MESA POWER SYSTEMS

2350 Meyers Ave., Escondido, CA 92029
Tel: (619) 489-8162 Fax: (619) 489-5718

MODEL 10572

MESA POWER SYSTEMS
2350 MEYERS AVE. 619-489-8162
ESCONDIDO,CA 92029

DC POWER SUPPLIES

Parent part: 10572 POWER SUPPLY
Type : F

Level	Component	Description	Qty Required	UM	T	Scrap	Seq	RtNum	Reference	Lin
.1	1B52204	2.2/20V	1.00000000	EA	R	0.00		0	C20	1
.1	1B61503	15/20V TANT NEMCO 15/20 CM	1.00000000	EA	R	0.00		0	C21	2
.1	1H31005	.01/50V MONO	1.00000000	EA	R	0.00		0	C17	3
.1	1H21002	.001/50V MONO	1.00000000	EA	R	0.00		0	C19	4
.1	1C22232	.0022/1KV	1.00000000	EA	R	0.00		0	C10	5
.1	1C24736	ROEDERSTEIN WY0472MCMCFOK	4.00000000	EA	R	0.00		0	C2,3,26,27	6
.1	1H31012	.01/500V	3.00000000	EA	R	0.00		0	C14,15,9	7
.1	1H41003	.1/50V 1206	4.00000000	EA	R	0.00		0	C6,16,18,23	8
.1	1H42207	.22/50V 1206	1.00000000	EA	R	0.00		0	C5	9
.1	1H44711	.47/50V S/M 1206 CASE	2.00000000	EA	R	0.00		0	C7,25	10
.1	1M71052	100/25V ELEC. RA.	1.00000000	EA	R	0.00		0	C24	11
.1	1M71574	120/400V SMH400VN121M25X25T2	1.00000000	EA	R	0.00		0	C8	12
.1	1M72237	220/25V RA	1.00000000	EA	R	0.00		0	C22	13
.1	1R74716	470/25V	3.00000000	EA	R	0.00		0	C11,12,13	14
.1	1S41008	.1/250V - WXE-104K WORLD PROD.	1.00000000	EA	R	0.00		0	C4	15
.1	1S42205	.22/250VAC 20%	1.00000000	EA	R	0.00		0	C1	16
.1	2-11001	MMBD 4148 SOT-23 MOTOROLA OR	5.00000000	EA	R	0.00		0	D8,15,18,20,21	17
.1	2-12001	FM5817/SK12	1.00000000	EA	R	0.00		0	D19	18
.1	2-14002	RSZ5239B	1.00000000	EA	R	0.00		0	D14	19
.1	2-12002	ES1D FAIRCHILD SEMICONDUCTOR	2.00000000	EA	R	0.00		0	D9,10	20
.1	2-11003	SM1 / GF1M- GI	3.00000000	EA	R	0.00		0	D1,2,3	21
.1	2-12003	BYD57MTR SURFACE MOUNT ONLY	2.00000000	EA	R	0.00		0	D6,7	22
.1	2-02048	HEXFRED TO-220	1.00000000	EA	R	0.00		0	D11	23
.1	2-02049	16CTQ100	1.00000000	EA	R	0.00		0	D12	24
.1	2-03001	TL431CLP	2.00000000	EA	R	0.00		0	CR1,2	25
	2-14005	RLZ5248B	3.00000000	EA	R	0.00		0	D4,5,22	26
.1	2-14007	RS5252B/PMBZ5252B/MMBZ5252B	1.00000000	EA	R	0.00		0	D16	27
.1	2-14001	RSZ5231B / PMBZ5231B PHILIPS	1.00000000	EA	R	0.00		0	D17	28
.1	2-05008	2N5060	1.00000000	EA	R	0.00		0	Q7	29
.1	2-06015	2KBP06M GENERAL SEMICONDUCTOR	1.00000000	EA	R	0.00		0	BD1	30
.1	3-03023	IRF840 IR	2.00000000	EA	R	0.00		0	Q1,3	31
.1	3-03039	SGS STW20NB50	1.00000000	EA	R	0.00		0	Q2	32
.1	3-06008	H11A817A.300 - QUALITY TECH	2.00000000	EA	R	0.00		0	U1,2	33
.1	3-11001	SST2222A-MMBT2222A SGS THOMP	3.00000000	EA	R	0.00		0	Q4,5,6	34
.1	4C0470	4.7 OHM 1/4W	1.00000000	EA	R	0.00		0	R14	35
.1	4C1002	1K OHM SM 0805 SIZE	4.00000000	EA	R	0.00		0	R35,41,43,45	36
.1	4C1003	10K OHM 0805 SM RESISTOR	6.00000000	EA	R	0.00		0	R9,20,29,30,39,40	37
.1	4C1784	178K OHM 1% 0805	2.00000000	EA	R	0.00		0	R19,23	38
.1	4G1004	100K OHM 1/4 W	2.00000000	EA	R	0.00		0	R21,22	39
.1	4G2002	2K OHM 1/4W 1206	2.00000000	EA	R	0.00		0	R27,28	40
.1	4C4640	46.4 OHM 1% 0805 RESISTOR	1.00000000	EA	R	0.00		0	R17	41
.1	4C2211	221 OHM 1% SM 0805	2.00000000	EA	R	0.00		0	R12,34	42
.1	4C2003	20K OHM 1% SM 0805	1.00000000	EA	R	0.00		0	R24	43
.1	4C4322	4.32K OHM 1% SM 0805	4.00000000	EA	R	0.00		0	R8,13,33,36	44
.1	4C7500	75 OHM 1% SM 0805	1.00000000	EA	R	0.00		0	R15	45
.1	4C2372	2.37K OHM 1% SM 0805	1.00000000	EA	R	0.00		0	R18	46
.1	4C5111	511 OHM 1% SM 0805	2.00000000	EA	R	0.00		0	R38, 46	47
.1	4C3002	3.0K OHM 1% SM 0805	1.00000000	EA	R	0.00		0	R31	48
.1	4C6812	6.81K OHM 1% SM 0805	1.00000000	EA	R	0.00		0	R32	48
.1	4G1301	130 OHM 1/4 W	1.00000000	EA	R	0.00		0	R47	49
.1	4G4424	442K OHM 1/4W 1%	4.00000000	EA	R	0.00		0	R2,3,4,5	50
.1	4D1005	1M OHM 1/2W RESISTOR M.O.	1.00000000	EA	R	0.00		0	R1	51

DOC# 10572BOM REV. H

MESA POWER SYSTEMS
CONTROLLED # 3

ENG _____ DATE 3-2-00

QA _____ DATE 3/2/00

Parent part: 10572 POWER SUPPLY
Type : F

Level	Component	Description	Qty Required	UM	T	Scrap	Seq	RtNum	Reference	Lin
.1	4H0082	.82 OHM 1W	1.00000000	EA	R	0.00		0	R10	52
.1	4H1000	10 OHM 1W RESISTOR M.O.	1.00000000	EA	R	0.00		0	R26	53
.1	4H2201	220 OHM 1W	1.00000000	EA	R	0.00		0	R44	54
.1	4H4701	470 OHM 1W	1.00000000	EA	R	0.00		0	R25	55
.1	4J3903	39K OHM 2W M.O. RESISTOR	1.00000000	EA	R	0.00		0	R7	56
.1	4N0027	.27 OHM 3W RESISTOR	1.00000000	EA	R	0.00		0	R11	57
.1	4G1002	1K OHM 1206	2.00000000	EA	R	0.00		0	R6,42	58
.1	4T009	SG220 RTI ELECTRONICS	1.00000000	EA	R	0.00		0	TH1	59
.1	4Y5001T	500 OHM POT	1.00000000	EA	R	0.00		0	R37	60
.1	5-03006	IEC CONNECTOR	1.00000000	EA	R	0.00		0	J1	61
.1	5-06002	V275LA20A G.E. MOV.	1.00000000	EA	R	0.00		0	VR1	62
.1	5-13004	LEMO FGG.0B.305.CLAD.56Y	1.00000000	EA	R	0.00		0		63
.1	5-16003	GREEN LED	1.00000000	EA	R	0.00		0	D13	64
.1	6-04019	MOUSER BOOST CHOKE	1.00000000	EA	R	0.00		0	L5	65
.1	5-07025	2.5A FUSE 5MM S/B	1.00000000	EA	R	0.00		0	F1	66
.1	10547T1	DRIVER TRANSFORMER	1.00000000	EA	A	0.00		0	T1	67
.1	10572L7	BALUN	1.00000000	EA	A	0.00		0	L7	68
.1	10572T2	TRANSFORMER	1.00000000	EA	A	0.00		0	T2	69
.1	10572L2	CHOKE	2.00000000	EA	A	0.00		0	L2,3	70
.1	10572L4	PFC CHOKE	1.00000000	EA	A	0.00		0	L4	71
.1	10572L6	CHOKE	1.00000000	EA	A	0.00		0	L6	72
.1	10572-1	ENCLOSURE	1.00000000	EA	A	0.00		0		74
.1	5-12048	SHUNT	1.00000000	EA	R	0.00		0		75
.1	5-12060	JUMPER	1.00000000	EA	R	0.00		0		76
.1	5-10009	FAN MECHATRONICS F4010M	1.00000000	EA	R	0.00		0		77
	7-20008	HEATSINK	4.00000000	EA	R	0.00		0	Q1,3,D11,D12	78
.1	7-20012	HEATSINK	1.00000000	EA	R	0.00		0	Q2	79
.1	8-03040	TOROID ON OUTPUT CABLE	1.00000000	EA	R	0.00		0		80
.1	5-12053	2 POS. RAMP 22-23-2021	1.00000000	EA	R	0.00		0		81
.1	7-35006	RUBBER FOOT W/ WASHER	4.00000000	EA	R	0.00		0		82
.1	5-19003	LED LENS	1.00000000	EA	R	0.00		0		83
.1	5-08009	95 DEGREE THERMOSTAT	1.00000000	EA	R	0.00		0		86
.1	7-07006	TEST POINT	1.00000000	EA	R	0.00		0		87
.1	7-14007	HEYCO P/N 3207-2	1.00000000	EA	R	0.00		0		88
.1	10607-01	PFC CONTROLLER LOW POWER	1.00000000	EA	A	0.00		0	U3	89
.1	9-00117	MAIN P.C. BOARD U/O 10572	1.00000000	EA	R	0.00		0		90

Notes : NOTE: ALSO USE
6 FEET BLACK CABLE
1 TEST POINT
1 NOMEX SHEILD
1 COPPER SHEILD
1 MU METAL SHEILD

TEST PROCEDURE FOR 10572 REV D POWER SUPPLY

1.0 INTRODUCTION

THIS PROCEDURE IS FOR TESTING THE 10572 POWER SUPPLY. THE CONTROL BOARD IS CHECKED OUT FIRST AND THEN INSTALLED IN THE MOTHER BOARD FOR THE POWER TEST.

2.0 SPECIFICATIONS

INPUT: 100-240 VAC ± 10% @ 2AMP

OUTPUT: 18.5 VDC @ 6.5 AMPS

TOLERANCE:	+.2 VOLTS - 0.0 VOLTS (AT THE P.C BOARD)
MIN. LOAD:	0.0 AMPS
RIPPLE:	180mV MAX.
WATTS:	120 WATTS
CURRENT LIMIT:	7 TO 9.5 AMPS
OVERVOLTAGE:	21 TO 25 VOLTS
POWER FAIL:	HI ON FAILURE
HOLD UP:	20m SEC's. MIN AT FULL LOAD

3.0 TEST EQUIPMENT

3.1 SCOPE

3.2 DC HI POT

3.3 DVM .1% ACCURACY

3.4 0-264V AC VARIAC 10 AMP RATING

3.5 0-25V .5 AMP DC LAB SUPPLY

3.6 VOLTEC POWER ANALYZER PM1000

3.7 ELECTRONIC LOAD KIKASUI PLZ300W

3.8 10572-TA TEST BOX

3.9 10572-TB TEST BOX

3.10 10572-TC TEST PLUG

4.0 INSPECTION

VISUALLY INSPECT THE POWER SUPPLY FOR GOOD SOLDER JOINTS AND WORKMANSHIP.

5.0 LOGIC BOARD TEST

APPLY +16 VOLTS D.C. THROUGH A 240/OHM 1WATT RESISTOR TO PIN 2 OF THE CONNECTOR, WITH THE RETURN TO PIN 6. CHECK FOR A SAWTOOTH WAVEFORM ON PIN 7 AND PIN 8 OF THE I.C. U1. THE FREQUENCIES SHOULD BE 65-79 KHZ AND 135 TO 155 KHZ.

THE SQUARE WAVE PULSE SIGNAL GATE DRIVE FOR Q2 SHOULD BE PRESENT ON PIN 12 OF U1, AND PIN 1 OF CONNECTOR.

5.1 INITIAL LOGIC TEST OF COMPLETED POWER SUPPLY

REMOVE JP1. AND SHORT C21 (THE CURRENT LIMIT FOLD BACK CIRCUIT)

APPLY 23 VOLTS POSITIVE TO THE TOP OF R44 - RETURN TO COMMON. (R11). CHECK SAWTOOTH WAVEFORMS ON PIN 7 (146 KHz) AND PIN 8 (73 KHz). (S/B BETWEEN 135 AND 155 KHz. AND 65-79 KHZ RESPECTIVELY).

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SWITCH 23V PS OFF.

5.2 D.C. CONVERTER POWER TEST

CONNECT 400V METER TO D3 CATHODE WITH THE RETURN TO R11 AND CONNECT POWER CORD WITH INPUT VARIAC AT ZERO.

CONNECT A LEAD FROM THE +23 VOLT SUPPLY TO TEST POINT 1. (TP1) RETURN ON R11. THIS WILL HOLD THE P.F.C. OFF. CONNECT THE OUTPUT POWER CABLE TO THE 10572-TA TEST BOX.

TURN ON THE 23 VOLT SUPPLY AND CHECK PIN11 OF U1 GATE DRIVES. IT SHOULD BE A PULSE. IF OK PUT THE SCOPE PROBE ON THE Q3 DRAIN. SLOWLY BRING UP THE INPUT AC AND CHECK THAT THE DC VOLTAGE ON D11 CATHODE IS ONLY ABOUT 1.5 TIMES THE AC INPUT. THIS CHECKS THE P.F.C. BOOST IS HELD OFF.

LOOK AT THE 18 VOLT OUTPUT AND SEE THAT IT IS ALSO STARTING TO RISE. KEEP GOING UNTIL 230 VAC IS APPLIED TO THE UNIT. THE OUTPUT SHOULD BE JUST UNDER 18 VOLTS, BUT NOT REGULATING. POWER DOWN THE AC INPUT, SWITCH OFF AND REMOVE THE LEAD FROM THE TP1 TEST POINT. THIS TEST HAS CHECKED THAT THE D.C. CONVERTER IS WORKING.

5.3 BOOST CONVERTER TEST

INSTAL JP-1 AND CONNECT DVM TO D3 CATHODE & R11 BOOST TRANSISTOR. TURN ON 23 VOLT SUPPLY. TURN THE VARIAC UP TO 10 VOLTS. THE METER SHOULD JUMP TO ABOUT 30 - 40V.

SLOWLY KEEP INCREASING VARIAC UP AND THE VOLTAGE ON THE METER SHOULD QUICKLY RISE TO 385 VOLTS ± 5 VOLTS. SHUT OFF IMMEDIATELY IF THE VOLTAGE RISES ABOVE 410 V. NOW THE BOOST IS ENABLED AND BY THE TIME THE AC INPUT IS AT 50 VOLTS THE 18 VOLT OUTPUT SHOULD BE UP AND IN REGULATION. CHECK THE GREEN LED IS ON. POWER DOWN AND REMOVE THE 23 VOLT SUPPLY. DO NOT LEAVE POWER ON FOR MORE THAN A FEW SECONDS DURING THE ABOVE TESTS. NOW RE-APPLY THE AC INPUT AT 115 VOLTS AC. THE UNIT SHOULD SELF START AND THE OUTPUT SHOULD COME UP TO ABOUT 18 VOLTS. ADJUST R37 TO 18.0 VOLTS AT 3AMP LOAD AT TEST POINTS ON TEST BOX.

6.0 POWER TEST

REMOVE SHORTING WIRE ON C21. CONNECT THE AC AND BRING THE INPUT UP TO 120 VAC. THE OUTPUT SHOULD COME UP TO 18 VOLTS AND BE IN REGULATION. LOAD THE OUTPUT TO 18.5 V 6.5 AMPS. INCREASE THE LOAD AND ENSURE THE OUTPUT GOES INTO CURRENT LIMIT BEFORE 10AMPS. RAISE THE VARIAC UP TO 264 VOLTS AND DOWN TO 85 VOLTS. WITH FULL LOAD AND THEN NO LOAD ON THE OUTPUT TO MAKE SURE THE UNIT OPERATES CORRECTLY. OUTPUT SHOULD BE BETWEEN 17V AND 18.8V. REDUCE THE LOAD AND SWITCH OFF.

6.1 POWER FAIL

CONNECT A SCOPE TO TEST BOX P.F. POINT AND MONITOR THE POWER FAIL OUTPUT; J4-6 WITH A SCOPE. APPLY FULL LOAD TO THE OUTPUT (6.7 AMPS) AND SWITCH ON THE AC INPUT AT 120 VOLTS AC. VERIFY THE POWER FAIL OUTPUT IS LOW. SET THE SCOPE TO TRIGGER WHEN THE POWER FAIL (P.F.) SIGNAL GOES HIGH. SWITCH OFF THE 120 VOLT AC INPUT AND VERIFY THE 18 VOLT SIGNAL STAYS HIGH FOR AT LEAST 20m SEC's. (SEE FIG. 1)

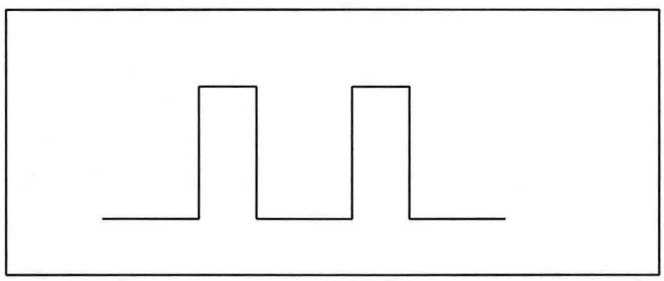


FIG 1 POWER FAIL SIGNAL

TURN THE LOAD DOWN TO 0.3 AMPS. POWER UP AND ADJUST THE POT R37 TO FORCE THE OUTPUT VOLTAGE TO RISE. THE UNIT SHOULD TRIP AND LATCH OFF BEFORE THE VOLTAGE REACHES 25 VOLTS. POWER DOWN AND SWITCH OFF. INSTALL IN PLASTIC ENCLOSURE AND RETEST FOR OUTPUT.

7.0 HI POT

CONNECT THE HI SIDE OF THE HI POT TESTER TO BOTH SIDES OF THE AC INPUT LINES, AND THE LOW SIDE TO THE OUTPUT LINES SHORTED TOGETHER AND TO THE CHASSIS. TURN THE HIPOT VOLTAGE SLOWLY UP TO 1500 VAC. THERE SHALL BE NO BREAKDOWN. POWER THE HIPOT DOWN AND SWITCH OFF. CONNECT THE HIPOT FROM THE OUTPUT LINES SHORTED TOGETHER AND THE CHASSIS. POWER UP TO 500 VAC AND HOLD FOR 10 SECONDS. THERE SHALL BE NO BREAK DOWN. POWER DOWN AND NOTE RESULTS.

BEFORE PREFORMING THE HI-POT TEST, CHECK THAT THE TESTER IS WORKING USING THE FOLLOWING PROCEDURE:

HI-POT TEST

CONNECT THE HI-POT TESTER OUTPUT LEADS TO A 120K OHM 10 WATT RESISTOR RATED FOR 1000 VOLT OPERATION. TURN THE VOLTAGE UP TO 1000 VOLTS. THE LEAKAGE LIGHT MUST BE LIT. TURN THE HI-POT DOWN

8.0 TEST RESULTS

		LIMITS
VOUT NO LOAD	VOLTS	18.4V TO 18.6 VOLTS
VOUT FULL LOAD	VOLTS	17.V TO 18. VOLTS
OVER LOAD	AMPS	7 TO 9.5 AMPS
OVER VOLTAGE	VOLTS	21V TO 25 VOLTS
HOLD UP TIME	m SEC's	20m SEC's MIN.
HI POT IP TO OP		1500 VAC
HI POT OUTPUT TO GROUND		1500 VAC

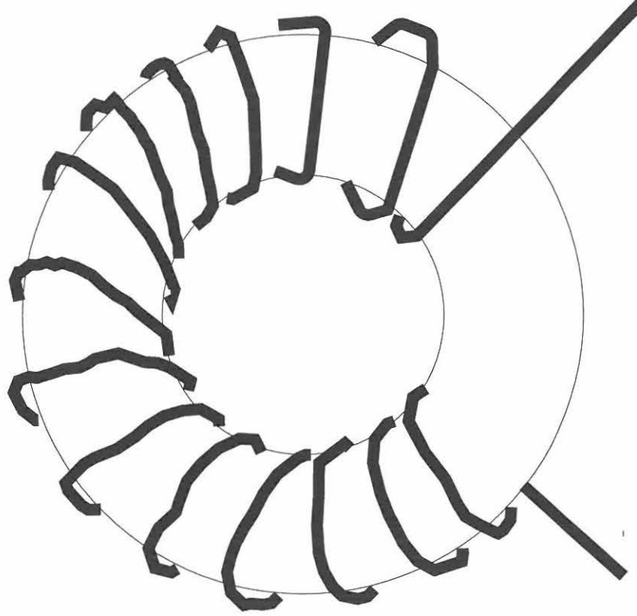
TEST TECHNICIAN	DATE	PASS	FAIL

A	110997	Chngd. core & turns

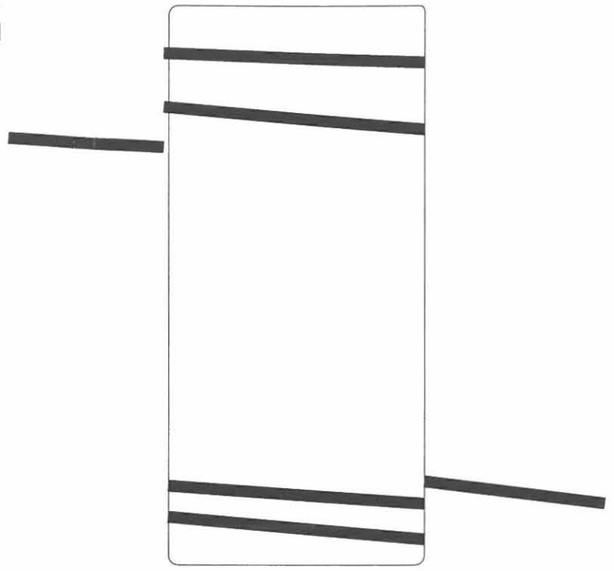
L2 & 3

STRIP AND TIN .25"

2.0" LNG



.75" LNG



CORE: MPS 8-03080
T94-26

L = 500uH MIN

WINDING: 95 TURNS #26 HPN

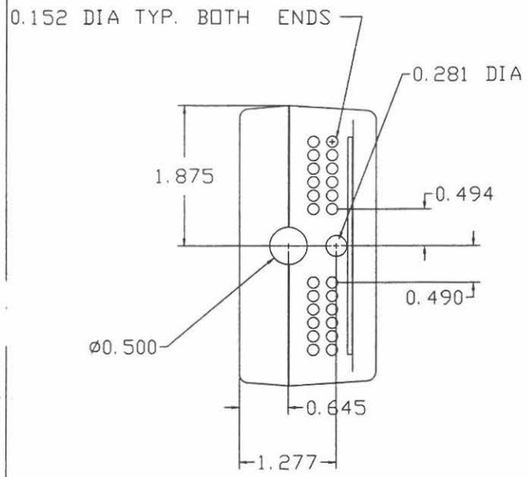
SET-UP
A =95
B =17

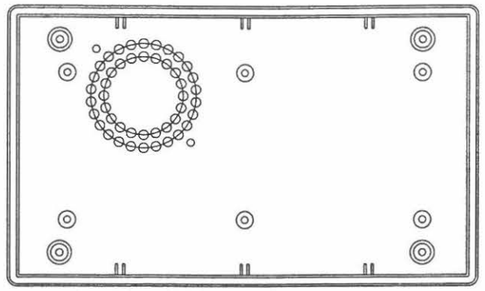
TEST:

THIS DRAWING IS THE PROPERTY OF MPS IS NOT TO BE USED WITHOUT AUTHORIZATION FROM MPS

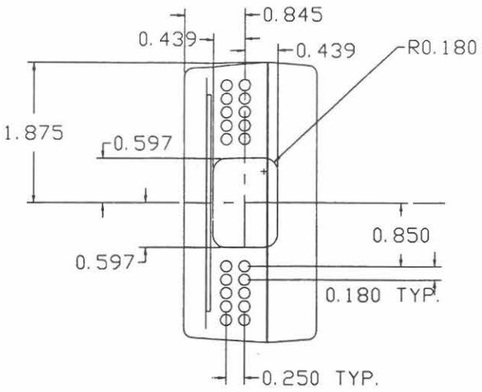
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± DECIMALS .XX± .XXX± ANGLES ±	CAGE CODE 46937	SIZE A	MESA POWER SYSTEMS ESCONDIDO CA	
		APPROVALS	DATE	TITLE D.M. INDUCTOR
MATERIAL		DRAWN edb	073097	
FINISH		CHECKED		DWG. NO 10572-L2 & 3 REV. A
		ISSUED		
DO NOT SCALE DRAWING		REV.		SCALE SHEET

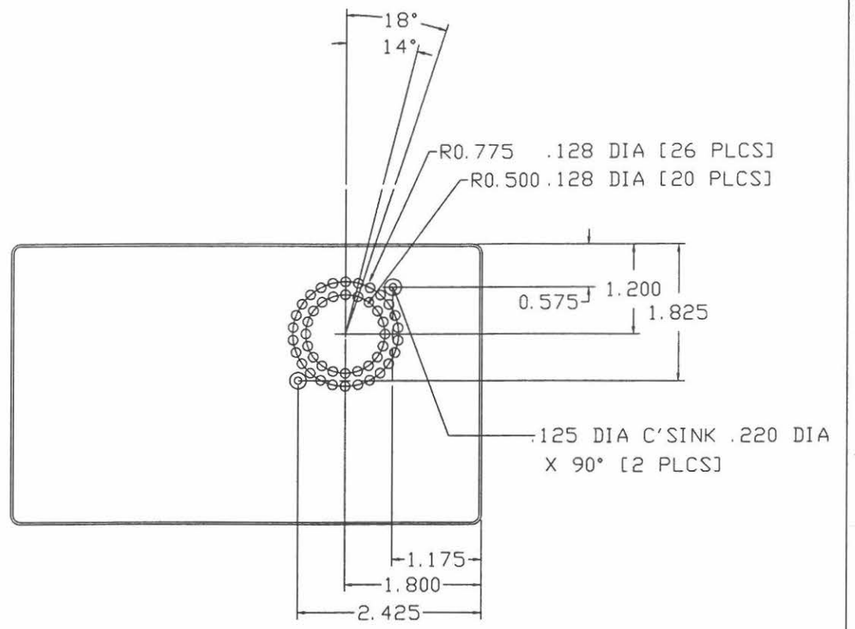
X1	063097	PROTO RUN
X2	071497	moved fan added holes
X3	090397	chgd. hole sizes





TOP REMOVED





MAKE FROM

MATERIAL: BLACK ABS FR, COPPER SPRAYED INSIDE [UL RECOGNIZED]

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX± .XXX± ±	CAGE CODE 46937	SIZE D	MESA POWER SYSTEMS ESCONDIDO CA
		APPROVALS	DATE
MATERIAL		DRAWN edb	063097
		CHECKED	
FINISH BLACK WRINKLE		ISSUED	
DO NOT SCALE DRAWING		REV.	

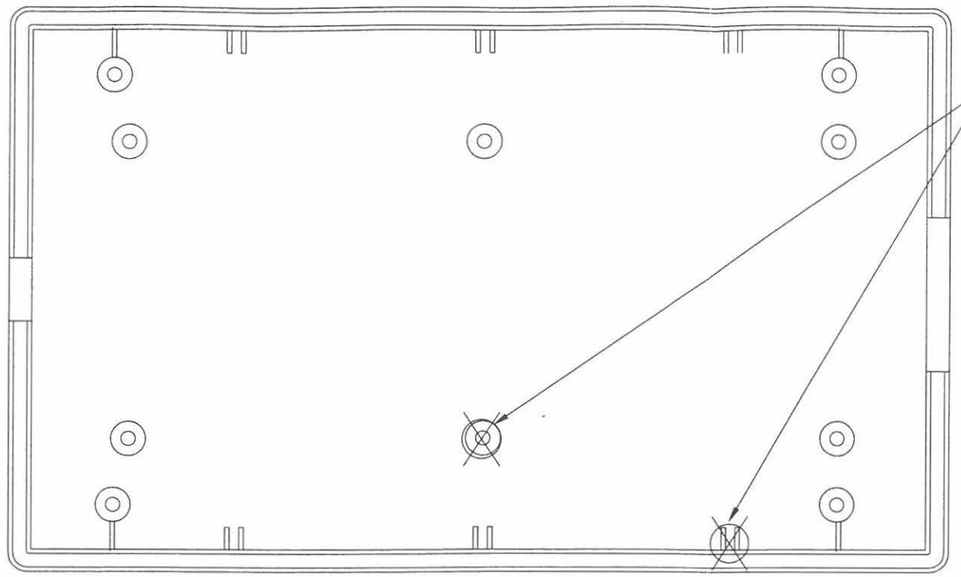
TITLE: HOUSING

DWG. NO. 10572-1 REV. x3

SCALE SHEET

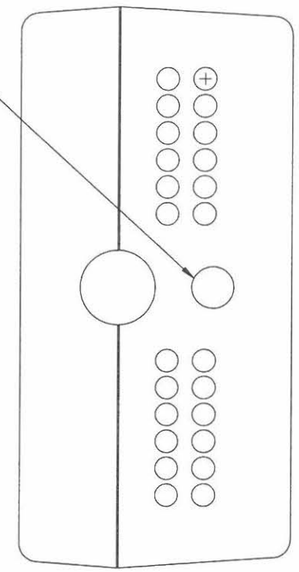
1 TRIM BOSSES
2 INSULATE
3 ASSEM LENS

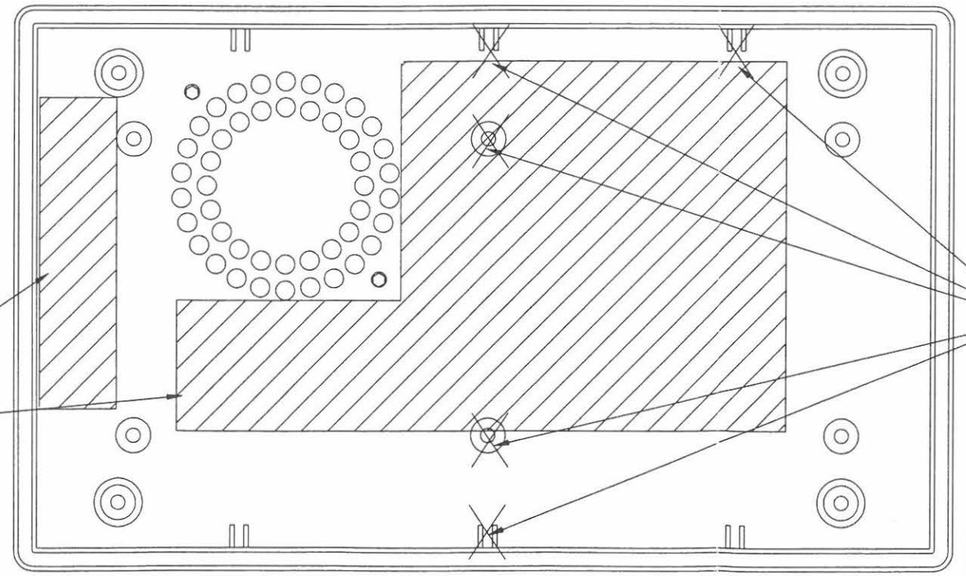
TOP



REMOVE

ASSEM. LED LENS





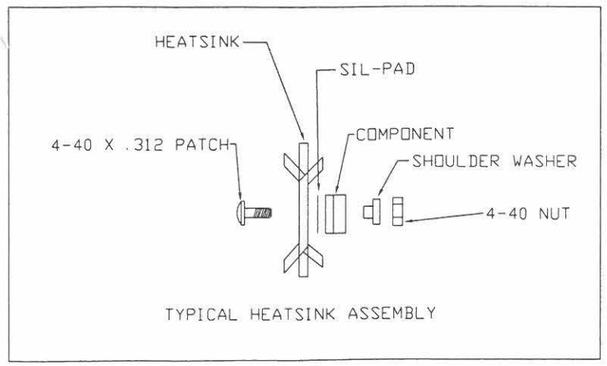
REMOVE

.007 NOMEX AS SHOWN

X = REMOVE THESE AREAS

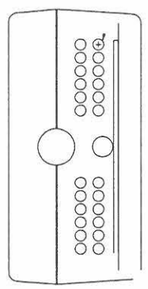
BOTTOM

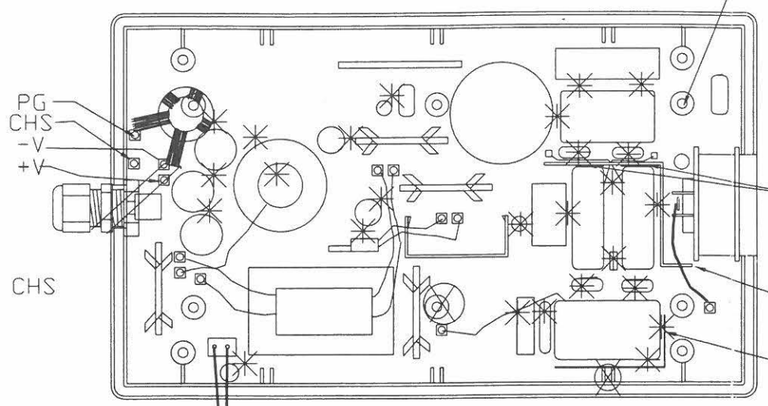
THIS DRAWING IS THE PROPERTY OF MPS IS NOT TO BE USED WITHOUT AUTHORIZATION FROM MPS					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX± .XXX± ±	CAGE CODE 46937	SIZE B	MESA POWER SYSTEMS ESCONDIDO CA		
		APPROVALS	DATE	TITLE HOUSING PREP	
MATERIAL		DRAWN	071696		
FINISH		CHECKED		DWG. NO. 10572-6	REV.
		ISSUED			
DO NOT SCALE DRAWING		REV.		SCALE	SHEET



TYPICAL HEATSINK ASSEMBLY

X REMOVE PRIOR TO ASSEMBLY
* =RTV THESE AREAS





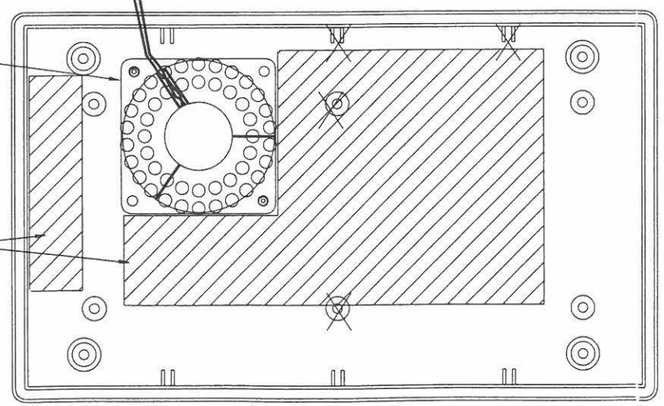
4 X .25 SELF THREADING [PLASTIC]
BOARD HOLD DOWN 4 PLACES

.007 NOMEX 0.4" X 0.6"
BETWEEN SHIELD AND COIL

Mu METAL SHIELD

.007 NOMEX 1.0" X 2.0"

BLACK WIRE RED WIRE

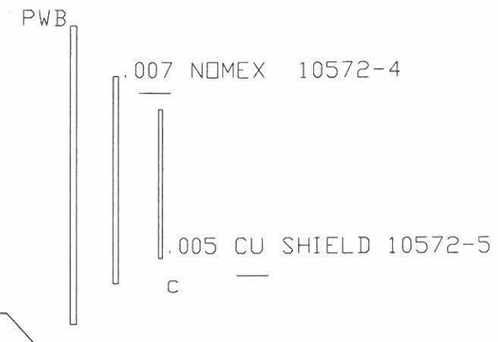


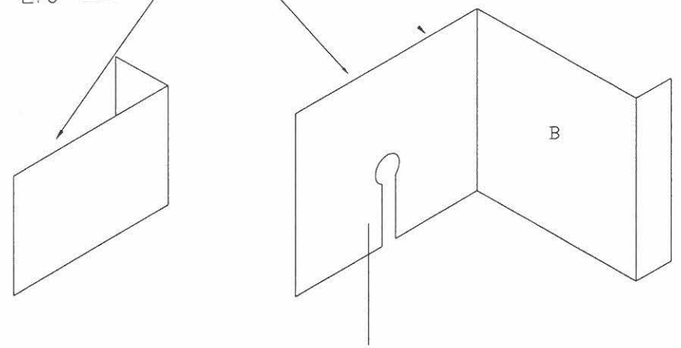
FAN ASSEMBLY

4-40 X.625 PFH BLACK
.032 X 0.25 NYLON WASHER
FAN [BLADES DOWN]
#4 RADIO NUT
TRIM WIRES 2.0" BEYOND CASE

.007 NOMEX AS SHOWN

BOARD ASSEMBLY BUILD-UP





UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± DECIMALS XX± XXX± ANGLES ±	CAGE CODE 46937	SIZE D	MESA POWER SYSTEMS ESCONDIDO CA
		APPROVALS	DATE
MATERIAL		DRAWN edb	111297
		CHECKED	
FINISH		ISSUED	
DO NOT SCALE DRAWING		REV.	

TITLE ASSEMBLY

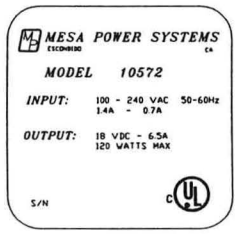
DWG. NO. 10572 REV.

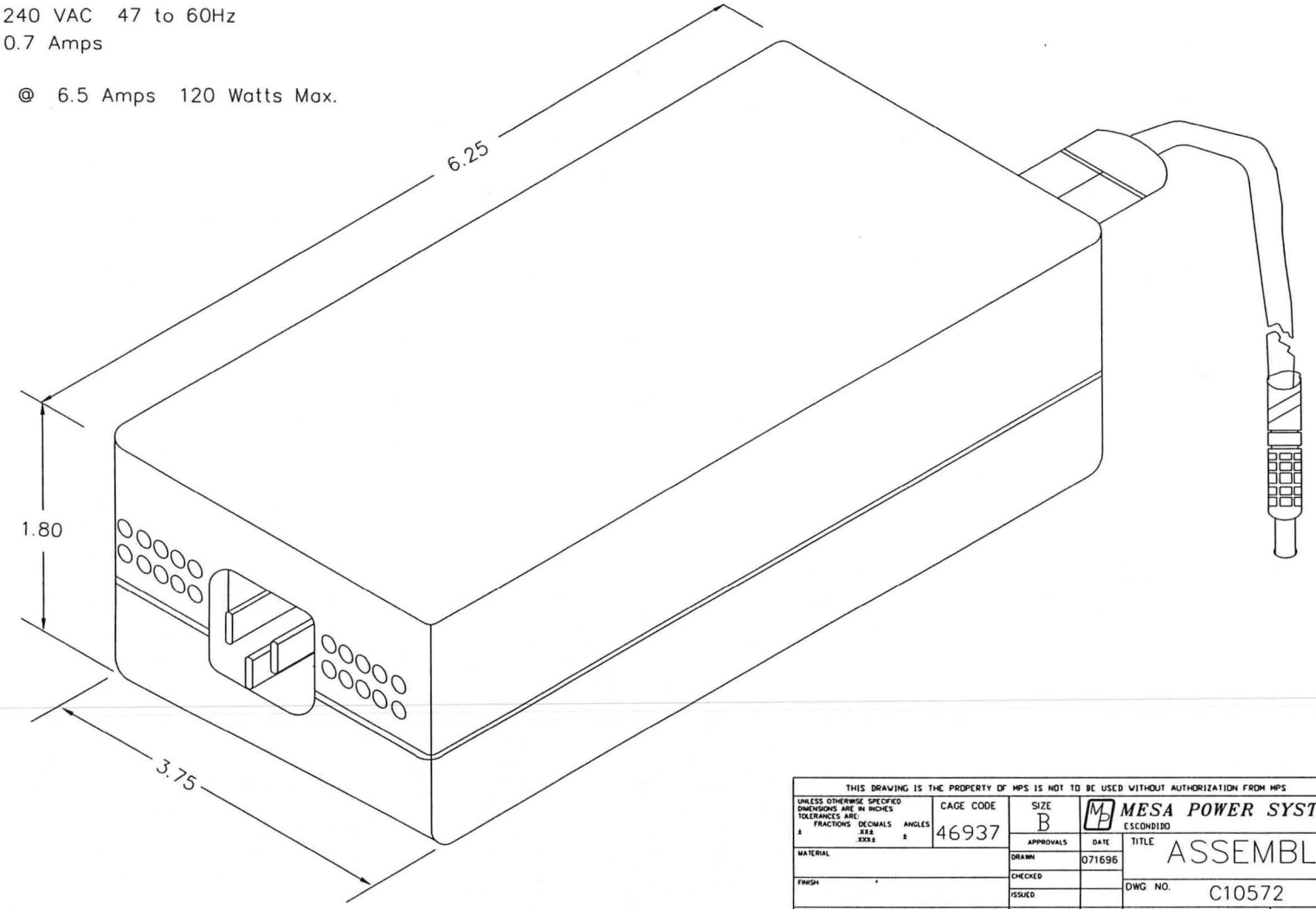
SCALE SHEET

MECHANICAL:
PLASTIC ENCLOSURE
6 FT. SHIELDED OUTPUT CABLE
FORCED AIR COOLED

INPUT: 100 – 240 VAC 47 to 60Hz
1.4 – 0.7 Amps

OUTPUT: 18 VDC @ 6.5 Amps 120 Watts Max.





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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± DECIMALS XX ± XXX ± ANGLES ±

CAGE CODE 46937

SIZE B

MESA POWER SYSTEMS
ESCONDIDO CA

APPROVALS	DATE
DRAWN	071696
CHECKED	
ISSUED	
REV.	

MATERIAL

FINISH

DO NOT SCALE DRAWING

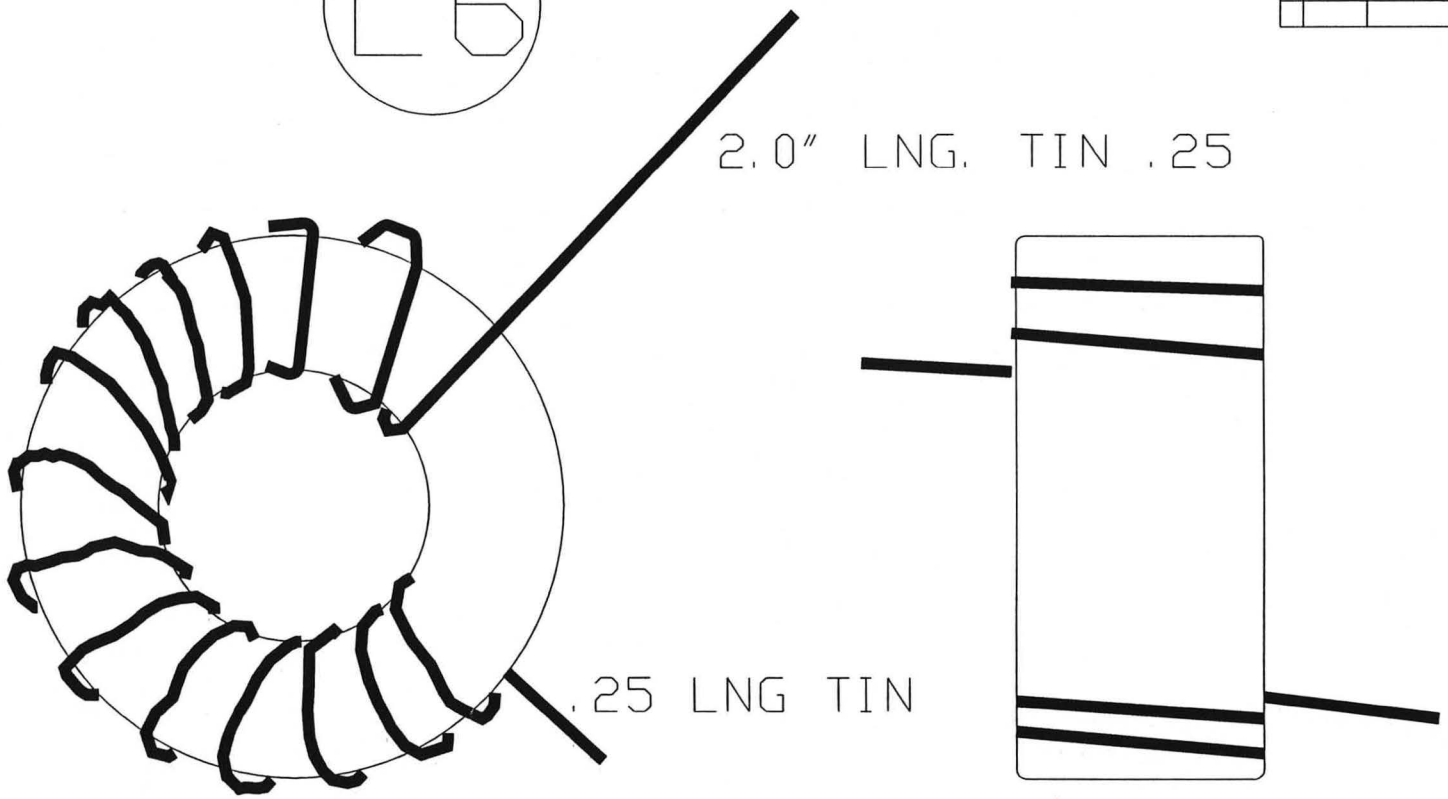
TITLE ASSEMBLY

DWG NO. C10572 REV.

SCALE SHEET

A	110997	Chngd. lead length

L6



CORE: MPS 8-03063
ST83275B MICROMETALS

TEST: L = 800uH MIN

WINDING: 37 TURNS #19HPN

SET-UP

A = 37

B = 10

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± DECIMALS .XX± .XXX± ANGLES ±

CAGE CODE 46937

SIZE A

MESA POWER SYSTEMS
ESCONDIDO CA

APPROVALS	DATE
DRAWN edb	073097
CHECKED	
ISSUED	
REV.	

MATERIAL

FINISH

DO NOT SCALE DRAWING

TITLE INDUCTOR

DWG. NO. 10572-16 REV. A

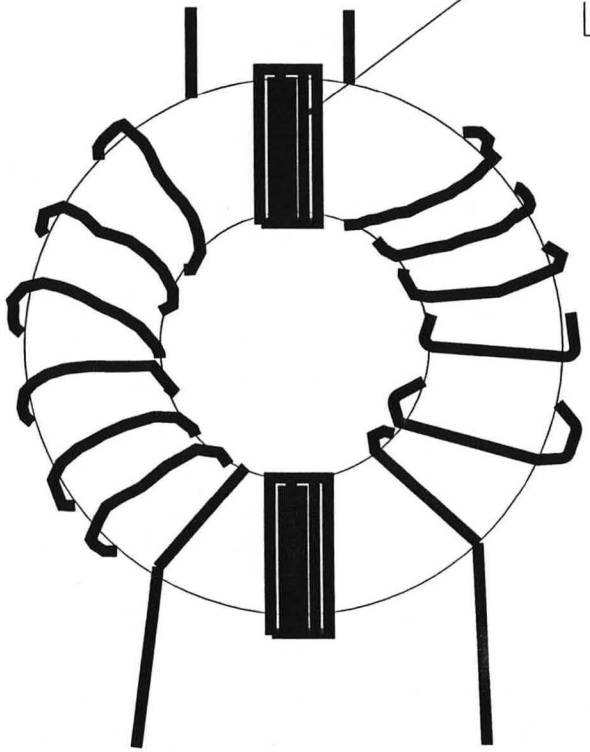
SCALE

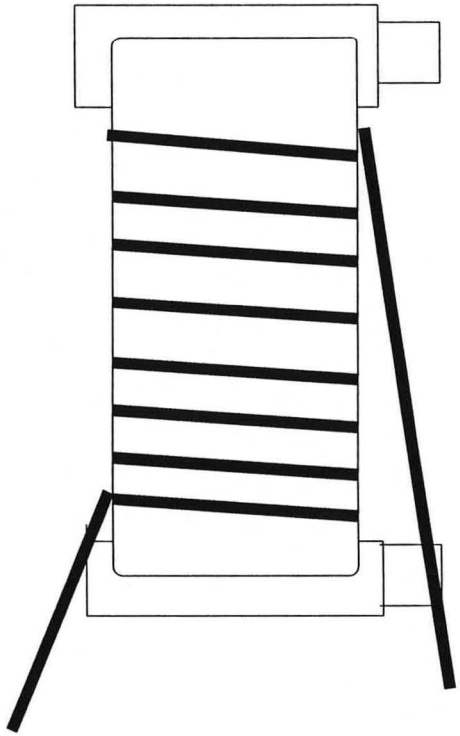
A	110997	Chngd. cores

TY WRAP TOP & BOTTOM

L7

LEADS .25" LNG TIN .25"





CORE: MPS 8-03009
[2] ZW42206-TC MAG INC
TAPE 2 CORES TOGETHER OR
[1] 2W42212-TC

TEST:

L = 11.8mH +- 0.3mH
EA. SIDE

WINDING: 35 TURNS #26 HPN EA SIDE
TURNS MUST BE EQUAL

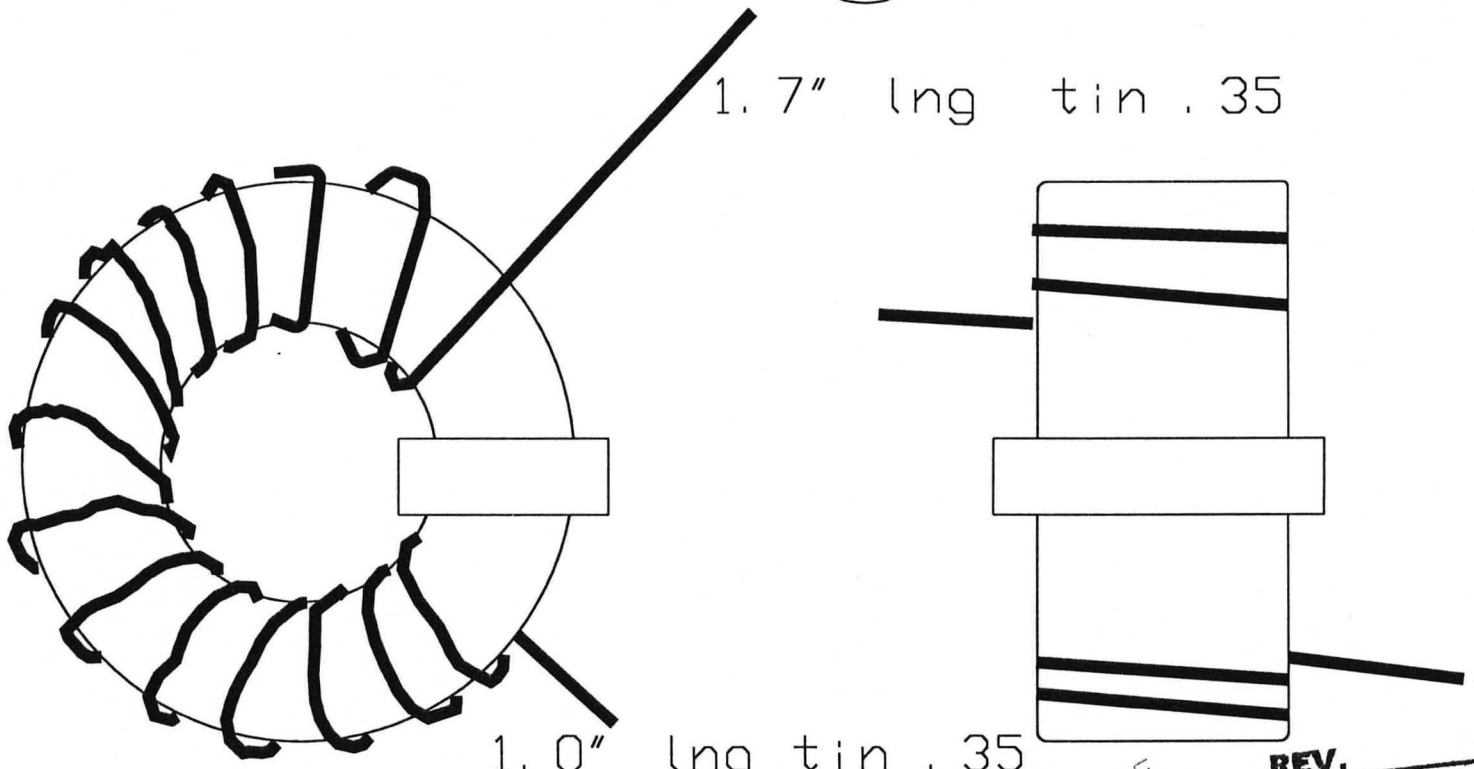
CUT WIRE 45" LONG

UNLESS OTHERWSE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± DECIMALS .XX± .XXX± ANGLES ±	CAGE CODE 46937	SIZE A	MESA POWER SYSTEMS ESCONDIDO CA		
		APPROVALS	DATE	TITLE	BALUN
MATERIAL		DRAWN edb	073097		
		CHECKED			
FINISH		ISSUED		DWG. NO.	10572-L7 REV. A
DO NOT SCALE DRAWING		REV.		SCALE	S

WIND WITHOUT OVERLAPPING AT BOTTOM
ROTATE CORE BY HAND TO CONTROL BUILD-UP

L4

A	110997	Chngd lead length
B	60498	chngd lead length
C	051599	chngd lead length
D	091599	chngd mag inc p/n
E	051000	chngd ARNOLD p/n



DOC# 10566 REV. ____

ENG [signature] DATE 8-3-00

QA [signature] DATE 08/03/00

CORE: MPS 8-03069
MAG INC 77934-A7
ARNOLD MS106090-2

TEST: L = 2mH MIN

WINDING: 146 TURNS #23 HPN

MESA POWER SYSTEMS
CONTROLLED #3

SET-UP
A =146
B =35

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± DECIMALS .XX± .XXX± ANGLES ±

CAGE CODE 46937

SIZE A

MESA POWER SYSTEMS
ESCONDIDO CA

	APPROVALS	DATE
MATERIAL		
DRAWN	edb	073097
CHECKED		
FINISH		
ISSUED		
DO NOT SCALE DRAWING	REV.	

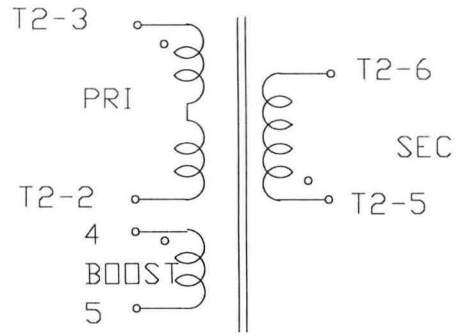
TITLE: PFC INDUCTOR

DWG. NO. 10572-L4 REV. E

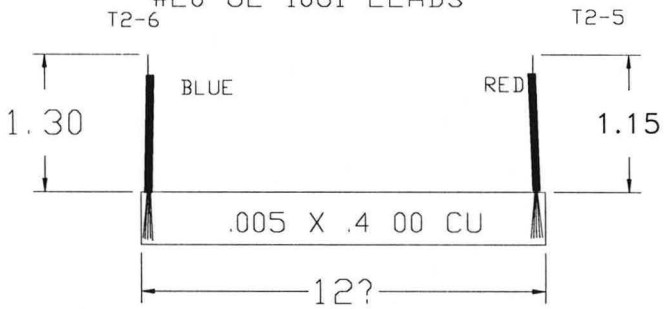
SCALE SHEET

A	110997	Chngd leads & ins.
B	51198	cu. shield size

T2

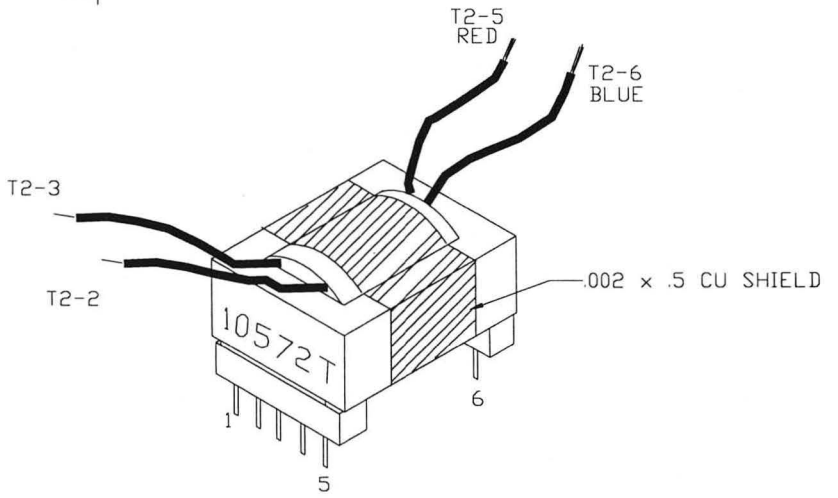


#20 UL 1061 LEADS

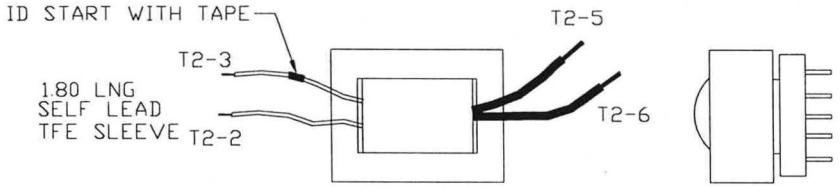


TEST

HI-POT — — 3750VAC PRI - SEC
1 TO T2-1 — — — — — 8mH
1 TO 4 [JUMP T2-1 TO 5] — — 10mH
1 TO T2-5 [JUMP T2-1 TO T2-6] 10.4mH

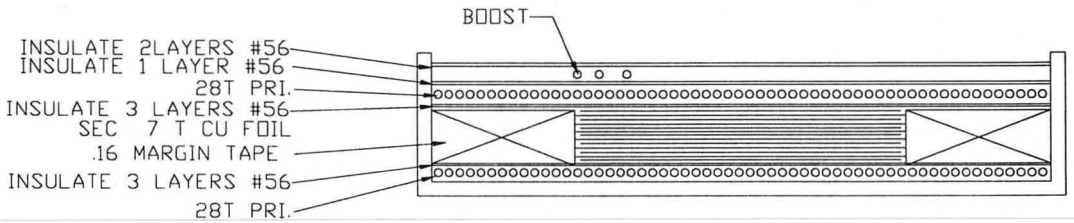


NOTCH BOBBIN FOR LEAD OUT



CORE: PC44LP32/13Z-12 MPS 8-03067
BOBBIN: BLP32/13-1110CPL MPS 8-01072

PRI: 28 TURNS #22 HPN
WRAP: 3 LAYERS #56 MYLAR TAPE
SEC: 7 TURNS .005 X .400 CU FOIL
INS.: .002 NOMEX
WRAP: 3 LAYERS #56 MYLAR TAPE
PRI: 28 TURNS #22 HPN
WRAP 1 LAYER #56MYLAR TAPE
BOOST: 9 TURNS #26 HPN
WRAP 2 LAYERS #56 MYLAR



INSULATE PRI. CROSSOVER
PRI START & SEC. BREAKOUT
WITH 2 LAYERS OF #56 MYLAR

NOTES:
DESIGNATOR T2
USED ON 10572

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± DECIMALS .XX± .XXX± ANGLES ±

CAGE CODE 46937

SIZE B

MESA POWER SYSTEMS
ESCONDIDO CA

	APPROVALS	DATE
MATERIAL		
	DRAWN edb	080697
FINISH	CHECKED	
	ISSUED	
DO NOT SCALE DRAWING	REV.	

TITLE TRANSFORMER

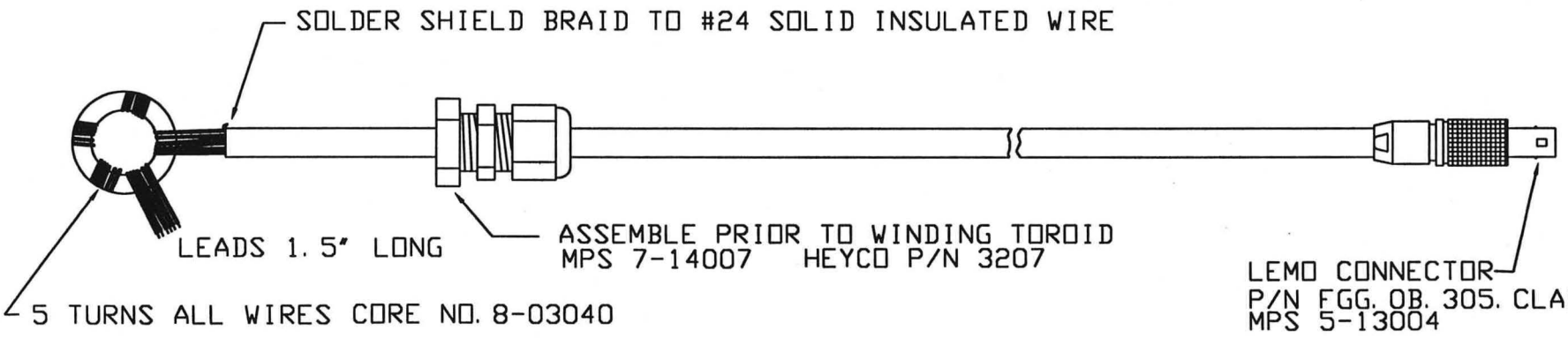
DWG. NO. 10572T REV. B

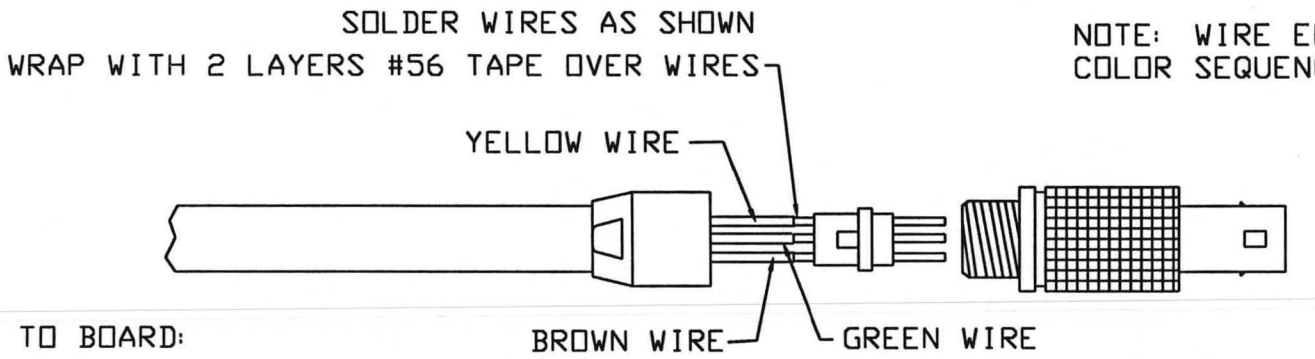
SCALE SHEET

A	4/98	WIRE COLORS
B	5/98	CABLE PART NUMBER
C	1/99	NEW CONN. NUT

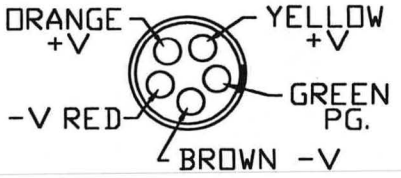
OUTPUT CABLE ASSEMBLY WIRE PURCHASED FROM STORM PRODUCTS

CABLE PART NO. SP24(19)10615 CAM SJ MP22694
CUT 80" LONG STRIP ONE END 7" LONG OTHER END 0.5" LONG
SOLDER BLACK WIRE TO SHIELD AS SHOWN





NOTE: WIRE END MUST HAVE THIS COLOR SEQUENCE TO AVOID CROSSOVER



SOLDER CUP SIDE

TERMINATE TO BOARD:

PG. = GREEN
CHS = SOLID BLACK THRU CU SHIELD
-V = RED & BROWN
+V = YELLOW & ORANGE

NOTE: TORQUE SHELL & NUT TO 7 INLBS

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± DECIMALS .XX ± .XXX ± ANGLES ±

CAGE CODE 46937

SIZE B

MESA POWER SYSTEMS ESCONDIDO CA

APPROVALS	DATE
DRAWN cwb	110997
CHECKED	
ISSUED	
REV.	

MATERIAL

FINISH

DO NOT SCALE DRAWING

TITLE CABLE ASSEM.

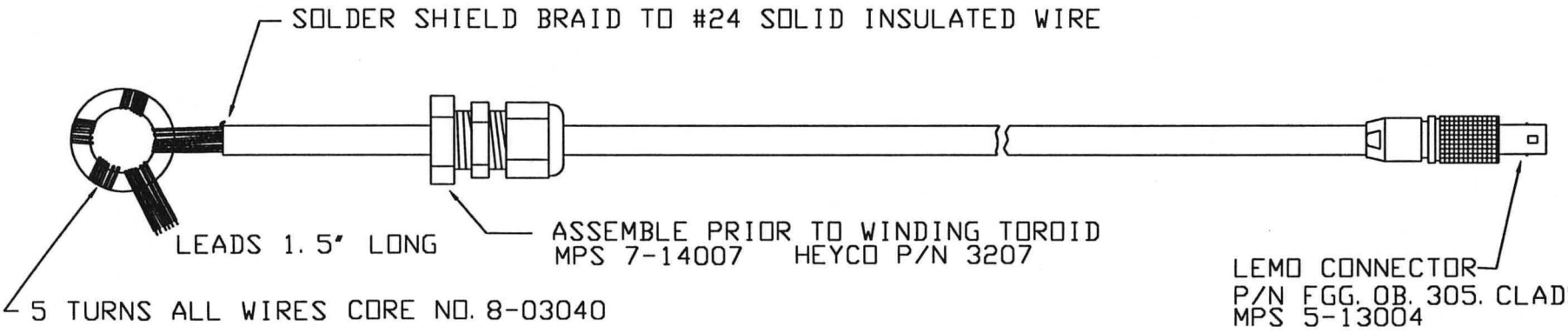
DWG. NO. 10572-10 REV. C

SCALE SHEET

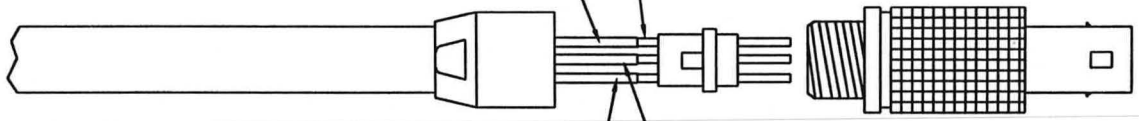
A	012099	BROWN WIRE, CONN. NUT

OUTPUT CABLE ASSEMBLY WIRE PURCHASED FROM STANDARD WIRE & CABLE CO.

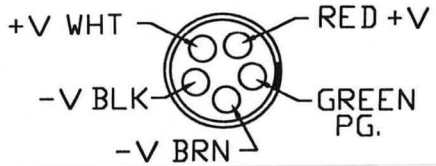
CABLE PART NO. SN15116 24/5C 19/36 TCPVC ALUM SHIELD+DRBLK JACKET PVC 90° MP22688
CUT 80" LONG STRIP ONE END 7" LONG OTHER END 0.5" LONG
SOLDER BLACK WIRE TO SHIELD AS SHOWN



SOLDER WIRES AS SHOWN
WRAP WITH 2 LAYERS #56 TAPE OVER WIRES



NOTE: WIRE END MUST HAVE THIS COLOR SEQUENCE TO AVOID CROSSOVER



SOLDER CUP SIDE

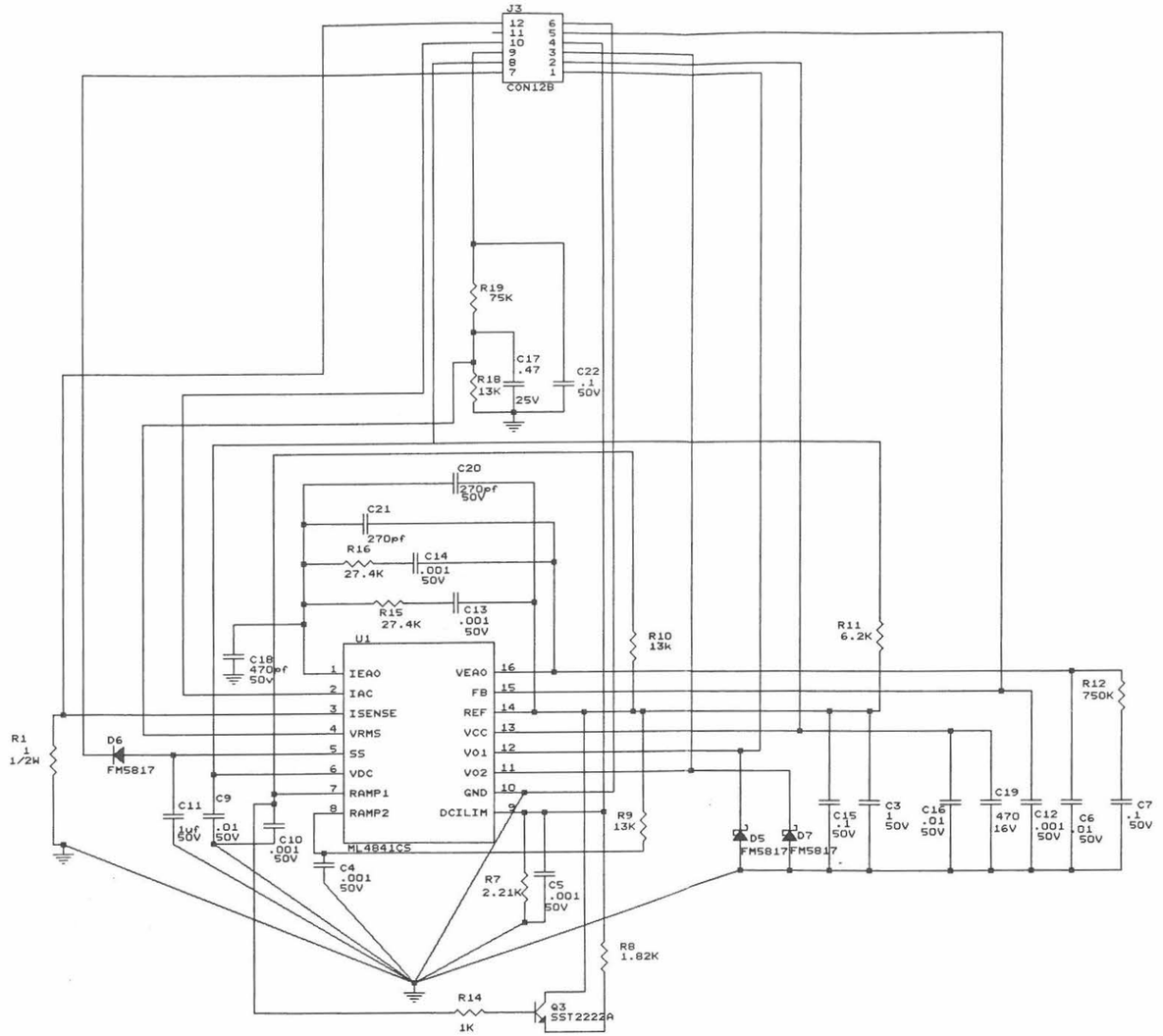
TERMINATE TO BOARD:

PG. = GREEN
CHS = SOLID BLACK THRU CU SHIELD
-V = BLK & BRN
+V = RED & WHITE

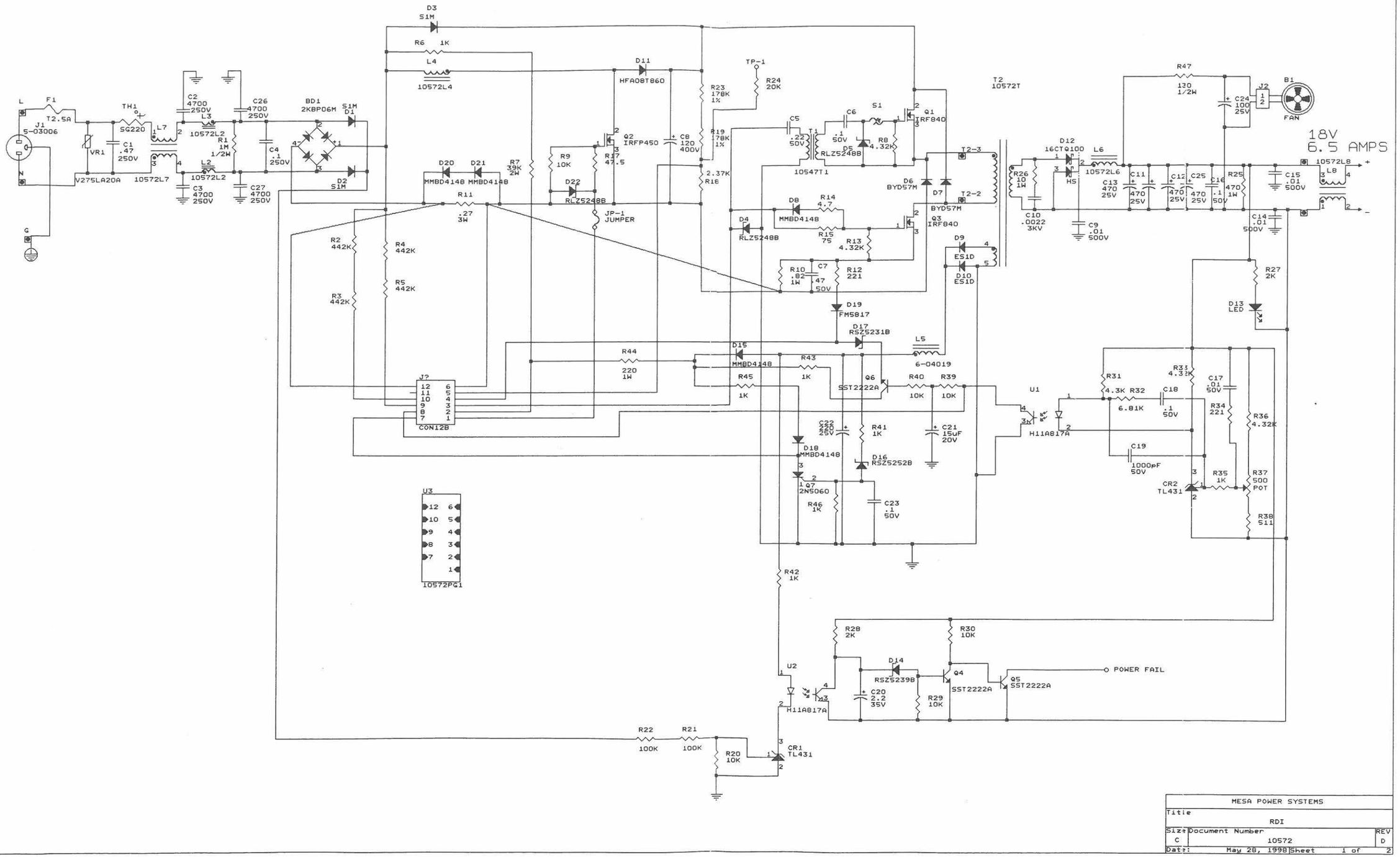
NOTE: TORQUE SHELL & NUT TO 7 INLBS

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
.XXX .XXXX

CAGE CODE 46937
SIZE B
MESA POWER SYSTEMS ESCONDIDO CA
APPROVALS DATE
DRAWN 110997
CHECKED
MATERIAL
FINISH
DO NOT SCALE DRAWING
REV.
TITLE CABLE ASSEM.
DWG. NO. 10572-11 REV. A
SCALE SHEET



Mesa Power Systems 2350 Meyers Ave Escondido Ca 92029		
Title: RDI		
Size: C	Document Number: 10572rg1	REV: D
Date: May 28, 1998	Sheet 2 of 2	



MESA POWER SYSTEMS		
Title: RDI		
Size: C	Document Number: 10572	REV: D
Date: May 28, 1998	Sheet 1 of 2	