

AS0077600 and AS0077601 Remote GPS Receiver



AS0077600



AS0077601

Specifications subject to change without notice

The Arbiter Systems®, Inc. Remote GPS Receiver provides GPS synchronization for the Arbiter Systems' Model 933A (order number AS0077600) and the Doble Model F6150 (order number AS0077601) at the standard GPS frequency (L1 band) of 1575.42 MHz. Thus providing the best timing accuracy for the Model 933A and the Doble Model F6150. Although the remote GPS receiver is sealed against the weather, it is designed for temporary outside operation.

Remote GPS Receiver: Model 933A

The AS0077600 includes 50 feet of the special antenna cable to attach the remote receiver to the Model 933A. The Model 933A provides power to the remote receiver through the included cable assembly, while the remote GPS receiver communicates time and position information to the 933A via RS-485.

If connected before power up, the Model 933A automatically recognizes the remote GPS receiver and sets the internal clock on the Model 933A to the correct time. If the remote GPS receiver is connected after power up, use the manual programming function to synchronize the 933A.

Remote GPS Receiver: Doble Model F6150

The AS0077601 includes 50 feet of the special antenna cable to attach the remote GPS receiver to the Doble Model F6150. A separate power supply provides the necessary power for the remote GPS receiver. The remote GPS receiver connects directly to the Doble Model F6150 15-pin connector.

Operation with Doble Model F6150

1. Connect the 50-foot extension cable to the remote receiver connector.
2. Connect the F6150 adapter cable to the end of the extension cable.
3. Mount remote GPS receiver with a clear view of the sky.
4. Connect the DB-15 connector to the Doble F6150.
5. Plug in the power supply miniplug to the adapter cable.
6. Connect the power supply to a power source.
7. Note: the remote GPS receiver must receive power prior to energizing the Doble F6150.
8. Energize the Doble F6150 and the display should indicate when it is locked to GPS.

Remote GPS Receiver Specifications

Receiver Characteristics

Timing Accuracy

UTC/USNO $\pm 1 \mu\text{s}$ (only need 1 satellite with correct position)

Position Accuracy

10 meters, rms, 90% confidence

Satellite Tracking

12 channel, C/A code (1575.42 MHz). Receiver simultaneously tracks up to twelve satellites.

Acquisition

2 minutes, typical, cold start

Out-of-Lock Indication

Model 933A: Via system interface and status display; optional, via contact closure

Doble F6150: Via display on the Doble F6150

Power Requirements

Model 933A

The Model 933A provides power through the cable. No other power source is required.

Doble F6150

The Remote GPS Receiver requires an external power supply when used with the Doble F6150.

Voltage 90 to 260 Vac, 47 to 63 Hz

Inlet IEC-320 socket with mating cordset
P09

General

Physical

Case Size 172 x 357 x 324 mm (6.75 x 14 x 12.75 in.)
483 x 483 x 203 mm (16 x 16 x 8 in.),

shipping

Case Weight 4.5 kg (10 lbs), net
5.5 kg (12 lbs), shipping

Environmental

Temperature Operating: -10° to $+50^{\circ}$ C
Nonoperating: -40° to $+75^{\circ}$ C

Humidity Noncondensing