

# Tumble Dryer

Refer to Page 7 for Model Identification  
Designs 3, 5 and 6

Programming

## Original Instructions

Keep These Instructions for Future Reference.

**CAUTION: Read the instructions before using the machine.**

(If this machine changes ownership, this manual must accompany machine.)



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Part No. 70573001ENR5  
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## WARNING

Machine installations must comply with minimum specifications and requirements stated in the applicable Installation Manual, any applicable municipal building codes, water supply requirements, electrical wiring regulations and any other relevant statutory regulations. Due to varied requirements and applicable local codes, this machine must be installed, adjusted, and serviced by qualified maintenance personnel familiar with applicable local codes and the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury, property damage, and/or equipment damage, and will void the warranty.

W820

**NOTE:** The WARNINGS and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution, and care must be exercised when installing, maintaining, or operating the machine.

**NOTE:** The default values written in this manual are set according to the EU market. There is a possibility that default values can differ in other markets settings.

Any problems or conditions not understood should be reported to the dealer, distributor, service agent or the manufacturer.

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# Introduction

## Model Identification

Information in this manual is applicable to these models. **Refer to the machine serial plate for the model number.**

25 Series (11 Kg)							
BA025E	BK025F	HH025E	HT025S	PK025E	SH025F	SU025E	UJ025F
BA025F	BK025L	HH025F	HU025E	PK025L	SH025L	SU025F	UJ025L
BA025L	BK025N	HH025L	HU025F	PK025N	SH025N	SU025L	UJ025N
BA025N	BK025R	HH025N	HU025L	PR025E	SH025R	SU025N	UJ025R
BA025R	BL025E	HH025R	HU025N	PR025S	SH025S	SU025R	UJ025S
BA025S	BL025L	HH025S	HU025R	PT025E	SJ025D	SU025S	UK025E
BG025D	BR025E	HJ025D	HU025S	PT025L	SJ025E	UA025E	UK025F
BG025E	BR025S	HJ025E	NT025E	PT025N	SJ025F	UA025F	UK025L
BG025F	BU025E	HJ025F	NT025L	PT025S	SJ025L	UA025L	UK025N
BG025L	BU025F	HJ025L	NT025N	PU025E	SJ025N	UA025N	UK025R
BG025N	BU025L	HJ025N	NT025S	PU025L	SJ025R	UA025R	UL025E
BG025R	BU025N	HJ025R	PA025E	PU025N	SJ025S	UA025S	UL025L
BG025S	BU025R	HJ025S	PA025L	PU025S	SK025E	UG025D	UR025E
BH025E	BU025S	HK025E	PA025N	SA025E	SK025F	UG025E	UR025S
BH025F	HA025E	HK025F	PA025S	SA025F	SK025L	UG025F	UT025E
BH025L	HA025F	HK025L	PG025E	SA025L	SK025N	UG025L	UT025F
BH025N	HA025L	HK025N	PG025L	SA025N	SK025R	UG025N	UT025L
BH025R	HA025N	HK025R	PG025N	SA025R	SL025E	UG025R	UT025N
BH025S	HA025R	HL025E	PG025S	SA025S	SL025L	UG025S	UT025R
BJ025D	HA025S	HL025L	PH025E	SG025D	SR025E	UH025E	UT025S
BJ025E	HG025D	HR025E	PH025L	SG025E	SR025S	UH025F	UU025E
BJ025F	HG025E	HR025S	PH025N	SG025F	ST025E	UH025L	UU025F
BJ025L	HG025F	HT025E	PH025S	SG025L	ST025F	UH025N	UU025L
BJ025N	HG025L	HT025F	PJ025E	SG025N	ST025L	UH025R	UU025N
BJ025R	HG025N	HT025L	PJ025L	SG025R	ST025N	UH025S	UU025R
BJ025S	HG025R	HT025N	PJ025N	SG025S	ST025R	UJ025D	UU025S
BK025E	HG025S	HT025R	PJ025S	SH025E	ST025S	UJ025E	

<b>30 Series (13 Kg)</b>							
BA030E	BK030F	HH030E	HT030S	PK030E	SH030F	SU030E	UJ030F
BA030F	BK030L	HH030F	HU030E	PK030L	SH030L	SU030F	UJ030L
BA030L	BK030N	HH030L	HU030F	PK030N	SH030N	SU030L	UJ030N
BA030N	BK030R	HH030N	HU030L	PR030E	SH030R	SU030N	UJ030R
BA030R	BL030E	HH030R	HU030N	PR030S	SH030S	SU030R	UJ030S
BA030S	BL030L	HH030S	HU030R	PT030E	SJ030D	SU030S	UK030E
BG030D	BR030E	HJ030D	HU030S	PT030L	SJ030E	UA030E	UK030F
BG030E	BR030S	HJ030E	NT030E	PT030N	SJ030F	UA030F	UK030L
BG030F	BU030E	HJ030F	NT030L	PT030S	SJ030L	UA030L	UK030N
BG030L	BU030F	HJ030L	NT030N	PU030E	SJ030N	UA030N	UK030R
BG030N	BU030L	HJ030N	NT030S	PU030L	SJ030R	UA030R	UL030E
BG030R	BU030N	HJ030R	PA030E	PU030N	SJ030S	UA030S	UL030L
BG030S	BU030R	HJ030S	PA030L	PU030S	SK030E	UG030D	UR030E
BH030E	BU030S	HK030E	PA030N	SA030E	SK030F	UG030E	UR030S
BH030F	HA030E	HK030F	PA030S	SA030F	SK030L	UG030F	UT030E
BH030L	HA030F	HK030L	PG030E	SA030L	SK030N	UG030L	UT030F
BH030N	HA030L	HK030N	PG030L	SA030N	SK030R	UG030N	UT030L
BH030R	HA030N	HK030R	PG030N	SA030R	SL030E	UG030R	UT030N
BH030S	HA030R	HL030E	PG030S	SA030S	SL030L	UG030S	UT030R
BJ030D	HA030S	HL030L	PH030E	SG030D	SR030E	UH030E	UT030S
BJ030E	HG030D	HR030E	PH030L	SG030E	SR030S	UH030F	UU030E
BJ030F	HG030E	HR030S	PH030N	SG030F	ST030E	UH030L	UU030F
BJ030L	HG030F	HT030E	PH030S	SG030L	ST030F	UH030N	UU030L
BJ030N	HG030L	HT030F	PJ030E	SG030N	ST030L	UH030R	UU030N
BJ030R	HG030N	HT030L	PJ030L	SG030R	ST030N	UH030S	UU030R
BJ030S	HG030R	HT030N	PJ030N	SG030S	ST030R	UJ030D	UU030S
BK030E	HG030S	HT030R	PJ030S	SH030E	ST030S	UJ030E	



<b>T30 Series (13/13 Kg)</b>							
BAT30E	BKT30F	HHT30E	HTT30S	PKT30E	SHT30F	SUT30E	UJT30F
BAT30F	BKT30L	HHT30F	HUT30E	PKT30L	SHT30L	SUT30F	UJT30L
BAT30L	BKT30N	HHT30L	HUT30F	PKT30N	SHT30N	SUT30L	UJT30N
BAT30N	BKT30R	HHT30N	HUT30L	PRT30E	SHT30R	SUT30N	UJT30R
BAT30R	BLT30E	HHT30R	HUT30N	PRT30S	SHT30S	SUT30R	UJT30S
BAT30S	BLT30L	HHT30S	HUT30R	PTT30E	SJT30D	SUT30S	UKT30E
BGT30D	BRT30E	HJT30D	HUT30S	PTT30L	SJT30E	UAT30E	UKT30F
BGT30E	BRT30S	HJT30E	NTT30E	PTT30N	SJT30F	UAT30F	UKT30L
BGT30F	BUT30E	HJT30F	NTT30L	PTT30S	SJT30L	UAT30L	UKT30N
BGT30L	BUT30F	HJT30L	NTT30N	PUT30E	SJT30N	UAT30N	UKT30R
BGT30N	BUT30L	HJT30N	NTT30S	PUT30L	SJT30R	UAT30R	ULT30E
BGT30R	BUT30N	HJT30R	PAT30E	PUT30N	SJT30S	UAT30S	ULT30L
BGT30S	BUT30R	HJT30S	PAT30L	PUT30S	SKT30E	UGT30D	URT30E
BHT30E	BUT30S	HKT30E	PAT30N	SAT30E	SKT30F	UGT30E	URT30S
BHT30F	HAT30E	HKT30F	PAT30S	SAT30F	SKT30L	UGT30F	UTT30E
BHT30L	HAT30F	HKT30L	PGT30E	SAT30L	SKT30N	UGT30L	UTT30F
BHT30N	HAT30L	HKT30N	PGT30L	SAT30N	SKT30R	UGT30N	UTT30L
BHT30R	HAT30N	HKT30R	PGT30N	SAT30R	SLT30E	UGT30R	UTT30N
BHT30S	HAT30R	HLT30E	PGT30S	SAT30S	SLT30L	UGT30S	UTT30R
BJT30D	HAT30S	HLT30L	PHT30E	SGT30D	SRT30E	UHT30E	UTT30S
BJT30E	HGT30D	HRT30E	PHT30L	SGT30E	SRT30S	UHT30F	UUT30E
BJT30F	HGT30E	HRT30S	PHT30N	SGT30F	STT30E	UHT30L	UUT30F
BJT30L	HGT30F	HTT30E	PHT30S	SGT30L	STT30F	UHT30N	UUT30L
BJT30N	HGT30L	HTT30F	PJT30E	SGT30N	STT30L	UHT30R	UUT30N
BJT30R	HGT30N	HTT30L	PJT30L	SGT30R	STT30N	UHT30S	UUT30R
BJT30S	HGT30R	HTT30N	PJT30N	SGT30S	STT30R	UJT30D	UUT30S
BKT30E	HGT30S	HTT30R	PJT30S	SHT30E	STT30S	UJT30E	

<b>35 Series (16 Kg)</b>							
BA035E	BK035F	HH035F	HU035F	PK035L	SH035L	SU035F	UJ035E
BA035F	BK035L	HH035L	HU035L	PK035N	SH035M	SU035L	UJ035F
BA035L	BK035N	HH035M	HU035M	PR035E	SH035N	SU035M	UJ035L
BA035M	BK035R	HH035N	HU035N	PR035S	SH035R	SU035N	UJ035M
BA035N	BL035E	HH035R	HU035R	PT035E	SH035S	SU035P	UJ035N
BA035R	BL035L	HH035S	HU035S	PT035L	SJ035D	SU035R	UJ035R
BA035S	BR035E	HJ035D	NT035E	PT035M	SJ035E	SU035S	UJ035S
BG035D	BR035S	HJ035E	NT035L	PT035N	SJ035F	UA035E	UK035E
BG035E	BU035E	HJ035F	NT035N	PT035S	SJ035L	UA035F	UK035F
BG035F	BU035F	HJ035L	NT035S	PU035E	SJ035M	UA035L	UK035L
BG035L	BU035L	HJ035M	PA035E	PU035L	SJ035N	UA035M	UK035N
BG035M	BU035M	HJ035N	PA035L	PU035M	SJ035R	UA035N	UK035R
BG035N	BU035N	HJ035R	PA035M	PU035N	SJ035S	UA035R	UL035E
BG035R	BU035R	HJ035S	PA035N	PU035S	SK035E	UA035S	UL035L
BG035S	BU035S	HK035E	PA035S	SA035E	SK035F	UG035D	UR035E
BH035E	HA035E	HK035F	PG035E	SA035F	SK035L	UG035E	UR035S
BH035F	HA035F	HK035L	PG035L	SA035L	SK035N	UG035F	UT035E
BH035L	HA035L	HK035N	PG035M	SA035M	SK035R	UG035L	UT035F
BH035M	HA035M	HK035R	PG035N	SA035N	SL035E	UG035M	UT035L
BH035N	HA035N	HL035E	PG035S	SA035R	SL035L	UG035N	UT035M
BH035R	HA035R	HL035L	PH035E	SA035S	SR035E	UG035R	UT035N
BH035S	HA035S	HR035E	PH035L	SG035D	SR035S	UG035S	UT035R
BJ035D	HG035D	HR035S	PH035M	SG035E	ST035E	UH035E	UT035S
BJ035E	HG035E	HT035E	PH035N	SG035F	ST035F	UH035F	UU035E
BJ035F	HG035F	HT035F	PH035S	SG035L	ST035L	UH035L	UU035F
BJ035L	HG035L	HT035L	PJ035E	SG035M	ST035M	UH035M	UU035L
BJ035M	HG035M	HT035M	PJ035L	SG035N	ST035N	UH035N	UU035M
BJ035N	HG035N	HT035N	PJ035M	SG035R	ST035R	UH035R	UU035N
BJ035R	HG035R	HT035R	PJ035N	SG035S	ST035S	UH035S	UU035R
BJ035S	HG035S	HT035S	PJ035S	SH035E	SU035E	UJ035D	UU035S
BK035E	HH035E	HU035E	PK035E	SH035F			

<b>T45 Series (20/20 Kg) * Only available in gas</b>							
BAT45L	BKT45L	HHT45L	HUT45L	PKT45N	SHT45R	SUT45N	UJT45L
BAT45N	BKT45N	HHT45N	HUT45N	PTT45L	SJT45D	SUT45R	UJT45N
BAT45R	BKT45R	HHT45R	HUT45R	PTT45N	SJT45L	UAT45L	UJT45R
BGT45D	BLT45L	HJT45D	NTT45L	PUT45L	SJT45N	UAT45N	UKT45L
BGT45L	BUT45L	HJT45L	NTT45N	PUT45N	SJT45R	UAT45R	UKT45N
BGT45N	BUT45N	HJT45N	PAT45L	SAT45L	SKT45L	UGT45D	UKT45R
BGT45R	BUT45R	HJT45R	PAT45N	SAT45N	SKT45N	UGT45L	ULT45L
BHT45L	HAT45L	HKT45L	PGT45L	SAT45R	SKT45R	UGT45N	UTT45L
BHT45N	HAT45N	HKT45N	PGT45N	SGT45D	SLT45L	UGT45R	UTT45N
BHT45R	HAT45R	HKT45R	PHT45L	SGT45L	STT45L	UHT45L	UTT45R
BJT45D	HGT45D	HLT45L	PHT45N	SGT45N	STT45N	UHT45N	UUT45L
BJT45L	HGT45L	HTT45L	PJT45L	SGT45R	STT45R	UHT45R	UUT45N
BJT45N	HGT45N	HTT45N	PJT45N	SHT45L	SUT45L	UJT45D	UUT45R
BJT45R	HGT45R	HTT45R	PKT45L	SHT45N			

<b>50 Pound (25 Kg)</b>							
BA050E	BL050E	HJ050D	NT050E	PK050L	SG050S	ST050N	UJ050E
BA050L	BL050L	HJ050E	NT050L	PK050N	SH050E	ST050S	UJ050L
BA050N	BR050E	HJ050L	NT050N	PR050E	SH050L	SU050E	UJ050N
BA050S	BR050S	HJ050N	NT050S	PR050S	SH050N	SU050L	UJ050S
BG050D	BU050E	HJ050S	PA050E	PT050C	SH050S	SU050N	UK050E
BG050E	BU050L	HK050E	PA050L	PT050E	SJ050D	SU050S	UK050L
BG050L	BU050N	HK050L	PA050N	PT050L	SJ050E	UA050E	UK050N
BG050N	BU050S	HK050N	PA050S	PT050N	SJ050L	UA050L	UL050E
BG050S	HA050E	HL050E	PG050E	PT050S	SJ050N	UA050N	UL050L
BH050E	HA050L	HL050L	PG050L	PU050E	SJ050S	UA050S	UR050E
BH050L	HA050N	HR050E	PG050N	PU050L	SK050E	UG050D	UR050S
BH050N	HA050S	HR050S	PG050S	PU050N	SK050L	UG050E	UT050C
BH050S	HG050D	HT050C	PH050E	PU050S	SK050N	UG050L	UT050E
BJ050D	HG050E	HT050E	PH050L	SA050E	SL050E	UG050N	UT050L
BJ050E	HG050L	HT050L	PH050N	SA050L	SL050L	UG050S	UT050N
BJ050L	HG050N	HT050N	PH050S	SA050N	SR050E	UH050E	UT050S
BJ050N	HG050S	HT050S	PJ050E	SA050S	SR050S	UH050L	UU050E
BJ050S	HH050E	HU050E	PJ050L	SG050D	ST050C	UH050N	UU050L
BK050E	HH050L	HU050L	PJ050N	SG050E	ST050E	UH050S	UU050N
BK050L	HH050N	HU050N	PJ050S	SG050L	ST050L	UJ050D	UU050S
BK050N	HH050S	HU050S	PK050E	SG050N			

<b>55 Series (24 Kg) * Only available in gas and electric</b>							
BA055E	BK055F	HH055E	HT055R	PK055N	SH055N	SU055F	UJ055F
BA055F	BK055L	HH055F	HU055E	PR055E	SH055R	SU055L	UJ055L
BA055L	BK055N	HH055L	HU055F	PT055E	SJ055D	SU055N	UJ055N
BA055N	BK055R	HH055N	HU055L	PT055L	SJ055E	SU055R	UJ055R
BA055R	BL055E	HH055R	HU055N	PT055N	SJ055F	UA055E	UK055E
BG055D	BL055L	HJ055D	HU055R	PU055E	SJ055L	UA055F	UK055F
BG055E	BR055E	HJ055E	NT055E	PU055L	SJ055N	UA055L	UK055L
BG055F	BU055E	HJ055F	NT055L	PU055N	SJ055R	UA055N	UK055N
BG055L	BU055F	HJ055L	NT055N	SA055E	SK055E	UA055R	UK055R
BG055N	BU055L	HJ055N	PA055E	SA055F	SK055F	UG055D	UL055E
BG055R	BU055N	HJ055R	PA055L	SA055L	SK055L	UG055E	UL055L
BH055E	BU055R	HK055E	PA055N	SA055N	SK055N	UG055F	UR055E
BH055F	HA055E	HK055F	PG055E	SA055R	SK055R	UG055L	UT055E
BH055L	HA055F	HK055L	PG055L	SG055D	SL055E	UG055N	UT055F
BH055N	HA055L	HK055N	PG055N	SG055E	SL055L	UG055R	UT055L
BH055R	HA055N	HK055R	PH055E	SG055F	SR055E	UH055E	UT055N
BJ055D	HA055R	HL055E	PH055L	SG055L	ST055E	UH055F	UT055R
BJ055E	HG055D	HL055L	PH055N	SG055N	ST055F	UH055L	UU055E
BJ055F	HG055E	HR055E	PJ055E	SG055R	ST055L	UH055N	UU055F
BJ055L	HG055F	HT055E	PJ055L	SH055E	ST055N	UH055R	UU055L
BJ055N	HG055L	HT055F	PJ055N	SH055F	ST055R	UJ055D	UU055N
BJ055R	HG055N	HT055L	PK055E	SH055L	SU055E	UJ055E	UU055R
BK055E	HG055R	HT055N	PK055L				

<b>75 Pound (34 Kg)</b>							
BA075E	BK075E	HH075F	HU075F	PK075E	SG075S	ST075S	UJ075D
BA075F	BK075F	HH075L	HU075L	PK075L	SH075E	SU075E	UJ075E
BA075L	BK075L	HH075M	HU075M	PK075N	SH075F	SU075F	UJ075F
BA075M	BK075N	HH075N	HU075N	PR075E	SH075L	SU075L	UJ075L
BA075N	BK075R	HH075R	HU075R	PR075S	SH075M	SU075M	UJ075M
BA075R	BR075E	HH075S	HU075S	PT075C	SH075N	SU075N	UJ075N
BA075S	BR075S	HJ075D	NT075E	PT075E	SH075R	SU075R	UJ075R
BG075D	BU075E	HJ075E	NT075L	PT075L	SH075S	SU075S	UJ075S
BG075E	BU075F	HJ075F	NT075N	PT075M	SJ075D	UA075E	UK075E
BG075F	BU075L	HJ075L	NT075S	PT075N	SJ075E	UA075F	UK075F
BG075L	BU075M	HJ075M	PA075E	PT075S	SJ075F	UA075L	UK075L
BG075M	BU075N	HJ075N	PA075L	PU075E	SJ075L	UA075M	UK075N
BG075N	BU075R	HJ075R	PA075M	PU075L	SJ075M	UA075N	UK075R
BG075R	BU075S	HJ075S	PA075N	PU075M	SJ075N	UA075R	UR075E
BG075S	HA075E	HK075E	PA075S	PU075N	SJ075R	UA075S	UR075S
BH075E	HA075F	HK075F	PG075E	PU075S	SJ075S	UG075D	UT075C
BH075F	HA075L	HK075L	PG075L	SA075E	SK075E	UG075E	UT075E
BH075L	HA075M	HK075N	PG075M	SA075F	SK075F	UG075F	UT075F
BH075M	HA075N	HK075R	PG075N	SA075L	SK075L	UG075L	UT075L
BH075N	HA075R	HR075E	PG075S	SA075M	SK075N	UG075M	UT075M
BH075R	HA075S	HR075S	PH075E	SA075N	SK075R	UG075N	UT075N
BH075S	HG075D	HT075C	PH075L	SA075R	SR075E	UG075R	UT075R
BJ075D	HG075E	HT075E	PH075M	SA075S	SR075S	UG075S	UT075S
BJ075E	HG075F	HT075F	PH075N	SG075D	ST075C	UH075E	UU075E
BJ075F	HG075L	HT075L	PH075S	SG075E	ST075E	UH075F	UU075F
BJ075L	HG075M	HT075M	PJ075E	SG075F	ST075F	UH075L	UU075L
BJ075M	HG075N	HT075N	PJ075L	SG075L	ST075L	UH075M	UU075M
BJ075N	HG075R	HT075R	PJ075M	SG075M	ST075M	UH075N	UU075N
BJ075R	HG075S	HT075S	PJ075N	SG075N	ST075N	UH075R	UU075R
BJ075S	HH075E	HU075E	PJ075S	SG075R	ST075R	UH075S	UU075S

<b>120 Pound (55 Kg)</b>							
BA120E	BR120E	HJ120L	NT120N	PK120L	SG120N	ST120N	UJ120E
BA120L	BR120S	HJ120N	NT120S	PK120N	SG120S	ST120S	UJ120L
BA120N	BU120E	HJ120S	PA120E	PR120E	SH120E	SU120E	UJ120N
BA120S	BU120L	HK120E	PA120L	PR120S	SH120L	SU120L	UJ120S
BG120E	BU120N	HK120L	PA120N	PT120C	SH120N	SU120N	UK120E
BG120L	BU120S	HK120N	PA120S	PT120E	SH120S	SU120S	UK120L
BG120N	HA120E	HR120E	PG120E	PT120L	SJ120E	UA120E	UK120N
BG120S	HA120L	HR120S	PG120L	PT120N	SJ120L	UA120L	UR120E
BH120E	HA120N	HT120C	PG120N	PT120S	SJ120N	UA120N	UR120S
BH120L	HA120S	HT120E	PG120S	PU120E	SJ120S	UA120S	UT120C
BH120N	HG120E	HT120L	PH120E	PU120L	SK120E	UG120E	UT120E
BH120S	HG120L	HT120N	PH120L	PU120N	SK120L	UG120L	UT120L
BJ120E	HG120N	HT120S	PH120N	PU120S	SK120N	UG120N	UT120N
BJ120L	HG120S	HU120E	PH120S	SA120E	SR120E	UG120S	UT120S
BJ120N	HH120E	HU120L	PJ120E	SA120L	SR120S	UH120E	UU120E
BJ120S	HH120L	HU120N	PJ120L	SA120N	ST120C	UH120L	UU120L
BK120E	HH120N	HU120S	PJ120N	SA120S	ST120E	UH120N	UU120N
BK120L	HH120S	NT120E	PJ120S	SG120E	ST120L	UH120S	UU120S
BK120N	HJ120E	NT120L	PK120E	SG120L			

<b>170 Pound (77 Kg) *Only available in gas and steam</b>							
BA170L	BR170S	HJ170N	NT170S	PK170N	SG170S	ST170S	UJ170L
BA170N	BU170L	HJ170S	PA170L	PR170S	SH170L	SU170L	UJ170N
BA170S	BU170N	HK170L	PA170N	PT170C	SH170N	SU170N	UJ170S
BG170L	BU170S	HK170N	PA170S	PT170L	SH170S	SU170S	UK170L
BG170N	HA170L	HR170S	PG170L	PT170N	SJ170L	UA170L	UK170N
BG170S	HA170N	HT170C	PG170N	PT170S	SJ170N	UA170N	UR170S
BH170L	HA170S	HT170L	PG170S	PU170L	SJ170S	UA170S	UT170C
BH170N	HG170L	HT170N	PH170L	PU170N	SK170L	UG170L	UT170L
BH170S	HG170N	HT170S	PH170N	PU170S	SK170N	UG170N	UT170N
BJ170L	HG170S	HU170L	PH170S	SA170L	SR170S	UG170S	UT170S
BJ170N	HH170L	HU170N	PJ170L	SA170N	ST170C	UH170L	UU170L

*Table continues...*

<b>170 Pound (77 Kg) *Only available in gas and steam</b>							
BJ170S	HH170N	HU170S	PJ170N	SA170S	ST170L	UH170N	UU170N
BK170L	HH170S	NT170L	PJ170S	SG170L	ST170N	UH170S	UU170S
BK170N	HJ170L	NT170N	PK170L	SG170N			

<b>200 Pound (90 Kg) *Only available in gas and steam</b>							
BA200L	BR200S	HJ200N	NT200S	PK200N	SG200S	ST200S	UJ200L
BA200N	BU200L	HJ200S	PA200L	PR200S	SH200L	SU200L	UJ200N
BA200S	BU200N	HK200L	PA200N	PT200C	SH200N	SU200N	UJ200S
BG200L	BU200S	HK200N	PA200S	PT200L	SH200S	SU200S	UK200L
BG200N	HA200L	HR200S	PG200L	PT200N	SJ200L	UA200L	UK200N
BG200S	HA200N	HT200C	PG200N	PT200S	SJ200N	UA200N	UR200S
BH200L	HA200S	HT200L	PG200S	PU200L	SJ200S	UA200S	UT200C
BH200N	HG200L	HT200N	PH200L	PU200N	SK200L	UG200L	UT200L
BH200S	HG200N	HT200S	PH200N	PU200S	SK200N	UG200N	UT200N
BJ200L	HG200S	HU200L	PH200S	SA200L	SR200S	UG200S	UT200S
BJ200N	HH200L	HU200N	PJ200L	SA200N	ST200C	UH200L	UU200L
BJ200S	HH200N	HU200S	PJ200N	SA200S	ST200L	UH200N	UU200N
BK200L	HH200S	NT200L	PJ200S	SG200L	ST200N	UH200S	UU200S
BK200N	HJ200L	NT200N	PK200L	SG200N			

<b>Heater Digit (Position 6)</b>
C - Steam (CRN)
D - Liquid Petroleum (L.P.) Gas, Japan
E - Electric
F - Reduced Electric (Eco Line)
L - L.P. Gas
M - Medium Electric
N - Natural Gas
R - Reduced Gas, Natural Gas (Eco Line)
S - Steam



<b>OPL Control Suffixes</b>		
<b>Control Digit (position 7)</b>	<b>Actuation Digit (position 8)</b>	<b>Example Control Suffix Combination</b>
N - Electronic Display Control	N - OPL	NN - Electronic Display Control, OPL

# Preliminary Information

## About the Control

This control is an advanced, programmable computer that lets the owner control most machine features by pressing a sequence of keypads.

The control allows the owner to program custom cycles, run diagnostic cycles, and retrieve audit and error information.

Tumble Dryers shipped from the factory have default cycles and other settings built in. The owner can change the default cycle or any cycle.

**IMPORTANT: It is extremely important that the tumble dryer has a positive ground and that all mechanical and electrical connections are made before applying power to or operating the tumble dryer.**

## Power Failure Recovery

If a cycle is in progress when the power fails, and if the power outage lasts five or more seconds, the cycle is lost and cannot be resumed when power recovers. If the power outage lasts less than five seconds, the control will resume the cycle when the power recovers.

## Communications

The control has the ability to communicate with a PDA and a laptop with an IrDA device running the control software. Devices such as PDAs and laptops that are IrDA capable (able to transmit information to machine) that have been tested and approved for use with the software can be used as a tool for managing the machine.

## Audit Information

The control collects and stores audit information, which can be accessed with a PDA or PC. Refer to the following list for some of the available audit information. Refer to **PC and PDA Application User Instructions**.

- End of Cycle to Loading Door Open Time
- End of Cycle to Start of Next Cycle Time
- Total Number of Machine Cycles
- Total Number of Operating Minutes
- Power Failure Audit Data

The PDA or PC can receive audit and program data from the control, and send programming data and diagnostic commands to the control. Refer to **PC and PDA Application User Instructions** for additional information.

Some of the above listed audit data is available manually. Refer to *How to Enter Audit Feature* section.

## Restore to Factory Defaults

When the user resets to factory default, the control resets all of the default values. The control also resets Machine Cycles #1 through #30. The control will also reset the following to factory-defaults:

### Default Global Settings

Ignition Retries = 3

Temperature Units = Fahrenheit (°F)

High (H) Temperature = 190 (°F)

Medium (M) Temperature = 160 (°F)

Low (L) Temperature = 140 (°F)

Very Low (VL) Temperature = 120 (°F)

Cool Down Temperature = 100 (°F)

Cool Down Time = 2 (minutes)

Rapid Advance = Enabled

Multi-Step Cycles = Disabled

Daylight Saving = Enabled

Key Pad Audio = Enabled

End of Cycle Audio = Enabled (5 seconds)

End of Cycle External Signal = Disabled

Clean Lint Screen Reminder = Off

Display Limit Cycles = Disabled

Manual Diagnostics = Enabled

\*Manual Programming = Enabled

\*\*Reverse Cylinder Rotate Time = 30 (seconds)

\*\*Reverse Cylinder Stop Time = 6 (seconds) (25-F75 models),  
10 (seconds) (120-200 models)

\*\*Advanced Reversing = Disabled

\*\*\*Advanced Options for Moisture Dry = Disabled

\*\*\*Display Moisture Sensor Error = Enabled

\*If manual programming is disabled, programming changes to the control can only be made with an external communication device. Refer to **PC and PDA Application User Instructions**.

\*\*Only available on units equipped with reversing feature.

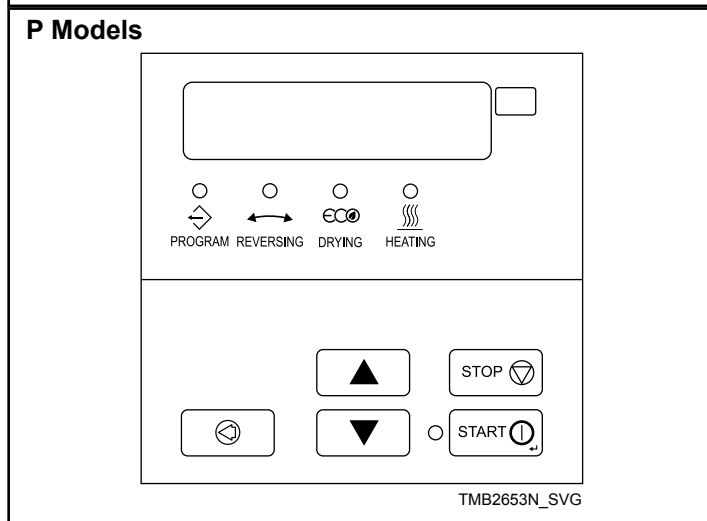
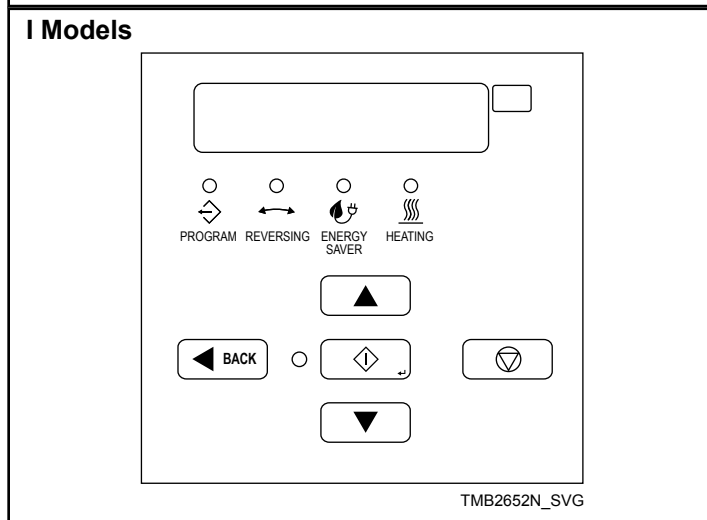
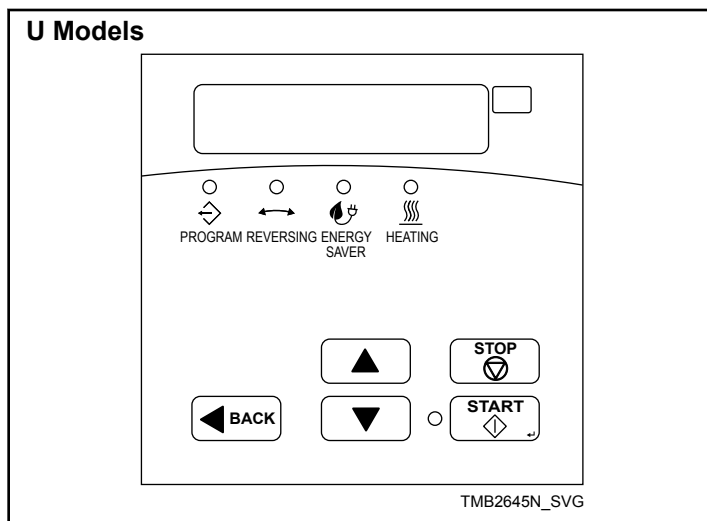
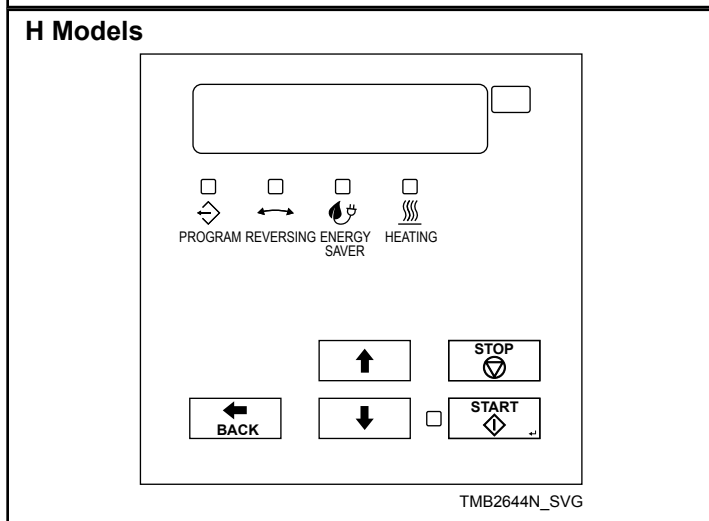
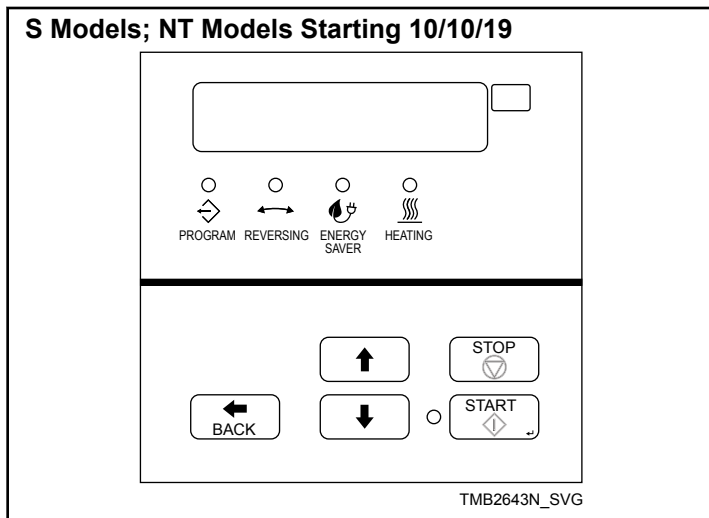
\*\*\*Only available on units equipped with moisture sensing feature.

Refer to Factory Defaults, Menu section for information on Restoring Factory Defaults.

# Control Identification

## Operational Keypad

The control includes five keypads. These functions are available to the operator and are intended to control and manage operation of the tumble dryer.



**NOTE: The reversing feature is not available on all models.**

Keypad		Description
UP ARROW	↑	Press to scroll through menu options and edit parameter values.
DOWN ARROW	↓	Press to scroll through menu options and edit parameter values.
BACK ARROW	←	Press to go to the list of parameters without saving the value when adjusting the value of a programming parameter. Also, press to go to the previous menu when the control displays a parameter, return to Idle Mode when the control displays the main menu or clear an error message from the display.
STOP	⊘	Press to pause a cycle while in Run Mode or abort a cycle if the control is in Pause Mode.
START	⏏	Press to start the selected cycle, select an option when in the menu or save a value when editing a parameter.

Status Indicator LED		Description
PROGRAM	↔	LED will light up if the control is in Manual Programming Mode or if a cycle is being modified.
REVERSING	↩	LED will light up when cylinder is reversing.
ENERGY SAVER	Ⓜ	LED will light up when a Moisture Dry or Auto Dry cycle is running.
HEATING	☼	LED will light up when the machine is in the heat portion of the cycle.

Table 1

## Operation Modes

### General Modes of Operation

In each mode of operation, the user may press keypads or communicate with the control to change the displayed menu.

#### Power-up Mode

The control enters this mode at power-up. When power is applied to the tumble dryer, the control becomes active and will display its software version as **5HHH** (**HHH** is the version number) for one second. If the control was not powered down during a running cycle, it will enter the Idle Mode. After the control completes operation in the Power-up Mode it will enter Idle Mode.

#### System Check Mode

The front end control enters this mode after Power-Up Mode. System Check Mode acts as an extension to Power-Up Mode and during this mode, the control will check if the correct drive motor, fan motor and ignition control (for gas machines only) are connected to the machine. If the motor type checks have successfully been completed or if the door is not closed prior to the five (5) second timer expiring, the front end control will continue to

the next mode. The mode that is entered after System Check Mode completes is determined in Power-Up Mode. If the door was not closed and the motor type check was not completed, this check will be done the next time the motor drive contactor is enabled. If the test detects an incorrect drive motor, fan motor or ignition control, a Board ID Error will be set

#### Start Mode

The control enters this mode when it is ready to start or resume a cycle. The display will show **CYC-HH** where **HH** is the cycle number.

If there is no input from the operator for 4.25 minutes (i.e., keypad presses, opening or closing the loading door), the display will turn off. Operator input (i.e., keypad presses opening or closing the loading door) will turn on the display.

After pressing the START (enter) keypad if the door is closed, the cycle will begin. The cycle time in minutes will be displayed.

#### Run Mode

The Control enters Run Mode during a cycle. Loading and lint doors are closed during Run Mode.

Control Identification

While in Run Mode, any programmed value can be changed for the currently running cycle. Press the Up or Down keypads to scroll through the displays. Press the Back keypad to select a parameter and press Up or Down to change the value. Once the cycle is complete, the control will go back to the original programmed parameters. Refer to the Tables below for each cycle type's displays.

Press Stop keypad to stop cycle and enter Pause Mode. Control enters Pause Mode if loading or lint door opens. Press Start to Rapid Advance.

Time Dry Cycle Display	6 Digit Display	Description
Display 1	nnn SS	Cycle Time Remaining in Minutes and Seconds
Display 2	[HH SY or CHH5Cd	Cycle Number (HH) and Step Number (Y) or Cycle Number (HH) and Step Cooldown
Display 3	R HHHF or R HHHc	Actual Temperature
Display 4	P HHHF or P HHHc	Programmed Temperature
Display 5	SRUE	Custom Save Mode Display

Table 2

Moisture Dry Cycle Display	6 Digit Display	Description
Display 1	rnc HH	Actual Moisture Level
Display 2	[HH SY or CHH5Cd	Cycle Number (HH) and Step Number (Y) or Cycle Number (HH) and Step Cooldown
Display 3	R HHHF or R HHHc	Actual Temperature
Display 4	P HHHF or P HHHc	Programmed Temperature
Display 5	PncHH	Programmed Moisture Level

Table 3 continues...

Moisture Dry Cycle Display	6 Digit Display	Description
Display 6	SRUE	Custom Save Mode Display
Display 7	HH HH	Time Remaining Display (Time past target and cool-down only)

Table 3

Auto Dry Cycle Display	6 Digit Display	Description
Display 1	nnn SS	Elapsed Time in Minutes and Seconds
Display 2	[HH SY or CHH5Cd	Cycle Number (HH) and Step Number (Y) or Cycle Number (HH) and Step Cooldown
Display 3	R HHHF or R HHHc	Actual Temperature
Display 4	P HHHF or P HHHc	Programmed Temperature
Display 5	P HH	Programmed Target Level

Table 4

**Rapid Advance Mode**

If the Rapid Advance Option is enabled, the user can advance a running machine cycle by pressing the Start keypad. In a Time Dry cycle, pressing the Start keypad will decrease the remaining time by one minute. Pressing and holding the Start keypad will decrease the remaining time by four minutes per second until the end of the cycle.

In the Auto-Dry and Moisture Dry cycles, pressing the Start keypad will advance the cycle to the next enabled step. Note that Auto-Dry cycles only have one programmable step.

In the Cool Down step, pressing the Start keypad will decrease the remaining time by one minute.

When the cycle is completed, the audit counter, Total Rapid Advance Cycles, is incremented rather than the Total Machine Cycles audit counter. If the Rapid Advance Option is disabled preventing a manual Rapid Advance, the user may still execute a Rapid Advance using the PDA or PC. Refer to **PC and PDA Application User Instructions** for additional information on using a PDA or PC to Rapid Advance a cycle.

## Pause Mode

If Stop keypad is pressed or the loading or lint door is opened while in Run Mode, control enters Pause Mode.

If the door was opened to enter Pause Mode, the control will show *CLDSE, door* until the door is closed or Pause Mode is exited. If the door is closed, the control will show *PUSH* for one second followed by *Start* for one second as well as flash the Start keypad LED one second on/one second off.

If the Stop keypad was pressed to enter Pause Mode and the loading door is closed, the control will show *PAUSE* until Pause Mode is exited.

Any time *PAUSE* is shown on the control, the Start keypad LED will flash one second on/one second off to prompt the user to restart the cycle.

## Error Mode

This mode will be entered to display all fatal machine errors.

## Communication Mode

This mode is entered whenever the control is communicating with a PDA. Refer to **PC and PDA Application User Instructions**.

## Cool Down Mode

The control enters the Cool Down Mode after the heat step of the cycle is completed or fatal error occurs. The control turns the heater off and for steam heated units turns the damper motor on. The cool down step will end once the cool down temperature has been reached or the programmed cool down time expires, whichever happens first.

## End of Cycle Mode

The control enters End of Cycle Mode after the cool down segment is finished. The display will toggle between *Load* and *READY* for one second each until End of Cycle Mode is exited. If the door has not been opened or a keypad has not been pressed after two minutes, the machine will enter Extended Tumble Mode. This mode is exited when the door is opened or Stop keypad is pressed. The control will then return to Idle Mode.

## Extended Tumble Mode

The Extended Tumble Mode has two portions. The Anti-Wrinkle Tumble is entered two minutes after the cycle has ended if the door is not opened. The cylinder will tumble for 30 seconds every two minutes for up to one hour. Once Anti-Wrinkle Tumble is complete, Extended Tumble Mode is entered after 20 minutes.

If the door hasn't been opened and no keys have been pressed one hour after the Anti-Wrinkle Tumble has ended, the control increments the Anti-Wrinkle Time Exceeded audit counter and enters Delayed Tumble. The cylinder will tumble for two minutes every 60 minutes for up to 18 hours.



## WARNING

**Disabling this feature may lead to overheating of clothes, which may lead to spontaneous combustion and fire. By disabling this feature, you hereby release and hold harmless Alliance Laundry Systems LLC of any damages caused by fire, including but not limited to, property damage, personal injury or death, and agree to indemnify Alliance Laundry Systems LLC from in any proceeding or cause of action related to such action.**

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## Reversing Mode (reversing models only)

Models equipped with the reversing feature will rotate in the forward direction, pause, rotate in the reverse direction and then pause for programmable times and steps of the cycle. Factory default reversing rotate time is 30 seconds and reversing stop time is 6 seconds for 25-75 pound models and 10 seconds for 120-200 pound models for all cycles with reversing enabled.

# Machine Cycle Definition and Operation

There are 30 machine cycles that can be selected and run. Machine cycles can be modified or made “unavailable” by manually editing them in Modify Cycle Menu or by using the PDA to download a modified machine cycle into the control. Machine cycles cannot be deleted, but can be made “unavailable” so that they are not visible from the Cycle Menu. New machine cycles cannot be created, but existing machine cycles that have been edited to be “unavailable” may be re-edited to be available again.

## Machine Cycle Operation

When a cycle is run, the control runs the cycle step by step in a sequence. First the control examines the Cycle Type chosen to determine if it is a Time Dry, Auto-Dry or Moisture Dry (if equipped) cycle type. Then the first step is examined to see if it is programmed to *on* or *off*. If the step is programmed to *off*, control skips to the next step.

The control displays:

- Time counts down for Time Dry Cycles
- Time counts up for Auto Dry Cycles
- Moisture level is displayed for Moisture Dry Cycles
- Time counts down for Cool Down

### Time Dry Cycle

In this type of cycle, the control will regulate the temperature and time duration as programmed for the cycle chosen.

### Auto Dry Cycle

If this type of cycle is selected, the control determines the cycle time based on the temperature and dryness level programmed for the cycle chosen.

### Moisture Dry Cycle (if equipped)

In this type of cycle, the control checks the programmed material type, programmed target moisture content, programmed temperature and the data received from the moisture sensing system to achieve the desired results.

## To Start a Cycle

1. Press the Up or Down keypad to change cycles.
2. Press Start to start selected cycle.

**NOTE: If loading door is open when the Start keypad is pressed, display will show *CLDSE, door*. If lint door is open when the start keypad is pressed, display will show *CLDSE, Lint, door*.**



# Entering the Manual Mode

For programming, testing, and retrieving information from the control, it is often necessary to enter the Manual Mode by following the steps below.

For an overview of entering the Manual Mode, refer to the flow-chart.

## How to Enter the Manual Mode

1. Control must be in Start Mode.
2. Press and hold the Stop keypad, then press the Back keypad.
3. The display will show *rRP id*.
4. Press the Up or the Down keypad to scroll through the options until the desired option appears in the display.
5. Press the Start keypad to enter the displayed mode.
6. To exit, press the Back keypad. The control will revert back to Start Mode.

Manual Programming can only be turned on or off with an external device. Refer to the appropriate instruction manual. Diagnos-

tics can be turned on and off using an external device by manual programming.

By default, Manual Programming is turned **on**.

The manual features available in each group are as follows (the menu displayed on the display in this mode is in parentheses).

Manual Rapid Advance (*rRP id*)

Manual Programming (*Pr o g*)

Manual Read Audit (*Rud it*)

Manual Reset (*rESEt*)

Diagnostic Tests (*d iAG*)

If a manual parameter is turned off or unavailable (ex: trying to enter diagnostics while a cycle is running), the display will change from the selected feature to **oFF**, an audio signal will sound for one second and the features in the parameter cannot be entered. The display will then return to the selected feature.

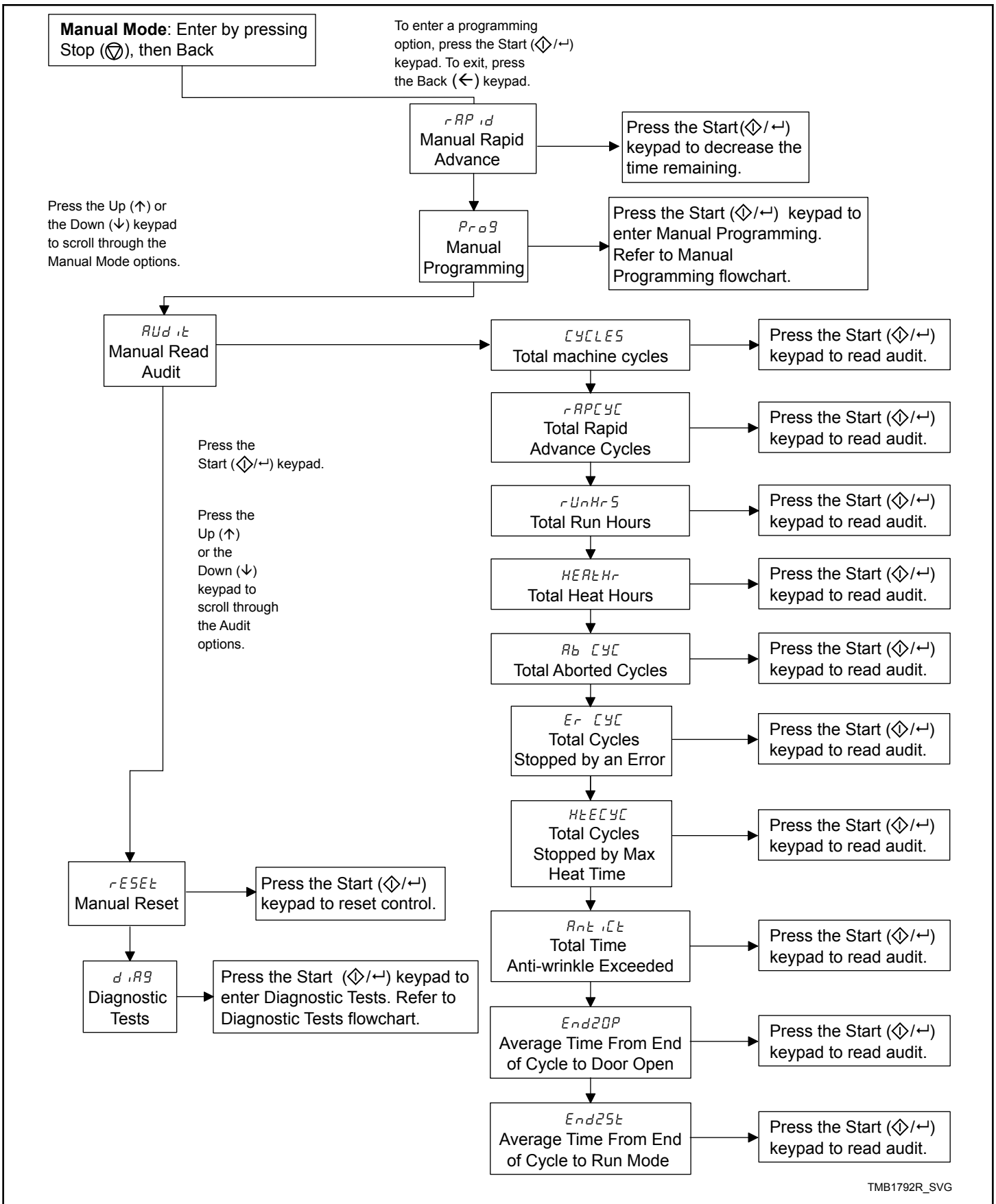


Figure 1

# Programming Control

## What Can Be Programmed?

This feature allows the owner to program cycle parameters and other features by using the keypads. The control must have the Manual Programming Mode enabled, which is the factory default. This mode can only be turned OFF and ON by using an external device. Refer to this section when programming the control.

For an overview of the programming organization, refer to the flowcharts on the following pages.

For more advanced users, a quick reference list of the options available through the programming mode is located below.

**NOTE: The codes in the Option Display column of the Programmable Options List are what will show in the display when that option is selected.**

## Programmable Options Available

Option Number	Option Display	Description	Default Value	Value Range
1	<i>Aud 10-</i>	Audio Signal	-	-
a	<i>Aud 1</i>	Keypad Feedback	1	1 (Enable), 0 (Disable)
b	<i>Aud 2</i>	End of Cycle	1	1 (Enable), 0 (Disable)
c	<i>Aud 3</i>	End of Cycle Duration (seconds)	5	1-120
2	<i>Error-</i>	Error Displays	-	-
a	<i>E L N i k</i>	Limit Cycle Display	0	1 (Enable), 0 (Disable)
b	<i>E No i S</i>	Moisture Sensor Error Display	1	1 (Enable), 0 (Disable)
c	<i>E FFLN</i>	False Flame Error Display	0	1 (Enable), 0 (Disable)
d	<i>CLrErr</i>	Allow Error Clearing	1	1 (Enable), 0 (Disable)
3	<i>Cd-</i>	Cool Down	-	-
a	<i>Cd 1</i>	Cool Down Temperature	100°F [38°C]	70°-110°F [21°-43°C]
b	<i>Cd 2</i>	Cool Down Time (minutes)	2	1-15
4	<i>tENP-</i>	Temperature	-	-

*Table continues...*

## How to Program a Cycle

1. Press the Up or Down keypad to scroll through the option list.
2. Press Start to select an option to program.
3. Press the Up or Down keypad to change the value of that option.
4. Press Start to save the change.
 

**NOTE: Press the Back keypad to leave the option without saving any change.**
5. After pressing Start, control will go to the next option in the list.
6. Press Back keypad to go to Idle Mode.

Option Number	Option Display	Description	Default Value	Value Range
a	<i>TEMP 1</i>	High Temperature	190°F [88°C]	160°-190°F [71°-88°C](35, T45, 55, 50, 75, 120, 170, 200 Pound Models), 155°-190°F [68°-88°C](25, 30, T30 Pound Models)
b	<i>TEMP 2</i>	Medium Temperature	160°F [71°C]	140°-160°F [60°-71°C](50, 75, 120, 170, 200 Pound Models), 135°-160°F [57°-71°C](25, 30, T30 Pound Models), 145°-165°F [63°-74°C](35, T45, 55 Pound Models)
c	<i>TEMP 3</i>	Low Temperature	140°F [60°C]	120°-140°F [49°-60°C](50, 75, 120, 170, 200 Pound Models), 105°-145°F [41°-63°C](25, 30, T30 Pound Models), 125°-155°F [52°-68°C](35, T45, 55 Pound Models)
d	<i>TEMP 4</i>	Very Low Temperature	120°F [49°C]	100°-120°F [38°-49°C]
5	<i>TEMP C</i>	Temperature (Fahrenheit/Celcius)	0	0 (Fahrenheit), 1 (Celcius)
6	<i>AI 9</i>	Auto Ignite Retry	3	0-255
7	<i>RTC-</i>	Real Time Clock	-	-
a	<i>RTC 1</i>	Minutes	-	0-59
b	<i>RTC 2</i>	Hours	-	0-23
c	<i>RTC 3</i>	Day	-	1-7
d	<i>RTC 4</i>	Date	-	1-31
e	<i>RTC 5</i>	Month	-	1-12
f	<i>RTC 6</i>	Year	-	0-99
8	<i>DL5-</i>	Daylight Savings Parameters	-	-
a	<i>DL5 1</i>	Daylight Saving	<i>on</i>	<i>on/off</i>
b	<i>DL5 2</i>	Start Month	-	1-12
c	<i>DL5 3</i>	Start Day of Week	-	1-7
d	<i>DL5 4</i>	Start Week of Month	-	1-4
e	<i>DL5 5</i>	Start Hour	-	0-23
f	<i>DL5 6</i>	End Month	-	1-12
g	<i>DL5 7</i>	End Day of Week	-	1-7

Table continues...

Option Number	Option Display	Description	Default Value	Value Range
h	dLS B	End Week of Month	-	1-4
i	dLS 9	End Hour	-	0-23
9	CYCLE-	Cycle Programming	-	-
a	CYCHH-	Cycle HH (HH represents cycles 1-30)	-	-
1	CHHE <sub>n</sub>	Cycle HH Enable Disable	-	on/oFF
2	CHHEYP	Cycle HH Type	-	tinE (Time Dry), Auto (Auto Dry), noiSt (Moisture Dry)
3	CHHnE	Cycle HH Matieral Type	-	0 (Cotton), 1 (Blend), 2 (Bedding), 3 (Delicate), 4 (Synthetic), 5 (Wool)
4	CHHEPE	Cycle HH Time Past Target (minutes)	-	0-15
5	CHHS 1-	Step 1	-	CHHS11 (Step 1 Enable/Disable), CHHS12 (Step 1 Time), CHHS13 (Step 1 Temperature), CHHS14 (Step 1 Auto Dry Target Level), CHHS15 (Step 1 Moisture Dry Target Moisture), CHHS16 (Step 1 Reversing Enable/ Disable)
6	CHHS2-	Step 2	-	CHHS21 (Step 2 Enable/Disable), CHHS22 (Step 2 Time), CHHS23 (Step 2 Temperature), CHHS24 (Step 2 Auto Dry Target Level), CHHS25 (Step 2 Moisture Dry Target Moisture), CHHS26 (Step 2 Reversing Enable/ Disable)
7	CHHS3-	Step 3	-	CHHS31 (Step 3 Enable/Disable), CHHS32 (Step 3 Time), CHHS33 (Step 3 Temperature), CHHS34 (Step 3 Auto Dry Target Level), CHHS35 (Step 3 Moisture Dry Target Moisture), CHHS36 (Step 3 Reversing Enable/ Disable)
8	CHHS4-	Step 4	-	CHHS41 (Step 4 Enable/Disable), CHHS42 (Step 4 Time), CHHS43 (Step 4 Temperature), CHHS44 (Step 4 Auto Dry Target Level), CHHS45 (Step 4 Moisture Dry Target Moisture), CHHS46 (Step 4 Reversing Enable/ Disable)
9	CHHS5-	Step 5	-	CHHS51 (Step 5 Enable/Disable), CHHS52 (Step 5 Time), CHHS53 (Step 5 Temperature), CHHS54 (Step 5 Auto Dry Target Level), CHHS55 (Step 5 Moisture Dry Target Moisture), CHHS56 (Step 5 Reversing Enable/ Disable)

*Table continues...*

Option Number	Option Display	Description	Default Value	Value Range
10	<i>CHHCd-</i>	Cool Down	-	CHHCd1 (Cool Down Temperature), CHHCd2 (Cool Down Time), CHHCd3 (Cool Down Step Reversing Enable/Disable)
11	<i>CHHr-</i>	Reversing	-	CHH r1 (Cycle Reversing Enable/Disable), CHH r2 (Cycle Reversing Rotate Time), CHH r3 (Cycle Reversing Stop Time)
10	<i>rEu-</i>	Reversing Parameters	-	-
a	<i>rEu 1</i>	Rotate Time (seconds)	30	30-540 seconds
b (Designs 3 and 5)	<i>rEu 2</i>	Stop Time (seconds)	6 (25-F75) 10 (120-200)	6-10 seconds
b (Design 6)	<i>rEu 2</i>	Stop Time (seconds)	3 (30, T30, T45, 55) 6 (50, 75) 8 (120-200)	3-7 seconds (30, T30, T45, 55) 6-10 seconds (50, 75) 8-12 seconds (120-200)
c	<i>rEu 3</i>	Advanced Reversing	0	0 (oFF), 1 (on)
11	<i>AnkEn</i>	Anti-Wrinkle Enable	on	on/oFF
12	<i>AnkAUd</i>	Anti-Wrinkle Audio Enable	on	on/oFF
13	<i>EtEn</i>	Extended Tumble Enable	on	on/oFF
14	<i>EtAUd</i>	Extended Tumble Audio Enable	on	on/oFF
15	<i>MULStP</i>	Multi-Step Cycles	0	1 (Enable), 0 (Disable)
16	<i>IRAEEn</i>	IR Access	1	1 (Enable), 0 (Disable)
17	<i>rAPdEn</i>	Manual Rapid Advance	1	1 (Enable), 0 (Disable)
18	<i>dIRGEEn</i>	Manual Diagnostics	1	1 (Enable), 0 (Disable)
19	<i>Ft En</i>	Factory Test Cycle	1	1 (Enable), 0 (Disable)
20	<i>Ht dP</i>	Heating Indicator Decimal Point	0	1 (Enable), 0 (Disable)
21	<i>L int</i>	Lint Screen Reminder	0	0 (oFF)-255
22	<i>PLrSvE</i>	Display Power Save	1	1 (Enable), 0 (Disable)

Table continues...

Option Number	Option Display	Description	Default Value	Value Range
23	<i>ndrYDP</i>	Advanced Moisture Dry Options	0	1 (Enable), 0 (Disable)
24	<i>ES ,9-</i>	External Signal	-	-
a	<i>ES ,9 1</i>	External Signal End of Cycle	0	1 (Enable), 0 (Disable)
b	<i>ES ,9 2</i>	External Signal End of Cycle Duration (seconds)	5	1-120

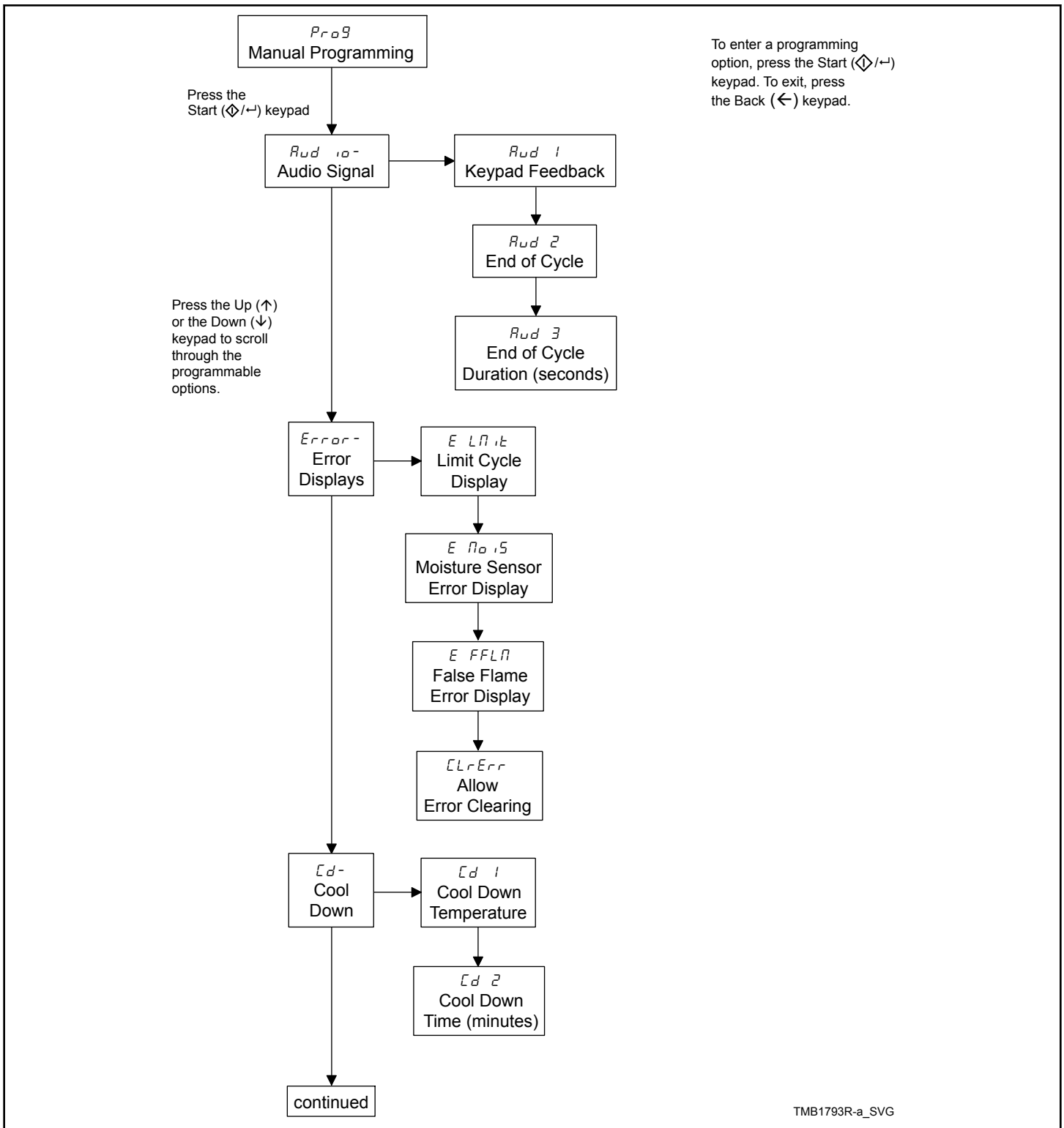


Figure 2



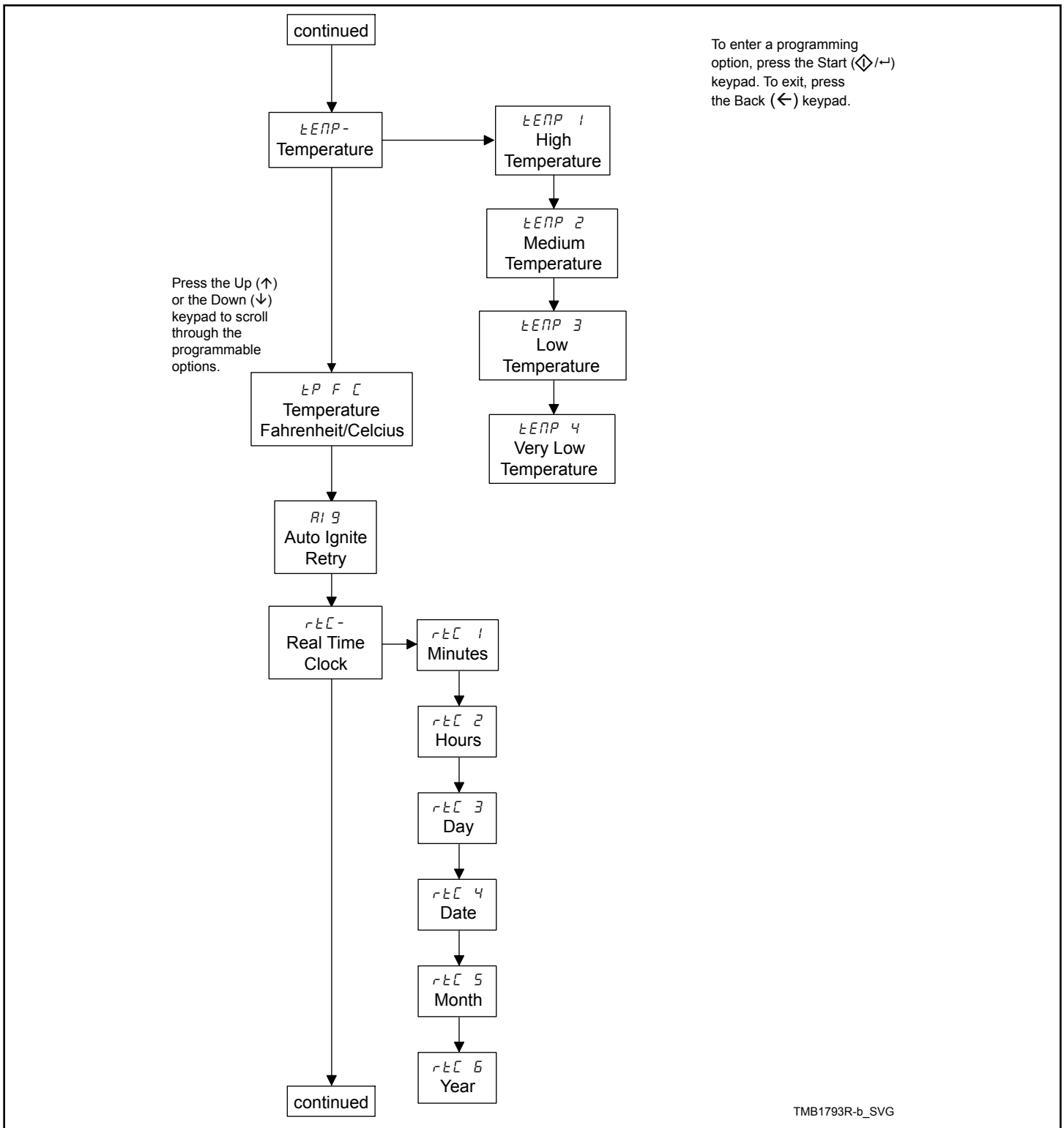


Figure 3

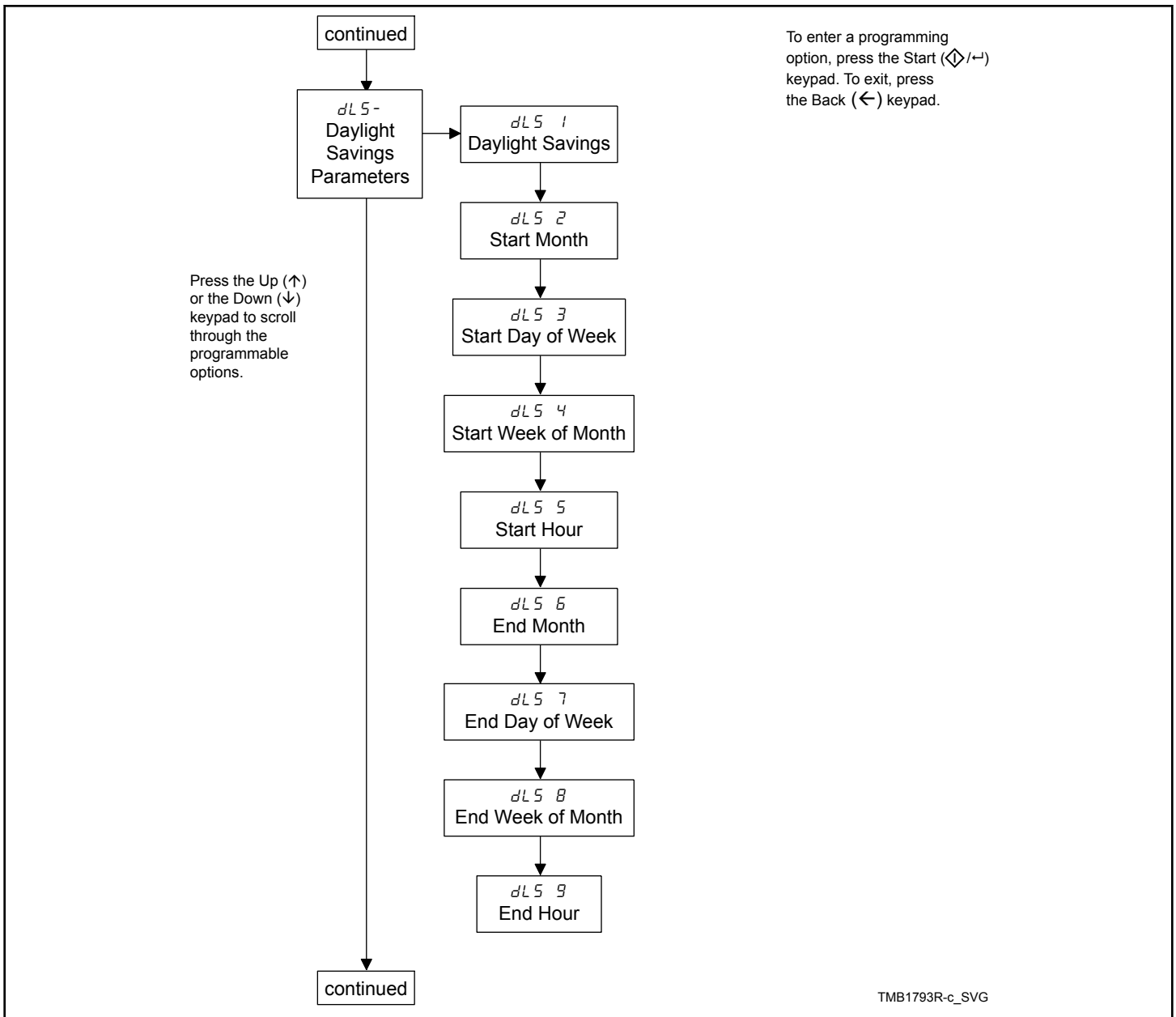
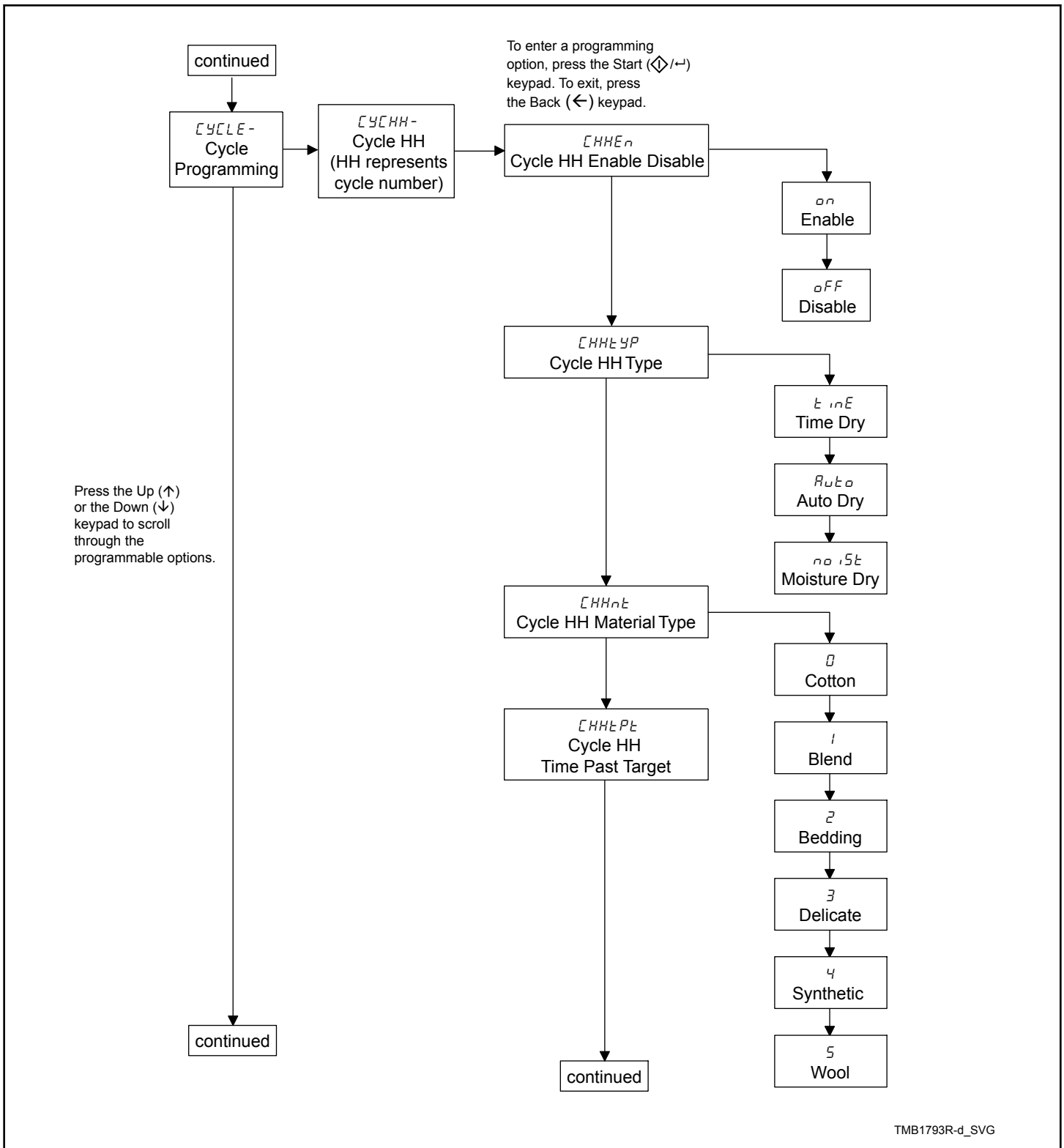
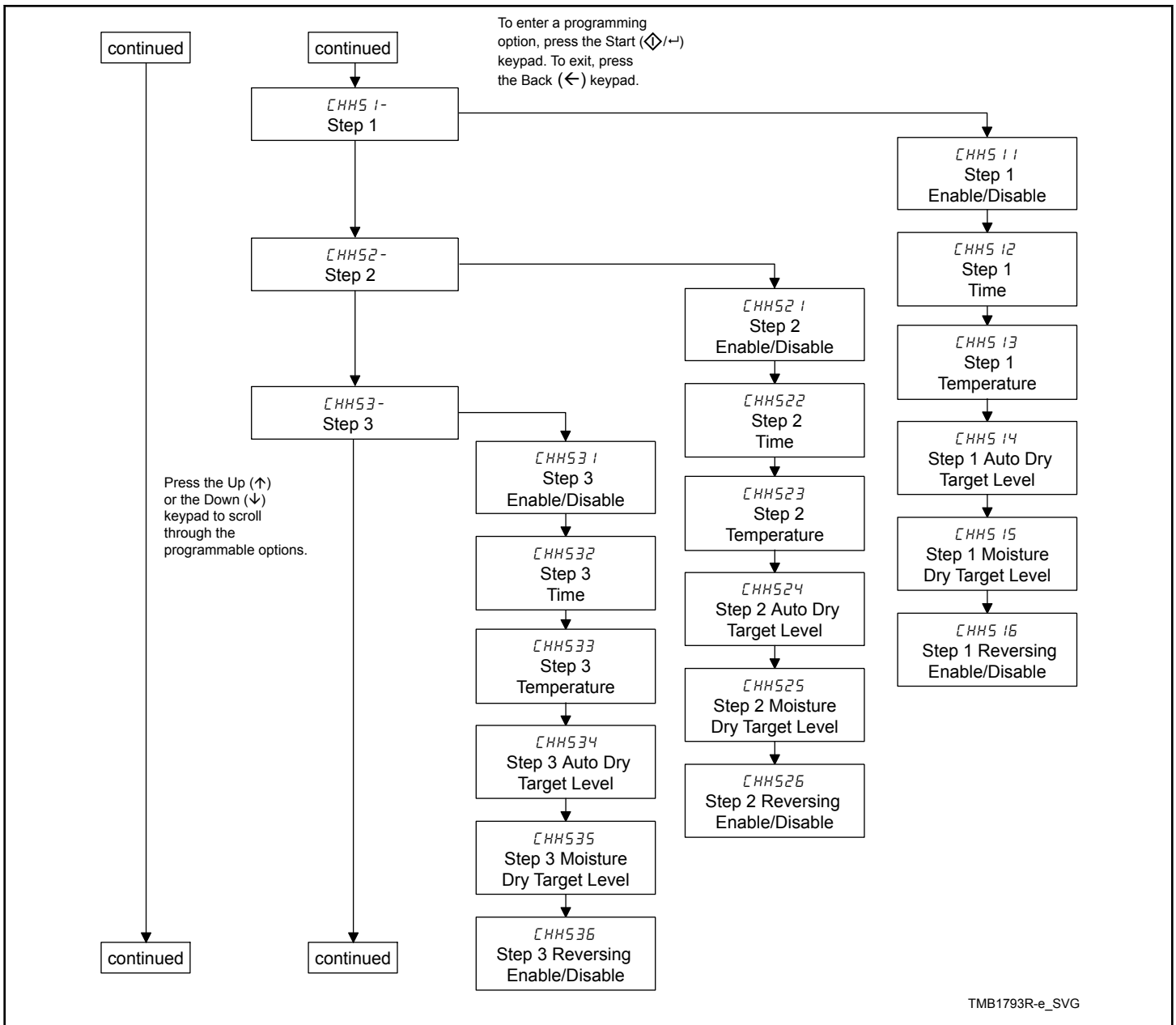


Figure 4



TMB1793R-d\_SVG

Figure 5



TMB1793R-e\_SVG

Figure 6

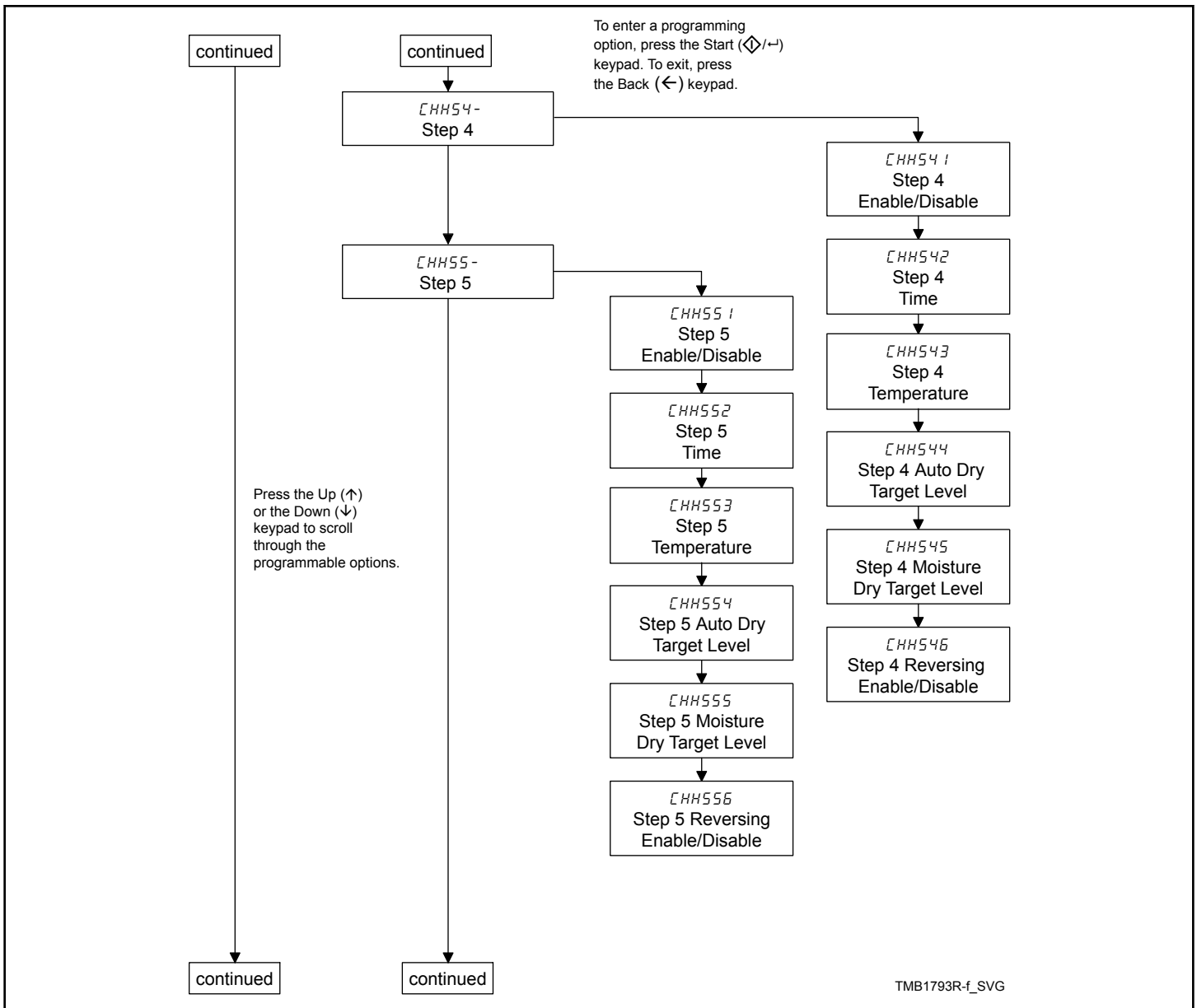


Figure 7

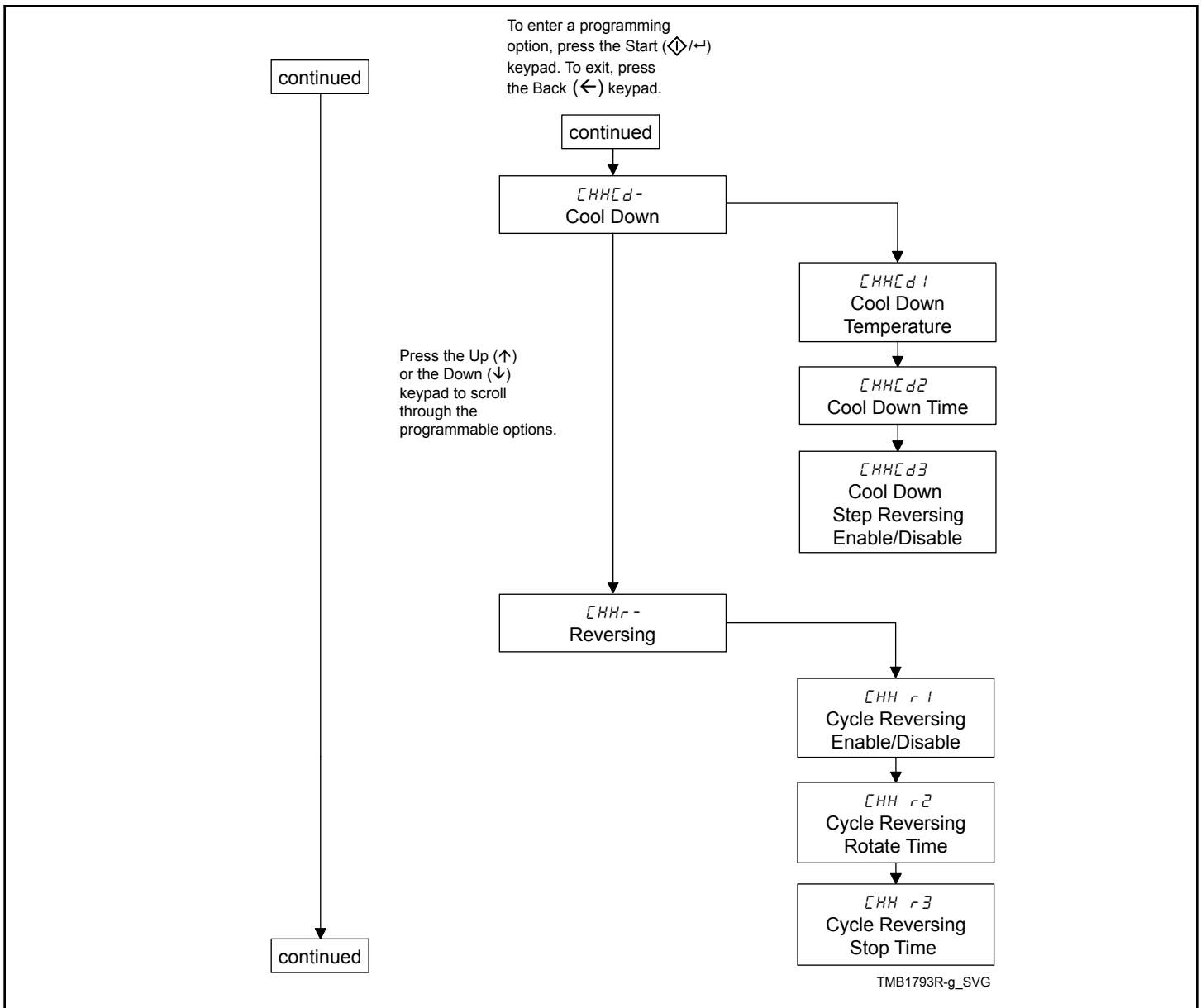


Figure 8

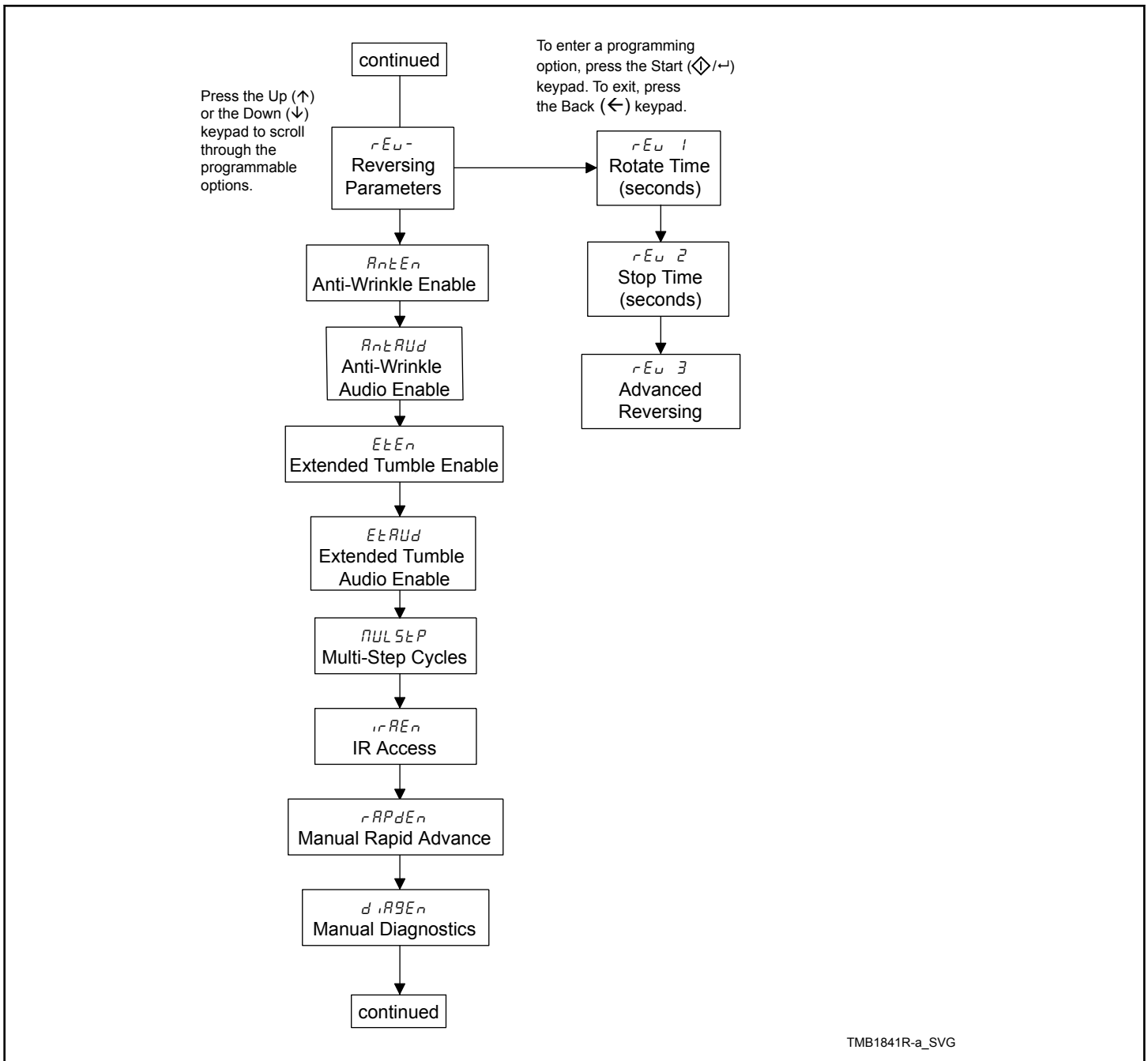


Figure 9

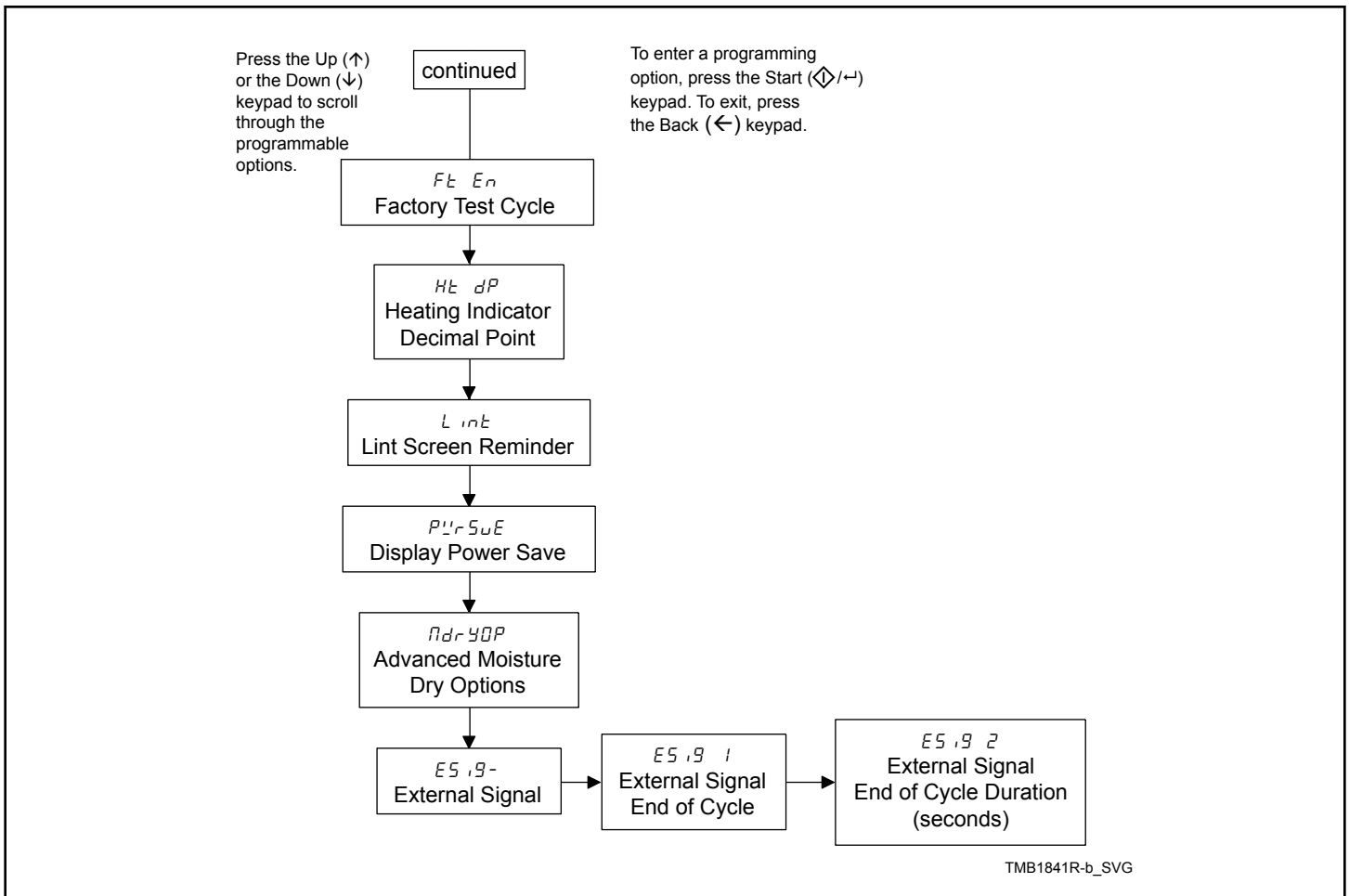


Figure 10



# Collecting Audit Information

This feature allows the owner to retrieve audit information stored in the tumble dryer by pressing a sequence of pads on the control. For an explanation of the audit options available, refer to *Table 1*.

## How to Enter Audit Feature

1. Control must be in Manual Mode to start. Refer to *How to Enter the Manual Mode*.
2. Press the Up or the Down keypad until **Audit** appears.
3. Press the Start keypad. **CYCLES** will appear.

## How to Read Audit Data

1. Use the Up or the Down keypad to scroll through various options until the desired option is shown in the display. Refer to *Table 5* for an explanation of the audit options available.

Audit Options List	
Display	Description
<b>CYCLES</b>	Total # of machine cycles
<b>rAPCYC</b>	Total # of rapid advance cycles
<b>rUnHrs</b>	Total # of run hours
<b>HEAtHr</b>	Total # of heat hours
<b>Ab CYC</b>	Total # of aborted cycles
<b>Er CYC</b>	Total # of cycles stopped by an error
<b>HEECYC</b>	Total # of cycles stopped by max heat time
<b>Ant iCt</b>	Total # of times anti-wrinkle exceeded
<b>End2DP</b>	Average time from end of cycle to door open (last 25 cycles)
<b>End2St</b>	Average time from end of cycle to run mode (last 25 cycles)

Table 5

2. Once the desired option appears in the display, press the Start keypad **once** to start the audit count.
3. Press the Start keypad again. The control will go to the next audit option in the Audit Options List.
4. To select other audit options, repeat steps 1 – 3.

## How to Exit Audit Feature

Press the Back keypad until the control returns to Idle Mode.

# Manual Reset

This feature allows the owner to reset the machine control's programming data to the factory default settings by pressing a sequence of keypads on the control. For an explanation of the Factory Default Settings, refer to *Programming Control*.

## How to Enter Manual Reset

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the Up or Down keypad until **rRP id** appears in the display.
3. Press the Up or Down keypad to scroll through the programmable options until **rESEt** appears in the display.
4. When **rESEt** appears in the display, press the Start keypad. If reset is disabled, **oFF** will appear in the display. If enabled **GLobAL** will appear in the display.
5. Press the Up or Down keypad to change the current status.
6. Press the Start keypad when the correct status appears in the display.

Global Programming Parameters	
<b>GLobAL</b>	Global Programming Parameters
<b>rCYC-</b>	Individual Cycles Sub Menu
<b>rCYC 1</b>	Cycle 1
.....	.....
<b>rCYC30</b>	Cycle 30
<b>ALLCYC</b>	All Cycles
<b>ALL</b>	All Cycles and Global Programming Parameters

Table 6

# Custom Save

This feature allows the owner to save a current cycle. For time dry cycles, the custom save will reprogram the cycle time to the time that has elapsed in the current cycle. For moisture dry cycles, the custom save feature will save the current moisture level as the target moisture level for the current cycle.

1. While a cycle is running, press the Back and Start keypads.
2. Display will change to **SAUE** and Start keypad will flash.
3. Press the Start keypad.

# Testing Machine and Electronic Control Functions

This feature allows the owner to run diagnostic tests on various dryer operations without servicing the dryer. The following tests are available:

- Control Software Version Number
- Input/Output Board Software Version Number
- Drive Software Version Number
- Fan Software Version Number (Designs 3 and 5 only)
- Ignition Control Software Version Number (gas models only)
- Service Door Opening Test
- Dryer On Temperature Test
- Door Switch Input Test
- Lint Door Switch Test
- Temperature Sensor Display Test
- 12.5VDC Voltage Test
- 24VDC Voltage Test
- AC Mains Voltage Test
- Machine Configuration #1 Display Test
- Machine Configuration #2 Display Test
- Machine Configuration #3 Display Test
- Machine Configuration #4 Display Test
- Machine Configuration #5 Display Test
- ICM Alarm Status (gas models only)
- ICM Reset Test (gas models only)
- Heat Interlock Test (Cabinet Limit Thermostat, Stove Limit Thermostat 1, Stove Limit Thermostat 2, Manual Reset Limit Thermostat)
- Air Flow Switch Test

- Fan Motor Test
- Damper Motor Test (steam models only)
- Drive Motor Test
- Moisture Sensor Test (Shorted)
- Moisture Sensor Test (Resistance)

For an overview of the manual diagnostic test feature, refer to the flowchart on the following page.

## How To Enter Testing Feature

1. Enter Manual Mode. Refer to *How to Enter the Manual Mode*.
2. Press the Up or Down keypad until **d 199** appears.
3. Press the START (enter) keypad. Display will change to **d 1** indicating the control software version number test.
4. Press the Up or Down keypad to scroll through the diagnostic test options.

## How to Start Tests

To start a diagnostic test, refer to the quick reference chart below (*Table 7*). Press the Start keypad when the desired test is displayed. For detailed information on each test, read the appropriate description.

## How to Exit Testing Feature

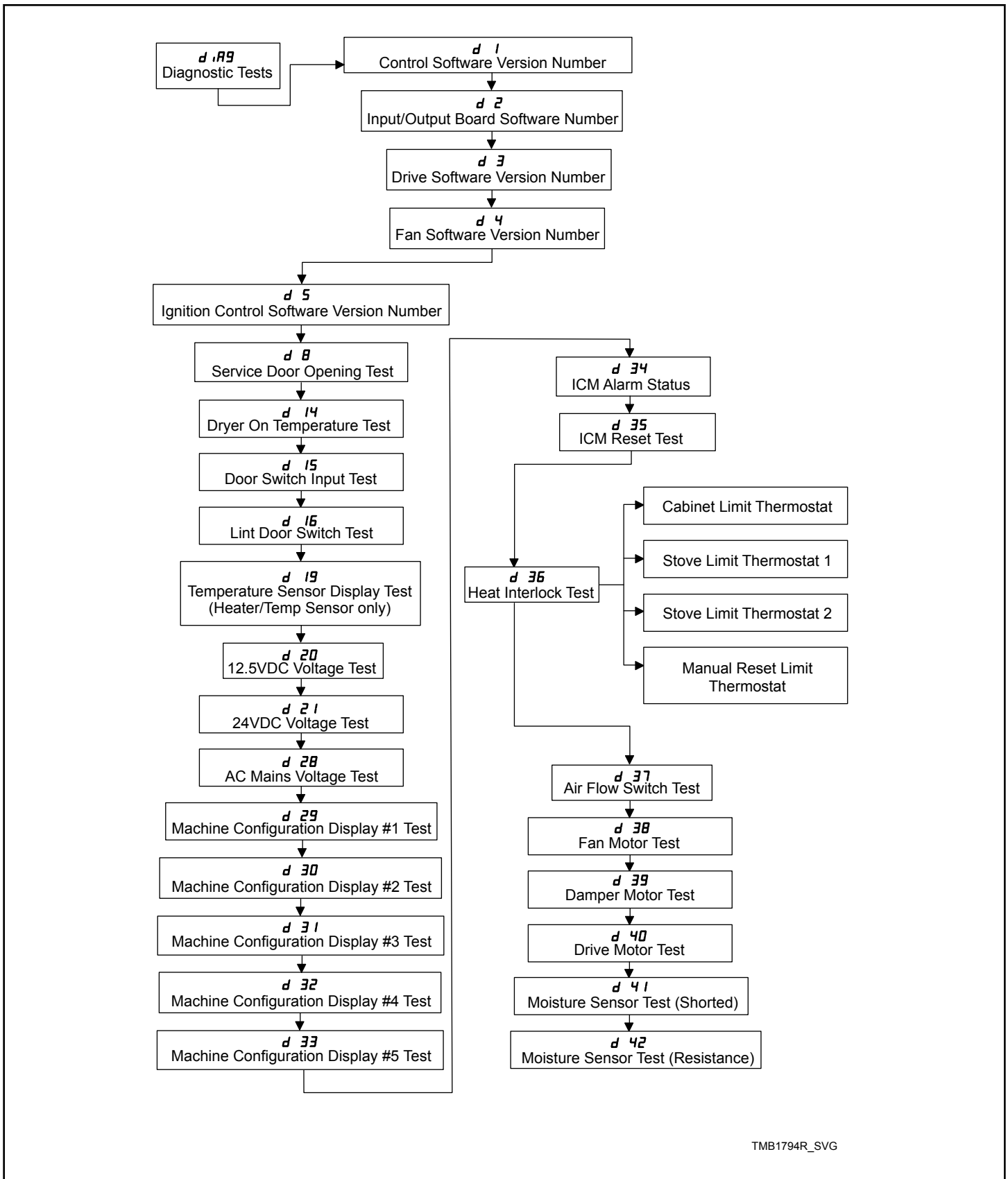
Press the Back keypad. The display will return to Start mode.

Diagnostic (Testing) Mode – Quick Reference Chart		
Test Number	Diagnostic Mode	Display
<b>d 1</b>	Control Software Version Number	<b>5 HHH</b>
<b>d 2</b>	Input/Output Board Software Number	<b>ab HH</b>
<b>d 3</b>	Drive Software Version Number	<b>dbHHHH</b>
<b>d 4</b>	Fan Software Version Number (Designs 3 and 5 only)	<b>FbHHHH</b>
<b>d 5</b>	Ignition Control Software Version Number	<b>.L HH</b>
<b>d 8</b>	Service Door Opening Test	<b>5 aP or 5 LL</b>

Table 7 continues...

<b>Diagnostic (Testing) Mode – Quick Reference Chart</b>		
<i>d 14</i>	Dryer On Temperature Test	<i>HHHF</i> or <i>HHHC</i>
<i>d 15</i>	Door Switch Input Test	<i>dr oP</i> or <i>dr cL</i>
<i>d 16</i>	Lint Door Switch Test	<i>L intoP</i> or <i>L intcL</i>
<i>d 19</i>	Temperature Sensor Display Test (Heater/Temp Sensor only)	<i>HHHF</i> or <i>HHHC (Short, oPEn)</i>
<i>d 20</i>	12.5VDC Voltage Test	<i>HHHH</i>
<i>d 21</i>	24VDC Voltage Test	<i>HHHH</i>
<i>d 28</i>	AC Mains Voltage Test	<i>HHHH</i>
<i>d 29</i>	Machine Configuration Display #1 Test	<i>A HHH</i>
<i>d 30</i>	Machine Configuration Display #2 Test	<i>B HHH</i>
<i>d 31</i>	Machine Configuration Display #3 Test	<i>C HHH</i>
<i>d 32</i>	Machine Configuration Display #4 Test	<i>D HHH</i>
<i>d 33</i>	Machine Configuration Display #5 Test	<i>E HHH</i>
<i>d 34</i>	ICM Alarm Status	<i>AL on</i> or <i>ALoFF</i>
<i>d 35</i>	ICM Reset Test	<i>rESEt</i>
<i>d 36</i>	Heat Interlock Test	-
-	Cabinet Limit Thermostat	<i>CRb oP</i> or <i>CRb cL</i>
-	Stove Limit Thermostat 1	<i>SL1 oP</i> or <i>SL1 cL</i>
-	Stove Limit Thermostat 2	<i>SL2 oP</i> or <i>SL2 cL</i>
-	Manual Reset Limit Thermostat	<i>MrL oP</i> or <i>MrL cL</i>
<i>d 37</i>	Air Flow Switch Test	<i>AF oP</i> or <i>AF cL</i>
<i>d 38</i>	Fan Motor Test	<i>PAUSE, FRn</i>
<i>d 39</i>	Damper Motor Test	<i>PAUSE, dAriPEr</i>
<i>d 40</i>	Drive Motor Test	<i>Frd ,PAUSE ,rEu</i>
<i>d 41</i>	Moisture Sensor Test (Shorted)	<i>rnC 1</i>
<i>d 42</i>	Moisture Sensor Test (Resistance)	<i>rnC 2</i>

Table 7



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Figure 11

## Diagnostic Test Descriptions

### Control Software Version Number Test

This option displays the control software version number. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **5 HHH** where *HHH* is the software version number.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Input/Output Board Software Version Number Test

This option displays the input/output board software version number. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **ab HH** where *HH* is the software version number.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Drive Software Version Number Test

This option displays the current drive software version number. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **dbHHHH** where *HHHH* is the software version number.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Fan Software Version Number Test (Designs 3 and 5 only)

This option displays the current fan software version number. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **FbHHHH** where *HHHH* is the software version number.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Ignition Control Software Version Number Test (gas models only)

This option displays the current ignition control software version number. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **.c HH** where *HH* is the software version number.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

## Service Door Opening Test

This option tests the service door switch. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **5 oP** when the service door switch is open and **5 cL** when the service door switch is closed.

The service door switch has to be closed for at least one second and opened for at least a half a second to make a valid count. This test will add counts to the service door opening counter for the audit and save the date/time for each opening of the test.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

## Dryer On Temperature Test

This option tests the temperature inside the cylinder while running a cycle. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad when the Start LED is flashing. The machine will run until it has reached the selected cycle temperature. The display will show **HHHF** for degrees in Fahrenheit or **HHHC** for degrees in Celsius. The *HHH* will show the degrees. During cool down, the control will display the time remaining as **nn** (minutes) or **nn 55** (minutes and seconds).

To exit the test, open the door. The control will then return to the testing mode.

## Door Switch Input Test

This option tests the door switch. To start test, control must be in the Ready Mode or Starting Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **dr oP** if loading door is open or **dr cL** if loading door is closed.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

## Lint Door Switch Test

This option tests the lint door switch. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **L int oP** when the lint door switch is open and **L int cL** when the lint door switch is closed.

The lint door switch has to be closed or open for at least one second for the control to register the switch as closed or open.

**NOTE: Loading door must be closed while testing lint door.**

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Temperature Sensor Display Test

This option displays the temperature sensed at the thermistor in 1°F increments. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **HHHF** or **HHHC**. The **F** will show Fahrenheit, the **C** will show Celsius and the **HHH** will show degrees. If control senses a shorted thermistor, the display will show **SHort**. If the control senses an open thermistor, the display will show **oPEn**.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### 12.5VDC Voltage Test

This test displays the value of the 12.5VDC supply. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **HHHH** where **HHHH** is the voltage.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### 24VDC Voltage Test

This test displays the value of the 24VDC supply. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **HHHH** where **HHHH** is the voltage.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### AC Mains Voltage Test

This test displays the value of the current AC Mains Voltage. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **HHHH** where **HHH** is the voltage.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Machine Configuration Display #1 Test

This option shows whether communication interfaces are connected. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **R HHH**, with **HHH** a number corresponding to whether or not coin

drops are connected, or serial card reader or network board are connected.

Refer to *Table 8* for test information.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

CONFIGVALUE	COMM BOARD "A" HEADER PRESENT	COMM BOARD "B" HEADER PRESENT
0	NO	NO
8	YES	NO
16	NO	YES
24	YES	YES

Table 8

### Machine Configuration Display #2 Test

This option shows the machine configuration values for the machine type. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **B HHH**, with **HHH** the number corresponding to the machine capacity. Refer to *Table 9*.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

Value	Description
0	Invalid
1	25 Pound Tumble Dryer
2	30 Pound Tumble Dryer
3	35 Pound Tumble Dryer
4	T30 Pound Stack Tumble Dryer
5	T45 Pound Stack Tumble Dryer
6	50 Pound Tumble Dryer
7	55 Pound Tumble Dryer
9	75 Pound Tumble Dryer
10	F75 Pound Tumble Dryer

Table 9 continues...



Value	Description
14	120 Pound Tumble Dryer
15	170 Pound Tumble Dryer
16	200 Pound Tumble Dryer

Table 9

### Machine Configuration Display #3 Test

This option shows the machine configuration values for the machine capacity. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **C HHH**, with **HHH** representing the machine capacity. Refer to *Table 10*.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

Value	Description
0	Invalid
1	Tumble Dryer Single Pocket
2	Stack Tumble Dryer
3	Stack Tumble Dryer - Lower Pocket
4	Stack Tumble Dryer - Upper Pocket
17	25 Pound Tumble Dryer
18	30 Pound Tumble Dryer
19	30 Pound Stack Tumble Dryer
20	30 Pound Stack Tumble Dryer – Lower Pocket
21	30 Pound Stack Tumble Dryer – Upper Pocket
22	35 Pound Tumble Dryer
23	45 Pound Stack Tumble Dryer
24	45 Pound Stack Tumble Dryer – Lower Pocket
25	45 Pound Stack Tumble Dryer – Upper Pocket

Table 10 *continues...*

Value	Description
26	50 Pound Tumble Dryer
27	55 Pound Tumble Dryer
28	75 Pound Tumble Dryer
29	120 Pound Tumble Dryer
30	170 Pound Tumble Dryer
31	200 Pound Tumble Dryer

Table 10

### Machine Configuration Display #4 Test

This option shows which dipswitches are set on the control. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **D HHH**, with **HHH** representing the machine capacity. Refer to *Table 11*.

Config Value	Heat Type	120VAC Supply
0	Non-CE Gas	120VAC
1	Non-CE Gas	240VAC
4	Non-CE Gas	120VAC
5	Non-CE Gas	240VAC
64	Electric	120VAC
65	Electric	240VAC
68	Electric	120VAC
69	Electric	240VAC
128	CE Gas	120VAC
129	CE Gas	240VAC
132	CE Gas	120VAC
133	CE Gas	240VAC
192	Steam	120VAC
193	Steam	240VAC
196	Steam	120VAC
197	Steam	240VAC

Table 11

If supply voltage is 100-127VAC per phase, the voltage configuration should be 120VAC.

If supply voltage is 200-240VAC per phase, the voltage configuration should be 240VAC.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Machine Configuration Display #5 Test

This option shows the machine configuration values for the voltage. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show **E HHH**, with **HHH** representing the voltage. Refer to *Table 12*.

Config Value	Adjust Fan Speed for Heat Type	480V Motor Drives (1 for Yes, 0 for No)
2	Gas/Steam	0
3	Gas/Steam	1
4	Electric	0
5	Electric	1
6	Eco Gas	0
7	Eco Gas	1
8	Eco Electric	0
9	Eco Electric	1
10	Low kW Electric	0
11	Low kW Electric	1

Table 12

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### ICM Alarm Status (gas models only)

This option shows the status of the ICM (Ignition Control Module) Alarm. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the Start keypad. The display will show **IAL ON** if the alarm is active for at least one second or **IAL OFF** if the alarm is not active for one second.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### ICM Reset Test (gas models only)

The ICM Reset Test can be used to clear/reset an active alarm. When the test is entered, the display will show **rESEt**. Press

START (enter). When this test is started, the ICM reset will become active. If the reset signal is active for a long enough period of time (3.5 seconds) the ICM Lockout input will become inactive (3.5 seconds) and then stop the ICM Reset Test.

### Heater Interlock Test

While this test is running, the control will show the status of the following inputs for two seconds each. The control will continue scrolling through the input status displays until the test is aborted.

To start test, the control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press Start. Refer to four sections below for more details on individual statuses.

**NOTE: These switches are tested in sequence. If one switch is sensed open, the rest will be open as well.**

To exit the test, press the Back keypad. The control will return to the Testing Mode.

#### Cabinet Limit Thermostat

The display will show **CRb oP** if sensed open for at least 1.5 seconds and **CRb CL** if sensed closed for at least one second.

#### Stove Limit Thermostat 1

The display will show **SL 1 oP** if sensed open for at least 1.6 seconds and **SL 1 CL** if sensed closed for at least one second.

#### Stove Limit Thermostat 2

The display will show **SL 2 oP** if sensed open for at least 1.7 seconds and **SL 2 CL** if sensed closed for at least one second.

#### Manual Reset Limit Thermostat

The display will show **MrL oP** if the switch is sensed open for at least 3.0 seconds and **MrL CL** if the switch is sensed closed for at least one second.

### Airflow Switch Test

This option shows the current state of the airflow switch. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the Start keypad. The display will show **RF oP** or **RF CL**, with **RF oP** being open and **RF CL** being closed.

Switch has to be closed for at least one second or open for at least one second for a valid change.

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Fan Motor Test

This option shows the fan motor running. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the Start keypad. The display will show **PAUSE** to indicate the fan motor is going to run. When test is running, **FRN** is displayed.

**NOTE: This test does not count towards the total machine run time operation.**

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Damper Motor Test (steam models only)

This option shows the damper motor running. To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the Start keypad. The display will show **PAUSE** to indicate the damper motor is going to run. When test is running, **DRNPPR** is displayed.

**NOTE: This test does not count towards the total machine run time operation.**

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Drive Motor Test

**NOTE: For nonreversing models, the display will show FRD indefinitely.**

This option shows the drive motor running. The test will turn the cylinder forward for 30 seconds, pause for 6 seconds, rotate in the reverse direction for 30 seconds and pause for 6 seconds.

To start test, control must be in the Testing Mode. Refer to *How To Enter Testing Feature* at the beginning of this section.

To enter, press the Start keypad. The display will show **FRD** when spinning in forward direction, **PAUSE** when the cylinder is paused and **REV** when spinning in the reverse direction.

**NOTE: This test does not count towards the total machine run time operation.**

To exit the test, press the Back keypad. The control will return to the Testing Mode.

### Moisture Sensor Test (Shorted Test Jumper)

This step is skipped if the control is not configured for Moisture Sensing. When entering this test, the control will show **rnC 1** while flashing the Start LED one second on/one second off, allowing the user to short the cylinder to the baffle (orange jumper). When the Start key is pressed, this test step energizes the Fan Motor Contactor and Forward Motor Contactor and the control will show **HH**. The moisture sensor test is 30 seconds. During this 30 second period, the control is continually monitoring the moisture sensor input for the expected short circuit. If an intermittent signal or high resistance is sensed before the 30 seconds expire, the test is terminated and the control will show **OPEN**, indicating that the test has failed. At this time the user has the option to press the Back keypad to return and run the test again. If the con-

trol ran the whole test reading the expected moisture sensor level and without an intermittent signal or high resistance, **PASS** will be shown. If either the loading or lint doors are opened during the test, the control will reset the test step and allow it to be run again. When the test is complete and result is displayed, the control sounds a 5 second audio signal. Press a key to advance to the next test step. If the Up or Down keypad is pressed while the test is in progress the control will toggle between displays **HH**, **rnC HH** and **5nrHHH**. If the display is left on **rnC HH** or **5nrHHH** for 5 seconds the control will revert to showing **rnC 1**.

### Moisture Sensor Test (Resistance Test Jumper)

This step is skipped if the control is not configured for Moisture Sensing. When entering this test, the control will show **rnC 2** while flashing the Start key LED one second on/one second off, allowing the user to place the 510k Ohm resistor between the cylinder and the baffle (black jumper) which simulates an expected moisture sensor level. When the Start keypad is pressed, this step energizes the Fan Motor Contactor and Forward Motor Contactor and the control will show **HH**. The moisture sensor test is 30 seconds. During this 30 second period, the control is continually monitoring the moisture sensor input for the expected moisture sensor level. If an intermittent signal or unexpected resistance is sensed before the time expires, the test is terminated and the control will show **OPEN**, indicating that the test has failed. At this time, the user has the option to press the Back keypad to return and run the test again. If the control ran the test reading the expected moisture sensor level and without an intermittent signal or unexpected resistance, **PASS** will be shown. If either the loading or lint doors are opened during the test, the control will reset the test step and allow it to be run again. When the test is complete and result is displayed, the control sounds a 5 second audio signal. Press a key to advance to the next test step. If the Up or Down keypad is pressed while the test is in progress the control will toggle between **HH**, **rnC HH** and **5nrHHH**. If the display is left on **rnC HH** or **5nrHHH** for 5 seconds the control will revert to showing **rnC 2**.

## Factory Test Cycle

### To Enter Factory Test Cycle

1. Be certain control is in Start Mode, and service door or coin vault is open.
2. While pressing and holding the Down keypad with one hand, press the Back keypad with the other hand.
3. When the control enters the Factory Test Cycle, it will first display **Ed** for product type (tumble dryer).
4. The control will advance through the sequence of test steps whenever the START (enter) keypad is pressed, with the exception of the Keypad Test. Refer to *Table 13* for all tests in the Factory Test Cycle.

### To Exit Factory Test Cycle

The control must be powered down to end the test.

Factory Test Cycle Quick Reference Table		
Display	Test Mode	Comments
<i>Ed</i>	Machine Type	<i>Ed</i> is the machine type (tumble dryer).
<i>SHHH</i>	Software Version	<i>HHH</i> is the software version number.
<i>HH</i> (skipped if 0)	Software Subversion	<i>HH</i> is the software subversion.
<i>oBHH</i>	Output Board Version Number	<i>HH</i> is the output board version number.
<i>HH</i> (skipped if 0)	Output Board Subversion Number	<i>HH</i> is the output board subversion number.
<i>dBHH</i>	Drive Software Version Number	<i>HH</i> is the drive software version number.
<i>FbHH</i> (Designs 3 and 5 only)	Fan Drive Software Version Number	<i>HH</i> is the fan drive software version number.
<i>icHH</i> (skipped if electric or steam machine)	ICM Software Version	<i>HH</i> is the ICM software version number.
<i>AH</i>	Control Type	<i>H</i> is the feature level of the control.
<i>HH</i>	DipSwitch Configuration	<i>HH</i> is the machine type. <i>00</i> is 120V and <i>01</i> is 240V.
<i>HHH</i>	Machine Size	<i>HHH</i> is the configured machine size. <i>EHH</i> is for stack machines and <i>FHH</i> is for fast dry.
<i>PRd</i> or <i>PRHH</i>	Keypad Test	When a key is pressed, the control will display the number assigned to the keypad. As each keypad is pressed, its corresponding LED will be lit and remain on for the duration of the test. When all keypads have been pressed, the control will advance to Show Entire Display Mode test cycle.
All LEDs and display segments will light	Show Entire Display Mode	This mode will light all display elements and sound the audio.
<i>S oP</i> or <i>S CL</i>	Service Door Switch Test	<i>oP</i> signifies the service door switch is open or <i>CL</i> signifies the service door switch is closed.
<i>droP</i> or <i>drCL</i>	Loading Door Test	<i>oP</i> signifies the loading door is open or <i>CL</i> signifies the loading door is closed.
<i>LtoP</i> or <i>LtCL</i>	Lint Door Test	<i>oP</i> signifies the lint door is open or <i>CL</i> signifies the lint door is closed.
<i>HHHF</i> or <i>HHHC</i>	Thermistor Temperature Test	The temperature will be displayed in either Fahrenheit or Celsius, depending on machine's configuration. If control senses a shorted thermistor, <i>SH</i> will be displayed. If control senses an open thermistor, <i>oP</i> will be displayed.

Table 13 *continues...*

Factory Test Cycle Quick Reference Table		
Display	Test Mode	Comments
<i>rnC 1</i>	Moisture Sensor Test (Shorted)	This step is skipped if the control is not configured for Moisture Sensing. When entering this test, the control will show <i>rnC 1</i> while flashing the Start LED one second on/one second off, allowing the user to short the cylinder to the baffle (orange jumper). When the Start key is pressed, this test step energizes the Fan Motor Contactor and Forward Motor Contactor and the control will show <i>HH</i> . The moisture sensor test is 30 seconds. During this 30 second period, the control is continually monitoring the moisture sensor input for the expected short circuit. If an intermittent signal or high resistance is sensed before the 30 seconds expire, the test is terminated and the control will show <i>DPEn</i> , indicating that the test has failed. At this time the user has the option to press the Back keypad to return and run the test again. If the control ran the whole test reading the expected moisture sensor level and without an intermittent signal or high resistance, <i>PASS</i> will be shown. If either the loading or lint doors are opened during the test, the control will reset the test step and allow it to be run again. When the test is complete and result is displayed, the control sounds a 5 second audio signal. Press a key to advance to the next test step. If the Up or Down keypad is pressed while the test is in progress the control will toggle between displays <i>HH</i> , <i>rnC HH</i> and <i>5nrHHH</i> . If the display is left on <i>rnC HH</i> or <i>5nrHHH</i> for 5 seconds the control will revert to showing <i>rnC 1</i> .
<i>rnC 2</i>	Moisture Sensor Test (Resistance)	This step is skipped if the control is not configured for Moisture Sensing. When entering this test, the control will show <i>rnC 2</i> while flashing the Start key LED one second on/one second off, allowing the user to place the 510k Ohm resistor between the cylinder and the baffle (black jumper) which simulates an expected moisture sensor level. When the Start keypad is pressed, this step energizes the Fan Motor Contactor and Forward Motor Contactor and the control will show <i>HH</i> . The moisture sensor test is 30 seconds. During this 30 second period, the control is continually monitoring the moisture sensor input for the expected moisture sensor level. If an intermittent signal or unexpected resistance is sensed before the time expires, the test is terminated and the control will show <i>DPEn</i> , indicating that the test has failed. At this time, the user has the option to press the Back keypad to return and run the test again. If the control ran the test reading the expected moisture sensor level and without an intermittent signal or unexpected resistance, <i>PASS</i> will be shown. If either the loading or lint doors are opened during the test, the control will reset the test step and allow it to be run again. When the test is complete and result is displayed, the control sounds a 5 second audio signal. Press a key to advance to the next test step. If the Up or Down keypad is pressed while the test is in progress the control will toggle between <i>HH</i> , <i>rnC HH</i> and <i>5nrHHH</i> . If the display is left on <i>rnC HH</i> or <i>5nrHHH</i> for 5 seconds the control will revert to showing <i>rnC 2</i> .

Table 13 *continues...*

Factory Test Cycle Quick Reference Table		
Display	Test Mode	Comments
<i>10</i>	10 Minute Test Cycle	Determines if dryer can function in a cycle for 10 minutes. LED display will flash one second on and one second off. If the door is opened while the START LED is flashing, the control will display <i>door</i> until the door is closed. While this 10 Minute Test Cycle is running, the START pad may be used to decrement the remaining cycle time. If power to the control is turned off before this test cycle has ended, the cycle is cleared. When the control is powered back up, it will be reset to Ready Mode.
<i>Pd</i>	Power Down	This is the final step of the Factory Test Cycle and when displayed it signifies the test has been completed.

Table 13

**NOTE: If power to the control is turned off before 10 Minute Test Cycle has ended, the cycle will be cleared from control.**

# Error Codes

Following is a list of possible error codes for an electronic control. Errors beginning with **E**, refer to external device Infra-red communication errors. Errors beginning with **EC** refer to card reader errors. All other errors refer to machine errors.

Error Codes		
Display	Description	Cause/ Corrective Action
<b>ALARM</b>	Break-In Alarm Error	Check the service door or coin vault switches.
<b>E AF</b>	Airflow Switch Bounces	Inspect lint screen, ductwork and make-up air. Cycle power to machine (power down, then power up).
<b>E Co</b>	SCI Communications Error	Communication failure. Power down, power up, check connections and try again. If error persists, replace control or output board.
<b>E d5</b>	Brownout/Voltage Configuration	Unexpected supply voltage. Check wiring at input of machine to make sure the correct input voltage is supplied to the machine. Check the harness connections between the user control and the output board. If the user control was replaced, set dipswitch #1 to the same setting as the previous control. If reworking the machine to use a different supply voltage, the dip switch #1 setting may need to be changed. If the dip switch #1 setting is changed, power down, power up and try again.
<b>E HEAT</b>	Machine Did Not Reach Expected Temperature	The ignition control has power, but a flame was not sensed after the programmed amount of retries. Be sure that gas and gas valve are turned on. If problem persists, troubleshoot the ignition circuit. (Igniter, Cable, Ignition Control Module.) For electric machines, check wiring to auxiliary switch on electric contactors and make sure contactors work properly.
<b>E id</b>	Board ID Error	Incorrect replacement control. The display will show <b>OUTPUT</b> . Replace user control or output board with correct part. The board ID error will also be set if the wrong drive motor, fan motor or ignition control are connected. The display will show <b>drive, Fan</b> or <b>IC</b> . Check machine configurations and connect correct drive motor, fan motor or ignition control.
<b>E nr</b>	Drive/Output Board Not Ready	Hardware failure. Replace output board.
<b>E oP</b>	Open Thermistor Error	Remove any lint build-up around thermistor. Check wire connections. If problem persists, replace control or thermistor.
<b>E SH</b>	Shorted Thermistor Error	Remove any lint build-up around thermistor. If problem persists, replace control or thermistor.
<b>ERF 1</b>	Airflow Switch Failed to Open	Inspect lint screen and ductwork. Wipe clean and completely dry off the airflow switch vane as well as the mating material. Once error is cleared, control will go back to previous mode of operation.
<b>ERF 2</b>	Airflow Switch Failed to Close	If machine is newly installed, make sure shipping tie has been removed from airflow switch. Inspect lint screen and ductwork. Cycle power to machine (power down, then power up).

Table 14 continues...

Error Codes		
Display	Description	Cause/ Corrective Action
<i>ECAb</i>	Cabinet Limit Cycle	Remove any lint build-up around thermostat. If problem persists, replace control or thermostat. Check thermistor function. Error can also be caused by running no load or a small load.
<i>ECodr, ECofAn</i>	Drive and Fan Communication Error	Communication failure. Power down for at least 1 minute, power up, check connections between I/O board and Drive/Fan and try again. If error persists, replace tumbler I/O board or motor with which the error occurred (Fan or Drive).
<i>ECocn</i>	ICM Communication Error	Communication failure. Power down, power up, check connections and try again. If error persists, replace tumbler I/O board or ignition control.
<i>EFAr01, Ed 01</i> (Design 6)	Communication Error	Check wiring between I/O board and inverter.
<i>EFAr02, Ed 02</i>	Fan or Cylinder Motor High DC Bus Error	Voltage to fan/cylinder is too high. Unpower machine to clear error. Check voltage input and check wiring to machine. Replace fan/cylinder motor if error persists.
<i>EFAr03, Ed 03</i> (Design 6)	Motor Not Connected Error	Check motor wiring.
<i>EFAr04, Ed 04</i>	Fan or Cylinder Motor Stall Error	Check that fan or cylinder turns freely, make sure machine is not overloaded. Error can be cleared by any key press.
<i>EFAr05, Ed 05</i> (Designs 3 and 5)	Fan or Cylinder Motor Coherence Check Error	Check that fan wheel spins freely. Cylinder error can be caused by an unbalanced load. Try to redistribute the load and lengthen the reversing pause time if reversing is enabled. Error can be cleared by any key press.
<i>EFAr05, Ed 05</i> (Design 6)	Back EMF Error	Check motor wiring.
<i>EFAr06, Ed 06</i>	Fan or Cylinder Motor IPM Over-temp Error	IPM temperature is detected too high. Check that heat sink on the motor(s) is clear of lint or any other obstruction and check that cylinder spins freely when empty. Design 6, clean inverter drive compartment. Replace motor(s) or inverter drive if error persists.
<i>EFAr07, Ed 07</i> (Design 6)	Drive Enable Error	Check the inverter drive enable wiring between H6 header on I/O board and inverter drive.
<i>EFAr08, Ed 08</i> (Designs 3 and 5 only)	Fan or Cylinder Motor Current Limit Error	Check that fan/cylinder turns freely, make sure machine is not overloaded. Replace fan/cylinder motor if error persists.
<i>EFAr09, Ed 09</i> (Designs 3 and 5 only)	Fan or Cylinder Motor 460V Drive Overcurrent	Check that fan/cylinder turns freely, make sure machine is not overloaded. Replace fan/cylinder motor if error persists.
<i>EFAr10, Ed 10</i>	Fan or Cylinder Motor Low DC Bus Error	Voltage to motor(s) or inverter drive is too low. For 120V machines, make sure wire harness jumper is connected which connects pins 1 and 2 of the 5-pin connector on the motor. Check voltage input and check wiring to machine. Replace motor(s) or inverter drive if error persists.

Table 14 *continues...*



Error Codes		
Display	Description	Cause/ Corrective Action
<i>EFA<sub>n</sub> 11, Ed 11</i>	Fan or Cylinder Motor Overload Error	Check that fan or cylinder turns freely, make sure machine is not overloaded. Error can be cleared by any key press.
<i>EFA<sub>n</sub> 12, Ed 12</i> (Designs 3 and 5)	Fan or Cylinder Motor Microcontroller Fault	Try to power down and power up the machine to clear the error. If error persists, replace fan/cylinder motor.
<i>EFA<sub>n</sub> 12, Ed 12</i> (Design 6)	Motor System Fail	Check that correct inverter drive is installed. Check for correct configuration of front end control.
<i>Ed 13</i> (Designs 3 and 5)	Cylinder Motor Hall Sensor Failure	Power down machine to clear error.
<i>EFA<sub>n</sub> 13, Ed 13</i> (Design 6)	Setup Compatibility Failure	Check that correct inverter drive is installed. Check for correct configuration of front end control.
<i>EFA<sub>n</sub> 14, Ed 14</i> (Design 6)	Power Fail Dangerous Error	Check voltage to machine and voltage to inverter drive.
<i>EFA<sub>n</sub> 15, Ed 15</i> (Design 6)	Open Phase Error	Check motor wiring. Replace motor if error persists.
<i>EFA<sub>n</sub> 16, Ed 16</i> (Design 6)	Power Fail NO Dangerous Error	Check voltage to machine and voltage to inverter drive.
<i>EFA<sub>n</sub> 18, Ed 18</i> (Design 6)	Fatal IPM Over Current Shunt Error	Check motor wiring. Replace motor if error persists.
<i>EFA<sub>n</sub> 19, Ed 19</i> (Design 6)	Fatal Hardware I2T Over Current Error	Check for motor overload or blocking condition which could be caused from lint buildup or blocked fan, overwet load or mechanical issues causing cylinder sticking.
<i>EFA<sub>n</sub> 21, Ed 21</i> (Design 6)	Speed Limitation Error	Check that machine is configured to the correct machine size.
<i>EFA<sub>n</sub> 22, Ed 22</i> (Design 6)	Inrush Pin Hardware On/Off Fail	Cycle power to machine. Replace inverter drive if error persists.
<i>EFA<sub>n</sub> 23, Ed 23</i> (Design 6)	Fatal IPM Temperature Acquisition Error (NTC is in short circuit or open)	Cycle power to machine. Replace inverter drive if error persists.
<i>EFA<sub>n</sub> 24, Ed 24</i> (Design 6)	ADC Current Acquisition Fail	Cycle power to machine. Replace inverter drive if error persists.
<i>EFA<sub>n</sub> 25, Ed 25</i> (Design 6)	VBUS Acquisition Fail	Cycle power to machine. Replace inverter drive if error persists.
<i>EFA<sub>n</sub> 26, Ed 26</i> (Design 6)	Fault IPM Circuit Fail	Cycle power to machine. Replace inverter drive if error persists.
<i>EFL<sub>E</sub> 01</i>	Optional Heat Output Shorted	Check wiring to valve/motor connected to output, replace valve/motor.
<i>EFL<sub>E</sub> 02</i>	Motor Relay Enable Output Shorted	Check motor power relay connected between, if error persists replace relay.

Table 14 *continues...*

Error Codes		
Display	Description	Cause/ Corrective Action
EFLt03	Spare Relay Enable Output Shorted	Check relay powered by KM2 output, if error persists replace relay.
EFLt04	Auxiliary Relay 1 Output Shorted Error	Check relay powered by Aux 1 output, if error persists replace relay.
EFLt05	Run Relay Output Shorted Error	Check Relay powered by the Run output, if error persists replace relay.
EFLt06	Gas Valve 1 Output Shorted Error	Check gas valve 1, if error persists replace valve.
EFLt07	Gas Valve 2 Output Shorted Error	Check gas valve 2, if error persists replace valve.
E .01	Transmission Failure	Communication failure. Re-aim external device and try again.
E .02	Device Time-Out	Communication failure. Re-aim external device and try again.
E .03	Invalid Command Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
E .04	Command Packet Time Out	Communication failure. Re-aim external device and try again.
E .05	Invalid or Out-of-Range Data	Incorrect machine type. Before downloading, ensure data is for current machine type and values entered are within the minimum and maximum limits.
E .09	CRC-16 Error	Communication failure. Re-aim external device and try again.
E .0A	Framing Error	Communication failure. Re-aim external device and try again.
E .0C	Time-Out Exceeded	Communication failure. Re-aim external device and try again.
E .0E	Encryption Error	Incorrect machine type. Before downloading, ensure data is for current machine type.
E .0F	Invalid Wake-up or Infra-red Disabled	Communication failure or infra-red is disabled. Manually enable infra-red on control or re-aim external device and try again.
E .1A	ICM Lockout Alarm Active	Check that the gas is turned on and that the ignition circuit functions. Also check that the gas valve is operational. This error needs to be manually reset. To reset, open service door and press start button. After 5 seconds error should be cleared.
E .1A01	False Flame Error	Press any key, open the loading door or cycle power to machine.
E .1A02	ICM Alarm Reset Shorted Error	Check wiring between the I/O board and the ignition control. Power down and power up machine to clear the error.
E .1A03	ICM Hardware Failure Error	Ignition control has detected a hardware fault. Power down and power machine to clear error. Replace ignition control if error persists.
E .10 05	I/O Board 24VDC Supply Over Voltage Error	Check machine input voltage. Power down and power up the machine to clear error. If error persists, replace I/O board.
E .10 06	I/O Board 24VDC Supply Under Voltage Error	Check machine input voltage. Check for pinched control wires. Clear any debris or lint from the I/O board. Power down and power up the machine to clear error. If error persists, replace I/O board.

Table 14 continues...

<b>Error Codes</b>		
<b>Display</b>	<b>Description</b>	<b>Cause/ Corrective Action</b>
<i>E 10 07</i>	Heat Output Shorted Error	Power down machine to clear error, power up machine, try heating again. If error persists, replace I/O board.
<i>E 10 32</i>	Mosfet Enabled Shorted Error	Power down machine to clear error, power up machine, try running a cycle. If error persists, replace I/O board.
<i>E 10 15t</i>	Moisture Sensor Error	Make sure cylinder is empty and check slip ring connection on back of machine.
<i>E 11-L</i>	Manual Reset Limit Error	Inspect tumble dryers venting/ventwork to ensure that the ventwork is adequate and that there are no blockages. Be sure to clean and inspect lint screen. Remove any lint buildup around the thermostat. Check thermostat and cabinet limit function. Limit needs to be manually reset and machine needs to be powered down to clear the error. If problem persists, replace thermostat.
<i>E 11HH</i>	Machine ID Chip Error	Communication failure. Power down, power up and try again. If error persists, check connection between user control and Machine ID chip, or try replacing the user control or the Machine ID chip.
<i>E 5L 1</i>	Stove Limit 1 Cycle	Inspect tumble dryers venting/ventwork to ensure that the ventwork is adequate and that there are no blockages. Be sure to clean and inspect lint screen. Remove any lint buildup around the thermostat. Check make-up air and gas pressure. If problem persists, replace thermostat.
<i>E 5L 2</i>	Stove Limit 2 Cycle	Inspect tumble dryers venting/ventwork to ensure that the ventwork is adequate and that there are no blockages. Be sure to clean and inspect lint screen. Remove any lint buildup around the thermostat. Check make-up air and gas pressure. If problem persists, replace thermostat.
Right most decimal point Lit	Machine ID Communication Error	Communication failure. Power down, power up and try again. If error persists, check connection between user control and Machine ID chip, or try replacing the user control or the Machine ID chip.

Table 14

# Manual Rapid Advance

Manual Rapid Advance allows the user to quickly advance through an active cycle. This feature is useful when tests must be performed immediately on a machine currently in an active cycle. In this case, the user can quickly advance through the cycle to the *Start Mode*. At this point, the user can perform the required tests and then return the machine to the active cycle.

## How to Rapid Advance

Press the START (enter) keypad to start a cycle. If in an active time dry cycle, pressing START (enter) keypad will decrease time. If in an active moisture sensing or auto-dry cycle, pressing START (enter) keypad will advance to the next cycle step.

**NOTE: The Rapid Advance option must be turned on for Rapid Advance to work.**

# Communication Mode

This mode is entered whenever the control is communicating with a PDA. Refer to **PC and PDA Application User Instructions**.

## Infra-red Communications

The Infra-red Communications feature allows the control to communicate with an external device. The control can be programmed and have its data read without using the keypad. It may also be used to start and stop various diagnostic tests.

## How to Begin Communications with An External Device

The control will go blank and the display will show **-L-** until the communication is complete. The display will return to the previous mode. If an error occurs that terminates communication, the display will show the appropriate error code.

**NOTE: The Infra-red Communications option must be turned on.**

# Cycle Charts

## Standard Moisture Sensing Machine Cycles

Cycle No.	Cycle Name	Cycle Type	Material Type	Reversing	Temperature	Target Moisture or Time
1	Towels	Moisture Dry	Cotton	OFF	190°F [88°C]	1%
2	Sheets Blend	Moisture Dry	Bedding	ON	160°F [71°C]	3%
3	Sheets Cotton	Moisture Dry	Bedding	ON	190°F [88°C]	3%
4	Sheets Blend Iron	Moisture Dry	Bedding	ON	160°F [71°C]	20%
5	Sheets Cotton Iron	Moisture Dry	Bedding	ON	190°F [88°C]	20%
6	Duvet Cotton	Moisture Dry	Bedding	ON	190°F [88°C]	5%
7	Duvet Blend	Moisture Dry	Bedding	ON	160°F [71°C]	5%
8	Napkins Synthetic	Moisture Dry	Synthetic	OFF	140°F [60°C]	3%
9	Napkins Blend	Moisture Dry	Blend	OFF	160°F [71°C]	3%
10	Napkins Synthetic Iron	Moisture Dry	Synthetic	OFF	140°F [60°C]	20%
11	Napkins Blend Iron	Moisture Dry	Blend	OFF	160°F [71°C]	20%
12	Napkins Cotton Iron	Moisture Dry	Cotton	OFF	190°F [88°C]	20%
13	Uniform Perm Press	Moisture Dry	Synthetic	OFF	140°F [60°C]	5%
14	Uniform Cotton	Moisture Dry	Cotton	OFF	190°F [88°C]	5%
15	30 Minute High	Time Dry	n/a	OFF	190°F [88°C]	30 minutes
16	30 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	30 minutes
17	30 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	30 minutes
18	30 Minute No Heat	Time Dry	n/a	OFF	n/a	30 minutes
19	15 Minute High	Time Dry	n/a	OFF	190°F [88°C]	15 minutes
20	15 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	15 minutes
21	15 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	15 minutes
22	15 Minute No Heat	Time Dry	n/a	OFF	n/a	15 minutes
23	10 Minute High	Time Dry	n/a	OFF	190°F [88°C]	10 minutes

*Table continues...*

24	10 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	10 minutes
25	10 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	10 minutes
26	10 Minute No Heat	Time Dry	n/a	OFF	n/a	10 minutes
27	5 Minute High	Time Dry	n/a	OFF	190°F [88°C]	5 minutes
28	5 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	5 minutes
29	5 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	5 minutes
30	5 Minute No Heat	Time Dry	n/a	OFF	n/a	5 minutes

n/a = not applicable

- All cycles include a 2 minute, 100°F [38°C] cool down period

- Designs 3 and 5 - All cycles with reversing on rotate for 30 seconds and pause for: 6 seconds (25-75 pound models), 10 seconds (120-200 pound models).

- Design 6 - All cycles with reversing on rotate for 30 seconds and pause for: 3 seconds (30, T30, T45, 55 pound models), 6 seconds (50, 75 pound models), 8 seconds (120-200 pound models).

- Cool down and reversing settings can be changed from what is pre-programmed from the factory.

- If machine does not have the moisture sensing option, the moisture sensing cycles in the table above are automatically changed to Auto-Dry cycle type. Refer to *Standard Non-Moisture Sensing Machine Cycles*.

## Standard Non-Moisture Sensing Machine Cycles

Cycle No.	Cycle Name	Cycle Type	Material Type	Reversing	Temperature	Dryness Level or Time
1	Towels	Auto Dry	Cotton	OFF	190°F [88°C]	-2
2	Sheets Blend	Auto Dry	Bedding	ON	160°F [71°C]	5
3	Sheets Cotton	Auto Dry	Bedding	ON	190°F [88°C]	4
4	Sheets Blend Iron	Auto Dry	Bedding	ON	160°F [71°C]	1
5	Sheets Cotton Iron	Auto Dry	Bedding	ON	190°F [88°C]	1
6	Duvet Cotton	Auto Dry	Bedding	ON	190°F [88°C]	3
7	Duvet Blend	Auto Dry	Bedding	ON	160°F [71°C]	3
8	Napkins Synthetic	Auto Dry	Synthetic	OFF	140°F [60°C]	-3
9	Napkins Blend	Auto Dry	Blend	OFF	160°F [71°C]	-2
10	Napkins Synthetic Iron	Auto Dry	Synthetic	OFF	140°F [60°C]	-5
11	Napkins Blend Iron	Auto Dry	Blend	OFF	160°F [71°C]	-5
12	Napkins Cotton Iron	Auto Dry	Cotton	OFF	190°F [88°C]	-5
13	Uniform Perm Press	Auto Dry	Synthetic	OFF	140°F [60°C]	-4
14	Uniform Cotton	Auto Dry	Cotton	OFF	190°F [88°C]	-4
15	30 Minute High	Time Dry	n/a	OFF	190°F [88°C]	30 minutes
16	30 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	30 minutes
17	30 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	30 minutes
18	30 Minute No Heat	Time Dry	n/a	OFF	n/a	30 minutes
19	15 Minute High	Time Dry	n/a	OFF	190°F [88°C]	15 minutes
20	15 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	15 minutes
21	15 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	15 minutes
22	15 Minute No Heat	Time Dry	n/a	OFF	n/a	15 minutes
23	10 Minute High	Time Dry	n/a	OFF	190°F [88°C]	10 minutes
24	10 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	10 minutes
25	10 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	10 minutes

*Table continues...*



26	10 Minute No Heat	Time Dry	n/a	OFF	n/a	10 minutes
27	5 Minute High	Time Dry	n/a	OFF	190°F [88°C]	5 minutes
28	5 Minute Med	Time Dry	n/a	OFF	160°F [71°C]	5 minutes
29	5 Minute Low	Time Dry	n/a	OFF	140°F [60°C]	5 minutes
30	5 Minute No Heat	Time Dry	n/a	OFF	n/a	5 minutes

n/a = not applicable

- All cycles include a 2 minute, 100°F [38°C] cool down period
- Designs 3 and 5 - All cycles with reversing on rotate for 30 seconds and pause for: 6 seconds (25-75 pound models), 10 seconds (120-200 pound models).
- Design 6 - All cycles with reversing on rotate for 30 seconds and pause for: 3 seconds (30, T30, T45, 55 pound models), 6 seconds (50, 75 pound models), 8 seconds (120-200 pound models).
- Cool down and reversing settings can be changed from what is pre-programmed from the factory.

## Wetclean Machine Cycles

The first 7 cycles for wetclean machines are listed below. Cycles 8-30 are the same as the table listed above.

Cycle No.	Cycle Name	Cycle Type	Material Type	Reversing	Temperature	Target Moisture or Time	Cool Down
1	Wet C - Wool	Moisture Dry	Wool	OFF	1: 120°F [49°C] 2: 115°F [46°C] 3: 110°F [43°C]	1: 15% 1: 7% 1: 5% TPT: 10 minutes	1 minute/ 105°F [41°C]
2	Wet C - Silk	Moisture Dry	Delicate	OFF	1: 110°F [43°C] 2: 105°F [41°C]	1: 15% 2: 5% TPT: 4 minutes	1 minute/ 105°F [41°C]
3	Wet C - All In One	Moisture Dry	Blend	OFF	1: 125°F [52°C] 2: 120°F [49°C] 3: 115°F [46°C]	1: 20% 2: 10% 3: 5% TPT: 10 minutes	1 minute/ 105°F [41°C]
4	Wet C - Delicate 10%	Moisture Dry	Delicate	OFF	100°F [38°C]	10%	1 minute/ 100°F [38°C]
5	Wet C - Low Heat	Time Dry	n/a	OFF	100°F [38°C]	10 minutes	1 minute/ 100°F [38°C]
6	Wet C - Manual 5 Min	Time Dry	n/a	OFF	110°F [43°C]	5 minutes	1 minute/ 110°F [43°C]
7	Wet C - No Heat	Time Dry	n/a	OFF	n/a	10 minutes	1 minute/ 110°F [43°C]