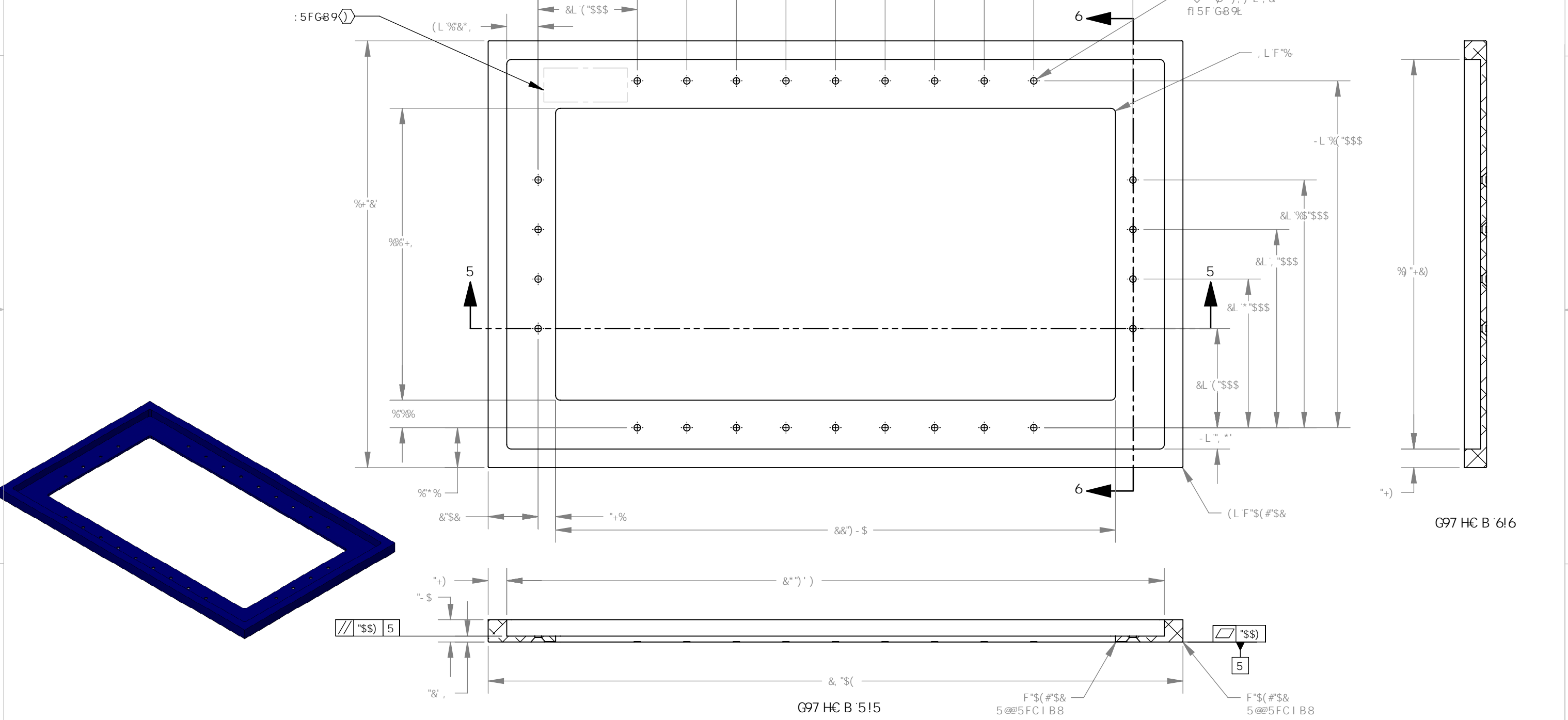


8%\$\$& %\$5 @: C 55 C GSC i hdi hi: URUXUm-gc Uhc fGdUWwfK5A %&< &ZD5 FHD8A F9J . LI.\$+z8F5K -B; D8A F9J . LI.\$%

BCHG7CBHBI 98.
G7 F6Z9B; F5J 9ZCF A 97 <5B 75 @Q5A DTBC B? CF 8M9E 8F5K -B;
D5FHBI A 69F 2F9J 6C BZ1 09827 <5A 69F C B BCH88 Q F: 57 9C: D5FH
C @C K 98 C B H-9 @B 9K #K: 5 H-F 99 8 # H9F 5 @BI A 69F "G9F 5 @BI A 69FG
G5FH5H5S\$: CF H-9: #GH5FH7 @ 5B8 DFC 7 998 7 C B G97 I HJ 9 @M I G9
A -B A I A "\$%< < < 7 < 5F57 H9F Q2 I B @GGH-9 G98 C: H-9 D5FH8-7 H5H9G
GA 5 @9F 7 < 5F57 H9F G" 5 J 6F5HC FMHC C @A 5M691 098"
9L5A D @9 8LLLLLLI J M HMD9 LLZGB LLLZGF &Z <5A %8 < &
5DDFCLA 5H9K 9 # <H1-"\$+ @6"
+5 @D5FHG<5 @69A 5BI: 57H F98 -B 577CF85B79K #K
C @D97 #7 5HCB 9S- \$\$' (*"
5 @A 5H9F 5 @GHC 69J F: B A 5H9F 5 @TY" BC K 9 @B F9D5 F9G
D @: GC F F97 M @98 A 5H9F 5 @ BC F9D5 F9G <5 @69A 5891 B @GG
5DDFCJ 98 -B 58J 5B7 9Z5B8 -B K F HB; 26M @: C @6C F5HC FM
F9. 9F HC @: C 19S- \$\$' (*"
" G F: 57 9: -B < HC 695 GDFC 7 9CG98: FCA A @ @G DD @9F 2: F99: FCA
G7 F5H7 < 9GCF: C I: 9G"

F9J "	85H9	87B:	8F5K -B; HF99,
j %	%): 96 &\$%%	!	!
!	!	!	!
!	!	!	!



BCHG5B8 HC @F5B7 9G fi B @GGCH: 9FK -97 @D97 # 98L		75 @CFB 5 -BGH H9C: H97 <BC @: M A 5CG57 <I G9HG-BG-H H9C: H97 <BC @: M		D5FH85A 9				
8A 9BGC BG5F9 -B	%B H9FDF 9H8F5K -B: D9F 5GA 9MK (*) 1% - (* & F9A C J 9 5 @G-5FD 98: 9Z '\$\$) I '\$\$)": C F A 57 < B 98 D5FHG FCI B 8 5 @98: 9G 5DDFCLA 5H9MF "\$&: CF G-99HA 9H5 @D5FHG "BC BCHG7 5 @9: FCA 8F5K -B: ("5 @9A 57 < -B -B: @: @GA1 Q169: 1 @MGBH: 9H7 2: 1 @MK 5H9F GC @ 6 @9 5B8: F99C: Q @ I F2G @7 C B 9Z5B8 7 < @ F-B 9'	UNHBA 58J 5B7 98 @, C	G 61 GMB9A 5C G	89G: B9F	A "FI N	\$+: 96 &\$9%	G99 BK: "BC"	F9J "
HC @9F 5B7 9G LL "++ '\$\$) LLL "++ '\$\$)	A 5H9F-5@	B9L H5GGM	8\$- \$\$\$ (, +	7 < 97 ? 9F	A "FI N	\$+: 96 &\$9%	6	8 %/\$\$\$&' %
5B: I @5F ±)"*	*\$%H* 5`			5DDFCJ 5@			G7 5 @9	j %

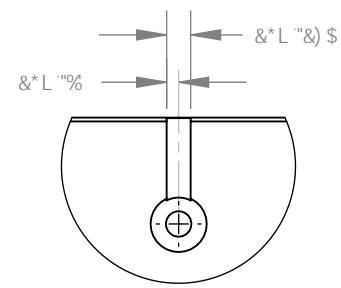
8%\$\$\$& %S5@- C S5C GSC | hti | h: UFUXUm@: Uht fcdUWYffk5A %00-&ZD5FHD8A 'F9J . LI\$S+Z8F5K -B; 'D8A 'F9J . LI\$S%

8

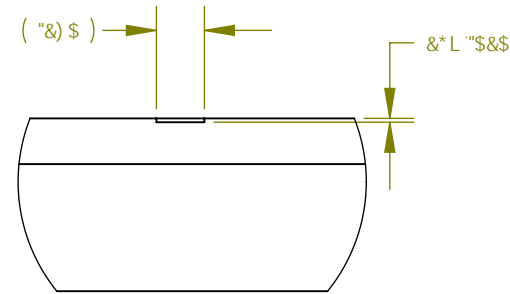
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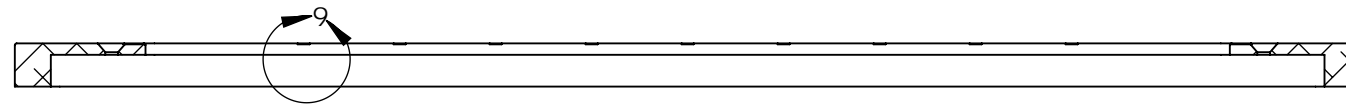
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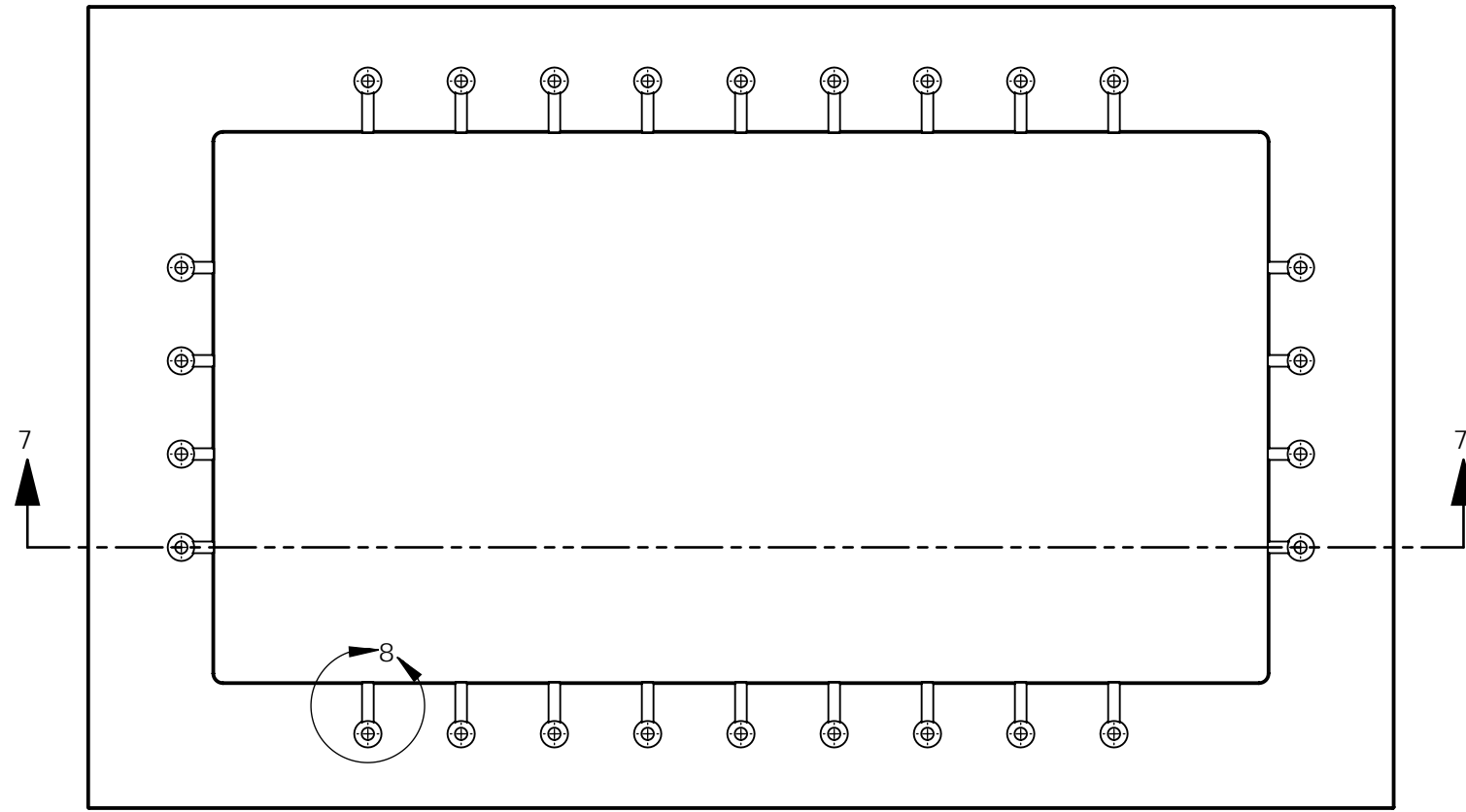
8 9H5 @8'
G7 5 @9% . &



8 9H5 @9'
G7 5 @9% . %



G97 HCB '7!7'
G7 5 @9% . ('



8

7

6

5

LIGO		75@CFB-5-BGH HPC: 197-BC@: M	
		A5G57 <1 G7H6-BGH HPC: 197-BC@: M	
G97 HCB; "BC"		8%\$\$\$& %	F9J "
6			j %
G7 5 @9% .	DFC->97 HCB.		G<99H&C: &

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