1. Remove Shroud.
2. Mount lower section of Track and Unit to hoistway wall and Brackets.
3. Remove Shipping Bracket from Top of Car.
4. Install other track pieces and brackets.
5. Set Header on top end of Track and attach Steel Cable.
6. Make wiring connections at Header.
7. Run lift in up direction (using temporary pendant control) to wind the steel cable onto the drum.
8. Mount Cams on Track.
9. Install Interlocks.
10. Test in Automatic Operation
11. Attach Header Cover and Shroud.

**Note:**
Harmar designs the dumbwaiter to meet the requirements of ASME A17.1. Installer to check with local authorities to assure local and state code compliance, installation requirements, and to determine if permits are required. Save these instructions.
Remove Shroud

The Shroud is held on with (4) socket head screws (1/8" allen wrench)

Car (sheet metal panels)
Trolley
Gear Box
Shroud
Door Panel
Door Switch
Door Frame
Motor
Stand Unit with Track in Hoistway and attach to wall

Stand the assembly up and into place inside the hoistway (consult the application drawing for proper placement).

Note: In some applications it may be necessary to remove the car from the trolley.

Bracket attaches to track with 3/8-16 x 3/8" hex head screw and a square nut (inside slot of track)

Bracket Locations:
-6" from each end of track
-12" from each side of track splice

Tip: The square nuts are held inside the track slots with pieces of foam, do not remove the pieces of foam until installation is complete.
Remove Shipping Bracket from top of Car

The Shipping Bracket is used to hold the car in place during shipment. Remove and discard the bracket.

Important
Uncoil the Steel Drive Cable and Travel Cable, ensuring they are not twisted.
Each piece of Track has 4 Splice Bars installed in the lower end. Loosen the set screws (5/32” allen wrench) and slide the bars half way out and re-tighten the set screws.

Match track pieces to the corresponding letter (A to A, B to B)

Set Screw

Splice Bar

Tighten all set screws when the track joint is properly aligned

Attach the track to the wall with track brackets

(continued on next page)
For 3-Stop Dumbwaiters only:

The sliding cam should contact the car top switch when the car is at the middle landing. Final adjustment can be made after the middle landing cam is adjusted.

The sliding cam rides along with the car when the car is at or above the middle landing stop.

The switch tells the controller which direction to run when a middle ‘call’ is registered.
Set Header on top of Track and attach Steel Cable

Header sets on top of the track
(It is not mechanically fastened to the track)

Tapped screw holes are for attaching the Header Cover later in the Installation

The Travel Cable runs down this side of the Track

Insert end of Steel Cable into Header

Secure Steel Cable with a clevis pin and cotter pin

Secure Travel Cable inside the Track (above black plastic chain) with adhesive clips. (adhesive goes against side wall of track)
Space clips approximately 24” between the plastic chain and track header
Make Wiring Connections at Header

1. Connect to power.
2. Plug-in Call-Send cables.
3. Plug-in Interlock cables

**Call-Send Cables**
- Connectors are the same.
- Cables are supplied in different lengths. The shortest cable goes to the upper floor, etc.

**Interlock Cables**
- See notes below

**Header**

Route wires through the knockouts in the header

**Wires from Travel Cable**

**Plug into mating connectors**

**Interlock Cable Note:**
The connectors for the interlocks are different to prevent being plugged into the wrong interlock.

The photo to the right shows the orientation of the connectors at the header.

**Upper Interlock**

**Middle Interlock**
(3-Stops only)

**Lower Interlock**
Run lift in the up direction (using temporary pendant control) to wind the steel cable onto the drum.

The cable should be wound onto the grooves of the drum. **Ensure that no grooves are skipped or that the cable does not wind over itself.**

**Warning!**
All Safety Devices (except for the final limit) are bypassed when using the pendant control.

Cable Drum rotates this direction in when running UP.
Mount Cams on Track

Notes:
- Bottom of the floor limit cams are located approximately 15" below the landing stop.
- Cams can be moved up or down to adjust the stopping position of the car.
- Switches are located on the car.
- The final limit is a safety that stops the operation of the dumbwaiter if the car should overrun the upper or lower limit. It disables all controls when actuated.
The electromechanical interlock prevents the dumbwaiter from operating if a hoistway door is opened. The hoistway door is unlocked electrically when the car is parked at a stop.

1) Attach template to door jamb and mark mounting holes. (see template for instructions)

2) Remove cover from interlock and fasten Interlock to door jamb with #8 wood screws.

3) Route 4-conductor Interlock cable through hole in top of interlock and make wire connections:

A  wire #3
B  wire # Yellow/Green
C  wire #2
D  wire #1

<table>
<thead>
<tr>
<th>Interlock</th>
<th>Interlock Wiring</th>
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<tbody>
<tr>
<td>RDI or CDI</td>
<td></td>
</tr>
</tbody>
</table>

(continued on next page)
4) Attach door keeper to hoistway door with #8-32 screws and tee nuts.

5) Attach emergency key plates to hoistway door with #4 wood screws. (plates can be painted to match décor)

Drill 13/64” hole to receive tee-nuts

5/8” hole in door for emergency key

Notes:
• If doors are not installed at the time of the dumbwaiter installation, the door closed switch can be bypassed by twisting wires 1 and 2 together.

**WARNING:** Only when necessary, this safety circuit should only be bypassed during installation or trouble-shooting. The dumbwaiter should never be allowed to be used under any circumstances with a disabled safety device by anyone other than a person that is servicing it whom has the knowledge of the functionality of this safety. Possible risk of injury or death could occur if the safety circuit is bypassed or not functioning properly.

• While the limit switch is actuated, there should be 24 VAC between terminals 5 and 6 (at the corresponding interlock)

**WARNING:** If at any time the interlock is found not to be working properly, the dumbwaiter should immediately be taken out of service until repairs can be made. Failure to do so could lead to the possible risk of injury or death.
The car door(s) and hoistway doors must be closed for the dumbwaiter to run

Test the following items to confirm proper setup of the dumbwaiter:

- Verify each call-send control ‘calls’ and ‘sends’ the dumbwaiter to the appropriate landing.
- Verify the floor of the dumbwaiter stops level with the sill at each stop. *Adjust position of cams if necessary.*
- Verify all controls are inoperable if the car door is open.
- Verify all controls are inoperable if a hoistway door is open. *Test each hoistway door individually.*
- Verify each hoistway door locks when the dumbwaiter car is not parked at that landing.
- Verify all controls are inoperable if the final limit switch is actuated.
- Verify all controls are inoperable if the slack cable device switch is opened.
- Travel Cable: Verify that the travel cable properly travels inside the track and adhesive clips are properly installed.
- Hardware: Verify all track mounting hardware, switch cams and car hardware are securely tightened.
1. Install cover on header.

2. Replace shroud.

3. Use a permanent marker to mark the installation date on the data plate.
## PARTS LIST

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<td>2</td>
<td>4</td>
<td>16014</td>
<td>SWITCH, LIMIT WITH ROLLER</td>
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<td>Screw, PH-RH-MS, 6-32x3&quot;</td>
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### CONFIDENTIAL INFORMATION
NOT TO BE COPIED OR USED WITHOUT WRITTEN CONSENT.

### INTERPRET DRAWING AND TOL PER ASME Y14.5 - 2009 UNLESS OTHERWISE SPECIFIED

### DIMENSIONS ARE IN INCHES.

### TOLERANCES ARE:
- DECMALS: X = ±0.1, XX = ±0.02, XXX = ±0.005
- ANGLES = ±1°

### REVISION HISTORY

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**ASSY, Sub, 3-Stop Switch Plate**

**DRAWN BY**
AP 7/24/2007

**DATE**
7/24/2007

**SCALE**
3:4

**SIZE:** B

**SHEET:** 1 OF 1
WARNING – HAZARDOUS SITUATION
IMPORTANT SAFETY INSTRUCTIONS
POST THESE INSTRUCTIONS

WARNING

When service or maintenance is required on this dumbwaiter the following precautions shall be followed:

- **Disconnect** - main power supply from the dumbwaiter using appropriate LOTO-T methodologies
- **Do Not** - override *door interlocks* (aka “jump out”)
- **Do Not** - override *machine access door switch*
- **Do Not** - come in contact with moving parts
- **DO NOT ENTER HOISTWAY** – access only through machine access door. Verify if local code requires Hoistway to be considered a confined space
- **Use** – the *Temporary Pendant Control* to move the dumbwaiter inside the hoistway

**WARNING**: The safety circuit should only be bypassed during installation or troubleshooting by a qualified technician who understands the functionality of the safety device. The dumbwaiter should never be allowed into operation with a disabled safety device. Possible risk of injury or death could occur if the safety circuit is bypassed or if it is not functioning properly.

**WARNING**: If the interlock is found not to be working properly, the dumbwaiter should immediately be taken out of service until repairs can be made. Failure to do so has the potential to result in injury or death.
Ascent® Dumbwaiter manufactured by Harmar Mobility LLC

Access to the hoistway of the dumbwaiter

The Ascent dumbwaiter has a machine access door located below the lower landing door.

**Side View of Hoistway**

Bottom view of dumbwaiter cab thru “machine access door” below the lower landing door.

**Machine Access Door**
18” x 24”
To be normally locked and controlled by Safety Door Switch

Bottom side of dumbwaiter cab

See instruction manual for using Temporary Pendant Control
WARNING!
All Safety Devices are bypassed when using the Temporary Pendant Control to move the dumbwaiter (except for the final limit). Final limit will stop the dumbwaiter at the top and the bottom of the rail. The bottom of the rail has a metal mechanical stop bolted on the rail below the lower limit cams. (It’s marked “DO NOT REMOVE”)

Temporary Pendant Control This allows the technician to use constant pressure controls to move the dumbwaiter up or down during service / troubleshooting. This control can be made any length to allow a technician to operate the car from any location desired.

SERVICE & ACCESS TO CONTROLS (pertaining to troubleshooting)
The lift is designed with several features to allow safe troubleshooting by technicians.

- Access for the temporary pendant control can be gained through the lower machine access door (if the lift at the lower landing) or through landing doors (if the lift is above the bottom landing).
- A slack-rope device provides both mechanical and electrical safeties on the lift.
- The slack-rope device can be reset from either below or above the car. Means of resetting include:
  o Pulling out on the suspension cable at a point above the car.
  o Manually turning the belt and pulleys at a point just under the car.
  o Running the lift in the up direction with the temporary control.

DO NOT ENTER HOISTWAY