

O&M Parts List

Job Name: Casper College Gateway
Job Number: 210261
Unit Tag: AHU-1
Model Number: E-RHXC-1/SP-100000-HW/AC/FR/VS-1-A
Date Edited: 5/2/11 7:57 AM
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Line Item: 0020

CONSTRUCTION		Part Number	SAP Number	ADDITIONAL INFORMATION		QTY	MANUFACTURER
Unit Construction:	Outdoor			Frame: Formed 16 ga. steel tube & aluminum tube			
Panels:	2"			Insulation: 2.0 lb/ft3 Polyurethane Foam			
Unit Base:	10 ga. Structural Steel			Coating: Standard Gray Paint	Lugs: Removable (1001072)		
Exterior Panel Material:	22 ga. Pre-Paint			Coating: Standard Gray Paint	Backing Plate: (1001073)		
Interior Panel Material - Supply:	22 ga. Galvanized			Coating: G90 Galvanized			
Interior Panel Material - Return:	22 ga. Galvanized			Coating: G90 Galvanized			
Floor Material - Supply:	16 ga. Galvanized			Coating: G90 Galvanized	Welded: NO		
Floor Material - Return:	16 ga. Galvanized			Coating: G90 Galvanized	Welded: NO		
SA Duct Floor Grating:	Steel			W: 275	L: 41		
RA Duct Floor Grating:	Steel			W: 275	L: 41		
Unit Mounting:	Curb by Others					1	BY OTHERS
Roof Material:	22 ga. Pre-Paint			Coating: Standard Gray Paint			
Compressor Section Floor Material:	16 ga. Galvanealed			Epoxy Coated	Sloped		
Condenser Coil Hail Guard	REQUIRED			Large Perforated			
HEAT EXCHANGER							
Flat Plate HX1:	H-1-60C-3000		60-C-3000	Coating: None		1	INNOVENT
HX1 Drain Pan:	Galvanealed Steel			Coating: Mastic	Drain: 1" / Side Penetration		
BLOWERS/MOTORS							
Supply Blower(s)							
Blower #1:	40-QEP-4-CW-II-95P		40-QEP	Coating: Standard Paint	FRPM: 1207 Motor Pos: DD	1	GREENHECK
Blower Motor #1:	310300		part of fan	HP: 40	RPM: 1200 Enclosure: ODP	1	GREENHECK
Vibration Isolation for Blower #1:				Voltage: 460V	Eff: PREM Frame: 324T		
Blower #2:	40-QEP-4-CCW-II-95P		1001088	Flex Connection: Galvanized	(1001093)	4	AMBER-BOOTH
Blower Motor #2:	310300		part of fan	Coating: Standard Paint	FRPM: 1207 Motor Pos: DD	1	GREENHECK
Blower VFD #1 and #2:	E7U40551		1001666	HP: 40	RPM: 1200 Enclosure: ODP	1	GREENHECK
Vibration Isolation for Blower #2:				Voltage: 460V	Eff: PREM Frame: 324T		
Blower #3:	40-QEP-4-CW-II-95P		1001088	Bypass: None	Mounting: Internal (unit)	1	YASKAWA
Blower Motor #3:				Flex Connection: Galvanized	(1001093)	4	AMBER-BOOTH
Blower VFD #3:				Coating: Standard Paint	FRPM: 1309 Motor Pos: DD	1	GREENHECK

Blower Motor #3:	310300	part of fan	HP: 40 RPM: 1200 Enclosure: ODP Voltage: 460V Eff: PREM Frame: 324T	1	GREENHECK
Blower Motor #3:	SWSR-1A	1001088	Flex Connection: Galvanized (1001093)	4	AMBER-BOOTH
Blower Motor #4:	40-QEP-4-CCW-II-95P	40-QEP	Coating: Standard Paint FRPM: 1309 Motor Pos: DD	1	GREENHECK
Blower Motor #4:	310300	part of fan	HP: 40 RPM: 1200 Enclosure: ODP Voltage: 460V Eff: PREM Frame: 324T	1	GREENHECK
Blower VFD #3 and #4:	E7U40551	1001666	Bypass: None Mounting: Internal (unit)	1	YASKAWA
Blower Motor #4:	SWSR-1A	1001088	Flex Connection: Galvanized (1001093)	4	AMBER-BOOTH
Blower Motor #1:	40-QEP-4-CW-II-90P	40-QEP	Coating: Standard Paint FRPM: 1092 Motor Pos: DD	1	GREENHECK
Blower Motor #1:	309091	part of fan	HP: 30 RPM: 1200 Enclosure: ODP Voltage: 460V Eff: PREM Frame: 286T	1	GREENHECK
Blower Motor #1:	SWSR-1A	1001088	Flex Connection: Galvanized (1001093)	4	AMBER-BOOTH
Blower Motor #2:	40-QEP-4-CCW-II-90P	40-QEP	Coating: Standard Paint FRPM: 1092 Motor Pos: DD	1	GREENHECK
Blower Motor #2:	309091	part of fan	HP: 30 RPM: 1200 Enclosure: ODP Voltage: 460V Eff: PREM Frame: 286T	1	GREENHECK
Blower VFD #1 and #2:	E7U40451	1001665	Bypass: None Mounting: Internal (unit)	1	YASKAWA
Blower Motor #2:	SWSR-1A	1001088	Flex Connection: Galvanized (1001093)	4	AMBER-BOOTH
Blower Motor #3:	40-QEP-4-CW-II-90P	40-QEP	Coating: Standard Paint FRPM: 1092 Motor Pos: DD	1	GREENHECK
Blower Motor #3:	309091	part of fan	HP: 30 RPM: 1200 Enclosure: ODP Voltage: 460V Eff: PREM Frame: 364T	1	GREENHECK
Blower Motor #3:	SWSR-1A	1001088	Flex Connection: Galvanized (1001093)	4	AMBER-BOOTH
Blower Motor #4:	40-QEP-4-CCW-II-90P	40-QEP	Coating: Standard Paint FRPM: 1092 Motor Pos: DD	1	GREENHECK
Blower Motor #4:	309091	part of fan	HP: 30 RPM: 1200 Enclosure: ODP Voltage: 460V Eff: PREM Frame: 286T	1	GREENHECK
Blower VFD #3 and #4:	E7U40451	1001665	Bypass: None Mounting: Internal (unit)	1	YASKAWA
Blower Motor #4:	SWSR-1A	1001088	Flex Connection: Galvanized (1001093)	4	AMBER-BOOTH

FILTERS

Outside Air Filter(s):	DMK80-4402	1001010	Size: 24" x 24" x 2" MERV: 8	60	PURULATOR
Outside Air Filter Rack:	Innovent Built		Material: 18 ga. Galvanized Access: Side		INNOVENT
Return Air Filter(s):	DMK80-4402	1001010	Size: 24" x 24" x 2" MERV: 8	60	PURULATOR
Return Air Filter Rack:	Innovent Built		Material: 18 ga. Galvanized Access: Side		INNOVENT

DOORS

Door A:	WID-1.75	1000964	W": 20 H": 59 Latch: Composite Ext: 22ga. Pre-Pnt Int: 22ga. Galv. Hinge:	1	LEAF IND.
Door B:	WID-1.75	1000965	W": 28 H": 59 Latch: Composite	1	LEAF IND.

Door	WID-1.75	1000966	Ext: 22ga. Pre-Pnt	Int: 22ga. Galv.	Hinge:	1	LEAF IND.
Door C:	WID-1.75	1000966	W": 20 Ext: 22ga. Pre-Pnt	H": 61 Int: 22ga. Galv.	Latch: Composite Hinge:	1	LEAF IND.
Door D:	WID-1.75	1000967	W": 24 Ext: 22ga. Pre-Pnt	H": 61 Int: 22ga. Galv.	Latch: Composite Hinge:	4	LEAF IND.
Door E:	WID-1.75	1000968	W": 28 Ext: 22ga. Pre-Pnt	H": 61 Int: 22ga. Galv.	Latch: Composite Hinge:	1	LEAF IND.
Door F:	WID-1.75	1000969	W": 25 Ext: 22ga. Pre-Pnt	H": 66 Int: 22ga. Galv.	Latch: Composite Hinge:	1	LEAF IND.
Door G:	WID-1.75-IO	1000970	W": 26 Ext: 22ga. Pre-Pnt	H": 55 Int: 22ga. Galv.	Latch: Composite Hinge:	3	LEAF IND.

*Latches for doors accessing all sections need to be tool lockable.

DAMPERS

Minimum Outside Air Damper:	VCD-18-PB-71.875x58.875	VCD-18	W: 71.875 Actuator Mount: Internal	H: 58.875 Left	Coating: None	1	GREENHECK
Minimum Outside Air Actuator:	MS7520A2213	part of damper	Mod w/ ES	Damper Operation: Normally Closed		2	HONEYWELL
Economizer Outside Air Damper:	VCD-23-PB-84.875x58.875	VCD-23	W: 84.875 Actuator Mount: Internal	H: 58.875 Left	Coating: None	2	GREENHECK
Economizer Outside Air Actuator:	MS7520A2213	part of damper	Mod w/ ES	Damper Operation: Normally Closed		4	HONEYWELL
OA HX Face Damper:	VCD-23-PB-118.125x59.875	VCD-23	W: 118.125 Actuator Mount: Internal	H: 59.875 Left	Coating: None	1	GREENHECK
OA HX Face Actuator:	MS7520A2213	part of damper	Mod w/ ES	Damper Operation: Normally Closed		2	HONEYWELL
OA HX Bypass Damper:	VCD-18-PB-42.219x59.875	VCD-18	W: 42.219 Actuator Mount: Internal	H: 59.875 Left	Coating: None	2	GREENHECK
OA HX Bypass Actuator:	MS7520A2213	part of damper	Mod w/ ES	Damper Operation: Normally Closed		2	HONEYWELL
Recirculation Damper:	VCD-23-PB-42.219x60.875	VCD-23	W: 42.219 Actuator Mount: Internal	H: 60.875 Left	Coating: None	2	GREENHECK
Recirculation Actuator:	MS7520A2213	part of damper	Mod w/ ES	Damper Operation: Normally Open		2	HONEYWELL
EA HX Bypass Damper:	VCD-23-PB-42.094x60.875	VCD-23	W: 42.094 Actuator Mount: Internal	H: 60.875 Left	Coating: None	2	GREENHECK
EA HX Bypass Actuator:	MS7520A2213	part of damper	Mod w/ ES	Damper Operation: Normally Closed		2	HONEYWELL

COILS

Hot Water:	HW58S01H09-90x135-RH	HW58	Coating: None	Frame: 16ga Galv	2	PRECISION COILS
DX:	DX38S04F12-90x135-RH	DX38	Coating: None	Frame: 16ga Galv	2	PRECISION COILS
DX Drain Pan:	Mastic Coated		Intermediate Drain Pan*: 18ga Galv	Drain Size: 1.25"		
Condenser:	CR38S03S14-56x70-RH	CD38	Coating: None	Frame: 16ga Galv	4	PRECISION COILS
Condenser:	CR38S03S14-56x70-LH	CD38	Coating: None	Frame: 16ga Galv	4	PRECISION COILS

*Drain line to be Insulated.

ACCU COMPONENTS R-410a

Discharge line size =	1 3/8" DL				4	
Liquid line size =	1 3/8" LL				4	
Suction line size =	2 1/8" SL				4	
Condenser fans	CSE1-24-436-460-4	CSE1-24-436	CDF 24" 1HP 1140RPM 460V 3PH		16	GREENHECK
Compressors	ZPU417KCE-TWD-273	1001970	CMP COMPRESSOR		4	COPELAND
Crank case heater	018-0091-02	464216	CCH CRANK CASE HEATER		4	COPELAND
Crank case heater	018-0091-05	1002077	CCH CRANK CASE HEATER		4	COPELAND
Sight glass	SA-211	1002090	SGL SIGHT GLASS		4	SPORLAN
TXV	OZE-50-GA-1-1/8"x1-3/8"x1/4"ODFx10'	1002112	TXV THERMAL EXPANSION VALVE		4	SPORLAN
Discharge manual valve	DL VALVE 1-3/8" (AC17866)	1002252	DLM MANUAL VALVE WITH PORT		4	MUELLER
Liquid manual valve	LL VALVE 1-3/8" (AC17866)	1002252	LLM MANUAL VALVE WITH PORT		8	MUELLER
Suction manual valve	SL VALVE 2-1/8" (AC17868)	1002254	SLM MANUAL VALVE WITH PORT		4	MUELLER
Solenoid valve	E25S290-HP	1002123	LLS SOLENOID VALVE		4	SPORLAN
Valve coil	MKC-2	468160	LLC 120V/1PH SOLENOID COIL		4	SPORLAN
Filter drier	C-14411-G	1002131	FDS FILTER DRIER SHELL		4	SPORLAN
Core	RCW-48	472348	FDC FILTER DRIER CORE		12	SPORLAN
Filter bracket	A-685	465352	FDB FILTER DRIER BRACKET		8	SPORLAN
Schrader valves	A31004	1002276	SDV SCHRADER VALVE W/25" PIPE		4	GA LARSON
Low pressure switch	SLP5090	1002275	LPS LOW PRESS SWITCH 50/90 PSI		4	SUPCO
High pressure switch	P100DA-86D	471684	HPS HIGH PRESS SWITCH 575 PSI		4	JOHNSON (STOCK)
Fan cycling switch	P100AP-332C	471685	HPR HEAD PRESSURE SENSOR (FAN CYCLING SWITCH)		4	PENN
Fan cycling switch	P70AA-400C	1002134	HPR HEAD PRESSURE SENSOR (FAN CYCLING SWITCH)		4	PENN
Hot gas bypass valve	HGBE-8-75/150-7/8" ODF	470260	HGB HOT GAS BYPASS VALVE		2	SPORLAN
Hot gas bypass line size (A)=	7/8" HGB				2	
Auxiliary side connector	ASC-13-9	1002238	ASC AUXILIARY SIDE CONNECTOR		2	SPORLAN

	Fuses:	JTD045				3	LITTELFUSE
	Fuse Block:	LPSJ60-3				1	LITTELFUSE
	Contact:	LC1D40AG7				1	SCHNEIDER
AC Compressor #7							
	Fuses:	JTD050				3	LITTELFUSE
	Fuse Block:	LPSJ60-3				1	LITTELFUSE
	Contact:	LC1D50AG7				1	SCHNEIDER
AC Compressor #8							
	Fuses:	JTD045				3	LITTELFUSE
	Fuse Block:	LPSJ60-3				1	LITTELFUSE
	Contact:	LC1D40AG7				1	SCHNEIDER
Condenser Fan A1							
Motor Starter Protector:		GV2P07				1	SCHNEIDER
Motor Starter Support:		GV1FO3				3	SCHNEIDER
Link Module:		GV2AF3				1	SCHNEIDER
Contact:		LC1D09G7				1	SCHNEIDER
Condenser Fan A2							
Motor Starter Protector:		GV2P07				1	SCHNEIDER
Motor Starter Support:		GV1FO3				3	SCHNEIDER
Link Module:		GV2AF3				1	SCHNEIDER
Contact:		LC1D09G7				1	SCHNEIDER
Condenser Fan A3							
Motor Starter Protector:		GV2P07				1	SCHNEIDER
Motor Starter Support:		GV1FO3				3	SCHNEIDER
Link Module:		GV2AF3				1	SCHNEIDER
Contact:		LC1D09G7				1	SCHNEIDER
Condenser Fan A4							
Motor Starter Protector:		GV2P07				1	SCHNEIDER
Motor Starter Support:		GV1FO3				3	SCHNEIDER
Link Module:		GV2AF3				1	SCHNEIDER
Contact:		LC1D09G7				1	SCHNEIDER
Condenser Fan B1							
Motor Starter Protector:		GV2P07				1	SCHNEIDER
Motor Starter Support:		GV1FO3				3	SCHNEIDER
Link Module:		GV2AF3				1	SCHNEIDER
Contact:		LC1D09G7				1	SCHNEIDER
Condenser Fan B2							
Motor Starter Protector:		GV2P07				1	SCHNEIDER
Motor Starter Support:		GV1FO3				3	SCHNEIDER
Link Module:		GV2AF3				1	SCHNEIDER
Contact:		LC1D09G7				1	SCHNEIDER
Condenser Fan B2							
Motor Starter Protector:		GV2P07				1	SCHNEIDER
Motor Starter Support:		GV1FO3				3	SCHNEIDER

Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan B3	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER
Motor Starter Support:	GV1FO3			3	SCHNEIDER
Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan B4	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER
Motor Starter Support:	GV1FO3			3	SCHNEIDER
Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan C1	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER
Motor Starter Support:	GV1FO3			3	SCHNEIDER
Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan C2	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER
Motor Starter Support:	GV1FO3			3	SCHNEIDER
Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan C3	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER
Motor Starter Support:	GV1FO3			3	SCHNEIDER
Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan C4	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER
Motor Starter Support:	GV1FO3			3	SCHNEIDER
Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan D1	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER
Motor Starter Support:	GV1FO3			3	SCHNEIDER
Link Module:	GV2AF3			1	SCHNEIDER
Condenser Fan D2	LC1D09G7			1	SCHNEIDER
Motor Starter Protector:	GV2P07			1	SCHNEIDER

Step 1

E7 Model Identification and Mounting

To make sure you received the correct model it is essential to verify the E7 nameplate with your order and make sure that the E7 has the correct rating so it can be used with your motor. Please check the nameplate information as shown in the example below.

Order Model	Order Number
Model: CIMR-E7J2011-4PFC 2011V1A	
Input Power: 300-240V 50/60Hz 3A	
Output Power: 300-240V 50/60Hz 3A	
Size: 100mm (4")	
Weight: 1.5kg (3.3lb)	
File: E7J2011-4PFC 2011V1A	
File: E7J2011-4PFC 2011V1A	
File: E7J2011-4PFC 2011V1A	

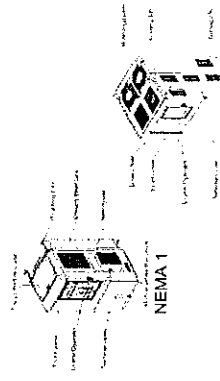
- Check that the available power meets the **input power** requirements.
- Ensure that the **output power** from the VFD is compatible with the motor requirements.
- In the case of systems with multiple VFDs follow the above procedure for each VFD and the motor to which it to be used.

Mounting the E7

The mounting of the E7 is extremely important regarding environment and accessibility. Depending on your system, there are various models available and the mounting dimensions (footprint) may be different. Because the mounting procedure is fairly extensive, it is beyond the scope of this document, the user is referred to the E7 User Manual (Document No. TM.E7.01) received with the E7. **Section 7 Physical Installation.** Match the model that you received and follow the procedure described in the manual to ensure a safe and functional installation. In cases where the system has more than one E7, refer to the proper clearances required for adequate ventilation. *Please pay particular attention to:*

- The clearances to be maintained around the enclosure for adequate ventilation.
- The environmental specifications such as avoiding excessive dampness, extreme temperatures, chemical exposure, corrosive areas etc. to avoid damage to the equipment and to maintain safety.

Removing and Attaching the Terminal Cover
Improper removal of the E7 terminal cover as well as front cover can cause extensive damage to the E7. To avoid damage to these items, please pay particular attention to the E7 User Manual, Document No. TM.E7.01, Section 1.7, Removing and Attaching the Terminal Cover



Open Chassis

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Step 2

E7 Motor and Line Power

Fig. 1 & 2 below show the electrical connections for the input power and motor terminals for various E7 models. Select the proper diagram for the model you are installing (see Step 1). **WITH POWER OFF** make the appropriate connections.

Make sure to follow good wiring practices and all applicable codes. Ensure that the equipment is grounded properly as shown.

DANGER: LETHAL VOLTAGES ARE PRESENT. Before applying power to this E7, ensure that the terminal cover is fastened and all wiring connections are secure. After the power has been turned OFF, wait at least five minutes until the charge indicator extinguishes completely before touching any wiring, circuit boards or components.

WARNING: DO NOT CONNECT ANY OF THE FOLLOWING TERMINALS TO EARTH GROUND
B1 B2 + +1 +2

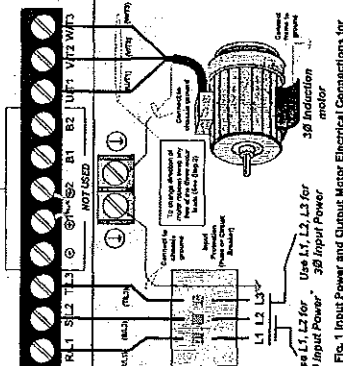


Fig. 1 Input Power and Output Motor Electrical Connections for Models: 20P4 to 2018 & 40P4 to 4018

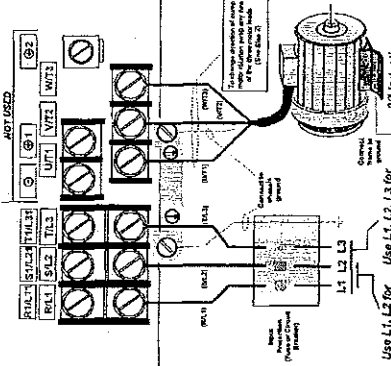


Fig. 2 Input Power and Output Motor Electrical Connections for Models: 2022 & Larger & 4033 & Larger
* Make sure the drive has been properly sized for single phase input power.

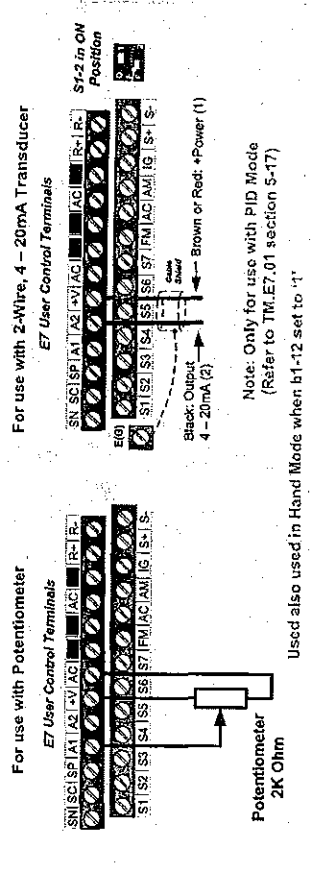
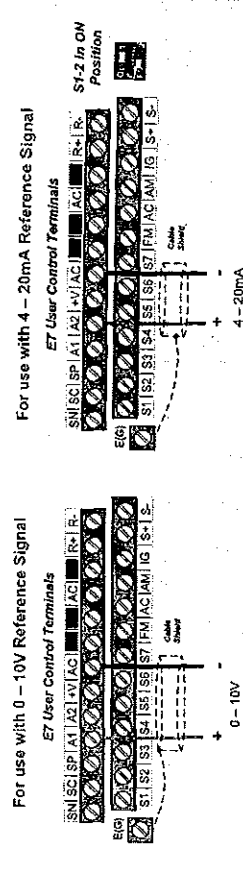
Step 3

E7 Control Wiring

This step shows how to connect control wiring to the E7. Before making any control connections **MAKE SURE POWER TO THE E7 IS TURNED OFF!** Next remove the terminal cover to gain access to the control terminals. (Step 1)

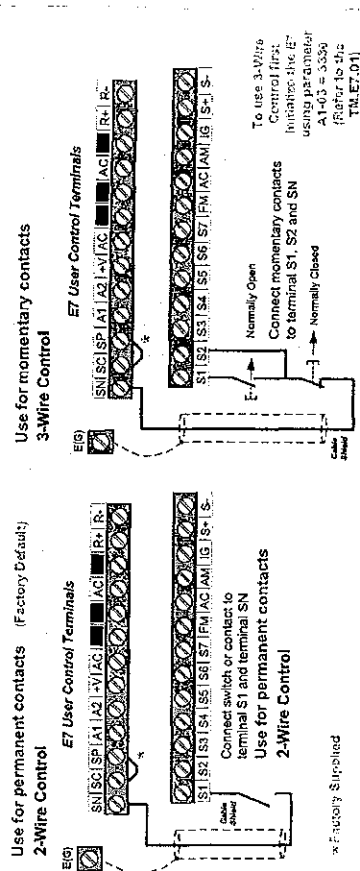
SELECT SPEED METHOD

The E7 is DEFAULT SETUP FOR REFERENCE SIGNAL FROM TERMINALS. Please refer to the diagram below for wiring an external reference signal. Program b1-01 to 0 to set reference from the digital operator.



Note: Only for use with PID Mode (Refer to TM.E7.01 section 5-17)
Used also used in Hand Mode when b1-12 set to '1'

The E7 is DEFAULT SETUP TO START/STOP FROM TERMINALS. Please refer to the diagram below for wiring a start/stop external switch or contact. Program b1-02 to 0 to start/stop the E7 from the digital operator using the AUTO button.



To use 3-Wire Control first, Initialize the E7 using parameter A1-03 = 3339 (Refer to the TM.E7.01)

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The following procedure is a supplement to other documentation supplied with this equipment and will guide the user in properly wiring the E7 and motor. It will also show the user how to configure the E7 for a Hand and Auto operation.

Danger:
Improper wiring can and will cause bodily harm as well as damage to the equipment.

When installing the system be sure to follow good wiring practices and all applicable codes. Ensure that the mounting of the various components are secure and that the environment, such as extreme dampness, poor ventilation etc. will not cause system degradation.

Please read this cheat sheet and the E7 User Manual (TM.E7.01) provided with the E7 thoroughly before attempting any installation.

Step 4

E7 Quick Setup

This step shows how to setup the most important parameters using the E7 Quick Setup function. Apply power to the E7 after all the electrical connections have been made and the terminal cover has been re-attached. At this point DO NOT RUN THE MOTOR the digital operator should be reading as shown below in Fig. 3.

Next, push **2** times on the Digital Operator until the Digital Operator shows the

Quick Setup Menu.

Next press **DATA**
ENTER to start the Quick Setup procedure.

The E7 Quick Setup consists of the most important parameters to setup your E7 Drive for use with your motor system.

Press  to access a parameter, and use  to select the digit and use  to change the parameter value.

Press **A** to go to the next parameter to continue the Quick Setup programming.

When Quick Setup is completed, press **MONITOR** to exit the Quick Setup menu and go to operation.

Quick Setup Parameters

Parameter	Default Value	Description	Comments
b1-01	1	Reference Source Speed Control Method	0 = Digital Operator (Adjust Motor Speed from keypad) 1 = Terminals (Speed Pot, 0 – 10V / 4–20mA)
b1-02	1	Run Source / Start/Stop Control Method	0 = Digital Operator (Start/Stop motor from keypad) 1 = Terminals (Start/Stop using external contact / switch)
b1-03	1	Stop Method Selection	0 = Ramp to stop (Motor ramps down at stop command) 1 = Coast to stop (Motor freewheels at stop command)
b5-01	0	PI Mode Selection	0 = Disabled, 1 = Enabled, 3 = Fref + PI
b5-02	2.0	Proportional Gain Setting	Only active when b5-01 is set to value greater than 0
b5-03	5.0 sec.	Integral Time Setting	Only active when b5-01 is set to value greater than 0
b5-31	0	PI Unit Selection	Predefined Engineering Units, see TM.E7.01
C1-01	10.0 sec.	Acceleration Time	The time it takes to ramp up from 0 to maximum motor speed.
C1-02	10.0 sec.	Deceleration Time	The time it takes to ramp down from maximum motor speed to 0.
d2-01	100.0 %	Frequency Upper Limit	Maximum motor speed allowed (e.g. 100 % = Max rpm)
d2-02	0.0 %	Frequency Lower Limit	Minimum motor speed allowed (e.g. 100 % = Max rpm)
E1-01	-	Input Voltage Setting	Motor nameplate current
E2-01	-	Motor Rated Current	Motor nameplate current
H3-08	1	Terminal A2 Signal Level Selection	0 = 0–10V 3 = 4–20mA
H3-09	1	Auxiliary Terminal Input Selection	Predefined signals, see TM.E7.01
H3-13	0	Master Freq. Ref. Terminal Selection	0 = Main Fref is terminal A2 1 = Main Fref is terminal A1

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Step 5

Check Motor Rotation and Direction

Check the motor for proper direction and operation. This test is to be performed solely from the digital operator. Apply power to the E7 after all the electrical connections have been made and protective covers have been re-attached. At this point, **DO NOT RUN THE MOTOR**, the Digital Operator should display as shown below in Fig. 3.

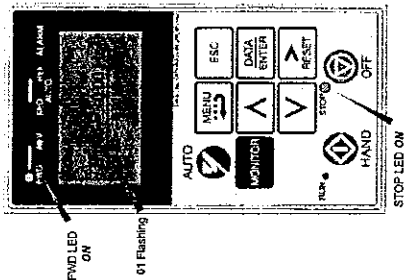


Fig. 3 Digital Operator

Press  then press  to change the speed command.

Next press **Λ** then **DATA/ENTER**.

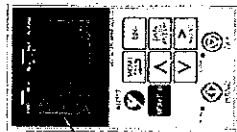
The motor should now be operating at low speed running in the correct forward (clockwise) direction.

Next, press on the Digital Operator.

If motor rotation is not correct, then power down the E7 Drive.

DANGER

After the power has been turned OFF, wait at least five minutes until the charge indicator extinguishes completely before touching any wiring, circuit boards or components.



Digital Operator turned off.

Using Safety precaution, and referring to Fig.1 or 2, swap any two of the three output leads to the motor (U/T1, V/T2 and W/T3). After the wiring change, repeat Step 3 and recheck motor direction.

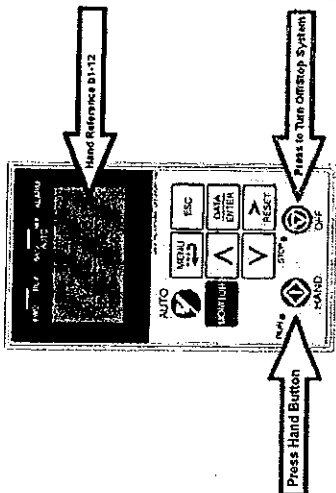
Step 6

Hand / Auto Mode Operation

HAND MODE

The E7 can be operated in HAND mode when the following actions have been performed:

- All parameters are programmed
- Motor direction has been checked
- Hand Mode: Hand Reference source



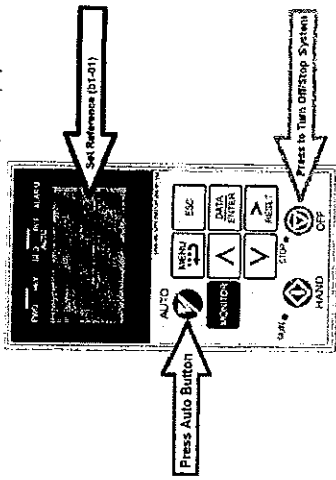
Hand Frequency Reference Selection: b1-12

2: Use digital operator to enter Speed command (factory default)
3: Use analog input terminal A1 or A2 depending on parameter H3-13 selection.
(See Step 3. for wiring instructions)

AUTO MODE

The E7 can be operated in AUTO mode when the following actions have been performed:

- All parameters are programmed
Motor direction has been checked
Auto Mode: Reference source selected in parameter b1-01 (See step 3)
Auto Mode: Run source selected in parameter b1-02 (See Step 3)



Press the AUTO button to put the E7 into AUTO mode.

in AUTO mode the E7 is capable of starting or stopping based on the Run Source Selection setting parameter b1-02. (See Step 3 Select Start/Stop Control Method)

The Speed Command used in AUTO mode is based on the Reference Source selection setting parameter b1-01. (See Step 3 Select Speed Method)

