Note:
1. This assembly contains some optional portions. Use of these components better mimics field geometry, but may not be required for the assembly to be used for practice. These items are noted at the part and assembly steps.
Step 1:

1. Screw 3, 5, 4 to 1 1.25" #6 screws, Pre-drill

2. After the frame is assembled flip over and add 14

3. Attach and staple 13 to the bottom of 3

Note:

- Dimensions are in inches
- Tolerances: Fractional ±1/16
- Angular: Mach 1° bend ±1°
- Two place decimal ±.01
- Three place decimal ±.001
- Interpreting geometric tolerancing per:

**Title:**

Team Version Loading Bay

**Drawn:**

**Checked:**

**MFG Appr.:**

**Eng Appr.:**

**Q.A.:**

**Comments:**

**Application:**

**Use of Material:**

**Finish:**

**Next Assy Used On:**

**Do Not Scale Drawing:**

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Step 2 and 3:

Note:
1. Attach 6 to 2 with 1.25" #6 screws, Pre-drill
2. Attach 12 to the bottom of 6
3. Mirror for step 3
Step 4:

Note:
1. Attach 7 to 8 with 50lb Cable Ties
2. Start from bottom leave the middle loose until top is tight
3. This is Optional

Step 5:

Note:
1. Attach 11 to 10 with 50lb Cable Ties
2. Start from bottom leave the middle loose until top is tight
3. Attach 9 to 10 with 50lb Cable Tie
4. This is Optional
Notes:
1. Attach step 2 and 3 to step 1 using 120lb cable ties.
2. Attach step 4 and 5 to step 1 using 50lb cable ties.
Notes:
1. Material: 15/32" AC or CDX Plywood
2. Fillet corners are optional

UNLESS OTHERWISE SPECIFIED:

- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  - FRACTIONAL ± 1/16
  - ANGULAR: MACH ± 1° BEND ± 1°
  - TWO PLACE DECIMAL ± .01
  - THREE PLACE DECIMAL ± .001

INTERPRET GEOMETRIC TOLERANCING PER:

- MATERIAL
- FINISH
- NEXT ASSY
- USED ON
- APPLICATION

NAME DATE

DRAWN
CHECKED
ENG APPR.
MFG APPR.
Q.A.

Comments:

TITLE: Team Version Loading Bay

SIZE DWG. NO. REV
A TE-20000 A

SCALE: 1:24 WEIGHT: SHEET 7 OF 16

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Notes:
1. Material: 15/32" AC or CDX Plywood
2. Fillets are optional
Notes:
1. Material: 15/32” AC or CDX Plywood
2. QTY shown for 1 chute
3. This Part is Optional

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.001

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL
FINISH

NEXT ASSY USED ON

APPLICATION

DO NOT SCALE DRAWING

TITLE: Team Version Loading Bay

SIZE DWG. NO. REV
A TE-20000 A

SCALE: 1:24 WEIGHT: SHEET 9 OF 16
Note:
1. Material: 15/32" AC or CDX Plywood
2. This Part is Optional
Note:
1. Material: 1/8" Hard board
2. Add relief cuts on the front face from 2" to 12" at 1/2" spacing roughly 1/16 or less depth
3. QTY shown for 1 chute
4. This Part is Optional
Note:
1. Material: 1/8" Hard board
2. Add relief cuts on the front face from 2" to 12" at 1/2" spacing roughly 1/16" or less depth
3. This Part is Optional
Note:
1. Material: 2" x 4" Pine

Note:
1. Material: 2" x 2" Pine
TE-20000-05
QTY (2)

Note:
1. Material: 2" x 4" Pine

---

TE-20000-06
QTY (2)

Note:
1. Material: 2" x 4" Pine

---

Note:
1. Material: 2" x 4" Pine
Vision_LoadingBay
QTY (4)

Notes:
1. 2" Wide, 3M 8830 Scotchlite Reflective Material

TE-20000-12
QTY (2)

Notes:
1. 2" wide Hook

TE-20000-13
QTY (1)

Notes:
1. 2" wide Hook
3X 0.25" THRU ALL

Notes:
1. 1/8" Hardboard
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TeeNut_.25_20</td>
<td>Soft Wood Fiber Tee Nut</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>TE-20001-01</td>
<td>050AC Top</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TE-20001-02</td>
<td>050AC Side</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>TE-20001-03</td>
<td>2x4x55</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>TE-20001-04</td>
<td>2x4x30</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>TE-20001-05</td>
<td>2x4x30</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>TE-20001-06</td>
<td>2x4x23</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>TE-20001-07</td>
<td>2x4x22.875</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>TE-20001-08</td>
<td>12d6234 Triangle Manufacturing</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>TE-20001-09</td>
<td>2” Hook</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>TE-20002</td>
<td>Control Panel</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>hex_.25_20_4.5_partial</td>
<td>Steel Hex Head Screw, 1/4”-20 x 4-1/2” long, partially threaded</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>washer_flat_.25</td>
<td>Flat Washer for 1/4” Screw</td>
<td>4</td>
</tr>
</tbody>
</table>
*PLEASE NOTE: DUE TO MATERIAL THICKNESS, DIMENSIONS MAY VARY BY UP TO 1/8" FROM THE ACTUAL FIELD. PLEASE REFER TO THE FIELD DRAWINGS IF YOU THESE DIFFERENCES WILL AFFECT YOUR ROBOT DESIGN.

---

**Trench**

---

**Unless Otherwise Specified:**

- **Dimensions are in inches**
- **Tolerances:**
  - Fractional: ±1/16
  - Angular: Mach ±1° Bend ±1°
  - Two Place Decimal: ±.01
  - Three Place Decimal: ±.001

**Interpret Geometric Tolerancing Per:**

**Material**

**Finish**

**comments:**

**Comments:**

**Q.A.**

**MFG APPR.**

**ENG APPR.**

**CHECKED**

**DRAWN**

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---

**Title:**

**Trench**

---

**Size:**

**A**

**Dwg. No.:**

**TE-20001**

**Rev:**

**A**

**Scale:**

1:24

**Weight:**

---

**Sheet:**

2 of 12
Step 1:

Notes:
1. Attach 4 to 2 with 1.25" #6 wood screw.
2. Attach 7 to 2 with 1.25" #6 wood screw.
3. Pre-drill if needed.

Notes:

Step 2 and 3:

Notes:
1. Insert 1 in 5, 2 places.
2. Attach 5 to 3 with 1.25" #6 wood screw.
3. Attach 8 to 3 with 1.25" #6 wood screw.
4. Attach 6 to 3 with 1.25" #6 wood screw.
5. Pre-drill if needed.
6. Attach 10 to the bottom.
7. Repeat for second leg.
Step 4:

Notes:
1. Attach Step 1 to Step 2 and 3 as shown.
2. Use 12 to bolt together.

Step 5:

Notes:
1. Attach 9 to Step 4 with 10-32 hardware.
2. Align with pre-drilled holes and access holes.
Step 6:

Notes:
1. Attach 11 to Step 5 with 10-32 hardware.
2. Use the drilled access holes for hardware access.
Notes:
1. 15/32 (1/2") AC or CDX plywood
Notes:
1. 15/32 (1/2") AC or CDX Plywood
Notes:
1. 2" x 4" Lumber, Pine

Notes:
1. 2" x 4" Lumber, Pine
TE-20001-05
QTY (4)

Notes:
1. 2" x 4" Lumber, Pine

TE-20001-06
QTY (2)

Notes:
1. 2" x 4" Lumber, Pine

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.001

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL
FINISH

Q.A.
MFG APPR.
ENG APPR.
CHECKED
DRAWN

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TE-20001-07
QTY (4)

Notes:
1. 2" x 4" Lumber, Pine
TE-20001-08

Notes:
1. Triangle Lazy Susan with 4 clips
2. From KOP

Notes:
1. Triangle Lazy Susan with 4 clips
2. From KOP
TE-20001-09
QTY (2)

Notes:
1. Material: 2" Hook, Adhesive Backed
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-20002-01</td>
<td>025 AC, Top Disk</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-20002-02</td>
<td>050 Poplar Dowel</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>TE-20002-03</td>
<td>025 AC, Bottom Disk</td>
<td>1</td>
</tr>
</tbody>
</table>
Step 1:

Notes:
1. Attach 2 10x to 3 1x with 1.125" #6 screw

Step 2:

Notes:
1. Attach 1 1x to 2 10x with 1.125" #6 screw

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH. ±1° BEND ±1°
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.001

TITLE: Control Panel

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1. Material 1/4 AC Plywood
2. Pre-drill with countersunk bit for #6 screw and 3/32" bit
Note:
1. Material 1/4 AC Plywood
2. Pre-drill with countersunk bit for #6 screw and 3/32" bit

**CONTROL PANEL**

**DIMENSIONS ARE IN INCHES**
- **TOLERANCES:**
  - **FRACTIONAL:** ±1/16
  - ** ANGULAR:** Machinable ±1°
  - **TWO PLACE DECIMAL:** ±.01
  - **THREE PLACE DECIMAL:** ±.001

**INTERPRET GEOMETRIC TOLERANCING PER:**
- **MATERIAL**
- **FINISH**
- **NEXT ASSY**
- **USED ON**

**UNLESS OTHERWISE SPECIFIED:**
- **SCALE:** 1:16
- **WEIGHT:**

**CONTROL PANEL**

**DRAWN**

**CHECKED**

**ENG APPR.**

**MFG APPR.**

**Q.A.**

**COMMENTS:**

**TITLE:**

**REVDWG. NO.**

**SIZE**

**dwg. no.**

**rev.**

**scale:** 1:16

**weight:**

**sheet 4 of 5**
Note:
1. Material 0.5" poplar dowel
2. Pre-drill 3/32
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-20003-01</td>
<td>0.5 AC Lower Face</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-20003-02</td>
<td>0.5 AC face back goal</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TE-20003-03</td>
<td>2x4x48 pine</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>2x4x75 pine</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>TE-20003-05</td>
<td>2x4x37 pine</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>TE-20003-07</td>
<td>2x4x37 pine</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>TE-20003-09</td>
<td>050 AC Side</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>TE-20003-10</td>
<td>050 AC deflector</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>TE-20003-11</td>
<td>050 AC roof</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Hook_2_48</td>
<td>2x4x43</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>Vision_PowerPort</td>
<td>2&quot; wide 3m vision tape</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>hex_25_20_3.5</td>
<td>Steel Hex Head Screw, 1/4&quot;-20 x 3.5 long, fully threaded</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/32&quot; ACor CDX Plywood</td>
<td>4 sheets</td>
</tr>
<tr>
<td>2&quot;x4&quot;x8&quot; Pine</td>
<td>10</td>
</tr>
<tr>
<td>2&quot; Hook</td>
<td>96&quot;</td>
</tr>
<tr>
<td>2&quot; Vision Tape</td>
<td>54&quot;</td>
</tr>
<tr>
<td>wood screw 1.25&quot;</td>
<td>~110</td>
</tr>
<tr>
<td>wood screw 2.5</td>
<td>~40</td>
</tr>
<tr>
<td>50lb Cable tie</td>
<td>10</td>
</tr>
<tr>
<td>1/4-20 x 3.5&quot; bolt</td>
<td>6</td>
</tr>
<tr>
<td>1/4-20 Softwood T nut</td>
<td>6</td>
</tr>
</tbody>
</table>
Notes:
1. Attach 4, 5, 11 together to form a frame. Pre-drill and use 2.5" wood screws.
2. Attach 12 to the bottom of the frame use staples to hold in place.
3. Attach 1 to the frame. Pre-drill and use 1.25" wood screws.
4. Insert 13 into the outer most drilled holes of 4.
Notes:
1. Attach 4, 5, and 11 to form a frame. Pre-drill and use 2.5" wood screws.
2. Attach 12 to the bottom of 4.
3. Attach 10 to the frame. Pre-drill and use 1.25" wood screws.
4. Insert 13 to the two outside holes of 4.

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.001
INTERPRET GEOMETRIC TOLERANCING PER:

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Notes:

1. Attach 14 to 2 to lower portion of opening.
2. Attach 4 and 6 together to form a frame. Pre-drill and use 2.5" wood screws
3. Attach 2 to the frame. Pre-drill and use 1.25" wood screws
4. Insert 13 to the center hole of 4 on the lower portion of the frame
Back Upper Frame Assembly

Notes:
1. Attach 4 and 6 together to form a frame. Pre-drill and use 2.5" wood screw.
2. Attach 3 to the frame. Pre-drill and use 1.25" wood screw.
3. Insert 13 to 4 in the center hole.
Note:
1. Attach the Front Lower Frame Assembly and Front Upper Frame Assembly together with 15
Notes:
1. Attach Back Lower Frame Assembly and Back Upper Frame Assembly together with 15
Notes:
1. Attach 7 to the outside of the lower two frames on both sides. Pre-drill and use 1.25" wood screws.
2. Attach 7 to the inside of the upper two frames on both sides. Pre-drill and use 1.25" wood screws.
3. Assemble on its side on the ground.
Notes:

1. Attach 9 to upper frame assembly with 1.25" wood screws.
2. Attach 8 to 9 and upper back assembly with 50lb Cable ties.
Notes:
1. Material: 15/32 (1/2") AC or CDX Plywood

Notes:
1. Material: 15/32 (1/2") AC or CDX Plywood
Notes:
1. Material: 15/32 (1/2") AC or CDX Plywood
2. 10X \( \varnothing \frac{1}{4}'' \) THRU optional if adding deflector
Notes:
1. Material: 15/32 (1/2") AC or CDX Plywood
2. This is an optional part
TE-20003-09
QTY (1)

TE-20003-10
QTY (4)

Notes:
1. Material: 15/32 (1/2") AC or CDX Plywood
2. This is an optional part
Notes:
1. 2x4" Pine Lumber

Notes:
1. 2x4" Pine Lumber
Notes:
1. 2x4" Pine Lumber
Vision_PowerPort
QTY (3)

Notes:
1. 2" Wide, 3M 8830 Scotchlite Reflective Material

Hook_2_48
QTY (2)

Notes:
1. 2" wide Hook

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.001

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL

FINISH

NEXT ASSY USED ON

APPLICATION DO NOT SCALE DRAWING

NAME DATE

DRAWN CHECKED ENG APPR.

MFG APPR.

Q.A.

COMMENTS:

PURPOSE AND CONFIDENTIAL
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Notes:
1. This drawing provides information on how to make each of the 5 configurations shown. Configurations can be combined such that only 1 final assembly needs to be created.
2. Bill of Materials are provided per configuration.
3. General material list is provided on 2.
4. Only sheets impacted by revisions have revision tables. Not all revision tables are at the top right of the sheet.
Bolt can be added to pin rotation of pole. 2x bolts may not always be able to be installed due to angle of pole.

<table>
<thead>
<tr>
<th>Material</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; x 4&quot; x 8'</td>
<td>9</td>
</tr>
<tr>
<td>1/2&quot; Plywood</td>
<td>2</td>
</tr>
<tr>
<td>1-1/4&quot; Schedule 40 Black Iron Pipe</td>
<td>1</td>
</tr>
<tr>
<td>1-1/4&quot; Black Iron Elbow, 90 deg.</td>
<td>1</td>
</tr>
<tr>
<td>1/4-20 x 3.5&quot; Hex Head Bolt</td>
<td>2</td>
</tr>
<tr>
<td>1/4-20 TeeNut</td>
<td>10</td>
</tr>
<tr>
<td>2.5&quot; Screws</td>
<td>~50</td>
</tr>
<tr>
<td>1.5&quot; Screws</td>
<td>~50</td>
</tr>
<tr>
<td>4&quot; x 4&quot; x 8'</td>
<td>2</td>
</tr>
</tbody>
</table>

REVISED

ZONE REV. DESCRIPTION DATE APPROVED
- - See Sheet1 - -

UNLESS OTHERWISE SPECIFIED:
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  - FRACTIONAL ±1/16
  - ANGULAR: MACH 1° BEND ±1°
  - TWO PLACE DECIMAL ±.01
  - THREE PLACE DECIMAL ±.001
- INTERPRET GEOMETRIC TOLERANCING PER:
  - MATERIAL
  - NEXT ASSY
  - USED ON
  - FINISH
- APPLICATION
- DO NOT SCALE DRAWING

TITLE: Generator Switch Modified

SIZE DWG. NO. REV
A TE-20005 A
SCALE: 1:24 WEIGHT: SHEET 2 OF 25
Recommended Build:

Level, Horizontal
Hard Stop, Max
Hard Stop, Min

Notes:
1. The recommended build includes Level Horizontal, Hard Stop Max, and Hard Stop Min. Instructions for Level Max and Level Min are also included.
Notes:
1. Details on placing pole mounts on 2 are found on following sheets. We recommend assembling pole mounts to 2 before installing 2 in the Basic Frame Assembly.

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-20005-02</td>
<td>Top Support, Full</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>TE-20005-09</td>
<td>Vertical Leg, Level, Horizontal, Side A</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>TE-20005-10</td>
<td>Cross Support</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>TE-20005-20</td>
<td>A Frame Assembly</td>
<td>2</td>
</tr>
</tbody>
</table>
Basic Frame

Step 1:

QTY 2:

Notes:

1. Attach 2 to 4 using 2.5" screws. Predrill as needed.

2. When adding 2, be sure orientation matches intended direction (i.e. Front Face of A matches Front Face of B).
Step 1

Basic Frame

Step 2:

QTY 2:

Notes:

1. Attach 1 to Step 1 using 1.5" and 2.5" screws.
Notes:
1. Attach Step 2 and Step 2 to 3 using 2.5" screws.
2. Repeat.
These can be removed for more compact storage.

If needed, assembly can be mounted to a plywood for floor protection.
**Level, Horizontal**

**Note:**
1. TE-20005-25 contains 1x TE-20005-09 & 1x TE-20005-22
2. TE-20005-26 contains 1x TE-20005-09 & 1x TE-20005-22

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-20005-21</td>
<td>Basic Frame</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-20005-23</td>
<td>Pipe Assembly</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TE-20005-25</td>
<td>Vertical Leg, Level, Horizontal, Side A</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>TE-20005-26</td>
<td>Vertical Leg, Level, Horizontal, Side B</td>
<td>1</td>
</tr>
</tbody>
</table>
Level, Horizontal

Generator Switch Modified

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL: ±.01
THREE PLACE DECIMAL: ±.001

INTERPRET GEOMETRIC TOLERANCING PER:

UNLESS OTHERWISE SPECIFIED:

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FIRST®. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF FIRST® IS PROHIBITED.
Notes:
1. Attach **TE-20005-22** to **TE-20005-09** as shown using 2.5" screws. Predrill as needed.
**Note:**
1. TE-20005-27 contains 1x TE-20005-09 & 1x TE-20005-22
2. TE-20005-28 contains 1x TE-20005-09 & 1x TE-20005-22
Hard Stop, Max

Approximate location of highest point of RUNG.

Dimensions are in inches.

Tolerances:
- Fractional: ±1/16
- Angular: Mach 1° Bend ±1°
- Two place decimal: ±.01
- Three place decimal: ±.001

Interpret geometric tolerancing per:

Material

Finish

Q.A.

Check

Mfg Appr.

Comments:

UNLESS OTHERWISE SPECIFIED:

SCALE: 1:48

WEIGHT:

REVDWG. NO.: A

SIZE

TITLE: Generator Switch Modified

DWG. NO.: TE-20005

REV: A

SHEET 14 OF 25

PROPRIETARY AND CONFIDENTIAL

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Hard Stop, Max
TE-20005-27

Notes:
1. Locate A and B.
2. Align corners of TE-20005-22 with A and B.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.

1.81
[1-13/16”]

.31
[5/16”]

89.88
[89-7/8”]

81.25
[81-1/4”]

TeeNut on back side

Hard Stop, Max
TE-20005-28

Notes:
1. Locate C and D.
2. Align corners of TE-20005-22 with C and D.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.

1.81
[1-13/16”]

.31
[5/16”]

74.94
[74-15/16”]

66.31
[66-5/16”]

TeeNut on back side
### Table of Contents

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<tr>
<th>ITEM NO.</th>
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<th>DESCRIPTION</th>
<th>QTY.</th>
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<tbody>
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<td>TE-20005-21</td>
<td>Basic Frame</td>
<td>1</td>
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<tr>
<td>2</td>
<td>TE-20005-23</td>
<td>Pipe Assembly</td>
<td>1</td>
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<tr>
<td>3</td>
<td>TE-20005-29</td>
<td>Vertical Leg, Hard Stop, Min, Side A</td>
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<tr>
<td>4</td>
<td>TE-20005-30</td>
<td>Vertical Leg, Hard Stop, Min, Side B</td>
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</table>

### Specification

**Note:**
1. TE-20005-29 contains 1x TE-20005-09 & 1x TE-20005-22
2. TE-20005-30 contains 1x TE-20005-09 & 1x TE-20005-22

**Table Details:**
- **Part Number:** TE-20005
- **Description:** Generator Switch Modified
- **Size:** A
- **Drawing Number:** TE-20005
- **Revision:** A
- **Scale:** 1:24
- **Weight:**
- **Page:** Sheet 16 of 25
Approximate location of lowest point of RUNG.
Notes:
1. Locate A and B.
2. Align corners of TE-20005-22 with A and B.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.

Notes:
1. Locate C and D.
2. Align corners of TE-20005-22 with C and D.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.
Note:
1. TE-20005-31 contains 1x TE-20005-09 & 1x TE-20005-22
2. TE-20005-32 contains 1x TE-20005-09 & 1x TE-20005-22

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<td>Basic Frame</td>
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<td>2</td>
<td>TE-20005-23</td>
<td>Pipe Assembly</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TE-20005-31</td>
<td>Vertical Leg, Level Range, Max, Side A</td>
<td>1</td>
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<tr>
<td>4</td>
<td>TE-20005-32</td>
<td>Vertical Leg, Level Range, Max, Side B</td>
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</tbody>
</table>
Approximate location of highest point of Level RUNG.
Level Range, Max
TE-20005-31

Notes:
1. Locate A and B.
2. Align corners of TE-20005-22 with A and B.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.

Level Range, Max
TE-20005-32

Notes:
1. Locate C and D.
2. Align corners of TE-20005-22 with C and D.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.
Note:
1. TE-20005-33 contains 1x TE-20005-09 & 1x TE-20005-22
2. TE-20005-34 contains 1x TE-20005-09 & 1x TE-20005-22

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<td>Basic Frame</td>
<td>1</td>
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<tr>
<td>2</td>
<td>TE-20005-23</td>
<td>Pipe Assembly</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TE-20005-33</td>
<td>Vertical Leg, Level Range, Min, Side A</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>TE-20005-34</td>
<td>Vertical Leg, Level Range, Min, Side B</td>
<td>1</td>
</tr>
</tbody>
</table>
Approximate location of lowest point of Level RUNG.

Level Range, Min

26.75
[26-3/4"]

94.00

55.75

66.56
[66-9/16”]

31.50
[31-1/2”]

73.00

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 1/16
ANGULAR: MACH 1° BEND ± 1°
TWO PLACE DECIMAL ± 0.01
THREE PLACE DECIMAL ± 0.001

UNLESS OTHERWISE SPECIFIED:

DRAWN
CHECKED
ENG APPR.
MFG APPR.
Q.A.
COMMENTS:

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL

FINISH

NEXT ASSY

USED ON

APPLICATION

DO NOT SCALE DRAWING

TITLE: Generator Switch Modified

SIZE DWG. NO. REV

A TE-20005 A

SCALE: 1:48 WEIGHT: SHEET 23 OF 25
Notes:
1. Locate A and B.
2. Align corners of TE-20005-22 with A and B.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.

Notes:
1. Locate C and D.
2. Align corners of TE-20005-22 with C and D.
3. Attach TE-20005-22 to TE-20005-09 as shown using 2.5" screws. Predrill as needed.
Basic Frame

TE-20005-02:
QTY: 2

Notes:
Material: 1/2" Plywood

Basic Frame

TE-20005-10:
QTY: 2

Notes:
Material: 2" x 4" Pine Lumber
Notes:
1. Instructions and quantities shown are for 1 assembly. 2 assemblies total are needed.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>TE-20005-01</td>
<td>Bottom Gusset</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>TE-20005-02</td>
<td>Top Support, Full</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>TE-20005-03</td>
<td>Top Support, Half</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>TE-20005-05</td>
<td>Bottom</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>TE-20005-06</td>
<td>Side Leg</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>TE-20005-07</td>
<td>Top</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>TE-20005-14</td>
<td>Horizontal Support</td>
<td>1</td>
</tr>
</tbody>
</table>
Step 1:

Notes:
1. Attach 3 and 3 to 6 as shown. Use 1.5" screws. Predrill as needed.
Step 2:

Notes:
1. Attach 1 to 4 as shown. Use 1.5" screws. Predrill as needed.
2. Repeat.
Step 3:

Notes:
1. Flip over and repeat Step 2.
Notes:
1. Slide 5 into Step 1 and Step 3 as shown. Use 1.5" screws to attach. Predrill as needed.
2. Repeat.
3. As needed, flip over to attach with 1.5" screws to back side.
Step 5:

1. Insert 7 into Step 4 so that its corners touch Step 4.

Step 6:

1. Attach 2 to Step 5 using 1.5" Screws. Predrill as needed.

Notes:
Step 7:

Notes:
1. Flip over and repeat Step 6.
TE-20005-01:
QTY: 4

Notes:
Material: 1/2" Plywood

1

1.81
[1-13/16"]

21.13
[21-1/8"]

(70.00°)

9.50
[9-1/2”]

.47
[1/2”]

TE-20005-02:
QTY: 4

2

13.75
[13-3/4”]

3.50
[3-1/2”]

.47
[1/2”]

Notes:
Material: 1/2" Plywood

TE-20005-03:
QTY: 2

3

3.50
[3-1/2”]

4.63
[4-5/8”]

.47
[1/2”]

Notes:
Material: 1/2" Plywood

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.001

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL
FINISH
FINISH

PREVIOUS ASSEMBLY USED ON

APPLICATION
DO NOT SCALE DRAWING

TITLE:
A Frame Assembly

SIZE
A
DWG. NO.
TE-20005-20
REV

SCALE: 1:18
WEIGHT:

SHEET 9 OF 10
A Frame Assembly

TE-20005-05:
Qty: 1

Notes:
Material: 2" x 4" Pine Lumber

TE-20005-06:
Qty: 2

Notes:
Material: 2" x 4" Pine Lumber

TE-20005-07:
Qty: 1

Notes:
Material: 2" x 4" Pine Lumber

TE-20005-14:
Qty: 1

Notes:
Material: 2" x 4" Pine Lumber

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.001

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL

APPLICATION

DO NOT SCALE DRAWING
Notes:
1. Instructions and quantities shown are for 1 assembly. Up to 10 assemblies total are needed.

<table>
<thead>
<tr>
<th>ITEM NO.</th>
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<th>DESCRIPTION</th>
<th>QUANTITY</th>
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<tr>
<td>1</td>
<td>TE-20005-04</td>
<td>Mount</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-20005-08</td>
<td>Pole Holder</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TeeNut_.25_20</td>
<td>Soft wood fiber tee nut</td>
<td>1</td>
</tr>
</tbody>
</table>
Step 1:

Notes:
1. Insert 3 into 1 using a mallet or hammer as needed.
Step 2:

TeeNut should be on opposite side of 2

Keep clear of screws

Notes:
1. Attach 2 to Step 1 as shown, using 1.5" and/or 2.5" Screws. Predrill as needed.
TE-20005-04:
Qty: 1
Φ .31 THRU
(5/16" Drill Bit)

Note:
Material: 1/2" Plywood

TE-20005-08:
Qty: 1
Φ 1.69 THRU
(1-11/16" Drill Bit)

Note:
Material: 2" x 4" Pine Lumber
<table>
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<tbody>
<tr>
<td>1</td>
<td>TE-20005-11</td>
<td>1-1/4&quot; Schedule 40 Black Iron Pipe, Long</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-20005-12</td>
<td>1-1/4&quot; Schedule 40 Black Iron Pipe, Short</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TE-20005-13</td>
<td>1-1/4&quot; Schedule 40 Black Iron Pipe, Elbow</td>
<td>1</td>
</tr>
</tbody>
</table>
Step 1:

Notes:
1. Thread 1 and 2 into 3.
2. Holes on 1 should be perpendicular to 2.
Note:
2. One 10' pipe can be cut and used for TE-20005-11 and TE-20005-12. Threaded ends are needed for both parts.

Note:
2. One 10' pipe can be cut and used for TE-20005-11 and TE-20005-12. Threaded ends are needed for both parts.

Note:
2. Home Depot PN (Store SKU): 564264

Note:
2. One 10' pipe can be cut and used for TE-20005-11 and TE-20005-12. Threaded ends are needed for both parts.