

example, after upgrading binaries or packages from MySQL 5.7 to MySQL 8.0, attempting to restart the server with `plugin-load-add=mysql_clone.so` causes this error: `[ERROR] [MY-013238] [Server] Error installing plugin 'clone': Cannot install during upgrade`. The workaround is to upgrade the server before attempting to start the server with `plugin-load-add=mysql_clone.so`.

Alternatively, to load the plugin at runtime, use this statement, adjusting the `.so` suffix for your platform as necessary:

```
INSTALL PLUGIN clone SONAME 'mysql_clone.so';
```

`INSTALL PLUGIN` loads the plugin, and also registers it in the `mysql.plugins` system table to cause the plugin to be loaded for each subsequent normal server startup without the need for `--plugin-load-add`.

To verify plugin installation, examine the `INFORMATION_SCHEMA.PLUGINS` table or use the `SHOW PLUGINS` statement (see [Section 5.6.2, “Obtaining Server Plugin Information”](#)). For example:

```
mysql> SELECT PLUGIN_NAME, PLUGIN_STATUS
       FROM INFORMATION_SCHEMA.PLUGINS
       WHERE PLUGIN_NAME = 'clone';
```

PLUGIN_NAME	PLUGIN_STATUS
clone	ACTIVE

If the plugin fails to initialize, check the server error log for clone or plugin-related diagnostic messages.

If the plugin has been previously registered with `INSTALL PLUGIN` or is loaded with `--plugin-load-add`, you can use the `--clone` option at server startup to control the plugin activation state. For example, to load the plugin at startup and prevent it from being removed at runtime, use these options:

```
[mysqld]
plugin-load-add=mysql_clone.so
clone=FORCE_PLUS_PERMANENT
```

If you want to prevent the server from running without the clone plugin, use `--clone` with a value of `FORCE` or `FORCE_PLUS_PERMANENT` to force server startup to fail if the plugin does not initialize successfully.

For more information about plugin activation states, see [Controlling Plugin Activation State](#).

5.6.7.2 Cloning Data Locally

The clone plugin supports the following syntax for cloning data locally; that is, cloning data from the local MySQL data directory to another directory on the same server or node where the MySQL server instance runs:

```
CLONE LOCAL DATA DIRECTORY [=] 'clone_dir';
```

To use `CLONE` syntax, the clone plugin must be installed. For installation instructions, see [Section 5.6.7.1, “Installing the Clone Plugin”](#).

The `BACKUP_ADMIN` privilege is required to execute `CLONE LOCAL DATA DIRECTORY` statements.

```
mysql> GRANT BACKUP_ADMIN ON *.* TO 'clone_user';
```