



# LIGO Laboratory

California Institute of Technology  
MS 100-36, 1200 E. California Blvd.  
Pasadena CA 91125 USA  
TEL: 626.395.2129  
FAX: 626.304.9834  
[www.ligo.caltech.edu](http://www.ligo.caltech.edu)

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Title:	aLIGO Top Level Assembly Document for Optical Levers		

## Introduction

In lieu of an actual drawing, this is the Bill of Materials for the Optical Levers for the aLIGO Interferometers.

## Related Drawings

Floor Occupancy Drawings:

- [G1000740](#): Floor Occupancy, Optical Levers, LHO Corner Station
- [G1000719](#): Floor Occupancy, OpLev & PCal, LHO X-End Station
- [G1000739](#): Floor Occupancy, OpLev & PCal, LHO Y-End Station
- [G1000702](#): Floor Occupancy, OpLev & PCal, LLO Y-End Station
- [G1000700](#): Floor Occupancy, Optical Levers, LLO Corner Station
- [G1000701](#): Floor Occupancy, OpLev & PCal, LLO X-End Station

Interface Control Drawing

- [E1100221](#): ICD for Optical Levers

## Optical Lever Assemblies

### 1. Hanford 1

a. Input Test Mass, X-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001325</a>	Receiver Assy (LH Leaner)	1

b. Input Test Mass, Y-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001330</a>	Receiver Assy (RH Leaner)	1

## c. End Test Mass, X-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001330</a>	Receiver Assy (RH Leaner)	1

## d. End Test Mass, Y-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001325</a>	Receiver Assy (LH Leaner)	1

## e. Beam Splitter

Item	Number	Description	Quan
1	<a href="#">D1200640</a>	Mounting Assy (shelf & adapter plate)	1
2	<a href="#">D1100625</a>	Periscope Assy	1

## f. Power Recycling Mirror3

Item	Number	Description	Quan
1	<a href="#">D1001334</a>	Transmitter Assy (24" dwarf)	1
2	<a href="#">D1200072</a>	Receiver Assy (LH Giraffe)	1

## g. Signal Recycling Mirror 3

Item	Number	Description	Quan
1	<a href="#">D1001334</a>	Transmitter Assy (24" dwarf)	1
2	<a href="#">D1200071</a>	Receiver Assy (RH Giraffe)	1

## h. Ham 2 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## i. Ham 3 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## j. Ham 4 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## k. Ham 5 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## 1. System Software

**2. Hanford 2**

## a. Input Test Mass, X-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001325</a>	Receiver Assy (RH Leaner)	1

## b. Input Test Mass, Y-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001330</a>	Receiver Assy (RH Leaner)	1

## c. End Test Mass, X-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001330</a>	Receiver Assy (RH Leaner)	1

## d. End Test Mass, Y-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001325</a>	Receiver Assy (LH Leaner)	1

## e. Beam Splitter

Item	Number	Description	Quan
1	<a href="#">D1200640</a>	Mounting Assy (shelf & adapter plate)	1
2	<a href="#">D1100625</a>	Periscope Assy (-1 version)	1

## f. Fold Mirror X-arm

Item	Number	Description	Quan
1	<a href="#">D1200640</a>	Mounting Assy (shelf & adapter plate)	1
2	<a href="#">D1100625</a>	Periscope Assy (-2 version)	1

## g. Fold Mirror Y-arm

Item	Number	Description	Quan
1	<a href="#">D1200640</a>	Mounting Assy (shelf & adapter plate)	1
2	<a href="#">D1100625</a>	Periscope Assy (-2 version)	1

## h. Power Recycling Mirror3

Item	Number	Description	Quan
1	<a href="#">D1001334</a>	Transmitter Assy (24" dwarf)	1
2	<a href="#">D1200072</a>	Receiver Assy (LH Giraffe)	1

## i. Signal Recycling Mirror 3

Item	Number	Description	Quan
1	<a href="#">D1001334</a>	Transmitter Assy (24" dwarf)	1
2	<a href="#">D1200071</a>	Receiver Assy (LH Giraffe)	1

## j. Ham 8 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## k. Ham 9Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## l. Ham 10 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## m. Ham 11Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## n. System Software

**3. Livingston 1**

## a. Input Test Mass, X-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001325</a>	Receiver Assy (LH Leaner)	1

## b. Input Test Mass, Y-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001330</a>	Receiver Assy (RH Leaner)	1

## c. End Test Mass, X-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001330</a>	Receiver Assy (RH Leaner)	1

## d. End Test Mass, Y-arm

Item	Number	Description	Quan
1	<a href="#">D1001339</a>	Transmitter Assy (33" dwarf)	1
2	<a href="#">D1001325</a>	Receiver Assy (LH Leaner)	1

## e. Beam Splitter

Item	Number	Description	Quan
1	<a href="#">D1100302</a>	Mounting Assy (shelf & adapter plate)	1
2	<a href="#">D1100625</a>	Periscope Assy	1

## f. Power Recycling Mirror3

Item	Number	Description	Quan
1	<a href="#">D1001334</a>	Transmitter Assy (24" dwarf)	1
2	<a href="#">D1200072</a>	Receiver Assy (LH Giraffe)	1

## g. Signal Recycling Mirror 3

Item	Number	Description	Quan
1	<a href="#">D1001334</a>	Transmitter Assy (24" dwarf)	1
2	<a href="#">D1200071</a>	Receiver Assy (RH Giraffe)	1

## h. Ham 2 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## i. Ham 3 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## j. Ham 4 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## k. Ham 5 Table Mirror

Item	Number	Description	Quan
1	<a href="#">D1001851</a>	Transceiver Assy (31" dwarf)	1
2	<a href="#">D1101392</a>	HAM Table Mirror Assy	1

## l. System Software