price	\$1.00	
Vend Time	30 minutes	
Extend Dry Price	\$.25	
Extend Dry Time	8 minutes	
Medium Adder	\$.25	
Hot Adder	\$.50	

Example- A store owner has programmed the control for the following:

In this case, the Vend Price is displayed as:

\$1.00 if Low Temperature is chosen

\$1.25 if Medium Temperature is chosen

\$1.50 if Hot Temperature is chosen

When Temperature Pricing Adders are in place (user has chosen a higher value then \$0.00), if the customer attempts to change their temperature selection from a lower temperature to a higher one during a drying cycle, there will be no change in the temperature selection. The higher temperature buttons are disabled until the drying cycle is complete and a new Vend Price is required.

The figure below shows the sub menu options for Temperature Pricing:



#### Settings Options:

The Settings options allow for the user to make various programming changes to change how the control operation affects the customer. See below for detailed information on each next level option.

- 1. "Decimal Point": If the user programs the Decimal Point to "OFF", control display will not show a decimal point on any vend price values. The factory default is "ON".
- 2. "Display Time": If the user programs this value to "MIN", then minutes only will be shown for the cycle time. If it is programmed to "MIN+SEC", then minutes and seconds will be shown. This also allows other programming changes, involving time, to be made in either minute increments or minutes & seconds increments, as desired.
- 3. "Temp Scale": If the user programs this value to "F", then the temperatures will be displayed in Fahrenheit units. If it is programmed to "C", then the temperature will be in Celsius units.
- 4. "Sounds": If the user programs the Sounds to "OFF", the control will not sound the enunciator at the end of a dry cycle. The factory default is "ON".
- 5. "Password": If the user programs the password to any value other then 0000, the control will prompt the user to enter a password (the programmed value) before manual programming can be accessed. The factory default is "0000" (no password).
  - a. Note that if the user forgets the Password, it can be reset to factory default (no password), by performing a hard reset on the control. Please refer to the appropriate section of this manual to understand how to perform a hard reset.
  - b. The individual digits of the Password can be set by using the "Up" or "Down" buttons to change the number that is flashing. Once the desired number is chosen for a single digit, press the "Enter" button to move to the next one. Once all four desired digits are chosen, the "Enter" button must be held down for 3 seconds to confirm that the complete password should be set.
- 6. "Language": The control uses English for the default language of the customer prompts. Alternatively, the user can choose Spanish, French, Malay, or Italian for the customer display prompts. However, all other prompts, such as Manual Programming, USB Programming and any Error Codes will still display in English.
- 7. "Shift Hours": This feature allows the user to shift the time used by the control from the time kept internally by the control. The control uses a Real Time Clock (RTC) to internally track the time and date. The RTC continues operation even if the control loses external power. The RTC is set for Central Standard Time and no daylight savings. Because the machine may be located in another time zone, the user can choose to create an alternate time & date that tracks in parallel to the RTC. When this alternate time is chosen, or shifted from the RTC, the alternate time will be used to, for example, track error code occurrences and set time-of-day pricing changes.
  - a. The hours in "SHIFT HOURS" can be set by using the "Up" or "Down" buttons to change the number that is flashing. Once the desired hour shift is chosen, press the "Enter" button to move to the minutes. Once the hours and minute shift are both chosen, the "Enter" button must be held down for 3 seconds to confirm that the complete shifted time is set.
- 8. "Time": The control uses a Real Time Clock (RTC) to internally track the time and date. The RTC continues operation even if the control loses external power. The RTC is set for Central Standard Time and no daylight savings. However, if a problem occurs and the RTC time is not accurate, it can be reset to the current time using this option.
  - a. The hours in "TIME" can be set by using the "Up" or "Down" buttons to change the number that is flashing. Once the desired hour is chosen, press the "Enter" button to move to the minutes. Once the hours and minute are both chosen, the "Enter" button must be held down for 3 seconds to confirm that RTC is meant to be reset to the complete entry.
- 9. "Date": Similar to "Time", if a problem occurs and the RTC date is not accurate, it can be reset to the current date using this option.
  - a. The day of the month in "DATE" can be set by using the "Up" or "Down" buttons to change the number that is flashing. Once the desired day of the month is chosen, press the "Enter" button to move to the month of the year. Once the desired month of the year is chosen, press the "Enter" button to move to the year. Once the day, month and year are all chosen, the "Enter" button must be held down for 3 seconds to confirm that RTC is meant to be reset to the complete entry.
- 10. "Out of Service" The control can be put into an Out-of-Service mode via manual programming. When the mode is "ON", the control will scroll "OUT OF SERVICE" on the display. The machine will not react to any vend input and will not operate when in this mode. The factory default is "OFF".

To reset all values in the Settings options to factory default, press "Enter" when the "DEFAULT" prompt is shown. Press "Enter" again when the "RESET" prompt is shown to confirm the action.

The figure below shows the sub menu options for Settings:



#### Usage Menu:

The Usage menu allows for the user to track data about machine usage. See below for detailed information on each sub menu option.

- 1. "Coin Audit": The coin audit field shows the accumulation of coin pulses that were sent to the control over each of the left and right coin inputs. Note that this is a count of coin pulses, not an accumulated report of vend value.
  - a. The user can also return the coin audit amounts to the factory default setting (zero). To reset all coin audit values, press "Enter" when the "DEFAULT" prompt is shown. Press "Enter" again when the "RESET" prompt is shown to confirm the action.
- 2. "Motor Hours": The motor hours field shows the accumulated hours of operation for the dryer motor. In many cases, it will match the cycle hours of the machine. However, separate fields are provided in the event that a motor is replaced on a machine. The user can set the motor hours to a designated number. For example, if it is necessary to replace the control on a machine, the new control could be programmed to show the motor hours that were recorded by the previously installed control. The individual digits of the hours count can be set by using the "Up" or "Down" buttons to change the number that is flashing. Once the desired digit of the hours is chosen, press the "Enter" button to move to the next digit. Once the complete hours are chosen, the "Enter" button must be held down for 3 seconds to confirm the action.
  - a. The user can also return the motor hours to the factory default setting (zero). To reset the motor hours, press "Enter" when the "DEFAULT" prompt is shown. Press "Enter" again when the "RESET" prompt is shown to confirm the action.
- 3. "Cycle Hours": The cycle hours field shows the accumulated hours of operation for the dryer. In many cases, it will match the motor hours of the machine. However, separate fields are provided in the event that a motor is replaced on a machine. See the Motor Hours description for more information.

The figure below shows the sub menu options for Usage:



#### **Control Menu:**

The Control menu allows for the user to observe important technical information for the control. No changes can be made at this menu. See below for detailed information on each sub menu.

- 1. "Serial Number": This is the control serial number.
- 2. "MAC Address": The MAC Address is a unique identifier designated to the control by the manufacturer. It allows the control to be recognized by network routers.
- 3. "IP Address": The IP Address is the identifier given to the control by a network system.
- 4. "M Firmware": The M Firmware is the Main Firmware currently loaded onto the control.
- 5. "C Firmware": The C Firmware is the Communications Firmware currently loaded onto the control.

The figure below shows the sub menu options for Control:



## **SERVICING AND TROUBLESHOOTING**

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

ATTENTION. Lors des opérations d'entretien des commandes, étiqueter tous les fils avant de les déconnecter. Toute erreur de câblage peut être une source de danger et de panne.

If any of the following symptoms occur on this dryer, check the suggested remedies listed below. If all probable causes have been eliminated and the symptom still exists, contact your local Dexter agent for further troubleshooting assistance. See contact information in Preventative Maintenance section. Parts & Service Manuals from Dexter are also available for further troubleshooting assistance.

Symptom	Probable Cause	Suggested Remedy
Tumbler Does not turn	Control	Check that Control Display shows time available for drying. If not, deposit money as needed.
	Loading Door	Check that Loading Door is completely closed
	Lint Compartment Door	Check that Lint Compartment Door is completely closed.
	Drive Belts	Check drive belts for excessive wear. Replace as needed.
Tumbler Turns, but no burner flame is present	Gas shut-off valve	Make sure gas shut-off valve is in the open position
	Ignition Module	Follow the procedure for checking the ignition cycle listed in Dryer Ignition section of this manual.
Slow Drying	Control	Check that proper Temperature setting is chosen.
	Lint Screen	Clean Lint Screen
	Air flow Restrictions/ Make-up Air	Follow installation guidelines for static back pressure and make-up air
	Exhaust	Check exhaust for obstructions, follow installation guidelines
"Temp Sensor Short" or "Temp Sensor Open" Error Code displayed on control	Temperature Sensor	Press programming button to clear Error Code. If Error code persists, contact Dexter agent for assistance
"PCB Error" or "Comm Error" code displayed on control	Control Error	Cycle power to dryer to clear Error Code. If Error Code persists, contact Dexter Agent for Assistance

## PREVENTIVE MAINTENANCE INSTRUCTIONS

#### DAILY

- 1. Clean the lint screen. Use a soft brush if necessary.
- 2. Check the lint screen for tears. Replace if necessary.
- 3. Clean lint from the lint screen compartment.

#### MONTHLY

- 1. Remove lint accumulation from the end bells of the motor.
- 2. Remove lint accumulation from front control area.
- Remove lint and dirt accumulation from the top of the dryer and all areas above, below, and around the burners and burner housing. Failure to keep this portion of the dryer clean can lead to a build-up of lint creating a fire hazard.
- 4. Place a few drops of light oil on the clothes door hinge.
- 5. Grease the bearings and the shaft of the intermediate drive pulley. Use an Alemite grease gun and Molykote BR2-S grease.

#### QUARTERLY

- 1. Check the belts for looseness, wear, or fraying.
- 2. Inspect the gasket of the door glass for excessive wear.
- 3. Check tightness of all fasteners holding parts to support channel.
- 4. Check tightness of all set screws.
- 5. Inspect the impeller for tightness of the blades to hub.
- 6. Check the tightness of the tumbler shaft retaining bolt.
- 7. Remove the air flow switch assembly and check the tumbler thru-bolts for tightness.
- 8. Remove lint accumulation from the primary air ports in the burners.
- 9. Apply a few drops of oil to each spacer tube on the tension arm assembly.
- 10. Grease the pivot pins and the tension arms where in contact with each other.

#### SEMI-ANNUALLY

- 1. Remove and clean the main burners.
- 2. Remove all orifices and examine for dirt and hole obstruction.
- 3. Remove all lint accumulation. Remove the front panel and the lint screen housing and remove lint accumulation.

#### ANNUALLY

- 1. Check the intermediate pulley bearings for wear.
- 2. Check and remove any lint accumulation from the exhaust system.

SERVICE PARTS	PART NUMBER
DRIVE BELT, MOTOR	9040-076-012
DRIVE BELT, TUMBLER	9040-073-013
LINT SCREEN FILTER	9555-057-011

For service and parts information, contact your local Dexter agent. If a Dexter agent is not available, contact **Dexter Laundry, Inc.** directly as listed below:

Mailing Address: 2211 West Grimes Avenue Phone: 1-800-524-2954 Fairfield, IA 52556 USA Website: www.dexter.com 8514-280-001 REV H PAGE 25

## Instructions - Convert a Dual Voltage SWD Dryer from 120V to 208-240V (No Neutral Required)

- 1. Remove incoming power from the dryer. Use a known working voltmeter to check power.
- 2. Remove the cover of the control box assembly from the dryer using a 5/16" wrench.
- 3. Move both black/blue wires from the N position of the main power terminal block to the L2 position of the main power terminal block in the upper control box assembly. See figure below.
- 4. Move the brown wire of the motor harness in the terminal block to a lower left terminal in the control box assembly. See figure below.
- 5. Move the white/red wire of the motor harness in the terminal block to an upper inner right terminal in the control box assembly. See figure below.

Conversion instructions continued on next page.



6. Move the black/red wire from the 120V tap on the transformer found in the bottom of control box to the required voltage tap based on actual supply voltage measurement. See figure below.

## CONTROL TRANSFORMER CONNECTIONS AS VIEWED FROM SIDE OF TRANSFORMER



- 7. Reconnect power to the dryer and test to ensure proper operation; one line voltage to L1, one line voltage to L2 and the earth ground to E.
- 8. Reinstall the cover of the control box assembly on the dryer using a 5/16" wrench.