

SECTION III. OPERATION

8.3.1 INTRODUCTION

The ASOS pressure sensor is an automatic sensor without controls or indicators. The ASOS acquisition control unit (ACU), data collection package (at special application sites), or Single Cabinet ASOS (at single cabinet sites) processor reads each of the pressure transducers to obtain barometric pressure data. This function is performed automatically by the ASOS software and requires no operator intervention. The barometric pressure data displayed and reported by the ASOS are described in the ASOS Ready Reference Guide.

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8.3.2 TURN-ON PROCEDURES

The ASOS pressure sensor is designed for continuous operation and normally remains powered on at all times. There are no power control switches on the pressure transducers. All power is provided by the ACU's dc power supplies (or Single Cabinet ASOS dc power supplies at single cabinet sites).

8.3.3 TURNOFF PROCEDURES

The ASOS pressure sensor is normally turned off only for maintenance purposes. Power is removed from the pressure transducers either by turning off cabinet power or by unplugging the pressure sensor power connector (J2). The pressure sensor should only be turned off for removal and installation of a faulty pressure sensor. These procedures are included in the maintenance procedures provided in Section V.

8.3.4 NORMAL OPERATION

During normal operation, each of the pressure transducers is polled every 10 seconds by ASOS for barometric pressure data. The ASOS software checks each of the barometric pressure data reports to determine accurate barometric pressure data as well as to detect the failure of any one of the pressure transducers. This processing is automatically performed by the ASOS such that no user actions are required. The reported barometric pressure data become part of the ASOS weather database that is reported to the weather observer.