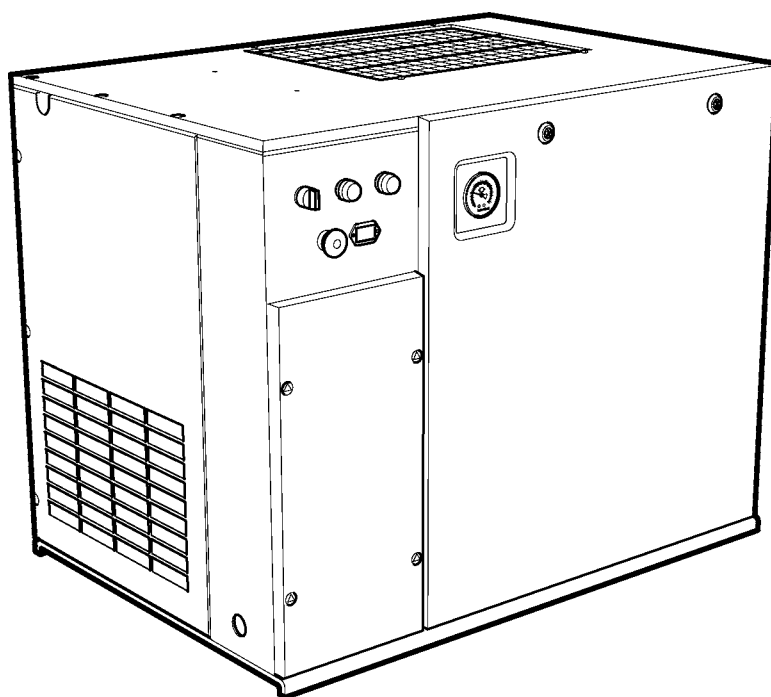




## UP SERIES ROTARY SCREW

### INSTALLATION AND OPERATION OF THE POWER OUTAGE RESTART OPTION FOR ELECTRO MECHANICAL UP SERIES UNITS CCN 22535587



Before installation and operation of this option, these instructions should be studied carefully to obtain a clear knowledge of the option and its application to the compressor.

**RETAIN THIS MANUAL WITH UNIT.** This Technical manual contains **IMPORTANT SAFETY DATA** and should be kept with the air compressor at all times.

C.C.N. : 22535611  
REV. : B  
DATE : MAY 2006



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**ABBREVIATIONS & SYMBOLS**

**####** Contact Ingersoll Rand for serial number

**->####** Up to Serial No.

**####->** From Serial No.

**\*** Not illustrated

**†** Option

**NR** Not required

**AR** As required

**SM** Sitemaster/Sitepack

**HA** High ambient machine

**WC** Watercooled machine

**AC** Aircooled machine

**ERS** Energy recovery system

**T.E.F.C.** Totally enclosed fan cooled motor (IP55)

**O.D.P.** Open drip proof (IP23)

**cs** Czech

**da** Danish

**de** German

**el** Greek

**en** English

**es** Spanish

**et** Estonian

**fi** Finnish

**fr** French

**hu** Hungarian

**it** Italian

**lt** Lithuanian

**lv** Latvian, Lettish

**mt** Maltese

**nl** Dutch

**no** Norwegian

**pl** Polish

**pt** Portuguese

**sk** Slovak

**sl** Slovenian

**sv** Swedish

**zh** Chinese

## SAFETY AND WARNINGS

Refer to (Safety and Warnings) in the compressor Operators / Instruction Manual.

**Shut down the compressor. Close the isolation valve. Relieve the system air pressure. Ensure that all air pressure has been relieved from the compressor and air system.**

**Disconnect power to the compressor before servicing. Lock and tag the main power disconnect switch in the open (off) position.**

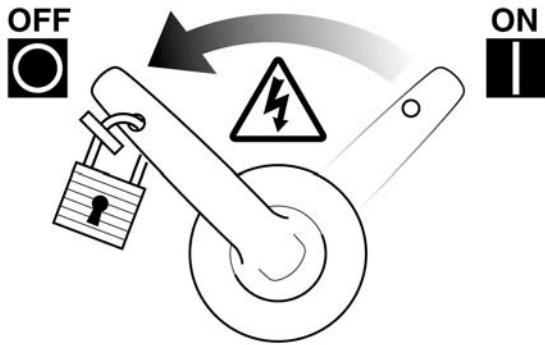


FIGURE 1 – MAIN DISCONNECT LOCKED AND TAGGED

## PURPOSE

The purpose of these instructions is to identify the correct parts required when installing the Power Outage Restart Option and explain the operation of the option. If this option is furnished on the compressor from the factory, use this supplement for operation reference only.

For customers that have interruptions in their incoming power supply to the compressor and must maintain an uninterrupted supply of compressed air, the Power Outage Restart Option allows a compressor to restart automatically 10 seconds (adjustable) after incoming power is restored.

## TOOLS REQUIRED

Only what would be found in any reasonably equipped serviceman's tool box.

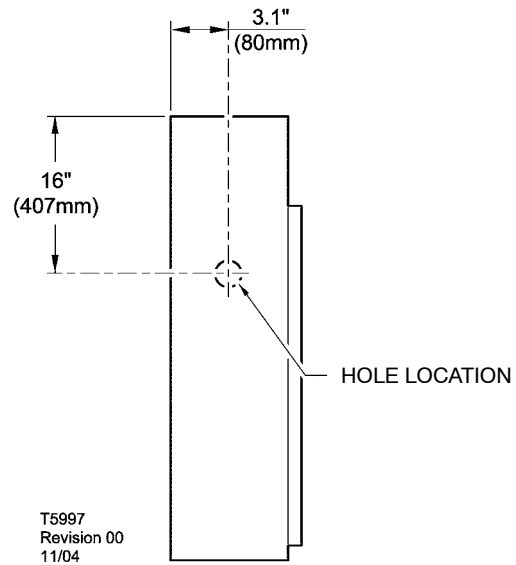


FIGURE 2 – STARTER ENCLOSURE (WITH HORN MOUNTING HOLE LOCATION)

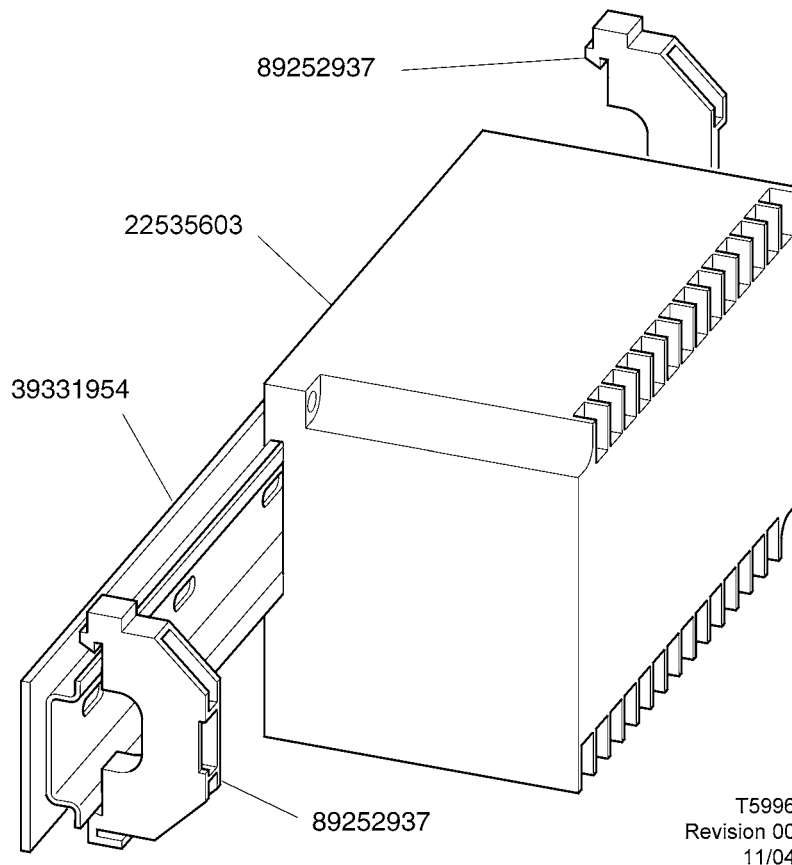
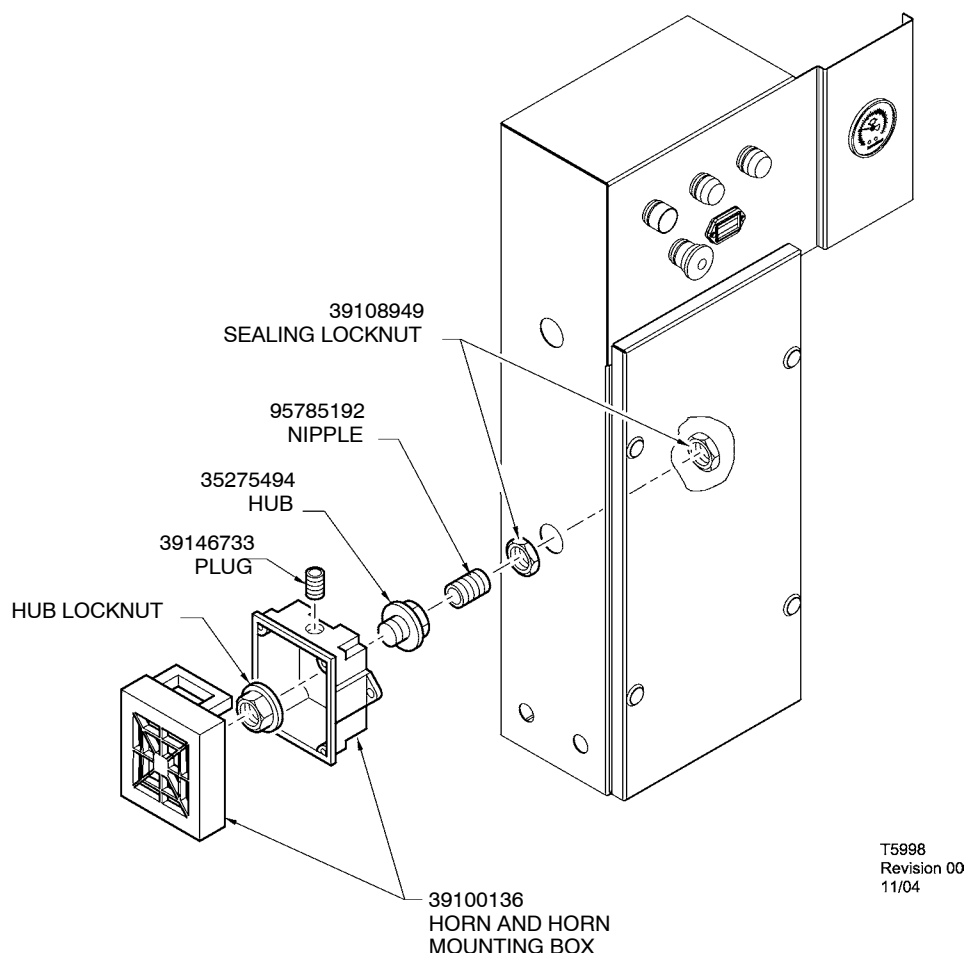
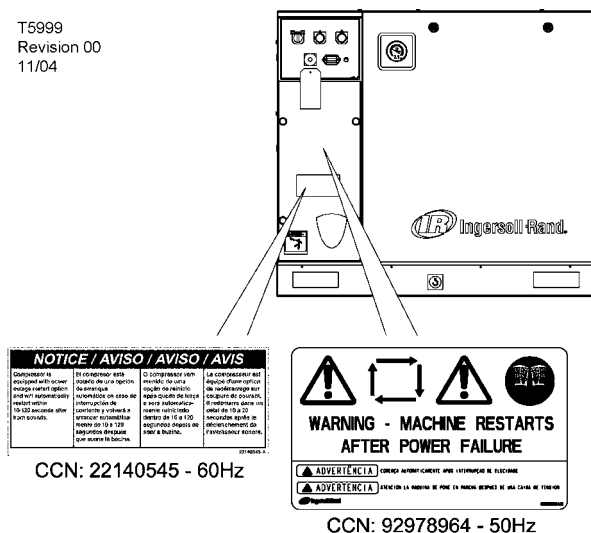


FIGURE 3 – CONTROLLER ASSEMBLY



**FIGURE 4 – STARTER ENCLOSURE WITH HORN ASSEMBLY**

T5999  
Revision 00  
11/04



**FIGURE 5 – STARTER ENCLOSURE DOOR (WITH DECAL)**

## INSTALLATION

1. Assemble the pre-wired controller assembly (22535603) to the 146mm long section of DIN rail (39331954). Secure the controller to the DIN rail by installing end stops (39252937) at both ends of the controller. (Note: the plastic side of the end stops should face the controller).
2. Make sure the starter box and DIN rail surfaces are free of dirt and oil.
3. Remove the backing from two (2) strips of double sided tape (39309554) and attach to the DIN rail. Remove the backing from the other side of the tape and mount the controller to the internal wall of the starter box. Apply firm pressure for approximately 15 seconds to set the adhesive.
4. Assemble the horn housing (39100136) to the starter box using hub (35275494), nipple (95785192), and two sealing locknuts (39108949). Make a hole for 0.50" NPT conduit as space allows on the left side of the starter box to install the horn housing. Install plug (39146733) in the hole in the horn housing.
5. Install the NC contact block (22090948) to the emergency stop switch.
6. Install the arc suppressor (RC1) between terminals A1 and A2 on the CR relay.

7. Install wiring as detailed on wiring schematic 22535983 – 60Hz 22558423 – 50Hz. Apply the wiring schematic decal to the inside surface of the starter box door.

CR auxilliary contact wiring:

Replace the emergency stop switch (ES) with new switch assembly 22113344. Use the blue wire to connect CR (NC contact) to the NC contact on the emergency stop switch (ES).

Move the auxiliary contact wire from terminal 6 to CR (NO contact). Use the red wire to connect the other terminal of CR to terminal 6 on the starter panel.

The auxiliary contact symbols are:

60Hz – 1Ma

50Hz – KM1–1

8. Bundle and secure the blue and red wires separately using the wire ties provided.

9. Use wire terminals (35246131) to connect wires to the horn terminals. Use the green wire to connect the horn to terminal 2 on the starter panel. Attach the horn to the horn housing using the screws provided with the horn.

10. Apply the PORO warning decal tp the outside surface of the starter box door:

22140545 – 60Hz.

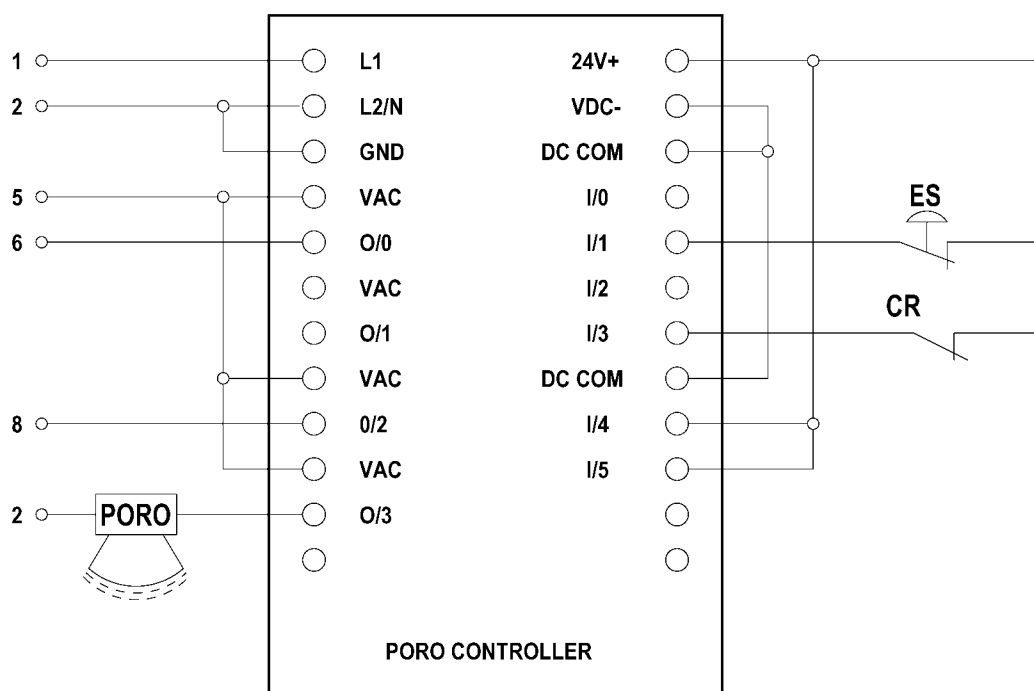
92978964 – 50Hz.

#### FUNCTION TEST

To test the operation of the Power Outage Restart Option:

1. Slowly open the main isolation valve.
2. Start the compressor.
- 3 The compressor will load automatically if there is sufficient demand for air. Allow the compressor to load.
4. Open the main disconnect to remove power from the compressor.
5. Close the main disconnect to reapply power to the compressor. The horn will sound for ten seconds; then the compressor will start automatically.

### POWER OUTAGE RESTART OPTION (PORO) ELECTRO-MECHANICAL CONTROL

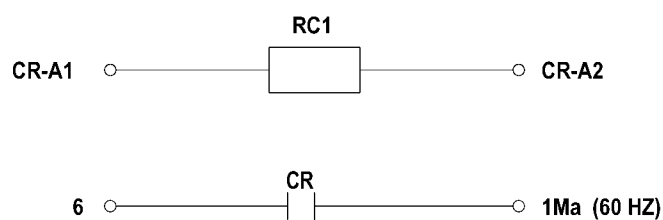
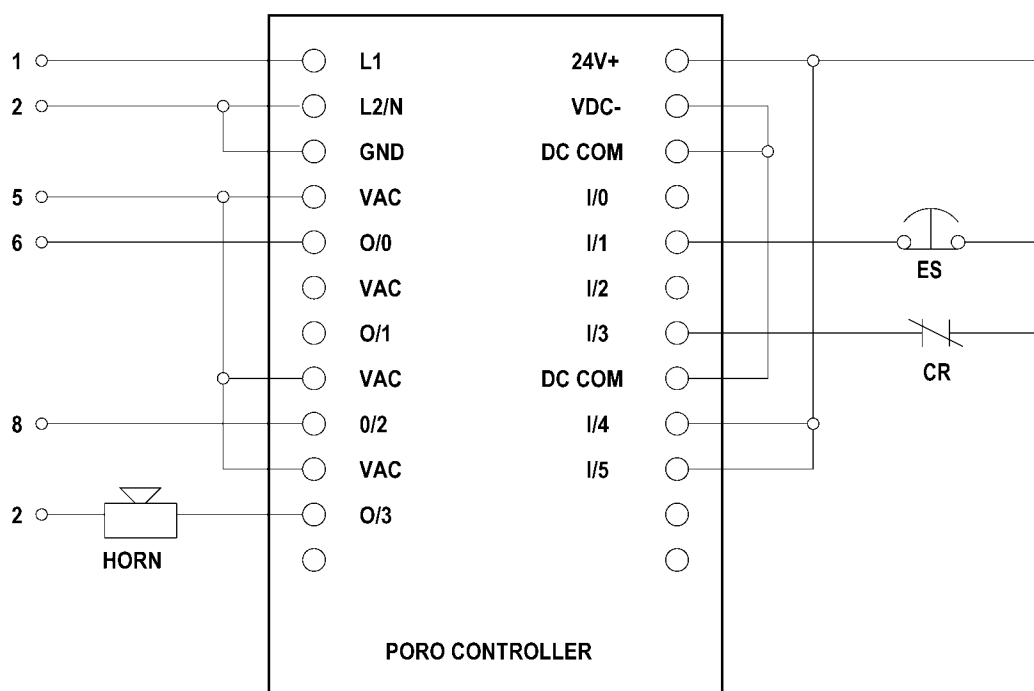


CR-A1 ○ — RC1 — CR-A2 ○

6 ○ — CR — KM1-1 ○

22558423 REV A

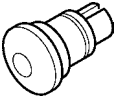

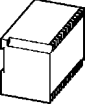


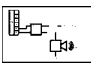
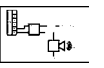








# POWER OUTAGE RESTART OPTION (PORO) ELECTRO-MECHANICAL CONTROL









22535983 REV A



**PARTS LIST FOR POWER OUTAGE RESTART OPTION**  
**(P/N 22535587)**

	PART NUMBER	QUANTITY	DESCRIPTION
	22113344	1	Button, emergency stop
	35266788	10	Tie, cable
	22535603	1	Controller, LOGIC PORO
	22140545	1	Decal: PORO
	92978964	1	Decal: Power Out Restart Option
	22535983	1	Decal: Schematic (Americas)
	22538423	1	Decal: Schematic (ISO)
	39331954	1	DIN rail
	35275494	1	Hub
	39108949	2	Locknut
	22535611	1	Instructions
	39100136	1	Horn, Weather Resistant
	95934279	1	Nipple
	39146733	1	Plug
	39203443	1	Suppressor

## 8 PARTS LIST

	PART NUMBER	QUANTITY	DESCRIPTION
	39252937	2	Block, end stop
	39309554	1	Tape, adhesive
	35246131	4	Terminal
	39204763	2.4m (8ft)	Wire, Blue 16 Ga
	39129085	2.4m (8ft)	Wire, Red 16 Ga
	39146790	2.4m (8ft)	Wire, Green 16 Ga