

SCAN Repeater™

NAVIGATION INSTRUMENTS

*Save Time and Money
when you need to exchange your old gyrocompass*



Model SR03-01Mk2

*When replacing your old gyrocompass,
add SR03-01Mk2 and there is no need to buy new repeaters,
reconfigure or replace ARPA Radars, Autopilots, etc.*

In addition you will save time on installation and cabling.

scandinavian micro systems™

www.ScanRepeater.com e-mail: sales@scansys.no

Fort Lauderdale, FL - USA

• Kolbotn (Oslo) - Norway

SR03-01Mk2

New Gyrocompass

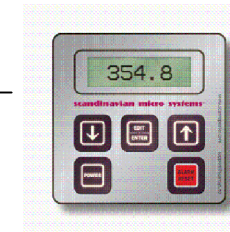


NMEA Heading



Remote Control
Communication

SR03-03



OPTIONAL:
SR03-03 Remote Control Unit
in Bridge Consol

Alarm Relay
Output

Alarm System on Bridge

NMEA Heading

SR01-02



OPTIONAL:
SR01-02 Digital Repeater
Conning / Bridge

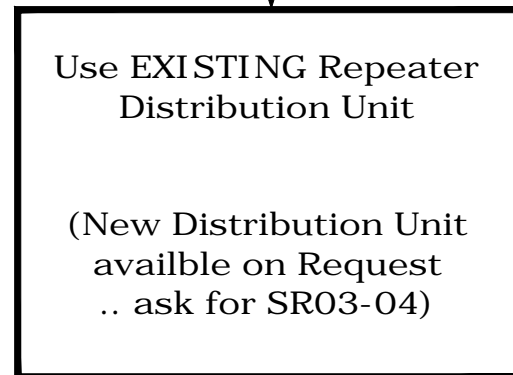
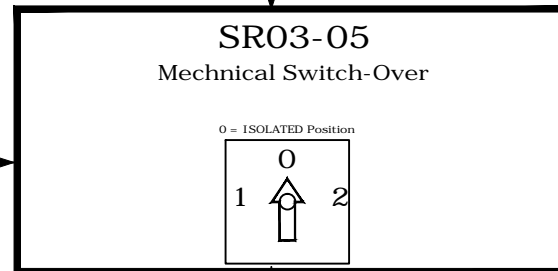


OPTIONAL:
SR01-02 Digital Repeater in
Steering Gear Room

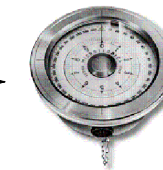
KEEP the OLD
Gyrocompass



EXISTING Synchro or..
Step-by-Step signals

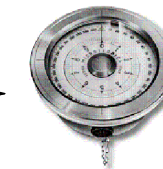


Max 12
Mechanical
Repeaters



Mechanical Repeaters

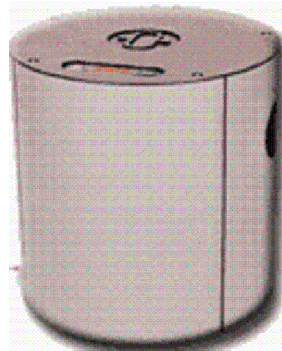
Step-by-Step or
Synchro



Step or Synchro
interface for
Autopilot, Radars,
etc...

DATE	2013-09-10	SCANDINAVIAN MICRO SYSTEMS KOLBOTN FORT - NORWAY FORT LAUDERDALE, FLORIDA- USA www.scansys.no e-mail: sales@scansys.no	PROJECT:	SR03-01Mk2 Universal NMEA to Step or Synchro Converter Typical Retrofit Configuration	DRAWING TITLE AND DESCRIPTION:	DUAL Gyro System w/Heading Monitoring Function one New Gyrocompasses, one New Universal Converter: Keep the Old Gyrocompass with Mecahncal Swith/Over	DRAWING No:	SR03-01Mk2. SYS02. r2. dwg	Sheet 1
DRAWN	DS		INDEX	MODIFICATION	DATE	NAME	NORM	REPLACED FOR/BY:	1 Sheets
CHECK									
DATE									

New Gyro
Gyro # 1



NMEA Heading #1

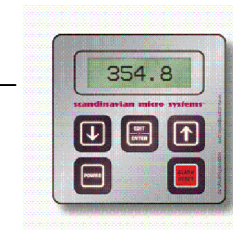
NMEA Heading #2

SR03-01Mk2
w/ Heading Monitor Function



Remote Control
Communication

SR03-03



OPTIONAL
SR03-03 Remote Control Unit
w/ Compass Compare &
HEADING MONITOR Alarm

Alarm Relay Output

Alarm System on Bridge

NMEA Heading

SR01-02

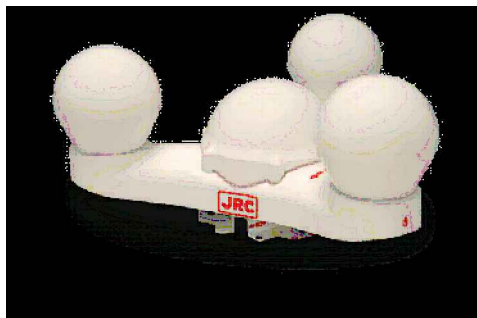


OPTIONAL:
SR01-02 Digital Repeater
Conning / Bridge



OPTIONAL:
SR01-02 Digital Repeater in
Steering Gear Room

SATELLITE Compass
as BACK-UP
Compass # 2



REMOVE
Remove OLD Gyro Signals

Existing Repeater
Distribution Unit for
Step-by-Step or..
Synchro Repeaters

(New Distribution Unit
available on Request
.. ask for SR03-04)

Max 12
Mechanical
Repeaters

Mechanical Repeaters

Step-by-Step or
Synchro

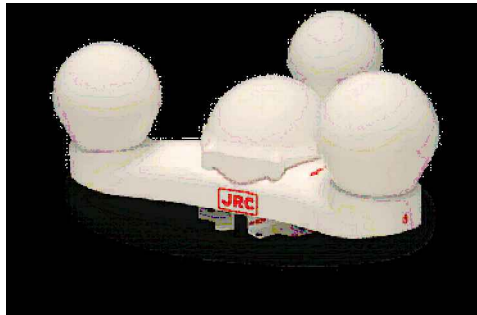
Step or Synchro
interface for
Autopilot, Radars,
etc...

REPLACE OLD
Gyrocompass



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DRAWN	DS					1
CHECK						1
INDEX	MODIFICATION	DATE	NAME	NORM	REPLACED FOR/BY:	1 Sheets

SATELLITE Compass
as BACK-UP
Compass # 2



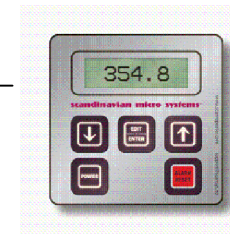
NMEA Heading #2

NMEA Heading #1

SR03-01Mk2
w/ Heading Monitor Function



SR03-03



OPTIONAL
SR03-03 Remote Control Unit
w/ Compass Compare &
HEADING MONITOR Alarm

Remote Control
Communication

Alarm Relay Output

Selected
NMEA Heading

Alarm System on Bridge



Tokimec or Yokogawa
Autopilot

SR03-01Mk2 can be set to output special
serial data protocols for:

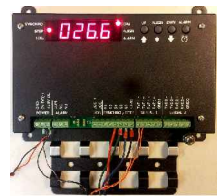
Yokogawa: \$HCHDT, T*hhCRLF
or...
Tokimec: STX K xxx.x L xx.x ETX

ROT is computed by SR03-01Mk2



OPTIONAL:
SR01-02 Digital Repeater in
Steering Gear Room

Use SR01-40 for:
6-Step/Micro-Step or
360X/90X Synchro



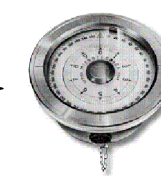
Tokimec (Step) or
Yokogawa (Synchro?)
Gyro # 1



Existing Repeater
Distribution Unit for
Step-by-Step or..
Synchro Repeaters

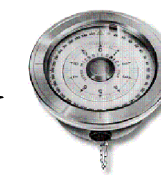
(New Distribution Unit
available on Request
.. ask for SR03-04)

Max 12
Mechanical
Repeaters



Mechanical Repeaters

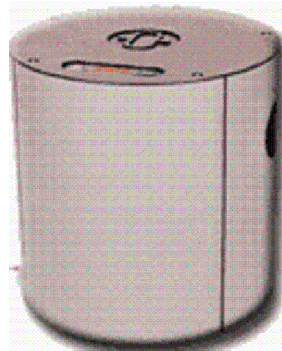
Step-by-Step or
Synchro



Step or Synchro
interface for
Autopilot, Radars,
etc...

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01	Added AutPilot	2013-09-19	DS	CHECK					SR03-01Mk2, SYS03B, r3. dwg	1
INDEX	MODIFICATION	DATE	NAME	NDRM					REPLACED FOR/BY:	1 Sheets

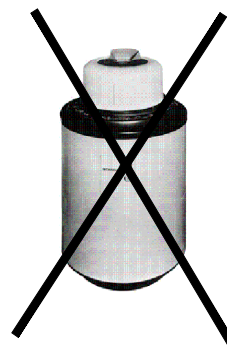
New Gyro
Gyro # 1



New Gyro
Gyro # 2



REPLACE OLD
Gyrocompass



SR03-01Mk2

w/ Heading Monitor Function



NMEA Heading #1

NMEA Heading #2

REMOVE
Remove OLD Gyro Signals

Existing Repeater
Distribution Unit for
Step-by-Step or..
Synchro Repeaters

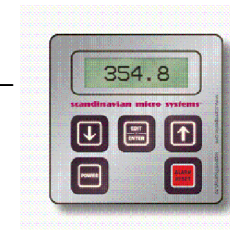
(New Distribution Unit
available on Request
.. ask for SR03-04)

Remote Control
Communication

Alarm Relay Output

NMEA Heading

SR03-03



OPTIONAL
SR03-03 Remote Control Unit
w/ Compass Compare &
HEADING MONITOR Alarm

SR01-02



Alarm System on Bridge

OPTIONAL:
SR01-02 Digital Repeater
Conning / Bridge



OPTIONAL:
SR01-02 Digital Repeater in
Steering Gear Room

Max 12
Mechanical
Repeaters

Mechanical Repeaters

Step-by-Step or
Synchro

Step or Synchro
interface for
Autopilot, Radars,
etc...



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DRAWN	DS								1
CHECK									
INDEX	MODIFICATION		DATE	NAME	NORM			REPLACED FOR/BY:	1 Sheets

MAINS SUPPLY:
110V or 220V AC $\frac{50}{60}$ Hz

SR03-06
Secure 24V DC
Power System

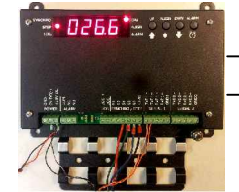
Dual Converters w/
Battery Back-Up

GPS
Input for Speed &
Latitude Correction



Use SR01-40 for:
6-Step/Micro-Step or 360X/90X Synchro

Use: SR01-60 for:
1X, 2X, 11X, 36X Synchro



6-Step or Micro Step,
360X, or 90X, 36X, 1X Synchro



NMEA
GPS

HEADING #1 (NMEA)
HEADING #2 (NMEA)

24V DC
HDNG Gyro#1
HDNG Gyro#2

SR03-01Mk2- #1
Universal NMEA to STEP or
SYNCHRO Converter



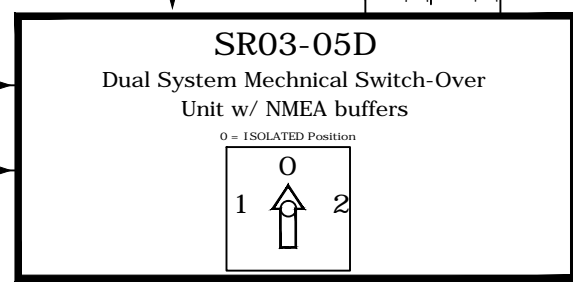
MAIN OUTPUT
STEP or SYNCHRO

ALARM Convrt #1
NMEA Hdng OUT #1
Remote Ctrl #1

ALARM Gyro#1
ALARM Gyro#2

SR03-05D
Dual System Mechanical Switch-Over
Unit w/ NMEA buffers

0 = ISOLATED Position



MAIN OUTPUT
STEP or SYNCHRO

ALARM Convrt #2
NMEA Hdng OUT #2
Remote Ctrl #2

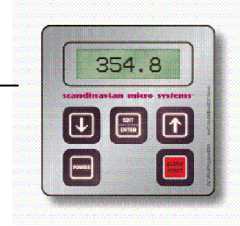
24V DC
HDNG Gyro#1
HDNG Gyro#2



SR03-01Mk2- #2
Universal NMEA to STEP or
SYNCHRO Converter

Remote Control
Communication

SR03-03 Optional



SR03-03
in Bridge Console
Remote Control Unit with
COMPASS COMPARE,
HEADING MONITOR Alarm and
SWITCH-OVER function
between Gyro #1 and Gyro #2

SR01-02



one - or many SR01-02
Heading & ROT
Repeaters

NMEA Heading Distribution
(Source is the selected Master Compass)

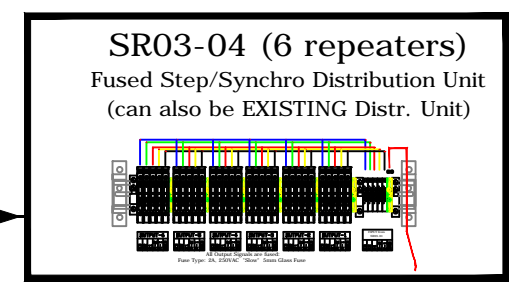
Multiple Other NMEA users..

Gyro & Converter Alarm OUTPUT
Relay output; NO/BC & COM

Alarm Relay Output
To ALARM System

MAIN OUTPUT
STEP or SYNCHRO

SR03-04 (6 repeaters)
Fused Step/Synchro Distribution Unit
(can also be EXISTING Distr. Unit)



Step or Synchro Signal
for driving Mechanical Repeaters
and other old type Interfaces

Mechical Repeaters
(up to 6 units)



Other
Step or Synchro
users..

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				DRAWN	DS								1
				CHECK									
				INDEX	MODIFICATION					DATE	NAME	NORM	

