

# SIEMENS


## P1-250 Torque Instructions

This equipment has been tested & inspected before shipment. However, shipping conditions may have loosened some connections. Before energizing, it is **strongly recommended** that the tightness of all accessible connections be checked. When values are not marked on the devices, torque all connectors to the values indicated below.

### BREAKER CONNECTIONS

Thread Size	Torque (lb-in)	Driver Size & Type	Where Used	Arrow
#10-32	20	#2 Square Drive, 5/16" Nut Driver or Std. Flat-tip	Branch breaker to phase bus connectors	A
			ED breaker to strap	B
			FD & QJ breaker to strap	C
1/4"-20	72	7/16" Nut Driver or Std. Flat-tip	FD, QJ & ED straps to phase bus	D
			Main copper lug to phase bus	E

**BREAKER CONNECTION HARDWARE:**



**A, B**    **C, D, E**

### BRANCH NEUTRAL WIRE SCREWS

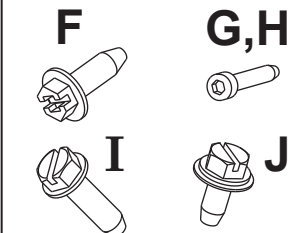
Wire Size (AWG)	Torque (lb-in)		Driver Size & Type	Where Used
	SMALL Hole	LARGE Hole		
#14 - #10	20	35	Std. Flat-tip	On Neutral Terminal Strips
#8	25	40		
#6	35	45		
#4	-	45		
#3 - 2/0	-	50		

### SCREW-NUT HARDWARE SETS

Thread Size	Torque (lb-in)	Driver Size & Type	Where Used
1/4"-20	72	7/16" Nut Driver	To Secure Lugs to Bus



### BUS CONNECTION HARDWARE:



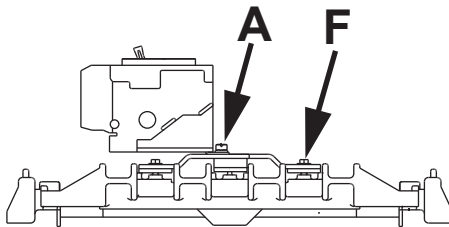
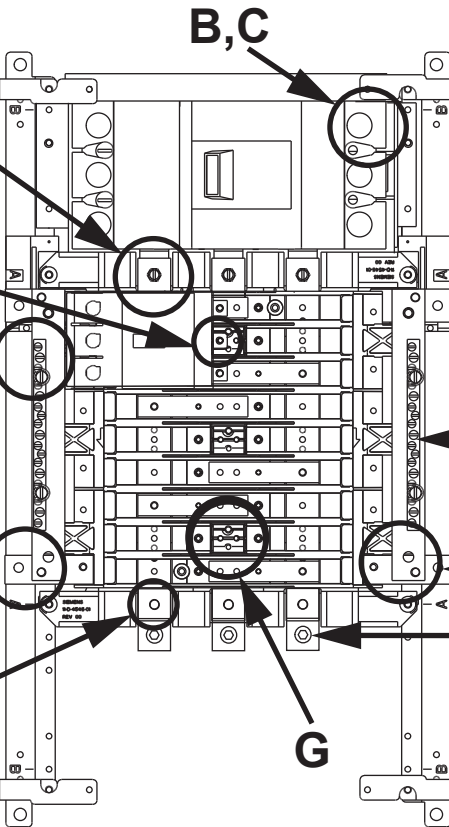
**F**    **G, H**

**I**    **J**

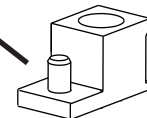
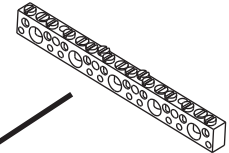
### BUS CONNECTIONS

Thread Size	Torque (lb-in) per Bus Material*		Driver Size & Type	Where Used	Arrow
	1/8" CU	3/16" AL			
#10-24	25	30	#2 Square Drive, 1/4" Nut Driver or Std. Flat-tip	A & C-phase straps to phase bus	F
			5/32" Hex Key Drive or Allen Wrench	B-phase connector to phase bus	G
1/4"-20	50	30	3/8" Nut Driver or Std. Flat-tip	Neutral terminal strip to riser	H
5/16"-18	72	108	1/2" Nut Driver	Neutral riser to crossbus/lug pad connection	I
				Copper or compression neutral lug to crossbus/lug pad	J

\* Bus Material type can be determined by: 1. Measuring thickness of phase bus at exposed ends with calipers **OR**  
 2. Review catalog number on rating label and note the last characters:  
 a. If it ends in "...A" or "...AT", the "A" stands for Aluminum  
 b. If it ends in "...C" or "...CT", the "C" stands for Copper



(bottom view minus some components for clarity)



### LUG SET SCREWS

Allen Wrench Size	Torque (lb-in)	Driver Type
5/16"	275	Allen Wrench or Hex Key
3/8"	375	
1/2"	500	

P1-400 Version  
on back of page

Siemens Industry, Inc.  
Norcross, GA

11-D-1030-01 Rev. 01

# SIEMENS

## P1-400 Torque Instructions

This equipment has been tested & inspected before shipment. However, shipping conditions may have loosened some connections. Before energizing, it is **strongly recommended** that the tightness of all accessible connections be checked. When values are not marked on the devices, torque all connectors to the values indicated below.

### BREAKER CONNECTIONS

Thread Size	Torque (lb-in)	Driver Size & Type	Where Used	Arrow
#10-32	20	#2 Square Drive, 5/16" Nut Driver or Std. Flat-tip	Branch breaker to phase bus connectors	A
			ED breaker to strap	B*
1/4"-20	72	7/16" Nut Driver or Std. Flat-tip	FD & QJ breaker to strap	C*
			FD, QJ & ED straps to phase bus	D*
3/8"-16	240	9/16" Nut Driver	JD strap to breaker connectors	E

### BREAKER CONNECTION HARDWARE:



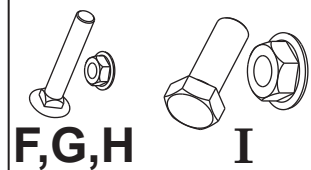
### BRANCH NEUTRAL WIRE SCREWS

Wire Size (AWG)	Torque (lb-in)		Driver Size & Type	Where Used
	SMALL Hole	LARGE Hole		
#14 - #10	20	35	Std. Flat-tip	On Neutral Terminal Strips
#8	25	40		
#6	35	45		
#4	-	45		
#3 - 2/0	-	50		

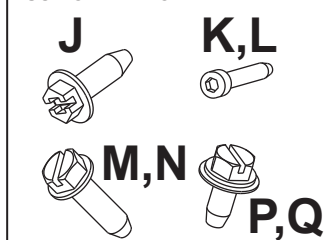
### SCREW-NUT HARDWARE SETS

Thread Size	Torque (lb-in)	Driver Size & Type	Where Used	Arrow
1/4"-20	72	7/16" Nut Driver	Copper/compression lug pad to neutral riser	F
			Copper lug to lug pad	G
			Std. main neutral to neutral riser	H
1/2"-13	500	11/16" Nut Driver	Compression lug to lug pad	I

### SCREW-NUT HARDWARE SETS:



### BUS CONNECTION HARDWARE:



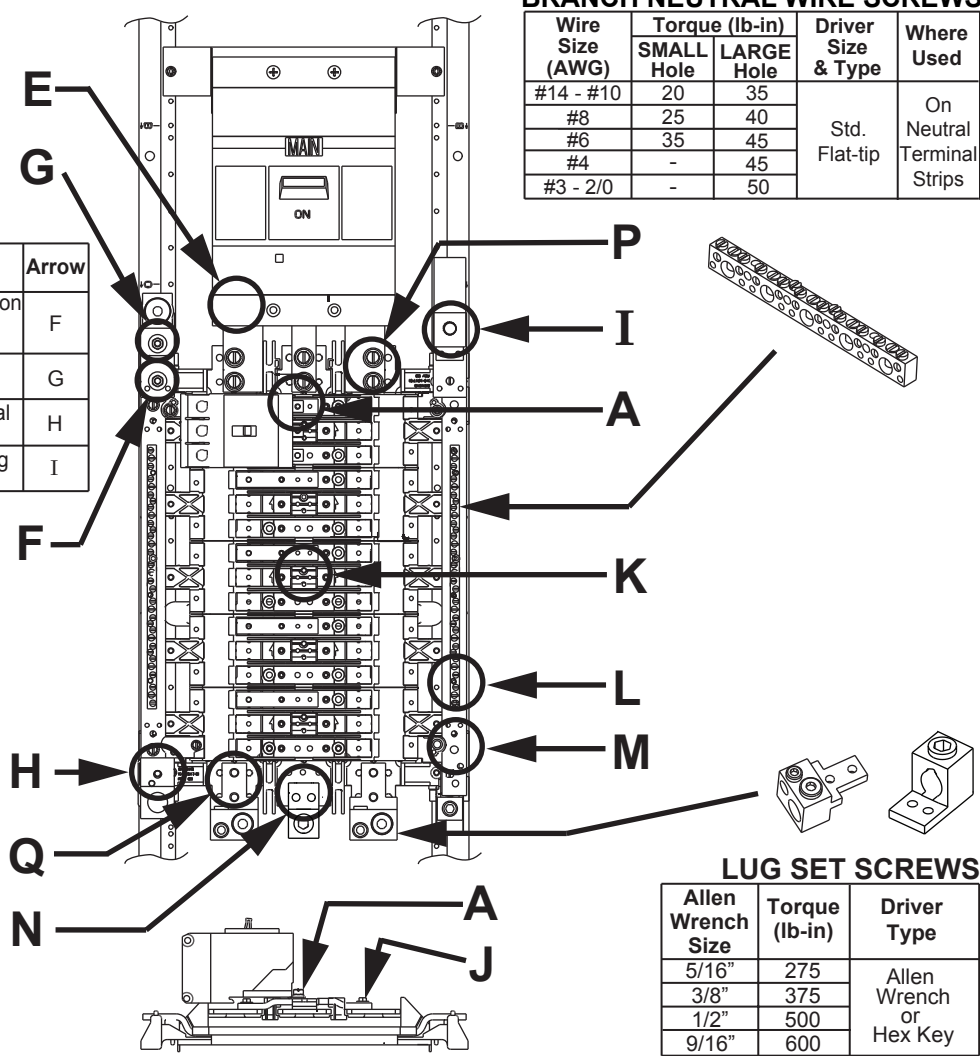
### BUS CONNECTIONS

Thread Size	Torque (lb-in) per Bus Material**				Driver Size & Type	Where Used	Arrow
	1/8" CU	3/16" AL	3/16" CU	1/4" AL			
#10-24	25	30	50	30	#2 Square Drive, 1/4" Nut Driver or Std. Flat-tip	A & C-phase straps to phase bus	J
					5/32" Hex Key Drive or Allen Wrench	B-phase connector to phase bus	K
						Neutral terminal strip to riser	L
1/4"-20	50	30	72	50	3/8" Nut Driver or Std. Flat-tip	Neutral riser to crossbus/riser support connection	M
						750kcmil main lug to panel bus	N
5/16"-18	72	108	144	108	1/2" Nut Driver	JD strap to panel bus connection	P
						600kcmil main lug to panel bus	Q

\* Refer to B, C & D on other side of this page. The ED, FD & QJ breakers attach using the same hardware in the P1-400 as the P1-250.

- \*\* Bus Material type can be determined by:
1. Measuring thickness of phase bus at exposed ends with calipers **AND**
  2. Review catalog number on rating label and note the last characters:
    - a. If it ends in "...A" or "...AT", the "A" stands for Aluminum
    - b. If it ends in "...C" or "...CT", the "C" stands for Copper

P1-250 Version  
on back of page



### LUG SET SCREWS

Allen Wrench Size	Torque (lb-in)	Driver Type
5/16"	275	Allen Wrench or Hex Key
3/8"	375	
1/2"	500	
9/16"	600	