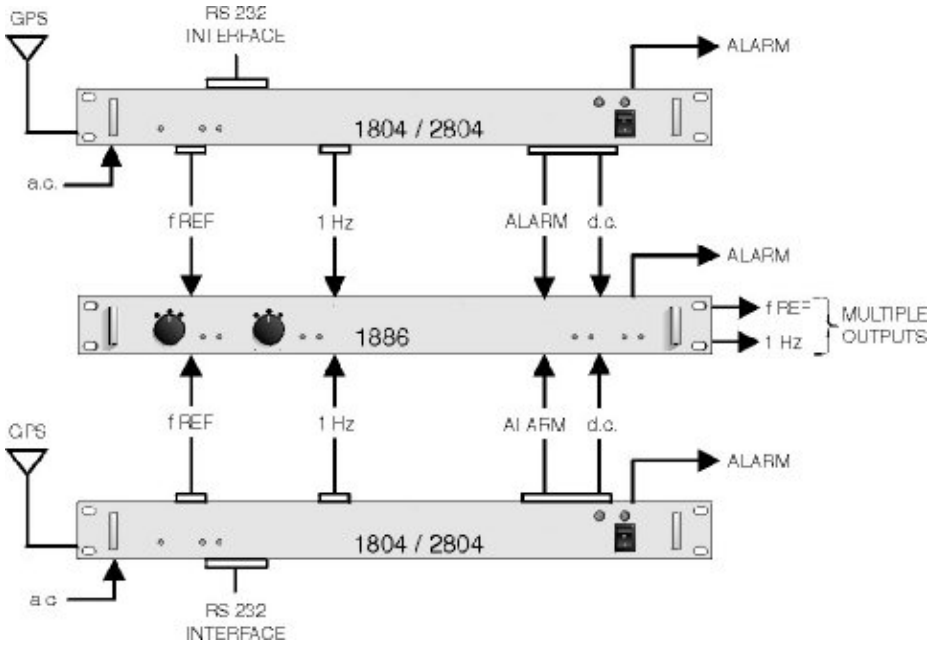
Rapco 1866,1886 series -- Auto-Changeover / Distribution units

FRONT PANEL 1886A

- **FULLY AUTOMATIC SWITCHOVER FUNCTION BETWEEN A PAIR OF TIME & FREQUENCY SOURCES IN THE EVENT OF SIGNAL LOSS.**
- **BUILT IN HIGH-QUALITY SIGNAL DISTRIBUTION FUNCTION, PROVIDING UP TO 10 FREQUENCY (RF), AND 10 TIMING (1HZ) OR 14 RF OUTPUTS IN 1U OF RACK SPACE.**
- **EACH OUTPUT IS DRIVEN BY AN INDEPENDENT BUFFER, AND INDIVIDUALLY MONITORED FOR SIGNAL FAILURE.**
- **MANUAL SWITCHOVER OVERRIDE.**
- **AC AND/OR DC POWERED FROM TIME SOURCES FOR RELIABILITY AND BATTERY BACKUP POSSIBILITY.**

In Automatic mode the switchover will occur on loss or significant degradation of input signal level, and (optionally) if there is an alarm from the source-in-use. Common switching channels are provided for Timing and Frequency signals; that operate together in the event of a changeover.

The interconnections between an 1886 unit and its duplex sources are shown in the diagram below.



Interconnection cable sets are available for order with the 1866 and 1886 units. As standard these are specified for use with the unit mounted between a pair of 1804 or 2804 sources in adjacent rack locations or with 1U spacing. Other lengths are available.

REAR PANEL 1886A

The Frequency distribution channels have independent linear buffer amplifiers that will deliver good quality sinewave drives into 50 ohm loads with minimal distortion and good isolation between outputs. The Timing distribution channels use digital buffers with the capability to drive 50ohm loads if required. The normal Timing-signal drive from a Rapco GPS source unit is a 1Hz squarewave, but the 1866A and 1886A can be configured using internal pulse generators to deliver a short (eg 20microsecond) positive pulse output at 1pps as an alternative to the 1Hz squarewave.

Operating power is derived from both the host units as raw dc, and is smoothed and regulated in the 1886. Independent cables and connectors are used to ensure integrity of the supply. Source alarm signals are also routed through the power cables. In normal operation, the power load is shared between the two sources, but in the event of a fault in one supply, the other can operate the 1886 continuously. 1866 models have switch selectable ac power inputs with a single dc power/alarm back up input.

The alarm signalling logic can be preset to include any of the following:

OUTPUT SIGNAL LOSS/LOW LEVEL (All outputs, Time and Frequency, are monitored)
INPUT SIGNAL LOSS/LOW LEVEL (Master and Standby inputs are separately monitored)
INPUT POWER LOSS/LOW VOLTAGE (Master and Standby power feeds separately monitored)

Products available:

1866A -- Frequency and Timing Changeover/Distribution Unit. Accepts 1 x Frequency (sine) and 1 x Timing input 50ohm, BNC and produces 10 + 10 x outputs 50ohm, BNC. A.C. power with dc support.

1866C -- Frequency Changeover/Distribution Unit. Accepts 1 x Frequency (sine) input 50ohm, BNC and produces 14 x outputs 50ohm, BNC. A.C. power with dc support.

1886A -- Frequency and Timing Changeover/Distribution Unit. Accepts 1 x Frequency (sine) and 1 x Timing input 50ohm, BNC and produces 10 + 10 x outputs 50ohm, BNC. D.C. power (twin inputs).

1886C -- Frequency Changeover/Distribution Unit. Accepts 1 x Frequency (sine) input 50ohm, BNC and produces 14 x outputs 50ohm, BNC. D.C. power (twin inputs).

Rapco 1876, 1896, 1976 series -- Signal Distribution units

FRONT PANEL 1896

- **DC AND AC POWERED VARIANTS.**
- **VARIANTS FOR FREQUENCY AND TIMECODE DISTRIBUTION.**
- **UP TO 14 OUTPUTS IN A 1U MODULE.**
- **MAY BE POWERED FROM DC OUTPUT ON GPS SOURCE OR BACKUP BATTERY.**

Products available:

1876A -- Frequency and Timing Distribution Unit. Accepts 1 x Frequency (sine) and 1 x Timing input 50ohm, BNC and produces 10 + 10 x outputs 50ohm, BNC. A.C. power with dc support.

1876C -- Frequency Distribution Unit. Accepts 1 x Frequency (sine) input 50ohm, BNC and produces 14 x outputs 50ohm, BNC. A.C. power with dc support.

1896A -- Frequency and Timing Distribution Unit. Accepts 1 x Frequency (sine) and 1 x Timing input 50ohm, BNC and produces 10 + 10 x outputs 50ohm, BNC. D.C. power (twin inputs).

1896C -- Frequency Distribution Unit. Accepts 1 x Frequency (sine) input 50ohm, BNC and produces 14 x outputs 50ohm, BNC. D.C. power (twin inputs).

1896D -- Timecode Distribution Unit. Accepts 1 x Timecode input (BNC) and produces up to 14 x outputs 50ohm, BNC. Timecodes supported include IRIG-A, IRIG-B, XR3, or 2137.

1866, 1876, 1886 and 1896 Common Features

General	Packaging 1U x 19 inch rack mount
Alarm Contact	Unit gives indication of power, input or output faults.
Cables	Interconnection cables for power and input signal are available for order.
Amplifier gain	Input to loaded output voltage gain 0 ± 1dB.

NEW for 2005

1976D – G703.10 Frequency Distribution unit. Accepts 1 x 2.048MHz Frequency (sine) input 50ohm, BNC and produces 24 x outputs 75ohm, BNC. A.C. power with dc support.