Installation Diagrams

- Dish Options by Orbital Locations
- DISH Pro & DISH Pro Plus Installation Diagram Examples

Sources of Additional Information

- Retailer Care Site: Info Center → Service, Hardware & Technology → Approved Accessories List
- Installation Instructions and Product Launch Bulletins
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Introduction

• The installation options listed on the following pages may or may not be reimbursable installations. Refer to the latest Business Rules to confirm reimbursement status.
• Installations must use all Legacy LNBFs and switches, or all DISH Pro/DISH Pro Plus LNBFs and switches. Do not mix and match Legacy components with DISH Pro/DISH Pro Plus components.
• If upgrading from Legacy LNBFs and switches to DISH Pro/DISH Pro Plus LNBFs and switches, ensure all Legacy components (for example, power inserters) are removed. Remove DP Adapters from any Legacy receivers connected to DISH Pro Plus components.
• Maximum distance between the LNBF and farthest receiver is 200 feet for DP/DP Plus receivers; 100 feet for Legacy receivers (four-digit model numbers). Maximum cable length from a wing dish to a DISH Pro Plus LNBF’s LNB IN port is 80 feet.
• Ensure all components (for example, cable, ground blocks, diplexers, splitters, line amps, barrel connectors, wall plates and surge protectors) are rated for DISH Pro/DISH Pro Plus installations (rated to 2150 MHz and pass DiSEqC 22 KHz tone—review the DISH Network Approved Accessories List), also referred to as DP compatible.
• Refer to the LNBFs and Switches (Tab 1) and Dish Antennas (Tab 2) sections for Legacy receiver installation considerations.

Abbreviations

• DP: DISH Pro
• DPP or DP Plus: DISH Pro Plus
# Multiple Orbital Location Dish Options

## 110° & 119° (2 Orbital Locations)

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP Plus Twin</td>
<td>n/a</td>
<td>2 dual (w/ DPP Separators) or 2 single-tuners</td>
<td>1</td>
</tr>
<tr>
<td>DP Twin (or 2 DP Duals/Singles)</td>
<td>DPP3 Switch</td>
<td>2 dual or 4 single-tuners</td>
<td>n/a</td>
</tr>
<tr>
<td>DP Twin (or 2 DP Duals/Singles)</td>
<td>DPP3 Switch</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
<td>2</td>
</tr>
<tr>
<td>DP Quad</td>
<td>n/a</td>
<td>1 dual or 2 single-tuners</td>
<td>n/a</td>
</tr>
<tr>
<td>2 DP Duals/Singles</td>
<td>2 DP21 Switches</td>
<td>2 dual or 4 single-tuners</td>
<td>n/a</td>
</tr>
</tbody>
</table>

## 110°, 119°, and Wing Dish (3 Orbital Locations)

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP Plus Twin and DP Dual/Single</td>
<td>n/a</td>
<td>2 dual (w/ DPP Separators) or 2 single-tuners</td>
<td>3</td>
</tr>
<tr>
<td>DP Twin and DP Dual/Single</td>
<td>DPP3 Switch</td>
<td>2 dual or 4 single-tuners</td>
<td>n/a</td>
</tr>
<tr>
<td>DP Twin and DP Dual/Single</td>
<td>DPP3 Switch</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
<td>4</td>
</tr>
<tr>
<td>DP Twin and DP Dual/Single</td>
<td>2 DP21 Switches</td>
<td>1 dual or 2 single-tuners</td>
<td>n/a</td>
</tr>
</tbody>
</table>

## 110°, 119°, & 129° (3 Orbital Locations)

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP Plus Twin and DP Dual/Single</td>
<td>n/a</td>
<td>2 dual (w/ DPP Separators) or 2 single-tuners</td>
<td>5</td>
</tr>
<tr>
<td>DP Twin and DP Dual/Single</td>
<td>DPP3 Switch</td>
<td>2 dual or 4 single-tuners</td>
<td>n/a</td>
</tr>
<tr>
<td>DP Twin and DP Dual/Single</td>
<td>DPP3 Switch</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
<td>6</td>
</tr>
<tr>
<td>DP Twin and DP Dual/Single</td>
<td>2 DP21 Switches</td>
<td>1 dual or 2 single-tuners</td>
<td>n/a</td>
</tr>
<tr>
<td>DP Plus 1000.2 LNBF</td>
<td>n/a</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
<td>7</td>
</tr>
<tr>
<td>3 DP Duals/Singles and 1000.2 Three-LNBF Bracket</td>
<td>DPP3 Switch</td>
<td>2 dual or 4 single-tuners</td>
<td>n/a</td>
</tr>
<tr>
<td>3 DP Duals/Singles and 1000.2 Three-LNBF Bracket</td>
<td>DPP3 Switch</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
<td>8</td>
</tr>
</tbody>
</table>

## 110°, 119°, 129°, with Wing Dish (4 Orbital Locations)

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP Plus Twin with 2 DP Duals/Singles</td>
<td>DPP4 Switch</td>
<td>4 dual (w/ DPP Separators) or 4 single-tuners</td>
<td>9</td>
</tr>
<tr>
<td>DP Plus 1000.2 LNBF and DP Dual/Single</td>
<td>n/a</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
<td>10</td>
</tr>
<tr>
<td>3 DP Duals/Singles, 1000.2 Three-LNBF Bracket, &amp; DP Dual/Single</td>
<td>DPP4 Switch</td>
<td>4 dual (w/ DPP Separators) or 4 single-tuners</td>
<td>11</td>
</tr>
<tr>
<td>DP Plus 1000.2 LNBF and DP Dual/Single</td>
<td>DPP4 Switch</td>
<td>4 dual (w/ DPP Separators) or 4 single-tuners</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* See Single Orbital Location Wing Dish Options. Wing dish must use a DP-compatible LNBF.*
### Single Orbital Location Wing Dish Options

**DBS: 61.5°, 72.7°, 77°, 110°, 119°, 129°, or 148°**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported (without additional switches)</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISH 500+ w/ I-Bracket, or other approved dish**</td>
<td>DP or Legacy—must match other LNBFs/switches in installation</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**FSS: 105° or 121°**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 or 121 SuperDISH</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Eastern Arc Assembly**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP PlusEastern Arc LNBF</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* See Single Orbital Location Wing Dish Options. Wing dish must use a DP-compatible LNBF.

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**LNBFs Diagram**

- **DBS:** 61.5°, 72.7°, 77°, 110°, 119°, 129°, or 148°
- **FSS:** 105° or 121°
- **61.5°, 72.7°, and 77° (3 Orbital Locations)**
  - **DISH 500+ w/ I-Bracket, or other approved dish**
    - LNBFs: DP PlusEastern Arc LNBF
    - Switch: n/a
    - Diagram: 15
  - **DP Plus Eastern Arc LNBF**
    - LNBFs: DP PlusEastern Arc LNBF
    - Switch: n/a
    - Diagram: 16

**110°, 118.7°, & 119° (3 Orbital Locations)**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported (without additional switches)</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISH 500+</td>
<td>DP 500+ LNBF Assembly</td>
<td>DP34 Switch</td>
<td>2 dual or 4 single-tuners</td>
</tr>
<tr>
<td>DP 500+</td>
<td>DP 500+ LNBF Assembly</td>
<td>DPP33 Switch</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
</tr>
</tbody>
</table>

**110°, 118.7°, 119°, with Wing Dish (4 Orbital Locations)**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported (without additional switches)</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISH 500+ w/ Wing Dish*</td>
<td>DP 500+ LNBF Assembly and DP Dual/Single</td>
<td>DPP44 Switch</td>
<td>4 dual (w/ DPP Separators) or 4 single-tuners</td>
</tr>
</tbody>
</table>

**110°, 118.7°, 119°, and 129° (4 Orbital Locations)**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported (without additional switches)</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISH 1000+</td>
<td>DP 500+ LNBF Assembly, 1000+ Bracket, &amp; DP Dual/Single</td>
<td>DPP44 Switch</td>
<td>4 dual (w/ DPP Separators) or 4 single-tuners</td>
</tr>
</tbody>
</table>

**61.5°, 72.7°, and 77° (3 Orbital Locations)**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Switch (if needed)</th>
<th>Receivers/Tuners Supported (without additional switches)</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP PlusEastern Arc LNBF</td>
<td>n/a</td>
<td>3 dual (w/ DPP Separators) or 3 single-tuners</td>
<td>15</td>
</tr>
<tr>
<td>DP Plus Eastern Arc LNBF</td>
<td>DPP44 Switch</td>
<td>4 dual (w/ DPP Separators) or 4 single-tuners</td>
<td>16</td>
</tr>
</tbody>
</table>

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**Installation Diagrams - Single Orbital Location Wing Dish Options**

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**LNBFs Diagram**

- **DBS:** 61.5°, 72.7°, 77°, 110°, 119°, 129°, or 148°
- **FSS:** 105° or 121°

**Eastern Arc Assembly**

<table>
<thead>
<tr>
<th>LNBFs</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP PlusEastern Arc LNBF</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* May include 24" dish or larger, depending on location.
Diagram 1. 110° & 119° (DISH 500)
Uses DISH Pro Plus Twin

- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- Single Legacy receiver installations are not supported.
- Installations with two Legacy receivers cannot view the third orbital location.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 2. 110° & 119° (DISH 500)
Uses DISH Pro Twin and DISH Pro Plus 33

- A DP34 Switch is also an option if you don't require a single-cable/dual-tuner installation. See the DP34 Switch on page 6 for connectivity details.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 3. 110° & 119° (DISH 500) with Wing Dish
Uses DISH Pro Plus Twin and DISH Pro Dual or Single

- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- Must have a DP or DPP receiver connected for viewing three orbital locations.
- Single Legacy receiver installations are not supported; installations with two Legacy receivers cannot view the third orbital location.
- The LNBF used on the wing dish must be DP compatible.
- Maximum cable length between the wing dish and the DPP Twin’s LNB IN port is 80 feet.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 4. 110° & 119° (DISH 500) with Wing Dish
Uses DISH Pro Twin, DISH Pro Dual or Single, and DISH Pro Plus 33

- A DP34 Switch is also an option if you don’t require a single-cable/dual-tuner installation. See the DP34 Switch on page 6 for connectivity details.
- The LNBF used on the wing dish must be DP compatible.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 5. 110°, 119°, & 129° (DISH 1000)
Uses DISH Pro Plus Twin and DISH Pro Dual or Single

- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- Single Legacy receiver installations are not supported.
- Installations with two Legacy receivers cannot view 129°.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 6. 110°, 119°, & 129° (DISH 1000)
Uses DISH Pro Twin, DISH Pro Dual, and DISH Pro Plus 33

- A DP34 Switch is also an option if you don’t require a single-cable/dual-tuner installation. See the DP34 Switch on page 6 for connectivity details.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 7. 110°, 119°, & 129° (DISH 1000.2)
Uses DP Plus 1000.2 LNBF

- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- A Legacy receiver installation must also include at least one DP or DP Plus receiver.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 8. 110°, 119°, & 129° (DISH 1000.2)
Uses Three DISH Pro Duals or Singles, 1000.2 Three-LNBF Bracket, and DISH Pro Plus 33

- DISH 1000.2 Three-LNBF Bracket is required.
- A DP34 Switch is also an option if you don’t require a single-cable/dual-tuner installation. See the DP34 Switch on page 6 for connectivity details.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 9. 110°, 119°, & 129° (DISH 1000) with Wing Dish
Uses DISH Pro Twin, DISH Pro Duals, and DISH Pro Plus 44

- Each DP Plus 44 Switch requires a Power Inserter on TO POWER INserter PORT 1.
- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- The LNBF used on the wing dish must be DP compatible.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 10. 110°, 119°, & 129° (DISH 1000.2) with Wing Dish
Uses DP Plus 1000.2 LNBF and DISH Pro Dual or Single

- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- A Legacy receiver installation must also include at least one DP or DP Plus receiver.
- The LNBF used on the wing dish must be DP compatible.
- Maximum cable length between the wing dish and the DPP 1000.2's LNB In port is 80 feet.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 11. 110°, 119°, & 129° (DISH 1000.2) with Wing Dish

Uses DISH Pro Duals, 1000.2 Three-LNBF Bracket, and DISH Pro Plus 44

- Each DP Plus 44 Switch requires a Power Inserter on TO POWER INserter PORT 1.
- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- The LNBF used on the wing dish must be DP compatible.
- A DISH Pro Plus 1000.2 LNBF can be used with the DP Plus 44 Switch, if needed.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 12. 110°, 118.7°, & 119° (DISH 500+)
Uses DP 500+ LNBF Assembly and DISH Pro Plus 33

- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- A legacy receiver installation must also include at least one DP or DP Plus receiver.
- A DP34 Switch is also an option if you don’t require a single-cable/dual-tuner installation. See the DP34 Switch on page 6 for connectivity details.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 13. 110°, 118.7°, & 119° (DISH 500+) with Wing Dish

Uses DP 500+ LNBF Assembly, DISH Pro Dual or Single, and DISH Pro Plus 44

- Each DP Plus 44 Switch requires a Power Inserter on **TO POWER INSERTER PORT 1**.
- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- The LNBF used on the wing dish must be DP compatible.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 14. 110°, 118.7°, 119°, & 129° (DISH 1000+)

Uses DP 500+ LNBF Assembly, DISH 1000+ Bracket, DISH Pro Dual, and DISH Pro Plus 44

- Each DP Plus 44 Switch requires a Power Inserter on **TO POWER INserter PORT 1**.
- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 15. 61.5°, 72.7°, & 77° (Eastern Arc Assembly)

Uses DP Plus Eastern Arc LNBF

- Single-cable/dual-tuner receiver installations require a DP Plus Separator.
- The LNBF used on the optional wing dish must be DP compatible.
- Maximum cable length between the wing dish and the DPP Eastern Arc’s LNB IN port is 80 feet.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 16. 61.5°, 72.7°, & 77° (Eastern Arc Assembly)
Uses DP Plus Eastern Arc LNBF and DISH Pro Plus 44

• Each DP Plus 44 Switch requires a Power Inserter on TO POWER INSErTER PORT 1.
• Single-cable/dual-tuner receiver installations require a DP Plus Separator.
• The LNBF used on the wing dish must be DP compatible.
• Grounding according to the National Electric Code (NEC) and all local electrical codes is required.
Diagram 17. Single Orbital Location Dish

- Ensure that the LNBF uses the same technology (either Legacy or DISH Pro/DISH Pro Plus) as other LNBFs/switches in the installation.
- When using a DISH 500, use an I-Bracket, instead of a Y-Bracket, for single orbital locations.
- Grounding according to the National Electric Code (NEC) and all local electrical codes is required.