What is claimed is:

1. A method of installing a well pressure control device releasable assembly in an outer housing, the method comprising:

engaging an engagement lug of a running tool with an engagement profile of the releasable assembly;

connecting the running tool in a tubular string;

conveying the releasable assembly with the running tool into the outer housing;

latching the releasable assembly in the outer housing; and

then rotating the tubular string, thereby disengaging the engagement lug from the engagement profile,

in which the rotating comprises producing relative rotation between the engagement lug and an inner mandrel of the running tool,

in which the relative rotation is resisted by a clutch device of the running tool, and

in which the disengaging comprises displacing the running tool longitudinally away from the releasable assembly while the tubular string is rotating.

2. The method of claim 1, further comprising forming the engagement profile in a generally tubular extension attached to an outer case of a bearing assembly of the releasable assembly.

3. The method of claim 2, in which the forming comprises forming the engagement profile proximate an end of the extension, the engagement profile comprising at least first and second longitudinally elongated sections, the first section extending to the end of the extension, and the second section being blocked from the end of the extension.

4. The method of claim 3, in which the engagement profile comprises a continuous slot formed proximate the end of the extension, the first and second sections being portions of the slot.

5. A system for use with a subterranean well, the system comprising:

a pressure control device including a releasable assembly and an outer housing, the releasable assembly being releasably securable in the outer housing; and

a running tool that conveys the releasable assembly, the running tool including at least one engagement lug releasably engaged with an engagement profile of the releasable assembly, an inner mandrel rotatable relative to the engagement lug, and a clutch device that resists relative rotation between the engagement lug and the inner mandrel.

6. The system of claim 5, in which the clutch device comprises a friction enhancing material interposed between the engagement lug and the inner mandrel.

7. The system of claim 6, in which the engagement lug is secured against rotation relative to a drive hub, the friction enhancing material is secured against rotation relative to the inner mandrel, and a biasing device biases the friction enhancing material against the drive hub.

8. The system of claim 5, in which the releasable assembly includes at least one annular seal that sealingly engages a tubular string positioned in the releasable assembly, and in which the running tool is connected in the tubular string.

9. The system of claim 8, in which the releasable assembly further includes a bearing assembly that rotatably supports the annular seal relative to a generally

tubular outer case of the bearing assembly, and a generally tubular extension attached to the outer case, the engagement profile being proximate an end of the extension, the engagement profile comprising at least first and second longitudinally elongated sections, the first section extending to the end of the extension, and the second section being blocked from the end of the extension.

10. The system of claim 9, in which the engagement profile comprises a continuous slot formed proximate the end of the extension, the first and second sections being portions of the slot.

11. The system of claim 9, in which the outer case includes an external latch profile, and in which the extension is attached to the outer case between the engagement profile and the external latch profile.

12. A pressure control device for use with a subterranean well, the pressure control device comprising:

at least one annular seal;

a bearing assembly that rotatably supports the annular seal relative to a generally tubular outer case of the bearing assembly; and

a generally tubular extension attached to the outer case, the extension having at least one engagement profile proximate an end of the extension, the engagement profile comprising at least first and second longitudinally elongated sections, the first section extending to the end of the extension, and the second section being blocked from the end of the extension, in which the engagement profile is formed completely through a wall of the extension.

13. The pressure control device of claim 12, in which the first and second sections are configured to releasably engage an engagement lug of a releasable assembly running tool.

14. The pressure control device of claim 12, in which the engagement profile comprises a continuous slot formed proximate the end of the extension, the first and second sections being portions of the slot.

15. The pressure control device of claim 12, in which the combined first and second sections are "J" shaped.

16. The pressure control device of claim 12, in which the first section extends helically between the second section and the end of the extension.

17. The pressure control device of claim 12, in which the outer case includes an external latch profile, and in which the extension is attached to the outer case between the engagement profile and the external latch profile.