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REVISION				
EDD	REV	DESCRIPTION	CHK	DATE
		SEE SHEET 1 FOR REVISIONS		

J1 (4 PIN) COMMAND INPUT CONNECTOR

PIN #	SIGNAL NAME
1	COMMAND (-)
2	COMMAND GND (SHIELD)
3	COMMAND (+)
4	OFFSET INPUT

J2 (8 PIN) MOTOR CONNECTOR

PIN #	SIGNAL NAME
1	IA
2	IB
3	PD GND
4	AGC RET
5	AGC OUT
6	PD SHIELD
7	+ 15V OUT
8	- 15V OUT

J3 (4 PIN) INPUT POWER CONNECTOR

PIN #	SIGNAL NAME
1	+ DRIVE VOLTAGE INPUT
2	+ DRIVE RETURN (GND)
3	- DRIVE RETURN (GND)
4	- DRIVE VOLTAGE INPUT

TUNING TRIM POTS FUNCTION

TRIM	FUNCTION
R1	POS. OFFSET (PO)
R13	POS. SCALE FACTOR (PS)
R25	LOW FREQ. DAMPING (LFD)
R28	SERVO GAIN (SG)
R31	ERROR INTEGRATOR GAIN (EI)
R51	INPUT SCALE ADJUST (IS)
R53	ERROR LIMITER (EL)
R59	HI FREQ DAMPING (HFD)
R77	POS. LINEARITY ADJUST (LIN)
R78	SLEW RATE LIMITER (SRL)
R107	BANDWIDTH ADJ (BW)

J4 (8 PIN) OBSERVATION/CONTROL PORT

PIN #	SIGNAL NAME
1	VELOCITY OUT
2	POSITION OUT
3	GND #2
4	ERROR OUT
5	CURRENT OUT
6	90% MAX PWR FLAG OUTPUT
7	FAULT FLAG OUTPUT
8	REMOTE SHUTDOWN INPUT

J5 (5 PIN) NOTCH FILTER HEADER

PIN #	SIGNAL NAME
1	NOTCH FILTER INPUT
2	NOTCH FILTER OUTPUT
3	+ 15V
4	GND #1
5	- 15V

J6 (8 PIN) DIGITAL INPUT OPTION HEADER

PIN #	SIGNAL NAME
1	VDAC16
2	GND #7
3	+ VREF
4	- VREF
5	GND #4
6	+ 5V
7	+ 15V
8	- 15V

J7 (3 PIN) MOTOR CONNECTOR

PIN #	SIGNAL NAME
1	MOTOR SHIELD
2	-MOTOR
3	+MOTOR

TEST POINTS FUNCTION

TEST POINTS	FUNCTION
TP1	POSITION SIGNAL, VP
TP2	GND #1
TP3	CURRENT MONITOR
TP4	MUTE PIN
TP5	NOTCH FILTER INPUT
TP6	NOTCH FILTER OUTPUT
TP7	AGC OUT
TP8	POWER AMP OUTPUT

J1* (30 PIN) DIGITAL PARALLEL INTERFACE

PIN #	LABEL	NOTES
1	DB6	
2	DB14	
3	CLR	
4	DB15	MS Bit
5	LDAC	DAC latch
6	DB12	
7	CS	
8	DB13	
9	GND	
10	DB10	
11	GND	
12	DB11	
13	R/W	
14	DB8	
15	GND	
16	DB9	
17	DB5	
18	DB0	LS Bit
19	GND	
20	DB7	
21	GND	
22	DB2	
23	GND	
24	DB1	
25	GND	
26	DB3	
27	GND	
28	DB4	
29	GND	
30	GND	

JUMPERS CONFIGURATION

JUMPER	PINS		FUNCTION
	CLOSED	OPEN	
W1	1-2	3	CLASS "0"
	2-3	1	CLASS "1"
W2,W3	-	1-2	±18V THRU ±30V DRIVE VOLTAGE INPUT
	1-2	-	±18V > DRIVE VOLTAGE INPUT > ±15V
	1-3	2,5	COMMON MODE NON INVERTING COMMAND INPUT
	4-6		
W4	3-4	1,2,5,6	COMMON MODE INVERTING COMMAND INPUT
	1-3	2,4,5,6	DIFFERENTIAL MODE COMMAND INPUT
	3-5		
	4-6	1,2	DIGITAL MODE NON-INVERTING COMMAND INPUT
	5-6		
	3-4	1,2	DIGITAL MODE INVERTING COMMAND INPUT
W5	1-2	3	MIRROR ALIGNMENT
	2-3	1	CLOSE LOOP CONTROL SYSTEM
W6	1-2	3	CLASS "0"
	2-3	1	CLASS "1"
W7	-	1	-5V REF OUT
	-	2	GND1 OUT
	-	3	+5V REF OUT
W8	1-2	3	SERVO WITH NOTCH FILTER
	2-3	1	SERVO WITHOUT NOTCH FILTER
W9	1-2	3	CLASS "1" ERROR OUT
	2-3	1	CLASS "0" ERROR OUT
W10	1-2	3	INPUT WITH SLEW RATE LIMITER
	2-3	1	INPUT WITHOUT SLEW RATE LIMITER
W11	1-2	3	INPUT WITH SLEW RATE LIMITER
	2-3	1	INPUT WITHOUT SLEW RATE LIMITER
W12	1-2	-	SINGLE OUTPUT POWER AMP W/O HPO
	-	1-2	DOUBLE OUTPUT POWER AMP
	1-2	-	SINGLE OR DOUBLE OUTPUT POWER AMP WITHOUT HPO
W13	-	1-2	SINGLE OR DOUBLE OUTPUT POWER AMP WITH HPO
	1-2	-	DBL OUTPUT PWR AMP WITHOUT HPO
W14	-	1-2	SNGL OUTPUT PWR AMP OR DBL OUTPUT PWR AMP WITH HPO

UNLESS OTHERWISE SPECIFIED	DRN	03/20/01	PTH	CAMBRIDGE TECHNOLOGY, INC.
TOLERANCES	DES			125 MIDDLESEX TURNPIKE
.XX = ±0.010	CHK			BEDFORD, MA 01730-1409 - USA
.XXX = ±0.005	ENG			
() INDICATES mm	APPR			671 SERVO DRIVER
ANGLES: 0°-30°	PROJECTION			OUTLINE DWG
SURFACE ROUGHNESS				
BREAK ALL SHARP EDGES				
MATERIAL	REVISION			D04244
FINISH	J			SCALE NONE SHEET 3 OF 4