

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

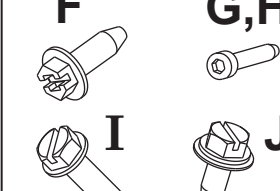
Wire Size (AWG)	Torque (lb-in)		Driver Size & Type	Where Used
	SMALL Hole	LARGE Hole		
#14 - #10	20	35	Std. Flat-tip	On Neutral Terminal Strips
#8	25	40		
#6	35	45		
#4	-	45		
#3 - 2/0	-	50		

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:



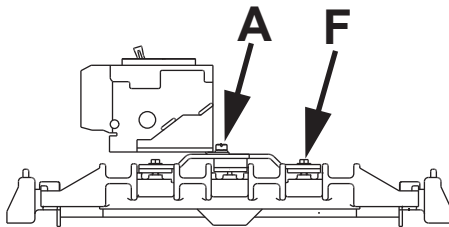
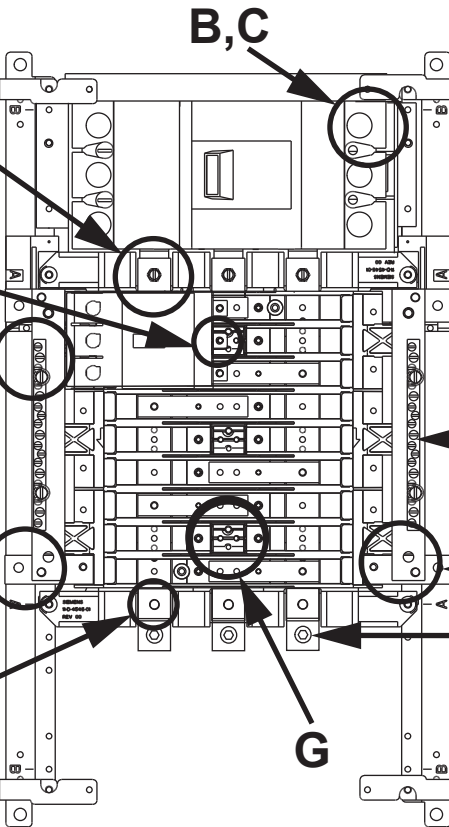
F **G, H**

I **J**

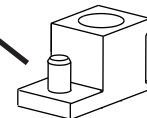
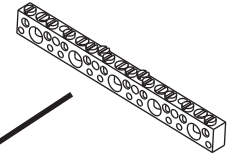
BUS CONNECTIONS

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

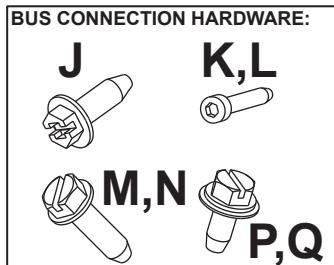
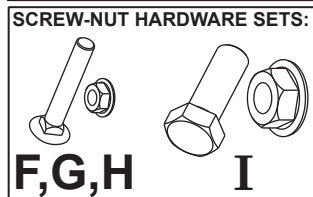


BRANCH NEUTRAL WIRE SCREWS

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



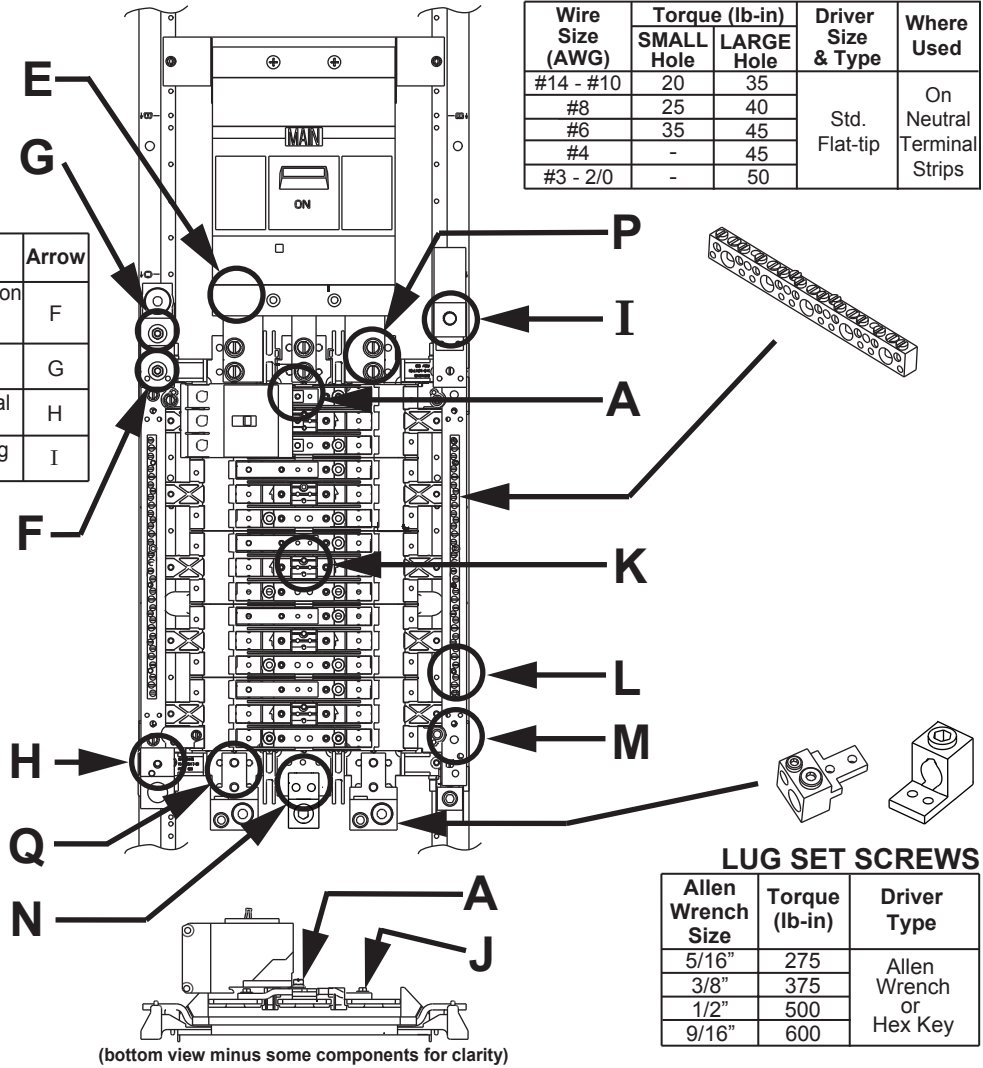
BUS CONNECTIONS

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	